

BLUE-MASTER[®]
by *celesa*



REPARAÇÃO
DE ROSCAS



Fabricados em aço inoxidável ao cromo-níquel de alta qualidade, os inserts para a reparação de roscas Power Coil fornecem uma alta resistência à temperatura e à corrosão. O seu desenho exclusivo garante roscas de qualidade superior cujo comportamento não pode ser igualado por qualquer outro método de segurança.

Eles estão disponíveis em duas apresentações básicas, standard e Auto-bloqueador ou de segurança, são muito mais leves e menos caros do que qualquer outro inserto equivalente e dado o seu tamanho compacto podem geralmente ser incorporados aos desenhos existentes, onde não é necessário nenhum tipo de reparação.

Insertos Standard

Fabricados a partir dum fio de aço inoxidável austenítico e perfilados com precisão em forma de espiral helicoidal, os inserts standard PowerCoil têm forma de mola. Quando são instalados usando qualquer das ferramentas, já sejam manuais ou automáticas, fornecem roscas internas resistentes e permanentes que resistem o calor e a corrosão.

Uma vez instalados a sua posição é mantida pela ação da pressão radial entre os filetes e as ranhuras do furo roscado. Esta pressão existe porque o seu diâmetro livre é ligeiramente superior ao instalado em uma pequena proporção previamente calculada.

Insertos Auto-bloqueadores (Segurança)

O inserto Auto-bloqueador é especialmente indicado em aplicações sujeitas a vibração cíclica ou impactos.

Além das vantagens proporcionadas pelos inserts standard, os inserts auto-bloqueadores (segurança) Power Coil oferecem uma segurança adicional pelo auto-freio interno que o torna mais eficaz.

Isto é conseguido graças à ação duma espira poligonal da rosca do inserto posicionada ao longo do mesmo, que exerce pressão radial sobre os fios do parafuso.

Na medida em que a rosca passa através destes fios de segurança, os dispositivos se expandem aplicando gradualmente pressão radial ou freio efetivo na rosca do parafuso.

Ao remover o parafuso roscado, os fios de segurança relaxam a sua expansão para a sua forma original, permitindo repetir a roscagem do parafuso e mantendo o seu nível de pressão radial de segurança.

Características e Benefícios

Durante muitos anos, os inserts helicoidais foram subestimados. O conceito popular de ser desenhado para reparar as roscas danificadas deu a este sistema exclusivo, essa imagem falsa.

Eles são muito mais leves e menos caros do que qualquer outro tipo equivalente de inserts para roscas, e devido ao seu tamanho compacto geralmente podem ser introduzidos em desenhos preexistentes onde não é requerida uma reparação adicional.

Além de outros benefícios econômicos, o seu uso aumenta a qualidade e o desempenho, reduzindo o custo total do produto. O seu uso é efetivo ao usar materiais mais finos ou mais leves sem sacrificar a resistência da rosca. Os inserts protegem as roscas originais contra possíveis falhas na perda de fios, a perda de medição, a corrosão ou o desgaste. Os inserts Power Coil são fabricados com cabo de aço inoxidável austenítico, o que lhe permite trabalhar com uma força na tensão de 200.000psi e uma dureza de RC 43-50.

Resistência

Devido à sua flexibilidade, os inserts conformam as roscas internas que têm uma muito melhor distribuição da carga residual em comparação com os furos roscados convencionais, onde uma percentual superior ao 70% das forças de corte são realizadas pelos três primeiros fios no furo roscado. A flexibilidade dos inserts ajuda a compensar os erros do passo e do ângulo de flancos inerentes aos furos normais roscados, e melhora significativamente a capacidade de carga por deflexão das forças residuais dentro da rosca onde a pressão se dispersa em direção às paredes do furo roscado. Isto torna o desenho muito confiável e altamente resistente usando roscas mais pequenas e mais curtas mesmo quando os inserts são usados em materiais menos resistentes.

Os inserts Power Coil de alta flexibilidade reduzem o seu diâmetro durante a instalação. A força do inserto ao expandir no furo garante a inserção no lugar certo. Cada filete se pode flexionar independentemente para entrar em contato com a maior quantidade do material da superfície da rosca.

Normas de referência

SBAC AS 6734 e 8456

Norma da Sociedade Britânica de Empresas Aeroespaciais. Especificamente referida aos Inserts livres com Rosca UNC, requisito obrigatório exigido pela Sociedade. Na verdade, muito parecido ao Standard militar.

SBAC AS 6733 & 8455

O mesmo requisito que o anterior, estendido a todos os inserts livres com caráter geral.

BS

Standard britânico para os inserts de diâmetro reduzido. É a norma geral para todos os fabricantes de inserts, equivalente à DIN8140.

NASM3279, 3280 & 3281

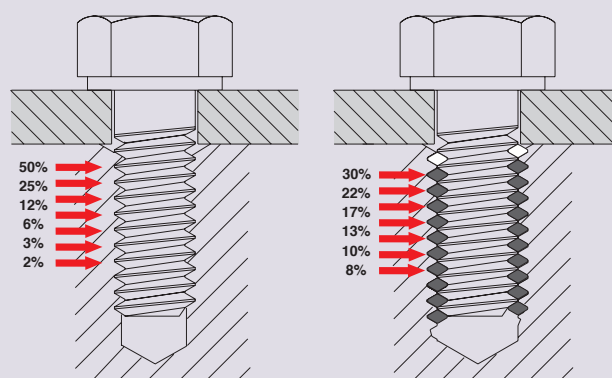
Standard militar para os inserts livres. Os inserts de acordo com o Standard militar são maiores em diâmetro no estado livre do que os inserts comuns, pelo que são mais difíceis de instalar e para extrair. A CELESA pode fornecer e certificar este tipo de inserts sob demanda. A norma alemã DIN8140 para os inserts de uso geral tem tolerâncias semelhantes aos inserts de acordo com o Standard militar.

LN9499

Standard aeroespacial alemão. Em desuso, embora a CELESA pode fornecer e certificar este tipo de inserts sob demanda.

DIN8140

Os inserts Powercoil distribuídos pela CELESA cumprem com os requisitos da norma DIN8140.





INSERTOS ROSCADOS

Código **35** **20** - **12.00** X **1.5D**

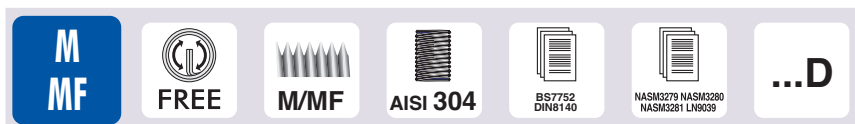
35 Powercoil em Aço Inoxidável
36 Locksert em Aço ao Carbono
37 Locksert em Aço Inoxidável








DIÂMETRO

XX . XX Métrica
XX / XX Polegadas

| | |
|---------------------------|----------------|
| 20 Métrica | 32 UNC |
| 21 Métrica fina | 34 UNF |
| 22 Vela de ignição | 44 BA |
| 23 Métrica fina | 46 BSP |
| 24 Métrica fina | 52 NPT |
| 28 BSW | 60 BSB |
| 30 BSF | 70 8-UN |
| 00 Multifunção | |

| | |
|--|--|
| X.XD Longitude do inserto | INC Inconel X-750 |
| IR Carreto de alimentação de insertos | NM Nimonic 90 |
| SL Insertos Auto-bloqueadores (de segurança) | NT Nitronic 60 |
| K Kit de reparação de roscas | Y Acero Inoxidable 316 |
| P Blister de insertos | CD Terminado en cadmio |
| WK Estojo completo para oficina | ZN Terminado de zinc |
| HIT Ferramenta de instalação manual series curtas | AG Terminado de plata |
| HIP Ferramenta de instalação series medias | FL Lubricado en seco |
| MIT Ferramentas para insertar a máquina | I Macho 4-5 hilos |
| HIM Ferramenta para insertar com cabo sextavado | T Macho 6-8 hilos |
| MIP Ferramentas de instalação pneumática | B Macho 2-3 hilos |
| TB Ferramenta quebradora manual | SF Macho de máquina helicoidal |
| STB Ferramenta quebradora automática | SP Macho de máquina con entrada corregida |
| PTB Ferramenta quebradora pneumática | FT Macho laminación |
| RT Ferramenta para a extração dos insertos | PD Locksert de pared delgada |
| LH Rotação a esquerda | PR Locksert de pared reforzada |
| GC Verificador de roscas em tolerância 4h5h | TT Herramienta instalación de Locksert de pared delgada |
| GM Verificador de roscas em tolerância 6h | HT Herramienta instalación de Locksert de pared reforzada |
| PB Bronze com fósforo | T Herramienta de instalación universal para Locksert |




INSERTO LIVRE


|  |  |  |  1.0D | | |  1.5D | | |  2.0D | | |  | Unit | | |
|--|---|---|--|---------|----------|--|---------|----------|--|---------|----------|---|------|------|-----|
| | | | L mm | € | | | L mm | € | | | L mm | | | € | |
| | | | <500 | 500-999 | 1000-... | <500 | 500-999 | 1000-... | <500 | 500-999 | 1000-... | | | | |
| M 2x0.40 | 3520-2.00 | 2.10 | 2.00 | 0,48 | 0,45 | 0,43 | 3.00 | 0,49 | 0,47 | 0,44 | 4.00 | 0,50 | 0,49 | 0,48 | 100 |
| M 2.20x0.45 | 3520-2.20 | 2.30 | 2.20 | 0,48 | 0,45 | 0,43 | 3.30 | 0,49 | 0,47 | 0,44 | 4.40 | 0,50 | 0,49 | 0,48 | 100 |
| M 2.50x0.45 | 3520-2.50 | 2.60 | 2.50 | 0,28 | 0,25 | 0,23 | 3.75 | 0,29 | 0,26 | 0,25 | 5.00 | 0,34 | 0,29 | 0,27 | 100 |
| M 3x0.50 | 3520-3.00 | 3.20 | 3.00 | 0,28 | 0,25 | 0,24 | 4.50 | 0,29 | 0,26 | 0,25 | 6.00 | 0,34 | 0,27 | 0,26 | 100 |
| M 3.50x0.60 | 3520-3.50 | 3.70 | 3.50 | 0,34 | 0,29 | 0,27 | 5.25 | 0,35 | 0,32 | 0,29 | 7.00 | 0,38 | 0,35 | 0,32 | 100 |
| M 4x0.70 | 3520-4.00 | 4.20 | 4.00 | 0,27 | 0,23 | 0,22 | 6.00 | 0,28 | 0,25 | 0,24 | 8.00 | 0,34 | 0,27 | 0,26 | 100 |
| M 5x0.80 | 3520-5.00 | 5.20 | 5.00 | 0,34 | 0,27 | 0,26 | 7.50 | 0,27 | 0,26 | 0,25 | 10.00 | 0,38 | 0,30 | 0,28 | 100 |
| M 6x1.00 | 3520-6.00 | 6.30 | 6.00 | 0,35 | 0,28 | 0,26 | 9.00 | 0,28 | 0,26 | 0,25 | 12.00 | 0,42 | 0,38 | 0,36 | 100 |
| M 7x1.00 | 3520-7.00 | 7.30 | 7.00 | 0,39 | 0,35 | 0,32 | 10.50 | 0,45 | 0,39 | 0,37 | 14.00 | 0,50 | 0,44 | 0,41 | 100 |
| M 8x1.00 | 3521-8.00 | 8.30 | 8.00 | 0,40 | 0,38 | 0,36 | 12.00 | 0,42 | 0,40 | 0,36 | 16.00 | 0,53 | 0,45 | 0,42 | 100 |
| M 8x1.25 | 3520-8.00 | 8.30 | 8.00 | 0,35 | 0,30 | 0,28 | 12.00 | 0,38 | 0,32 | 0,29 | 16.00 | 0,50 | 0,42 | 0,40 | 100 |
| M 9x1.25 | 3520-9.00 | 9.40 | 9.00 | 0,50 | 0,45 | 0,43 | 13.50 | 0,64 | 0,60 | 0,54 | 18.00 | 0,67 | 0,61 | 0,56 | 100 |
| M 10x1.00 | 3523-10.00 | 10.30 | 10.00 | 0,44 | 0,40 | 0,38 | 15.00 | 0,50 | 0,44 | 0,41 | 20.00 | 0,60 | 0,50 | 0,47 | 100 |
| M 10x1.25 | 3521-10.00 | 10.30 | 10.00 | 0,44 | 0,39 | 0,37 | 15.00 | 0,50 | 0,44 | 0,41 | 20.00 | 0,60 | 0,54 | 0,49 | 100 |
| M 10x1.50 | 3520-10.00 | 10.40 | 10.00 | 0,44 | 0,38 | 0,36 | 15.00 | 0,50 | 0,42 | 0,40 | 20.00 | 0,60 | 0,49 | 0,46 | 100 |
| M 11x1.00 | 3523-11.00 | 11.30 | 11.00 | 0,60 | 0,51 | 0,48 | 16.50 | 0,88 | 0,80 | 0,74 | 22.00 | 1,22 | 1,09 | 1,02 | 100 |
| M 11x1.25 | 3521-11.00 | 11.30 | 11.00 | 0,60 | 0,51 | 0,48 | 16.50 | 0,74 | 0,71 | 0,66 | 22.00 | 1,22 | 1,09 | 1,04 | 100 |
| M 11x1.50 | 3520-11.00 | 11.40 | 11.00 | 0,76 | 0,62 | 0,58 | 16.50 | 0,86 | 0,72 | 0,67 | 22.00 | 0,89 | 0,80 | 0,74 | 100 |
| M 12x1.00 | 3524-12.00 | 12.30 | 12.00 | 0,63 | 0,61 | 0,58 | 18.00 | 0,75 | 0,74 | 0,71 | 24.00 | 1,23 | 1,17 | 1,07 | 100 |
| M 12x1.25 | 3523-12.00 | 12.30 | 12.00 | 0,63 | 0,53 | 0,49 | 18.00 | 0,75 | 0,61 | 0,56 | 24.00 | 0,87 | 0,80 | 0,74 | 100 |
| M 12x1.50 | 3521-12.00 | 12.40 | 12.00 | 0,63 | 0,53 | 0,49 | 18.00 | 0,75 | 0,54 | 0,49 | 24.00 | 0,87 | 0,80 | 0,74 | 100 |
| M 12x1.75 | 3520-12.00 | 12.50 | 12.00 | 0,63 | 0,51 | 0,48 | 18.00 | 0,75 | 0,65 | 0,61 | 24.00 | 0,87 | 0,75 | 0,69 | 100 |
| M 13x1.25 | 3523-13.00 | 13.25 | 13.00 | 0,92 | 0,86 | 0,80 | 19.50 | 1,42 | 1,33 | 1,23 | 26.00 | 1,92 | 1,77 | 1,63 | 50 |
| M 13x1.50 | 3521-13.00 | 13.25 | 13.00 | 0,92 | 0,86 | 0,80 | 19.50 | 1,42 | 1,33 | 1,23 | 26.00 | 1,92 | 1,77 | 1,63 | 50 |
| M 13x1.75 | 3520-13.00 | 13.50 | 13.00 | 0,92 | 0,86 | 0,80 | 19.50 | 1,42 | 1,33 | 1,23 | 26.00 | 1,92 | 1,77 | 1,63 | 50 |
| M 14x1.00 | 3524-14.00 | 14.25 | 14.00 | 1,16 | 1,12 | 1,09 | 21.00 | 1,20 | 1,16 | 1,10 | 28.00 | 1,38 | 1,33 | 1,25 | 50 |
| M 14x1.25 | 3523-14.00 | 14.25 | 14.00 | 0,97 | 0,88 | 0,82 | 21.00 | 1,10 | 0,96 | 0,88 | 28.00 | 1,16 | 1,08 | 1,01 | 50 |
| M 14x1.50 | 3521-14.00 | 14.50 | 14.00 | 0,97 | 0,84 | 0,79 | 21.00 | 1,10 | 0,90 | 0,84 | 28.00 | 1,16 | 1,12 | 1,05 | 50 |
| M 14x2.00 | 3520-14.00 | 14.50 | 14.00 | 0,97 | 0,80 | 0,74 | 21.00 | 1,10 | 1,01 | 0,91 | 28.00 | 1,16 | 1,10 | 1,03 | 50 |

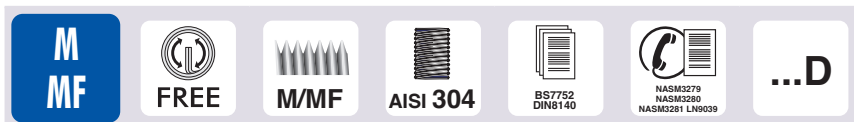
Nota importante: O comprimento total do inserto é definido para o inserto, uma vez montado na peça.

INSERTO LIVRE



|  |  |  |  2.5D | | |  3.0D | | |  | | |
|---|---|---|---|------|---------|---|-------|------|---|----------|------|
| | | | L mm | € | | | L mm | € | | | |
| | | | | <500 | 500-999 | 1000-... | | <500 | 500-999 | 1000-... | Unit |
| M 2x0.40 | 3520-2.00 | 2.10 | 5.00 | 0,58 | 0,53 | 0,50 | 6.00 | 0,63 | 0,61 | 0,58 | 100 |
| M 2.20x0.45 | 3520-2.20 | 2.30 | 5.50 | 0,58 | 0,53 | 0,50 | 6.60 | 0,63 | 0,61 | 0,58 | 100 |
| M 2.50x0.45 | 3520-2.50 | 2.60 | 6.25 | 0,39 | 0,35 | 0,32 | 7.50 | 0,45 | 0,40 | 0,38 | 100 |
| M 3x0.50 | 3520-3.00 | 3.20 | 7.50 | 0,39 | 0,35 | 0,32 | 9.00 | 0,45 | 0,40 | 0,38 | 100 |
| M 3.50x0.60 | 3520-3.50 | 3.70 | 8.75 | 0,42 | 0,39 | 0,37 | 10.50 | 0,50 | 0,47 | 0,44 | 100 |
| M 4x0.70 | 3520-4.00 | 4.20 | 10.00 | 0,39 | 0,35 | 0,32 | 12.00 | 0,42 | 0,38 | 0,36 | 100 |
| M 5x0.80 | 3520-5.00 | 5.20 | 12.50 | 0,44 | 0,38 | 0,36 | 15.00 | 0,51 | 0,44 | 0,41 | 100 |
| M 6x1.00 | 3520-6.00 | 6.30 | 15.00 | 0,50 | 0,47 | 0,44 | 18.00 | 0,63 | 0,54 | 0,50 | 100 |
| M 7x1.00 | 3520-7.00 | 7.30 | 17.50 | 0,62 | 0,54 | 0,50 | 21.00 | 0,72 | 0,70 | 0,66 | 100 |
| M 8x1.00 | 3521-8.00 | 8.30 | 20.00 | 0,64 | 0,60 | 0,54 | 24.00 | 0,78 | 0,74 | 0,68 | 100 |
| M 8x1.25 | 3520-8.00 | 8.30 | 20.00 | 0,62 | 0,54 | 0,50 | 24.00 | 0,72 | 0,65 | 0,61 | 100 |
| M 9x1.25 | 3520-9.00 | 9.40 | 22.50 | 0,74 | 0,67 | 0,65 | 27.00 | 0,87 | 0,84 | 0,81 | 100 |
| M 10x1.00 | 3523-10.00 | 10.30 | 25.00 | 0,70 | 0,64 | 0,60 | 30.00 | 0,85 | 0,78 | 0,71 | 100 |
| M 10x1.25 | 3521-10.00 | 10.30 | 25.00 | 0,70 | 0,66 | 0,63 | 30.00 | 0,85 | 0,83 | 0,78 | 100 |
| M 10x1.50 | 3520-10.00 | 10.40 | 25.00 | 0,70 | 0,63 | 0,59 | 30.00 | 0,85 | 0,75 | 0,69 | 100 |
| M 11x1.00 | 3523-11.00 | 11.30 | 27.50 | 1,62 | 1,54 | 1,46 | 33.00 | 2,00 | 1,91 | 1,79 | 100 |
| M 11x1.25 | 3521-11.00 | 11.30 | 27.50 | 1,62 | 1,54 | 1,46 | 33.00 | 2,00 | 1,91 | 1,79 | 100 |
| M 11x1.50 | 3520-11.00 | 11.40 | 27.50 | 1,11 | 1,03 | 0,93 | 33.00 | 1,31 | 1,27 | 1,22 | 100 |
| M 12x1.00 | 3524-12.00 | 12.30 | 30.00 | 1,54 | 1,50 | 1,44 | 36.00 | 1,89 | 1,81 | 1,67 | 100 |
| M 12x1.25 | 3523-12.00 | 12.30 | 30.00 | 1,03 | 1,01 | 0,96 | 36.00 | 1,25 | 1,18 | 1,10 | 100 |
| M 12x1.50 | 3521-12.00 | 12.40 | 30.00 | 1,03 | 1,01 | 0,96 | 36.00 | 1,44 | 1,18 | 1,10 | 100 |
| M 12x1.75 | 3520-12.00 | 12.50 | 30.00 | 1,03 | 1,00 | 0,89 | 36.00 | 1,31 | 1,24 | 1,18 | 100 |
| M 13x1.25 | 3523-13.00 | 13.25 | 32.50 | 2,59 | 2,38 | 2,21 | 39.00 | 2,98 | 2,74 | 2,54 | 50 |
| M 13x1.50 | 3521-13.00 | 13.25 | 32.50 | 2,59 | 2,38 | 2,21 | 39.00 | 2,98 | 2,74 | 2,54 | 50 |
| M 13x1.75 | 3520-13.00 | 13.50 | 32.50 | 2,59 | 2,38 | 2,21 | 39.00 | 2,98 | 2,74 | 2,54 | 50 |
| M 14x1.00 | 3524-14.00 | 14.25 | 35.00 | 1,66 | 1,58 | 1,46 | 42.00 | 2,16 | 1,82 | 1,68 | 50 |
| M 14x1.25 | 3523-14.00 | 14.25 | 35.00 | 1,37 | 1,29 | 1,19 | 42.00 | 1,67 | 1,47 | 1,35 | 50 |
| M 14x1.50 | 3521-14.00 | 14.50 | 35.00 | 1,37 | 1,28 | 1,18 | 42.00 | 1,67 | 1,53 | 1,42 | 50 |
| M 14x2.00 | 3520-14.00 | 14.50 | 35.00 | 1,37 | 1,31 | 1,28 | 42.00 | 1,67 | 1,59 | 1,47 | 50 |

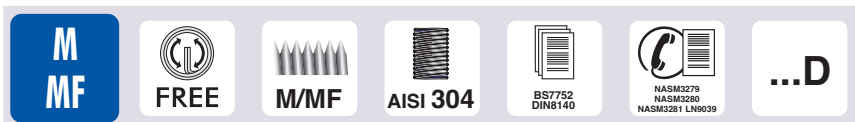
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

INSERTO LIVRE


| | | | 1.0D | | | 1.5D | | | 2.0D | | | |
|--------------------|-------------------|-------|-------------|-------|---------|-------------|-------|---------|-------------|-------|---------|----|
| | | | L mm | € | | L mm | € | | L mm | € | | |
| | | | | <100 | 100-500 | | <100 | 100-500 | | <100 | 100-500 | |
| M 15 x 1.50 | 3521-15.00 | 15.25 | 15.00 | 1,54 | 1,28 | 22.50 | 1,98 | 1,63 | 30.00 | 2,50 | 2,10 | 50 |
| M 15 x 2.00 | 3520-15.00 | 15.50 | 15.00 | 1,54 | 1,28 | 22.50 | 1,98 | 1,66 | 30.00 | 2,50 | 2,07 | 50 |
| M 16 x 1.50 | 3521-16.00 | 16.50 | 16.00 | 1,29 | 0,87 | 24.00 | 1,35 | 0,98 | 32.00 | 1,67 | 1,28 | 50 |
| M 16 x 2.00 | 3520-16.00 | 16.50 | 16.00 | 1,29 | 1,08 | 24.00 | 1,35 | 1,12 | 32.00 | 1,67 | 1,40 | 50 |
| M 18 x 1.50 | 3523-18.00 | 18.50 | 18.00 | 1,89 | 1,61 | 27.00 | 2,21 | 1,88 | 36.00 | 2,98 | 2,54 | 50 |
| M 18 x 2.00 | 3521-18.00 | 18.50 | 18.00 | 1,89 | 1,63 | 27.00 | 2,21 | 2,02 | 36.00 | 2,98 | 2,32 | 50 |
| M 18 x 2.50 | 3520-18.00 | 19.00 | 18.00 | 1,89 | 1,56 | 27.00 | 2,21 | 1,84 | 36.00 | 2,98 | 2,48 | 50 |
| M 20 x 1.50 | 3523-20.00 | 20.50 | 20.00 | 2,21 | 1,88 | 30.00 | 2,78 | 2,37 | 40.00 | 3,57 | 3,05 | 25 |
| M 20 x 2.00 | 3521-20.00 | 20.50 | 20.00 | 2,21 | 1,56 | 30.00 | 2,78 | 2,22 | 40.00 | 3,57 | 3,05 | 25 |
| M 20 x 2.50 | 3520-20.00 | 20.75 | 20.00 | 2,21 | 1,88 | 30.00 | 2,78 | 2,37 | 40.00 | 3,57 | 3,05 | 25 |
| M 22 x 1.50 | 3523-22.00 | 22.50 | 22.00 | 2,38 | 2,03 | 33.00 | 2,98 | 2,54 | 44.00 | 3,77 | 3,21 | 25 |
| M 22 x 2.00 | 3521-22.00 | 22.50 | 22.00 | 2,38 | 2,07 | 33.00 | 2,98 | 2,54 | 44.00 | 3,77 | 3,14 | 25 |
| M 22 x 2.50 | 3520-22.00 | 22.75 | 22.00 | 2,38 | 2,02 | 33.00 | 2,98 | 2,54 | 44.00 | 3,77 | 3,21 | 25 |
| M 24 x 1.50 | 3523-24.00 | 24.50 | 24.00 | 2,98 | 2,52 | 36.00 | 3,13 | 2,96 | 48.00 | 3,98 | 3,61 | 25 |
| M 24 x 2.00 | 3521-24.00 | 24.50 | 24.00 | 2,98 | 2,66 | 36.00 | 3,13 | 2,96 | 48.00 | 3,98 | 3,70 | 25 |
| M 24 x 3.00 | 3520-24.00 | 25.00 | 24.00 | 2,98 | 2,66 | 36.00 | 3,13 | 2,96 | 48.00 | 3,98 | 3,48 | 25 |
| M 26 x 1.50 | 3523-26.00 | 26.50 | 26.00 | 4,53 | 3,84 | 39.00 | 5,15 | 4,39 | 52.00 | 6,69 | 5,69 | 10 |
| M 27 x 1.50 | 3523-27.00 | 27.50 | 27.00 | 4,25 | 3,62 | 40.50 | 5,15 | 4,39 | 54.00 | 6,31 | 5,36 | 10 |
| M 27 x 2.00 | 3521-27.00 | 27.50 | 27.00 | 4,38 | 3,73 | 40.50 | 5,15 | 4,42 | 54.00 | 6,31 | 5,30 | 10 |
| M 27 x 3.00 | 3520-27.00 | 28.00 | 27.00 | 3,74 | 3,17 | 40.50 | 5,15 | 4,84 | 54.00 | 6,57 | 6,26 | 10 |
| M 28 x 1.50 | 3523-28.00 | 28.50 | 28.00 | 4,34 | 3,70 | 42.00 | 5,15 | 4,39 | 56.00 | 6,69 | 5,69 | 10 |
| M 30 x 1.50 | 3523-30.00 | 30.50 | 30.00 | 5,12 | 4,37 | 45.00 | 5,89 | 5,01 | 60.00 | 7,28 | 6,18 | 10 |
| M 30 x 2.00 | 3521-30.00 | 30.50 | 30.00 | 4,83 | 4,12 | 45.00 | 5,89 | 5,01 | 60.00 | 7,56 | 6,44 | 10 |
| M 30 x 3.50 | 3520-30.00 | 31.00 | 30.00 | 4,31 | 3,80 | 45.00 | 5,89 | 4,22 | 60.00 | 7,86 | 6,69 | 10 |
| M 33 x 2.00 | 3521-33.00 | 33.50 | 33.00 | 7,26 | 6,17 | 49.50 | 7,54 | 6,56 | 66.00 | 8,82 | 7,54 | 10 |
| M 33 x 3.50 | 3520-33.00 | 34.00 | 33.00 | 6,31 | 5,36 | 49.50 | 7,54 | 6,56 | 66.00 | 9,04 | 7,72 | 10 |
| M 36 x 1.50 | 3524-36.00 | 36.50 | 36.00 | 6,21 | 5,28 | 54.00 | 7,54 | 6,56 | 72.00 | 9,08 | 8,58 | 10 |
| M 36 x 2.00 | 3523-36.00 | 36.50 | 36.00 | 6,21 | 5,28 | 54.00 | 7,54 | 6,42 | 72.00 | 9,08 | 8,58 | 10 |
| M 36 x 3.00 | 3521-36.00 | 37.00 | 36.00 | 6,21 | 5,28 | 54.00 | 7,54 | 7,23 | 72.00 | 9,21 | 8,58 | 10 |
| M 36 x 4.00 | 3520-36.00 | 37.00 | 36.00 | 6,21 | 5,28 | 54.00 | 7,54 | 6,25 | 72.00 | 9,08 | 7,98 | 10 |
| M 39 x 3,00 | 3521-39.00 | 40.00 | 39.00 | - | - | 58.50 | 30,30 | - | 78.00 | - | - | 1 |
| M 39 x 4,00 | 3520-39.00 | 40.25 | 39.00 | 31,42 | - | 58.50 | 36,38 | - | 78.00 | 38,72 | - | 1 |
| M 40 x 3,00 | 3523-40.00 | 41.00 | 40.00 | - | - | 60.00 | 42,79 | - | 80.00 | - | - | 1 |
| M 42 x 3,00 | 3523-42.00 | 43.00 | 42.00 | - | - | 63.00 | 42,79 | - | 84.00 | - | - | 1 |
| M 42 x 4,50 | 3520-42.00 | 43.50 | 42.00 | - | - | 63.00 | 43,15 | - | 84.00 | - | - | 1 |
| M 45 x3,00 | 3523-45.00 | 46.00 | 45.00 | - | - | 67.50 | 51,48 | - | 90.00 | - | - | 1 |
| M 45 x 4,50 | 3520-45.00 | 46.50 | 45.00 | - | - | 67.50 | 51,91 | - | 90.00 | - | - | 1 |
| M 48 x 3,00 | 3523-48.00 | 49.00 | 48.00 | - | - | 72.00 | 51,48 | - | 96.00 | - | - | 1 |
| M 48 x 5,00 | 3520-48.00 | 49.50 | 48.00 | - | - | 72.00 | 68,14 | - | 96.00 | - | - | 1 |
| M 50 x 3,00 | 3523-50.00 | 51.00 | 50.00 | - | - | 75.00 | 67,57 | - | 100.00 | - | - | 1 |
| M 52 x 3,00 | 3523-52.00 | 53.00 | 52.00 | - | - | 78.00 | 72,40 | - | 104.00 | - | - | 1 |
| M 52 x 5,00 | 3520-52.00 | 53.50 | 52.00 | - | - | 78.00 | 73,01 | - | 104.00 | - | - | 1 |

Nota importante: O comprimento total do inserto é definido para o inserto, uma vez montado na peça.



INSERTO LIVRE



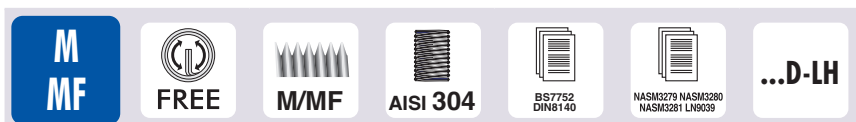
|  |  | L |  2.5D | | |  3.0D | | | Unit |
|---|---|-------|--|-------|---------|---|-------|---------|------|
| | | | mm | € | | mm | € | | |
| | | | | <100 | 100-500 | | <100 | 100-500 | |
| M 15 x 1.50 | 3521-15.00 | 15.25 | 37.50 | 3,08 | 2,57 | 45.00 | 3,57 | 2,95 | 50 |
| M 15 x 2.00 | 3520-15.00 | 15.50 | 37.50 | 3,08 | 2,57 | 45.00 | 3,57 | 2,95 | 50 |
| M 16 x 1.50 | 3521-16.00 | 16.50 | 40.00 | 1,83 | 1,56 | 48.00 | 2,16 | 1,75 | 50 |
| M 16 x 2.00 | 3520-16.00 | 16.50 | 40.00 | 1,83 | 1,62 | 48.00 | 2,16 | 1,85 | 50 |
| M 18 x 1.50 | 3523-18.00 | 18.50 | 45.00 | 3,38 | 2,89 | 54.00 | 3,98 | 3,38 | 50 |
| M 18 x 2.00 | 3521-18.00 | 18.50 | 45.00 | 3,38 | 2,71 | 54.00 | 3,98 | 3,12 | 50 |
| M 18 x 2.50 | 3520-18.00 | 19.00 | 45.00 | 3,38 | 2,81 | 54.00 | 3,98 | 3,31 | 50 |
| M 20 x 1.50 | 3523-20.00 | 20.50 | 50.00 | 3,98 | 3,38 | 60.00 | 4,57 | 3,89 | 25 |
| M 20 x 2.00 | 3521-20.00 | 20.50 | 50.00 | 3,98 | 3,38 | 60.00 | 4,57 | 3,89 | 25 |
| M 20 x 2.50 | 3520-20.00 | 20.75 | 50.00 | 3,98 | 3,38 | 60.00 | 4,57 | 3,89 | 25 |
| M 22 x 1.50 | 3523-22.00 | 22.50 | 55.00 | 4,32 | 3,68 | 66.00 | 5,21 | 4,43 | 25 |
| M 22 x 2.00 | 3521-22.00 | 22.50 | 55.00 | 4,32 | 3,68 | 66.00 | 5,21 | 4,43 | 25 |
| M 22 x 2.50 | 3520-22.00 | 22.75 | 55.00 | 4,32 | 3,68 | 66.00 | 5,21 | 4,43 | 25 |
| M 24 x 1.50 | 3523-24.00 | 24.50 | 60.00 | 5,22 | 4,34 | 72.00 | 5,57 | 5,09 | 25 |
| M 24 x 2.00 | 3521-24.00 | 24.50 | 60.00 | 5,22 | 4,44 | 72.00 | 5,57 | 5,21 | 25 |
| M 24 x 3.00 | 3520-24.00 | 25.00 | 60.00 | 5,22 | 4,44 | 72.00 | 6,37 | 5,60 | 25 |
| M 26 x 1.50 | 3523-26.00 | 26.50 | 65.00 | 8,95 | 7,59 | 78.00 | 11,18 | 9,50 | 10 |
| M 27 x 1.50 | 3523-27.00 | 27.50 | 67.50 | 8,19 | 6,96 | 81.00 | 9,67 | 8,22 | 10 |
| M 27 x 2.00 | 3521-27.00 | 27.50 | 67.50 | 7,44 | 6,33 | 81.00 | 8,78 | 7,48 | 10 |
| M 27 x 3.00 | 3520-27.00 | 28.00 | 67.50 | 7,74 | 6,58 | 81.00 | 9,14 | 7,78 | 10 |
| M 28 x 1.50 | 3523-28.00 | 28.50 | 70.00 | 9,61 | 8,18 | 84.00 | 11,53 | 9,82 | 10 |
| M 30 x 1.50 | 3523-30.00 | 30.50 | 75.00 | 9,79 | 8,33 | 90.00 | 11,73 | 9,98 | 10 |
| M 30 x 2.00 | 3521-30.00 | 30.50 | 75.00 | 8,69 | 7,41 | 90.00 | 10,01 | 8,53 | 10 |
| M 30 x 3.50 | 3520-30.00 | 31.00 | 75.00 | 8,65 | 7,35 | 90.00 | 9,52 | 8,11 | 10 |
| M 33 x 2.00 | 3521-33.00 | 33.50 | 82.50 | 9,71 | 8,25 | 99.00 | 10,68 | 9,08 | 10 |
| M 33 x 3.50 | 3520-33.00 | 34.00 | 82.50 | 11,32 | 9,63 | 99.00 | 12,77 | 10,86 | 10 |
| M 36 x 1.50 | 3524-36.00 | 36.50 | 90.00 | 11,88 | 10,11 | 108.00 | 13,08 | 11,12 | 10 |
| M 36 x 2.00 | 3523-36.00 | 36.50 | 90.00 | 11,20 | 9,52 | 108.00 | 12,27 | 10,44 | 10 |
| M 36 x 3.00 | 3521-36.00 | 37.00 | 90.00 | 11,04 | 9,40 | 108.00 | 12,16 | 10,34 | 10 |
| M 36 x 4.00 | 3520-36.00 | 37.00 | 90.00 | 12,79 | 10,88 | 108.00 | 16,49 | 14,02 | 10 |



Exemplo de codificação:

| | | |
|-----------|--|--|
| M 15x1.50 |  1.0D |  1.5D |
| M 15x1.50 | 3520-15.00x1.0D | 3520-15.00x1.5D |

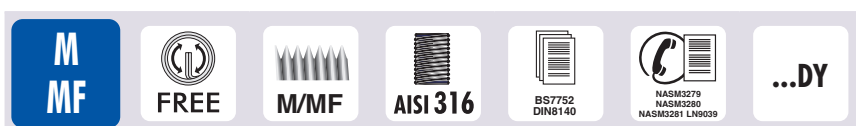
INSERTO LIVRE



INSERTO A ESQUERDAS



|  | |  |  L mm | € |  | € |
|---|--------------------|---|---|------|--|-------|
| M 3 x 0.50 | 3520-3.00x1.5D-LH | 3.20 | 4.50 | 4,45 | 3520-3.00I-LH | 26,58 |
| M 4 x 0.70 | 3520-4.00x1.5D-LH | 4.20 | 6.00 | 4,45 | 3520-4.00I-LH | 26,58 |
| M 5 x 0.80 | 3520-5.00x1.5D-LH | 5.20 | 7.50 | 4,45 | 3520-5.00I-LH | 26,58 |
| M 6 x 1.00 | 3520-6.00x1.5D-LH | 6.30 | 9.00 | 3,07 | 3520-6.00I-LH | 26,58 |
| M 8 x 1.25 | 3520-8.00x1.5D-LH | 8.30 | 12.00 | 3,07 | 3520-8.00I-LH | 33,10 |
| M 10 x 1.50 | 3520-10.00x1.5D-LH | 10.40 | 15.00 | 4,10 | 3520-10.00I-LH | 40,56 |
| M 12 x 1.75 | 3520-12.00x1.5D-LH | 12.50 | 18.00 | 6,13 | 3520-12.00I-LH | 45,91 |



AISI 316



|  | |  |  L mm | € |
|---|------------------|---|---|------|
| M 3 x 0.50 | 3520-3.00x1.5DY | 3.20 | 4.50 | 2,29 |
| M 4 x 0.70 | 3520-4.00x1.5DY | 4.20 | 6.00 | 2,40 |
| M 5 x 0.80 | 3520-5.00x1.5DY | 5.20 | 7.50 | 2,49 |
| M 6 x 1.00 | 3520-6.00x1.5DY | 6.30 | 9.00 | 2,54 |
| M 8 x 1.25 | 3520-8.00x1.5DY | 8.30 | 12.00 | 3,06 |
| M 10 x 1.50 | 3520-10.00x1.5DY | 10.40 | 15.00 | 3,15 |
| M 12 x 1.75 | 3520-12.00x1.5DY | 12.50 | 18.00 | 3,43 |



Exemplo de codificação:

M 6 x 1.00



3520-6.00X1.5DY

INSERTOS SEM CAUDA



| D | L | Ø | 1.0D | | | 1.5D | | | 2.0D | | | Unit | | | |
|-------------|---------------|-------|-------|------|---------|----------|-------|------|---------|----------|-------|------|---------|----------|-----|
| | | | L mm | € | | | L mm | € | | | L mm | | € | | |
| | | | | <500 | 500-999 | 1000-... | | <500 | 500-999 | 1000-... | | <500 | 500-999 | 1000-... | |
| M 3 x 0.50 | 3520-3.00DTL | 3.20 | 3.00 | 0,44 | 0,39 | 0,38 | 4.50 | 0,46 | 0,41 | 0,39 | 6.00 | 0,50 | 0,42 | 0,41 | 100 |
| M 4 x 0.70 | 3520-4.00DTL | 4.20 | 4.00 | 0,42 | 0,36 | 0,34 | 6.00 | 0,44 | 0,39 | 0,38 | 8.00 | 0,50 | 0,42 | 0,41 | 100 |
| M 5 x 0.80 | 3520-5.00DTL | 5.20 | 5.00 | 0,50 | 0,42 | 0,41 | 7.50 | 0,42 | 0,41 | 0,39 | 10.00 | 0,59 | 0,47 | 0,44 | 100 |
| M 6 x 1.00 | 3520-6.00DTL | 6.30 | 6.00 | 0,53 | 0,44 | 0,41 | 9.00 | 0,44 | 0,41 | 0,39 | 12.00 | 0,65 | 0,59 | 0,54 | 100 |
| M 8 x 1.25 | 3520-8.00DTL | 8.30 | 8.00 | 0,53 | 0,47 | 0,44 | 12.00 | 0,59 | 0,49 | 0,46 | 16.00 | 0,80 | 0,65 | 0,62 | 100 |
| M 10 x 1.50 | 3520-10.00DTL | 10.40 | 10.00 | 0,68 | 0,59 | 0,54 | 15.00 | 0,80 | 0,65 | 0,62 | 20.00 | 0,91 | 0,78 | 0,71 | 100 |
| M 12 x 1.75 | 3520-12.00DTL | 12.50 | 12.00 | 0,97 | 0,81 | 0,76 | 18.00 | 1,16 | 1,01 | 0,93 | 24.00 | 1,35 | 1,16 | 1,07 | 100 |



Exemplo de codificação:

| | 1.0D | 1.5D | 2.0D |
|------------|------------------|------------------|------------------|
| M 3 x 0.50 | 3520-3.00X1.0DTL | 3520-3.00X1.5DTL | 3520-3.00X2.0DTL |

FERRAMENTAS DE INSTALAÇÃO PARA INSERTOS SEM CAUDA

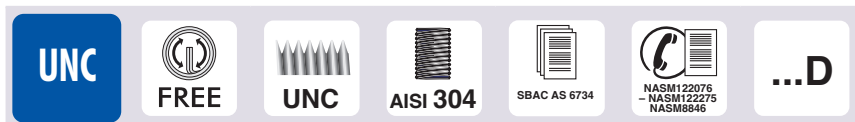


TANG FREE

| | € |
|--------------|--------|
| 3520-3MITTL | 608,98 |
| 3520-4MITTL | 608,98 |
| 3520-5MITTL | 608,98 |
| 3520-6MITTL | 608,98 |
| 3520-8MITTL | 608,98 |
| 3520-10MITTL | 608,98 |
| 3520-12MITTL | 608,98 |



INSERTO LIVRE



| D | D | D1 | L | 1.0D | | | 1.5D | | | 2.0D | | | Unit | | | | |
|-----|---------|------------|-------|-------|---------|----------|------|------|---------|----------|------|------|---------|----------|-------|-------|-----|
| | | | | L | € | € | L | € | € | L | € | € | | | | | |
| | | mm | mm | <500 | 500-999 | 1000-... | mm | <500 | 500-999 | 1000-... | mm | <500 | 500-999 | 1000-... | | | |
| UNC | Nº2-56 | 3532-2G | 2.18 | 2.40 | 2.29 | 0,65 | 0,60 | 0,54 | 3.30 | 0,76 | 0,69 | 0,65 | 4.32 | 1,00 | 0,89 | 0,83 | 100 |
| UNC | Nº3-48 | 3532-3G | 2.51 | 2.70 | 2.54 | 0,66 | 0,62 | 0,58 | 3.81 | 0,71 | 0,65 | 0,61 | 5.08 | 0,75 | 0,70 | 0,66 | 100 |
| UNC | Nº4-40 | 3532-4G | 2.84 | 3.00 | 2.79 | 0,35 | 0,30 | 0,28 | 4.32 | 0,36 | 0,32 | 0,29 | 5.59 | 0,37 | 0,34 | 0,30 | 100 |
| UNC | Nº5-40 | 3532-5G | 3.17 | 3.40 | 3.30 | 0,38 | 0,34 | 0,30 | 4.83 | 0,39 | 0,35 | 0,32 | 6.35 | 0,41 | 0,38 | 0,36 | 100 |
| UNC | Nº6-32 | 3532-6G | 3.50 | 3.70 | 3.56 | 0,28 | 0,26 | 0,25 | 5.33 | 0,30 | 0,28 | 0,26 | 7.11 | 0,35 | 0,29 | 0,27 | 100 |
| UNC | Nº8-32 | 3532-8G | 4.17 | 4.40 | 4.06 | 0,29 | 0,27 | 0,26 | 6.35 | 0,34 | 0,29 | 0,27 | 8.38 | 0,37 | 0,30 | 0,28 | 100 |
| UNC | Nº10-24 | 3532-10G | 4.83 | 5.10 | 4.83 | 0,34 | 0,29 | 0,27 | 7.37 | 0,37 | 0,30 | 0,28 | 9.65 | 0,39 | 0,35 | 0,32 | 100 |
| UNC | Nº12-24 | 3532-12G | 5.49 | 5.70 | 5.59 | 0,38 | 0,34 | 0,30 | 8.13 | 0,41 | 0,38 | 0,36 | 10.92 | 0,44 | 0,40 | 0,38 | 100 |
| UNC | 1/4-20 | 3532-1/4 | 6.35 | 6.70 | 6.35 | 0,38 | 0,34 | 0,30 | 9.65 | 0,41 | 0,38 | 0,36 | 12.70 | 0,44 | 0,40 | 0,38 | 100 |
| UNC | 5/16-18 | 3532-5/16 | 7.94 | 8.30 | 7.87 | 0,49 | 0,42 | 0,40 | 11.94 | 0,61 | 0,51 | 0,48 | 15.75 | 0,63 | 0,54 | 0,50 | 100 |
| UNC | 3/8-16 | 3532-3/8 | 9.52 | 9.90 | 9.65 | 0,69 | 0,63 | 0,59 | 14.48 | 0,75 | 0,66 | 0,62 | 19.30 | 1,00 | 0,86 | 0,80 | 100 |
| UNC | 7/16-14 | 3532-7/16 | 11.11 | 11.60 | 11.18 | 0,84 | 0,74 | 0,68 | 16.76 | 1,01 | 0,88 | 0,82 | 22.35 | 1,13 | 1,01 | 0,91 | 100 |
| UNC | 1/2-13 | 3532-1/2 | 12.70 | 13.00 | 12.70 | 0,89 | 0,79 | 0,72 | 19.05 | 1,01 | 0,88 | 0,82 | 25.40 | 1,13 | 1,01 | 0,91 | 100 |
| UNC | 9/16-12 | 3532-9/16 | 14.28 | 15.00 | 14.22 | 1,74 | 1,53 | 1,42 | 21.34 | 2,03 | 1,80 | 1,66 | 28.45 | 2,59 | 2,28 | 2,11 | 50 |
| UNC | 5/8-11 | 3532-5/8 | 15.87 | 16.50 | 16.00 | 1,75 | 1,54 | 1,44 | 24.13 | 2,04 | 1,81 | 1,67 | 32.00 | 2,61 | 2,30 | 2,13 | 50 |
| UNC | 3/4-10 | 3532-3/4 | 19.05 | 20.00 | 19.05 | 1,93 | 1,71 | 1,56 | 28.70 | 2,40 | 2,13 | 1,96 | 38.10 | 2,88 | 2,54 | 2,34 | 50 |
| UNC | 7/8-9 | 3532-7/8 | 22.22 | 23.00 | 22.35 | 2,51 | 2,22 | 2,04 | 33.53 | 3,13 | 2,76 | 2,55 | 44.70 | 3,74 | 3,30 | 3,03 | 25 |
| UNC | 1-8 | 3532-1 | 25.40 | 26.25 | 25.40 | 3,66 | 3,57 | 3,30 | 38.10 | 5,47 | 5,34 | 4,92 | 50.80 | 6,95 | 6,80 | 6,27 | 25 |
| UNC | 1.1/8-7 | 3532-1.1/8 | 28.57 | 29.50 | 28.70 | 5,82 | 5,13 | 4,71 | 42.93 | 7,70 | 6,78 | 6,25 | 57.15 | 7,98 | 7,04 | 6,47 | 25 |
| UNC | 1.1/4-7 | 3532-1.1/4 | 31.75 | 32.50 | 31.75 | 6,35 | 5,59 | 5,15 | 47.75 | 8,06 | 7,10 | 6,53 | 63.50 | 9,09 | 8,00 | 7,36 | 10 |
| UNC | 1.3/8-6 | 3532-1.3/8 | 34.92 | 36.00 | 35.05 | 6,96 | 6,13 | 5,65 | 52.58 | 8,59 | 7,56 | 6,96 | 69.85 | 10,19 | 8,98 | 8,25 | 10 |
| UNC | 1.1/2-6 | 3532-1.1/2 | 38.10 | 39.50 | 38.10 | 8,06 | 7,10 | 6,53 | 57.15 | 11,08 | 9,75 | 8,99 | 76.20 | 12,81 | 11,28 | 10,37 | 10 |

Nota importante: O comprimento total do inserto é definido para o inserto, uma vez montado na peça.



Exemplo de codificação:

UNC 1/4-20

1.0D

3532-1/4x1.0D

1.5D

3532-1/4x1.5D

2.0D

3532-1/4x2.0D

INSERTO LIVRE



| D | D | D1 mm | D | 2.5D | | | | 3.0D | | | | Unit | |
|-----|---------|------------|-------|---------|---------|----------|-------|---------|---------|----------|-------|-------|-----|
| | | | | L mm | € | | | L mm | € | | | | |
| | | | | <500 | 500-999 | 1000-... | | <500 | 500-999 | 1000-... | | | |
| UNC | Nº2-56 | 3532-2G | 2.18 | 2.40 | 5.59 | 1,11 | 1,02 | 0,92 | 6.60 | 1,39 | 1,25 | 1,16 | 100 |
| UNC | Nº3-48 | 3532-3G | 2.51 | 2.70 | 6.35 | 0,79 | 0,72 | 0,67 | 7.62 | 0,87 | 0,80 | 0,74 | 100 |
| UNC | Nº4-40 | 3532-4G | 2.84 | 3.00 | 9.65 | 0,41 | 0,38 | 0,36 | 8.64 | 0,49 | 0,42 | 0,40 | 100 |
| UNC | Nº5-40 | 3532-5G | 3.17 | 3.40 | 7.87 | 0,49 | 0,42 | 0,40 | 9.65 | 0,61 | 0,51 | 0,48 | 100 |
| UNC | Nº6-32 | 3532-6G | 3.50 | 3.70 | 8.89 | 0,38 | 0,34 | 0,30 | 10.41 | 0,44 | 0,39 | 0,37 | 100 |
| UNC | Nº8-32 | 3532-8G | 4.17 | 4.40 | 10.41 | 0,39 | 0,36 | 0,34 | 12.45 | 0,46 | 0,41 | 0,39 | 100 |
| UNC | Nº10-24 | 3532-10G | 4.83 | 5.10 | 12.19 | 0,47 | 0,41 | 0,39 | 14.48 | 0,58 | 0,49 | 0,46 | 100 |
| UNC | Nº12-24 | 3532-12G | 5.49 | 5.70 | 13.72 | 0,53 | 0,48 | 0,45 | 16.51 | 0,66 | 0,60 | 0,54 | 100 |
| UNC | 1/4-20 | 3532-1/4 | 6.35 | 6.70 | 16.00 | 0,53 | 0,48 | 0,45 | 19.05 | 0,66 | 0,60 | 0,54 | 100 |
| UNC | 5/16-18 | 3532-5/16 | 7.94 | 8.30 | 19.81 | 0,75 | 0,65 | 0,61 | 23.62 | 0,89 | 0,79 | 0,72 | 100 |
| UNC | 3/8-16 | 3532-3/8 | 9.52 | 9.90 | 24.13 | 1,12 | 1,00 | 0,91 | 28.96 | 1,34 | 1,18 | 1,09 | 100 |
| UNC | 7/16-14 | 3532-7/16 | 11.11 | 11.60 | 27.94 | 1,37 | 1,20 | 1,11 | 33.53 | 1,67 | 1,47 | 1,35 | 100 |
| UNC | 1/2-13 | 3532-1/2 | 12.70 | 13.00 | 31.75 | 1,37 | 1,20 | 1,11 | 38.10 | 1,67 | 1,47 | 1,35 | 100 |
| UNC | 9/16-12 | 3532-9/16 | 14.28 | 15.00 | 35.56 | 3,24 | 2,86 | 2,63 | 42.67 | 3,50 | 3,09 | 2,86 | 50 |
| UNC | 5/8-11 | 3532-5/8 | 15.87 | 16.50 | 40.13 | 3,29 | 2,90 | 2,67 | 48.01 | 3,54 | 3,12 | 2,88 | 50 |
| UNC | 3/4-10 | 3532-3/4 | 19.05 | 20.00 | 47.75 | 3,75 | 3,31 | 3,05 | 57.15 | 4,13 | 3,64 | 3,35 | 50 |
| UNC | 7/8-9 | 3532-7/8 | 22.22 | 23.00 | 55.88 | 4,87 | 4,28 | 3,95 | 67.06 | 5,36 | 4,71 | 4,35 | 25 |
| UNC | 1-8 | 3532-1 | 25.40 | 26.25 | 63.50 | 8,21 | 8,03 | 7,41 | 76.20 | 9,96 | 9,73 | 8,97 | 25 |
| UNC | 1.1/8-7 | 3532-1.1/8 | 28.57 | 29.50 | 71.37 | 9,95 | 8,77 | 8,07 | 85.85 | 11,08 | 9,75 | 8,99 | 25 |
| UNC | 1.1/4-7 | 3532-1.1/4 | 31.75 | 32.50 | 79.50 | 11,40 | 10,05 | 9,24 | 95.25 | 12,82 | 11,29 | 10,38 | 10 |
| UNC | 1.3/8-6 | 3532-1.3/8 | 34.92 | 36.00 | 87.38 | 12,87 | 11,33 | 10,44 | 104.90 | 14,04 | 12,36 | 11,37 | 10 |
| UNC | 1.1/2-6 | 3532-1.1/2 | 38.10 | 39.50 | 95.25 | 16,75 | 14,74 | 13,58 | 114.30 | 19,05 | 16,77 | 15,44 | 10 |

Nota importante: O comprimento total do inserto é definido para o inserto, uma vez montado na peça.

INSERTO LIVRE
UNF

FREE

UNF

AISI 304

SBAC AS 6734

**NASM124651-124850
NASM8846
SBAC6455**
...D

1.0D
1.5D
2.0D


| | D1 mm | | L mm | € | | | L mm | € | | | L mm | € | | | Unit | |
|----------------|-------------------|-------|----------------|----------|---------|----------|----------------|----------|---------|----------|----------------|----------|---------|----------|-------------|-----|
| | | | | <500 | 500-999 | 1000-... | | <500 | 500-999 | 1000-... | | <500 | 500-999 | 1000-... | | |
| UNF Nº3 - 56 | 3534-3G | 2.51 | 2.70 | 2.54 | 0,50 | 0,45 | 0,42 | 3.81 | 0,63 | 0,56 | 0,51 | 5.08 | 0,76 | 0,67 | 0,63 | 100 |
| UNF Nº4 - 48 | 3534-4G | 2.84 | 3.00 | 2.79 | 0,50 | 0,45 | 0,42 | 4.32 | 0,63 | 0,56 | 0,51 | 5.59 | 0,76 | 0,67 | 0,63 | 100 |
| UNF Nº6 - 40 | 3534-6G | 3.50 | 3.70 | 3.56 | 0,50 | 0,45 | 0,42 | 5.33 | 0,63 | 0,56 | 0,51 | 7.11 | 0,76 | 0,67 | 0,63 | 100 |
| UNF Nº8 - 36 | 3534-8G | 4.17 | 4.40 | 4.06 | 0,50 | 0,45 | 0,42 | 6.35 | 0,63 | 0,56 | 0,51 | 8.38 | 0,76 | 0,67 | 0,63 | 100 |
| UNF Nº10 - 32 | 3534-10G | 4.83 | 5.10 | 4.83 | 0,37 | 0,30 | 0,28 | 7.37 | 0,38 | 0,34 | 0,30 | 9.65 | 0,44 | 0,39 | 0,37 | 100 |
| UNF Nº12 - 28 | 3534-12G | 5.49 | 5.70 | 5.59 | 0,60 | 0,51 | 0,48 | 8.13 | 0,62 | 0,58 | 0,51 | 10.92 | 0,64 | 0,61 | 0,56 | 100 |
| UNF 1/4 - 28 | 3534-1/4 | 6.35 | 6.60 | 6.35 | 0,37 | 0,30 | 0,28 | 9.65 | 0,38 | 0,34 | 0,30 | 12.70 | 0,44 | 0,39 | 0,37 | 100 |
| UNF 5/16 - 24 | 3534-5/16 | 7.94 | 8.20 | 7.87 | 0,48 | 0,42 | 0,40 | 11.94 | 0,51 | 0,45 | 0,42 | 15.75 | 0,63 | 0,53 | 0,49 | 100 |
| UNF 3/8 - 24 | 3534-3/8 | 9.52 | 9.80 | 9.65 | 0,72 | 0,63 | 0,59 | 14.48 | 0,75 | 0,65 | 0,61 | 19.30 | 0,89 | 0,79 | 0,72 | 100 |
| UNF 7/16 - 20 | 3534-7/16 | 11.11 | 11.50 | 11.18 | 0,88 | 0,78 | 0,71 | 16.76 | 1,01 | 0,87 | 0,81 | 22.35 | 1,12 | 1,00 | 0,91 | 100 |
| UNF 1/2 - 20 | 3534-1/2 | 12.70 | 13.00 | 12.70 | 0,88 | 0,78 | 0,71 | 19.05 | 1,01 | 0,87 | 0,81 | 25.40 | 1,12 | 1,00 | 0,91 | 100 |
| UNF 9/16 - 18 | 3534-9/16 | 14.29 | 14.70 | 14.22 | 1,98 | 1,75 | 1,61 | 21.34 | 2,10 | 1,85 | 1,71 | 28.45 | 2,50 | 2,22 | 2,04 | 50 |
| UNF 5/8 - 18 | 3534-5/8 | 15.87 | 16.30 | 16.00 | 2,03 | 1,80 | 1,66 | 24.13 | 2,21 | 1,94 | 1,80 | 32.00 | 2,50 | 2,22 | 2,04 | 50 |
| UNF 3/4 - 16 | 3534-3/4 | 19.05 | 19.50 | 19.05 | 2,24 | 1,97 | 1,83 | 28.70 | 2,40 | 2,13 | 1,96 | 38.10 | 2,74 | 2,42 | 2,23 | 50 |
| UNF 7/8 - 14 | 3534-7/8 | 22.22 | 22.50 | 22.35 | 4,66 | 4,11 | 3,78 | 33.53 | 6,87 | 6,05 | 5,58 | 44.70 | 8,75 | 7,70 | 7,09 | 25 |
| UNF 1-12 | 3534-1 | 25.40 | 26.00 | 25.40 | 4,66 | 4,11 | 3,78 | 38.10 | 6,87 | 6,05 | 5,58 | 50.80 | 8,75 | 7,70 | 7,09 | 25 |
| UNF 1-14 | 3535-1 | 25.40 | 26.00 | 25.40 | 4,85 | 4,25 | 3,92 | 38.10 | 7,15 | 6,30 | 5,79 | 50.80 | 9,09 | 7,99 | 7,35 | 25 |
| UNF 1.1/8 - 12 | 3534-1.1/8 | 28.57 | 29.50 | 28.70 | 6,68 | 5,89 | 5,42 | 43.18 | 8,82 | 7,77 | 7,15 | 57.15 | 9,16 | 8,06 | 7,43 | 10 |
| UNF 1.1/4 - 12 | 3534-1.1/4 | 31.75 | 32.50 | 31.75 | 7,26 | 6,39 | 5,89 | 47.75 | 9,60 | 8,44 | 7,78 | 63.50 | 10,42 | 9,17 | 8,43 | 10 |
| UNF 1.3/8 - 12 | 3534-1.3/8 | 34.92 | 35.50 | 35.05 | 7,96 | 7,01 | 6,45 | 52.58 | 9,85 | 8,66 | 7,97 | 69.85 | 11,67 | 10,27 | 9,45 | 10 |
| UNF 1.1/2 - 12 | 3534-1.1/2 | 38.10 | 38.50 | 38.10 | 9,22 | 8,12 | 7,48 | 57.15 | 11,99 | 11,64 | 10,71 | 76.20 | 14,67 | 12,92 | 11,89 | 10 |

Nota importante: O comprimento total do inserto é definido para o inserto, uma vez montado na peça.







Exemplo de codificação:

UNF Nº3 - 56

1.0D
3534-3Gx1.0D
1.5D
3534-3Gx1.5D
2.0D
3534-3Gx2.0D

INSERTO LIVRE



|  |  | D1 mm | L mm |  2.5D | | |  3.0D | | | Unit | | |
|---|---|----------|---------|--|-------|-------|--|--------|-------|-------|-------|-----|
| | | | | € | € | € | € | € | € | | | |
| UNF N°3 - 56 | 3534-3G | 2.51 | 2.70 | 6.35 | 0,87 | 0,78 | 0,71 | 7.62 | 1,02 | 0,89 | 0,83 | 100 |
| UNF N°4 - 48 | 3534-4G | 2.84 | 3.00 | 7.11 | 0,87 | 0,78 | 0,71 | 8.64 | 1,02 | 0,89 | 0,83 | 100 |
| UNF N°6 - 40 | 3534-6G | 3.50 | 3.70 | 8.89 | 0,87 | 0,78 | 0,71 | 10.41 | 1,02 | 0,89 | 0,83 | 100 |
| UNF N°8 - 36 | 3534-8G | 4.17 | 4.40 | 10.41 | 0,87 | 0,78 | 0,71 | 12.45 | 1,02 | 0,89 | 0,83 | 100 |
| UNF N°10 - 32 | 3534-10G | 4.83 | 5.10 | 12.19 | 0,58 | 0,49 | 0,46 | 14.48 | 0,66 | 0,60 | 0,54 | 100 |
| UNF N°12 - 28 | 3534-12G | 5.49 | 5.70 | 13.72 | 0,67 | 0,63 | 0,59 | 16.51 | 0,75 | 0,70 | 0,66 | 100 |
| UNF 1/4 - 28 | 3534-1/4 | 6.35 | 6.60 | 16.00 | 0,58 | 0,49 | 0,46 | 19.05 | 0,66 | 0,60 | 0,54 | 100 |
| UNF 5/16 - 24 | 3534-5/16 | 7.94 | 8.20 | 19.81 | 0,76 | 0,67 | 0,63 | 23.62 | 0,89 | 0,79 | 0,72 | 100 |
| UNF 3/8 - 24 | 3534-3/8 | 9.52 | 9.80 | 24.13 | 1,13 | 1,01 | 0,91 | 28.96 | 1,34 | 1,18 | 1,09 | 100 |
| UNF 7/16 - 20 | 3534-7/16 | 11.11 | 11.50 | 27.94 | 1,40 | 1,23 | 1,13 | 33.53 | 1,67 | 1,47 | 1,35 | 100 |
| UNF 1/2 - 20 | 3534-1/2 | 12.70 | 13.00 | 31.75 | 1,40 | 1,23 | 1,13 | 38.10 | 1,67 | 1,47 | 1,35 | 100 |
| UNF 9/16 - 18 | 3534-9/16 | 14.29 | 14.70 | 35.56 | 3,17 | 2,79 | 2,58 | 42.67 | 3,56 | 3,13 | 2,89 | 50 |
| UNF 5/8 - 18 | 3534-5/8 | 15.87 | 16.30 | 40.13 | 2,98 | 2,63 | 2,42 | 48.01 | 3,56 | 3,13 | 2,89 | 50 |
| UNF 3/4 - 16 | 3534-3/4 | 19.05 | 19.50 | 47.75 | 3,75 | 3,31 | 3,05 | 57.15 | 4,13 | 3,64 | 3,35 | 50 |
| UNF 7/8 - 14 | 3534-7/8 | 22.22 | 22.50 | 55.88 | 10,45 | 9,20 | 8,46 | 67.06 | 12,17 | 10,71 | 9,86 | 25 |
| UNF 1 - 12 | 3534-1 | 25.40 | 26.00 | 63.50 | 10,45 | 9,20 | 8,46 | 76.20 | 12,17 | 10,71 | 9,86 | 25 |
| UNF 1 - 14 | 3535-1 | 25.40 | 26.00 | 63.50 | 10,45 | 9,20 | 8,46 | 76.20 | 12,53 | 11,03 | 10,15 | 25 |
| UNF 1.1/8 - 12 | 3534-1.1/8 | 28.57 | 29.50 | 71.37 | 11,40 | 10,05 | 9,24 | 85.85 | 12,71 | 11,18 | 10,29 | 10 |
| UNF 1.1/4 - 12 | 3534-1.1/4 | 31.75 | 32.50 | 79.50 | 13,03 | 11,48 | 10,57 | 95.25 | 14,69 | 12,93 | 11,89 | 10 |
| UNF 1.3/8 - 12 | 3534-1.3/8 | 34.92 | 35.50 | 87.38 | 14,74 | 12,98 | 11,95 | 104.90 | 16,07 | 14,14 | 13,02 | 10 |
| UNF 1.1/2 - 12 | 3534-1.1/2 | 38.10 | 38.50 | 95.25 | 19,16 | 16,87 | 15,52 | 114.30 | 21,82 | 19,20 | 17,67 | 10 |



Consulte a nossa gama de organizadores

INSERTO LIVRE

BSW



...D



| | D1 mm | | 1.0D | | 1.5D | | 2.0D | | 2.5D | | 3.0D | | Unit | |
|---------------|-----------|-------|---------|-------|---------|-------|---------|-------|---------|-------|---------|-------|-------|-----|
| | | | L mm | € | L mm | € | L mm | € | L mm | € | L mm | € | | |
| BSW 1/8 - 40 | 3528-1/8 | 3.17 | 3.40 | 3.30 | 0,44 | 5.08 | 0,48 | 6.60 | 0,58 | 8.38 | 0,74 | 9.91 | 0,96 | 100 |
| BSW 3/16 - 24 | 3528-3/16 | 4.76 | 5.00 | 4.83 | 0,44 | 7.37 | 0,48 | 9.65 | 0,58 | 12.19 | 0,74 | 14.48 | 0,96 | 100 |
| BSW 1/4 - 20 | 3528-1/4 | 6.35 | 6.70 | 6.35 | 0,40 | 9.65 | 0,44 | 12.70 | 0,50 | 16.00 | 0,66 | 19.05 | 0,71 | 100 |
| BSW 5/16 - 18 | 3528-5/16 | 7.94 | 8.30 | 7.87 | 0,46 | 11.94 | 0,53 | 15.75 | 0,59 | 19.81 | 0,69 | 23.62 | 0,85 | 100 |
| BSW 3/8 - 16 | 3528-3/8 | 9.52 | 10.00 | 9.65 | 0,83 | 14.48 | 0,88 | 19.30 | 1,05 | 24.13 | 1,23 | 28.96 | 1,47 | 100 |
| BSW 7/16 - 14 | 3528-7/16 | 11.11 | 11.60 | 11.18 | 1,01 | 16.76 | 1,10 | 22.35 | 1,27 | 27.94 | 1,50 | 33.53 | 1,84 | 100 |
| BSW 1/2 - 12 | 3528-1/2 | 12.70 | 13.00 | 12.70 | 1,01 | 19.05 | 1,10 | 25.40 | 1,27 | 31.75 | 1,50 | 38.10 | 1,84 | 100 |
| BSW 9/16 - 12 | 3528-9/16 | 14.29 | 14.75 | 14.22 | 2,50 | 21.34 | 3,50 | 28.45 | 4,11 | 35.56 | 4,88 | 42.67 | 5,97 | 50 |
| BSW 5/8 - 11 | 3528-5/8 | 15.87 | 16.50 | 16.00 | 2,50 | 24.13 | 3,50 | 32.00 | 4,11 | 40.13 | 4,88 | 48.01 | 5,97 | 50 |
| BSW 3/4 - 10 | 3528-3/4 | 19.05 | 20.00 | 19.05 | 3,24 | 28.70 | 4,16 | 38.10 | 5,06 | 47.75 | 6,08 | 57.15 | 7,28 | 50 |
| BSW 7/8 - 9 | 3528-7/8 | 22.22 | 23.25 | 22.35 | 4,16 | 33.53 | 5,80 | 44.70 | 7,26 | 55.88 | 8,74 | 67.06 | 10,48 | 25 |
| BSW 1 - 8 | 3528-1 | 25.40 | 26.50 | 25.40 | 4,48 | 38.10 | 6,65 | 50.80 | 7,26 | 63.50 | 8,74 | 76.20 | 10,48 | 25 |





BSF




...D




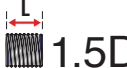
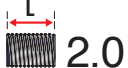

| | D1 mm | | 1.0D | | 1.5D | | 2.0D | | 2.5D | | 3.0D | | Unit | |
|---------------|-----------|-------|---------|-------|---------|-------|---------|-------|---------|-------|---------|-------|-------|-----|
| | | | L mm | € | L mm | € | L mm | € | L mm | € | L mm | € | | |
| BSF 3/16 - 32 | 3530-3/16 | 4.76 | 5.00 | 4.83 | 0,44 | 7.37 | 0,48 | 9.65 | 0,59 | 12.19 | 0,68 | 14.48 | 0,81 | 100 |
| BSF 1/4 - 26 | 3530-1/4 | 6.35 | 6.60 | 6.35 | 0,42 | 9.65 | 0,44 | 12.70 | 0,51 | 16.00 | 0,63 | 19.05 | 0,72 | 100 |
| BSF 5/16 - 22 | 3530-5/16 | 7.94 | 8.30 | 7.87 | 0,44 | 11.94 | 0,54 | 15.75 | 0,60 | 19.81 | 0,72 | 23.62 | 0,87 | 100 |
| BSF 3/8 - 20 | 3530-3/8 | 9.52 | 9.80 | 9.65 | 0,84 | 14.48 | 0,90 | 19.30 | 1,07 | 24.13 | 1,25 | 28.96 | 1,50 | 100 |
| BSF 7/16 - 18 | 3530-7/16 | 11.11 | 11.60 | 11.18 | 1,03 | 16.76 | 1,12 | 22.35 | 1,29 | 27.94 | 1,53 | 33.53 | 1,88 | 100 |
| BSF 1/2 - 16 | 3530-1/2 | 12.70 | 13.25 | 12.70 | 1,03 | 19.05 | 1,12 | 25.40 | 1,29 | 31.75 | 1,53 | 38.10 | 1,88 | 100 |
| BSF 9/16 - 16 | 3530-9/16 | 14.29 | 14.75 | 14.22 | 2,56 | 21.34 | 3,39 | 28.45 | 4,19 | 35.56 | 4,99 | 42.67 | 6,78 | 50 |
| BSF 5/8 - 14 | 3530-5/8 | 15.88 | 16.50 | 16.00 | 2,56 | 24.13 | 3,39 | 32.00 | 4,19 | 40.13 | 4,99 | 48.01 | 6,11 | 50 |
| BSF 3/4 - 12 | 3530-3/4 | 19.05 | 19.50 | 19.05 | 3,31 | 28.70 | 4,24 | 38.10 | 5,19 | 47.75 | 6,21 | 57.15 | 7,46 | 50 |
| BSF 7/8 - 11 | 3530-7/8 | 22.23 | 22.75 | 22.35 | 4,24 | 33.53 | 5,94 | 44.70 | 7,42 | 55.88 | 8,94 | 67.06 | 10,70 | 25 |
| BSF 1 - 10 | 3530-1 | 25.40 | 26.25 | 25.40 | 4,24 | 38.10 | 5,94 | 50.80 | 7,42 | 63.50 | 8,94 | 76.20 | 10,70 | 25 |



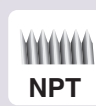
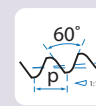

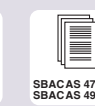

INSERTO LIVRE











|  | | D1 mm |  |  1.0D | |  1.5D | |  2.0D | |  |
|---|-----------------|----------|---|--|------|--|-------|---|-------|---|
| | | | | L mm | € | L mm | € | L mm | € | |
| BSP 1/8 - 28 | 3546-1/8 | 9.73 | 10.00 | 3.30 | 0,62 | 4.83 | 0,87 | 6.35 | 0,97 | 100 |
| BSP 1/4 - 19 | 3546-1/4 | 13.16 | 13.75 | 6.35 | 0,83 | 9.65 | 1,19 | 12.70 | 1,34 | 100 |
| BSP 3/8 - 19 | 3546-3/8 | 16.66 | 17.00 | 9.65 | 0,74 | 14.22 | 1,35 | 19.05 | 1,53 | 100 |
| BSP 1/2 - 14 | 3546-1/2 | 20.95 | 21.50 | 12.70 | 1,92 | 19.05 | 1,94 | 25.40 | 3,08 | 50 |
| BSP 5/8 - 14 | 3546-5/8 | 22.91 | 23.50 | 16.00 | 2,94 | 23.88 | 4,34 | 31.75 | 4,53 | 50 |
| BSP 3/4 - 14 | 3546-3/4 | 26.44 | 27.00 | 19.05 | 2,94 | 28.70 | 4,34 | 38.10 | 4,53 | 50 |
| BSP 7/8 - 14 | 3546-7/8 | 30.20 | 30.50 | 22.35 | 7,55 | 33.53 | 13,27 | 44.45 | 16,55 | 25 |
| BSP 1 - 11 | 3546-1 | 33.25 | 33.75 | 25.40 | 8,46 | 38.10 | 14,86 | 50.80 | 17,02 | 25 |











|  | | L mm | € | Unit |
|---|-----------------|---------|------|------|
| | | | | |
| NPT 1/8 - 27 | 3552-1/8 | 4.78 | 1,24 | 100 |
| NPT 1/4 - 18 | 3552-1/4 | 9.53 | 1,79 | 100 |
| NPT 3/8 - 18 | 3552-3/8 | 14.30 | 2,25 | 100 |
| NPT 1/2 - 14 | 3552-1/2 | 19.05 | 3,69 | 50 |
| NPT 3/4 - 14 | 3552-3/4 | 28.58 | 5,29 | 50 |
| NPT 1 - 11.1/2 | 3552-1 | 38.10 | 7,10 | 25 |



Exemplo de codificação:

BSP 1/8-28

 1.0D
3546-1/8x1.0D

 1.5D
3546-1/8x1.5D

INSERTO LIVRE

UNx8



FREE



8-UN



AISI 304

...D



| UN | 1.1/8 - 8 | 3570-1.1/8 | D1 mm | | 1.0D | | 1.5D | | 2.0D | | Unit |
|----|-----------|------------|----------|-------|---------|-------|---------|-------|---------|-------|------|
| | | | | | L mm | € | L mm | € | L mm | € | |
| UN | 1.1/4 - 8 | 3570-1.1/4 | 31.75 | 32.00 | 31.75 | 13,35 | 47.75 | 16,11 | 63.50 | 18,23 | 10 |
| UN | 1.3/8 - 8 | 3570-1.3/8 | 34.92 | 35.00 | 35.05 | 15,07 | 52.32 | 20,02 | 69.85 | 22,04 | 10 |
| UN | 1.1/2 - 8 | 3570-1.1/2 | 38.10 | 38.00 | 38.10 | 16,81 | 57.15 | 22,31 | 76.20 | 26,17 | 10 |
| UN | 1.5/8 - 8 | 3570-1.5/8 | 41.27 | 41.00 | 41.40 | 18,42 | 61.98 | 23,67 | 82.55 | 29,17 | 10 |
| UN | 1.3/4 - 8 | 3570-1.3/4 | 44.45 | 44.50 | 44.45 | 19,96 | 66.80 | 25,71 | 88.90 | 29,57 | 10 |
| UN | 1.7/8 - 8 | 3570-1.7/8 | 47.62 | 47.50 | 47.75 | 21,55 | 71.37 | 27,58 | 95.25 | 34,04 | 10 |
| UN | 2 - 8 | 3570-2 | 50.80 | 51.00 | 50.80 | 23,06 | 76.20 | 29,62 | 101.60 | 36,48 | 10 |

BA



FREE



BA



AISI 304

SBAC AS 4736
SBAC AS 4947

...D

| BA | 0 | 3544-0 | D1 mm | | 1.0D | | 1.5D | | 2.0D | | 2.5D | | 3.0D | | Unit |
|----|---|--------|----------|------|---------|------|---------|------|---------|------|---------|------|---------|------|------|
| | | | | | L mm | € | L mm | € | L mm | € | L mm | € | L mm | € | |
| BA | 2 | 3544-2 | 4.70 | 4.90 | 4.83 | 1,44 | 7.11 | 1,60 | 9.40 | 1,76 | 11.68 | 2,07 | 14.22 | 2,24 | 100 |
| BA | 4 | 3544-4 | 3.60 | 3.80 | 3.56 | 1,44 | 5.33 | 1,60 | 7.11 | 1,76 | 8.89 | 2,07 | 10.92 | 2,24 | 100 |
| BA | 6 | 3544-6 | 2.80 | 2.90 | 2.79 | 1,44 | 4.32 | 1,60 | 5.59 | 1,76 | 7.11 | 2,07 | 8.38 | 2,24 | 100 |



X.XD

Exemplo de codificação:

UN 1.1/8 - 8

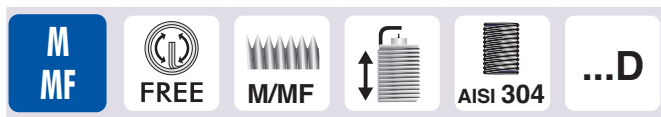
3570-1.1/8x1.0D

3570-1.1/8x1.5D

INSERTO LIVRE



| | | D1 mm | | 1.0D | | 1.5D | | 2.0D | | Unit |
|---------------|------------------|----------|-------|---------|------|---------|------|---------|------|------|
| | | | | L mm | € | L mm | € | L mm | € | |
| BSB 1/4 - 26 | 3560-1/4 | 6,35 | 6.60 | 6,35 | 1,69 | 9.53 | 2,33 | 12.70 | 2,55 | 100 |
| BSB 5/16 - 26 | 3560-5/16 | 7,94 | 8.20 | 7,95 | 0,76 | 11.91 | 0,91 | 15.88 | 1,23 | 100 |
| BSB 3/8 - 26 | 3560-3/8 | 9,52 | 9.80 | 9,53 | 0,88 | 14.30 | 1,06 | 19.05 | 1,44 | 100 |
| BSB 7/16 - 26 | 3560-7/16 | 11,11 | 11.30 | 11,13 | 0,93 | 16.66 | 1,44 | 22.23 | 1,95 | 100 |
| BSB 1/2 - 26 | 3560-1/2 | 12,70 | 12.70 | 12,70 | 1,91 | 19.05 | 2,42 | 25.40 | 3,08 | 50 |



| | | | | | | Unit |
|---------|-------------------|-------|--------|---------|---------|------|
| | | | 8.40mm | 12.40mm | 16.40mm | |
| 14x1.25 | 3522-14.00 | 14.25 | 1,03 | 1,03 | 1,03 | 50 |

| | | | | | Unit |
|---------|-------------------|-------|------|------|------|
| | | | 1/2" | 3/4" | |
| 10x1.00 | 3522-10.00 | 10.30 | 0,51 | - | 100 |
| 12x1.25 | 3522-12.00 | 12.30 | 0,62 | 0,75 | 100 |
| 14x1.25 | 3522-14.00 | 14.25 | 0,89 | 1,38 | 50 |
| 18x1.50 | 3522-18.00 | 18.50 | 1,20 | - | 50 |



| | | | | | | Unit |
|---------|-------------------|-------|--------|------|-------|------|
| | | | 0.339" | 3/8" | 7/16" | |
| 10x1.00 | 3522-10.00 | 10.30 | 0,43 | - | - | 100 |
| 14x1.25 | 3522-14.00 | 14.25 | - | 0,97 | 1,06 | 50 |

INSERTO LIVRE
M
MF

...DP


| | | € | D1 mm | L mm | | | | | |
|--------------------|-------------------------|--------------|----------|---------|----|------------|-------------|------------|-----------|
| | | | | | | Acessórios | | | |
| M 3 x 0.50 | 3520-3.00X1.0DP | 4,03 | 1.00 | 3.00 | 10 | 3.20 | 3520-3.00I | 3500-HIT4 | 3500-TB4 |
| M 3 x 0.50 | 3520-3.00X1.5DP | 4,21 | 1.50 | 4.50 | 10 | 3.20 | 3520-3.00I | 3500-HIT4 | 3500-TB4 |
| M 3 x 0.50 | 3520-3.00X2.0DP | 4,77 | 2.00 | 6.00 | 10 | 3.20 | 3520-3.00I | 3500-HIT4 | 3500-TB4 |
| M 4 x 0.70 | 3520-4.00X1.0DP | 3,83 | 1.00 | 4.00 | 10 | 4.20 | 3520-4.00I | 3500-HIT6 | 3500-TB6 |
| M 4 x 0.70 | 3520-4.00X1.5DP | 4,03 | 1.50 | 6.00 | 10 | 4.20 | 3520-4.00I | 3500-HIT6 | 3500-TB6 |
| M 4 x 0.70 | 3520-4.00X2.0DP | 4,77 | 2.00 | 8.00 | 10 | 4.20 | 3520-4.00I | 3500-HIT6 | 3500-TB6 |
| M 5 x 0.80 | 3520-5.00X1.0DP | 4,77 | 1.00 | 5.00 | 10 | 5.20 | 3520-5.00I | 3500-HIT8 | 3500-TB8 |
| M 5 x 0.80 | 3520-5.00X1.5DP | 3,83 | 1.50 | 7.50 | 10 | 5.20 | 3520-5.00I | 3500-HIT8 | 3500-TB8 |
| M 5 x 0.80 | 3520-5.00X2.0DP | 5,30 | 2.00 | 10.00 | 10 | 5.20 | 3520-5.00I | 3500-HIT8 | 3500-TB8 |
| M 6 x 1.00 | 3520-6.00X1.0DP | 4,94 | 1.00 | 6.00 | 10 | 6.30 | 3520-6.00I | 3500-HIT9 | 3500-TB9 |
| M 6 x 1.00 | 3520-6.00X1.5DP | 4,03 | 1.50 | 9.00 | 10 | 6.30 | 3520-6.00I | 3500-HIT9 | 3500-TB9 |
| M 6 x 1.00 | 3520-6.00X2.0DP | 6,04 | 2.00 | 12.00 | 10 | 6.30 | 3520-6.00I | 3500-HIT9 | 3500-TB9 |
| M 6 x 1.00 | 3520-6.00X2.5DP | 7,31 | 2.50 | 15.00 | 10 | 6.30 | 3520-6.00I | 3500-HIT9 | 3500-TB9 |
| M 8 x 1.00 | 3521-8.00X1.0DP | 5,67 | 1.00 | 8.00 | 10 | 8.30 | 3521-8.00I | 3500-HIT11 | 3500-TB12 |
| M 8 x 1.00 | 3521-8.00X1.5DP | 6,04 | 1.50 | 12.00 | 10 | 8.30 | 3521-8.00I | 3500-HIT11 | 3500-TB12 |
| M 8 x 1.00 | 3521-8.00X2.0DP | 7,68 | 2.00 | 16.00 | 10 | 8.30 | 3521-8.00I | 3500-HIT11 | 3500-TB12 |
| M 8 x 1.25 | 3520-8.00X1.0DP | 4,94 | 1.00 | 8.00 | 10 | 8.30 | 3520-8.00I | 3500-HIT11 | 3500-TB12 |
| M 8 x 1.25 | 3520-8.00X1.5DP | 5,30 | 1.50 | 12.00 | 10 | 8.30 | 3520-8.00I | 3500-HIT11 | 3500-TB12 |
| M 8 x 1.25 | 3520-8.00X2.0DP | 7,31 | 2.00 | 16.00 | 10 | 8.30 | 3520-8.00I | 3500-HIT11 | 3500-TB12 |
| M 10 x 1.25 | 3521-10.00X1.5DP | 7,07 | 1.50 | 15.00 | 10 | 10.30 | 3521-10.00I | 3500-HIT13 | 3500-TB13 |
| M 10 x 1.50 | 3520-10.00X1.0DP | 6,17 | 1.00 | 10.00 | 10 | 10.40 | 3520-10.00I | 3500-HIT13 | 3500-TB13 |
| M 10 x 1.50 | 3520-10.00X1.5DP | 7,07 | 1.50 | 15.00 | 10 | 10.40 | 3520-10.00I | 3500-HIT13 | 3500-TB13 |
| M 10 x 1.50 | 3520-10.00X2.0DP | 8,12 | 2.00 | 20.00 | 10 | 10.40 | 3520-10.00I | 3500-HIT13 | 3500-TB13 |
| M 12 x 1.50 | 3521-12.00X1.5DP | 10,42 | 1.50 | 18.00 | 10 | 12.40 | 3521-12.00I | 3500-HIT15 | 3500-TB15 |
| M 12 x 1.75 | 3520-12.00X1.0DP | 8,65 | 1.00 | 12.00 | 10 | 12.50 | 3520-12.00I | 3500-HIT15 | 3500-TB15 |
| M 12 x 1.75 | 3520-12.00X1.5DP | 10,42 | 1.50 | 18.00 | 10 | 12.50 | 3520-12.00I | 3500-HIT15 | 3500-TB15 |
| M 12 x 1.75 | 3520-12.00X2.0DP | 12,24 | 2.00 | 24.00 | 10 | 12.50 | 3520-12.00I | 3500-HIT15 | 3500-TB15 |
| M 14 x 1.50 | 3521-14.00X1.5DP | 7,68 | 1.50 | 21.00 | 5 | 14.40 | 3521-14.00I | 3500-HIT16 | - |
| M 14 x 2.00 | 3520-14.00X1.0DP | 6,71 | 1.00 | 14.00 | 5 | 14.50 | 3520-14.00I | 3500-HIT16 | - |
| M 14 x 2.00 | 3520-14.00X1.5DP | 7,68 | 1.50 | 21.00 | 5 | 14.50 | 3520-14.00I | 3500-HIT16 | - |
| M 14 x 2.00 | 3520-14.00X2.0DP | 8,03 | 2.00 | 28.00 | 5 | 14.50 | 3520-14.00I | 3500-HIT16 | - |
| M 16 x 1.50 | 3521-16.00X1.5DP | 9,45 | 1.50 | 24.00 | 5 | 16.50 | 3521-16.00I | 3500-HIT18 | - |
| M 16 x 2.00 | 3520-16.00X1.0DP | 9,01 | 1.00 | 16.00 | 5 | 16.50 | 3520-16.00I | 3500-HIT18 | - |
| M 16 x 2.00 | 3520-16.00X1.5DP | 9,45 | 1.50 | 24.00 | 5 | 16.50 | 3520-16.00I | 3500-HIT18 | - |
| M 16 x 2.00 | 3520-16.00X2.0DP | 11,66 | 2.00 | 32.00 | 5 | 16.50 | 3520-16.00I | 3500-HIT18 | - |
| M 18 x 2.00 | 3521-18.00X1.5DP | 15,36 | 1.50 | 27.00 | 5 | 18.50 | 3521-18.00I | 3500-HIT20 | - |
| M 18 x 2.50 | 3520-18.00X1.0DP | 12,21 | 1.00 | 18.00 | 5 | 19.00 | 3520-18.00I | 3500-HIT20 | - |
| M 18 x 2.50 | 3520-18.00X1.5DP | 14,27 | 1.50 | 27.00 | 5 | 19.00 | 3520-18.00I | 3500-HIT20 | - |
| M 18 x 2.50 | 3520-18.00X2.0DP | 19,34 | 2.00 | 36.00 | 5 | 19.00 | 3520-18.00I | 3500-HIT20 | - |
| M 20 x 2.50 | 3520-20.00X1.0DP | 14,27 | 1.00 | 20.00 | 5 | 20.75 | 3520-20.00I | 3500-HIT21 | - |
| M 20 x 2.50 | 3520-20.00X1.5DP | 18,04 | 1.50 | 30.00 | 5 | 20.75 | 3520-20.00I | 3500-HIT21 | - |
| M 20 x 2.50 | 3520-20.00X2.0DP | 23,18 | 2.00 | 40.00 | 5 | 20.75 | 3520-20.00I | 3500-HIT21 | - |
| M 22 x 2.50 | 3520-22.00X1.5DP | 11,61 | 1.50 | 33.00 | 3 | 22.75 | 3520-22.00I | 3500-HIT22 | - |
| M 22 x 2.50 | 3520-22.00X2.0DP | 14,71 | 2.00 | 44.00 | 3 | 22.75 | 3520-22.00I | 3500-HIT22 | - |
| M 24 x 3.00 | 3520-24.00X1.5DP | 13,11 | 1.50 | 36.00 | 3 | 24.50 | 3520-24.00I | 3500-HIT23 | - |

Acessórios não incluídos no preço






M14x1,25





M12x1,25




| | | € | D1 mm | L | | | | | |
|-------------|------------------|-------|----------|--------|----|------------|--------------|------------|------------|
| | | | | | | Acessórios | | | |
| M 12 x 1.25 | 3522-12.00X1/2P | 8,46 | - | 1/2" | 10 | 12.30 | 3522-12.00PN | 3500-HIT15 | 3500-TB15 |
| M 12 x 1.25 | 3522-12.00X3/4P | 10,42 | - | 3/4" | 10 | 12.30 | 3522-12.00PN | 3500-HIT15 | 3500-TB15 |
| M 14 x 1.25 | 3522-14.00X3/8P | 13,48 | - | 3/8" | 10 | 14.30 | 3522-14.00PN | 3500-HIT17 | 3500-HIT17 |
| M 14 x 1.25 | 3522-14.00X1/2P | 12,54 | - | 1/2" | 10 | 14.30 | 3522-14.00PN | 3500-HIT17 | 3500-HIT17 |
| M 14 x 1.25 | 3522-14.00X3/4P | 19,09 | - | 3/4" | 10 | 14.30 | 3522-14.00PN | 3500-HIT17 | 3500-HIT17 |
| M 14 x 1.25 | 3522-14.00X8.4P | 7,15 | - | 8.4 mm | 5 | 14.30 | 3522-14.00PN | 3500-HIT17 | 3500-HIT17 |
| M 14 x 1.25 | 3522-14.00X12.4P | 7,15 | - | 12.4" | 5 | 14.30 | 3522-14.00PN | 3500-HIT17 | 3500-HIT17 |
| M 14 x 1.25 | 3522-14.00X16.4P | 7,15 | - | 16.4" | 5 | 14.30 | 3522-14.00PN | 3500-HIT17 | 3500-HIT17 |





Acessórios não incluídos no preço

INSERTO LIVRE

|  |  | € | D1 mm | L mm |  |
|---|---|-------|-------|-------|---|
| UNC Nº6 - 32 | 3532-6GX1.5DP | 4,23 | 1.50 | 5.33 | 10 |
| UNC Nº8 - 32 | 3532-8GX1.5DP | 4,46 | 1.50 | 6.35 | 10 |
| UNC Nº10 - 24 | 3532-10GX1.5DP | 4,95 | 1.50 | 7.11 | 10 |
| UNC 1/4 - 20 | 3532-1/4X1.5DP | 5,66 | 1.50 | 9.65 | 10 |
| UNC 5/16 - 18 | 3532-5/16X1.0DP | 6,89 | 1.00 | 7.87 | 10 |
| UNC 5/16 - 18 | 3532-5/16X1.5DP | 8,31 | 1.50 | 11.94 | 10 |
| UNC 3/8 - 16 | 3532-3/8X1.5DP | 10,42 | 1.50 | 14.22 | 10 |
| UNC 3/8 - 16 | 3532-3/8X2.0DP | 13,77 | 2.00 | 19.05 | 10 |
| UNC 7/16 - 14 | 3532-7/16X1.5DP | 13,94 | 1.50 | 16.76 | 10 |
| UNC 1/2 - 13 | 3532-1/2X1.5DP | 13,94 | 1.50 | 19.05 | 10 |
| UNC 5/8 - 11 | 3532-5/8X1.5DP | 14,31 | 1.50 | 23.88 | 5 |
| UNC 3/4 - 10 | 3532-3/4X1.5DP | 16,85 | 1.50 | 28.70 | 5 |
| UNC 7/8 - 9 | 3532-7/8X1.5DP | 13,16 | 1.50 | 33.27 | 3 |
| UNC 1 - 8 | 3532-1X1.5DP | 23,00 | 1.50 | 38.10 | 3 |

|  |  |  |  |
|---|---|---|---|
| mm | $\leq 60^\circ$ 4-5 | | |
| Acessórios | | | |
| 3.80 | 3532-6GI | 3500-HIT5 | 3500-TB5 |
| 4.40 | 3532-8GI | 3500-HIT6 | 3500-TB6 |
| 5.20 | 3532-10GI | 3500-HIT7 | 3500-TB8 |
| 6.70 | 3532-1/4I | 3500-HIT9 | 3500-TB9 |
| 8.30 | 3532-5/16I | 3500-HIT10 | 3500-TB12 |
| 8.30 | 3532-5/16I | 3500-HIT10 | 3500-TB12 |
| 9.90 | 3532-3/8I | 3500-HIT13 | 3500-TB12 |
| 9.90 | 3532-3/8I | 3500-HIT13 | 3500-TB12 |
| 11.60 | 3532-7/16I | 3500-HIT14 | 3500-TB14 |
| 13.00 | 3532-1/2I | 3500-HIT15 | 3500-TB15 |
| 16.50 | 3532-5/8I | 3500-HIT18 | - |
| 20.00 | 3532-3/4I | 3500-HIT20 | - |
| 23.00 | 3532-7/8I | 3500-HIT22 | - |
| 26.25 | 3532-1I | 3500-HIT23 | - |

|  |  | € | D1 mm | L mm |  |
|---|---|-------|-------|-------|---|
| UNF Nº10 - 32 | 3534-10GX1.5DP | 5,12 | 1.50 | 7.11 | 10 |
| UNF 1/4 - 28 | 3534-1/4X1.5DP | 5,12 | 1.50 | 9.65 | 10 |
| UNF 5/16 - 24 | 3534-5/16X1.5DP | 7,25 | 1.50 | 11.94 | 10 |
| UNF 3/8 - 24 | 3534-3/8X1.5DP | 10,42 | 1.50 | 14.22 | 10 |
| UNF 7/16 - 20 | 3534-7/16X1.5DP | 13,94 | 1.50 | 16.76 | 10 |
| UNF 1/2 - 20 | 3534-1/2X1.5DP | 13,94 | 1.50 | 19.05 | 10 |
| UNF 5/8 - 18 | 3534-5/8X1.5DP | 15,42 | 1.50 | 24.13 | 5 |
| UNF 3/4 - 16 | 3534-3/4X1.5DP | 16,85 | 1.50 | 28.70 | 5 |

|  |  |  |  |
|---|---|---|---|
| mm | $\leq 60^\circ$ 4-5 | | |
| Acessórios | | | |
| 5.10 | 3534-10GI | 3500-HIT8 | 3500-TB8 |
| 6.70 | 3534-1/4I | 3500-HIT9 | 3500-TB9 |
| 8.30 | 3534-5/16I | 3500-HIT11 | 3500-TB12 |
| 9.80 | 3534-3/8I | 3500-HIT13 | 3500-TB13 |
| 11.50 | 3534-7/16I | 3500-HIT14 | 3500-TB14 |
| 13.00 | 3534-1/2I | 3500-HIT15 | 3500-TB15 |
| 16.50 | 3534-5/8I | 3500-HIT18 | - |
| 19.50 | 3534-3/4I | 3500-HIT21 | - |

Acessórios não incluídos no preço

UNC UNF

FREE

UNC/UNF

AISI 304




SBAC AS 6734
SBAC AS 8456





SBAC AS 6733
SBAC AS 8455

...DP

BSP (GAS) **FREE** **BSP** **AISI 304** **BS84** **...DP**








|  |  | € | D1 mm | L mm |  |
|---|---|-------|-------|-------|---|
| BSP 1/8 - 28 | 3546-1/8X1.5DP | 12,16 | 1.50 | 4.83 | 10 |
| BSP 1/4 - 19 | 3546-1/4X1.5DP | 16,66 | 1.50 | 9.65 | 10 |
| BSP 3/8 - 19 | 3546-3/8X1.5DP | 18,90 | 1.50 | 14.22 | 10 |
| BSP 1/2 - 14 | 3546-1/2X1.5DP | 27,13 | 1.50 | 19.05 | 10 |
| BSP 3/4 - 14 | 3546-3/4X1.5DP | 30,30 | 1.50 | 28.70 | 5 |
| BSP 1 - 11 | 3546-1X1.5DP | 55,73 | 1.50 | 38.10 | 3 |

|  |  |  |  |
|---|---|---|---|
| mm | $\leq 55^\circ$ 4-5 | | |
| Acessórios | | | |
| 10.00 | 3546-1/8I | 3500-HIT14 | |
| 13.75 | 3546-1/4I | 3500-HIT16 | |
| 17.00 | 3546-3/8I | 3500-HIT20 | |
| 21.50 | 3546-1/2I | 3500-HIT23 | |
| 27.00 | 3546-3/4I | 3500-HIT24 | |
| 33.75 | 3546-1I | 3500-HIT27 | |

Acessórios não incluídos no preço



INSERTOS AUTO-BLOQUEADORES






|  | | |  1.0D | | | |  1.5D | | | |  2.0D | | | |  |
|---|------------|-------|--|---------|----------|------|--|----------|------|---------|--|------|---------|----------|---|
| | | | L mm | € | | | L mm | € | | | L mm | € | | | |
| | | | <500 | 500-999 | 1000-... | <500 | 500-999 | 1000-... | <500 | 500-999 | 1000-... | <500 | 500-999 | 1000-... | Unit |
| M 2 x 0.40 | 3520-2.00 | 2.10 | 2.00 | 0,66 | 0,60 | 0,54 | 3.00 | 0,86 | 0,76 | 0,70 | 4.00 | 1,01 | 0,88 | 0,82 | 100 |
| M 2.20 x 0.45 | 3520-2.20 | 2.30 | 2.20 | 0,63 | 0,56 | 0,51 | 3.30 | 0,82 | 0,72 | 0,67 | 4.40 | 0,93 | 0,84 | 0,79 | 100 |
| M 2.50 x 0.45 | 3520-2.50 | 2.60 | 2.50 | 0,42 | 0,37 | 0,35 | 3.75 | 0,43 | 0,40 | 0,38 | 5.00 | 0,44 | 0,41 | 0,39 | 100 |
| M 3 x 0.50 | 3520-3.00 | 3.20 | 3.00 | 0,32 | 0,28 | 0,26 | 4.50 | 0,37 | 0,32 | 0,29 | 6.00 | 0,38 | 0,35 | 0,32 | 100 |
| M 3.50 x 0.60 | 3520-3.50 | 3.70 | 3.50 | 0,38 | 0,35 | 0,32 | 5.25 | 0,40 | 0,38 | 0,36 | 7.00 | 0,42 | 0,40 | 0,38 | 100 |
| M 4 x 0.70 | 3520-4.00 | 4.20 | 4.00 | 0,32 | 0,29 | 0,27 | 6.00 | 0,37 | 0,32 | 0,29 | 8.00 | 0,38 | 0,34 | 0,30 | 100 |
| M 5 x 0.80 | 3520-5.00 | 5.20 | 5.00 | 0,38 | 0,34 | 0,30 | 7.50 | 0,39 | 0,35 | 0,32 | 10.00 | 0,42 | 0,38 | 0,36 | 100 |
| M 6 x 1.00 | 3520-6.00 | 6.30 | 6.00 | 0,41 | 0,37 | 0,35 | 9.00 | 0,43 | 0,38 | 0,36 | 12.00 | 0,48 | 0,43 | 0,40 | 100 |
| M 7 x 1.00 | 3520-7.00 | 7.30 | 7.00 | 0,48 | 0,43 | 0,40 | 10.50 | 0,58 | 0,50 | 0,47 | 14.00 | 0,64 | 0,58 | 0,51 | 100 |
| M 8 x 1.00 | 3521-8.00 | 8.30 | 8.00 | 0,51 | 0,46 | 0,43 | 12.00 | 0,56 | 0,47 | 0,44 | 16.00 | 0,65 | 0,56 | 0,51 | 100 |
| M 8 x 1.25 | 3520-8.00 | 8.30 | 8.00 | 0,42 | 0,38 | 0,36 | 12.00 | 0,48 | 0,43 | 0,40 | 16.00 | 0,58 | 0,48 | 0,45 | 100 |
| M 9 x 1.25 | 3520-9.00 | 9.40 | 9.00 | 1,04 | 0,92 | 0,86 | 13.50 | 1,33 | 1,10 | 1,03 | 18.00 | 1,40 | 1,17 | 1,08 | 100 |
| M 10 x 1.00 | 3523-10.00 | 10.30 | 10.00 | 0,56 | 0,48 | 0,45 | 15.00 | 0,68 | 0,59 | 0,53 | 20.00 | 0,70 | 0,63 | 0,58 | 100 |
| M 10 x 1.25 | 3521-10.00 | 10.30 | 10.00 | 0,53 | 0,47 | 0,44 | 15.00 | 0,67 | 0,62 | 0,58 | 20.00 | 0,69 | 0,66 | 0,62 | 100 |
| M 10 x 1.50 | 3520-10.00 | 10.40 | 10.00 | 0,56 | 0,47 | 0,44 | 15.00 | 0,67 | 0,58 | 0,51 | 20.00 | 0,70 | 0,63 | 0,59 | 100 |
| M 11 x 1.50 | 3520-11.00 | 11.40 | 11.00 | 1,09 | 0,91 | 0,85 | 16.50 | 1,10 | 0,93 | 0,87 | 22.00 | 1,11 | 1,02 | 0,92 | 100 |
| M 12 x 1.25 | 3523-12.00 | 12.30 | 12.00 | 0,89 | 0,74 | 0,68 | 18.00 | 0,97 | 0,81 | 0,75 | 24.00 | 1,05 | 0,93 | 0,86 | 100 |
| M 12 x 1.50 | 3521-12.00 | 12.40 | 12.00 | 0,90 | 0,79 | 0,72 | 18.00 | 0,98 | 0,85 | 0,79 | 24.00 | 1,08 | 1,01 | 0,91 | 100 |
| M 12 x 1.75 | 3520-12.00 | 12.50 | 12.00 | 0,81 | 0,68 | 0,64 | 18.00 | 0,97 | 0,82 | 0,76 | 24.00 | 1,05 | 0,91 | 0,85 | 100 |
| M 14 x 1.50 | 3521-14.00 | 14.50 | 14.00 | 1,24 | 1,10 | 1,03 | 21.00 | 1,44 | 1,17 | 1,08 | 28.00 | 1,58 | 1,31 | 1,23 | 50 |
| M 14 x 2.00 | 3520-14.00 | 14.50 | 14.00 | 1,13 | 1,01 | 0,91 | 21.00 | 1,30 | 1,22 | 1,12 | 28.00 | 1,60 | 1,52 | 1,41 | 50 |
| M 16 x 1.50 | 3521-16.00 | 16.50 | 16.00 | 1,68 | 1,50 | 1,42 | 24.00 | 1,81 | 1,62 | 1,50 | 32.00 | 2,18 | 2,01 | 1,85 | 50 |
| M 16 x 2.00 | 3520-16.00 | 16.50 | 16.00 | 1,56 | 1,40 | 1,29 | 24.00 | 1,63 | 1,51 | 1,40 | 32.00 | 2,02 | 1,88 | 1,73 | 50 |
| M 18 x 1.50 | 3523-18.00 | 18.50 | 18.00 | 2,72 | 2,26 | 2,10 | 27.00 | 2,76 | 2,38 | 2,21 | 36.00 | 4,22 | 3,47 | 3,18 | 50 |
| M 18 x 2.00 | 3521-18.00 | 18.50 | 18.00 | 2,32 | 2,07 | 1,92 | 27.00 | 2,59 | 2,42 | 2,30 | 36.00 | 3,53 | 3,09 | 2,86 | 50 |
| M 18 x 2.50 | 3520-18.00 | 19.00 | 18.00 | 2,34 | 2,07 | 1,92 | 27.00 | 2,66 | 2,35 | 2,17 | 36.00 | 3,62 | 3,27 | 3,01 | 50 |
| M 20 x 1.50 | 3523-20.00 | 20.50 | 20.00 | 3,08 | 2,68 | 2,48 | 30.00 | 3,64 | 3,29 | 3,02 | 40.00 | 4,25 | 3,70 | 3,39 | 25 |
| M 20 x 2.00 | 3521-20.00 | 20.50 | 20.00 | 2,68 | 2,32 | 2,14 | 30.00 | 3,29 | 2,91 | 2,68 | 40.00 | 4,22 | 3,69 | 3,39 | 25 |
| M 20 x 2.50 | 3520-20.00 | 20.75 | 20.00 | 2,81 | 2,48 | 2,28 | 30.00 | 3,39 | 3,02 | 2,78 | 40.00 | 4,38 | 3,87 | 3,56 | 25 |
| M 22 x 1.50 | 3523-22.00 | 22.50 | 22.00 | 3,12 | 2,96 | 2,65 | 33.00 | 3,50 | 3,33 | 2,90 | 44.00 | 4,66 | 4,50 | 3,51 | 25 |
| M 22 x 2.00 | 3521-22.00 | 22.50 | 22.00 | 2,82 | 2,57 | 2,36 | 33.00 | 3,53 | 3,18 | 2,90 | 44.00 | 4,47 | 4,14 | 3,90 | 25 |
| M 22 x 2.50 | 3520-22.00 | 22.75 | 22.00 | 2,93 | 2,71 | 2,50 | 33.00 | 3,66 | 3,33 | 3,07 | 44.00 | 4,63 | 4,23 | 3,91 | 25 |
| M 24 x 1.50 | 3523-24.00 | 24.50 | 24.00 | 3,58 | 3,39 | 2,86 | 36.00 | 4,10 | 3,58 | 3,43 | 48.00 | 4,87 | 4,23 | 3,99 | 25 |
| M 24 x 2.00 | 3521-24.00 | 24.50 | 24.00 | 3,53 | 3,26 | 3,05 | 36.00 | 4,24 | 3,90 | 3,62 | 48.00 | 4,69 | 4,43 | 4,27 | 25 |
| M 24 x 3.00 | 3520-24.00 | 25.00 | 24.00 | 3,70 | 3,45 | 3,17 | 36.00 | 4,43 | 4,14 | 3,80 | 48.00 | 4,90 | 4,60 | 4,23 | 25 |

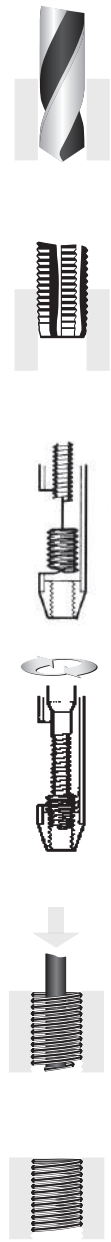


| |  1.0D |  1.5D |
|-------------|--|--|
| M 14 x 2.00 | 3520-14.00x1.0DSL | 3520-14.00x1.5DSL |

INSERTOS AUTO-BLOQUEADORES

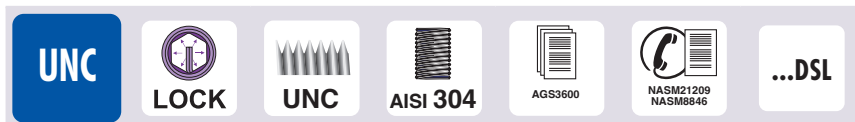









|  |  |  | 2.5D | | | 3.0D | | |  | | |
|---|---|---|-------|------|---------|----------|-------|------|---|----------|------|
| | | | L mm | € | | | L mm | € | | | |
| | | | | <500 | 500-999 | 1000-... | | <500 | 500-999 | 1000-... | Unit |
| M 2 x 0.40 | 3520-2.00 | 2.10 | 5.00 | 1,13 | 1,01 | 0,91 | 6.00 | 1,42 | 1,25 | 1,16 | 100 |
| M 2.20 x 0.45 | 3520-2.20 | 2.30 | 5.50 | 1,07 | 0,93 | 0,87 | 6.60 | 1,34 | 1,18 | 1,09 | 100 |
| M 2.50 x 0.45 | 3520-2.50 | 2.60 | 6.25 | 0,46 | 0,43 | 0,40 | 9.00 | 0,56 | 0,53 | 0,49 | 100 |
| M 3 x 0.50 | 3520-3.00 | 3.20 | 7.50 | 0,43 | 0,41 | 0,39 | 9.00 | 0,51 | 0,47 | 0,44 | 100 |
| M 3.50 x 0.60 | 3520-3.50 | 3.70 | 8.75 | 0,48 | 0,46 | 0,43 | 10.50 | 0,60 | 0,54 | 0,50 | 100 |
| M 4 x 0.70 | 3520-4.00 | 4.20 | 10.00 | 0,43 | 0,41 | 0,39 | 12.00 | 0,48 | 0,44 | 0,41 | 100 |
| M 5 x 0.80 | 3520-5.00 | 5.20 | 12.50 | 0,50 | 0,47 | 0,44 | 15.00 | 0,62 | 0,56 | 0,51 | 100 |
| M 6 x 1.00 | 3520-6.00 | 6.30 | 15.00 | 0,60 | 0,54 | 0,50 | 18.00 | 0,70 | 0,64 | 0,60 | 100 |
| M 7 x 1.00 | 3520-7.00 | 7.30 | 17.50 | 0,69 | 0,66 | 0,62 | 21.00 | 0,83 | 0,79 | 0,72 | 100 |
| M 8 x 1.00 | 3521-8.00 | 8.30 | 20.00 | 0,75 | 0,67 | 0,63 | 24.00 | 0,91 | 0,86 | 0,82 | 100 |
| M 8 x 1.25 | 3520-8.00 | 8.30 | 20.00 | 0,69 | 0,64 | 0,60 | 24.00 | 0,83 | 0,75 | 0,69 | 100 |
| M 9 x 1.25 | 3520-9.00 | 9.40 | 22.50 | 1,55 | 1,38 | 1,27 | 27.00 | 2,02 | 1,85 | 1,71 | 100 |
| M 10 x 1.00 | 3523-10.00 | 10.30 | 25.00 | 0,83 | 0,71 | 0,66 | 30.00 | 1,13 | 1,02 | 0,92 | 100 |
| M 10 x 1.25 | 3521-10.00 | 10.30 | 25.00 | 0,84 | 0,80 | 0,74 | 30.00 | 1,16 | 1,11 | 1,04 | 100 |
| M 10 x 1.50 | 3520-10.00 | 10.40 | 25.00 | 0,83 | 0,74 | 0,68 | 30.00 | 1,13 | 1,04 | 0,96 | 100 |
| M 11 x 1.50 | 3520-11.00 | 11.40 | 27.50 | 1,38 | 1,26 | 1,17 | 33.00 | 1,69 | 1,62 | 1,50 | 100 |
| M 12 x 1.25 | 3523-12.00 | 12.30 | 30.00 | 1,35 | 1,30 | 1,20 | 36.00 | 1,69 | 1,61 | 1,58 | 100 |
| M 12 x 1.50 | 3521-12.00 | 12.40 | 30.00 | 1,35 | 1,14 | 1,06 | 36.00 | 1,74 | 1,72 | 1,58 | 100 |
| M 12 x 1.75 | 3520-12.00 | 12.50 | 30.00 | 1,35 | 1,29 | 1,19 | 36.00 | 1,69 | 1,66 | 1,53 | 100 |
| M 14 x 1.50 | 3521-14.00 | 14.50 | 35.00 | 1,93 | 1,53 | 1,42 | 42.00 | 3,21 | 3,16 | 2,92 | 50 |
| M 14 x 2.00 | 3520-14.00 | 14.50 | 35.00 | 1,93 | 1,83 | 1,69 | 42.00 | 2,32 | 2,25 | 2,07 | 50 |
| M 16 x 1.50 | 3521-16.00 | 16.50 | 40.00 | 2,39 | 2,24 | 2,06 | 48.00 | 3,09 | 3,00 | 2,76 | 50 |
| M 16 x 2.00 | 3520-16.00 | 16.50 | 40.00 | 2,43 | 2,34 | 2,16 | 48.00 | 3,01 | 2,95 | 2,72 | 50 |
| M 18 x 1.50 | 3523-18.00 | 18.50 | 45.00 | 4,50 | 3,81 | 3,52 | 54.00 | 5,04 | 4,43 | 4,08 | 50 |
| M 18 x 2.00 | 3521-18.00 | 18.50 | 45.00 | 4,01 | 3,54 | 3,28 | 54.00 | 4,69 | 4,43 | 4,08 | 50 |
| M 18 x 2.50 | 3520-18.00 | 19.00 | 45.00 | 4,12 | 3,74 | 3,44 | 54.00 | 4,83 | 4,66 | 4,18 | 50 |
| M 20 x 1.50 | 3523-20.00 | 20.50 | 50.00 | 4,68 | 4,31 | 3,96 | 60.00 | 5,97 | 5,46 | 5,03 | 25 |
| M 20 x 2.00 | 3521-20.00 | 20.50 | 50.00 | 4,69 | 4,33 | 4,04 | 60.00 | 5,97 | 5,66 | 5,51 | 25 |
| M 20 x 2.50 | 3520-20.00 | 20.75 | 50.00 | 4,86 | 4,56 | 4,19 | 60.00 | 6,08 | 5,89 | 5,42 | 25 |
| M 22 x 1.50 | 3523-22.00 | 22.50 | 55.00 | 5,45 | 4,79 | 4,41 | 66.00 | 6,92 | 6,64 | 6,03 | 25 |
| M 22 x 2.00 | 3521-22.00 | 22.50 | 55.00 | 5,47 | 5,20 | 5,05 | 66.00 | 7,86 | 7,32 | 7,01 | 25 |
| M 22 x 2.50 | 3520-22.00 | 22.75 | 55.00 | 5,67 | 5,30 | 4,88 | 66.00 | 7,67 | 7,11 | 6,54 | 25 |
| M 24 x 1.50 | 3523-24.00 | 24.50 | 60.00 | 6,70 | 5,63 | 5,19 | 72.00 | 8,45 | 7,15 | 6,58 | 25 |
| M 24 x 2.00 | 3521-24.00 | 24.50 | 60.00 | 6,81 | 6,16 | 5,60 | 72.00 | 8,13 | 7,77 | 7,67 | 25 |
| M 24 x 3.00 | 3520-24.00 | 25.00 | 60.00 | 7,11 | 6,39 | 5,89 | 72.00 | 7,69 | 7,48 | 6,88 | 25 |



Nota importante: O comprimento total do inserto é definido para o inserto, uma vez montado na peça.

INSERTOS AUTO-BLOQUEADORES




|  |  |  | D1 mm |  |  1.0D | | |  1.5D | | |  2.0D | | | Unit | | | |
|---|---|---|--------------|---|--|-------------|-------------|--|--------------|-------------|--|-------------|--------------|-------------|-------------|-------------|-----|
| | | | | | L mm | € | | | L mm | € | | | L mm | | € | | |
| | | | | | | <500 | 500-999 | 1000-... | | <500 | 500-999 | 1000-... | | <500 | 500-999 | 1000-... | |
| UNC | Nº2 - 56 | 3532-2G | 2.18 | 2.40 | 2.29 | 0,82 | 0,71 | 0,66 | 3.30 | 0,96 | 0,83 | 0,78 | 4.32 | 1,24 | 1,07 | 1,00 | 100 |
| UNC | Nº4 - 40 | 3532-4G | 2.84 | 3.00 | 2.79 | 0,37 | 0,32 | 0,29 | 4.32 | 0,40 | 0,35 | 0,32 | 5.59 | 0,42 | 0,37 | 0,35 | 100 |
| UNC | Nº5 - 40 | 3532-5G | 3.17 | 3.40 | 3.30 | 0,49 | 0,43 | 0,40 | 4.83 | 0,51 | 0,46 | 0,43 | 6.35 | 0,54 | 0,48 | 0,45 | 100 |
| UNC | Nº6 - 32 | 3532-6G | 3.50 | 3.70 | 3.56 | 0,32 | 0,28 | 0,26 | 5.33 | 0,38 | 0,34 | 0,30 | 7.11 | 0,40 | 0,36 | 0,34 | 100 |
| UNC | Nº8 - 32 | 3532-8G | 4.17 | 4.40 | 4.06 | 0,32 | 0,28 | 0,26 | 6.35 | 0,38 | 0,34 | 0,30 | 8.38 | 0,40 | 0,36 | 0,34 | 100 |
| UNC | Nº10 - 24 | 3532-10G | 4.83 | 5.10 | 4.83 | 0,39 | 0,35 | 0,32 | 7.37 | 0,42 | 0,37 | 0,35 | 9.65 | 0,46 | 0,40 | 0,38 | 100 |
| UNC | Nº12 - 24 | 3532-12G | 5.49 | 5.70 | 5.59 | 0,43 | 0,38 | 0,36 | 8.13 | 0,48 | 0,42 | 0,40 | 10.92 | 0,51 | 0,44 | 0,41 | 100 |
| UNC | 1/4 - 20 | 3532-1/4 | 6.35 | 6.70 | 6.35 | 0,43 | 0,38 | 0,36 | 9.65 | 0,48 | 0,42 | 0,40 | 12.70 | 0,51 | 0,44 | 0,41 | 100 |
| UNC | 5/16 - 18 | 3532-5/16 | 7.94 | 8.30 | 7.87 | 0,60 | 0,49 | 0,46 | 11.94 | 0,69 | 0,60 | 0,54 | 15.75 | 0,72 | 0,64 | 0,60 | 100 |
| UNC | 3/8 - 16 | 3532-3/8 | 9.52 | 9.90 | 9.65 | 0,84 | 0,72 | 0,67 | 14.48 | 0,88 | 0,78 | 0,71 | 19.05 | 1,16 | 1,02 | 0,92 | 100 |
| UNC | 7/16 - 14 | 3532-7/16 | 11.11 | 11.60 | 11.18 | 0,98 | 0,85 | 0,79 | 16.76 | 1,18 | 1,03 | 0,93 | 22.35 | 1,34 | 1,16 | 1,07 | 100 |
| UNC | 1/2 - 13 | 3532-1/2 | 12.70 | 13.00 | 12.70 | 1,06 | 0,91 | 0,85 | 19.05 | 1,18 | 1,03 | 0,93 | 25.40 | 1,34 | 1,16 | 1,07 | 100 |
| UNC | 9/16 - 12 | 3532-9/16 | 14.28 | 15.00 | 14.22 | 2,61 | 2,26 | 2,10 | 21.34 | 3,48 | 3,00 | 2,76 | 28.45 | 4,46 | 3,86 | 3,55 | 50 |
| UNC | 5/8 - 11 | 3532-5/8 | 15.87 | 16.50 | 16.00 | 2,37 | 2,04 | 1,89 | 23.88 | 3,16 | 2,73 | 2,52 | 31.75 | 3,93 | 3,40 | 3,13 | 50 |
| UNC | 3/4 - 10 | 3532-3/4 | 19.05 | 19.80 | 19.05 | 2,74 | 2,38 | 2,21 | 28.70 | 3,73 | 3,23 | 2,98 | 38.10 | 4,65 | 4,03 | 3,72 | 50 |
| UNC | 7/8 - 9 | 3532-7/8 | 22.22 | 23.00 | 22.35 | 3,81 | 3,31 | 3,05 | 33.53 | 5,71 | 4,92 | 4,55 | 44.45 | 7,25 | 6,27 | 5,76 | 25 |
| UNC | 1 - 8 | 3532-1 | 25.40 | 26.20 | 25.40 | 5,17 | 4,46 | 4,12 | 38.10 | 7,73 | 6,68 | 6,14 | 50.80 | 9,82 | 8,46 | 7,80 | 25 |

Nota importante: O comprimento total do inserto é definido para o inserto, uma vez montado na peça.






UNC 1/4 - 20

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3532-1/4x1.0DSL

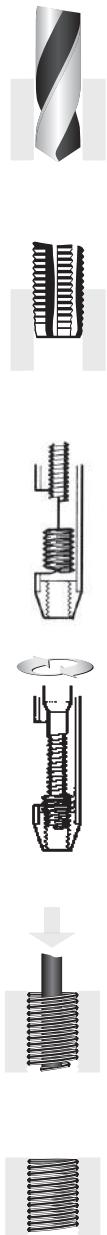
 1.5D
3532-1/4x1.5DSL

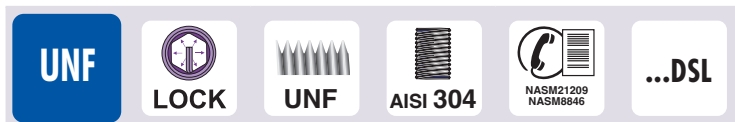
INSERTOS AUTO-BLOQUEADORES








|  |  | 3532-2G | D1 mm |  | L mm | € | | | L mm | € | | | Unit |
|---|---|------------------|--------------|---|---------|-------|---------|----------|---------|-------|---------|----------|------|
| | | | | | | <500 | 500-999 | 1000-... | | <500 | 500-999 | 1000-... | |
| UNC | Nº2 - 56 | 3532-2G | 2.18 | 2.40 | 5.59 | 1,40 | 1,20 | 1,11 | 6.60 | 1,50 | 1,29 | 1,19 | 100 |
| UNC | Nº4 - 40 | 3532-4G | 2.84 | 3.00 | 7.11 | 0,48 | 0,42 | 0,40 | 8.64 | 0,60 | 0,49 | 0,46 | 100 |
| UNC | Nº5 - 40 | 3532-5G | 3.17 | 3.40 | 7.87 | 0,60 | 0,49 | 0,46 | 9.65 | 0,82 | 0,70 | 0,66 | 100 |
| UNC | Nº6 - 32 | 3532-6G | 3.50 | 3.70 | 8.89 | 0,43 | 0,38 | 0,36 | 10.41 | 0,50 | 0,44 | 0,41 | 100 |
| UNC | Nº8 - 32 | 3532-8G | 4.17 | 4.40 | 10.41 | 0,43 | 0,38 | 0,36 | 12.45 | 0,50 | 0,44 | 0,41 | 100 |
| UNC | Nº10 - 24 | 3532-10G | 4.83 | 5.10 | 12.19 | 0,54 | 0,47 | 0,44 | 14.48 | 0,66 | 0,59 | 0,53 | 100 |
| UNC | Nº12 - 24 | 3532-12G | 5.49 | 5.70 | 13.72 | 0,64 | 0,56 | 0,51 | 16.51 | 0,78 | 0,67 | 0,63 | 100 |
| UNC | 1/4 - 20 | 3532-1/4 | 6.35 | 6.70 | 16.00 | 0,64 | 0,56 | 0,51 | 19.05 | 0,78 | 0,67 | 0,63 | 100 |
| UNC | 5/16 - 18 | 3532-5/16 | 7.94 | 8.30 | 19.81 | 0,87 | 0,75 | 0,69 | 23.62 | 1,06 | 0,91 | 0,85 | 100 |
| UNC | 3/8 - 16 | 3532-3/8 | 9.52 | 9.90 | 23.88 | 1,33 | 1,14 | 1,06 | 28.70 | 1,56 | 1,35 | 1,25 | 100 |
| UNC | 7/16 - 14 | 3532-7/16 | 11.11 | 11.60 | 27.94 | 1,60 | 1,39 | 1,28 | 33.53 | 1,95 | 1,69 | 1,56 | 100 |
| UNC | 1/2 - 13 | 3532-1/2 | 12.70 | 13.00 | 31.75 | 1,60 | 1,39 | 1,28 | 38.10 | 1,95 | 1,69 | 1,56 | 100 |
| UNC | 9/16 - 12 | 3532-9/16 | 14.28 | 15.00 | 35.56 | 5,11 | 4,42 | 4,06 | 42.93 | 6,16 | 5,32 | 4,90 | 50 |
| UNC | 5/8 - 11 | 3532-5/8 | 15.87 | 16.50 | 39.62 | 4,69 | 4,06 | 3,75 | 47.75 | 5,61 | 4,85 | 4,46 | 50 |
| UNC | 3/4 - 10 | 3532-3/4 | 19.05 | 19.80 | 47.75 | 5,53 | 4,78 | 4,40 | 57.15 | 6,62 | 5,72 | 5,27 | 50 |
| UNC | 7/8 - 9 | 3532-7/8 | 22.22 | 23.00 | 55.63 | 8,59 | 7,41 | 6,81 | 66.80 | 10,42 | 9,00 | 8,28 | 25 |
| UNC | 1 - 8 | 3532-1 | 25.40 | 26.20 | 63.50 | 11,62 | 10,02 | 9,23 | 76.20 | 14,09 | 12,17 | 11,21 | 25 |

Nota importante: O comprimento total do inserto é definido para o inserto, uma vez montado na peça.





INSERTOS AUTO-BLOQUEADORES


|  | D1 mm |  |  1.0D | | |  1.5D | | |  2.0D | | | Unit | | | | |
|---|-----------|---|--|-------|---------|--|---------|-------|--|----------|---------|-------|---------|----------|------|-----|
| | | | L mm | € | | | L mm | € | | | L mm | | € | | | |
| | | | | <500 | 500-999 | 1000-... | | <500 | 500-999 | 1000-... | | <500 | 500-999 | 1000-... | | |
| UNF N°4 - 48 | 3534-4G | 2.84 | 3.00 | 2.79 | 0,74 | 0,66 | 0,62 | 4.32 | 0,85 | 0,75 | 0,69 | 5.59 | 1,00 | 0,87 | 0,81 | 100 |
| UNF N°6 - 40 | 3534-6G | 3.50 | 3.70 | 3.56 | 0,74 | 0,66 | 0,62 | 5.33 | 0,85 | 0,75 | 0,69 | 7.11 | 1,00 | 0,87 | 0,81 | 100 |
| UNF N°8 - 36 | 3534-8G | 4.17 | 4.40 | 4.06 | 0,74 | 0,66 | 0,62 | 6.35 | 0,85 | 0,75 | 0,69 | 8.38 | 1,00 | 0,87 | 0,81 | 100 |
| UNF N°10 - 32 | 3534-10G | 4.83 | 5.10 | 4.83 | 0,42 | 0,37 | 0,35 | 7.37 | 0,43 | 0,38 | 0,36 | 9.65 | 0,51 | 0,44 | 0,41 | 100 |
| UNF 1/4 - 28 | 3534-1/4 | 6.35 | 6.60 | 6.35 | 0,42 | 0,37 | 0,35 | 9.65 | 0,43 | 0,38 | 0,36 | 12.70 | 0,51 | 0,44 | 0,41 | 100 |
| UNF 5/16 - 24 | 3534-5/16 | 7.94 | 8.20 | 7.87 | 0,60 | 0,49 | 0,46 | 11.94 | 0,63 | 0,51 | 0,48 | 16.00 | 0,72 | 0,64 | 0,60 | 100 |
| UNF 3/8 - 24 | 3534-3/8 | 9.52 | 9.80 | 9.65 | 0,85 | 0,72 | 0,67 | 14.48 | 0,88 | 0,78 | 0,71 | 19.05 | 1,06 | 0,91 | 0,85 | 100 |
| UNF 7/16 - 20 | 3534-7/16 | 11.11 | 11.50 | 11.18 | 1,06 | 0,91 | 0,85 | 16.76 | 1,18 | 1,03 | 0,93 | 22.35 | 1,34 | 1,16 | 1,07 | 100 |
| UNF 1/2 - 20 | 3534-1/2 | 12.70 | 13.00 | 12.70 | 1,06 | 0,91 | 0,85 | 19.05 | 1,18 | 1,03 | 0,93 | 25.40 | 1,34 | 1,16 | 1,07 | 100 |
| UNF 9/16 - 18 | 3534-9/16 | 14.29 | 14.75 | 14.22 | 2,33 | 2,00 | 1,84 | 21.34 | 2,48 | 2,06 | 1,91 | 28.70 | 2,98 | 2,56 | 2,35 | 50 |
| UNF 5/8 - 18 | 3534-5/8 | 15.87 | 16.50 | 16.00 | 2,37 | 2,01 | 1,85 | 23.88 | 2,48 | 2,14 | 1,96 | 31.75 | 2,98 | 2,56 | 2,35 | 50 |
| UNF 3/4 - 16 | 3534-3/4 | 19.05 | 19.50 | 19.05 | 3,12 | 2,69 | 2,49 | 28.70 | 4,35 | 3,75 | 3,45 | 38.10 | 5,26 | 4,53 | 4,17 | 50 |
| UNF 7/8 - 14 | 3534-7/8 | 22.22 | 22.50 | 22.35 | 5,31 | 4,58 | 4,21 | 33.27 | 7,84 | 6,76 | 6,22 | 44.45 | 9,96 | 8,59 | 7,91 | 25 |
| UNF 1 - 12 | 3534-1 | 25.40 | 26.00 | 25.40 | 5,31 | 4,58 | 4,21 | 38.10 | 7,84 | 6,76 | 6,22 | 50.80 | 9,96 | 8,59 | 7,91 | 25 |
| UNS 1 - 14 | 3535-1 | 25.40 | 26.00 | 25.40 | 5,31 | 4,63 | 4,26 | 38.10 | 7,84 | 6,84 | 6,30 | 50.80 | 9,96 | 8,69 | 8,00 | 25 |





Nota importante: O comprimento total do inserto é definido para o inserto, uma vez montado na peça.



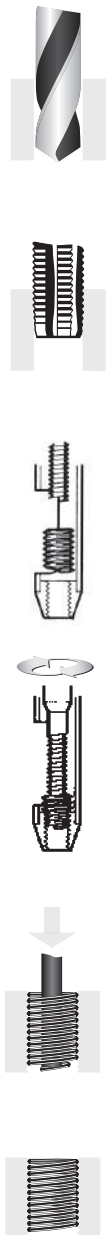
| |  1.0D |  1.5D |
|--------------|--|--|
| UNF N°4 - 48 | 3534-4Gx1.0DSL | 3534-4Gx1.5DSL |

INSERTOS AUTO-BLOQUEADORES



|  | D1 mm |  |  2.5D | | | |  3.0D | | | | Unit | |
|---|-----------|---|--|-------|---------|----------|--|-------|---------|----------|-------|-----|
| | | | L mm | € | | | L mm | € | | | | |
| | | | | <500 | 500-999 | 1000-... | | <500 | 500-999 | 1000-... | | |
| UNF N°4 - 48 | 3534-4G | 2.84 | 3.00 | 7.11 | 1,12 | 1,01 | 0,91 | 8.64 | 1,58 | 1,40 | 1,29 | 100 |
| UNF N°6 - 40 | 3534-6G | 3.50 | 3.70 | 8.89 | 1,12 | 1,01 | 0,91 | 10.41 | 1,58 | 1,40 | 1,29 | 100 |
| UNF N°8 - 36 | 3534-8G | 4.17 | 4.40 | 10.41 | 1,12 | 1,01 | 0,91 | 12.45 | 1,58 | 1,40 | 1,29 | 100 |
| UNF N°10 - 32 | 3534-10G | 4.83 | 5.10 | 12.19 | 0,64 | 0,56 | 0,51 | 14.48 | 0,78 | 0,67 | 0,63 | 100 |
| UNF 1/4 - 28 | 3534-1/4 | 6.35 | 6.60 | 16.00 | 0,64 | 0,56 | 0,51 | 19.05 | 0,78 | 0,67 | 0,63 | 100 |
| UNF 5/16 - 24 | 3534-5/16 | 7.94 | 8.20 | 19.81 | 0,87 | 0,78 | 0,71 | 23.88 | 1,06 | 0,91 | 0,85 | 100 |
| UNF 3/8 - 24 | 3534-3/8 | 9.52 | 9.80 | 23.88 | 1,30 | 1,14 | 1,06 | 28.70 | 1,56 | 1,35 | 1,25 | 100 |
| UNF 7/16 - 20 | 3534-7/16 | 11.11 | 11.50 | 27.69 | 1,60 | 1,40 | 1,29 | 33.27 | 1,95 | 1,69 | 1,56 | 100 |
| UNF 1/2 - 20 | 3534-1/2 | 12.70 | 13.00 | 31.75 | 1,60 | 1,40 | 1,29 | 38.10 | 1,95 | 1,69 | 1,56 | 100 |
| UNF 9/16 - 18 | 3534-9/16 | 14.29 | 14.75 | 35.81 | 3,62 | 3,16 | 2,92 | 42.93 | 4,18 | 3,61 | 3,33 | 50 |
| UNF 5/8 - 18 | 3534-5/8 | 15.87 | 16.50 | 39.62 | 3,80 | 3,35 | 3,09 | 47.75 | 4,18 | 3,61 | 3,33 | 50 |
| UNF 3/4 - 16 | 3534-3/4 | 19.05 | 19.50 | 47.75 | 6,36 | 5,55 | 5,11 | 57.15 | 7,62 | 6,58 | 6,07 | 50 |
| UNF 7/8 - 14 | 3534-7/8 | 22.22 | 22.50 | 55.63 | 11,46 | 9,98 | 9,19 | 66.80 | 13,72 | 11,85 | 10,92 | 25 |
| UNF 1 - 12 | 3534-1 | 25.40 | 26.00 | 63.50 | 13,66 | 11,91 | 10,97 | 76.20 | 16,44 | 14,21 | 13,07 | 25 |
| UNS 1 - 14 | 3535-1 | 25.40 | 26.00 | 63.50 | 13,66 | 11,91 | 10,97 | 76.20 | 16,44 | 14,34 | 13,20 | 25 |








Nota importante: O comprimento total do inserto é definido para o inserto, uma vez montado na peça.



JOGOS INSERTOS LIVRES




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
|  |  | € |  | |  |  |  |  | Conteúdo | | | | | |
|---|---|--------|---|-------|---|---|---|---|-----------|----|----|----|----|----|
| | | | D | L mm | | | | | mm | mm | mm | mm | mm | mm |
| M 2 x 0.40 | 3520-2.00K | 55,03 | 1.50 | 3.00 | 20 | 2.10 | 3520-2.001 | 3500-HIT2 | 3500-TB2 | | | | | |
| M 2.20 x 0.45 | 3520-2.20K | 73,67 | 1.50 | 3.30 | 20 | 2.30 | 3520-2.201 | 3500-HIT2 | 3500-TB2 | | | | | |
| M 2.50 x 0.45 | 3520-2.50K | 50,87 | 1.50 | 3.75 | 20 | 2.60 | 3520-2.501 | 3500-HIT3 | 3500-TB3 | | | | | |
| M 3 x 0.50 | 3520-3.00K | 50,87 | 1.50 | 4.50 | 20 | 3.20 | 3520-3.001 | 3500-HIT4 | 3500-TB4 | | | | | |
| M 3.50 x 0.60 | 3520-3.50K | 50,87 | 1.50 | 5.25 | 20 | 3.70 | 3520-3.501 | 3500-HIT5 | 3500-TB5 | | | | | |
| M 4 x 0.70 | 3520-4.00K | 50,87 | 1.50 | 6.00 | 20 | 4.20 | 3520-4.001 | 3500-HIT6 | 3500-TB6 | | | | | |
| M 5 x 0.80 | 3520-5.00K | 50,62 | 1.50 | 7.50 | 20 | 5.20 | 3520-5.001 | 3500-HIT8 | 3500-TB8 | | | | | |
| M 6 x 1.00 | 3520-6.00K | 54,52 | 1.50 | 9.00 | 20 | 6.30 | 3520-6.001 | 3500-HIT9 | 3500-TB9 | | | | | |
| M 7 x 1.00 | 3520-7.00K | 69,32 | 1.50 | 10.50 | 20 | 7.30 | 3520-7.001 | 3500-HIT10 | 3500-TB11 | | | | | |
| M 8 x 1.00 | 3521-8.00K | 69,32 | 1.50 | 12.00 | 20 | 8.30 | 3521-8.001 | 3500-HIT11 | 3500-TB12 | | | | | |
| M 8 x 1.25 | 3520-8.00K | 69,32 | 1.50 | 12.00 | 20 | 8.30 | 3520-8.001 | 3500-HIT11 | 3500-TB12 | | | | | |
| M 9 x 1.25 | 3520-9.00K | 76,89 | 1.50 | 13.50 | 15 | 9.40 | 3520-9.001 | 3500-HIT13 | 3500-TB12 | | | | | |
| M 10 x 1.00 | 3523-10.00K | 74,24 | 1.50 | 15.00 | 15 | 10.30 | 3523-10.001 | 3500-HIT13 | 3500-TB13 | | | | | |
| M 10 x 1.25 | 3521-10.00K | 74,24 | 1.50 | 15.00 | 15 | 10.30 | 3521-10.001 | 3500-HIT13 | 3500-TB13 | | | | | |
| M 10 x 1.50 | 3520-10.00K | 74,24 | 1.50 | 15.00 | 15 | 10.40 | 3520-10.001 | 3500-HIT13 | 3500-TB13 | | | | | |
| M 11 x 1.00 | 3523-11.00K | 102,89 | 1.50 | 16.50 | 10 | 11.30 | 3523-11.001 | 3500-HIT14 | 3500-TB14 | | | | | |
| M 11 x 1.25 | 3521-11.00K | 102,89 | 1.50 | 16.50 | 10 | 11.30 | 3521-11.001 | 3500-HIT14 | 3500-TB14 | | | | | |
| M 11 x 1.50 | 3520-11.00K | 85,11 | 1.50 | 16.50 | 10 | 11.40 | 3520-11.001 | 3500-HIT14 | 3500-TB14 | | | | | |
| M 12 x 1.00 | 3524-12.00K | 85,11 | 1.50 | 18.00 | 10 | 12.30 | 3524-12.001 | 3500-HIT15 | 3500-TB15 | | | | | |
| M 12 x 1.25 | 3523-12.00K | 85,11 | 1.50 | 18.00 | 10 | 12.30 | 3523-12.001 | 3500-HIT15 | 3500-TB15 | | | | | |
| M 12 x 1.50 | 3521-12.00K | 85,11 | 1.50 | 18.00 | 10 | 12.40 | 3521-12.001 | 3500-HIT15 | 3500-TB15 | | | | | |
| M 12 x 1.75 | 3520-12.00K | 85,11 | 1.50 | 18.00 | 10 | 12.50 | 3520-12.001 | 3500-HIT15 | 3500-TB15 | | | | | |
| M 13 x 1.25 | 3523-13.00K | 122,49 | 1.50 | 19.50 | 10 | – | 3523-13.001 | 3500-HIT15 | – | | | | | |
| M 13 x 1.50 | 3521-13.00K | 122,49 | 1.50 | 19.50 | 10 | – | 3521-13.001 | 3500-HIT15 | – | | | | | |
| M 13 x 1.75 | 3520-13.00K | 122,49 | 1.50 | 19.50 | 10 | – | 3520-13.001 | 3500-HIT15 | – | | | | | |
| M 14 x 1.00 | 3524-14.00K | 97,84 | 1.50 | 21.00 | 10 | – | 3524-14.001 | 3500-HIT16 | – | | | | | |
| M 14 x 1.25 | 3523-14.00K | 97,84 | 1.50 | 21.00 | 10 | – | 3523-14.001 | 3500-HIT16 | – | | | | | |
| M 14 x 1.50 | 3521-14.00K | 97,84 | 1.50 | 21.00 | 10 | – | 3521-14.001 | 3500-HIT16 | – | | | | | |
| M 14 x 2.00 | 3520-14.00K | 97,84 | 1.50 | 21.00 | 10 | – | 3520-14.001 | 3500-HIT16 | – | | | | | |
| M 15 x 1.50 | 3521-15.00K | 146,40 | 1.50 | 22.50 | 10 | – | 3521-15.001 | 3500-HIT16 | – | | | | | |
| M 15 x 2.00 | 3520-15.00K | 146,40 | 1.50 | 22.50 | 10 | – | 3520-15.001 | 3500-HIT16 | – | | | | | |
| M 16 x 1.50 | 3521-16.00K | 115,24 | 1.50 | 24.00 | 10 | – | 3521-16.001 | 3500-HIT18 | – | | | | | |
| M 16 x 2.00 | 3520-16.00K | 115,24 | 1.50 | 24.00 | 10 | – | 3520-16.001 | 3500-HIT18 | – | | | | | |
| M 18 x 1.50 | 3523-18.00K | 136,89 | 1.50 | 27.00 | 5 | – | 3523-18.001 | 3500-HIT20 | – | | | | | |


JOGOS DE INSERTOS LIVRES



|  |  | € |  |
|---|---|---------------|---|
| M | | | D L mm |
| M 18 x 2.00 | 3521-18.00K | 136,89 | 1.50 27.00 |
| M 18 x 2.50 | 3520-18.00K | 139,55 | 1.50 27.00 |
| M 20 x 1.50 | 3523-20.00K | 149,23 | 1.50 30.00 |
| M 20 x 2.00 | 3521-20.00K | 149,23 | 1.50 30.00 |
| M 20 x 2.50 | 3520-20.00K | 149,23 | 1.50 30.00 |
| M 22 x 1.50 | 3523-22.00K | 171,38 | 1.50 33.00 |
| M 22 x 2.00 | 3521-22.00K | 171,38 | 1.50 33.00 |
| M 22 x 2.50 | 3520-22.00K | 171,38 | 1.50 33.00 |
| M 24 x 1.50 | 3523-24.00K | 196,60 | 1.50 36.00 |
| M 24 x 2.00 | 3521-24.00K | 196,60 | 1.50 36.00 |
| M 24 x 3.00 | 3520-24.00K | 196,60 | 1.50 36.00 |

|  | | |
|--|-------------|------------|
| Conteúdo | | |
| 5 | 3521-18.00I | 3500-HIT20 |
| 5 | 3520-18.00I | 3500-HIT20 |
| 5 | 3523-20.00I | 3500-HIT21 |
| 5 | 3521-20.00I | 3500-HIT21 |
| 5 | 3520-20.00I | 3500-HIT21 |
| 5 | 3523-22.00I | 3500-HIT22 |
| 5 | 3521-22.00I | 3500-HIT22 |
| 5 | 3520-22.00I | 3500-HIT22 |
| 5 | 3523-24.00I | 3500-HIT23 |
| 5 | 3521-24.00I | 3500-HIT23 |
| 5 | 3520-24.00I | 3500-HIT23 |

|  |  | € |  |
|---|---|---------------|---|
| M | | | D L mm |
| M 26 x 1.50 | 3523-26.00K | 397,85 | 1.50 39.00 |
| M 27 x 1.50 | 3523-27.00K | 397,85 | 1.50 40.50 |
| M 27 x 2.00 | 3521-27.00K | 397,85 | 1.50 40.50 |
| M 27 x 3.00 | 3520-27.00K | 397,85 | 1.50 40.50 |
| M 28 x 1.50 | 3523-28.00K | 461,01 | 1.50 42.00 |
| M 30 x 1.50 | 3523-30.00K | 482,33 | 1.50 45.00 |
| M 30 x 2.00 | 3521-30.00K | 507,60 | 1.50 45.00 |
| M 30 x 3.50 | 3520-30.00K | 482,33 | 1.50 45.00 |
| M 33 x 2.00 | 3521-33.00K | 503,66 | 1.50 49.50 |
| M 33 x 3.50 | 3520-33.00K | 503,66 | 1.50 49.50 |
| M 36 x 1.50 | 3524-36.00K | 558,94 | 1.50 54.00 |
| M 36 x 2.00 | 3523-36.00K | 558,94 | 1.50 54.00 |
| M 36 x 3.00 | 3521-36.00K | 558,94 | 1.50 54.00 |
| M 36 x 4.00 | 3520-36.00K | 558,94 | 1.50 54.00 |
| M 39 x 3.00 | 3521-39.00K | 563,25 | 1.50 58.50 |
| M 39 x 4.00 | 3520-39.00K | 572,24 | 1.50 58.50 |
| M 40 x 3.00 | 3523-40.00K | 607,94 | 1.50 60.00 |
| M 42 x 3.00 | 3523-42.00K | 629,81 | 1.50 63.00 |
| M 42 x 4.50 | 3520-42.00K | 629,81 | 1.50 63.00 |
| M 45 x 3.00 | 3523-45.00K | 812,23 | 1.50 67.50 |
| M 45 x 4.50 | 3520-45.00K | 702,39 | 1.50 67.50 |
| M 48 x 3.00 | 3523-48.00K | 799,71 | 1.50 72.00 |
| M 48 x 5.00 | 3520-48.00K | 842,29 | 1.50 72.00 |
| M 50 x 3.00 | 3523-50.00K | 891,84 | 1.50 75.00 |
| M 52 x 3.00 | 3523-52.00K | 934,44 | 1.50 78.00 |
| M 52 x 5.00 | 3520-52.00K | 934,44 | 1.50 78.00 |

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|--|-------------|---------------|
| Conteúdo | | |
| 5 | 3523-26.00I | 3500-HIT24 |
| 5 | 3523-27.00I | 3500-HIT24 |
| 5 | 3521-27.00I | 3500-HIT24 |
| 5 | 3520-27.00I | 3500-HIT24 |
| 5 | 3523-28.00I | 3500-HIT24 |
| 5 | 3523-30.00I | 3500-HIT26 |
| 5 | 3521-30.00I | 3500-HIT26 |
| 5 | 3520-30.00I | 3500-HIT25 |
| 5 | 3521-33.00I | 3500-HIT26 |
| 5 | 3520-33.00I | 3500-HIT26 |
| 3 | 3524-36.00I | 3500-HIT28 |
| 3 | 3523-36.00I | 3500-HIT28 |
| 3 | 3521-36.00I | 3500-HIT28 |
| 5 | 3520-36.00I | 3500-HIT28 |
| 3 | 3521-39.00I | 3521-39.00HIM |
| 3 | 3520-39.00I | 3520-39.00HIM |
| 3 | 3523-40.00I | 3523-40.00HIM |
| 3 | 3523-42.00I | 3523-42.00HIM |
| 3 | 3520-42.00I | 3520-42.00HIM |
| 3 | 3523-45.00I | 3523-45.00HIM |
| 3 | 3520-45.00I | 3520-45.00HIM |
| 3 | 3523-48.00I | 3523-48.00HIM |
| 3 | 3520-48.00I | 3520-48.00HIM |
| 3 | 3523-50.00I | 3523-50.00HIM |
| 3 | 3523-52.00I | 3523-52.00HIM |
| 3 | 3520-52.00I | 3520-52.00HIM |



JOGOS DE INSERTOS LIVRES
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
UNC






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
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|  |  | € |  | D | L mm |
|---|---|---------------|---|--------------|------|
| UNC Nº2 - 56 | 3532-2GK | 72,18 | 1.50 | 3.30 | |
| UNC Nº3 - 48 | 3532-3GK | 69,13 | 1.50 | 3.81 | |
| UNC Nº4 - 40 | 3532-4GK | 65,47 | 1.50 | 4.32 | |
| UNC Nº5 - 40 | 3532-5GK | 65,47 | 1.50 | 4.83 | |
| UNC Nº6 - 32 | 3532-6GK | 65,47 | 1.50 | 5.33 | |
| UNC Nº8 - 32 | 3532-8GK | 65,47 | 1.50 | 6.35 | |
| UNC Nº10 - 24 | 3532-10GK | 65,47 | 1.50 | 7.11 | |
| UNC Nº12 - 24 | 3532-12GK | 65,47 | 1.50 | 8.38 | |
| UNC 1/4 - 20 | 3532-1/4K | 58,99 | 1.50 | 9.65 | |
| UNC 5/16 - 18 | 3532-5/16K | 72,18 | 1.50 | 11.94 | |
| UNC 3/8 - 16 | 3532-3/8K | 77,15 | 1.50 | 14.22 | |
| UNC 7/16 - 14 | 3532-7/16K | 86,63 | 1.50 | 16.76 | |
| UNC 1/2 - 13 | 3532-1/2K | 95,07 | 1.50 | 19.05 | |
| UNC 9/16 - 12 | 3532-9/16K | 126,92 | 1.50 | 21.34 | |
| UNC 5/8 - 11 | 3532-5/8K | 126,92 | 1.50 | 23.88 | |
| UNC 3/4 - 10 | 3532-3/4K | 161,77 | 1.50 | 28.70 | |
| UNC 7/8 - 9 | 3532-7/8K | 196,60 | 1.50 | 33.27 | |
| UNC 1 - 8 | 3532-1K | 195,33 | 1.50 | 38.10 | |

|  |  |  |  |  | Conteúdo | | | | |
|---|--|---|---|---|----------|--|--|--|--|
| mm | mm | <60° 4-5 | | | | | | | |
| 20 | 2.40 | 3532-2GI | 3500-HIT2 | 3500-TB2 | | | | | |
| 20 | 2.70 | 3532-3GI | 3500-HIT3 | 3500-TB3 | | | | | |
| 20 | 3.10 | 3532-4GI | 3500-HIT4 | 3500-TB4 | | | | | |
| 20 | 3.40 | 3532-5GI | 3500-HIT4 | 3500-TB4 | | | | | |
| 20 | 3.80 | 3532-6GI | 3500-HIT5 | 3500-TB5 | | | | | |
| 20 | 4.40 | 3532-8GI | 3500-HIT6 | 3500-TB6 | | | | | |
| 20 | 5.20 | 3532-10GI | 3500-HIT7 | 3500-TB8 | | | | | |
| 20 | 5.80 | 3532-12GI | 3500-HIT8 | 3500-TB8 | | | | | |
| 20 | 6.70 | 3532-1/4I | 3500-HIT9 | 3500-TB9 | | | | | |
| 20 | 8.30 | 3532-5/16I | 3500-HIT10 | 3500-TB12 | | | | | |
| 15 | 9.90 | 3532-3/8I | 3500-HIT13 | 3500-TB12 | | | | | |
| 10 | 11.60 | 3532-7/16I | 3500-HIT14 | 3500-TB14 | | | | | |
| 10 | 13.00 | 3532-1/2I | 3500-HIT15 | 3500-TB15 | | | | | |
| 10 | — | 3532-9/16I | 3500-HIT16 | — | | | | | |
| 10 | — | 3532-5/8I | 3500-HIT18 | — | | | | | |
| 5 | — | 3532-3/4I | 3500-HIT20 | — | | | | | |
| 5 | — | 3532-7/8I | 3500-HIT22 | — | | | | | |
| 5 | — | 3532-1I | 3500-HIT23 | — | | | | | |

|  |  | € |  | D | L mm |
|---|---|---------------|---|--------------|------|
| UNC 1.1/8 - 7 | 3532-1.1/8K | 393,75 | 1.50 | 42.93 | |
| UNC 1.1/4 - 7 | 3532-1.1/4K | 438,04 | 1.50 | 47.75 | |
| UNC 1.3/8 - 6 | 3532-1.3/8K | 526,62 | 1.50 | 52.32 | |
| UNC 1.1/2 - 6 | 3532-1.1/2K | 613,58 | 1.50 | 57.15 | |

|  |  |  |  |  | Conteúdo | | | | |
|---|--|---|---|---|----------|--|--|--|--|
| mm | mm | <60° 4-5 | | | | | | | |
| 3 | — | 3532-1.1/8I | 3500-HIT25 | — | | | | | |
| 3 | — | 3532-1.1/4I | 3500-HIT26 | — | | | | | |
| 3 | — | 3532-1.3/8I | 3500-HIT27 | — | | | | | |
| 3 | — | 3532-1.1/2I | 3500-HIT28 | — | | | | | |

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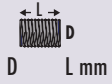






















1.5D



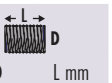








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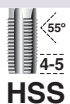
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|  |  | € |  | |  | mm |  |  |  | Conteúdo | | |
|---|---|---------------|---|-------|---|----|---|---|---|-----------|--|--|
| | | | D | L mm | | | | | | | | |
| UNF Nº3 - 56 | 3534-3GK | 72,05 | 1.50 | 3.30 |  | 20 | 2.70 | 3534-3GI | 3500-HIT3 | 3500-TB3 | | |
| UNF Nº4 - 48 | 3534-4GK | 65,47 | 1.50 | 3.81 |  | 20 | 3.00 | 3534-4GI | 3500-HIT4 | 3500-TB4 | | |
| UNF Nº6 - 40 | 3534-6GK | 65,47 | 1.50 | 4.32 |  | 20 | 3.80 | 3534-6GI | 3500-HIT5 | 3500-TB5 | | |
| UNF Nº8 - 36 | 3534-8GK | 65,47 | 1.50 | 4.83 |  | 20 | 4.40 | 3534-8GI | 3500-HIT6 | 3500-TB6 | | |
| UNF Nº10 - 32 | 3534-10GK | 65,47 | 1.50 | 5.33 |  | 20 | 5.10 | 3534-10GI | 3500-HIT8 | 3500-TB8 | | |
| UNF Nº12 - 28 | 3534-12GK | 71,72 | 1.50 | 6.35 |  | 20 | 5.60 | 3534-12GI | 3500-HIT8 | 3500-TB8 | | |
| UNF 1/4 - 28 | 3534-1/4K | 58,99 | 1.50 | 7.11 |  | 20 | 6.70 | 3534-1/4I | 3500-HIT9 | 3500-TB9 | | |
| UNF 5/16 - 24 | 3534-5/16K | 72,18 | 1.50 | 8.38 |  | 20 | 8.30 | 3534-5/16I | 3500-HIT11 | 3500-TB12 | | |
| UNF 3/8 - 24 | 3534-3/8K | 77,15 | 1.50 | 9.65 |  | 15 | 9.80 | 3534-3/8I | 3500-HIT13 | 3500-TB13 | | |
| UNF 7/16 - 16 | 3534-7/16-16K | 104,96 | 1.50 | 11.94 |  | 10 | 11.50 | 3534-7/16-16I | 3500-HIT14 | 3500-TB14 | | |
| UNF 7/16 - 20 | 3534-7/16K | 86,63 | 1.50 | 14.22 |  | 10 | 11.50 | 3534-7/16I | 3500-HIT14 | 3500-TB14 | | |
| UNF 1/2 - 20 | 3534-1/2K | 95,07 | 1.50 | 16.76 |  | 10 | 13.00 | 3534-1/2I | 3500-HIT15 | 3500-TB15 | | |
| UNF 9/16 - 18 | 3534-9/16K | 126,92 | 1.50 | 19.05 |  | 10 | — | 3534-9/16I | 3500-HIT16 | — | | |
| UNF 5/8 - 18 | 3534-5/8K | 126,92 | 1.50 | 21.34 |  | 10 | — | 3534-5/8I | 3500-HIT18 | — | | |
| UNF 3/4 - 16 | 3534-3/4K | 161,77 | 1.50 | 23.88 |  | 5 | — | 3534-3/4I | 3500-HIT21 | — | | |
| UNF 7/8 - 14 | 3534-7/8K | 196,60 | 1.50 | 28.70 |  | 5 | — | 3534-7/8I | 3500-HIT22 | — | | |
| UNF 1 - 12 | 3534-1K | 192,65 | 1.50 | 33.27 |  | 5 | — | 3534-1I | 3500-HIT23 | — | | |
| UNF 1 - 14 | 3535-1K | 215,66 | 1.50 | 38.10 |  | 5 | — | 3535-1I | 3500-HIT23 | — | | |

|  |  | € |  | |  | mm |  |  |  | Conteúdo | | |
|---|---|---------------|---|-------|---|----|---|---|---|----------|--|--|
| | | | D | L mm | | | | | | | | |
| UNF 1.1/8 - 12 | 3534-1.1/8K | 393,75 | 1.50 | 42.93 |  | 3 | — | 3534-1.1/8I | 3500-HIT25 | — | | |
| UNF 1.1/4 - 12 | 3534-1.1/4K | 438,04 | 1.50 | 47.75 |  | 3 | — | 3534-1.1/4I | 3500-HIT26 | — | | |
| UNF 1.3/8 - 12 | 3534-1.3/8K | 526,62 | 1.50 | 52.32 |  | 3 | — | 3534-1.3/8I | 3500-HIT27 | — | | |
| UNF 1.1/2 - 12 | 3534-1.1/2K | 613,58 | 1.50 | 57.15 |  | 3 | — | 3534-1.1/2I | 3500-HIT28 | — | | |

JOGOS DE INSERTOS LIVRES

BSW



...K



| | | | € | | | | | | | Conteúdo | | |
|---------------|--|-------------------|---------------|------|-------|----|-------|------------|------------|-----------|--|--|
| | | | | D | L mm | | | | | | | |
| BSW 1/8 - 40 | | 3528-1/8K | 67,22 | 1.50 | 4.83 | 20 | 3.40 | 3528-1/8I | 3500-HIT4 | 3500-TB4 | | |
| BSW 3/16 - 24 | | 3528-3/16K | 65,47 | 1.50 | 7.11 | 20 | 5.00 | 3528-3/16I | 3500-HIT7 | 3500-TB8 | | |
| BSW 1/4 - 20 | | 3528-1/4K | 60,56 | 1.50 | 9.65 | 20 | 6.70 | 3528-1/4I | 3500-HIT9 | 3500-TB9 | | |
| BSW 5/16 - 18 | | 3528-5/16K | 72,18 | 1.50 | 11.94 | 20 | 8.30 | 3528-5/16I | 3500-HIT10 | 3500-TB11 | | |
| BSW 3/8 - 16 | | 3528-3/8K | 77,15 | 1.50 | 14.22 | 15 | 9.90 | 3528-3/8I | 3500-HIT11 | 3500-TB12 | | |
| BSW 7/16 - 14 | | 3528-7/16K | 86,63 | 1.50 | 16.76 | 10 | 11.50 | 3528-7/16I | 3500-HIT14 | 3500-TB14 | | |
| BSW 1/2 - 12 | | 3528-1/2K | 95,07 | 1.50 | 19.05 | 10 | 13.00 | 3528-1/2I | 3500-HIT15 | 3500-TB15 | | |
| BSW 9/16 - 12 | | 3528-9/16K | 126,92 | 1.50 | 21.34 | 10 | – | 3528-9/16I | 3500-HIT16 | – | | |
| BSW 5/8 - 11 | | 3528-5/8K | 126,92 | 1.50 | 23.88 | 10 | – | 3528-5/8I | 3500-HIT18 | – | | |
| BSW 3/4 - 10 | | 3528-3/4K | 161,77 | 1.50 | 28.70 | 5 | – | 3528-3/4I | 3500-HIT20 | – | | |
| BSW 7/8 - 9 | | 3528-7/8K | 196,60 | 1.50 | 33.27 | 5 | – | 3528-7/8I | 3500-HIT22 | – | | |
| BSW 1 - 8 | | 3528-1K | 195,33 | 1.50 | 38.10 | 5 | – | 3528-1I | 3500-HIT23 | – | | |

BSF



...K

| | | | € | | | | | | | Conteúdo | | |
|---------------|--|-------------------|---------------|------|-------|----|------|------------|------------|-----------|--|--|
| | | | | D | L mm | | | | | | | |
| BSF 3/16 - 32 | | 3530-3/16K | 65,47 | 1.50 | 7.11 | 20 | 5.0 | 3530-3/16I | 3500-HIT8 | 3500-TB6 | | |
| BSF 1/4 - 26 | | 3530-1/4K | 58,99 | 1.50 | 9.65 | 20 | 6.6 | 3530-1/4I | 3500-HIT9 | 3500-TB9 | | |
| BSF 5/16 - 22 | | 3530-5/16K | 72,18 | 1.50 | 11.94 | 20 | 8.3 | 3530-5/16I | 3500-HIT11 | 3500-TB11 | | |
| BSF 3/8 - 20 | | 3530-3/8K | 77,15 | 1.50 | 14.22 | 15 | 9.9 | 3530-3/8I | 3500-HIT13 | 3500-TB12 | | |
| BSF 7/16 - 18 | | 3530-7/16K | 86,63 | 1.50 | 16.76 | 10 | 11.5 | 3530-7/16I | 3500-HIT14 | 3500-TB14 | | |
| BSF 1/2 - 16 | | 3530-1/2K | 95,07 | 1.50 | 19.05 | 10 | 13.0 | 3530-1/2I | 3500-HIT15 | 3500-TB15 | | |
| BSF 9/16 - 16 | | 3530-9/16K | 126,92 | 1.50 | 21.34 | 10 | – | 3530-9/16I | 3500-HIT16 | – | | |
| BSF 5/8 - 14 | | 3530-5/8K | 126,92 | 1.50 | 23.88 | 10 | – | 3530-5/8I | 3500-HIT18 | – | | |
| BSF 3/4 - 12 | | 3530-3/4K | 161,77 | 1.50 | 28.70 | 5 | – | 3530-3/4I | 3500-HIT20 | – | | |
| BSF 7/8 - 11 | | 3530-7/8K | 196,60 | 1.50 | 33.27 | 5 | – | 3530-7/8I | 3500-HIT22 | – | | |
| BSF 1 - 10 | | 3530-1K | 198,40 | 1.50 | 38.10 | 5 | – | 3530-1I | 3500-HIT23 | – | | |

JOGOS DE INSERTOS LIVRES



BSP
(GAS)

FREE

BSP

1.5D




AIISI 304

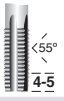
HSS









HSS




...K

powercoil
by CELESA
Rosa

|  |  | € |  |
|---|---|--------|---|
| | | | D L mm |
| BSP 1/8 - 28 | 3546-1/8K | 105,01 | 1.50 4.83 |
| BSP 1/4 - 19 | 3546-1/4K | 110,89 | 1.50 9.65 |
| BSP 3/8 - 19 | 3546-3/8K | 127,45 | 1.50 14.22 |
| BSP 1/2 - 14 | 3546-1/2K | 167,53 | 1.50 19.05 |
| BSP 5/8 - 14 | 3546-5/8K | 343,92 | 1.50 23.88 |
| BSP 3/4 - 14 | 3546-3/4K | 360,35 | 1.50 28.70 |
| BSP 7/8 - 14 | 3546-7/8K | 482,33 | 1.50 33.27 |
| BSP 1 - 11 | 3546-1K | 482,33 | 1.50 38.10 |

|    | | |
|---|-----------|------------|
| Conteúdo | | |
| 10 | 3546-1/8I | 3500-HIT14 |
| 10 | 3546-1/4I | 3500-HIT16 |
| 10 | 3546-3/8I | 3500-HIT20 |
| 10 | 3546-1/2I | 3500-HIT23 |
| 10 | 3546-5/8I | 3500-HIT23 |
| 10 | 3546-3/4I | 3500-HIT24 |
| 5 | 3546-7/8I | 3500-HIT27 |
| 5 | 3546-1I | 3500-HIT27 |

|  |  | € |  |
|---|---|--------|---|
| | | | D L mm |
| NPT 1/8 - 27 | 3552-1/8K | 255,34 | 1.50 4,78 |
| NPT 1/4 - 18 | 3552-1/4K | 288,63 | 1.50 9,53 |
| NPT 3/8 - 18 | 3552-3/8K | 366,37 | 1.50 14,30 |
| NPT 1/2 - 14 | 3552-1/2K | 478,93 | 1.50 19,05 |
| NPT 3/4 - 14 | 3552-3/4K | 585,35 | 1.50 28,58 |
| NPT 1 - 11.1/2 | 3552-1K | 776,90 | 1.50 38,10 |

|    | | |
|---|-----------|------------|
| Conteúdo | | |
| 10 | 3552-1/8I | 3500-HIT13 |
| 10 | 3552-1/4I | 3500-HIT16 |
| 10 | 3552-3/8I | 3500-HIT18 |
| 10 | 3552-1/2I | 3500-HIT22 |
| 10 | 3552-3/4I | 3500-HIT24 |
| 10 | 3552-1I | 3500-HIT27 |

JOGOS DE INSERTOS LIVRES

UNx8



FREE



8-UN



1.5D



AISI 304



HSS



HSS

...K



| UN | D x L | Part No. | € | D L mm | |
|--------------|-------|-------------|----------|--------|-------|
| | | | | D | L mm |
| UN 1.1/8 - 8 | | 3570-1.1/8K | 585,35 | 1.50 | 42.88 |
| UN 1.1/4 - 8 | | 3570-1.1/4K | 713,07 | 1.50 | 47.63 |
| UN 1.3/8 - 8 | | 3570-1.3/8K | 883,34 | 1.50 | 52.37 |
| UN 1.1/2 - 8 | | 3570-1.1/2K | 776,90 | 1.50 | 57.15 |
| UN 1.5/8 - 8 | | 3570-1.5/8K | 1.096,19 | 1.50 | 61.93 |
| UN 1.3/4 - 8 | | 3570-1.3/4K | 1.138,76 | 1.50 | 66.68 |
| UN 1.7/8 - 8 | | 3570-1.7/8K | 1.287,75 | 1.50 | 71.42 |
| UN 2 - 8 | | 3570-2K | 1.436,77 | 1.50 | 76.20 |

| Conteúdo | | |
|----------|-------------|------------|
| 3 | 3570-1.1/8I | 3500-HIT25 |
| 3 | 3570-1.1/4I | 3500-HIT26 |
| 3 | 3570-1.3/8I | 3500-HIT27 |
| 3 | 3570-1.1/2I | 3500-HIT28 |
| 3 | 3570-1.5/8I | 3500-HIT28 |
| 3 | 3570-1.3/4I | 3500-HIT28 |
| 3 | 3570-1.7/8I | 3500-HIT30 |
| 3 | 3570-2I | 3500-HIT30 |



BA



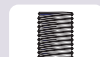
FREE



BA



1.5D



AISI 304



HSS



HSS

...K

| BA | D | L mm | € | D L mm | |
|------|---|------|--------|--------|------|
| | | | | D | L mm |
| BA 0 | | 8.99 | 124,99 | 1.50 | 8.99 |
| BA 2 | | 7.06 | 124,99 | 1.50 | 7.06 |
| BA 4 | | 5.41 | 124,99 | 1.50 | 5.41 |
| BA 6 | | 4.19 | 137,34 | 1.50 | 4.19 |

| Conteúdo | | | | |
|----------|------|---------|-----------|-----------|
| 20 | 6.20 | 3544-0I | 3500-HIT9 | 3500-TB11 |
| 20 | 4.90 | 3544-2I | 3500-HIT7 | 3500-TB8 |
| 20 | 3.80 | 3544-4I | 3500-HIT5 | 3500-TB5 |
| 20 | 2.90 | 3544-6I | 3500-HIT3 | 3500-TB3 |

JOGOS DE INSERTOS LIVRES

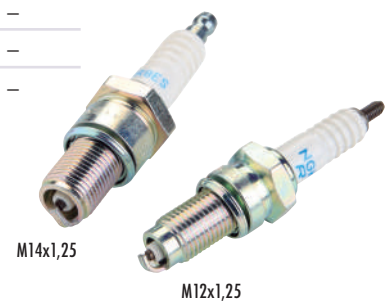


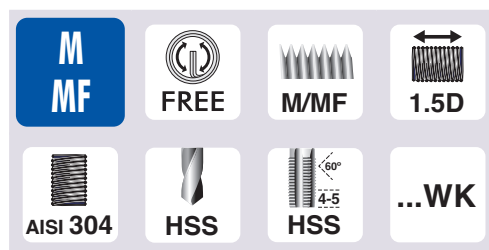
| | | € | | | | | | | |
|---------------|-------------------|---------------|------|-------|----------|------|------------|------------|-----------|
| | | | D | L mm | Conteúdo | | | | |
| BSB 1/4/26 | 3560-1/4K | 152,97 | 1.50 | 9,53 | 20 | 6.6 | 3560-1/4I | 3500-HIT10 | 3500-TB9 |
| BSB 5/16 - 26 | 3560-5/16K | 121,56 | 1.50 | 11,91 | 20 | 8.0 | 3560-5/16I | 3500-HIT11 | 3500-TB12 |
| BSB 3/8/26 | 3560-3/8K | 131,69 | 1.50 | 14,30 | 15 | 9.8 | 3560-3/8I | 3500-HIT13 | 3500-TB13 |
| BSB 7/16 - 26 | 3560-7/16K | 141,83 | 1.50 | 16,66 | 10 | 11.1 | 3560-7/16I | 3500-HIT14 | 3500-TB14 |
| BSB 1/2/26 | 3560-1/2K | 151,97 | 1.50 | 19,05 | 10 | 12.7 | 3560-1/2I | 3500-HIT15 | 3500-TB15 |




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| | | € | | | | | | |
|-------------|---------------------|---------------|-------|----------|----------|--------------|------------|-----------|
| | | | D | L mm | Conteúdo | | | |
| M 10 x 1.00 | 3522-10.00K | 110,95 | - | 1/2" | 5 | 3520-10.00PN | 3500-HIT13 | 3500-TB13 |
| | | | - | 0.339 mm | 5 | - | - | - |
| M 12 x 1.25 | 3522-12.00K | 135,23 | - | 1/2" | 5 | 3522-12.00PN | 3500-HIT15 | 3500-TB15 |
| | | | - | 3/4" | 5 | - | - | - |
| M 14 x 1.25 | 3522-14.00K | 121,25 | - | 3/8" | 5 | 3522-14.00PN | 3500-HIT17 | - |
| | | | - | 1/2" | 5 | - | - | - |
| | | | - | 3/4" | 5 | - | - | - |
| M 18 x 1.50 | 3522-18.00K | 219,53 | - | 1/2" | 5 | 3522-18.00PN | 3500-HIT20 | - |
| M 14 x 1.25 | 3522-14.00K1 | 116,98 | 8.40 | - | 5 | 3522-14.00PN | 3500-HIT17 | - |
| | | | 12.40 | - | 5 | - | - | - |
| | | | 16.40 | - | 5 | - | - | - |



JOGOS DE INSERTOS LIVRES


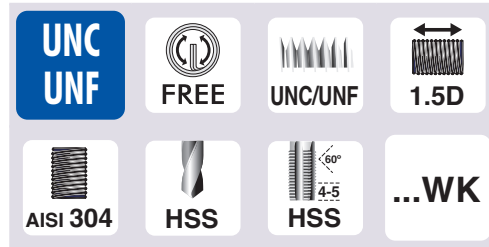
| |  |  | |  | | | | |
|-----------------|---|---|-------|--|-------|-------------|------------|-----------|
| | | D | L mm | SET M5 - M12 | | | | |
| | M 5 x 0.80 | 1.50 | 7.50 | 25 | 5.20 | 3520-5.00I | 3500-HIT8 | 3500-TB8 |
| | M 6 x 1.00 | 1.50 | 9.00 | 25 | 6.30 | 3520-6.00I | 3500-HIT9 | 3500-TB9 |
| | M 8 x 1.25 | 1.50 | 12.00 | 25 | 8.30 | 3520-8.00I | 3500-HIT11 | 3500-TB12 |
| 3520-WK1 | M 10 x 1.50 | 1.50 | 15.00 | 25 | 10.40 | 3520-10.00I | 3500-HIT13 | 3500-TB13 |
| 358,47 € | M 12 x 1.75 | 1.50 | 18.00 | 10 | 12.50 | 3520-12.00I | 3500-HIT15 | 3500-TB15 |



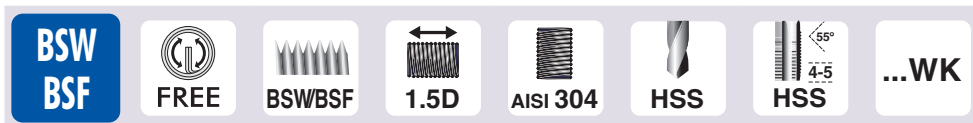
M14x1,25

| |  |  | |  | | | | | |
|-----------------|---|---|-------|--|-------|-------------|--------------|------------|-----------|
| | | D | L mm | VELA DE IGNIÇÃO M6 - M12 + M14 X 1.25 | | | | | |
| | M 6 x 1.00 | 1.50 | 9.00 | 25 | 6.30 | 3520-6.00I | - | 3500-HIT9 | 3500-TB9 |
| | M 8 x 1.25 | 1.50 | 12.00 | 25 | 8.30 | 3520-8.00I | - | 3500-HIT11 | 3500-TB12 |
| | M 10 x 1.50 | 1.50 | 15.00 | 25 | 10.40 | 3520-10.00I | - | 3500-HIT13 | 3500-TB13 |
| | M 12 x 1.75 | 1.50 | 18.00 | 10 | 12.50 | 3520-12.00I | - | 3500-HIT15 | 3500-TB15 |
| | M 14 x 1.25 | - | 8.40 | 5 | 14.25 | - | 3522-14.00PN | 3500-HIT17 | - |
| 3522-WK4 | | - | 12.40 | 5 | - | - | - | - | - |
| 413,08 € | | - | 16.40 | 5 | - | - | - | - | - |

JOGOS DE INSERTOS LIVRES



| | | | D | L mm | SET UNC 1/4" - 1/2" | | | | |
|-----------------|-----|-----------|------|-------|---------------------|-------|------------|------------|-----------|
| | UNC | 1/4 - 20 | 1.50 | 9.65 | 25 | 6.70 | 3532-1/4I | 3500-HIT9 | 3500-TB9 |
| | UNC | 5/16 - 18 | 1.50 | 11.94 | 25 | 8.30 | 3532-5/16I | 3500-HIT10 | 3500-TB12 |
| | UNC | 3/8 - 16 | 1.50 | 14.48 | 25 | 9.90 | 3532-3/8I | 3500-HIT13 | 3500-TB12 |
| 3532-WK1 | UNC | 7/16 - 14 | 1.50 | 16.76 | 10 | 11.60 | 3532-7/16I | 3500-HIT14 | 3500-TB14 |
| 447,97 € | UNC | 1/2 - 13 | 1.50 | 19.05 | 10 | 13.00 | 3532-1/2I | 3500-HIT15 | 3500-TB15 |
| | | | D | L mm | SET UNF 1/4" - 1/2" | | | | |
| | UNF | 1/4 - 28 | 1.50 | 9.65 | 25 | 6.70 | 3534-1/4I | 3500-HIT9 | 3500-TB9 |
| | UNF | 5/16 - 24 | 1.50 | 11.94 | 25 | 8.30 | 3534-5/16I | 3500-HIT11 | 3500-TB12 |
| | UNF | 3/8 - 24 | 1.50 | 14.48 | 25 | 9.80 | 3534-3/8I | 3500-HIT13 | 3500-TB12 |
| 3534-WK1 | UNF | 7/16 - 20 | 1.50 | 16.76 | 10 | 11.50 | 3534-7/16I | 3500-HIT14 | 3500-TB14 |
| 447,97 € | UNF | 1/2 - 20 | 1.50 | 19.05 | 10 | 13.00 | 3534-1/2I | 3500-HIT15 | 3500-TB15 |



| | | | D | L mm | SET BSW 1/4" - 1/2" | | | | |
|-----------------|-----|-----------|------|-------|---------------------|-------|------------|------------|-----------|
| | BSW | 1/4 - 20 | 1.50 | 9.65 | 25 | 6.70 | 3528-1/4I | 3500-HIT9 | 3500-TB9 |
| | BSW | 5/16 - 18 | 1.50 | 11.94 | 25 | 8.30 | 3528-5/16I | 3500-HIT10 | 3500-TB11 |
| | BSW | 3/8 - 16 | 1.50 | 14.48 | 25 | 10.00 | 3528-3/8I | 3500-HIT11 | 3500-TB12 |
| 3528-WK1 | BSW | 7/16 - 14 | 1.50 | 16.76 | 10 | 11.60 | 3528-7/16I | 3500-HIT14 | 3500-TB14 |
| 447,97 € | BSW | 1/2 - 12 | 1.50 | 19.05 | 10 | 13.00 | 3528-1/2I | 3500-HIT15 | 3500-TB15 |
| | | | D | L mm | SET BSF 1/4" - 1/2" | | | | |
| | BSF | 1/4 - 26 | 1.50 | 9.65 | 25 | 6.60 | 3530-1/4I | 3500-HIT9 | 3500-TB9 |
| | BSF | 5/16 - 22 | 1.50 | 11.94 | 25 | 8.30 | 3530-5/16I | 3500-HIT11 | 3500-TB11 |
| | BSF | 3/8 - 20 | 1.50 | 14.48 | 25 | 9.80 | 3530-3/8I | 3500-HIT13 | 3500-TB12 |
| 3530-WK1 | BSF | 7/16 - 18 | 1.50 | 16.76 | 10 | 11.60 | 3530-7/16I | 3500-HIT14 | 3500-TB14 |
| 447,97 € | BSF | 1/2 - 16 | 1.50 | 19.05 | 10 | 13.25 | 3530-1/2I | 3500-HIT15 | 3500-TB15 |

EXPOSITORES DE INSERTOS LIVRES



330 x 360 x 515 mm

CONTEÚDO DO EXPOSITOR




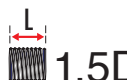
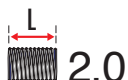
| ESTOJOS | | | BLISTERS | | |
|------------------------|---------|------------|----------|----------------|------------------|
| | | | | | |
| | | | 5 | M 3x0.5-1.5D | 3520-3.00x1.5DP |
| | | | 5 | M 4x0.7-1.5D | 3520-4.00x1.5DP |
| 4 | M5x0.8 | 3520-5.00K | 5 | M 5x0.8-1.5D | 3520-5.00x1.5DP |
| | | | 5 | M 6x1.0-1.0D | 3520-6.00x1.0DP |
| 4 | M6x1.0 | 3520-6.00K | 5 | M 6x1.0-1.5D | 3520-6.00x1.5DP |
| 3 | M8x1.25 | 3520-8.00K | 3 | M 8x1.25-1.0D | 3520-8.00x1.0DP |
| | | | 5 | M 8x1.25-2.0D | 3520-8.00x2.0DP |
| | | | 5 | M 10x1.5-1.5D | 3520-10.00x1.5DP |
| | | | 5 | M 10x1.5-2.0D | 3521-10.00x2.0DP |
| | | | 5 | M 12x1.75-1.5D | 3520-12.00x1.5DP |
| | | | 3 | M 16x2.0-1.5D | 3520-16.00x1.5DP |
| VELA DE IGNIÇÃO | | | | | |
| | | | 5 | M 14x1.25-1/2" | M14x1.25-1/2P |

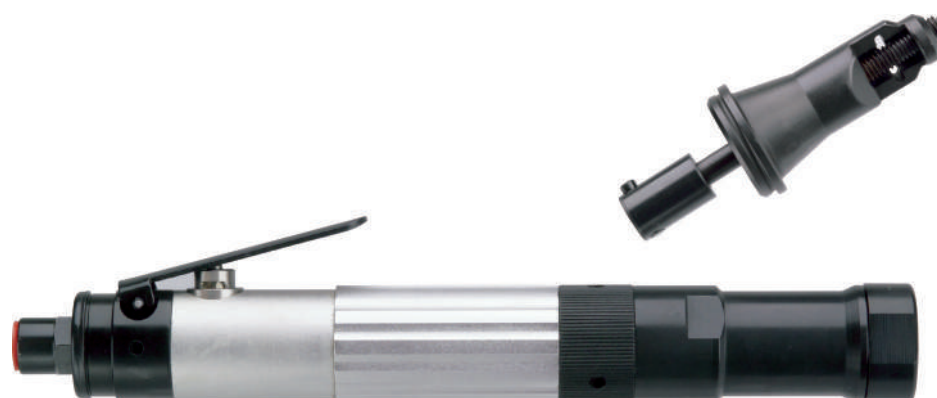
1-89

1.014,07 €

INSERTOS LIVRES EM CARRETO

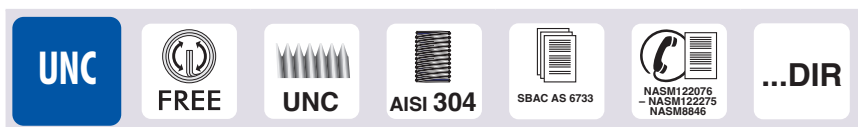


|  |  |  1.0D | |  1.5D | |  2.0D | |
|---|---|--|-------------|--|--------------|---|---|
| | | L mm | € | L mm | € | L mm | € |
| M 2.20 x 0.45 | 3520-2.20 | 1000 | 2.20 433,63 | 3.30 439,91 | 4.40 474,47 | | |
| M 2.50 x 0.45 | 3520-2.50 | 1000 | 2.50 207,70 | 3.75 223,10 | 5.00 251,38 | | |
| M 3 x 0.50 | 3520-3.00 | 1000 | 3.00 194,83 | 4.50 223,10 | 6.00 241,94 | | |
| M 4 x 0.70 | 3520-4.00 | 1000 | 4.00 191,68 | 6.00 204,24 | 8.00 226,23 | | |
| M 5 x 0.80 | 3520-5.00 | 1000 | 5.00 191,68 | 7.50 226,55 | 10.00 245,57 | | |
| M 6 x 1.00 | 3520-6.00 | 500 | 6.00 118,68 | 9.00 127,41 | 12.00 165,60 | | |
| M 8 x 1.00 | 3521-8.00 | 250 | 8.00 89,17 | 12.00 95,17 | 16.00 120,89 | | |
| M 8 x 1.25 | 3520-8.00 | 250 | 8.00 75,01 | 12.00 82,31 | 16.00 113,17 | | |
| M 10 x 1.50 | 3520-10.00 | 250 | 10.00 99,78 | 15.00 113,17 | 20.00 131,19 | | |
| M 12 x 1.75 | 3520-12.00 | 125 | 12.00 70,77 | 18.00 83,86 | 24.00 99,02 | | |

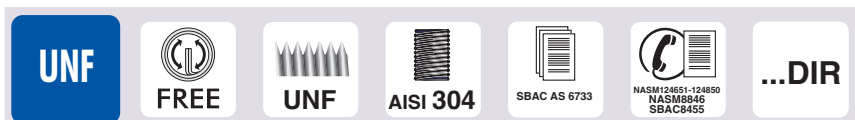


| |  1.0D |  1.5D |  2.0D |
|------------|--|--|--|
| M 6 x 1.00 | 3520-6.00x1.0DIR | 3520-6.00x1.5DIR | 3520-6.00x2.0DIR |

INSERTOS LIVRES EM CARRETO



| | | | | 1.0D | | 1.5D | | 2.0D | |
|-----|-----------|------------------|------|------|--------|-------|--------|-------|--------|
| | | | L mm | € | L mm | € | L mm | € | |
| UNC | Nº2 - 56 | 3532-2G | 1000 | 2.29 | 574,14 | 3.30 | 672,16 | 4.32 | 868,19 |
| UNC | Nº4 - 40 | 3532-4G | 1000 | 2.79 | 210,09 | 4.32 | 219,26 | 5.59 | 224,05 |
| UNC | Nº5 - 40 | 3532-5G | 1000 | 3.30 | 231,05 | 4.83 | 245,05 | 6.35 | 259,07 |
| UNC | Nº6 - 32 | 3532-6G | 1000 | 3.56 | 208,18 | 5.33 | 233,15 | 7.11 | 249,82 |
| UNC | Nº8 - 32 | 3532-8G | 1000 | 4.06 | 208,18 | 6.35 | 233,15 | 8.38 | 249,82 |
| UNC | Nº10 - 24 | 3532-10G | 1000 | 4.83 | 224,05 | 7.37 | 235,20 | 9.65 | 245,05 |
| UNC | 1/4 - 20 | 3532-1/4 | 500 | 6.35 | 145,25 | 9.65 | 162,84 | 12.70 | 176,04 |
| UNC | 5/16 - 18 | 3532-5/16 | 250 | 7.87 | 110,03 | 11.94 | 132,53 | 15.75 | 140,03 |
| UNC | 3/8 - 16 | 3532-3/8 | 250 | 9.65 | 170,04 | 14.48 | 194,65 | 19.30 | 222,56 |



| | | | | 1.0D | | 1.5D | | 2.0D | |
|-----|-----------|------------------|------|------|--------|-------|--------|-------|--------|
| | | | L mm | € | L mm | € | L mm | € | |
| UNF | Nº4 - 48 | 3534-4G | 1000 | 2.79 | 512,69 | 4.32 | 581,97 | 5.59 | 775,97 |
| UNF | Nº6 - 40 | 3534-6G | 1000 | 3.56 | 512,69 | 5.33 | 581,97 | 7.11 | 775,97 |
| UNF | Nº8 - 36 | 3534-8G | 1000 | 4.06 | 512,69 | 6.35 | 581,97 | 8.38 | 775,97 |
| UNF | Nº10 - 32 | 3534-10G | 1000 | 4.83 | 221,70 | 7.37 | 228,64 | 9.65 | 277,14 |
| UNF | 1/4 - 28 | 3534-1/4 | 500 | 6.35 | 143,69 | 9.65 | 154,57 | 12.70 | 174,20 |
| UNF | 5/16 - 24 | 3534-5/16 | 250 | 7.87 | 108,87 | 11.94 | 116,29 | 15.75 | 138,56 |
| UNF | 3/8 - 24 | 3534-3/8 | 250 | 9.65 | 160,84 | 14.48 | 168,26 | 19.30 | 202,90 |



| | 1.0D | 1.5D | 2.0D |
|--------------|-----------------|-----------------|-----------------|
| UNC 1/4 - 20 | 3532-1/4x1.0DIR | 3532-1/4x1.5DIR | 3532-1/4x2.0DIR |

INSERTOS AUTO-BLOQUEADORES EM CARRETO



1.0D 1.5D 2.0D




| | D x L | 3520-... | QTY | 1.0D | | 1.5D | | 2.0D | |
|---|-------------|------------|------|-------|--------|-------|--------|-------|--------|
| | | | | L mm | € | L mm | € | L mm | € |
| M | 2.20 x 0.45 | 3520-2.20 | 1000 | 2.20 | 537,35 | 3.30 | 628,43 | 4.40 | 659,86 |
| M | 2.50 x 0.45 | 3520-2.50 | 1000 | 2.50 | 277,35 | 3.75 | 284,31 | 5.00 | 377,07 |
| M | 3 x 0.50 | 3520-3.00 | 1000 | 3.00 | 238,83 | 4.50 | 274,56 | 6.00 | 314,21 |
| M | 4 x 0.70 | 3520-4.00 | 1000 | 4.00 | 268,70 | 6.00 | 282,80 | 8.00 | 289,11 |
| M | 5 x 0.80 | 3520-5.00 | 1000 | 5.00 | 268,70 | 7.50 | 298,52 | 10.00 | 345,64 |
| M | 6 x 1.00 | 3520-6.00 | 500 | 6.00 | 159,38 | 9.00 | 166,34 | 12.00 | 202,31 |
| M | 8 x 1.00 | 3521-8.00 | 250 | 8.00 | 114,30 | 12.00 | 127,39 | 16.00 | 145,07 |
| M | 8 x 1.25 | 3520-8.00 | 250 | 8.00 | 95,30 | 12.00 | 113,17 | 16.00 | 132,33 |
| M | 10 x 1.50 | 3520-10.00 | 250 | 10.00 | 119,74 | 15.00 | 155,68 | 20.00 | 157,41 |
| M | 12 x 1.75 | 3520-12.00 | 125 | 12.00 | 87,98 | 18.00 | 109,68 | 24.00 | 119,60 |

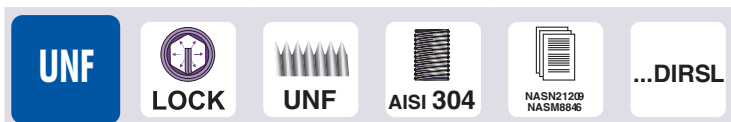





| | 1.0D | 1.5D | 2.0D |
|------------|--------------------|--------------------|--------------------|
| M 3 x 0.50 | 3520-3.00x1.0DIRSL | 3520-3.00x1.5DIRSL | 3520-3.00x2.0DIRSL |

INSERTOS AUTO-BLOQUEADORES EM CARRETO



|  |  |  | 1.0D | | 1.5D | | 2.0D | |
|---|---|---|------|---------------|-------|---------------|-------|-----------------|
| | | | L mm | € | L mm | € | L mm | € |
| UNC Nº2 - 56 | 3532-2G | 1000 | 2.29 | 688,97 | 3.30 | 806,59 | 4.32 | 1.041,85 |
| UNC Nº4 - 40 | 3532-4G | 1000 | 2.79 | 268,85 | 4.32 | 282,85 | 5.59 | 307,11 |
| UNC Nº5 - 40 | 3532-5G | 1000 | 3.30 | 310,88 | 4.83 | 328,05 | 6.35 | 339,94 |
| UNC Nº6 - 32 | 3532-6G | 1000 | 3.56 | 249,82 | 5.33 | 279,78 | 7.11 | 299,79 |
| UNC Nº8 - 32 | 3532-8G | 1000 | 4.06 | 249,82 | 6.35 | 279,78 | 8.38 | 299,79 |
| UNC Nº10 - 24 | 3532-10G | 1000 | 4.83 | 268,85 | 7.37 | 278,21 | 9.65 | 294,07 |
| UNC 1/4 - 20 | 3532-1/4 | 500 | 6.35 | 176,02 | 9.65 | 197,35 | 12.70 | 213,35 |
| UNC 5/16 - 18 | 3532-5/16 | 250 | 7.87 | 135,81 | 11.94 | 163,59 | 15.75 | 172,84 |
| UNC 3/8 - 16 | 3532-3/8 | 250 | 9.65 | 209,88 | 14.48 | 217,81 | 19.30 | 274,70 |




|  |  |  | 1.0D | | 1.5D | | 2.0D | |
|---|---|---|------|---------------|-------|---------------|-------|---------------|
| | | | L mm | € | L mm | € | L mm | € |
| UNF Nº4 - 48 | 3534-4G | 1000 | 2.79 | 615,24 | 4.32 | 698,38 | 5.59 | 931,17 |
| UNF Nº6 - 40 | 3534-6G | 1000 | 3.56 | 615,24 | 5.33 | 698,38 | 7.11 | 931,17 |
| UNF Nº8 - 36 | 3534-8G | 1000 | 4.06 | 615,24 | 6.35 | 698,38 | 8.38 | 931,17 |
| UNF Nº10 - 32 | 3534-10G | 1000 | 4.83 | 266,05 | 7.37 | 274,37 | 9.65 | 332,56 |
| UNF 1/4 - 28 | 3534-1/4 | 500 | 6.35 | 176,15 | 9.65 | 188,91 | 12.70 | 212,60 |
| UNF 5/16 - 24 | 3534-5/16 | 250 | 7.87 | 135,81 | 11.94 | 145,07 | 15.75 | 172,84 |
| UNF 3/8 - 24 | 3534-3/8 | 250 | 9.65 | 200,62 | 14.48 | 209,88 | 19.30 | 253,09 |



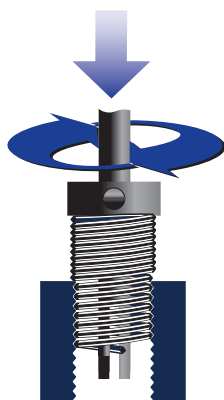
| | 1.0D | 1.5D | 2.0D |
|--------------|-------------------|-------------------|-------------------|
| UNF 1/4 - 28 | 3534-1/4x1.0DIRSL | 3534-1/4x1.5DIRSL | 3534-1/4x2.0DIRSL |

FERRAMENTAS PNEUMÁTICAS



|  | | € | | € | | € | | € | | € |
|--|---------------|--------|----------------|--------|----------------|--------|-----------|----------|-----------|----------|
| M 2.20 x 0.45 | 3520-2.20MIP | 453,58 | 3520-2.20MIPM | 165,55 | 3520-2.20MIPN | 289,15 | 3500-MIP1 | 1.778,53 | - | |
| M 2.50 x 0.45 | 3520-2.50MIP | 289,15 | 3520-2.50MIPM | 104,33 | 3520-2.50MIPN | 185,96 | 3500-MIP1 | 1.778,53 | - | |
| M 3 x 0.50 | 3520-3.00MIP | 289,15 | 3520-3.00MIPM | 104,33 | 3520-3.00MIPN | 185,96 | 3500-MIP1 | 1.778,53 | - | |
| M 3.50 x 0.60 | 3520-3.50MIP | 453,58 | 3520-3.50MIPM | 165,55 | 3520-3.50MIPN | 289,15 | 3500-MIP1 | 1.778,53 | - | |
| M 4 x 0.70 | 3520-4.00MIP | 289,15 | 3520-4.00MIPM | 104,33 | 3520-4.00MIPN | 185,96 | 3500-MIP1 | 1.778,53 | - | |
| M 5 x 0.80 | 3520-5.00MIP | 289,15 | 3520-5.00MIPM | 104,33 | 3520-5.00MIPN | 185,96 | 3500-MIP1 | 1.778,53 | - | |
| M 6 x 1.00 | 3520-6.00MIP | 289,15 | 3520-6.00MIPM | 104,33 | 3520-6.00MIPN | 185,96 | 3500-MIP1 | 1.778,53 | - | |
| M 8 x 1.00 | 3521-8.00MIP | 617,99 | 3521-8.00MIPM | 226,79 | 3521-8.00MIPN | 392,34 | - | | 3500-MIP2 | 2.122,25 |
| M 8 x 1.25 | 3520-8.00MIP | 617,99 | 3520-8.00MIPM | 226,79 | 3520-8.00MIPN | 392,34 | - | | 3500-MIP2 | 2.122,25 |
| M 10 x 1.00 | 3523-10.00MIP | 617,99 | 3523-10.00MIPM | 226,79 | 3523-10.00MIPN | 392,34 | - | | 3500-MIP2 | 2.122,25 |
| M 10 x 1.25 | 3521-10.00MIP | 617,99 | 3521-10.00MIPM | 226,79 | 3521-10.00MIPN | 392,34 | - | | 3500-MIP2 | 2.122,25 |
| M 10 x 1.50 | 3520-10.00MIP | 617,99 | 3520-10.00MIPM | 226,79 | 3520-10.00MIPN | 392,34 | - | | 3500-MIP2 | 2.122,25 |
| M 12 x 1.25 | 3523-12.00MIP | 700,77 | 3523-12.00MIPM | 268,75 | 3523-12.00MIPN | 433,16 | - | | 3500-MIP2 | 2.122,25 |
| M 12 x 1.50 | 3521-12.00MIP | 700,77 | 3521-12.00MIPM | 268,75 | 3521-12.00MIPN | 433,16 | - | | 3500-MIP2 | 2.122,25 |
| M 12 x 1.75 | 3520-12.00MIP | 700,77 | 3520-12.00MIPM | 268,75 | 3520-12.00MIPN | 433,16 | - | | 3500-MIP2 | 2.122,25 |

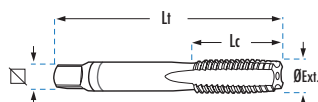
FERRAMENTAS PNEUMÁTICAS



| | | € | | € | | € | | € | | € |
|---------------|--------------|--------|---------------|--------|---------------|--------|-----------|----------|-----------|----------|
| UNC Nº2 - 56 | 3532-2GMIP | 426,36 | 3532-2GMIPM | 165,55 | 3532-2GMIPN | 261,93 | 3500-MIP1 | 1.778,53 | - | - |
| UNC Nº4 - 40 | 3532-4GMIP | 289,15 | 3532-4GMIPM | 104,33 | 3532-4GMIPN | 185,96 | 3500-MIP1 | 1.778,53 | - | - |
| UNC Nº5 - 40 | 3532-5GMIP | 453,58 | 3532-5GMIPM | 165,55 | 3532-5GMIPN | 289,15 | 3500-MIP1 | 1.778,53 | - | - |
| UNC Nº6 - 32 | 3532-6GMIP | 289,15 | 3532-6GMIPM | 104,33 | 3532-6GMIPN | 185,96 | 3500-MIP1 | 1.778,53 | - | - |
| UNC Nº8 - 32 | 3532-8GMIP | 289,15 | 3532-8GMIPM | 104,33 | 3532-8GMIPN | 185,96 | 3500-MIP1 | 1.778,53 | - | - |
| UNC Nº10 - 24 | 3532-10GMIP | 289,15 | 3532-10GMIPM | 104,33 | 3532-10GMIPN | 185,96 | 3500-MIP1 | 1.778,53 | - | - |
| UNC Nº12 - 24 | 3532-12GMIP | 289,15 | 3532-12GMIPM | 104,33 | 3532-12GMIPN | 185,96 | 3500-MIP1 | 1.778,53 | - | - |
| UNC 1/4 - 20 | 3532-1/4MIP | 289,15 | 3532-1/4MIPM | 104,33 | 3532-1/4MIPN | 185,96 | 3500-MIP1 | 1.778,53 | - | - |
| UNC 5/16 - 18 | 3532-5/16MIP | 617,99 | 3532-5/16MIPM | 226,79 | 3532-5/16MIPN | 392,34 | - | - | 3500-MIP2 | 2.122,25 |
| UNC 3/8 - 16 | 3532-3/8MIP | 617,99 | 3532-3/8MIPM | 226,79 | 3532-3/8MIPN | 392,34 | - | - | 3500-MIP2 | 2.122,25 |
| UNC 7/16 - 14 | 3532-7/16MIP | 700,77 | 3532-7/16MIPM | 268,75 | 3532-7/16MIPN | 433,16 | - | - | 3500-MIP2 | 2.122,25 |
| UNC 1/2 - 13 | 3532-1/2MIP | 700,77 | 3532-1/2MIPM | 268,75 | 3532-1/2MIPN | 433,16 | - | - | 3500-MIP2 | 2.122,25 |

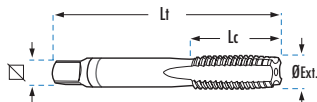


| | | € | | € | | € | | € | | € |
|---------------|---------------|--------|---------------|--------|---------------|--------|-----------|----------|-----------|----------|
| UNF Nº6 - 40 | 3534-6GMIPM | 453,58 | 3534-6GMIPM | 165,55 | 3534-6GMIPN | 289,15 | 3500-MIP1 | 1.778,53 | - | - |
| UNF Nº8 - 36 | 3534-8GMIPM | 453,58 | 3534-8GMIPM | 165,55 | 3534-8GMIPN | 289,15 | 3500-MIP1 | 1.778,53 | - | - |
| UNF Nº10 - 32 | 3534-10GMIPM | 289,15 | 3534-10GMIPM | 104,33 | 3534-10GMIPN | 185,96 | 3500-MIP1 | 1.778,53 | - | - |
| UNF 1/4 - 28 | 3534-1/4MIPM | 289,15 | 3534-1/4MIPM | 104,33 | 3534-1/4MIPN | 185,96 | 3500-MIP1 | 1.778,53 | - | - |
| UNF 5/16 - 24 | 3534-5/16MIPM | 617,99 | 3534-5/16MIPM | 226,79 | 3534-5/16MIPN | 392,34 | - | - | 3500-MIP2 | 2.122,25 |
| UNF 3/8 - 24 | 3534-3/8MIPM | 617,99 | 3534-3/8MIPM | 226,79 | 3534-3/8MIPN | 392,34 | - | - | 3500-MIP2 | 2.122,25 |
| UNF 7/16 - 20 | 3534-7/16MIPM | 700,77 | 3534-7/16MIPM | 268,75 | 3534-7/16MIPN | 433,16 | - | - | 3500-MIP2 | 2.122,25 |
| UNF 1/2 - 20 | 3534-1/2MIPM | 700,77 | 3534-1/2MIPM | 268,75 | 3534-1/2MIPN | 433,16 | - | - | 3500-MIP2 | 2.122,25 |

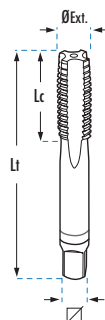
MACHOS DE MÃO E CALIBRES STI


| TOLERÂNCIA | | | | TOL 5H-6H | | TOL 5H-6H | | TOL 5H-6H | | TOL 5H-6H | |
|----------------------|-------|-------|-------------|-------------|-------|--------------|-------|--------------|-------|--------------|--------|
| MATERIAL | | | | HSS | | HSS-V3 | | HSS-V3 | | Calibre | |
| FORMA | | | | | | | | | | | |
| | | | | € | € | € | € | € | € | € | |
| M 2 x 0.40 | 2.10 | 2.52 | 44x9.5x2.2 | 3520-2.00I | 15,23 | 3520-2.00SP | 20,09 | 3520-2.00SF | 20,09 | 3520-2.00GC | 223,97 |
| M 2.20 x 0.45 | 2.30 | 2.78 | 48x11x2.5 | 3520-2.20I | 18,08 | 3520-2.20SP | 20,09 | 3520-2.20SF | 20,09 | 3520-2.20GC | 250,40 |
| M 2.50 x 0.45 | 2.60 | 3.08 | 48x11x2.5 | 3520-2.50I | 15,23 | 3520-2.50SP | 20,09 | 3520-2.50SF | 20,09 | 3520-2.50GC | 250,40 |
| M 3 x 0.50 | 3.20 | 3.65 | 53x13x3.15 | 3520-3.00I | 13,28 | 3520-3.00SP | 15,23 | 3520-3.00SF | 15,23 | 3520-3.00GC | 181,30 |
| M 3.50 x 0.60 | 3.70 | 4.27 | 53x13x3.55 | 3520-3.50I | 13,28 | 3520-3.50SP | 15,23 | 3520-3.50SF | 15,23 | 3520-3.50GC | 175,96 |
| M 4 x 0.70 | 4.20 | 4.90 | 58x16x4 | 3520-4.00I | 13,28 | 3520-4.00SP | 15,23 | 3520-4.00SF | 15,23 | 3520-4.00GC | 170,65 |
| M 5 x 0.80 | 5.20 | 6.03 | 66x19x5 | 3520-5.00I | 13,28 | 3520-5.00SP | 15,23 | 3520-5.00SF | 15,23 | 3520-5.00GC | 165,32 |
| M 6 x 1.00 | 6.30 | 7.29 | 72x22x6.3 | 3520-6.00I | 13,28 | 3520-6.00SP | 15,23 | 3520-6.00SF | 15,23 | 3520-6.00GC | 159,98 |
| M 7 x 1.00 | 7.30 | 8.29 | 72x22x7.1 | 3520-7.00I | 16,56 | 3520-7.00SP | 19,09 | 3520-7.00SF | 19,09 | 3520-7.00GC | 183,96 |
| M 8 x 1.00 | 8.30 | 9.29 | 80x24x8 | 3521-8.00I | 16,56 | 3521-8.00SP | 19,09 | 3521-8.00SF | 19,09 | 3521-8.00GC | 196,90 |
| M 8 x 1.25 | 8.30 | 9.62 | 80x24x8 | 3520-8.00I | 16,56 | 3520-8.00SP | 19,09 | 3520-8.00SF | 19,09 | 3520-8.00GC | 165,32 |
| M 9 x 1.25 | 9.40 | 10.62 | 85x25x6.3 | 3520-9.00I | 20,29 | 3520-9.00SP | 29,42 | 3520-9.00SF | 29,42 | 3520-9.00GC | 170,65 |
| M 10 x 1.00 | 10.30 | 11.29 | 85x25x6.3 | 3523-10.00I | 20,29 | 3523-10.00SP | 22,96 | 3523-10.00SF | 22,96 | 3523-10.00GC | 223,97 |
| M 10 x 1.25 | 10.30 | 11.62 | 85x25x6.3 | 3521-10.00I | 20,29 | 3521-10.00SP | 28,36 | 3521-10.00SF | 28,36 | 3521-10.00GC | 229,30 |
| M 10 x 1.50 | 10.40 | 11.94 | 89x29x7.1 | 3520-10.00I | 20,29 | 3520-10.00SP | 22,96 | 3520-10.00SF | 22,96 | 3520-10.00GC | 175,96 |
| M 11 x 1.00 | 11.30 | 12.29 | 89x29x7.1 | 3523-11.00I | 27,48 | 3523-11.00SP | 30,59 | 3523-11.00SF | 30,59 | 3523-11.00GC | 234,62 |
| M 11 x 1.25 | 11.30 | 12.62 | 89x29x7.1 | 3521-11.00I | 27,58 | 3521-11.00SP | 30,59 | 3521-11.00SF | 30,59 | 3521-11.00GC | 228,68 |
| M 11 x 1.50 | 11.40 | 12.94 | 89x29x7.1 | 3520-11.00I | 22,96 | 3520-11.00SP | 30,59 | 3520-11.00SF | 30,59 | 3520-11.00GC | 181,30 |
| M 12 x 1.00 | 12.30 | 13.29 | 95x30x9 | 3524-12.00I | 28,04 | 3524-12.00SP | 34,88 | 3524-12.00SF | 34,88 | 3524-12.00GC | 238,37 |
| M 12 x 1.25 | 12.30 | 13.62 | 95x30x9 | 3523-12.00I | 28,04 | 3523-12.00SP | 30,44 | 3523-12.00SF | 30,44 | 3523-12.00GC | 238,37 |
| M 12 x 1.50 | 12.40 | 14.13 | 95x30x9 | 3521-12.00I | 28,04 | 3521-12.00SP | 34,29 | 3521-12.00SF | 34,29 | 3521-12.00GC | 213,29 |
| M 12 x 1.75 | 12.50 | 14.27 | 95x30x9 | 3520-12.00I | 22,96 | 3520-12.00SP | 30,06 | 3520-12.00SF | 30,06 | 3520-12.00GC | 186,64 |
| M 13 x 1.25 | 13.25 | 14.62 | 95x30x9 | 3521-13.00I | 32,16 | 3521-13.00SP | 43,46 | 3521-13.00SF | 43,46 | 3521-13.00GC | 229,30 |
| M 13 x 1.75 | 13.50 | 15.27 | 102x32x10 | 3520-13.00I | 32,16 | 3520-13.00SP | 43,46 | 3520-13.00SF | 43,46 | 3520-13.00GC | 213,53 |
| M 14 x 1.00 | 14.25 | 15.29 | 102x32x10 | 3524-14.00I | 31,89 | 3524-14.00SP | 53,46 | 3524-14.00SF | 53,46 | 3524-14.00GC | 255,97 |
| M 14 x 1.25 | 14.25 | 15.62 | 102x32x10 | 3523-14.00I | 31,89 | 3523-14.00SP | 42,05 | 3523-14.00SF | 42,05 | 3523-14.00GC | 255,97 |
| M 14 x 1.50 | 14.50 | 15.94 | 102x32x10 | 3521-14.00I | 31,89 | 3521-14.00SP | 42,05 | 3521-14.00SF | 42,05 | 3521-14.00GC | 234,62 |
| M 14 x 2.00 | 14.50 | 16.59 | 102x32x10 | 3520-14.00I | 31,89 | 3520-14.00SP | 42,05 | 3520-14.00SF | 42,05 | 3520-14.00GC | 197,32 |
| M 15 x 1.50 | 15.25 | 16.94 | 102x32x10 | 3521-15.00I | 38,08 | 3521-15.00SP | 59,96 | 3521-15.00SF | 59,96 | 3521-15.00GC | 245,31 |
| M 15 x 2.00 | 15.50 | 17.59 | 112x37x11.2 | 3520-15.00I | 38,08 | 3520-15.00SP | 59,96 | 3520-15.00SF | 59,96 | 3520-15.00GC | 230,39 |
| M 16 x 1.50 | 16.50 | 17.94 | 112x37x11.2 | 3521-16.00I | 38,18 | 3521-16.00SP | 53,08 | 3521-16.00SF | 53,08 | 3521-16.00GC | 250,64 |
| M 16 x 2.00 | 16.50 | 18.59 | 112x37x11.2 | 3520-16.00I | 38,18 | 3520-16.00SP | 44,46 | 3520-16.00SF | 44,46 | 3520-16.00GC | 218,64 |

MACHOS DE MÃO E CALIBRES STI

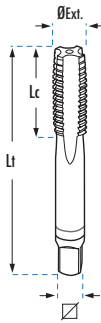


| TOLERÂNCIA | | | | TOL 5H-6H | | TOL 5H-6H | | TOL 5H-6H | | TOL 5H-6H | |
|--------------------|--------|-------|-------------|-------------|--------|--------------|--------|--------------|--------|--------------|--------|
| MATERIAL | | | | HSS | | HSS-V3 | | HSS-V3 | | Calibre | |
| FORMA | | | | FORMA A | | FORMA B | | FORMA C | | FORMA D | |
| Ø | Ø Ext. | Lt | Lc | € | € | € | € | € | € | € | € |
| M 18 x 1.50 | 18.50 | 19.94 | 112x37x11.2 | 3523-18.00I | 48,33 | 3523-18.00SP | 66,96 | 3523-18.00SF | 66,96 | 3523-18.00GC | 254,96 |
| M 18 x 2.00 | 18.50 | 20.59 | 112x37x11.2 | 3521-18.00I | 48,33 | 3521-18.00SP | 66,96 | 3521-18.00SF | 66,96 | 3521-18.00GC | 261,28 |
| M 18 x 2.50 | 19.00 | 21.24 | 118x38x12.5 | 3520-18.00I | 48,33 | 3520-18.00SP | 66,96 | 3520-18.00SF | 66,96 | 3520-18.00GC | 234,62 |
| M 20 x 1.50 | 20.50 | 21.94 | 118x38x12.5 | 3523-20.00I | 53,15 | 3523-20.00SP | 78,88 | 3523-20.00SF | 78,88 | 3523-20.00GC | 303,98 |
| M 20 x 2.00 | 20.50 | 22.59 | 118x38x12.5 | 3521-20.00I | 53,15 | 3521-20.00SP | 78,88 | 3521-20.00SF | 78,88 | 3521-20.00GC | 277,31 |
| M 20 x 2.50 | 20.75 | 23.24 | 118x38x12.5 | 3520-20.00I | 53,15 | 3520-20.00SP | 78,88 | 3520-20.00SF | 78,88 | 3520-20.00GC | 250,64 |
| M 22 x 1.50 | 22.50 | 23.94 | 130x45x14 | 3523-22.00I | 61,14 | 3523-22.00SP | 111,56 | 3523-22.00SF | 111,56 | 3523-22.00GC | 325,03 |
| M 22 x 2.00 | 22.50 | 24.59 | 130x45x14 | 3521-22.00I | 61,14 | 3521-22.00SP | 111,56 | 3521-22.00SF | 111,56 | 3521-22.00GC | 314,61 |
| M 22 x 2.50 | 22.75 | 25.24 | 130x45x14 | 3520-22.00I | 61,14 | 3520-22.00SP | 111,56 | 3520-22.00SF | 111,56 | 3520-22.00GC | 266,61 |
| M 24 x 1.50 | 24.50 | 25.94 | 130x45x14 | 3523-24.00I | 77,31 | 3523-24.00SP | 133,88 | 3523-24.00SF | 133,88 | 3523-24.00GC | 346,02 |
| M 24 x 2.00 | 24.50 | 26.59 | 127x37x16 | 3521-24.00I | 77,31 | 3521-24.00SP | 133,88 | 3521-24.00SF | 133,88 | 3521-24.00GC | 314,87 |
| M 24 x 3.00 | 25.00 | 27.89 | 135x45x16 | 3520-24.00I | 77,31 | 3520-24.00SP | 133,88 | 3520-24.00SF | 133,88 | 3520-24.00GC | 298,62 |
| M 26 x 1.50 | 26.50 | 27.94 | 127x37x16 | 3523-26.00I | 145,26 | - | - | - | - | - | - |
| M 27 x 1.50 | 27.50 | 28.97 | 127x37x16 | 3523-27.00I | 171,27 | - | - | - | - | - | - |
| M 27 x 2.00 | 27.50 | 29.59 | 127x37x16 | 3521-27.00I | 171,27 | - | - | - | - | - | - |
| M 27 x 3.00 | 28.00 | 30.89 | 151x51x18 | 3520-27.00I | 171,27 | - | - | - | - | - | - |
| M 28 x 1.50 | 28.50 | 29.99 | 137x37x18 | 3523-28.00I | 190,92 | - | - | - | - | - | - |
| M 30 x 1.50 | 30.50 | 31.96 | 137x37x18 | 3523-30.00I | 203,73 | - | - | - | - | - | - |
| M 30 x 2.00 | 30.50 | 32.59 | 137x37x18 | 3521-30.00I | 203,73 | - | - | - | - | - | - |
| M 30 x 3.50 | 31.00 | 34.54 | 162x57x20 | 3520-30.00I | 203,73 | - | - | - | - | - | - |
| M 33 x 2.00 | 33.50 | 35.59 | 144x39x20 | 3521-33.00I | 247,38 | - | - | - | - | - | - |
| M 33 x 3.50 | 34.00 | 37.54 | 170x60x22.4 | 3520-33.00I | 247,38 | - | - | - | - | - | - |
| M 36 x 1.50 | 36.50 | 37.92 | 149x39x22.4 | 3524-36.00I | 284,42 | - | - | - | - | - | - |
| M 36 x 2.00 | 36.50 | 38.55 | 149x39x22.4 | 3523-36.00I | 284,42 | - | - | - | - | - | - |
| M 36 x 3.00 | 37.00 | 39.89 | 170x60x22.4 | 3521-36.00I | 284,42 | - | - | - | - | - | - |
| M 36 x 4.00 | 37.00 | 41.19 | 170x60x22.4 | 3520-36.00I | 284,42 | - | - | - | - | - | - |
| M 39x3,00 | 40.00 | 42.90 | 149x39x26 | 3521-39.00I | 392,06 | - | - | - | - | - | - |
| M 39x4,00 | 40.25 | 44.20 | 187x67x28 | 3520-39.00I | 392,06 | - | - | - | - | - | - |
| M 40x3,00 | 41.00 | 43.90 | 149x39x26 | 3523-40.00I | 414,77 | - | - | - | - | - | - |
| M 42x3,00 | 43.00 | 45.90 | 165x45x28 | 3523-42.00I | 426,25 | - | - | - | - | - | - |
| M 42x4,50 | 43.50 | 47.90 | 187x67x28 | 3520-42.00I | 426,25 | - | - | - | - | - | - |
| M 45x3,00 | 46.00 | 48.90 | 175x45x31 | 3523-45.00I | 453,84 | - | - | - | - | - | - |
| M 45x4,50 | 46.50 | 50.90 | 200x70x31 | 3520-45.00I | 453,84 | - | - | - | - | - | - |
| M 48x3,00 | 49.00 | 51.90 | 175x45x31 | 3523-48.00I | 551,17 | - | - | - | - | - | - |
| M 48x5,00 | 49.50 | 54.50 | 200x70x31 | 3520-48.00I | 551,17 | - | - | - | - | - | - |
| M 50x3,00 | 51.00 | 53.90 | 175x45x31 | 3523-50.00I | 596,35 | - | - | - | - | - | - |
| M 52x3,00 | 53.00 | 55.90 | 193x48x34 | 3523-52.00I | 630,54 | - | - | - | - | - | - |
| M 52x5,00 | 53.50 | 58.50 | 221x76x34 | 3520-52.00I | 630,54 | - | - | - | - | - | - |

MACHOS DE MÃO E CALIBRES STI


| TOLERÂNCIA | | | | | TOL 2B-3B | | TOL 2B-3B | | TOL 2B-3B | | TOL 2B-3B | |
|--|-------|-------|-------------|-------------|---|-------------|---|-------------|---|-------------|---|---|
| MATERIAL | | | | | HSS | | HSS-V3 | | HSS-V3 | | Calibre | |
| FORMA | | | | |  | |  | |  | |  | |
|  | | | | | Ø Ext. | Lt x Lc x ∅ | € | € | € | € | € | € |
| UNC Nº2 - 56 | 2.40 | 2.77 | 44x9.5x2.2 | 3532-2GI | 20,29 | 3532-2GSP | 27,70 | 3532-2GSF | 27,70 | 3532-2GGC | 318,54 | |
| UNC Nº3 - 48 | 2.70 | 3.02 | 44x9.5x2.2 | 3532-3GI | 20,29 | 3532-3GSP | 29,31 | 3532-3GSF | 29,31 | 3532-3GGC | 318,54 | |
| UNC Nº4 - 40 | 3.00 | 3.67 | 53x13x3.15 | 3532-4GI | 20,29 | 3532-4GSP | 27,70 | 3532-4GSF | 27,70 | 3532-4GGC | 319,95 | |
| UNC Nº5 - 40 | 3.40 | 4.00 | 53x13x3.15 | 3532-5GI | 20,29 | 3532-5GSP | 27,70 | 3532-5GSF | 27,70 | 3532-5GGC | 318,57 | |
| UNC Nº6 - 32 | 3.70 | 4.53 | 58x16x4 | 3532-6GI | 20,29 | 3532-6GSP | 27,70 | 3532-6GSF | 27,70 | 3532-6GGC | 193,90 | |
| UNC Nº8 - 32 | 4.40 | 5.19 | 62x17x4.5 | 3532-8GI | 20,29 | 3532-8GSP | 27,70 | 3532-8GSF | 27,70 | 3532-8GGC | 189,05 | |
| UNC Nº10 - 24 | 5.10 | 6.20 | 66x19x5 | 3532-10GI | 20,29 | 3532-10GSP | 25,39 | 3532-10GSF | 25,39 | 3532-10GGC | 184,20 | |
| UNC Nº12 - 24 | 5.70 | 6.86 | 66x19x5.6 | 3532-12GI | 20,29 | 3532-12GSP | 25,39 | 3532-12GSF | 25,39 | 3532-12GGC | 184,20 | |
| UNC 1/4 - 20 | 6.70 | 8.00 | 72x22x6.3 | 3532-1/4I | 13,28 | 3532-1/4SP | 18,48 | 3532-1/4SF | 18,48 | 3532-1/4GC | 174,53 | |
| UNC 5/16 - 18 | 8.30 | 9.77 | 80x24x8 | 3532-5/16I | 16,47 | 3532-5/16SP | 21,92 | 3532-5/16SF | 21,92 | 3532-5/16GC | 184,20 | |
| UNC 3/8 - 16 | 9.90 | 11.58 | 85x25x6.3 | 3532-3/8I | 15,23 | 3532-3/8SP | 27,70 | 3532-3/8SF | 27,70 | 3532-3/8GC | 184,20 | |
| UNC 7/16 - 14 | 11.60 | 13.47 | 95x30x9 | 3532-7/16I | 20,29 | 3532-7/16SP | 31,50 | 3532-7/16SF | 31,50 | 3532-7/16GC | 193,90 | |
| UNC 1/2 - 13 | 13.00 | 15.23 | 102x32x10 | 3532-1/2I | 22,96 | 3532-1/2SP | 34,62 | 3532-1/2SF | 34,62 | 3532-1/2GC | 208,45 | |
| UNC 9/16 - 12 | 15.00 | 17.03 | 112x37x11.2 | 3532-9/16I | 38,18 | 3532-9/16SP | 57,70 | 3532-9/16SF | 57,70 | 3532-9/16GC | 222,99 | |
| UNC 5/8 - 11 | 16.50 | 18.87 | 112x37x11.2 | 3532-5/8I | 47,13 | 3532-5/8SP | 80,42 | 3532-5/8SF | 80,42 | 3532-5/8GC | 232,70 | |
| UNC 3/4 - 10 | 20.00 | 22.34 | 118x38x12.5 | 3532-3/4I | 57,27 | 3532-3/4SP | 81,56 | 3532-3/4SF | 81,56 | 3532-3/4GC | 266,61 | |
| UNC 7/8 - 9 | 23.00 | 25.89 | 130x45x14 | 3532-7/8I | 66,83 | 3532-7/8SP | 118,27 | 3532-7/8SF | 118,27 | 3532-7/8GC | 300,56 | |
| UNC 1 - 8 | 26.25 | 29.52 | 138x48x16 | 3532-1I | 66,83 | 3532-1SP | 138,47 | 3532-1SF | 138,47 | 3532-1GC | 339,34 | |
| UNC 1.1/8 - 7 | 29.50 | 33.28 | 151x51x18 | 3532-1.1/8I | 202,36 | - | - | - | - | - | - | |
| UNC 1.1/4 - 7 | 32.50 | 36.46 | 162x57x20 | 3532-1.1/4I | 242,78 | - | - | - | - | - | - | |
| UNC 1.3/8 - 6 | 36.00 | 40.42 | 170x60x22.4 | 3532-1.3/8I | 303,50 | - | - | - | - | - | - | |
| UNC 1.1/2 - 6 | 39.50 | 43.59 | 187x67x25 | 3532-1.1/2I | 393,36 | - | - | - | - | - | - | |

MACHOS DE MÃO E CALIBRES STI



| TOLERÂNCIA | | | | TOL 2B-3B | | TOL 2B-3B | | TOL 2B-3B | | TOL 2B-3B | |
|----------------|-------|--------|-------------------------|-------------|--------|-------------|--------|-------------|--------|-------------|--------|
| MATERIAL | | | | HSS | | HSS-V3 | | HSS-V3 | | Calibre | |
| FORMA | | | | | | | | | | | |
| | | | | € | | € | | € | | € | |
| | | Ø Ext. | Lt x Lc x \varnothing | | € | | € | | € | | € |
| UNF Nº3 - 56 | 2.70 | 3.09 | 44x9.5x2.2 | 3534-3GI | 21,23 | 3534-3GSP | 29,31 | 3534-3GSF | 29,31 | 3534-3GGC | 319,95 |
| UNF Nº4 - 48 | 3.00 | 3.53 | 50x13x2.80 | 3534-4GI | 20,29 | 3534-4GSP | 27,70 | 3534-4GSF | 27,70 | 3534-4GGC | 319,95 |
| UNF Nº6 - 40 | 3.70 | 4.33 | 53x13x3.55 | 3534-6GI | 20,29 | 3534-6GSP | 27,70 | 3534-6GSF | 27,70 | 3534-6GGC | 193,90 |
| UNF Nº8 - 36 | 4.40 | 5.08 | 62x17x4.50 | 3534-8GI | 20,29 | 3534-8GSP | 27,70 | 3534-8GSF | 27,70 | 3534-8GGC | 189,05 |
| UNF Nº10 - 32 | 5.10 | 5.85 | 66x19x5.00 | 3534-10GI | 20,29 | 3534-10GSP | 25,39 | 3534-10GSF | 25,39 | 3534-10GGC | 184,20 |
| UNF Nº12 - 28 | 5.80 | 6.75 | 66x19x5.60 | 3534-12GI | 23,25 | 3534-12GSP | 25,42 | 3534-12GSF | 25,42 | 3534-12GGC | 310,24 |
| UNF 1/4 - 28 | 6.60 | 7.52 | 72x22x6.30 | 3534-1/4I | 13,28 | 3534-1/4SP | 18,48 | 3534-1/4SF | 18,48 | 3534-1/4GC | 174,53 |
| UNF 5/16 - 24 | 8.20 | 9.31 | 80x24x8.00 | 3534-5/16I | 14,63 | 3534-5/16SP | 21,92 | 3534-5/16SF | 21,92 | 3534-5/16GC | 184,20 |
| UNF 3/8 - 24 | 9.80 | 10.89 | 85x25x6.30 | 3534-3/8I | 15,23 | 3534-3/8SP | 27,70 | 3534-3/8SF | 27,70 | 3534-3/8GC | 184,20 |
| UNF 7/16 - 20 | 11.50 | 12.76 | 89x29x7.10 | 3534-7/16I | 20,29 | 3534-7/16SP | 31,50 | 3534-7/16SF | 31,50 | 3534-7/16GC | 193,90 |
| UNF 1/2 - 20 | 13.00 | 14.35 | 95x30x9.00 | 3534-1/2I | 20,87 | 3534-1/2SP | 34,62 | 3534-1/2SF | 34,62 | 3534-1/2GC | 208,45 |
| UNF 9/16 - 18 | 14.75 | 16.12 | 102x32x10 | 3534-9/16I | 38,18 | 3534-9/16SP | 57,70 | 3534-9/16SF | 57,70 | 3534-9/16GC | 222,99 |
| UNF 5/8 - 18 | 16.50 | 17.00 | 112x37x11.2 | 3534-5/8I | 47,13 | 3534-5/8SP | 80,42 | 3534-5/8SF | 80,42 | 3534-5/8GC | 227,84 |
| UNF 3/4 - 16 | 19.50 | 21.11 | 112x37x11.2 | 3534-3/4I | 57,27 | 3534-3/4SP | 81,56 | 3534-3/4SF | 81,56 | 3534-3/4GC | 184,20 |
| UNF 7/8 - 14 | 22.50 | 24.58 | 130x45x14 | 3534-7/8I | 74,83 | 3534-7/8SP | 118,27 | 3534-7/8SF | 118,27 | 3534-7/8GC | 276,34 |
| UNF 1 - 12 | 26.00 | 28.15 | 127x37x16 | 3534-1I | 66,45 | 3534-1SP | 138,47 | 3534-1SF | 138,47 | 3534-1GC | 252,08 |
| UNS 1 - 14 | 26.00 | 27.76 | 127x37x16 | 3535-1I | 66,45 | 3535-1SP | 138,47 | 3535-1SF | 138,47 | 3535-1GC | 252,08 |
| UNF 1.1/8 - 12 | 29.50 | 31.32 | 137x37x18 | 3534-1.1/8I | 202,36 | - | - | - | - | - | - |
| UNF 1.1/4 - 12 | 32.50 | 34.50 | 144x39x20 | 3534-1.1/4I | 242,78 | - | - | - | - | - | - |
| UNF 1.3/8 - 12 | 35.50 | 37.67 | 149x39x22.4 | 3534-1.3/8I | 303,50 | - | - | - | - | - | - |
| UNF 1.1/2 - 12 | 38.50 | 40.85 | 149x39x22.4 | 3534-1.1/2I | 393,36 | - | - | - | - | - | - |

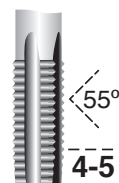
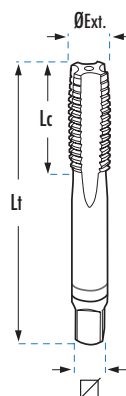
MACHOS DE MÃO STI
BSW

BSW

TOL (3B)

HSS


STI-HS0529



|  |  | Ø Ext. | Lt x Lc x ∅ | | € |
|---|---|--------|-------------|-------------|-------|
| BSW 1/8 - 40 | 3.40 | 3.93 | 53x13x3.15 | 3528-1/8I | 13,28 |
| BSW 3/16 - 24 | 5.00 | 6.00 | 66x19x5 | 3528-3/16I | 13,28 |
| BSW 1/4 - 20 | 6.70 | 7.84 | 72x22x6.3 | 3528-1/4I | 13,28 |
| BSW 5/16 - 18 | 8.30 | 9.59 | 80x24x8 | 3528-5/16I | 14,63 |
| BSW 3/8 - 16 | 10.00 | 11.38 | 85x25x6.3 | 3528-3/8I | 15,23 |
| BSW 7/16 - 14 | 11.60 | 13.23 | 95x30x9 | 3528-7/16I | 20,29 |
| BSW 1/2 - 12 | 13.00 | 15.17 | 102x32x10 | 3528-1/2I | 23,53 |
| BSW 9/16 - 12 | 14.75 | 16.76 | 102x32x10 | 3528-9/16I | 38,18 |
| BSW 5/8 - 11 | 16.50 | 18.57 | 112x37x11.2 | 3528-5/8I | 47,13 |
| BSW 11/16 - 11 | 17.50 | 19.60 | 112x37x11.2 | 3528-11/16I | 57,27 |
| BSW 3/4 - 10 | 20.00 | 22.01 | 118x38x12.5 | 3528-3/4I | 57,27 |
| BSW 7/8 - 9 | 23.25 | 25.52 | 130x45x14 | 3528-7/8I | 66,45 |
| BSW 1 - 8 | 26.50 | 29.10 | 138x48x16 | 3528-1I | 66,45 |

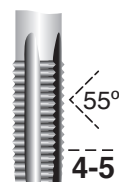
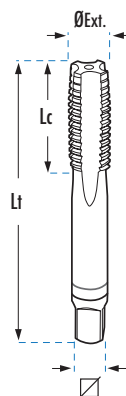
BSF

BSF

TOL (3B)

HSS

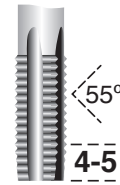
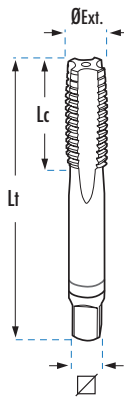

STI-HS0529



|  |  | Ø Ext. | Lt x Lc x ∅ | | € |
|---|---|--------|-------------|-------------|-------|
| BSF 3/16 - 32 | 5.00 | 5.70 | 66x19x5 | 3530-3/16I | 13,28 |
| BSF 1/4 - 26 | 6.60 | 7.51 | 72x22x6.3 | 3530-1/4I | 13,28 |
| BSF 5/16 - 22 | 8.30 | 9.30 | 80x24x8 | 3530-5/16I | 14,63 |
| BSF 3/8 - 20 | 9.80 | 11.02 | 85x25x6.3 | 3530-3/8I | 15,23 |
| BSF 7/16 - 18 | 11.60 | 12.77 | 89x29x7.1 | 3530-7/16I | 20,29 |
| BSF 1/2 - 16 | 13.25 | 14.56 | 95x30x9 | 3530-1/2I | 23,53 |
| BSF 9/16 - 16 | 14.75 | 16.15 | 102x32x10 | 3530-9/16I | 38,18 |
| BSF 5/8 - 14 | 16.50 | 18.01 | 112x37x11.2 | 3530-5/8I | 47,13 |
| BSF 11/16 - 14 | 17.50 | 19.60 | 112x37x11.2 | 3530-11/16I | 57,27 |
| BSF 3/4 - 12 | 19.50 | 21.53 | 118x38x12.5 | 3530-3/4I | 57,27 |
| BSF 7/8 - 11 | 22.75 | 24.93 | 130x45x14 | 3530-7/8I | 66,45 |
| BSF 1 - 10 | 26.25 | 28.37 | 138x48x16 | 3530-1I | 66,45 |

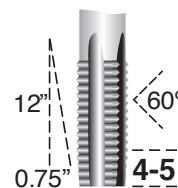
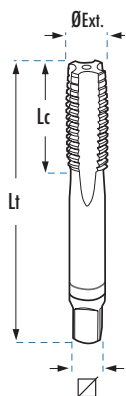
MACHOS DE MÃO STI

BSP (GAS) **BSP** **TOL (3B)** **HSS** **STI-HS0529**



| | | | Ø Ext. | Lt x Lc x ∅ | | € | |
|--------------|--|--|--------|-------------|-------------|-----------|--------|
| BSP 1/8 - 28 | | | 10.00 | 10.81 | 85x25x6.3 | 3546-1/8I | 20,13 |
| BSP 1/4 - 19 | | | 13.75 | 14.73 | 95x30x9 | 3546-1/4I | 22,85 |
| BSP 3/8 - 19 | | | 17.00 | 18.24 | 112x37x11.2 | 3546-3/8I | 30,06 |
| BSP 1/2 - 14 | | | 21.50 | 23.09 | 118x38x12.5 | 3546-1/2I | 48,71 |
| BSP 5/8 - 14 | | | 23.50 | 25.05 | 130x45x14 | 3546-5/8I | 71,58 |
| BSP 3/4 - 14 | | | 27.00 | 28.58 | 127x37x16 | 3546-3/4I | 71,58 |
| BSP 1 - 11 | | | 33.75 | 35.96 | 162x57x20 | 3546-1I | 111,84 |

NPT **NPT** **TOL (3B)** **HSS** **ANSI 949**



| | | Ø Ext. | Lt x Lc x ∅ | | € |
|----------------|--|--------|-------------|-----------|--------|
| NPT 1/8 - 27 | | 10.43 | 54x19x8.3 | 3552-1/8I | 97,64 |
| NPT 1/4 - 18 | | 13.95 | 62x27x10.7 | 3552-1/4I | 109,84 |
| NPT 3/8 - 18 | | 17.37 | 65x27x13.5 | 3552-3/8I | 146,45 |
| NPT 1/2 - 14 | | 21.65 | 80x35x13.1 | 3552-1/2I | 176,98 |
| NPT 3/4 - 14 | | 26.96 | 83x35x17.2 | 3552-3/4I | 231,89 |
| NPT 1 - 11.1/2 | | 33.75 | 95x44x22.7 | 3552-1I | 317,30 |

MACHOS DE MÃO STI
UNx8

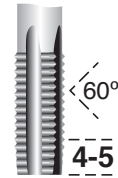
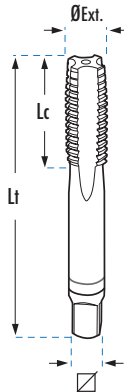

8-UN






TOL (3B)



HSS



|  |  |  | Ø Ext. | Lt x Lc x \varnothing | | € | |
|---|---|---|--------|-------------------------|-------------|-------------|--------|
| UN 1.1/8 - 8 | | | 28.50 | 1.26 | 5.9x2.0x0.7 | 3570-1.1/8I | 347,93 |
| UN 1.1/4 - 8 | | | 32.00 | 1.38 | 6.3x2.2x0.7 | 3570-1.1/4I | 400,79 |
| UN 1.3/8 - 8 | | | 35.00 | 1.51 | 6.6x2.3x0.8 | 3570-1.3/8I | 454,85 |
| UN 1.1/2 - 8 | | | 38.00 | 1.63 | 6.6x2.3x0.8 | 3570-1.1/2I | 499,63 |
| UN 1.5/8 - 8 | | | 41.00 | 1.76 | 7.3x2.6x0.9 | 3570-1.5/8I | 584,46 |
| UN 1.3/4 - 8 | | | 44.50 | 1.88 | 7.3x2.6x0.9 | 3570-1.3/4I | 633,01 |
| UN 1.7/8 - 8 | | | 47.50 | 2.01 | 7.8x2.7x1.1 | 3570-1.7/8I | 735,90 |
| UN 2 - 8 | | | 51.00 | 2.13 | 7.8x2.7x1.1 | 3570-2I | 764,43 |

BA

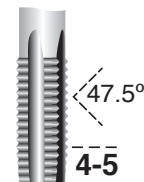
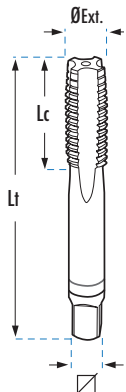

BA





TOL (3B)

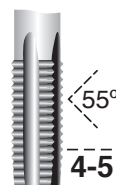
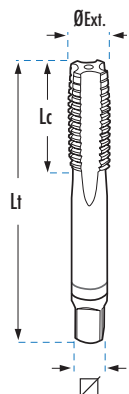
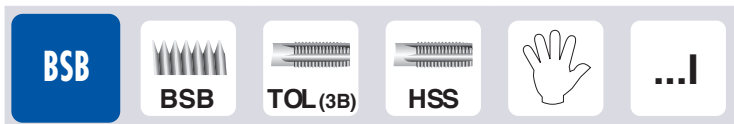


HSS

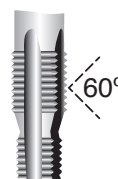
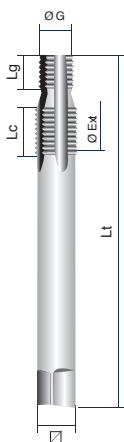


|  |  | Ø Ext. | Lt x Lc x \varnothing | | € | |
|---|---|--------|-------------------------|-----------|---------|-------|
| BA 0 | | 6.20 | 7.12 | 66x19x5.6 | 3544-0I | 13,51 |
| BA 2 | | 4.90 | 5.60 | 62x17x4.5 | 3544-2I | 13,51 |
| BA 4 | | 3.80 | 4.34 | 53x13x3.5 | 3544-4I | 13,51 |
| BA 6 | | 2.90 | 3.40 | 50x13x2.8 | 3544-6I | 13,51 |

MACHOS DE MÃO STI

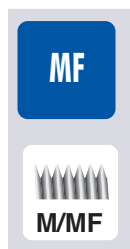


| | | | | | | Ø Ext. | Lt x Lc x ∅ | | € |
|-----|-----------|-------|-------|-----------|--|--------|-------------|------------|-------|
| BSB | 1/4 - 26 | 6.60 | 7.72 | 72x22x6.3 | | 7.72 | 72x22x6.3 | 3560-1/4I | 14,97 |
| BSB | 5/16 - 26 | 8.00 | 9.30 | 72x22x7.1 | | 9.30 | 72x22x7.1 | 3560-5/16I | 16,47 |
| BSB | 3/8 - 26 | 9.80 | 10.89 | 85x25x6.3 | | 10.89 | 85x25x6.3 | 3560-3/8I | 17,15 |
| BSB | 7/16 - 26 | 11.10 | 12.48 | 89x29x7.1 | | 12.48 | 89x29x7.1 | 3560-7/16I | 22,85 |
| BSB | 1/2 - 26 | 12.70 | 14.07 | 95x30x9 | | 14.07 | 95x30x9 | 3560-1/2I | 25,85 |



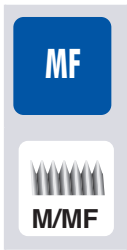
| | | | | | | Ø Ext. | Lg | Ø G | Lt x Lc x ∅ | | € |
|---|-----------|-------|-------|----|----|--------|----|-----|-------------|--------------|-------|
| M | 6 x 1.00 | 6.30 | 7.29 | 7 | 6 | 7.29 | 7 | 6 | 70x28x6.3 | 3520-6.00PN | 25,83 |
| M | 8 x 1.25 | 8.30 | 9.62 | 9 | 8 | 9.62 | 9 | 8 | 75x32x6.3 | 3520-8.00PN | 25,83 |
| M | 10 x 1.00 | 10.30 | 11.29 | 8 | 10 | 11.29 | 8 | 10 | 74x30x6.3 | 3522-10.00PN | 32,31 |
| M | 10 x 1.50 | 10.40 | 11.94 | 9 | 10 | 11.94 | 9 | 10 | 89x29x7.1 | 3520-10.00PN | 32,31 |
| M | 12 x 1.25 | 12.30 | 13.62 | 9 | 12 | 13.62 | 9 | 12 | 75x32x7.1 | 3522-12.00PN | 45,90 |
| M | 14 x 1.25 | 14.25 | 15.62 | 10 | 14 | 15.62 | 10 | 14 | 90x45x9.2 | 3522-14.00PN | 53,41 |
| M | 18 x 1.50 | 18.50 | 19.94 | 10 | 18 | 19.94 | 10 | 18 | 116x47x12.5 | 3522-18.00PN | 76,37 |

FERRAMENTAS DE INSTALAÇÃO



| | FREE | | FREE LOCK | | FREE LOCK | | FREE LOCK | |
|---------------|------------|-------|---------------|--------|---------------|--------|---------------|--------|
| | | | | | | | | |
| | | € | | € | | € | | € |
| M 2 x 0.40 | 3500-HIT2 | 13,28 | 3520-2.00HIP | 128,17 | 3520-2.00MIT | 127,25 | - | - |
| M 2.20 x 0.45 | 3500-HIT2 | 13,28 | 3520-2.20HIP | 128,17 | 3520-2.20MIT | 127,25 | - | - |
| M 2.50 x 0.45 | 3500-HIT3 | 13,28 | 3520-2.50HIP | 128,17 | 3520-2.50MIT | 127,25 | - | - |
| M 3 x 0.50 | 3500-HIT4 | 13,28 | 3520-3.00HIP | 95,55 | 3520-3.00MIT | 117,08 | - | - |
| M 3.50 x 0.60 | 3500-HIT5 | 13,28 | 3520-3.50HIP | 95,55 | 3520-3.50MIT | 117,08 | - | - |
| M 4 x 0.70 | 3500-HIT6 | 13,28 | 3520-4.00HIP | 95,55 | 3520-4.00MIT | 117,08 | - | - |
| M 5 x 0.80 | 3500-HIT8 | 13,28 | 3520-5.00HIP | 95,55 | 3520-5.00MIT | 117,08 | - | - |
| M 6 x 1.00 | 3500-HIT9 | 13,28 | 3520-6.00HIP | 99,37 | 3520-6.00MIT | 117,08 | - | - |
| M 7 x 1.00 | 3500-HIT10 | 15,23 | 3520-7.00HIP | 99,37 | 3520-7.00MIT | 117,08 | - | - |
| M 8 x 1.00 | 3500-HIT11 | 15,23 | 3521-8.00HIP | 95,09 | 3521-8.00MIT | 117,08 | - | - |
| M 8 x 1.25 | 3500-HIT11 | 15,23 | 3520-8.00HIP | 80,88 | 3520-8.00MIT | 117,08 | - | - |
| M 9 x 1.25 | 3500-HIT13 | 15,23 | 3520-9.00HIP | 80,29 | 3520-9.00MIT | 117,07 | - | - |
| M 10 x 1.00 | 3500-HIT13 | 15,23 | 3523-10.00HIP | 108,60 | 3523-10.00MIT | 127,25 | - | - |
| M 10 x 1.25 | 3500-HIT13 | 15,23 | 3521-10.00HIP | 118,64 | 3521-10.00MIT | 127,25 | - | - |
| M 10 x 1.50 | 3500-HIT13 | 15,23 | 3520-10.00HIP | 107,76 | 3520-10.00MIT | 127,25 | - | - |
| M 11 x 1.00 | 3500-HIT14 | 19,09 | - | - | - | - | - | - |
| M 11 x 1.25 | 3500-HIT14 | 19,09 | - | - | - | - | - | - |
| M 11 x 1.50 | 3500-HIT14 | 19,09 | 3520-11.00HIP | 120,57 | 3520-11.00MIT | 135,75 | - | - |
| M 12 x 1.00 | 3500-HIT15 | 19,09 | - | - | - | - | - | - |
| M 12 x 1.25 | 3500-HIT15 | 19,09 | 3523-12.00HIP | 112,37 | 3523-12.00MIT | 135,75 | - | - |
| M 12 x 1.50 | 3500-HIT15 | 19,09 | 3521-12.00HIP | 105,46 | 3521-12.00MIT | 135,75 | - | - |
| M 12 x 1.75 | 3500-HIT15 | 19,09 | 3520-12.00HIP | 103,73 | 3520-12.00MIT | 135,75 | - | - |
| M 13 x 1.25 | 3500-HIT16 | 22,96 | - | - | - | - | - | - |
| M 13 x 1.50 | 3500-HIT15 | 19,09 | - | - | - | - | - | - |
| M 13 x 1.75 | 3500-HIT15 | 19,09 | - | - | 3520-13.00MIT | 135,73 | - | - |
| M 14 x 1.00 | 3500-HIT16 | 22,96 | - | - | - | - | - | - |
| M 14 x 1.25 | 3500-HIT16 | 22,96 | 3523-14.00HIP | 218,95 | 3523-14.00MIT | 144,21 | - | - |
| M 14 x 1.50 | 3500-HIT16 | 22,96 | 3521-14.00HIP | 120,52 | 3521-14.00MIT | 144,21 | - | - |
| M 14 x 2.00 | 3500-HIT16 | 22,96 | 3520-14.00HIP | 92,28 | 3520-14.00MIT | 144,21 | - | - |
| M 15 x 1.50 | 3500-HIT16 | 22,96 | - | - | - | - | - | - |
| M 15 x 2.00 | 3500-HIT16 | 22,96 | - | - | - | - | - | - |
| M 16 x 1.50 | 3500-HIT18 | 25,37 | 3521-16.00HIP | 112,37 | 3521-16.00MIT | 144,21 | - | - |
| M 16 x 2.00 | 3500-HIT18 | 25,37 | - | - | 3520-16.00MIT | 144,21 | - | - |
| M 18 x 1.50 | 3500-HIT20 | 25,37 | - | - | - | - | 3523-18.00HIP | 210,99 |
| M 18 x 2.00 | 3500-HIT20 | 25,37 | - | - | - | - | 3521-18.00HIP | 210,99 |
| M 18 x 2.50 | 3500-HIT20 | 25,37 | - | - | - | - | 3520-18.00HIP | 101,56 |

FERRAMENTAS DE INSTALAÇÃO

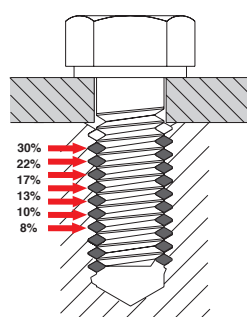


| | | € | | € | | € |
|--------------------|-------------------|---------------|----------------------|---------------|----------------------|---------------|
| M 20 x 1.50 | 3500-HIT21 | 25,37 | - | - | 3523-20.00HIP | 262,91 |
| M 20 x 2.00 | 3500-HIT21 | 25,37 | - | - | 3521-20.00HIP | 262,91 |
| M 20 x 2.50 | 3500-HIT21 | 25,37 | - | - | 3520-20.00HIP | 119,01 |
| M 22 x 1.50 | 3500-HIT22 | 31,89 | - | - | 3523-22.00HIP | 321,57 |
| M 22 x 2.00 | 3500-HIT22 | 31,89 | - | - | 3521-22.00HIP | 321,57 |
| M 22 x 2.50 | 3500-HIT22 | 31,89 | - | - | 3520-22.00HIP | 125,05 |
| M 24 x 1.50 | 3500-HIT23 | 31,89 | - | - | 3523-24.00HIP | 375,15 |
| M 24 x 2.00 | 3500-HIT23 | 31,89 | - | - | 3521-24.00HIP | 375,15 |
| M 24 x 3.00 | 3500-HIT23 | 31,89 | - | - | 3520-24.00HIP | 132,65 |
| M 26 x 1.50 | 3500-HIT24 | 57,26 | 3523-26.00HIM | 31,94 | - | - |
| M 27 x 1.50 | 3500-HIT24 | 57,26 | 3523-27.00HIM | 31,94 | - | - |
| M 27 x 2.00 | 3500-HIT24 | 57,26 | 3521-27.00HIM | 31,94 | - | - |
| M 27 x 3.00 | 3500-HIT24 | 57,26 | 3520-27.00HIM | 31,94 | - | - |
| M 28 x 1.50 | 3500-HIT24 | 57,26 | 3523-28.00HIM | 31,94 | - | - |
| M 30 x 1.50 | 3500-HIT26 | 90,15 | 3523-30.00HIM | 38,34 | - | - |
| M 30 x 2.00 | 3500-HIT26 | 90,15 | 3521-30.00HIM | 38,34 | - | - |
| M 30 x 3.50 | 3500-HIT25 | 57,26 | 3520-30.00HIM | 38,34 | - | - |
| M 33 x 2.00 | 3500-HIT26 | 90,15 | 3521-33.00HIM | 44,73 | - | - |
| M 33 x 3.50 | 3500-HIT26 | 90,15 | 3520-33.00HIM | 44,73 | - | - |
| M 36 x 1.50 | 3500-HIT28 | 90,30 | 3524-36.00HIM | 44,73 | - | - |
| M 36 x 2.00 | 3500-HIT28 | 90,30 | 3523-36.00HIM | 44,73 | - | - |
| M 36 x 3.00 | 3500-HIT28 | 90,30 | 3521-36.00HIM | 44,73 | - | - |
| M 36 x 4.00 | 3500-HIT28 | 90,30 | 3520-36.00HIM | 44,73 | - | - |
| M 39x3,00 | 3500-HIT28 | 90,30 | 3521-39.00HIM | 83,48 | - | - |
| M 39x4,00 | 3500-HIT28 | 90,30 | 3520-39.00HIM | 83,48 | - | - |
| M 40 x 3,00 | 3500-HIT28 | 90,30 | 3523-40.00HIM | 83,48 | - | - |
| M 42 x 3,00 | 3500-HIT28 | 90,30 | 3523-42.00HIM | 97,50 | - | - |
| M 42 x 4,50 | 3500-HIT28 | 90,30 | 3520-42.00HIM | 97,50 | - | - |
| M 45 x 3,00 | 3500-HIT30 | 112,28 | 3523-45.00HIM | 97,50 | - | - |
| M 45 x 4,50 | 3500-HIT30 | 112,28 | 3520-45.00HIM | 97,50 | - | - |
| M 48 x 3,00 | 3500-HIT30 | 112,28 | 3523-48.00HIM | 103,34 | - | - |
| M 48 x 5,00 | 3500-HIT30 | 112,28 | 3520-48.00HIM | 103,34 | - | - |
| M 50 x 3,00 | 3500-HIT30 | 112,28 | 3523-50.00HIM | 117,92 | - | - |
| M 52 x 3,00 | 3500-HIT30 | 112,28 | 3523-52.00HIM | 117,92 | - | - |
| M 52 x 5,00 | 3500-HIT30 | 112,28 | 3520-52.00HIM | 117,92 | - | - |

FERRAMENTAS DE INSTALAÇÃO



| | | FREE | | FREE LOCK | | FREE | | FREE LOCK | | FREE LOCK | |
|---------------|------------|-------|--------------|---------------|---------------|-------|--------------|---------------|---------------|---------------|--|
| | | | | | | | | | | | |
| | | € | | € | | € | | € | | € | |
| UNC Nº2 - 56 | 3500-HIT2 | 13,28 | 3532-2GHIP | 133,64 | - | - | 3532-2GMIT | 127,25 | - | - | |
| UNC Nº3 - 48 | 3500-HIT3 | 13,28 | - | - | - | - | 3532-3GMIT | 127,25 | - | - | |
| UNC Nº4 - 40 | 3500-HIT4 | 13,28 | 3532-4GHIP | 133,64 | - | - | 3532-4GMIT | 127,25 | - | - | |
| UNC Nº5 - 40 | 3500-HIT4 | 13,28 | 3532-5GHIP | 133,64 | - | - | 3532-5GMIT | 127,25 | - | - | |
| UNC Nº6 - 32 | 3500-HIT5 | 13,28 | 3532-6GHIP | 130,00 | - | - | 3532-6GMIT | 117,08 | - | - | |
| UNC Nº8 - 32 | 3500-HIT6 | 13,28 | 3532-8GHIP | 130,00 | - | - | 3532-8GMIT | 117,08 | - | - | |
| UNC Nº10 - 24 | 3500-HIT7 | 13,28 | 3532-10GHIP | 130,00 | - | - | 3532-10GMIT | 117,08 | - | - | |
| UNC Nº12 - 24 | 3500-HIT8 | 13,28 | 3532-12GHIP | 130,00 | - | - | 3532-12GMIT | 117,07 | - | - | |
| UNC 1/4 - 20 | 3500-HIT9 | 13,28 | 3532-1/4HIP | 88,37 | - | - | 3532-1/4MIT | 117,08 | - | - | |
| UNC 5/16 - 18 | 3500-HIT10 | 15,23 | 3532-5/16HIP | 88,43 | - | - | 3532-5/16MIT | 117,08 | - | - | |
| UNC 3/8 - 16 | 3500-HIT13 | 15,23 | 3532-3/8HIP | 102,67 | - | - | 3532-3/8MIT | 127,25 | - | - | |
| UNC 7/16 - 14 | 3500-HIT14 | 19,09 | 3532-7/16HIP | 102,67 | - | - | 3532-7/16MIT | 127,25 | - | - | |
| UNC 1/2 - 13 | 3500-HIT15 | 19,09 | 3532-1/2HIP | 118,70 | - | - | 3532-1/2MIT | 135,75 | - | - | |
| UNC 9/16 - 12 | 3500-HIT16 | 22,96 | - | - | - | - | - | - | 3532-9/16HIP | 107,30 | |
| UNC 5/8 - 11 | 3500-HIT18 | 25,37 | - | - | - | - | - | - | 3532-5/8HIP | 112,74 | |
| UNC 3/4 - 10 | 3500-HIT20 | 25,37 | - | - | - | - | - | - | 3532-3/4HIP | 126,80 | |
| UNC 7/8 - 9 | 3500-HIT22 | 31,89 | - | - | - | - | - | - | 3532-7/8HIP | 136,55 | |
| UNC 1 - 8 | 3500-HIT23 | 31,89 | - | - | - | - | - | - | 3532-1HIP | 156,06 | |
| UNC 1.1/8 - 7 | 3500-HIT24 | 57,26 | - | - | 3532-1.1/8HIM | 38,34 | - | - | 3532-1.1/8HIP | 178,19 | |
| UNC 1.1/4 - 7 | 3500-HIT25 | 57,26 | - | - | 3532-1.1/4HIM | 38,34 | - | - | 3532-1.1/4HIP | 186,67 | |
| UNC 1.3/8 - 6 | 3500-HIT26 | 90,15 | - | - | 3532-1.3/8HIM | 44,73 | - | - | 3532-1.3/8HIP | 189,98 | |
| UNC 1.1/2 - 6 | 3500-HIT27 | 90,30 | - | - | 3532-1.1/2HIM | 44,73 | - | - | 3532-1.1/2HIP | 192,62 | |

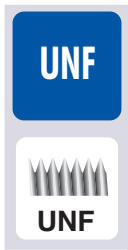


RECOMENDAÇÃO TÉCNICA:

Instale o inserto um fio e meio abaixo do nível da peça.



FERRAMENTAS DE INSTALAÇÃO



| | | € | | € | | € | | € | | € |
|----------------|------------|-------|--------------|--------|---------------|-------|--------------|--------|---------------|--------|
| UNF Nº3 - 56 | 3500-HIT3 | 13,28 | 3534-3GHIP | 118,98 | - | - | - | - | - | - |
| UNF Nº4 - 48 | 3500-HIT4 | 13,28 | 3534-4GHIP | 121,40 | - | - | 3534-4GMIT | 127,25 | - | - |
| UNF Nº6 - 40 | 3500-HIT5 | 13,28 | 3534-6GHIP | 106,37 | - | - | 3534-6GMIT | 117,08 | - | - |
| UNF Nº8 - 36 | 3500-HIT6 | 13,28 | 3534-8GHIP | 106,37 | - | - | 3534-8GMIT | 117,08 | - | - |
| UNF Nº10 - 32 | 3500-HIT8 | 13,28 | 3534-10GHIP | 106,37 | - | - | 3534-10GMIT | 117,08 | - | - |
| UNF Nº12 - 28 | 3500-HIT8 | 13,28 | 3534-12GHIP | 106,37 | - | - | 3534-12GMIT | 117,07 | - | - |
| UNF 1/4 - 28 | 3500-HIT9 | 13,28 | 3534-1/4HIP | 72,30 | - | - | 3534-1/4MIT | 117,08 | - | - |
| UNF 5/16 - 24 | 3500-HIT11 | 15,23 | 3534-5/16HIP | 72,36 | - | - | 3534-5/16MIT | 117,08 | - | - |
| UNF 3/8 - 24 | 3500-HIT13 | 15,23 | 3534-3/8HIP | 84,01 | - | - | 3534-3/8MIT | 127,25 | - | - |
| UNF 7/16 - 20 | 3500-HIT14 | 19,09 | 3534-7/16HIP | 84,01 | - | - | 3534-7/16MIT | 127,25 | - | - |
| UNF 1/2 - 20 | 3500-HIT15 | 19,09 | 3534-1/2HIP | 97,14 | - | - | 3534-1/2MIT | 135,75 | - | - |
| UNF 9/16 - 18 | 3500-HIT16 | 22,96 | - | - | - | - | - | - | 3534-9/16HIP | 87,79 |
| UNF 5/8 - 8 | 3500-HIT18 | 25,37 | - | - | - | - | - | - | 3534-5/8HIP | 92,23 |
| UNF 3/4 - 16 | 3500-HIT21 | 25,37 | - | - | - | - | - | - | 3534-3/4HIP | 103,76 |
| UNF 7/8 - 14 | 3500-HIT22 | 31,89 | - | - | - | - | - | - | 3534-7/8HIP | 111,74 |
| UNF 1-12 | 3500-HIT23 | 31,89 | - | - | - | - | - | - | 3534-1HIP | 127,68 |
| UNS 1-14 | 3500-HIT23 | 31,89 | - | - | - | - | - | - | 3535-1HIP | 127,68 |
| UNF 1.1/8 - 12 | 3500-HIT25 | 57,26 | - | - | 3534-1.1/8HIM | 38,34 | - | - | 3534-1.1/8HIP | 478,82 |
| UNF 1.1/4 - 12 | 3500-HIT26 | 90,15 | - | - | 3534-1.1/4HIM | 38,34 | - | - | 3534-1.1/4HIP | 558,62 |
| UNF 1.3/8 - 12 | 3500-HIT27 | 90,30 | - | - | 3534-1.3/8HIM | 44,73 | - | - | 3534-1.3/8HIP | 638,43 |
| UNF 1.1/2 - 12 | 3500-HIT28 | 90,30 | - | - | 3534-1.1/2HIM | 44,73 | - | - | 3534-1.1/2HIP | 718,22 |



FERRAMENTAS DE INSTALAÇÃO



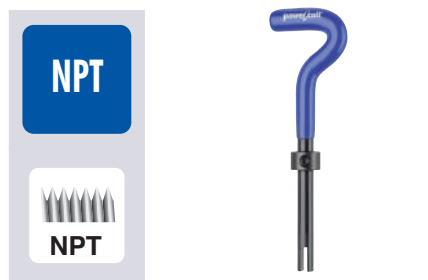
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|---------------|-------------------|--------------|
| BSW 1/8 - 40 | 3500-HIT4 | 13,28 |
| BSW 3/16 - 24 | 3500-HIT7 | 13,28 |
| BSW 1/4 - 20 | 3500-HIT9 | 13,28 |
| BSW 5/16 - 18 | 3500-HIT10 | 15,23 |
| BSW 3/8 - 16 | 3500-HIT11 | 15,23 |
| BSW 7/16 - 14 | 3500-HIT14 | 19,09 |
| BSW 1/2 - 12 | 3500-HIT15 | 19,09 |
| BSW 9/16 - 12 | 3500-HIT16 | 22,96 |
| BSW 5/8 - 11 | 3500-HIT18 | 25,37 |
| BSW 3/4 - 10 | 3500-HIT20 | 25,37 |
| BSW 7/8 - 9 | 3500-HIT22 | 31,89 |
| BSW 1 - 8 | 3500-HIT23 | 31,89 |



| | | € | | € |
|--------------|-------------------|--------------|--------------------|--------------|
| BSP 1/8 - 28 | 3500-HIT14 | 19,09 | 3546-1/8HIM | 19,17 |
| BSP 1/4 - 19 | 3500-HIT16 | 22,96 | 3546-1/4HIM | 19,17 |
| BSP 3/8 - 19 | 3500-HIT20 | 25,37 | 3546-3/8HIM | 22,37 |
| BSP 1/2 - 14 | 3500-HIT23 | 31,89 | 3546-1/2HIM | 25,58 |
| BSP 5/8 - 14 | 3500-HIT23 | 31,89 | 3546-5/8HIM | 31,94 |
| BSP 3/4 - 14 | 3500-HIT24 | 57,26 | 3546-3/4HIM | 31,94 |
| BSP 7/8 - 14 | 3500-HIT27 | 90,30 | 3546-7/8HIM | 44,73 |
| BSP 1 - 11 | 3500-HIT27 | 90,30 | 3546-1HIM | 44,73 |




| | | € |
|---------------|-------------------|--------------|
| BSF 3/16 - 32 | 3500-HIT8 | 13,28 |
| BSF 1/4 - 26 | 3500-HIT9 | 13,28 |
| BSF 5/16 - 22 | 3500-HIT11 | 15,23 |
| BSF 3/8 - 20 | 3500-HIT13 | 15,23 |
| BSF 7/16 - 18 | 3500-HIT14 | 19,09 |
| BSF 1/2 - 16 | 3500-HIT15 | 19,09 |
| BSF 9/16 - 16 | 3500-HIT16 | 22,96 |
| BSF 5/8 - 14 | 3500-HIT18 | 25,37 |
| BSF 3/4 - 12 | 3500-HIT20 | 25,37 |
| BSF 7/8 - 11 | 3500-HIT22 | 31,89 |
| BSF 1 - 10 | 3500-HIT23 | 31,89 |




| | | € |
|----------------|-------------------|--------------|
| NPT 1/8 - 27 | 3500-HIT13 | 15,23 |
| NPT 1/4 - 18 | 3500-HIT16 | 22,96 |
| NPT 3/8 - 18 | 3500-HIT18 | 25,37 |
| NPT 1/2 - 14 | 3500-HIT22 | 31,89 |
| NPT 3/4 - 14 | 3500-HIT24 | 57,26 |
| NPT 1 - 11.1/2 | 3500-HIT27 | 90,30 |





FERRAMENTAS DE INSTALAÇÃO




UNx8






8-UN






FREE








FREE


|  | | € | | € |
|---|-------------------|---------------|----------------------|---------------|
| UN 1.1/8 - 8 | 3500-HIT24 | 57,26 | 3570-1.1/8HIM | 74,59 |
| UN 1.1/4 - 8 | 3500-HIT25 | 57,26 | 3570-1.1/4HIM | 74,59 |
| UN 1.3/8 - 8 | 3500-HIT26 | 90,15 | 3570-1.3/8HIM | 86,56 |
| UN 1.1/2 - 8 | 3500-HIT27 | 90,30 | 3570-1.1/2HIM | 86,56 |
| UN 1.5/8 - 8 | 3500-HIT27 | 90,30 | 3570-1.5/8HIM | 89,53 |
| UN 1.3/4 - 8 | 3500-HIT28 | 90,30 | 3570-1.3/4HIM | 95,50 |
| UN 1.7/8 - 8 | 3500-HIT30 | 112,28 | 3570-1.7/8HIM | 110,42 |
| UN 2 - 8 | 3500-HIT30 | 112,28 | 3570-2HIM | 110,42 |




BSB






BSB






FREE



|  | | € |
|---|-------------------|--------------|
| BSB 1/4 - 26 | 3500-HIT9 | 13,28 |
| BSB 5/16 - 26 | 3500-HIT11 | 15,23 |
| BSB 3/8 - 26 | 3500-HIT13 | 15,23 |
| BSB 7/16 - 26 | 3500-HIT14 | 19,09 |
| BSB 1/2 - 26 | 3500-HIT15 | 19,09 |



BA



BA





FREE




|  | | € |
|---|------------------|--------------|
| BA 0 | 3500-HIT9 | 13,28 |
| BA 2 | 3500-HIT7 | 13,28 |
| BA 4 | 3500-HIT5 | 13,28 |
| BA 6 | 3500-HIT3 | 13,28 |



MF







FREE



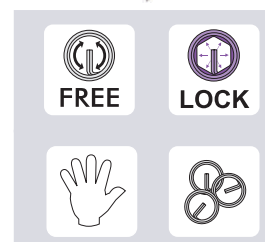
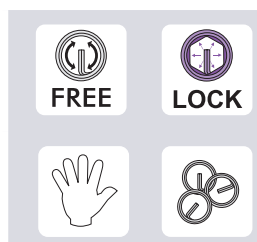

|  | | € |
|---|-------------------|--------------|
| 10x1.00 | 3500-HIT13 | 15,23 |
| 12x1.25 | 3500-HIT15 | 19,09 |
| 14x1.25 | 3500-HIT17 | 22,96 |
| 18x1.50 | 3500-HIT20 | 25,37 |




M14x1,25

M12x1,25

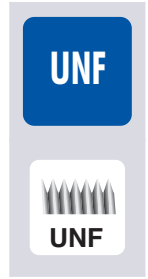
COLOCADOR, QUEBRADOR, EXTRATOR




|  | | € |
|---|------------|-------|
| UNC N°2 - 56 | 3500-TB2 | 5,70 |
| UNC N°3 - 48 | 3500-TB3 | 5,70 |
| UNC N°4 - 40 | 3500-TB4 | 5,70 |
| UNC N°5 - 40 | 3500-TB4 | 5,70 |
| UNC N°6 - 32 | 3500-TB5 | 5,70 |
| UNC N°8 - 32 | 3500-TB6 | 5,70 |
| UNC N°10 - 24 | 3500-TB8 | 5,70 |
| UNC N°12 - 24 | 3500-TB8 | 5,70 |
| UNC 1/4 - 20 | 3500-TB9 | 5,70 |
| UNC 5/16 - 18 | 3500-TB12 | 6,31 |
| UNC 3/8 - 16 | 3500-TB12 | 6,31 |
| UNC 7/16 - 14 | 3500-TB14 | 7,64 |
| UNC 1/2 - 13 | 3500-TB15 | 7,64 |
| UNC 9/16 - 12 | 3500-HIT16 | 22,96 |
| UNC 5/8 - 11 | 3500-HIT18 | 25,37 |
| UNC 3/4 - 10 | 3500-HIT20 | 25,37 |
| UNC 7/8 - 9 | 3500-HIT22 | 31,89 |
| UNC 1 - 8 | 3500-HIT23 | 31,89 |
| UNC 1.1/8 - 7 | - | - |
| UNC 1.1/4 - 7 | - | - |
| UNC 1.3/8 - 6 | - | - |
| UNC 1.1/2 - 6 | - | - |

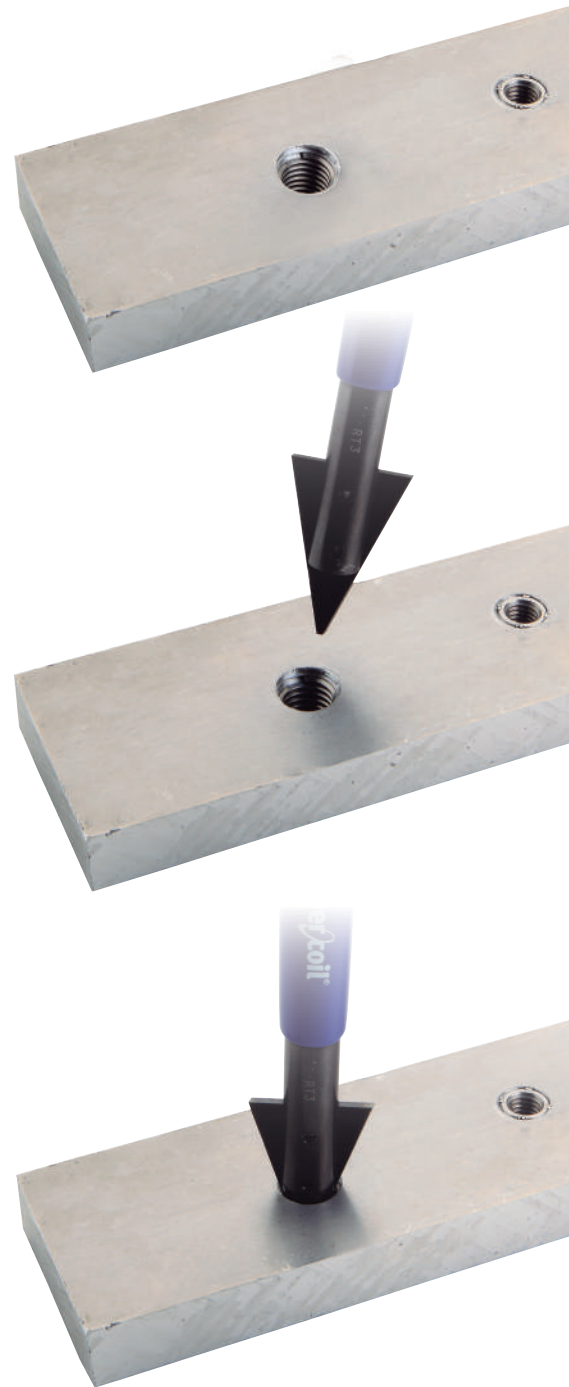
| | € |
|----------|-------|
| 3500-RT1 | 26,07 |
| 3500-RT1 | 26,07 |
| 3500-RT1 | 26,07 |
| 3500-RT1 | 26,07 |
| 3500-RT1 | 26,07 |
| 3500-RT1 | 26,07 |
| 3500-RT2 | 28,15 |
| 3500-RT2 | 28,15 |
| 3500-RT2 | 28,15 |
| 3500-RT3 | 34,45 |
| 3500-RT3 | 34,45 |
| 3500-RT3 | 34,45 |
| 3500-RT3 | 34,45 |
| 3500-RT3 | 34,45 |
| 3500-RT3 | 34,45 |
| 3500-RT3 | 34,45 |
| 3500-RT4 | 63,05 |
| 3500-RT4 | 63,05 |
| 3500-RT4 | 63,05 |
| 3500-RT4 | 63,05 |

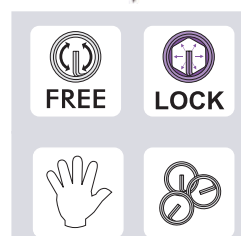
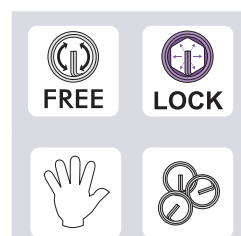
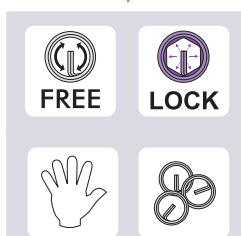
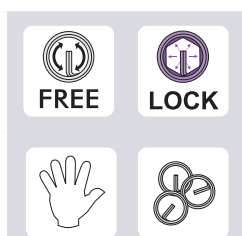
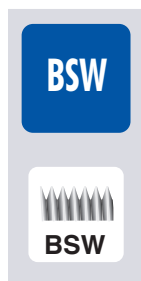
COLOCADOR, QUEBRADOR, EXTRATOR



|  | | € |
|---|-------------------|--------------|
| UNF Nº3 - 56 | 3500-TB3 | 5,70 |
| UNF Nº4 - 48 | 3500-TB4 | 5,70 |
| UNF Nº6 - 40 | 3500-TB5 | 5,70 |
| UNF Nº8 - 36 | 3500-TB6 | 5,70 |
| UNF Nº10 - 32 | 3500-TB8 | 5,70 |
| UNF Nº12 - 28 | 3500-TB8 | 5,70 |
| UNF 1/4 - 28 | 3500-TB9 | 5,70 |
| UNF 5/16 - 24 | 3500-TB12 | 6,31 |
| UNF 3/8 - 24 | 3500-TB13 | 6,31 |
| UNF 7/16 - 20 | 3500-TB14 | 7,64 |
| UNF 1/2 - 20 | 3500-TB15 | 7,64 |
| UNF 9/16 - 18 | 3500-HIT16 | 22,96 |
| UNF 5/8 - 18 | 3500-HIT18 | 25,37 |
| UNF 3/4 - 16 | 3500-HIT21 | 25,37 |
| UNF 7/8 - 14 | 3500-HIT22 | 31,89 |
| UNF 1 - 12 | 3500-HIT23 | 31,89 |
| UNF 1 - 14 | 3500-HIT23 | 31,89 |
| UNF 1.1/8 - 12 | - | - |
| UNF 1.1/4 - 12 | - | - |
| UNF 1.3/8 - 12 | - | - |
| UNF 1.1/2 - 12 | - | - |

| | € |
|-----------------|--------------|
| 3500-RT1 | 26,07 |
| 3500-RT1 | 26,07 |
| 3500-RT1 | 26,07 |
| 3500-RT1 | 26,07 |
| 3500-RT2 | 28,15 |
| 3500-RT2 | 28,15 |
| 3500-RT2 | 28,15 |
| 3500-RT2 | 28,15 |
| 3500-RT3 | 34,45 |
| 3500-RT3 | 34,45 |
| 3500-RT3 | 34,45 |
| 3500-RT3 | 34,45 |
| 3500-RT3 | 34,45 |
| 3500-RT3 | 34,45 |
| 3500-RT3 | 34,45 |
| 3500-RT3 | 34,45 |
| 3500-RT3 | 34,45 |
| 3500-RT4 | 63,05 |
| 3500-RT4 | 63,05 |
| 3500-RT4 | 63,05 |
| 3500-RT4 | 63,05 |

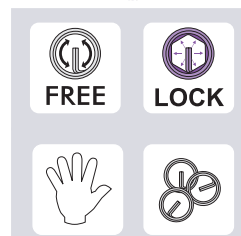
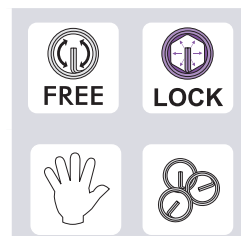
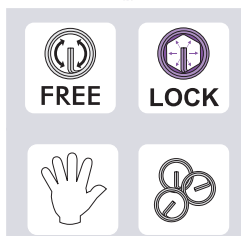
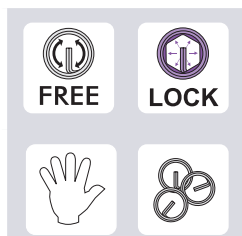
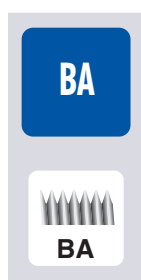


COLOCADOR, QUEBRADOR, EXTRATOR


| | | € | | € |
|---------------|------------|-------|----------|-------|
| BSW 1/8 - 40 | 3500-TB4 | 5,70 | 3500-RT1 | 26,07 |
| BSW 3/16 - 24 | 3500-TB8 | 5,70 | 3500-RT2 | 28,15 |
| BSW 1/4 - 20 | 3500-TB9 | 5,70 | 3500-RT2 | 28,15 |
| BSW 5/16 - 18 | 3500-TB11 | 6,31 | 3500-RT2 | 28,15 |
| BSW 3/8 - 16 | 3500-TB12 | 6,31 | 3500-RT3 | 34,45 |
| BSW 7/16 - 14 | 3500-TB14 | 7,64 | 3500-RT3 | 34,45 |
| BSW 1/2 - 12 | 3500-TB15 | 7,64 | 3500-RT3 | 34,45 |
| BSW 9/16 - 12 | 3500-HIT16 | 22,96 | 3500-RT3 | 34,45 |
| BSW 5/8 - 11 | 3500-HIT18 | 25,37 | 3500-RT3 | 34,45 |
| BSW 3/4 - 10 | 3500-HIT20 | 25,37 | 3500-RT3 | 34,45 |
| BSW 7/8 - 9 | 3500-HIT22 | 31,89 | 3500-RT3 | 34,45 |
| BSW 1 - 8 | 3500-HIT23 | 31,89 | 3500-RT3 | 34,45 |



| | | € | | € |
|---------------|------------|-------|----------|-------|
| BSF 3/16 - 32 | 3500-TB6 | 5,70 | 3500-RT2 | 28,15 |
| BSF 1/4 - 26 | 3500-TB9 | 5,70 | 3500-RT2 | 28,15 |
| BSF 5/16 - 22 | 3500-TB11 | 6,31 | 3500-RT2 | 28,15 |
| BSF 3/8 - 20 | 3500-TB12 | 6,31 | 3500-RT3 | 34,45 |
| BSF 7/16 - 18 | 3500-TB14 | 7,64 | 3500-RT3 | 34,45 |
| BSF 1/2 - 16 | 3500-TB15 | 7,64 | 3500-RT3 | 34,45 |
| BSF 9/16 - 16 | 3500-HIT16 | 22,96 | 3500-RT3 | 34,45 |
| BSF 5/8 - 14 | 3500-HIT18 | 25,37 | 3500-RT3 | 34,45 |
| BSF 3/4 - 12 | 3500-HIT20 | 25,37 | 3500-RT3 | 34,45 |
| BSF 7/8 - 11 | 3500-HIT22 | 31,89 | 3500-RT3 | 34,45 |
| BSF 1 - 10 | 3500-HIT23 | 31,89 | 3500-RT3 | 34,45 |



| | | € | | € |
|------|-----------|------|----------|-------|
| BA 0 | 3500-TB11 | 6,31 | 3500-RT2 | 28,15 |
| BA 2 | 3500-TB8 | 5,70 | 3500-RT2 | 28,15 |
| BA 4 | 3500-TB5 | 5,70 | 3500-RT1 | 26,07 |
| BA 6 | 3500-TB3 | 5,70 | 3500-RT1 | 26,07 |



| | | € | | € |
|---------------|-----------|------|----------|-------|
| BSB 1/4 - 26 | 3500-TB9 | 5,70 | 3500-RT2 | 28,15 |
| BSB 5/16 - 26 | 3500-TB12 | 6,31 | 3500-RT2 | 28,15 |
| BSB 3/8 - 26 | 3500-TB13 | 6,31 | 3500-RT3 | 34,45 |
| BSB 7/16 - 26 | 3500-TB14 | 7,64 | 3500-RT3 | 34,45 |
| BSB 1/2 - 26 | 3500-TB15 | 7,64 | 3500-RT3 | 34,45 |

BROCA DE METAL DURO PARA PERFURAÇÃO DE MACHOS E PARAFUSOS QUEBRADOS

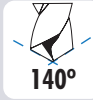
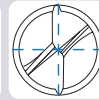
Ref. BC85

**70
HRC**

MD

TOL D1
h7

TOL D2
h6

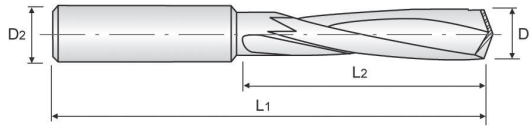


TiAIN

**HARDOX
600**

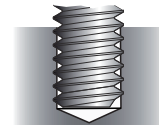


Broca especial para HARDOX 600

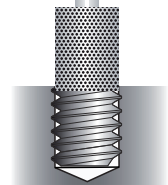


FURAÇÃO DE PARAFUSOS E MACHOS QUEBRADOS

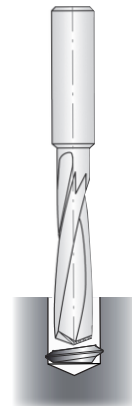
Parafuso quebrado



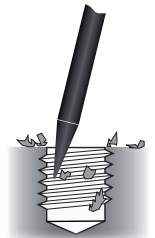
PASSO 1
Limpar a superfície



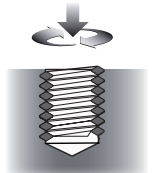
PASSO 2
Furar com a broca BC85



PASSO 3
Remover os restos



PASSO 4 (Opcional)
Reparar a rosca
com insertos



| BC85 | | | | | | |
|----------|----------|----------|----------|----------|-----|--------|
| | D1 mm | D2 mm | L1 mm | L2 mm | | |
| BC850300 | 3,0 | 3 | 46 | 16 | | 49,79 |
| BC850330 | 3,3 | 4 | 48 | 18 | M4 | 57,14 |
| BC850340 | 3,4 | 4 | 50 | 20 | | 57,14 |
| BC850350 | 3,5 | 4 | 50 | 20 | | 57,14 |
| BC850400 | 4,0 | 4 | 52 | 22 | | 58,30 |
| BC850420 | 4,2 | 6 | 65 | 25 | M5 | 82,78 |
| BC850430 | 4,3 | 6 | 68 | 28 | | 82,78 |
| BC850440 | 4,4 | 6 | 68 | 28 | | 82,78 |
| BC850450 | 4,5 | 6 | 68 | 28 | | 82,78 |
| BC850500 | 5,0 | 6 | 72 | 32 | M6 | 82,78 |
| BC850510 | 5,1 | 6 | 72 | 32 | | 82,78 |
| BC850520 | 5,2 | 6 | 72 | 32 | | 82,78 |
| BC850550 | 5,5 | 6 | 75 | 35 | | 82,78 |
| BC850600 | 6,0 | 6 | 75 | 35 | | 82,78 |
| BC850650 | 6,5 | 8 | 80 | 40 | | 102,69 |
| BC850680 | 6,8 | 8 | 85 | 45 | M8 | 102,69 |
| BC850690 | 6,9 | 8 | 85 | 45 | | 102,69 |
| BC850700 | 7,0 | 8 | 85 | 45 | | 102,69 |
| BC850750 | 7,5 | 8 | 85 | 45 | | 102,69 |
| BC850800 | 8,0 | 8 | 98 | 50 | | 102,69 |
| BC850850 | 8,5 | 10 | 98 | 50 | M10 | 156,94 |
| BC850860 | 8,6 | 10 | 105 | 57 | | 156,94 |
| BC850880 | 8,8 | 10 | 105 | 57 | | 156,94 |
| BC850900 | 9,0 | 10 | 105 | 57 | | 156,94 |
| BC850950 | 9,5 | 10 | 105 | 57 | | 156,94 |
| BC851000 | 10,0 | 10 | 111 | 63 | | 156,94 |
| BC851020 | 10,2 | 12 | 111 | 63 | M12 | 203,26 |
| BC851030 | 10,3 | 12 | 111 | 63 | | 238,49 |
| BC851050 | 10,5 | 12 | 111 | 63 | | 238,49 |
| BC851080 | 10,8 | 12 | 119 | 71 | | 238,49 |
| BC851100 | 11,0 | 12 | 119 | 71 | | 238,49 |
| BC851150 | 11,5 | 12 | 119 | 71 | | 238,49 |
| BC851200 | 12,0 | 12 | 119 | 71 | M14 | 238,49 |
| BC851400 | 14,0 | 14 | 125 | 77 | M16 | 271,01 |

| HRC | 50-55 | | 55-60 | | 60-70 | |
|-----|----------|----------|----------|----------|----------|----------|
| | VC | | VC | | VC | |
| | (R.P.M.) | (mm/min) | (R.P.M.) | (mm/min) | (R.P.M.) | (mm/min) |
| 3 | 1900 | 0.04 | 1330 | 0.04 | 1000 | 0.04 |
| 4 | 1430 | 0.04 | 1000 | 0.04 | 750 | 0.04 |
| 5 | 1150 | 0.04 | 800 | 0.04 | 600 | 0.04 |
| 6 | 960 | 0.04 | 670 | 0.04 | 500 | 0.04 |
| 8 | 720 | 0.04 | 500 | 0.04 | 370 | 0.04 |
| 10 | 570 | 0.04 | 400 | 0.04 | 300 | 0.04 |
| 12 | 480 | 0.04 | 330 | 0.04 | 250 | 0.04 |
| 14 | 438 | 0.04 | 282 | 0.04 | 210 | 0.04 |

BROCAS HELICOIDAIS COM CABO CILINDRICO

HSSCo
5%DIN
338

135°

30°
"N"

GOLD

120
Kg/mm²

| | Ø mm. | Ø " | L1 x L2 mm | € |
|-----------|----------|-------|---------------|-------|
| 3520-0210 | 2.10 | - | 49x24 | 2,80 |
| 3520-0230 | 2.30 | 3/32 | 53x27 | 2,80 |
| 3520-0240 | 2.40 | - | 57x30 | 2,80 |
| 3520-0260 | 2.60 | - | 57x30 | 2,69 |
| 3520-0270 | 2.70 | - | 61x33 | 2,69 |
| 3520-0290 | 2.90 | - | 61x33 | 2,69 |
| 3520-0300 | 3.00 | - | 61x33 | 2,14 |
| 3520-0320 | 3.20 | 1/8 | 65x36 | 2,58 |
| 3520-0340 | 3.40 | - | 70x39 | 2,69 |
| 3520-0370 | 3.70 | - | 70x39 | 3,24 |
| 3520-0380 | 3.80 | - | 75x43 | 3,24 |
| 3520-0420 | 4.20 | - | 75x43 | 3,06 |
| 3520-0430 | 4.30 | - | 80x47 | 3,24 |
| 3520-0440 | 4.40 | 11/64 | 80x47 | 3,24 |
| 3520-0480 | 4.80 | - | 86x52 | 3,60 |
| 3520-0490 | 4.90 | - | 86x52 | 3,60 |
| 3520-0500 | 5.00 | - | 86x52 | 3,28 |
| 3520-0510 | 5.10 | - | 86x52 | 3,94 |
| 3520-0520 | 5.20 | 13/64 | 86x52 | 3,94 |
| 3520-0550 | 5.50 | 7/32 | 93x57 | 4,16 |
| 3520-0570 | 5.70 | 15/64 | 93x57 | 4,92 |
| 3520-0620 | 6.20 | - | 101x63 | 5,48 |
| 3520-0630 | 6.30 | 1/4 | 101x63 | 5,48 |
| 3520-0660 | 6.60 | - | 101x63 | 6,58 |
| 3520-0670 | 6.70 | 17/64 | 101x63 | 6,58 |
| 3520-0690 | 6.90 | - | 109x69 | 6,58 |
| 3520-0730 | 7.30 | 9/32 | 109x69 | 8,38 |
| 3520-0760 | 7.60 | - | 117x75 | 10,08 |
| 3520-0800 | 8.00 | 5/16 | 117x75 | 7,25 |
| 3520-0820 | 8.20 | - | 117x75 | 9,67 |
| 3520-0830 | 8.30 | 21/64 | 117x75 | 9,67 |

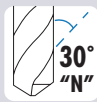
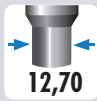
| | Ø mm. | Ø " | L1 x L2 mm | € |
|-----------|----------|-------|---------------|-------|
| 3520-0840 | 8.40 | - | 117x75 | 9,67 |
| 3520-0880 | 8.80 | - | 125x81 | 12,29 |
| 3520-0930 | 9.30 | 23/64 | 125x81 | 13,61 |
| 3520-0940 | 9.40 | 3/8 | 125x81 | 13,57 |
| 3520-0980 | 9.80 | - | 133x87 | 15,95 |
| 3520-0990 | 9.90 | 25/64 | 133x87 | 15,95 |
| 3520-1000 | 10.00 | - | 133x87 | 10,96 |
| 3520-1010 | 10.10 | - | 133x87 | 18,34 |
| 3520-1030 | 10.30 | 13/32 | 133x87 | 18,38 |
| 3520-1040 | 10.40 | - | 133x87 | 18,34 |
| 3520-1080 | 10.80 | - | 142x94 | 21,33 |
| 3520-1110 | 11.10 | 7/16 | 142x94 | 24,33 |
| 3520-1130 | 11.30 | - | 142x94 | 24,33 |
| 3520-1140 | 11.40 | - | 142x94 | 24,33 |
| 3520-1150 | 11.50 | 29/64 | 142x94 | 20,48 |
| 3520-1160 | 11.60 | - | 142x94 | 25,14 |
| 3520-1230 | 12.30 | - | 151x101 | 29,18 |
| 3520-1240 | 12.40 | 31/64 | 151x101 | 29,18 |
| 3520-1250 | 12.50 | - | 151x101 | 26,65 |
| 3520-1270 | 12.70 | 1/2 | 151x101 | 30,37 |
| 3520-1280 | 12.80 | - | 151x101 | 30,37 |
| 3520-1300 | 13.00 | 33/64 | 151x101 | 27,24 |
| 3520-1325 | 13.25 | - | 160x108 | 37,71 |
| 3520-1350 | 13.50 | - | 160x108 | 30,03 |
| 3520-1375 | 13.75 | - | 160x108 | 37,71 |
| 3520-1425 | 14.25 | 9/16 | 169x114 | 49,55 |
| 3520-1450 | 14.50 | - | 169x114 | 42,12 |
| 3520-1475 | 14.75 | - | 169x114 | 49,55 |
| 3520-1500 | 15.00 | 19/32 | 169x114 | 42,75 |
| 3520-1525 | 15.25 | - | 178x120 | 68,36 |

BROCAS HELICOIDAIS COM CABO REDUZIDO

BROCAS HELICOIDAIS COM CABO CÔNICO

HSSCo
5%

DIN
338



GOLD



| | Ø mm. | Ø " | L1 x L2 mm | € |
|------------------|-------|-------|------------|---------------|
| 3520-1550 | 15.50 | 39/64 | 178x120 | 63,88 |
| 3520-1650 | 16.50 | - | 184x125 | 75,04 |
| 3520-1675 | 16.75 | - | 184x125 | 100,58 |
| 3520-1700 | 17.00 | - | 184x125 | 75,53 |
| 3520-1750 | 17.50 | - | 191x130 | 83,13 |
| 3520-1850 | 18.50 | 23/32 | 198x135 | 101,65 |
| 3520-1875 | 18.75 | - | 198x135 | 127,45 |
| 3520-1900 | 19.00 | 3/4 | 198x135 | 100,77 |
| 3520-1950 | 19.50 | 49/64 | 205x140 | 111,65 |
| 3520-2000 | 20.00 | - | 205x240 | 119,63 |
| 3520-2050 | 20.50 | 13/16 | 205x140 | 142,41 |

HSS

DIN
345



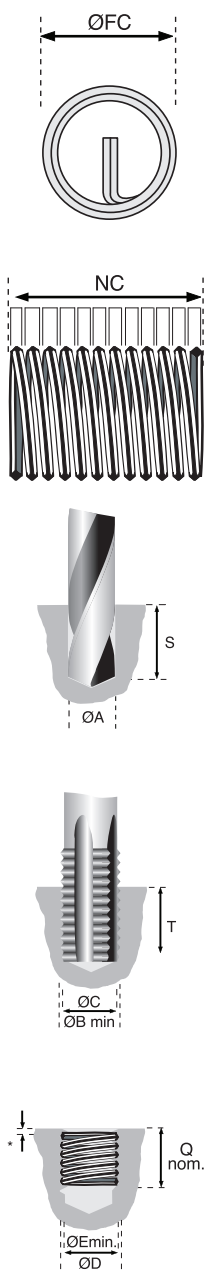
OX



| | Ø mm. | Ø " | L1 x L2 mm | € |
|------------------|-------|---------|------------|---------------|
| 3520-2075 | 20.75 | - | 243x145 | 77,14 |
| 3520-2100 | 21.00 | - | 243x145 | 73,72 |
| 3520-2150 | 21.50 | 27/32 | 248x150 | 73,72 |
| 3520-2250 | 22.50 | 57/64 | 253x155 | 80,82 |
| 3520-2275 | 22.75 | - | 253x155 | 93,17 |
| 3520-2300 | 23.00 | 29/32 | 253x155 | 80,64 |
| 3520-2325 | 23.25 | - | 276x155 | 102,72 |
| 3520-2350 | 23.50 | - | 276x155 | 89,49 |
| 3520-2450 | 24.50 | 31/32 | 281x160 | 97,46 |
| 3520-2500 | 25.00 | - | 281x160 | 97,06 |
| 3520-2575 | 25.75 | 1.1/64 | 286x165 | 121,91 |
| 3520-2600 | 26.00 | - | 286x165 | 105,62 |
| 3520-2625 | 26.25 | - | 286x165 | 132,02 |
| 3520-2650 | 26.50 | - | 286x165 | 114,33 |
| 3520-2700 | 27.00 | 1.1/16 | 291x170 | 114,44 |
| 3520-2750 | 27.50 | 1.5/64 | 291x170 | 122,42 |
| 3520-2800 | 28.00 | 1.3/32 | 291x170 | 122,79 |
| 3520-2850 | 28.50 | 1.1/8 | 296x175 | 131,24 |
| 3520-2950 | 29.50 | 1.5/32 | 296x175 | 144,50 |
| 3520-3000 | 30.00 | 1.11/64 | 296x175 | 144,62 |
| 3520-3050 | 30.50 | 1.3/16 | 301x180 | 161,34 |
| 3520-3100 | 31.00 | 1.7/32 | 301x180 | 161,48 |
| 3520-3200 | 32.00 | 1.1/4 | 334x185 | 170,12 |
| 3520-3250 | 32.50 | 1.9/32 | 334x185 | 195,41 |
| 3520-3300 | 33.00 | 1.19/64 | 334x185 | 194,23 |
| 3520-3325 | 33.25 | - | 334x185 | 239,58 |
| 3520-3350 | 33.50 | 1.5/16 | 334x185 | 211,90 |
| 3520-3375 | 33.75 | - | 339x190 | 240,86 |
| 3520-3400 | 34.00 | 1.21/64 | 339x190 | 211,24 |
| 3520-3500 | 35.00 | 1.3/8 | 339x190 | 231,86 |
| 3520-3550 | 35.50 | 1.13/32 | 339x190 | 247,52 |
| 3520-3600 | 36.00 | - | 344x195 | 248,14 |
| 3520-3650 | 36.50 | - | 344x195 | 262,44 |
| 3520-3700 | 37.00 | 1.29/64 | 344x195 | 262,07 |
| 3520-3800 | 38.00 | 1.1/2 | 349x200 | 275,26 |
| 3520-3850 | 38.50 | - | 349x200 | 292,90 |
| 3520-3900 | 39.00 | 1.17/32 | 349x200 | 293,16 |
| 3520-3950 | 39.50 | 1.35/64 | 349x200 | 310,46 |
| 3520-3975 | 39.75 | - | 349x200 | 344,90 |
| 3520-4000 | 40.00 | 1.9/16 | 349x200 | 310,07 |
| 3520-4100 | 41.00 | 1.5/8 | 354x205 | 325,43 |
| 3520-4250 | 42.50 | 1.43/64 | 354x205 | 362,76 |
| 3520-4300 | 43.00 | 1.11/16 | 359x210 | 362,80 |
| 3520-4450 | 44.50 | 1.3/8 | 359x210 | 397,50 |
| 3520-4600 | 46.00 | - | 364x215 | 411,61 |
| 3520-4750 | 47.50 | 1.7/8 | 364x215 | 444,64 |
| 3520-4850 | 48.50 | 1.29/32 | 369x220 | 462,28 |
| 3520-5100 | 51.00 | 2 | 412x225 | 562,76 |


INFORMAÇÃO TÉCNICA PARA INSERTOS LIVRES

| M/MF | |
|-----------|--|
| A | Ø de perfuração ou interior da rosca prévia. |
| B | Ø maior da rosca prévia (Mínimo). |
| C | Ø dos flancos da rosca prévia. |
| D | Ø dos flancos do inserto instalado. |
| E | Ø interior do inserto instalado (Mínimo). |
| FC | Ø exterior do inserto em estado livre. |
| S | Profundidade de perfuração (Mínima). |
| T | Profundidade "útil" da roscagem (Mínima). |
| Q | Rosca "útil" do inserto. |
| NC | Número de filetes ou fios. |



| DIMENSÃO M/MF | Broca | | A max/min mm | FC min/max mm | NC max/min | | | | |
|------------------|-------|---------|-----------------|------------------|-------------|-------------|-------------|-------------|-------------|
| | mm | " | | | 1.0D | 1.5D | 2.0D | 2.5D | 3.0D |
| M2 X 0.40 | 2.10 | #45 | 2.177/2.087 | 2.49/2.70 | 3.30/3.00 | 5.70/5.20 | 8.10/7.40 | 10.50/9.60 | 13.00/11.80 |
| M2.2 X 0.45 | 2.30 | 3/32 | 2.397/2.297 | 2.76/3.00 | 3.20/2.90 | 5.50/5.00 | 7.90/7.10 | 10.30/9.30 | 12.60/11.40 |
| M2.5 X 0.45 | 2.60 | #37 | 2.697/2.597 | 3.05/3.70 | 3.80/3.10 | 6.50/5.20 | 9.20/7.40 | 11.90/9.50 | 14.60/11.70 |
| M3 X 0.50 | 3.20 | 1/8 | 3.220/3.108 | 3.61/4.35 | 4.30/3.40 | 7.20/5.80 | 10.10/8.20 | 13.10/10.50 | 16.00/12.90 |
| M3.5 X 0.60 | 3.70 | #27 | 3.755/3.630 | 4.24/4.95 | 4.10/3.40 | 7.00/5.80 | 9.80/8.20 | 12.60/10.50 | 15.50/12.90 |
| M4 x 0.70 | 4.20 | - | 4.292/4.152 | 4.86/5.60 | 4.00/3.40 | 6.80/5.70 | 9.60/8.10 | 12.30/10.50 | 15.10/12.80 |
| M5 X 0.80 | 5.20 | 13/64 | 5.333/5.173 | 5.98/6.80 | 4.50/3.90 | 7.60/6.50 | 10.60/9.20 | 13.70/11.80 | 16.70/14.40 |
| M6 X 1.00 | 6.30 | 1/4 | 6.406/6.216 | 7.23/7.95 | 4.30/3.80 | 7.20/6.40 | 10.10/9.10 | 13.10/11.70 | 16.00/14.30 |
| M7 X 1.00 | 7.30 | 9/32 | 7.406/7.216 | 8.22/9.20 | 5.30/4.60 | 8.70/7.70 | 12.10/10.70 | 15.60/13.70 | 19.00/16.70 |
| M8 X 1.25 | 8.30 | 21/64 | 8.483/8.271 | 9.53/10.35 | 4.70/4.20 | 7.80/7.10 | 10.90/9.90 | 14.10/12.80 | 17.20/15.60 |
| M8 X 1.00 | 8.30 | 21/64 | 8.406/8.216 | 9.39/10.25 | 6.10/5.60 | 10.00/9.10 | 13.80/12.50 | 17.70/16.00 | 21.50/19.50 |
| M9 X 1.25 | 9.40 | 3/8 | 9.483/9.271 | 10.52/11.16 | 5.50/5.10 | 9.00/8.40 | 12.50/11.70 | 16.10/15.00 | 19.60/18.30 |
| M9 x 1.00 | 9.30 | 23/64 | 9.406/9.216 | 10.40/11.23 | 7.10/6.50 | 11.50/10.50 | 15.80/14.50 | 20.20/18.50 | 24.50/22.50 |
| M10 X 1.50 | 10.40 | - | 10.561/10.325 | 11.83/12.50 | 4.90/4.60 | 8.20/7.70 | 11.50/10.80 | 14.70/13.80 | 18.00/16.90 |
| M10 X 1.25 | 10.30 | 13/32 | 10.483/10.271 | 11.74/12.65 | 6.10/5.60 | 10.00/9.20 | 13.80/12.70 | 17.70/16.30 | 21.50/19.80 |
| M10 x 1.00 | 10.30 | 13/32 | 10.406/10.216 | 11.41/12.50 | 8.10/7.30 | 12.90/11.70 | 17.80/16.10 | 22.60/20.50 | 27.50/24.90 |
| M11 X 1.50 | 11.40 | - | 11.561/11.325 | 12.82/13.59 | 5.60/5.20 | 9.20/8.60 | 12.80/12.00 | 16.40/15.40 | 20.00/18.70 |
| M11 X 1.25 | 11.30 | - | 11.483/11.271 | 12.75/13.76 | 6.90/6.40 | 11.20/10.30 | 15.40/14.20 | 19.70/18.10 | 23.90/22.00 |
| M11 X 1.00 | 11.30 | - | 11.406/11.216 | 12.42/13.41 | 9.10/8.40 | 14.40/13.30 | 19.80/18.20 | 25.10/23.10 | 30.40/28.00 |
| M12 X 1.75 | 12.50 | - | 12.644/12.379 | 14.13/15.00 | 5.10/4.80 | 8.50/7.90 | 11.90/11.10 | 15.20/14.20 | 18.60/17.30 |
| M12 X 1.50 | 12.40 | 31/64 | 12.561/12.325 | 14.09/15.20 | 6.10/5.60 | 10.00/9.20 | 13.80/12.70 | 17.70/16.20 | 21.50/19.80 |
| M12 X 1.25 | 12.30 | - | 12.483/12.271 | 13.76/15.00 | 7.70/7.00 | 12.40/11.20 | 17.00/15.50 | 21.60/19.70 | 26.30/23.90 |
| M12 X 1.00 | 12.30 | - | 12.406/12.216 | 13.43/14.49 | 10.10/9.30 | 15.90/14.70 | 21.70/20.00 | 27.60/25.40 | 33.40/30.80 |
| M13 X 1.75 | 13.50 | - | 13.644/13.379 | 15.12/16.04 | 5.70/5.30 | 9.40/8.70 | 13.00/12.20 | 16.70/15.60 | 20.30/19.00 |
| M13 X 1.50 | 13.25 | - | 13.561/13.325 | 15.10/16.29 | 6.80/6.20 | 11.00/10.10 | 15.20/13.90 | 19.30/17.80 | 23.50/21.60 |
| M13 X 1.25 | 13.25 | - | 13.483/13.271 | 14.77/15.94 | 8.50/7.80 | 13.50/12.50 | 18.60/17.10 | 23.60/21.70 | 28.70/26.40 |
| M14 X 2.00 | 14.50 | - | 14.733/14.433 | 16.43/17.35 | 5.30/5.00 | 8.70/8.20 | 12.10/11.40 | 15.60/14.60 | 19.00/17.90 |
| M14 X 1.50 | 14.50 | - | 14.561/14.325 | 16.11/17.25 | 7.50/6.90 | 12.00/11.10 | 16.50/15.30 | 21.00/19.40 | 25.50/23.60 |
| M14 X 1.25 | 14.25 | 9/16 | 14.483/14.271 | 15.78/17.03 | 9.30/8.60 | 14.70/13.60 | 20.20/18.60 | 25.60/23.60 | 31.00/28.60 |
| M14 X 1.00 | 14.25 | 9/16 | 14.406/14.216 | 15.45/16.68 | 12.10/11.10 | 18.90/17.40 | 25.70/23.70 | 32.50/30.00 | 39.30/36.20 |
| M15 X 2.00 | 15.50 | 39/64 | 15.733/15.433 | 17.42/18.48 | 5.80/5.40 | 9.50/8.80 | 13.10/12.30 | 16.80/15.70 | 20.50/19.20 |
| M15 X 1.50 | 15.25 | - | 15.561/15.325 | 17.12/18.47 | 8.10/7.50 | 12.90/11.90 | 17.80/16.40 | 22.60/20.80 | 27.50/25.30 |
| M16 X 2.00 | 16.50 | - | 16.733/16.433 | 18.41/19.60 | 6.30/5.90 | 10.20/9.50 | 14.20/13.20 | 18.10/16.90 | 22.00/20.50 |
| M16 X 1.50 | 16.50 | - | 16.561/16.325 | 18.13/19.60 | 8.80/8.00 | 13.90/12.80 | 19.10/17.50 | 24.30/22.30 | 29.40/27.00 |
| M18 X 2.50 | 19.00 | 3/4 | 18.896/18.541 | 21.04/22.00 | 5.50/5.20 | 9.00/8.60 | 12.50/11.90 | 16.10/15.30 | 19.60/18.60 |
| M18 X 2.00 | 18.50 | 23/32 | 18.733/18.433 | 20.80/21.85 | 7.10/6.70 | 11.50/10.90 | 15.80/15.00 | 20.20/19.10 | 24.50/23.20 |
| M18 X 1.50 | 18.50 | 23/32 | 18.561/18.325 | 20.15/21.75 | 10.10/9.30 | 15.90/14.60 | 21.70/20.00 | 27.60/25.40 | 33.40/30.70 |
| M20 X 2.50 | 20.75 | - | 20.896/20.541 | 23.02/24.40 | 6.30/5.90 | 10.20/9.60 | 14.20/13.30 | 18.10/16.90 | 22.00/20.60 |
| M20 X 2.00 | 20.50 | 13/16 | 20.733/20.433 | 22.82/24.05 | 8.10/7.70 | 12.90/12.20 | 17.80/16.80 | 22.60/21.40 | 27.50/25.90 |
| M20 X 1.50 | 20.50 | 13/16 | 20.561/20.325 | 22.17/24.00 | 11.40/10.50 | 17.90/16.40 | 24.40/22.40 | 30.90/28.30 | 37.40/34.30 |
| M22 X 2.50 | 22.75 | - | 22.896/22.541 | 25.00/26.90 | 7.10/6.50 | 11.40/10.50 | 15.80/14.50 | 20.10/18.50 | 24.50/22.50 |
| M22 X 2.00 | 22.50 | 57/64 | 22.733/22.433 | 24.84/26.50 | 9.10/8.50 | 14.40/13.40 | 19.80/18.40 | 25.10/23.40 | 30.40/28.40 |
| M22 X 1.50 | 22.50 | 57/64 | 22.561/22.325 | 24.19/26.45 | 12.70/11.60 | 19.90/18.10 | 27.00/24.60 | 34.20/31.10 | 41.30/37.60 |
| M24 X 3.00 | 25.00 | - | 25.050/24.650 | 27.62/29.00 | 6.30/5.90 | 10.20/9.70 | 14.20/13.40 | 18.10/17.10 | 22.00/20.90 |
| M24 X 2.00 | 24.50 | 31/32 | 24.733/24.433 | 26.86/29.10 | 10.10/9.20 | 15.90/14.60 | 21.70/19.90 | 27.60/25.30 | 33.40/30.60 |
| M24 X 1.50 | 24.50 | 31/32 | 24.561/24.325 | 26.21/28.28 | 14.00/12.90 | 21.80/20.10 | 29.70/27.30 | 37.50/34.50 | 45.30/41.70 |
| M26 X 1.50 | 26.50 | - | 26.561/26.325 | 28.23/30.46 | 15.40/14.20 | 23.80/22.00 | 32.30/29.80 | 40.80/37.60 | 49.20/45.40 |
| M27 X 3.00 | 28.00 | 1.3/32 | 28.050/27.650 | 30.59/32.40 | 7.30/6.80 | 11.70/11.00 | 16.20/15.20 | 20.60/19.30 | 25.10/23.50 |
| M27 X 2.00 | 27.50 | 1.5/64 | 27.733/27.433 | 29.89/32.30 | 11.60/10.60 | 18.10/16.70 | 24.70/22.70 | 31.30/28.80 | 37.90/34.80 |
| M30 X 3.50 | 31.00 | 1.7/32 | 31.208/30.758 | 34.20/35.81 | 6.90/6.50 | 11.10/10.50 | 15.30/14.50 | 19.50/18.60 | 23.80/22.60 |
| M30 X 3.00 | 31.00 | 1.7/32 | 31.050/30.650 | 34.24/36.10 | 8.10/7.60 | 12.90/12.20 | 17.80/16.80 | 22.60/21.30 | 27.50/25.90 |
| M30 X 2.00 | 30.50 | 1.3/16 | 30.733/30.433 | 32.92/35.70 | 13.00/12.00 | 20.40/18.70 | 27.70/25.40 | 35.00/32.10 | 42.30/38.80 |
| M33 X 3.50 | 34.00 | 1.21/64 | 34.208/33.758 | 37.17/38.80 | 7.70/7.40 | 12.40/11.80 | 17.00/16.20 | 21.70/20.70 | 26.40/25.10 |
| M33 X 3.00 | 33.50 | 1.5/16 | 34.050/33.650 | 37.27/39.50 | 9.10/8.50 | 14.40/13.50 | 19.80/18.50 | 25.10/23.60 | 30.40/28.60 |
| M33 X 2.00 | 33.50 | 1.5/16 | 33.733/33.433 | 35.95/39.20 | 14.50/13.30 | 22.60/20.60 | 30.60/28.00 | 38.70/35.30 | 46.80/42.70 |
| M36 X 4.00 | 37.00 | 1.29/64 | 37.341/36.866 | 40.78/42.67 | 7.30/6.90 | 11.70/11.20 | 16.20/15.40 | 20.60/19.60 | 25.10/23.80 |
| M36 X 3.00 | 37.00 | 1.29/64 | 37.050/36.650 | 40.30/42.70 | 10.10/9.50 | 15.90/14.90 | 21.70/20.40 | 27.60/25.90 | 33.40/31.40 |
| M39 X 4.00 | 40.00 | 1.9/16 | 40.341/39.866 | 43.75/45.75 | 8.00/7.70 | 12.90/12.20 | 17.70/16.80 | 22.50/21.40 | 27.30/26.00 |
| M42 X 4.50 | 43.00 | 1.11/16 | 43.505/42.975 | 47.37/49.00 | 7.60/7.30 | 12.20/11.80 | 16.80/16.20 | 21.50/20.70 | 26.10/25.10 |
| M42 X 3.00 | 42.50 | 1.43/64 | 43.050/42.650 | 46.36/49.00 | 12.10/11.40 | 18.90/17.80 | 25.70/24.20 | 32.50/30.60 | 39.30/37.10 |

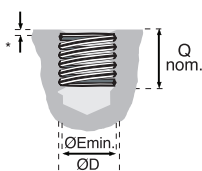
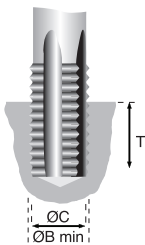
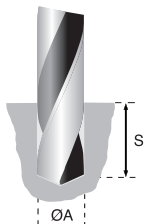
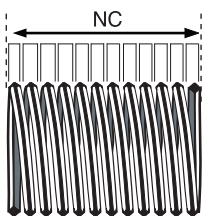
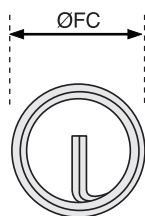


INFORMAÇÃO TÉCNICA PARA INSERTOS LIVRES

| B mm | C (5H) mm | D (4H) mm | C (6H) mm | D (5H) mm | E mm | S | | | | | T | | | | | Q | | | | |
|---------|---------------|---------------|---------------|---------------|---------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| | | | | | | 1.0D | 1.5D | 2.0D | 2.5D | 3.0D | 1.0D | 1.5D | 2.0D | 2.5D | 3.0D | 1.0D | 1.5D | 2.0D | 2.5D | 3.0D |
| 2.520 | 2.296/2.260 | 1.796/1.740 | 2.311/2.260 | 1.811/1.740 | 1.567 | 3.80 | 4.80 | 5.80 | 6.80 | 7.80 | 3.40 | 4.40 | 5.40 | 6.40 | 7.40 | 2.00 | 3.00 | 4.00 | 5.00 | 6.00 |
| 2.785 | 2.532/2.492 | 1.968/1.908 | 2.547/2.492 | 1.983/1.908 | 1.713 | 4.23 | 5.33 | 6.43 | 7.53 | 8.63 | 3.78 | 4.88 | 5.98 | 7.08 | 8.18 | 2.20 | 3.30 | 4.40 | 5.50 | 6.60 |
| 3.085 | 2.832/2.792 | 2.268/2.208 | 2.847/2.792 | 2.283/2.208 | 2.013 | 4.53 | 5.78 | 7.03 | 8.28 | 9.53 | 4.08 | 5.33 | 6.58 | 7.83 | 9.08 | 2.50 | 3.75 | 5.00 | 6.25 | 7.50 |
| 3.650 | 3.367/3.325 | 2.738/2.675 | 3.384/3.325 | 2.755/2.675 | 2.459 | 5.25 | 6.75 | 8.25 | 9.75 | 11.25 | 4.75 | 6.25 | 7.75 | 9.25 | 10.75 | 3.00 | 4.50 | 6.00 | 7.50 | 9.00 |
| 4.279 | 3.940/3.890 | 3.181/3.110 | 3.959/3.890 | 3.200/3.110 | 2.850 | 6.20 | 7.95 | 9.70 | 11.45 | 13.20 | 5.60 | 7.35 | 9.10 | 10.85 | 12.60 | 3.50 | 5.25 | 7.00 | 8.75 | 10.50 |
| 4.909 | 4.509/4.455 | 3.620/3.545 | 4.529/4.455 | 3.640/3.545 | 3.242 | 7.15 | 9.15 | 11.15 | 13.15 | 15.15 | 6.45 | 8.45 | 10.45 | 12.45 | 14.45 | 4.00 | 6.00 | 8.00 | 10.00 | 12.00 |
| 6.039 | 5.577/5.520 | 4.560/4.480 | 5.597/5.520 | 4.580/4.480 | 4.134 | 8.60 | 11.10 | 13.60 | 16.10 | 18.60 | 7.80 | 10.30 | 12.80 | 15.30 | 17.80 | 5.00 | 7.50 | 10.00 | 12.50 | 15.00 |
| 7.299 | 6.719/6.650 | 5.445/5.350 | 6.742/6.650 | 5.468/5.350 | 4.917 | 10.50 | 13.50 | 16.50 | 19.50 | 22.50 | 9.50 | 12.50 | 15.50 | 18.50 | 21.50 | 6.00 | 9.00 | 12.00 | 15.00 | 18.00 |
| 8.299 | 7.719/7.650 | 6.445/6.350 | 7.742/7.650 | 6.468/6.350 | 5.917 | 11.50 | 15.00 | 18.50 | 22.00 | 25.50 | 10.50 | 14.00 | 17.50 | 21.00 | 24.50 | 7.00 | 10.50 | 14.00 | 17.50 | 21.00 |
| 9.624 | 8.886/8.812 | 7.288/7.188 | 8.912/8.812 | 7.313/7.188 | 6.647 | 13.63 | 17.63 | 21.63 | 25.63 | 29.63 | 12.38 | 16.38 | 20.38 | 24.38 | 28.38 | 8.00 | 12.00 | 16.00 | 20.00 | 24.00 |
| 9.299 | 8.719/8.650 | 7.445/7.350 | 8.742/8.650 | 7.468/7.350 | 6.917 | 12.50 | 16.50 | 20.50 | 24.50 | 28.50 | 11.50 | 15.50 | 19.50 | 23.50 | 27.50 | 8.00 | 12.00 | 16.00 | 20.00 | 24.00 |
| 10.624 | 9.886/9.812 | 8.288/8.188 | 9.912/9.812 | 8.313/8.188 | 7.647 | 14.63 | 19.13 | 23.63 | 28.13 | 32.63 | 13.38 | 17.88 | 22.38 | 26.88 | 31.38 | 9.00 | 13.50 | 18.00 | 22.50 | 27.00 |
| 10.299 | 9.719/9.650 | 8.445/8.350 | 9.742/9.650 | 8.468/8.350 | 7.917 | 13.50 | 18.00 | 22.50 | 27.00 | 31.50 | 12.50 | 17.00 | 21.50 | 26.00 | 30.50 | 9.00 | 13.50 | 18.00 | 22.50 | 27.00 |
| 11.949 | 11.061/10.974 | 9.138/9.026 | 11.089/10.974 | 9.166/9.026 | 8.376 | 16.75 | 21.75 | 26.75 | 31.75 | 36.75 | 15.25 | 20.25 | 25.25 | 30.25 | 35.25 | 10.00 | 15.00 | 20.00 | 25.00 | 30.00 |
| 11.624 | 10.886/10.812 | 9.288/9.188 | 10.912/10.812 | 9.313/9.188 | 8.647 | 15.63 | 20.63 | 25.63 | 30.63 | 35.63 | 14.38 | 19.38 | 24.38 | 29.38 | 34.38 | 10.00 | 15.00 | 20.00 | 25.00 | 30.00 |
| 11.299 | 10.724/10.650 | 9.445/9.350 | 10.742/10.650 | 9.468/9.350 | 8.917 | 14.50 | 19.50 | 24.50 | 29.50 | 34.50 | 13.50 | 18.50 | 23.50 | 28.50 | 33.50 | 10.00 | 15.00 | 20.00 | 25.00 | 30.00 |
| 12.949 | 12.061/11.974 | 10.138/10.026 | 12.089/11.974 | 10.166/10.026 | 9.376 | 17.75 | 23.25 | 28.75 | 34.25 | 39.75 | 16.25 | 21.75 | 27.25 | 32.75 | 38.25 | 11.00 | 16.50 | 22.00 | 27.50 | 33.00 |
| 12.624 | 11.898/11.812 | 10.300/10.188 | 11.926/11.812 | 10.328/10.188 | 9.647 | 16.63 | 22.13 | 27.63 | 33.13 | 38.63 | 15.38 | 20.88 | 26.38 | 31.88 | 37.38 | 11.00 | 16.50 | 22.00 | 27.50 | 33.00 |
| 12.299 | 11.724/11.650 | 10.445/10.350 | 11.742/11.650 | 10.468/10.350 | 9.917 | 15.50 | 21.00 | 26.50 | 32.00 | 37.50 | 14.50 | 20.00 | 25.50 | 31.00 | 36.50 | 11.00 | 16.50 | 22.00 | 27.50 | 33.00 |
| 14.273 | 13.236/13.137 | 10.988/10.863 | 13.271/13.137 | 11.023/10.863 | 10.106 | 19.88 | 25.88 | 31.88 | 37.88 | 43.88 | 18.13 | 24.13 | 30.13 | 36.13 | 42.13 | 12.00 | 18.00 | 24.00 | 30.00 | 36.00 |
| 13.949 | 13.067/12.974 | 11.144/11.026 | 13.099/12.974 | 11.176/11.026 | 10.376 | 18.75 | 24.75 | 30.75 | 36.75 | 42.75 | 17.25 | 23.25 | 29.25 | 35.25 | 41.25 | 12.00 | 18.00 | 24.00 | 30.00 | 36.00 |
| 13.624 | 12.898/12.812 | 11.300/11.188 | 12.926/12.812 | 11.328/11.188 | 10.647 | 17.63 | 23.63 | 29.63 | 35.63 | 41.63 | 16.38 | 22.38 | 28.38 | 34.38 | 40.38 | 12.00 | 18.00 | 24.00 | 30.00 | 36.00 |
| 13.299 | 12.724/12.649 | 11.450/11.350 | 12.749/12.649 | 11.475/11.350 | 10.917 | 16.50 | 22.50 | 28.50 | 34.50 | 40.50 | 15.50 | 21.50 | 27.50 | 33.50 | 39.50 | 12.00 | 18.00 | 24.00 | 30.00 | 36.00 |
| 15.273 | 14.236/14.137 | 11.988/11.863 | 14.271/14.137 | 12.023/11.863 | 11.106 | 20.88 | 27.38 | 33.88 | 40.38 | 46.88 | 19.13 | 25.63 | 32.13 | 38.63 | 45.13 | 13.00 | 19.50 | 26.00 | 32.50 | 39.00 |
| 14.949 | 14.067/13.974 | 12.144/12.026 | 14.099/13.974 | 12.176/12.026 | 11.376 | 19.75 | 26.25 | 32.75 | 39.25 | 45.75 | 18.25 | 24.75 | 31.25 | 37.75 | 44.25 | 13.00 | 19.50 | 26.00 | 32.50 | 39.00 |
| 14.624 | 13.898/13.812 | 12.300/12.188 | 13.926/13.812 | 12.328/12.188 | 11.647 | 18.63 | 25.13 | 31.63 | 38.13 | 44.63 | 17.38 | 23.88 | 30.38 | 36.88 | 43.38 | 13.00 | 19.50 | 26.00 | 32.50 | 39.00 |
| 16.598 | 15.406/15.299 | 13.833/12.701 | 15.444/15.299 | 12.871/12.701 | 11.835 | 23.00 | 30.00 | 37.00 | 44.00 | 51.00 | 21.00 | 28.00 | 35.00 | 42.00 | 49.00 | 14.00 | 21.00 | 28.00 | 35.00 | 42.00 |
| 15.949 | 15.067/14.974 | 13.144/13.026 | 15.099/14.974 | 13.176/13.026 | 12.376 | 20.75 | 27.75 | 34.75 | 41.75 | 48.75 | 19.25 | 26.25 | 33.25 | 40.25 | 47.25 | 14.00 | 21.00 | 28.00 | 35.00 | 42.00 |
| 15.624 | 14.898/14.812 | 13.300/13.188 | 14.926/14.812 | 13.328/13.188 | 12.674 | 19.63 | 26.63 | 33.63 | 40.63 | 47.63 | 18.38 | 25.38 | 32.38 | 39.38 | 46.38 | 14.00 | 21.00 | 28.00 | 35.00 | 42.00 |
| 15.299 | 14.724/14.649 | 13.450/13.350 | 14.749/14.649 | 13.475/13.350 | 12.917 | 18.50 | 25.50 | 32.50 | 39.50 | 46.50 | 17.50 | 24.50 | 31.50 | 38.50 | 45.50 | 14.00 | 21.00 | 28.00 | 35.00 | 42.00 |
| 17.598 | 16.406/16.299 | 13.833/13.701 | 16.444/16.299 | 13.871/13.701 | 12.835 | 24.00 | 31.50 | 39.00 | 46.50 | 54.00 | 22.00 | 29.50 | 37.00 | 44.50 | 52.00 | 15.00 | 22.50 | 30.00 | 37.50 | 45.00 |
| 16.949 | 16.067/15.974 | 14.144/14.026 | 16.099/15.974 | 14.176/14.026 | 13.376 | 21.75 | 29.25 | 36.75 | 44.25 | 51.75 | 20.25 | 27.75 | 35.25 | 42.75 | 50.25 | 15.00 | 22.50 | 30.00 | 37.50 | 45.00 |
| 18.598 | 17.406/17.299 | 14.833/14.701 | 17.444/17.299 | 14.871/14.701 | 13.835 | 25.00 | 33.00 | 41.00 | 49.00 | 57.00 | 23.00 | 31.00 | 39.00 | 47.00 | 55.00 | 16.00 | 24.00 | 32.00 | 40.00 | 48.00 |
| 17.949 | 17.067/16.974 | 15.144/15.026 | 17.099/16.974 | 15.176/15.026 | 14.376 | 22.75 | 30.75 | 38.75 | 46.75 | 54.75 | 21.25 | 29.25 | 37.25 | 45.25 | 53.25 | 16.00 | 24.00 | 32.00 | 40.00 | 48.00 |
| 21.248 | 19.738/19.624 | 16.516/16.376 | 19.778/19.624 | 16.556/16.376 | 15.294 | 29.25 | 38.25 | 47.25 | 56.25 | 65.25 | 26.75 | 35.75 | 44.75 | 53.75 | 62.75 | 18.00 | 27.00 | 36.00 | 45.00 | 54.00 |
| 20.598 | 19.406/19.299 | 16.833/16.701 | 19.444/19.299 | 16.871/16.701 | 15.835 | 27.00 | 36.00 | 45.00 | 54.00 | 63.00 | 25.00 | 34.00 | 43.00 | 52.00 | 61.00 | 18.00 | 27.00 | 36.00 | 45.00 | 54.00 |
| 19.949 | 19.067/18.974 | 17.144/17.026 | 19.099/18.974 | 17.176/17.026 | 16.376 | 24.75 | 33.75 | 42.75 | 51.75 | 60.75 | 23.25 | 32.25 | 41.25 | 50.25 | 59.25 | 18.00 | 27.00 | 36.00 | 45.00 | 54.00 |
| 23.248 | 21.738/21.624 | 18.516/18.376 | 21.778/21.624 | 18.556/18.376 | 17.294 | 31.25 | 41.25 | 51.25 | 61.25 | 71.25 | 28.75 | 38.75 | 48.75 | 58.75 | 68.75 | 20.00 | 30.00 | 40.00 | 50.00 | 60.00 |
| 22.598 | 21.406/21.299 | 18.833/18.701 | 21.444/21.299 | 18.871/18.701 | 17.835 | 29.00 | 39.00 | 49.00 | 59.00 | 69.00 | 27.00 | 37.00 | 47.00 | 57.00 | 67.00 | 20.00 | 30.00 | 40.00 | 50.00 | 60.00 |
| 21.949 | 21.067/20.974 | 19.144/19.026 | 21.099/20.974 | 19.176/19.026 | 18.376 | 26.75 | 36.75 | 46.75 | 56.75 | 66.75 | 25.25 | 35.25 | 45.25 | 55.25 | 65.25 | 20.00 | 30.00 | 40.00 | 50.00 | 60.00 |
| 25.248 | 23.738/23.624 | 20.516/20.376 | 23.778/23.624 | 20.556/20.376 | 19.294 | 33.25 | 44.25 | 55.25 | 66.25 | 77.25 | 30.75 | 41.75 | 52.75 | 63.75 | 74.75 | 22.00 | 33.00 | 44.00 | 55.00 | 66.00 |
| 24.598 | 23.406/23.299 | 20.833/20.701 | 23.444/23.299 | 20.871/20.701 | 19.835 | 31.00 | 42.00 | 53.00 | 64.00 | 75.00 | 29.00 | 40.00 | 51.00 | 62.00 | 73.00 | 22.00 | 33.00 | 44.00 | 55.00 | 66.00 |
| 23.949 | 23.067/22.974 | 21.144/21.026 | 23.099/22.974 | 21.176/21.026 | 20.376 | 28.75 | 39.75 | 50.75 | 61.75 | 72.75 | 27.25 | 38.25 | 49.25 | 60.25 | 71.25 | 22.00 | 33.00 | 44.00 | 55.00 | 66.00 |
| 27.897 | 26.093/25.948 | 22.221/22.051 | 26.135/25.948 | 22.263/22.051 | 20.752 | 37.50 | 49.50 | 61.50 | 73.50 | 85.50 | 34.50 | 46.50 | 58.50 | 70.50 | 82.50 | 24.00 | 36.00 | 48.00 | 60.00 | 72.00 |
| 26.598 | 25.414/25.299 | 22.841/22.701 | 25.454/25.299 | 22.881/22.701 | 21.835 | 33.00 | 45.00 | 57.00 | 69.00 | 81.00 | 31.00 | 43.00 | 55.00 | 67.00 | 79.00 | 24.00 | 36.00 | 48.00 | 60.00 | 72.00 |
| 25.949 | 25.044/24.975 | 23.121/23.026 | 25.135/24.975 | 23.186/23.026 | 22.376 | 30.75 | 42.75 | 54.75 | 66.75 | 78.75 | 29.25 | 41.25 | 53.25 | 65.25 | 77.25 | 24.00 | 36.00 | 48.00 | 60.00 | 72.00 |
| 27.949 | 27.044/26.975 | 25.121/25.026 | 27.135/26.975 | 25.186/25.026 | 24.376 | 32.75 | 45.75 | 58.75 | 71.75 | 84.75 | 31.25 | 44.25 | 57.25 | 70.25 | 83.25 | 26.00 | 39.00 | 52.00 | 65.00 | 78.00 |
| 30.897 | 29.093/28.948 | 25.221/25.051 | 29.135/28.948 | 25.263/25.051 | 23.752 | 40.50 | 54.00 | 67.50 | 81.00 | 94.50 | 37.50 | 51.00 | 64.50 | 78.00 | 91.50 | 27.00 | 40.50 | 54.00 | 67.50 | 81.00 |
| 29.598 | 28.414/28.299 | 25.841/25. | | | | | | | | | | | | | | | | | | |


INFORMAÇÃO TÉCNICA PARA INSERTOS LIVRES

| UNF/UNC | BSF |
|-----------|--|
| A | Ø de perfuração ou interior da rosca prévia. |
| B | Ø maior da rosca prévia (Mínimo). |
| C | Ø dos flancos da rosca prévia. |
| D | Ø dos flancos do inserto instalado. |
| E | Ø interior do inserto instalado (Mínimo). |
| FC | Ø exterior do inserto em estado livre. |
| S | Profundidade de perfuração (Mínima). |
| T | Profundidade "útil" da roscagem (Mínima). |
| Q | Rosca "útil" do inserto. |
| NC | Número de filetes ou fios. |



| DIMENSÃO UNF | Broca | | A max/min mm | FC min/max mm | NC max/min | | | | | |
|--------------|-------|---------|--------------|---------------|-------------|-------------|-------------|-------------|-------------|--|
| | mm | " | | | 1.0D | 1.5D | 2.0D | 2.5D | 3.0D | |
| No 2 - 64 | 2.30 | 3/32 | 2.36/2.27 | 2.79/3.05 | 3.70/3.40 | 6.30/5.80 | 8.90/8.20 | 11.60/10.50 | 14.20/12.90 | |
| No 3 - 56 | 2.70 | #37 | 2.71/2.61 | 3.05/3.81 | 3.70/3.10 | 6.40/5.20 | 9.00/7.40 | 11.60/9.60 | 14.30/11.80 | |
| No 4 - 48 | 3.00 | #31 | 3.07/2.96 | 3.56/4.06 | 3.70/3.20 | 6.40/5.40 | 9.00/7.60 | 11.60/9.80 | 14.20/12.10 | |
| No 5 - 44 | 3.40 | #30 | 3.41/3.3 | 4.06/4.32 | 3.70/3.40 | 6.30/5.80 | 8.90/8.20 | 11.50/10.60 | 14.20/13.00 | |
| No 6 - 40 | 3.70 | #27 | 3.75/3.64 | 4.32/4.83 | 3.70/3.20 | 6.30/5.50 | 9.00/7.80 | 11.60/10.10 | 14.20/12.40 | |
| No 8 - 36 | 4.40 | 11/64 | 4.43/4.32 | 5.08/5.59 | 4.10/3.60 | 6.90/6.10 | 9.70/8.60 | 12.50/11.10 | 15.30/13.60 | |
| No 10 - 32 | 5.10 | - | 5.12/5 | 5.84/6.6 | 4.30/3.80 | 7.20/6.40 | 10.10/9.00 | 13.00/11.60 | 15.90/14.20 | |
| 1/4 X 28 | 6.60 | - | 6.72/6.55 | 7.62/8.38 | 5.20/4.70 | 8.50/7.70 | 11.90/10.80 | 15.20/13.80 | 18.60/16.90 | |
| 5/16 X 24 | 8.20 | - | 8.35/8.17 | 9.4/10.16 | 5.60/5.10 | 9.20/8.50 | 12.80/11.70 | 16.40/15.00 | 20.00/18.30 | |
| 3/8 X 24 | 9.80 | - | 9.93/9.75 | 10.92/11.94 | 7.10/6.50 | 11.40/10.50 | 15.80/14.50 | 20.10/18.50 | 24.50/22.50 | |
| 7/16 X 20 | 11.50 | 29/64 | 11.58/11.39 | 12.95/13.97 | 6.90/6.30 | 11.10/10.20 | 15.30/14.00 | 19.50/17.90 | 23.70/21.70 | |
| 1/2 X 20 | 13.00 | 33/64 | 13.16/12.97 | 14.48/15.75 | 8.10/7.40 | 12.90/11.90 | 17.80/16.30 | 22.60/20.80 | 27.50/25.20 | |
| 9/16 X 18 | 14.75 | - | 14.79/14.59 | 16.26/17.53 | 8.30/7.60 | 13.30/12.20 | 18.20/16.80 | 23.10/21.30 | 28.10/25.90 | |
| 5/8 X 18 | 16.50 | - | 16.38/16.18 | 17.78/19.3 | 9.40/8.70 | 14.90/13.80 | 20.50/18.90 | 26.00/24.00 | 31.50/29.10 | |
| 3/4 X 16 | 19.50 | 49/64 | 19.6/19.39 | 21.34/22.86 | 10.10/9.30 | 15.90/14.70 | 21.70/20.10 | 27.60/25.50 | 33.40/30.90 | |
| 7/8 X 14 | 22.50 | 57/64 | 22.84/22.62 | 24.89/26.67 | 10.30/9.60 | 16.30/15.10 | 22.20/20.60 | 28.20/26.10 | 34.20/31.60 | |
| 1 X 12 | 26.00 | - | 26.11/25.86 | 28.45/30.48 | 10.10/9.40 | 16.00/14.80 | 21.80/20.30 | 27.70/25.70 | 33.50/31.10 | |
| 1 X 14 | 26.00 | - | 26.02/25.79 | 27.94/30.23 | 12.10/11.20 | 18.90/17.50 | 25.70/23.80 | 32.50/30.10 | 39.40/36.40 | |
| 1-1/8 X 12 | 29.50 | 1.5/32 | 29.32/29.03 | 31.75/33.78 | 11.60/10.80 | 18.20/16.90 | 24.80/23.00 | 31.40/29.20 | 38.00/35.30 | |
| 1-1/4 X 12 | 32.50 | 1.9/32 | 32.49/32.21 | 34.8/37.34 | 13.10/12.20 | 20.40/19.00 | 27.80/25.80 | 35.10/32.70 | 42.50/39.50 | |
| 1-3/8 X 12 | 35.50 | 1.13/32 | 35.67/35.38 | 38.1/40.89 | 14.60/13.50 | 22.70/21.00 | 30.80/28.50 | 38.80/36.00 | 46.90/43.50 | |
| 1-1/2 X 12 | 38.50 | - | 38.84/38.56 | 41.15/44.45 | 16.10/14.90 | 24.90/23.10 | 33.70/31.30 | 42.60/39.50 | 51.40/47.70 | |
| UNC | | | | | | | | | | |
| No 2 - 56 | 2.40 | #41 | 2.39/2.28 | 2.79/3.05 | 3.10/2.80 | 5.40/4.80 | 7.80/6.90 | 10.10/9.00 | 12.50/11.10 | |
| No 3 - 48 | 2.70 | #37 | 2.74/2.63 | 3.05/3.56 | 3.20/2.80 | 5.50/4.90 | 7.90/7.00 | 10.30/9.00 | 12.70/11.20 | |
| No 4 - 40 | 3.00 | #31 | 3.11/2.98 | 3.56/4.06 | 2.80/2.40 | 4.90/4.30 | 7.10/6.20 | 9.20/8.10 | 11.40/10.00 | |
| No 5 - 40 | 3.40 | #30 | 3.44/3.31 | 4.06/4.32 | 3.30/2.90 | 5.70/5.00 | 8.10/7.20 | 10.50/9.30 | 13.00/11.50 | |
| No 6 - 32 | 3.70 | #27 | 3.82/3.68 | 4.57/4.83 | 2.70/2.40 | 4.80/4.30 | 7.00/6.20 | 9.10/8.20 | 11.20/10.10 | |
| No 8 - 32 | 4.40 | 11/64 | 4.47/4.34 | 5.08/5.59 | 3.50/3.20 | 6.10/5.50 | 8.60/7.80 | 11.20/10.10 | 13.70/12.40 | |
| No 10 - 24 | 5.10 | - | 5.21/5.05 | 6.1/6.6 | 2.80/2.60 | 5.00/4.60 | 7.20/6.70 | 9.40/8.70 | 11.60/10.70 | |
| No 12 - 24 | 5.70 | 15/64 | 5.86/5.72 | 6.86/7.11 | 3.50/3.20 | 6.00/5.60 | 8.50/7.90 | 11.00/10.30 | 13.50/12.60 | |
| 1/4 X 20 | 6.70 | 17/64 | 6.87/6.62 | 7.87/8.38 | 3.30/3.10 | 5.70/5.30 | 8.10/7.60 | 10.50/9.90 | 13.00/12.10 | |
| 5/16 X 18 | 8.30 | 21/64 | 8.49/8.24 | 9.65/10.16 | 3.90/3.70 | 6.70/6.30 | 9.50/8.90 | 12.20/11.50 | 15.00/14.10 | |
| 3/8 X 16 | 9.90 | 25/64 | 10.12/9.87 | 11.43/11.94 | 4.30/4.10 | 7.20/6.80 | 10.10/9.60 | 13.10/12.40 | 16.00/15.20 | |
| 7/16 X 14 | 11.60 | - | 11.78/11.51 | 13.21/13.97 | 4.40/4.10 | 7.40/7.00 | 10.40/9.80 | 13.40/12.60 | 16.30/15.50 | |
| 1/2 X 13 | 13.00 | 33/64 | 13.4/13.12 | 14.99/15.75 | 4.80/4.50 | 8.00/7.50 | 11.10/10.60 | 14.30/13.60 | 17.50/16.60 | |
| 9/16 X 12 | 15.00 | 19/32 | 15.03/14.74 | 16.76/17.53 | 5.00/4.80 | 8.40/7.90 | 11.70/11.10 | 15.00/14.20 | 18.30/17.40 | |
| 5/8 X 11 | 16.50 | - | 16.68/16.38 | 18.8/19.56 | 5.10/4.90 | 8.50/8.10 | 11.90/11.30 | 15.20/14.50 | 18.60/17.70 | |
| 3/4 X 10 | 20.00 | - | 19.91/19.6 | 22.1/23.11 | 5.80/5.50 | 9.50/9.00 | 13.10/12.60 | 16.80/16.10 | 20.50/19.60 | |
| 7/8 X 9 | 23.00 | 29/32 | 23.17/22.84 | 25.65/26.67 | 6.20/5.90 | 10.00/9.60 | 13.90/13.30 | 17.80/17.00 | 21.70/20.70 | |
| 1 X 8 | 26.25 | - | 26.47/26.09 | 29.21/30.48 | 6.30/6.00 | 10.20/9.80 | 14.20/13.60 | 18.10/17.30 | 22.00/21.10 | |
| 1-1/8 X 7 | 29.50 | 1.5/32 | 29.74/29.36 | 33.02/34.54 | 6.20/5.90 | 10.10/9.60 | 14.00/13.30 | 17.90/17.00 | 21.80/20.70 | |
| 1-1/4 X 7 | 32.50 | 1.9/32 | 32.92/32.53 | 36.07/37.59 | 7.10/6.70 | 11.40/10.90 | 15.80/15.00 | 20.10/19.20 | 24.40/23.30 | |
| 1-3/8 X 6 | 36.00 | - | 36.35/35.84 | 40.13/41.66 | 6.50/6.20 | 10.60/10.10 | 14.60/14.00 | 18.70/17.80 | 22.70/21.70 | |
| 1-1/2 X 6 | 39.50 | 1.35/64 | 39.52/39.02 | 43.18/44.96 | 7.30/6.90 | 11.70/11.20 | 16.10/15.40 | 20.60/19.60 | 25.00/23.90 | |
| BSF | | | | | | | | | | |
| 3/16 X 32 | 5.00 | - | 5.03/4.88 | 5.84/6.35 | 4.30/3.90 | 7.20/6.50 | 10.20/9.20 | 13.10/11.90 | 16.00/14.50 | |
| 1/4 X 26 | 6.60 | - | 6.71/6.53 | 7.62/8.38 | 4.80/4.30 | 7.90/7.10 | 11.20/9.90 | 14.40/12.70 | 17.50/15.60 | |
| 5/16 X 22 | 8.30 | 21/64 | 8.38/8.2 | 9.4/10.16 | 5.20/4.70 | 8.50/7.70 | 11.90/10.70 | 15.30/13.80 | 18.70/16.80 | |
| 3/8 X 20 | 9.80 | - | 9.96/9.78 | 11.18/12.19 | 5.80/5.30 | 9.40/8.60 | 13.20/12.00 | 16.90/15.30 | 20.50/18.70 | |
| 7/16 X 18 | 11.60 | - | 11.63/11.43 | 12.95/14.22 | 6.20/5.60 | 10.00/9.10 | 13.90/12.60 | 17.80/16.10 | 21.60/19.60 | |
| 1/2 X 16 | 13.25 | - | 13.26/13.03 | 14.73/16 | 6.30/5.70 | 10.20/9.30 | 14.20/12.90 | 18.10/16.50 | 22.00/20.00 | |
| 9/16 X 16 | 14.75 | - | 14.88/14.66 | 16.26/17.78 | 7.30/6.60 | 11.70/10.60 | 16.10/14.70 | 20.60/18.70 | 25.00/22.70 | |
| 5/8 X 14 | 16.30 | 41/64 | 16.48/16.26 | 18.29/19.56 | 7.10/6.50 | 11.30/10.40 | 15.70/14.30 | 20.00/18.30 | 24.30/22.20 | |
| 3/4 X 12 | 19.50 | 49/64 | 19.69/19.43 | 21.84/23.37 | 7.30/6.70 | 11.70/10.80 | 16.20/14.90 | 20.70/19.00 | 25.10/23.00 | |
| 7/8 X 11 | 22.75 | - | 22.86/22.61 | 25.15/27.18 | 7.90/7.20 | 12.60/11.60 | 17.40/15.90 | 22.10/20.30 | 26.90/24.60 | |
| 1 X 10 | 26.25 | - | 26.52/26.19 | 28.7/30.99 | 8.30/7.60 | 13.20/12.10 | 18.10/16.60 | 23.10/21.20 | 28.00/25.70 | |
| 1-1/8 X 9 | 29.50 | 1.5/32 | 29.72/29.36 | 32.26/34.8 | 8.40/7.80 | 13.30/12.30 | 18.40/17.00 | 23.40/21.50 | 28.40/26.10 | |
| 1-1/4 X 9 | 32.50 | 1.9/32 | 32.89/32.54 | 35.31/38.1 | 9.50/8.80 | 15.00/13.90 | 20.60/19.00 | 26.20/24.20 | 31.70/29.30 | |
| 1-3/8 X 8 | 36.00 | - | 36.07/35.71 | 39.12/42.16 | 9.30/8.50 | 14.60/13.50 | 20.10/18.50 | 25.50/23.50 | 31.00/28.50 | |
| 1-1/2 X 8 | 39.00 | 1.17/32 | 39.24/38.89 | 42.16/45.97 | 10.30/9.40 | 16.10/14.80 | 22.10/20.10 | 28.00/25.50 | 33.90/30.90 | |

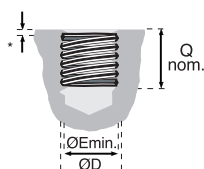
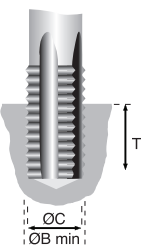
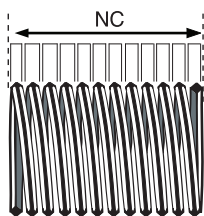
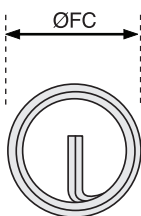


INFORMAÇÃO TÉCNICA PARA INSERTOS LIVRES

| B mm | C (5H) mm | D (4H) mm | C (6H) mm | D (5H) mm | E mm | S | | | | | T | | | | | Q | | | | |
|---------|---------------|---------------|---------------|---------------|---------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| | | | | | | 1.0D | 1.5D | 2.0D | 2.5D | 3.0D | 1.0D | 1.5D | 2.0D | 2.5D | 3.0D | 1.0D | 1.5D | 2.0D | 2.5D | 3.0D |
| 0.106 | 0.0974/0.0962 | 0.0779/0.0759 | 0.0980/0.0962 | 0.0786/0.0759 | 0.0691 | 0.156 | 0.199 | 0.242 | 0.285 | 0.328 | 0.141 | 0.184 | 0.227 | 0.270 | 0.313 | 0.086 | 0.129 | 0.172 | 0.215 | 0.258 |
| 0.122 | 0.1119/0.1106 | 0.0895/0.0874 | 0.1126/0.1106 | 0.0902/0.0874 | 0.0797 | 0.179 | 0.229 | 0.278 | 0.328 | 0.377 | 0.161 | 0.210 | 0.260 | 0.310 | 0.359 | 0.099 | 0.148 | 0.198 | 0.247 | 0.297 |
| 0.139 | 0.1270/0.1255 | 0.1008/0.0985 | 0.1278/0.1255 | 0.1016/0.0985 | 0.0894 | 0.206 | 0.262 | 0.318 | 0.374 | 0.430 | 0.185 | 0.241 | 0.297 | 0.353 | 0.409 | 0.112 | 0.168 | 0.224 | 0.280 | 0.336 |
| 0.155 | 0.1414/0.1398 | 0.1126/0.1102 | 0.1422/0.1398 | 0.1134/0.1102 | 0.1004 | 0.227 | 0.290 | 0.352 | 0.414 | 0.477 | 0.204 | 0.267 | 0.329 | 0.391 | 0.454 | 0.125 | 0.187 | 0.250 | 0.312 | 0.375 |
| 0.171 | 0.1559/0.1542 | 0.1243/0.1218 | 0.1568/0.1542 | 0.1252/0.1218 | 0.111 | 0.250 | 0.319 | 0.388 | 0.457 | 0.526 | 0.225 | 0.294 | 0.363 | 0.432 | 0.501 | 0.138 | 0.207 | 0.276 | 0.345 | 0.414 |
| 0.200 | 0.1839/0.1820 | 0.1487/0.1460 | 0.1848/0.1820 | 0.1496/0.1460 | 0.134 | 0.289 | 0.371 | 0.453 | 0.535 | 0.617 | 0.261 | 0.343 | 0.425 | 0.507 | 0.589 | 0.164 | 0.246 | 0.328 | 0.410 | 0.492 |
| 0.231 | 0.2123/0.2103 | 0.1726/0.1697 | 0.2133/0.2103 | 0.1736/0.1697 | 0.156 | 0.331 | 0.426 | 0.521 | 0.616 | 0.711 | 0.299 | 0.394 | 0.489 | 0.584 | 0.679 | 0.190 | 0.285 | 0.380 | 0.475 | 0.570 |
| 0.296 | 0.2754/0.2732 | 0.2300/0.2268 | 0.2765/0.2732 | 0.2311/0.2268 | 0.2113 | 0.411 | 0.536 | 0.661 | 0.786 | 0.911 | 0.375 | 0.500 | 0.625 | 0.750 | 0.875 | 0.250 | 0.375 | 0.500 | 0.625 | 0.750 |
| 0.367 | 0.3421/0.3395 | 0.2890/0.2854 | 0.3433/0.3395 | 0.2902/0.2854 | 0.2674 | 0.500 | 0.656 | 0.812 | 0.969 | 1.125 | 0.458 | 0.614 | 0.771 | 0.927 | 1.083 | 0.312 | 0.469 | 0.625 | 0.781 | 0.937 |
| 0.429 | 0.4047/0.4020 | 0.3516/0.3479 | 0.4059/0.4020 | 0.3528/0.3479 | 0.3299 | 0.562 | 0.750 | 0.937 | 1.124 | 1.312 | 0.521 | 0.708 | 0.896 | 1.083 | 1.271 | 0.375 | 0.562 | 0.750 | 0.937 | 1.125 |
| 0.503 | 0.4731/0.4700 | 0.4091/0.4050 | 0.4744/0.4700 | 0.4104/0.4050 | 0.3834 | 0.662 | 0.881 | 1.100 | 1.319 | 1.537 | 0.612 | 0.831 | 1.050 | 1.269 | 1.487 | 0.437 | 0.656 | 0.875 | 1.094 | 1.312 |
| 0.565 | 0.5357/0.5325 | 0.4717/0.4675 | 0.5371/0.5325 | 0.4731/0.4675 | 0.4459 | 0.725 | 0.975 | 1.225 | 1.475 | 1.725 | 0.675 | 0.925 | 1.175 | 1.425 | 1.675 | 0.500 | 0.750 | 1.000 | 1.250 | 1.500 |
| 0.635 | 0.6020/0.5986 | 0.5308/0.5264 | 0.6035/0.5986 | 0.5323/0.5264 | 0.5024 | 0.811 | 1.093 | 1.374 | 1.655 | 1.936 | 0.756 | 1.038 | 1.319 | 1.600 | 1.881 | 0.562 | 0.844 | 1.125 | 1.406 | 1.687 |
| 0.697 | 0.6646/0.6611 | 0.5934/0.5889 | 0.6661/0.6611 | 0.5949/0.5889 | 0.5649 | 0.874 | 1.187 | 1.500 | 1.812 | 2.124 | 0.819 | 1.132 | 1.444 | 1.757 | 2.069 | 0.625 | 0.937 | 1.250 | 1.562 | 1.875 |
| 0.831 | 0.7945/0.7906 | 0.7143/0.7094 | 0.7961/0.7906 | 0.7159/0.7094 | 0.6823 | 1.031 | 1.406 | 1.781 | 2.156 | 2.531 | 0.969 | 1.344 | 1.719 | 2.094 | 2.469 | 0.750 | 1.125 | 1.500 | 1.875 | 2.250 |
| 0.968 | 0.9257/0.9214 | 0.8339/0.8286 | 0.9274/0.9214 | 0.8356/0.8286 | 0.7977 | 1.196 | 1.634 | 2.071 | 2.509 | 2.946 | 1.125 | 1.562 | 2.000 | 2.437 | 2.875 | 0.875 | 1.312 | 1.750 | 2.187 | 2.625 |
| 1.108 | 1.0589/1.0542 | 0.9516/0.9459 | 1.0608/1.0542 | 0.9535/0.9459 | 0.9098 | 1.375 | 1.875 | 2.375 | 2.875 | 3.375 | 1.292 | 1.792 | 2.292 | 2.792 | 3.292 | 1.000 | 1.500 | 2.000 | 2.500 | 3.000 |
| 1.093 | 1.0508/1.0464 | 0.9590/0.9536 | 1.0527/1.0464 | 0.9609/0.9536 | 0.9277 | 1.32 | 1.82 | 2.32 | 2.82 | 3.32 | 1.25 | 1.75 | 2.25 | 2.75 | 3.25 | 1.000 | 1.500 | 2.000 | 2.500 | 3.000 |
| 1.233 | 1.1841/1.1792 | 1.0768/1.0709 | 1.1860/1.1792 | 1.0787/1.0709 | 1.0348 | 1.500 | 2.062 | 2.625 | 3.187 | 3.750 | 1.417 | 1.979 | 2.542 | 3.104 | 3.667 | 1.125 | 1.687 | 2.250 | 2.812 | 3.375 |
| 1.358 | 1.3092/1.3042 | 1.2019/1.1950 | 1.3112/1.3042 | 1.2039/1.1959 | 1.1598 | 1.625 | 2.250 | 2.875 | 3.500 | 4.125 | 1.542 | 2.167 | 2.792 | 3.417 | 4.042 | 1.250 | 1.875 | 2.500 | 3.125 | 3.750 |
| 1.483 | 1.4343/1.4292 | 1.3270/1.3209 | 1.4364/1.4292 | 1.3291/1.3209 | 1.2848 | 1.750 | 2.438 | 3.125 | 3.813 | 4.500 | 1.667 | 2.354 | 3.042 | 3.729 | 4.417 | 1.375 | 2.062 | 2.750 | 3.437 | 4.125 |
| 1.608 | 1.5595/1.5542 | 1.4522/1.4459 | 1.5615/1.5542 | 1.4542/1.4459 | 1.4098 | 1.875 | 2.625 | 3.375 | 4.125 | 4.875 | 1.792 | 2.542 | 3.292 | 4.042 | 4.792 | 1.500 | 2.250 | 3.000 | 3.750 | 4.500 |
| 0.109 | 0.0989/0.0976 | 0.0765/0.0744 | 0.0996/0.0976 | 0.0772/0.0744 | 0.0667 | 0.166 | 0.209 | 0.252 | 0.295 | 0.338 | 0.148 | 0.191 | 0.234 | 0.277 | 0.320 | 0.086 | 0.129 | 0.172 | 0.215 | 0.258 |
| 0.126 | 0.1139/0.1125 | 0.0877/0.0855 | 0.1147/0.1125 | 0.0885/0.0855 | 0.0764 | 0.193 | 0.242 | 0.292 | 0.341 | 0.391 | 0.172 | 0.221 | 0.271 | 0.320 | 0.370 | 0.099 | 0.148 | 0.198 | 0.247 | 0.297 |
| 0.145 | 0.1298/0.1282 | 0.0982/0.0958 | 0.1307/0.1282 | 0.0991/0.0958 | 0.0849 | 0.224 | 0.280 | 0.336 | 0.392 | 0.448 | 0.199 | 0.255 | 0.311 | 0.367 | 0.423 | 0.112 | 0.168 | 0.224 | 0.280 | 0.336 |
| 0.158 | 0.1429/0.1412 | 0.1113/0.1088 | 0.1437/0.1412 | 0.1121/0.1088 | 0.0979 | 0.237 | 0.300 | 0.362 | 0.425 | 0.487 | 0.212 | 0.275 | 0.337 | 0.400 | 0.462 | 0.125 | 0.187 | 0.250 | 0.312 | 0.375 |
| 0.179 | 0.1601/0.1583 | 0.1204/0.1177 | 0.1611/0.1583 | 0.1214/0.1177 | 0.1040 | 0.279 | 0.348 | 0.417 | 0.486 | 0.555 | 0.247 | 0.316 | 0.385 | 0.454 | 0.523 | 0.138 | 0.207 | 0.276 | 0.345 | 0.414 |
| 0.205 | 0.1862/0.1843 | 0.1465/0.1437 | 0.1872/0.1843 | 0.1475/0.1437 | 0.1300 | 0.305 | 0.387 | 0.469 | 0.551 | 0.633 | 0.273 | 0.355 | 0.437 | 0.519 | 0.601 | 0.164 | 0.246 | 0.328 | 0.410 | 0.492 |
| 0.244 | 0.2193/0.2171 | 0.1661/0.1629 | 0.2204/0.2171 | 0.1672/0.1629 | 0.1450 | 0.377 | 0.472 | 0.567 | 0.662 | 0.757 | 0.336 | 0.431 | 0.526 | 0.621 | 0.716 | 0.190 | 0.285 | 0.380 | 0.475 | 0.570 |
| 0.270 | 0.2454/0.2431 | 0.1922/0.1889 | 0.2465/0.2431 | 0.1933/0.1889 | 0.1710 | 0.403 | 0.511 | 0.619 | 0.727 | 0.835 | 0.362 | 0.470 | 0.578 | 0.686 | 0.794 | 0.216 | 0.324 | 0.432 | 0.540 | 0.648 |
| 0.315 | 0.2851/0.2825 | 0.2211/0.2175 | 0.2863/0.2825 | 0.2223/0.2175 | 0.1959 | 0.475 | 0.600 | 0.725 | 0.850 | 0.975 | 0.425 | 0.550 | 0.675 | 0.800 | 0.925 | 0.250 | 0.375 | 0.500 | 0.625 | 0.750 |
| 0.385 | 0.3515/0.3486 | 0.2803/0.2764 | 0.3529/0.3486 | 0.2817/0.2764 | 0.2524 | 0.562 | 0.718 | 0.875 | 1.031 | 1.187 | 0.507 | 0.663 | 0.819 | 0.975 | 1.132 | 0.312 | 0.469 | 0.625 | 0.781 | 0.937 |
| 0.456 | 0.4189/0.4156 | 0.3387/0.3344 | 0.4203/0.4156 | 0.3401/0.3344 | 0.3073 | 0.656 | 0.844 | 1.031 | 1.219 | 1.406 | 0.594 | 0.781 | 0.969 | 1.156 | 1.344 | 0.375 | 0.562 | 0.750 | 0.937 | 1.125 |
| 0.530 | 0.4875/0.4839 | 0.3957/0.3911 | 0.4890/0.4839 | 0.3972/0.3911 | 0.3602 | 0.758 | 0.977 | 1.196 | 1.415 | 1.633 | 0.687 | 0.906 | 1.125 | 1.344 | 1.562 | 0.437 | 0.656 | 0.875 | 1.094 | 1.312 |
| 0.600 | 0.5537/0.5499 | 0.4548/0.4500 | 0.5554/0.5499 | 0.4565/0.4500 | 0.4167 | 0.846 | 1.096 | 1.346 | 1.596 | 1.846 | 0.769 | 1.019 | 1.269 | 1.519 | 1.769 | 0.500 | 0.750 | 1.000 | 1.250 | 1.500 |
| 0.671 | 0.6208/0.6167 | 0.5135/0.5084 | 0.6225/0.6167 | 0.5152/0.5084 | 0.4723 | 0.937 | 1.219 | 1.500 | 1.781 | 2.062 | 0.854 | 1.135 | 1.417 | 1.698 | 1.979 | 0.562 | 0.844 | 1.125 | 1.406 | 1.687 |
| 0.743 | 0.6885/0.6841 | 0.5714/0.5660 | 0.6903/0.6841 | 0.5732/0.5660 | 0.5266 | 1.034 | 1.347 | 1.659 | 1.972 | 2.284 | 0.943 | 1.256 | 1.568 | 1.881 | 2.193 | 0.625 | 0.937 | 1.250 | 1.562 | 1.875 |
| 0.880 | 0.8196/0.8149 | 0.6907/0.6850 | 0.8216/0.8149 | 0.6927/0.6850 | 0.6417 | 1.200 | 1.575 | 1.950 | 2.325 | 2.700 | 1.100 | 1.475 | 1.850 | 2.225 | 2.600 | 0.750 | 1.125 | 1.500 | 1.875 | 2.250 |
| 1.019 | 0.9522/0.9471 | 0.8089/0.8028 | 0.9543/0.9471 | 0.8110/0.8028 | 0.7547 | 1.375 | 1.812 | 2.250 | 2.687 | 3.125 | 1.264 | 1.701 | 2.139 | 2.576 | 3.014 | 0.875 | 1.312 | 1.750 | 2.187 | 2.625 |
| 1.162 | 1.0868/1.0812 | 0.9254/0.9188 | 1.0890/1.0812 | 0.9276/0.9188 | 0.8647 | 1.562 | 2.062 | 2.562 | 3.062 | 3.562 | 1.437 | 1.937 | 2.437 | 2.937 | 3.437 | 1.000 | 1.500 | 2.000 | 2.500 | 3.000 |
| 1.311 | 1.2239/1.2178 | 1.0393/1.0322 | 1.2262/1.2178 | 1.0416/1.0322 | 0.9704 | 1.768 | 2.330 | 2.893 | 3.455 | 4.018 | 1.625 | 2.187 | 2.750 | 3.312 | 3.875 | 1.125 | 1.687 | 2.250 | 2.812 | 3.375 |
| 1.436 | 1.3490/1.3428 | 1.1644/1.1572 | 1.3514/1.3428 | 1.1668/1.1572 | 1.0954 | 1.893 | 2.518 | 3.143 | 3.768 | 4.393 | 1.750 | 2.375 | 3.000 | 3.625 | 4.250 | 1.250 | 1.875 | 2.500 | 3.125 | 3.750 |
| 1.591 | 1.4900/1.4832 | 1.2745/1.2667 | 1.4926/1.4832 | 1.2771/1.2667 | 1.1946 | 2.125 | 2.812 | 3.500 | 4.187 | 4.875 | 1.958 | 2.646 | 3.333 | 4.021 | 4.708 | 1.375 | 2.062 | 2.750 | 3.437 | 4.125 |
| 1.716 | 1.6151/1.6082 | 1.3996/1.3917 | 1.6177/1.6082 | 1.4022/1.3917 | 1.3196 | 2.250 | 3.000 | 3.750 | 4.500 | 5.250 | 2.083 | 2.833 | 3.583 | 4.333 | 5.083 | 1.500 | 2.250 | 3.000 | 3.750 | 4.500 |
| 0.225 | 0.2087/0.2075 | 0.1697/0.1675 | 0.2098/0.2075 | 0.1708/0.1675 | 0.1475 | 0.328 | 0.422 | 0.515 | 0.609 | 0.703 | 0.297 | 0.390 | 0.484 | 0.578 | 0.672 | 0.187 | 0.281 | 0.375 | 0.469 | 0.562 |
| 0.296 | 0.2762/0.2747 | 0.2279/0.2254 | 0.2774/0.2747 | 0.2291/0.2254 | 0.2008 | 0.423 | 0.548 | 0.673 | 0.798 | 0.923 | 0.385 | 0.510 | 0.635 | 0.760 | 0.885 | 0.250 | 0.375 | 0.500 | 0.625 | 0.750 |
| 0.366 | 0.3433/0.3416 | 0.2861/0.2834 | 0.3447/0.3416 | 0.2875/0.2834 | 0.2543 | 0.517 | 0.673 | 0.829 | 0.986 | 1.142 | 0.472 | 0.628 | 0.784 | 0.940 | 1.096 | 0.312 | 0.469 | 0.625 | 0.781 | 0.937 |
| 0.434 | 0.4089/0.4070 | 0.3459/0.3430 | 0.4104/0.4070 | 0.3474/0.3430 | 0.3110 | 0.600 | 0.787 | 0. | | | | | | | | | | | | |


INFORMAÇÃO TÉCNICA PARA INSERTOS LIVRES
BSW/BSP BA/BSB/UN-8 PITCH

| | | |
|-----------|--|--|
| A | Ø de perfuração ou interior da rosca prévia. | |
| B | Ø maior da rosca prévia (Mínimo). | |
| C | Ø dos flancos da rosca prévia. | |
| D | Ø dos flancos do inserto instalado. | |
| E | Ø interior do inserto instalado (Mínimo). | |
| FC | Ø exterior do inserto em estado livre. | |
| S | Profundidade de perfuração (Mínima). | |
| T | Profundidade "útil" da roscagem (Mínima). | |
| Q | Rosca "útil" do inserto. | |
| NC | Número de filetes ou fios. | |



| BSW | mm | " | A max/min mm | FC min/max mm | NC max/min | | | | | |
|------------|-------|---------|-----------------|------------------|-------------|-------------|-------------|-------------|-------------|--|
| | | | | | 1.0D | 1.5D | 2.0D | 2.5D | 3.0D | |
| 1/8 X 40 | 3.40 | #30 | 3.43/3.28 | 3.81/4.32 | 3.40/3.00 | 5.80/5.10 | 8.40/7.30 | 10.90/9.40 | 13.40/11.60 | |
| 3/16 X 24 | 2.70 | #37 | 2.71/2.61 | 3.05/3.81 | 3.70/3.10 | 6.40/5.20 | 9.00/7.40 | 11.60/9.60 | 14.30/11.80 | |
| 1/4 X 20 | 6.70 | 17/64 | 6.78/6.63 | 7.87/8.38 | 3.40/3.10 | 5.90/5.40 | 8.50/7.70 | 11.00/9.90 | 13.50/12.20 | |
| 5/16 X 18 | 8.30 | 21/64 | 8.48/8.33 | 9.4/10.16 | 4.10/3.80 | 6.90/6.40 | 9.80/9.00 | 12.60/11.60 | 15.50/14.20 | |
| 3/8 X 16 | 10.00 | - | 10.11/9.91 | 11.18/11.94 | 4.40/4.10 | 7.40/6.90 | 10.50/9.70 | 13.50/12.50 | 16.50/15.30 | |
| 7/16 X 14 | 11.60 | - | 11.76/11.51 | 13.21/13.97 | 4.60/4.20 | 7.60/7.10 | 10.70/9.90 | 13.80/12.80 | 16.90/15.60 | |
| 1/2 X 12 | 13.00 | 33/64 | 13.34/13.08 | 14.99/16 | 4.50/4.10 | 7.40/7.00 | 10.50/9.80 | 13.60/12.60 | 16.60/15.40 | |
| 9/16 X 12 | 14.75 | - | 14.94/14.68 | 16.51/17.53 | 5.20/4.90 | 8.60/8.00 | 12.00/11.20 | 15.40/14.40 | 18.80/17.60 | |
| 5/8 X 11 | 16.50 | - | 16.84/16.59 | 18.29/19.56 | 5.30/5.00 | 8.70/8.20 | 12.20/11.50 | 15.70/14.70 | 19.20/17.90 | |
| 3/4 X 10 | 20.00 | - | 20.09/19.84 | 21.84/22.86 | 6.00/5.60 | 9.70/9.20 | 13.50/12.70 | 17.30/16.30 | 21.10/19.80 | |
| 7/8 X 9 | 23.25 | - | 23.27/23.01 | 25.15/26.67 | 6.30/6.00 | 10.20/9.70 | 14.30/13.40 | 18.20/17.10 | 22.20/20.90 | |
| 1 X 8 | 26.50 | - | 26.52/26.187.4 | 28.7/30.48 | 6.50/6.10 | 10.40/9.90 | 14.50/13.70 | 18.60/17.50 | 22.60/21.20 | |
| 1-1/8 X 7 | 30.00 | 1.11/64 | 30.12/29743.4 | 32.51/34.29 | 6.30/5.90 | 10.20/9.60 | 14.30/13.40 | 18.20/17.10 | 22.20/20.80 | |
| 1-1/4 X 7 | 33.00 | 1.19/64 | 33.3/32918.4 | 35.56/37.59 | 7.20/6.80 | 11.60/10.90 | 16.00/15.00 | 20.40/19.20 | 24.90/23.30 | |
| 1-1/2 X 6 | 39.50 | 1.35/64 | 39.9/39268.4 | 42.67/45.21 | 7.50/7.00 | 11.90/11.30 | 16.50/15.50 | 21.10/19.80 | 25.60/24.00 | |
| BSP | | | | | | | | | | |
| 1/8 X 28 | 10.00 | - | 10.16/9.91 | 10.92/11.94 | 1.90/1.70 | 3.60/3.20 | 5.30/4.80 | 7.00/6.40 | 8.80/7.90 | |
| 1/4 X 19 | 13.75 | - | 13.72/13.46 | 14.99/16.26 | 3.10/2.80 | 5.40/5.00 | 7.80/7.10 | 10.10/9.20 | 12.50/11.40 | |
| 3/8 X 19 | 17.00 | - | 17.27/17.02 | 18.54/20.07 | 5.50/5.00 | 8.90/8.20 | 12.50/11.40 | 16.00/14.60 | 19.50/17.90 | |
| 1/2 X 14 | 21.50 | 27/32 | 21.59/21.34 | 23.37/25.15 | 5.30/4.90 | 8.80/8.10 | 12.20/11.20 | 15.70/14.40 | 19.10/17.60 | |
| 5/8 X 14 | 23.50 | - | 23.55/23.24 | 25.4/27.43 | 7.10/6.50 | 11.30/10.40 | 15.70/14.40 | 20.00/18.40 | 24.30/22.30 | |
| 3/4 X 14 | 27.00 | 1.1/16 | 27.08/26.75 | 28.96/31.24 | 8.80/8.10 | 13.90/12.90 | 19.20/17.60 | 24.30/22.40 | 29.50/27.20 | |
| 7/8 X 14 | 30.50 | 1.13/16 | 30.81/30.48 | 32.77/35.31 | 10.50/9.70 | 16.50/15.30 | 22.60/20.80 | 28.70/26.40 | 34.70/32.00 | |
| 1 X 11 | 33.75 | - | 33.91/33.53 | 36.32/39.12 | 9.30/8.60 | 14.70/13.60 | 20.10/18.60 | 25.60/23.60 | 31.00/28.60 | |
| 1-1/4 X 11 | 42.50 | 1.43/64 | 42.67/42.29 | 44.96/48.51 | 12.00/11.10 | 18.70/17.40 | 25.60/23.70 | 32.40/30.00 | 39.20/36.20 | |
| 1-1/2 X 11 | 48.50 | 1.29/32 | 48.79/48.41 | 51.05/54.86 | 14.70/13.60 | 22.80/21.20 | 31.00/28.70 | 39.20/36.30 | 47.30/43.80 | |
| BA | | | | | | | | | | |
| BA 6 | 2.90 | #33 | 2.95/2.87 | 3.56/3.81 | 3.60/3.30 | 6.20/5.60 | 8.70/7.90 | 11.20/10.20 | 13.80/12.50 | |
| BA 5 | 3.40 | #30 | 3.43/3.28 | 3.81/4.32 | 3.80/3.40 | 6.40/5.80 | 9.00/8.10 | 11.60/10.50 | 14.20/12.90 | |
| BA 4 | 3.80 | #25 | 3.86/3.73 | 4.32/4.83 | 3.80/3.50 | 6.40/5.80 | 9.10/8.20 | 11.70/10.60 | 14.40/13.00 | |
| BA 3 | 4.30 | - | 4.34/4.22 | 5.08/5.33 | 3.90/3.60 | 6.70/6.00 | 9.40/8.50 | 12.10/10.90 | 14.80/13.40 | |
| BA 2 | 4.90 | #10 | 4.98/4.85 | 5.59/6.1 | 4.20/3.80 | 6.90/6.30 | 9.80/8.80 | 12.60/11.40 | 15.40/13.90 | |
| BA 1 | 5.50 | 7/32 | 5.59/5.41 | 6.35/6.86 | 4.20/3.80 | 7.10/6.40 | 9.90/9.00 | 12.80/11.60 | 15.60/14.10 | |
| BA 0 | 6.20 | C | 6.25/6.12 | 7.11/7.87 | 4.30/3.90 | 7.20/6.60 | 10.10/9.20 | 13.00/11.80 | 16.00/14.50 | |
| BSB | | | | | | | | | | |
| 3/16 X 32 | 5.10 | - | 5.21/4.95 | 5.84/6.6 | 4.10/3.70 | 6.90/6.20 | 9.70/8.70 | 12.50/11.20 | 15.30/13.70 | |
| 1/4 X 26 | 6.60 | - | 6.86/6.55 | 7.87/8.64 | 4.60/4.10 | 7.60/6.90 | 10.70/9.60 | 13.80/12.30 | 16.80/15.10 | |
| 5/16 X 26 | 8.00 | 5/16 | 8.43/8.13 | 9.4/10.41 | 6.20/5.50 | 10.00/9.00 | 13.90/12.50 | 17.80/16.00 | 21.60/19.40 | |
| 3/8 X 26 | 9.80 | - | 10.03/9.73 | 10.92/12.19 | 7.80/7.00 | 12.40/11.20 | 17.10/15.40 | 21.70/19.60 | 26.40/23.80 | |
| 7/16 X 26 | 11.10 | 7/16 | 11.61/11.33 | 12.7/13.97 | 9.40/8.40 | 14.80/13.40 | 20.30/18.30 | 25.80/23.30 | 31.20/28.20 | |
| 1/2 X 26 | 12.70 | 1/2 | 13.21/12.9 | 14.22/15.49 | 11.00/9.90 | 17.20/15.60 | 23.50/21.20 | 29.80/26.90 | 36.00/32.60 | |
| 9/16 X 26 | 14.75 | - | 14.78/14.5 | 15.75/17.27 | 12.60/11.40 | 19.70/17.80 | 26.70/24.20 | 33.80/30.50 | 40.90/36.90 | |
| 5/8 X 26 | 16.50 | - | 16.38/16.08 | 17.53/19.05 | 14.20/12.80 | 22.00/19.90 | 29.90/27.10 | 37.80/34.20 | 45.70/41.30 | |
| 3/4 X 26 | 19.50 | 49/64 | 19.53/19.25 | 20.57/22.61 | 17.40/15.70 | 26.90/24.30 | 36.30/32.90 | 45.80/41.50 | 55.30/50.10 | |
| 1 X 24 | 25.75 | 1.1/64 | 25.91/25.63 | 27.18/29.72 | 21.80/19.80 | 33.50/30.40 | 45.30/41.00 | 57.00/51.60 | 68.70/62.20 | |
| UN-8 PITCH | | | | | | | | | | |
| 1.1/8 X 8 | 28.50 | 1.1/8 | 29.34/28.7 | 31.75/33.02 | 7.50/7.10 | 12.00/11.50 | 16.60/15.80 | 21.10/20.10 | 25.60/24.50 | |
| 1.1/4 X 8 | 32.00 | 1.1/4 | 32.51/31.88 | 35.31/36.32 | 8.30/8.10 | 13.30/12.90 | 18.30/17.70 | 23.30/22.60 | 28.20/27.40 | |
| 1.3/8 X 8 | 35.00 | 1.3/8 | 35.69/35.05 | 38.61/39.88 | 9.30/9.00 | 14.80/14.30 | 20.20/19.60 | 25.70/24.90 | 31.20/30.20 | |
| 1.1/2 X 8 | 38.00 | 1.1/2 | 38.86/38.23 | 41.91/42.93 | 10.30/10.00 | 16.20/15.80 | 22.20/21.50 | 28.10/27.30 | 34.10/33.10 | |
| 1.5/8 X 8 | 41.00 | 1.5/8 | 42.04/41.4 | 45.21/48.26 | 11.20/10.50 | 17.70/16.40 | 24.10/22.40 | 30.50/28.40 | 37.00/34.30 | |
| 1.3/4 X 8 | 44.50 | 1.3/4 | 45.21/44.58 | 48.26/51.82 | 12.20/11.40 | 19.20/17.80 | 26.10/24.20 | 33.00/30.70 | 39.90/37.10 | |
| 1.7/8 X 8 | 47.50 | 1.7/8 | 48.39/47.75 | 51.56/54.86 | 13.20/12.40 | 20.60/19.30 | 28.10/26.20 | 35.50/33.20 | 42.90/40.10 | |
| 2 X 8 | 51.00 | 2 | 51.56/50.93 | 54.86/57.91 | 14.20/13.40 | 22.10/20.90 | 30.00/28.40 | 38.00/35.90 | 45.90/43.30 | |



INFORMAÇÃO TÉCNICA PARA INSERTOS LIVRES

| B mm | C (5H) mm | D (4H) mm | C (6H) mm | D (5H) mm | E mm | S | | | | | T | | | | | Q | | | | |
|---------|---------------|---------------|---------------|---------------|---------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| | | | | | | 1.0D | 1.5D | 2.0D | 2.5D | 3.0D | 1.0D | 1.5D | 2.0D | 2.5D | 3.0D | 1.0D | 1.5D | 2.0D | 2.5D | 3.0D |
| 0.155 | 0.1420/0.1410 | 0.1109/0.1090 | 0.1430/0.1410 | 0.1119/0.1090 | 0.0930 | 0.237 | 0.300 | 0.362 | 0.425 | 0.487 | 0.212 | 0.275 | 0.337 | 0.400 | 0.462 | 0.125 | 0.187 | 0.250 | 0.312 | 0.375 |
| 0.237 | 0.2154/0.2142 | 0.1631/0.1608 | 0.2166/0.2142 | 0.1643/0.1608 | 0.1341 | 0.375 | 0.469 | 0.562 | 0.656 | 0.750 | 0.333 | 0.427 | 0.521 | 0.614 | 0.708 | 0.187 | 0.281 | 0.375 | 0.469 | 0.562 |
| 0.309 | 0.2836/0.2820 | 0.2206/0.2180 | 0.2849/0.2820 | 0.2219/0.2180 | 0.1860 | 0.475 | 0.600 | 0.725 | 0.850 | 0.975 | 0.425 | 0.550 | 0.675 | 0.800 | 0.925 | 0.250 | 0.375 | 0.500 | 0.625 | 0.750 |
| 0.378 | 0.3498/0.3480 | 0.2797/0.2769 | 0.3512/0.3480 | 0.2811/0.2769 | 0.2413 | 0.562 | 0.718 | 0.875 | 1.031 | 1.187 | 0.507 | 0.663 | 0.819 | 0.975 | 1.132 | 0.312 | 0.469 | 0.625 | 0.781 | 0.937 |
| 0.448 | 0.4170/0.4150 | 0.3380/0.3350 | 0.4185/0.4150 | 0.3395/0.3350 | 0.2950 | 0.656 | 0.844 | 1.031 | 1.219 | 1.406 | 0.594 | 0.781 | 0.969 | 1.156 | 1.344 | 0.375 | 0.562 | 0.750 | 0.937 | 1.125 |
| 0.521 | 0.4855/0.4833 | 0.3950/0.3918 | 0.4871/0.4833 | 0.3966/0.3918 | 0.3461 | 0.758 | 0.977 | 1.196 | 1.415 | 1.633 | 0.687 | 0.906 | 1.125 | 1.344 | 1.562 | 0.437 | 0.656 | 0.875 | 1.094 | 1.312 |
| 0.597 | 0.5557/0.5533 | 0.4500/0.4466 | 0.5575/0.5533 | 0.4518/0.4466 | 0.3932 | 0.875 | 1.125 | 1.375 | 1.625 | 1.875 | 0.792 | 1.042 | 1.292 | 1.542 | 1.792 | 0.500 | 0.750 | 1.000 | 1.250 | 1.500 |
| 0.660 | 0.6184/0.6158 | 0.5127/0.5091 | 0.6201/0.6158 | 0.5144/0.5091 | 0.4557 | 0.937 | 1.219 | 1.500 | 1.781 | 2.062 | 0.854 | 1.135 | 1.417 | 1.698 | 1.979 | 0.562 | 0.844 | 1.125 | 1.406 | 1.687 |
| 0.731 | 0.6859/0.6832 | 0.5705/0.5668 | 0.6878/0.6832 | 0.5724/0.5668 | 0.5086 | 1.034 | 1.347 | 1.659 | 1.972 | 2.284 | 0.943 | 1.256 | 1.568 | 1.881 | 2.193 | 0.625 | 0.937 | 1.250 | 1.562 | 1.875 |
| 0.867 | 0.8171/0.8141 | 0.6900/0.6860 | 0.8191/0.8141 | 0.6920/0.6860 | 0.6220 | 1.200 | 1.575 | 1.950 | 2.325 | 2.700 | 1.100 | 1.475 | 1.850 | 2.225 | 2.600 | 0.750 | 1.125 | 1.500 | 1.875 | 2.250 |
| 1.005 | 0.9495/0.9462 | 0.8082/0.8039 | 0.9516/0.9462 | 0.8103/0.8039 | 0.7328 | 1.375 | 1.812 | 2.250 | 2.687 | 3.125 | 1.264 | 1.701 | 2.139 | 2.576 | 3.014 | 0.875 | 1.312 | 1.750 | 2.187 | 2.625 |
| 1.146 | 1.0836/1.0801 | 0.9245/0.9200 | 1.0859/1.0801 | 0.9268/0.9200 | 0.8400 | 1.562 | 2.062 | 2.562 | 3.062 | 3.562 | 1.437 | 1.937 | 2.437 | 2.937 | 3.437 | 1.000 | 1.500 | 2.000 | 2.500 | 3.000 |
| 1.291 | 1.2203/1.2165 | 1.0383/1.0335 | 1.2227/1.2165 | 1.0407/1.0335 | 0.9420 | 1.768 | 2.330 | 2.893 | 3.455 | 4.018 | 1.625 | 2.187 | 2.750 | 3.312 | 3.875 | 1.125 | 1.687 | 2.250 | 2.812 | 3.375 |
| 1.416 | 1.3454/1.3415 | 1.1634/1.1585 | 1.3479/1.3415 | 1.1659/1.1585 | 1.0670 | 1.893 | 2.518 | 3.143 | 3.768 | 4.393 | 1.750 | 2.375 | 3.000 | 3.625 | 4.250 | 1.250 | 1.875 | 2.500 | 3.125 | 3.750 |
| 1.694 | 1.6110/1.6067 | 1.3986/1.3933 | 1.6137/1.6067 | 1.4013/1.3933 | 1.2866 | 2.250 | 3.000 | 3.750 | 4.500 | 5.250 | 2.083 | 2.833 | 3.583 | 4.333 | 5.083 | 1.500 | 2.250 | 3.000 | 3.750 | 4.500 |
| 0.426 | 0.4076/0.4058 | 0.3629/0.3601 | 0.4090/0.4058 | 0.3643/0.3601 | 0.3372 | 0.286 | 0.348 | 0.411 | 0.437 | 0.536 | 0.250 | 0.312 | 0.375 | 0.437 | 0.500 | 0.125 | 0.187 | 0.250 | 0.312 | 0.375 |
| 0.580 | 0.5539/0.5517 | 0.4875/0.4843 | 0.5556/0.5517 | 0.4892/0.4843 | 0.4506 | 0.487 | 0.612 | 0.737 | 0.862 | 0.987 | 0.434 | 0.559 | 0.684 | 0.809 | 0.934 | 0.250 | 0.375 | 0.500 | 0.625 | 0.750 |
| 0.718 | 0.6920/0.6897 | 0.6256/0.6223 | 0.6937/0.6897 | 0.6273/0.6223 | 0.5886 | 0.612 | 0.799 | 0.987 | 1.174 | 1.362 | 0.559 | 0.747 | 0.934 | 1.122 | 1.309 | 0.375 | 0.562 | 0.750 | 0.937 | 1.125 |
| 0.909 | 0.8735/0.8708 | 0.7830/0.7793 | 0.8754/0.8708 | 0.7849/0.7793 | 0.7336 | 0.821 | 1.071 | 1.321 | 1.571 | 1.821 | 0.750 | 1.000 | 1.250 | 1.500 | 1.750 | 0.500 | 0.750 | 1.000 | 1.250 | 1.500 |
| 0.986 | 0.9506/0.9478 | 0.8601/0.8563 | 0.9524/0.9478 | 0.8619/0.8563 | 0.8106 | 0.946 | 1.258 | 1.571 | 1.883 | 2.196 | 0.875 | 1.187 | 1.500 | 1.812 | 2.125 | 0.625 | 0.937 | 1.250 | 1.562 | 1.875 |
| 1.126 | 1.0898/1.0868 | 0.9993/0.9953 | 1.0918/1.0868 | 1.0013/0.9953 | 0.9496 | 1.071 | 1.446 | 1.821 | 2.196 | 2.571 | 1.000 | 1.375 | 1.750 | 2.125 | 2.500 | 0.750 | 1.125 | 1.500 | 1.875 | 2.250 |
| 1.274 | 1.2378/1.2348 | 1.1473/1.1433 | 1.2399/1.2348 | 1.1494/1.1433 | 1.0976 | 1.196 | 1.634 | 2.071 | 2.509 | 2.946 | 1.125 | 1.562 | 2.000 | 2.437 | 2.875 | 0.875 | 1.312 | 1.750 | 2.187 | 2.625 |
| 1.416 | 1.3705/1.3673 | 1.2551/1.2508 | 1.3727/1.3673 | 1.2573/1.2508 | 1.1926 | 1.409 | 1.909 | 2.409 | 2.909 | 3.409 | 1.318 | 1.818 | 2.318 | 2.818 | 3.318 | 1.000 | 1.500 | 2.000 | 2.500 | 3.000 |
| 1.757 | 1.7118/1.7083 | 1.5964/1.5918 | 1.7141/1.7083 | 1.5987/1.5918 | 1.5336 | 1.660 | 2.284 | 2.909 | 3.534 | 4.159 | 1.568 | 2.193 | 2.818 | 3.443 | 4.068 | 1.250 | 1.875 | 2.500 | 3.125 | 3.750 |
| 1.989 | 1.9440/1.9403 | 1.8286/1.8238 | 1.9464/1.9403 | 1.8310/1.8238 | 1.7656 | 1.909 | 2.659 | 3.409 | 4.159 | 4.909 | 1.818 | 2.568 | 3.318 | 4.068 | 4.818 | 1.500 | 2.250 | 3.000 | 3.750 | 4.500 |
| 0.134 | 0.1252/0.1226 | 0.1014/0.0976 | | | 0.0850 | 0.204 | 0.259 | 0.314 | 0.369 | 0.424 | 0.183 | 0.238 | 0.293 | 0.348 | 0.404 | 0.110 | 0.165 | 0.220 | 0.275 | 0.331 |
| 0.152 | 0.1426/0.1399 | 0.1159/0.1120 | | | 0.0980 | 0.230 | 0.293 | 0.356 | 0.419 | 0.482 | 0.207 | 0.270 | 0.333 | 0.396 | 0.459 | 0.126 | 0.189 | 0.252 | 0.315 | 0.378 |
| 0.171 | 0.1605/0.1574 | 0.1305/0.1262 | | | 0.1106 | 0.259 | 0.329 | 0.400 | 0.471 | 0.542 | 0.233 | 0.303 | 0.374 | 0.445 | 0.516 | 0.142 | 0.212 | 0.283 | 0.354 | 0.425 |
| 0.194 | 0.1821/0.1786 | 0.1488/0.1441 | | | 0.1268 | 0.291 | 0.371 | 0.452 | 0.533 | 0.613 | 0.262 | 0.343 | 0.423 | 0.504 | 0.585 | 0.161 | 0.242 | 0.323 | 0.403 | 0.484 |
| 0.221 | 0.2079/0.2042 | 0.1709/0.1659 | | | 0.1468 | 0.328 | 0.421 | 0.513 | 0.606 | 0.698 | 0.297 | 0.389 | 0.482 | 0.574 | 0.667 | 0.185 | 0.277 | 0.370 | 0.462 | 0.555 |
| 0.249 | 0.2342/0.2299 | 0.1929/0.1874 | | | 0.1661 | 0.368 | 0.472 | 0.576 | 0.681 | 0.785 | 0.333 | 0.437 | 0.541 | 0.646 | 0.750 | 0.209 | 0.313 | 0.417 | 0.522 | 0.626 |
| 0.281 | 0.2645/0.2598 | 0.2185/0.2126 | | | 0.1890 | 0.413 | 0.531 | 0.649 | 0.768 | 0.886 | 0.374 | 0.492 | 0.610 | 0.728 | 0.846 | 0.236 | 0.354 | 0.472 | 0.590 | 0.709 |
| 0.232 | 0.2112/0.2136 | 0.1738/0.1709 | | | 0.1543 | 0.33 | 0.42 | 0.52 | 0.61 | 0.70 | 0.30 | 0.39 | 0.48 | 0.58 | 0.67 | 0.187 | 0.281 | 0.375 | 0.469 | 0.562 |
| 0.304 | 0.2790/0.2817 | 0.2328/0.2295 | | | 0.2090 | 0.42 | 0.55 | 0.67 | 0.80 | 0.92 | 0.38 | 0.51 | 0.63 | 0.76 | 0.88 | 0.250 | 0.375 | 0.500 | 0.625 | 0.750 |
| 0.367 | 0.3415/0.3444 | 0.2965/0.2920 | | | 0.2715 | 0.49 | 0.64 | 0.80 | 0.95 | 1.11 | 0.45 | 0.60 | 0.76 | 0.92 | 1.07 | 0.312 | 0.469 | 0.625 | 0.781 | 0.937 |
| 0.429 | 0.4040/0.4070 | 0.3583/0.3545 | | | 0.3340 | 0.55 | 0.74 | 0.92 | 1.11 | 1.30 | 0.51 | 0.70 | 0.88 | 1.07 | 1.26 | 0.375 | 0.562 | 0.750 | 0.937 | 1.125 |
| 0.492 | 0.4665/0.4697 | 0.4210/0.4170 | | | 0.3965 | 0.61 | 0.83 | 1.05 | 1.27 | 1.49 | 0.57 | 0.79 | 1.01 | 1.23 | 1.45 | 0.437 | 0.656 | 0.875 | 1.094 | 1.312 |
| 0.554 | 0.5290/0.5323 | 0.4837/0.4795 | | | 0.4590 | 0.67 | 0.92 | 1.17 | 1.42 | 1.67 | 0.63 | 0.88 | 1.13 | 1.38 | 1.63 | 0.500 | 0.750 | 1.000 | 1.250 | 1.500 |
| 0.617 | 0.5915/0.5945 | 0.5464/0.5420 | | | 0.5215 | 0.74 | 1.02 | 1.30 | 1.58 | 1.86 | 0.70 | 0.98 | 1.26 | 1.54 | 1.82 | 0.562 | 0.844 | 1.125 | 1.406 | 1.687 |
| 0.679 | 0.6540/0.6575 | 0.6090/0.6045 | | | 0.5840 | 0.80 | 1.11 | 1.42 | 1.74 | 2.05 | 0.76 | 1.07 | 1.38 | 1.70 | 2.01 | 0.625 | 0.937 | 1.250 | 1.562 | 1.875 |
| 0.804 | 0.7790/0.7827 | 0.7343/0.7295 | | | 0.7090 | 0.92 | 1.30 | 1.67 | 2.05 | 2.42 | 0.88 | 1.26 | 1.63 | 2.01 | 2.38 | 0.750 | 1.125 | 1.500 | 1.875 | 2.250 |
| 1.059 | 1.0314/1.0355 | 0.9828/0.9778 | | | 0.9556 | 1.19 | 1.69 | 2.19 | 2.69 | 3.19 | 1.15 | 1.65 | 2.15 | 2.65 | 3.15 | 1.000 | 1.500 | 2.000 | 2.500 | 3.000 |
| 1.261 | 1.1757/1.1688 | 1.1/4 | 1.0528/1.0438 | | | 1.69 | 2.25 | 2.81 | 3.38 | 3.94 | 1.56 | 2.13 | 2.69 | 3.25 | 3.81 | 1.125 | 1.688 | 2.250 | 2.81 | 3.38 |
| 1.386 | 1.3008/1.2938 | 1.3/8 | 1.1780/1.1688 | | | 1.81 | 2.44 | 3.06 | 3.69 | 4.31 | 1.69 | 2.31 | 2.94 | 3.56 | 4.19 | 1.250 | 1.875 | 2.500 | 3.13 | 3.75 |
| 1.511 | 1.4259/1.4188 | 1.1/2 | 1.3031/1.2938 | | | 1.94 | 2.62 | 3.31 | 4.00 | 4.69 | 1.81 | 2.50 | 3.19 | 3.88 | 4.56 | 1.375 | 2.062 | 2.750 | 3.44 | 4.13 |
| 1.636 | 1.5510/1.5438 | 1.5/8 | 1.4283/1.4188 | | | 2.06 | 2.81 | 3.56 | 4.31 | 5.06 | 1.94 | 2.69 | 3.44 | 4.19 | 4.94 | 1.500 | 2.250 | 3.000 | 3.75 | 4.50 |
| 1.761 | 1.6762/1.6688 | 1.3/4 | 1.5535/1.5438 | | | 2.19 | 3.00 | 3.81 | 4.63 | 5.44 | 2.06 | 2.88 | 3.69 | 4.50 | 5.31 | 1.625 | 2.438 | 3.250 | 4.06 | 4.88 |
| 1.886 | 1.8013/1.7938 | 1.7/8 | 1.6786/1.6688 | | | 2.31 | 3.19 | 4.06 | 4.94 | 5.81 | 2.19 | 3.06 | 3.94 | 4.81 | 5.69 | 1.750 | 2.625 | 3.500 | 4.38 | 5.25 |
| 2.011 | 1.9264/1.9188 | 2 | 1.8038/1.7938 | | | 2.44 | 3.37 | 4.31 | 5.25 | 6.19 | 2.31 | 3.25 | 4.19 | 5.13 | 6.06 | 1.875 | 2.812 | 3.750 | 4.69 | 5.63 |
| 2.136 | 2.0515/2.0438 | 2.1/8 | 1.9289/1.9188 | | | 2.56 | 3.56 | 4.56 | 5.56 | 6.56 | 2.44 | 3.44 | 4.44 | 5.44 | 6.44 | 2.000 | 3.000 | 4.000 | 5.00 | 6.00 |


TABELA PARA A CONSULTA DE FERRAMENTAS DE INSTALAÇÃO DE INSERTOS


| MC | MF | SPARK | UNC | UNF | BSW | BSF | BA | BSC | NPT | BSP | UN-8 | Ref. | Ref. | Ref. |
|-----------|---------|---------|---------|----------|---------|---------|----|---------|---------|--------|---------|------------|-----------|----------|
| 2X0.40 | - | - | - | - | - | - | - | - | - | - | - | 3500-HIT2 | 3500-TB1 | 3500-RT1 |
| 2.20X0.45 | - | - | 2GX56 | - | - | - | - | - | - | - | - | 3500-HIT2 | 3500-TB2 | 3500-RT1 |
| 2.50X0.45 | - | - | 3GX48 | 3GX56 | - | - | #6 | - | - | - | - | 3500-HIT3 | 3500-TB3 | 3500-RT1 |
| - | - | - | 4GX40 | 4GX48 | 1/8X40 | - | - | - | - | - | - | 3500-HIT4 | 3500-TB4 | 3500-RT1 |
| 3X0.50 | - | - | 4GX40 | 4GX48 | 1/8X40 | - | - | - | - | - | - | 3500-HIT4 | 3500-TB4 | 3500-RT2 |
| - | - | - | 5GX40 | - | - | - | - | - | - | - | - | 3500-HIT4 | 3500-TB4 | 3500-RT1 |
| 3.50X0.60 | - | - | - | - | - | - | - | - | - | - | - | 3500-HIT5 | 3500-TB5 | 3500-RT2 |
| - | - | - | 6GX32 | 6GX40 | - | - | #4 | - | - | - | - | 3500-HIT5 | 3500-TB5 | 3500-RT1 |
| 4X0.70 | - | - | 8GX32 | 8GX36 | - | 3/16X32 | - | - | - | - | - | 3500-HIT6 | 3500-TB6 | 3500-RT2 |
| - | - | - | 8GX32 | 8GX36 | - | - | - | - | - | - | - | 3500-HIT6 | 3500-TB6 | 3500-RT1 |
| 5X0.80 | - | - | 12GX24 | 10GX32 | 3/16X24 | 3/16X32 | #1 | - | - | - | - | 3500-HIT8 | 3500-TB8 | 3500-RT2 |
| - | - | - | 12GX24 | 12GX28 | - | - | - | - | - | - | - | 3500-HIT8 | 3500-TB8 | 3500-RT2 |
| 6X1.00 | - | - | 1/4X20 | 1/4X28 | 1/4X20 | 1/4X26 | #0 | 1/4X26 | - | - | - | 3500-HIT9 | 3500-TB9 | 3500-RT2 |
| 7X1.00 | - | - | 5/16X18 | - | 5/16X18 | 5/16X22 | #0 | - | 1/16X27 | - | - | 3500-HIT10 | 3500-TB11 | 3500-RT2 |
| 8X1.25 | 8X1.00 | - | 5/16X18 | 5/16X24 | 3/8X16 | 5/16X22 | - | 5/16X26 | - | - | - | 3500-HIT11 | 3500-TB12 | 3500-RT2 |
| 9X1.25 | 9X1.00 | 10X1.00 | 3/8X16 | 3/8X24 | 3/8X16 | 3/8X20 | - | 3/8X26 | - | - | - | 3500-HIT13 | 3500-TB12 | 3500-RT2 |
| - | 10X1.00 | - | 3/8X16 | - | 3/8X16 | 3/8X20 | - | - | - | - | - | 3500-HIT13 | 3500-TB12 | 3500-RT3 |
| 10X1.50 | 10X1.25 | - | - | - | - | - | - | - | 1/8X27 | - | - | 3500-HIT13 | 3500-TB13 | 3500-RT2 |
| - | - | - | - | 3/8X24 | - | - | - | 3/8X26 | - | - | - | 3500-HIT13 | 3500-TB13 | 3500-RT3 |
| - | 10X1.00 | - | - | - | - | - | - | - | - | - | - | 3500-HIT13 | 3500-TB13 | 3500-RT2 |
| 11X1.50 | 11X1.25 | - | 7/16X14 | 7/16X20 | 7/16X14 | 7/16X18 | - | 7/16X26 | - | 1/8X28 | - | 3500-HIT14 | 3500-TB14 | 3500-RT3 |
| - | 11X1.00 | - | - | - | - | - | - | - | - | - | - | 3500-HIT14 | 3500-TB14 | 3500-RT3 |
| 12X1.75 | 12X1.50 | 10X1.25 | 1/2X13 | 1/2X20 | 1/2X12 | 1/2X16 | - | 1/2X26 | - | - | - | 3500-HIT15 | 3500-TB15 | 3500-RT3 |
| - | 12X1.25 | - | - | - | - | - | - | - | - | - | - | 3500-HIT15 | - | - |
| - | 12X1.00 | 12X1.25 | - | - | - | - | - | - | - | - | - | 3500-HIT15 | 3500-TB15 | 3500-RT3 |
| 13X1.75 | 13X1.50 | - | - | - | - | - | - | - | - | - | - | 3500-HIT15 | 3500-TB15 | 3500-RT3 |
| - | 13X1.25 | - | - | - | - | - | - | - | - | - | - | 3500-HIT16 | - | 3500-RT3 |
| 14X2.00 | 14X1.50 | 14X1.25 | 9/16X12 | 9/16X18 | 9/16X12 | 9/16X16 | - | - | - | 1/4X18 | - | 3500-HIT16 | - | 3500-RT3 |
| - | 14X1.00 | - | - | - | - | - | - | - | - | - | - | 3500-HIT16 | - | 3500-RT3 |
| 15X2.00 | 15X1.50 | - | - | - | - | - | - | - | 1/4X18 | - | - | 3500-HIT16 | - | 3500-RT3 |
| - | - | 14X1.25 | - | - | - | - | - | - | - | - | - | 3500-HIT17 | - | - |
| 16X2.00 | 16X1.50 | - | 5/8X11 | 5/8X18 | 5/8X11 | 5/8X14 | - | - | 3/8X18 | - | - | 3500-HIT18 | - | 3500-RT3 |
| 18X2.50 | 18X2.00 | 18X1.50 | 3/4X10 | - | 3/4X10 | 3/4X12 | - | - | - | 3/8X19 | - | 3500-HIT20 | - | 3500-RT3 |
| - | 18X1.50 | - | - | - | - | - | - | - | - | - | - | 3500-HIT20 | - | - |
| 20X2.50 | 20X2.00 | - | - | 3/4X16 | - | - | - | - | - | - | - | 3500-HIT21 | - | 3500-RT3 |
| - | 20X1.50 | - | - | - | - | - | - | - | - | - | - | 3500-HIT21 | - | 3500-RT3 |
| 22X2.50 | 22X2.00 | - | 7/8X9 | 7/8X14 | 7/8X9 | 7/8X11 | - | - | 1/2X14 | - | - | 3500-HIT22 | - | 3500-RT3 |
| - | 22X1.50 | - | - | - | - | - | - | - | - | - | - | 3500-HIT22 | - | 3500-RT3 |
| 24X3.00 | 24X2.00 | - | 1X8 | 1X12 | 1X8 | 1X10 | - | - | - | 1/2X14 | - | 3500-HIT23 | - | 3500-RT3 |
| - | 24X1.50 | - | - | 1X14 | - | - | - | - | - | 5/8X14 | - | 3500-HIT23 | - | 3500-RT3 |
| - | 26X1.50 | - | - | - | - | - | - | - | - | - | - | 3500-HIT24 | - | 3500-RT4 |
| 27X3.00 | 27X2.00 | - | - | - | - | - | - | - | - | - | - | 3500-HIT24 | - | 3500-RT4 |
| - | 27X1.50 | - | - | - | - | - | - | - | - | - | - | 3500-HIT24 | - | 3500-RT4 |
| - | 28X1.50 | - | - | - | - | - | - | - | - | - | - | 3500-HIT24 | - | 3500-RT4 |
| 30X3.50 | 30X2.00 | - | 1.1/8X7 | 1.1/8X12 | - | - | - | - | - | - | - | 3500-HIT25 | - | 3500-RT4 |
| - | 30X3.00 | - | 1.1/8-7 | 1.1/8-12 | - | - | - | - | - | - | 1.1/8X8 | 3500-HIT25 | - | - |
| - | 30X1.50 | - | 1.1/4X7 | 1.1/4X12 | - | - | - | - | - | - | - | 3500-HIT26 | - | 3500-RT4 |
| 33X3.50 | 33X2.00 | - | 1.3/8X6 | 1.3/8X12 | - | - | - | - | - | 3/4X14 | 1.1/4X8 | 3500-HIT26 | - | 3500-RT4 |
| - | - | - | 1.3/8-6 | 1.3/8-12 | - | - | - | - | 1X11.5 | 7/8X14 | 1.3/8X8 | 3500-HIT27 | - | - |
| - | - | - | - | - | - | - | - | - | - | 1X11 | - | 3500-HIT27 | - | - |
| 36X4.00 | 36X3.00 | - | 1.1/2X6 | 1.1/2X12 | - | - | - | - | - | - | 1.1/2X8 | 3500-HIT28 | - | 3500-RT4 |
| 39X4.00 | 36X2.00 | - | - | - | - | - | - | - | - | - | - | 3500-HIT28 | - | 3500-RT4 |
| - | 36X1.50 | - | - | - | - | - | - | - | - | - | - | 3500-HIT28 | - | 3500-RT4 |
| 42X4.50 | - | - | - | - | - | - | - | - | - | - | 1.5/8X8 | 3500-HIT28 | - | - |
| - | 44X3.00 | - | - | - | - | - | - | - | - | - | 1.3/4X8 | 3500-HIT28 | - | - |
| 48X5.00 | - | - | - | - | - | - | - | - | - | - | 1.7/8X8 | 3500-HIT30 | - | - |
| - | 50X2.00 | - | - | - | - | - | - | - | - | - | 2X8 | 3500-HIT30 | - | - |



INSERTOS DE BLOQUEIO COM CHAVE

MS51831F, MILITARY SPECIFICATION

Os inserts de segurança Loksert são fáceis de instalar e a sua montagem é ideal para substituir as roscas danificadas ou gastas em, essencialmente, qualquer material - ferroso, não ferroso e não metálico. Eles são fabricados com a mais alta qualidade de aço carbono ou de aço inoxidável.

O inserto Loksert fornece-se com os arrastos pré-montados. Os filetes de aperto posicionados estrategicamente colocam o inserto na profundidade correta da superfície do material de alojamento. Os Lokserts são recomendados para a reparação e criação de roscas numa ampla gama de aplicações incluindo ferrarias e fundições e são especialmente recomendados para os casos de alto desgaste pelo uso e a vibração, tais como a mineração, a construção e os equipamentos de grande movimento.

Características e Vantagens

- Eles são instalados usando machos e brocas standard.
- Sólidos, constam de guias de aperto que proporcionam alta segurança mecânica contra a rotação.
- Instalação simples. Não requer conhecimentos especiais.
- Recomendado para o seu uso numa ampla gama de materiais de alojamento.
- Impossível confundir as roscas durante a instalação.
- Se for necessário, processo de extração simples.
- Sem arrastos que cortar e remover.
- Disponível em tamanhos métricos, de polegadas e de velas de ignição.
- Disponível em parede fina e parede reforçada.



Métrica e métrica fina



Rosca americana UNC



Rosca americana fina UNF



Inserto de segurança



Inserto de parede fina



Inserto de parede reforçada



Inserto de aço ao carbono



Inserto de aço inoxidável



Código de família



Rosca Interna do inserto



Rosca externa do inserto



Passo em mm.



Longitude do inserto



INSERTOS DE BLOQUEIO

M
MF

M/MF

UNC/UNF



PD

...TW



| | | | | AC | | | INOX | | |
|-------------|-----------|-------|-------|--------------|-------|--------------|-------|--|--|
| | | | | € | | | € | | |
| | | | | | | | | | |
| M 5 x 0.80 | 8 x 1.25 | 8.00 | 6.90 | 3620-5.00TW | 6,17 | 3720-5.00TW | 13,46 | | |
| M 6 x 1.00 | 10 x 1.25 | 10.00 | 8.80 | 3620-6.00TW | 6,57 | 3720-6.00TW | 13,73 | | |
| M 8 x 1.00 | 12 x 1.25 | 12.00 | 10.80 | 3621-8.00TW | 8,79 | 3721-8.00TW | 14,63 | | |
| M 8 x 1.25 | 12 x 1.25 | 12.00 | 10.80 | 3620-8.00TW | 7,40 | 3720-8.00TW | 14,26 | | |
| M 10 x 1.25 | 14 x 1.50 | 14.00 | 12.80 | 3621-10.00TW | 10,97 | 3721-10.00TW | 16,79 | | |
| M 10 x 1.50 | 14 x 1.50 | 14.00 | 12.80 | 3620-10.00TW | 10,87 | 3720-10.00TW | 16,63 | | |
| M 12 x 1.25 | 16 x 1.50 | 16.00 | 14.75 | 3621-12.00TW | 13,58 | 3721-12.00TW | 21,44 | | |
| M 12 x 1.75 | 16 x 1.50 | 16.00 | 14.75 | 3620-12.00TW | 13,35 | 3720-12.00TW | 20,93 | | |

UNC

UNC

| | | | | € | | | € | | |
|-------------------|-----------|-------|-------|-------------|------|-------------|-------|--|--|
| | | | | | | | | | |
| UNC (J) N°10 - 24 | 5/16 x 18 | 7.87 | 6.90 | 3632-10GTW | 4,63 | 3732-10GTW | 11,64 | | |
| UNC (J) 1/4 - 20 | 3/8 x 16 | 9.40 | 8.40 | 3632-1/4TW | 4,95 | 3732-1/4TW | 12,78 | | |
| UNC (J) 5/16 - 18 | 7/16 x 14 | 10.92 | 10.10 | 3632-5/16TW | 5,28 | 3732-5/16TW | 14,23 | | |
| UNC (J) 3/8 - 16 | 1/2 x 13 | 12.70 | 11.50 | 3632-3/8TW | 5,92 | 3732-3/8TW | 14,63 | | |
| UNC (J) 7/16 - 14 | 9/16 x 12 | 14.22 | 13.00 | 3632-7/16TW | 7,68 | 3732-7/16TW | 17,79 | | |
| UNC (J) 1/2 - 13 | 5/8 x 11 | 15.75 | 14.75 | 3632-1/2TW | 8,96 | 3732-1/2TW | 20,52 | | |

UNF

UNF

| | | | | € | | | € | | |
|-------------------|-----------|-------|-------|-------------|------|-------------|-------|--|--|
| | | | | | | | | | |
| UNF (J) N°10 - 32 | 5/16 x 18 | 7.87 | 6.90 | 3634-10GTW | 4,63 | 3734-10GTW | 11,64 | | |
| UNF (J) 1/4 - 28 | 3/8 x 16 | 9.40 | 8.40 | 3634-1/4TW | 4,95 | 3734-1/4TW | 12,78 | | |
| UNF (J) 5/16 - 24 | 7/16 x 14 | 10.92 | 10.10 | 3634-5/16TW | 5,28 | 3734-5/16TW | 14,23 | | |
| UNF (J) 3/8 - 24 | 1/2 x 13 | 12.70 | 11.50 | 3634-3/8TW | 5,92 | 3734-3/8TW | 14,63 | | |
| UNF (J) 7/16 - 20 | 9/16 x 12 | 14.22 | 13.00 | 3634-7/16TW | 7,68 | 3734-7/16TW | 17,79 | | |
| UNF (J) 1/2 - 20 | 5/8 x 11 | 15.75 | 14.75 | 3634-1/2TW | 8,96 | 3734-1/2TW | 20,52 | | |

1

Furar



2

Roscar



3

Instalar



4

Ocultar as guias



INSERTOS DE BLOQUEIO



| | | | | AC | INOX | | |
|--------------------|-----------|-------|-------|--------------|-------|--------------|--------|
| | | | | € | € | € | |
| | | | | 3620-4.00HD | 11,68 | 3720-4.00HD | 15,29 |
| M 4 x 0.70 | 8 x 1.25 | 8.00 | 6.90 | 3620-5.00HD | 6,80 | 3720-5.00HD | 16,47 |
| M 5 x 0.80 | 10 x 1.25 | 10.00 | 8.80 | 3620-6.00HD | 7,10 | 3720-6.00HD | 16,61 |
| M 6 x 1.00 | 12 x 1.25 | 12.00 | 10.80 | 3621-8.00HD | 8,97 | 3721-8.00HD | 17,41 |
| M 8 x 1.00 | 14 x 1.50 | 14.00 | 12.80 | 3620-8.00HD | 7,54 | 3720-8.00HD | 17,41 |
| M 8 x 1.25 | 14 x 1.50 | 14.00 | 12.80 | 3621-10.00HD | 11,07 | 3721-10.00HD | 20,15 |
| M 10 x 1.25 | 16 x 1.50 | 16.00 | 14.75 | 3620-10.00HD | 11,07 | 3720-10.00HD | 19,80 |
| M 10 x 1.50 | 16 x 1.50 | 16.00 | 14.75 | 3621-12.00HD | 13,85 | 3721-12.00HD | 21,86 |
| M 12 x 1.25 | 18 x 1.50 | 18.00 | 16.75 | 3620-12.00HD | 13,80 | 3720-12.00HD | 21,86 |
| M 12 x 1.75 | 18 x 1.50 | 18.00 | 16.75 | 3621-14.00HD | 16,61 | 3721-14.00HD | 25,00 |
| M 14 x 1.50 | 20 x 1.50 | 20.00 | 18.75 | 3620-14.00HD | 21,36 | 3720-14.00HD | 30,71 |
| M 14 x 2.00 | 20 x 1.50 | 20.00 | 18.75 | 3621-16.00HD | 19,81 | 3721-16.00HD | 28,23 |
| M 16 x 1.50 | 22 x 1.50 | 22.00 | 20.50 | 3620-16.00HD | 22,45 | 3720-16.00HD | 33,86 |
| M 16 x 2.00 | 22 x 1.50 | 22.00 | 20.50 | 3621-18.00HD | 29,07 | 3721-18.00HD | 43,61 |
| M 18 x 1.50 | 24 x 1.50 | 24.00 | 22.50 | 3621-20.00HD | 35,08 | 3721-20.00HD | 51,73 |
| M 20 x 1.50 | 30 x 2.00 | 30.00 | 28.00 | 3620-20.00HD | 41,93 | 3720-20.00HD | 62,40 |
| M 20 x 2.50 | 30 x 2.00 | 30.00 | 28.00 | 3621-22.00HD | 41,20 | 3721-22.00HD | 61,79 |
| M 22 x 1.50 | 32 x 2.00 | 32.00 | 30.00 | 3621-24.00HD | 62,75 | 3721-24.00HD | 94,12 |
| M 24 x 2.00 | 33 x 2.00 | 33.00 | 31.00 | 3620-24.00HD | 76,32 | 3720-24.00HD | 113,58 |
| M 24 x 3.00 | 33 x 2.00 | 33.00 | 31.00 | | | | |

Inseto de parede fina
 Inseto de parede reforçada
 Inseto de aço ao carbono
 Inseto de aço inoxidável



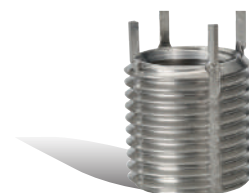
INSERTOS DE BLOQUEIO

UNC

UNF



...HD








| | | | | | | AC | | INOX | |
|---------|-----------|----------|-------|-------|--------------|--------|--------------|--------|--|
| | | | | | | € | | € | |
| | | | | | | | | | |
| UNC (J) | Nº8 - 32 | 5/16x18 | 7.87 | 6.90 | 3632-8GHD | 6,39 | 3732-8GHD | 12,78 | |
| UNC (J) | Nº10 - 24 | 3/8x16 | 7.87 | 8.40 | 3632-10GHD | 4,63 | 3732-10GHD | 11,64 | |
| UNC (J) | 1/4 - 20 | 7/16x14 | 9.40 | 10.10 | 3632-1/4HD | 4,95 | 3732-1/4HD | 12,78 | |
| UNC (J) | 5/16 - 18 | 1/2x13 | 10.92 | 11.50 | 3632-5/16HD | 5,27 | 3732-5/16HD | 14,31 | |
| UNC (J) | 3/8 - 16 | 9/16x12 | 12.70 | 13.00 | 3632-3/8HD | 5,91 | 3732-3/8HD | 15,17 | |
| UNC (J) | 7/16 - 14 | 5/8x11 | 15.75 | 14.75 | 3632-7/16HD | 7,67 | 3732-7/16HD | 22,04 | |
| UNC (J) | 1/2 - 13 | 3/4x16 | 15.75 | 17.75 | 3632-1/2HD | 8,96 | 3732-1/2HD | 22,68 | |
| UNC (J) | 9/16 - 12 | 3/4x16 | 20.57 | 17.75 | 3632-9/16HD | 12,30 | 3732-9/16HD | 24,02 | |
| UNC (J) | 5/8 - 11 | 7/8x14 | 22.10 | 21.00 | 3632-5/8HD | 14,23 | 3732-5/8HD | 27,31 | |
| UNC (J) | 3/4 - 10 | 1-1/8x12 | 28.45 | 27.00 | 3632-3/4HD | 20,29 | 3732-3/4HD | 35,55 | |
| UNC (J) | 7/8 - 9 | 1-1/4x12 | 31.75 | 30.00 | 3632-7/8HD | 26,36 | 3732-7/8HD | 55,57 | |
| UNC (J) | 1 - 8 | 1-3/8x12 | 34.80 | 33.25 | 3632-1HD | 53,34 | 3732-1HD | 112,01 | |
| UNC (J) | 1.1/8 - 7 | 1-1/2x12 | 41.15 | 36.50 | 3632-1.1/8HD | 255,80 | 3732-1.1/8HD | - | |
| UNC (J) | 1.1/4 - 7 | 1-5/8x12 | 45.97 | 39.50 | 3632-1.1/4HD | 318,24 | 3732-1.1/4HD | - | |
| UNC (J) | 1.1/2 - 6 | 1-7/8x12 | 50.80 | 46.00 | 3632-1.1/2HD | 552,27 | 3732-1.1/2HD | - | |


| | | | | | | € | | € | |
|---------|------------|----------|-------|-------|--------------|--------|--------------|--------|--|
| | | | | | | | | | |
| UNF (J) | Nº10 - 32 | 3/8x16 | 7.87 | 8.40 | 3634-10GHD | 4,63 | 3734-10GHD | 11,64 | |
| UNF (J) | 1/4 - 28 | 7/16x14 | 7.87 | 10.10 | 3634-1/4HD | 4,95 | 3734-1/4HD | 12,78 | |
| UNF (J) | 5/16 - 24 | 1/2x13 | 9.40 | 11.50 | 3634-5/16HD | 5,27 | 3734-5/16HD | 14,31 | |
| UNF (J) | 3/8 - 24 | 9/16x12 | 10.92 | 13.00 | 3634-3/8HD | 5,91 | 3734-3/8HD | 15,17 | |
| UNF (J) | 7/16 - 20 | 5/8x11 | 12.70 | 14.75 | 3634-7/16HD | 7,67 | 3734-7/16HD | 22,04 | |
| UNF (J) | 1/2 - 20 | 3/4x16 | 15.75 | 17.75 | 3634-1/2HD | 8,96 | 3734-1/2HD | 22,68 | |
| UNF (J) | 9/16 - 18 | 3/4x16 | 15.75 | 17.75 | 3634-9/16HD | 12,30 | 3734-9/16HD | 24,02 | |
| UNF (J) | 5/8 - 18 | 7/8x14 | 20.57 | 21.00 | 3634-5/8HD | 14,23 | 3734-5/8HD | 27,31 | |
| UNF (J) | 3/4 - 16 | 1-1/8x12 | 22.10 | 27.00 | 3634-3/4HD | 20,29 | 3734-3/4HD | 35,55 | |
| UNF (J) | 7/8 - 14 | 1-1/4x12 | 28.45 | 30.00 | 3634-7/8HD | 26,36 | 3734-7/8HD | 55,57 | |
| UNF (J) | 1 - 12 | 1-3/8x12 | 31.75 | 33.25 | 3634-1HD | 53,34 | 3734-1HD | 112,01 | |
| UNF (J) | 1 - 14 | 1-3/8x12 | 34.80 | 33.25 | 3635-1HD | 96,81 | 3735-1HD | - | |
| UNF (J) | 1.1/8 - 12 | 1-1/2x12 | 41.15 | 36.50 | 3634-1.1/8HD | 255,80 | 3734-1.1/8HD | - | |
| UNF (J) | 1.1/4 - 12 | 1-5/8x12 | 45.97 | 39.50 | 3634-1.1/4HD | 318,24 | 3734-1.1/4HD | - | |
| UNF (J) | 1.1/2 - 12 | 1-7/8x12 | 45.97 | 46.00 | 3634-1.1/2HD | 552,27 | 3734-1.1/2HD | - | |

FERRAMENTAS DE INSTALAÇÃO



|  |  PD | ...TT |  PR | ...HT |  PD |  PR | ...T |
|---|--|--------|--|--------|---|--|-------|
| | | € | | € | | | € |
| M 4 | - | - | 3600-4.00HT | 98,32 | - | - | - |
| M 5 | 3600-5.00TT | 99,89 | 3600-5.00HT | 99,89 | 3600-190T | | 55,81 |
| M 6 | 3600-6.00TT | 102,75 | 3600-6.00HT | 102,75 | 3600-250T | | 51,12 |
| M 8 | 3600-8.00TT | 106,68 | 3600-8.00HT | 106,68 | 3600-312T | | 61,30 |
| M 10 | 3600-10.00TT | 115,29 | 3600-10.00HT | 115,29 | 3600-375T | | 61,30 |
| M 12 | 3600-12.00TT | 123,63 | 3600-12.00HT | 123,63 | 3600-500T | | 67,02 |
| M 14 | - | - | 3600-14.00HT | 134,58 | - | | - |
| M 16 | - | - | 3600-16.00HT | 139,27 | 3600-625T | | 67,02 |
| M 18 | - | - | 3600-18.00HT | 142,92 | - | | - |
| M 20 | - | - | 3600-20.00HT | 148,40 | 3600-875T | | 79,02 |
| M 22 | - | - | 3600-22.00HT | 153,08 | 3600-875T | | 79,02 |
| M 24 | - | - | 3600-24.00HT | 169,27 | 3600-875T | | 79,02 |



|  | | € | | € | | € |
|---|-------------|--------|--------------|--------|-----------|-------|
| 8G | - | - | 3600-8GHT | 117,39 | - | - |
| 10G | 3600-10GTT | 106,63 | 3600-10GHT | 117,39 | 3600-190T | 55,81 |
| 1/4 | 3600-1/4TT | 110,41 | 3600-1/4HT | 122,33 | 3600-250T | 51,12 |
| 5/16 | 3600-5/16TT | 122,33 | 3600-5/16HT | 122,33 | 3600-312T | 61,30 |
| 3/8 | 3600-3/8TT | 139,35 | 3600-3/8HT | 129,87 | 3600-375T | 61,30 |
| 7/16 | 3600-7/16TT | 128,72 | 3600-7/16HT | 133,00 | 3600-375T | 61,30 |
| 1/2 | 3600-1/2TT | 133,00 | 3600-1/2HT | 145,27 | 3600-500T | 67,02 |
| 9/16 | - | - | 3600-9/16HT | 145,27 | 3600-500T | 67,02 |
| 5/8 | - | - | 3600-5/8HT | 167,71 | 3600-625T | 67,02 |
| 3/4 | - | - | 3600-3/4HT | 194,04 | 3600-875T | 79,02 |
| 7/8 | - | - | 3600-7/8HT | 205,51 | 3600-875T | 79,02 |
| 1 | - | - | 3600-1HT | 203,96 | 3600-100T | 79,02 |
| 1-1/8 | - | - | 3600-1.1/8HT | 571,68 | - | - |
| 1-1/4 | - | - | 3600-1.1/4HT | 618,10 | - | - |
| 1-1/2 | - | - | 3600-1.1/2HT | 727,13 | - | - |



JOGOS DE INSERTOS DE BLOQUEIO


| M 5 x 0.80 | 8.00 x 1.25 | 8.00 | 3620-5.00TWK | 153,72 | 3720-5.00TWK | 185,79 | 5 | 6.9 | M03M08X1,25 | 3600-190T |
|-------------|--------------|-------|---------------|--------|---------------|--------|---|-------|-------------|-----------|
| | | | | | | | | | | |
| M 6 x 1.00 | 10.00 x 1.25 | 10.00 | 3620-6.00TWK | 194,76 | 3720-6.00TWK | 226,30 | 5 | 8.8 | M03M10X1,25 | 3600-250T |
| M 8 x 1.25 | 12.00 x 1.25 | 12.00 | 3620-8.00TWK | 246,73 | 3720-8.00TWK | 276,09 | 5 | 10.8 | M03M12X1,25 | 3600-312T |
| M 10 x 1.50 | 14.00 x 1.50 | 14.00 | 3620-10.00TWK | 306,75 | 3720-10.00TWK | 327,25 | 5 | 12.8 | M03M14X1,50 | 3600-375T |
| M 12 x 1.75 | 16.00 x 1.50 | 16.00 | 3620-12.00TWK | 326,61 | 3720-12.00TWK | 351,17 | 5 | 14.75 | M03M16X1,50 | 3600-500T |

| MF 8 x 1.00 | 12.00 x 1.25 | 12.00 | 3621-8.00TWK | 246,73 | 3721-8.00TWK | 276,09 | 5 | 10.8 | M03M12X1,25 | 3600-312T |
|--------------|--------------|-------|---------------|--------|---------------|--------|---|-------|-------------|-----------|
| | | | | | | | | | | |
| MF 10 x 1.25 | 14.00 x 1.50 | 14.00 | 3621-10.00TWK | 306,75 | 3721-10.00TWK | 327,25 | 5 | 12.8 | M03M14X1,50 | 3600-375T |
| MF 12 x 1.25 | 16.00 x 1.50 | 16.00 | 3621-12.00TWK | 333,40 | 3721-12.00TWK | 357,95 | 5 | 14.75 | M03M16X1,50 | 3600-500T |

| UNC N°10 x 24 | UNC 5/16 x 18 | 7,87 | 3632-10GTWK | 159,48 | 3732-10GTWK | 206,61 | 5 | 6.90 | M03NC5/16X18 | 3600-190T |
|---------------|---------------|-------|--------------|--------|--------------|--------|---|-------|--------------|-----------|
| | | | | | | | | | | |
| UNC 1/4 x 20 | UNC 3/8 x 16 | 9,40 | 3632-1/4TWK | 182,36 | 3732-1/4TWK | 230,60 | 5 | 8.40 | M03NC3/8X16 | 3600-250T |
| UNC 5/16 x 18 | UNC 7/16 x 14 | 10,92 | 3632-5/16TWK | 240,74 | 3732-5/16TWK | 290,15 | 5 | 10.10 | M03NC7/16X14 | 3600-312T |
| UNC 3/8 x 16 | UNC 1/2 x 13 | 12,70 | 3632-3/8TWK | 209,37 | 3732-3/8TWK | 258,28 | 5 | 11.50 | M03NC1/2X13 | 3600-375T |
| UNC 7/16 x 14 | UNC 9/16 x 12 | 14,22 | 3632-7/16TWK | 271,85 | 3732-7/16TWK | 318,71 | 5 | 13.00 | M03NC9/16X12 | 3600-375T |
| UNC 1/2 x 13 | UNC 5/8 x 11 | 15,75 | 3632-1/2TWK | 301,94 | 3732-1/2TWK | 353,21 | 5 | 14.75 | M03NC5/8X11 | 3600-500T |

| UNF N°10 x 32 | UNC 5/16 x 18 | 7,87 | 3634-10GTWK | 159,48 | 3734-10GTWK | 206,61 | 5 | 6.90 | M03NC5/16X18 | 3600-190T |
|---------------|---------------|-------|--------------|--------|--------------|--------|---|-------|--------------|-----------|
| | | | | | | | | | | |
| UNF 1/4 x 28 | UNC 3/8 x 16 | 9,40 | 3634-1/4TWK | 182,36 | 3734-1/4TWK | 230,60 | 5 | 8.40 | M03NC3/8X16 | 3600-250T |
| UNF 5/16 x 24 | UNC 7/16 x 14 | 10,92 | 3634-5/16TWK | 244,27 | 3734-5/16TWK | 293,67 | 5 | 10.10 | M03NC7/16X14 | 3600-312T |
| UNF 3/8 x 24 | UNC 1/2 x 13 | 12,70 | 3634-3/8TWK | 209,37 | 3734-3/8TWK | 258,28 | 5 | 11.50 | M03NC1/2X13 | 3600-375T |
| UNF 7/16 x 20 | UNC 9/16 x 12 | 14,22 | 3634-7/16TWK | 271,85 | 3734-7/16TWK | 318,71 | 5 | 13.00 | M03NC9/16X12 | 3600-375T |
| UNF 1/2 x 20 | UNC 5/8 x 11 | 15,75 | 3634-1/2TWK | 301,94 | 3734-1/2TWK | 353,21 | 5 | 14.75 | M03NC5/8X11 | 3600-500T |

JOGOS DE INSERTOS DE BLOQUEIO

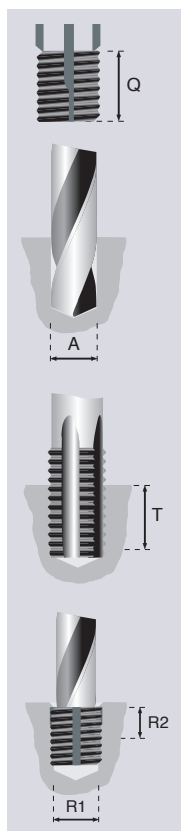
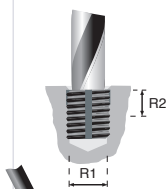


| Diagram | | | AC | INOX | mm | mm | mm | mm | | |
|-------------|--------------|-------|---------------|--------|---------------|--------|----|-------|-------------|-----------|
| Diagram | | | € | € | mm | mm | mm | mm | | |
| M 5 x 0.80 | 10.00 x 1.25 | 10.00 | 3620-5.00HDK | 202,47 | 3720-5.00HDK | 249,34 | 5 | 8.80 | M03M10X1,25 | 3600-190T |
| M 6 x 1.00 | 12.00 x 1.25 | 12.00 | 3620-6.00HDK | 239,51 | 3720-6.00HDK | 289,17 | 5 | 10.80 | M03M12X1,25 | 3600-250T |
| M 8 x 1.25 | 14.00 x 1.50 | 14.00 | 3620-8.00HDK | 301,70 | 3720-8.00HDK | 352,50 | 5 | 12.80 | M03M14X1,25 | 3600-312T |
| M 10 x 1.50 | 16.00 x 1.50 | 16.00 | 3620-10.00HDK | 329,94 | 3720-10.00HDK | 375,12 | 5 | 14.75 | M03M16X1,50 | 3600-375T |
| M 12 x 1.75 | 18.00 x 1.50 | 18.00 | 3620-12.00HDK | 487,18 | 3720-12.00HDK | 522,74 | 5 | 16.75 | M03M18X1,50 | 3600-500T |
| M 16 x 2.00 | 22.00 x 1.50 | 22.00 | 3620-16.00HDK | 654,47 | 3720-16.00HDK | 684,03 | 5 | 20.50 | M03M22X1,50 | 3600-625T |

| Diagram | | | AC | INOX | mm | mm | mm | mm | | |
|-------------|--------------|-------|---------------|--------|---------------|--------|----|-------|-------------|-----------|
| Diagram | | | € | € | mm | mm | mm | mm | | |
| M 8 x 1.00 | 14.00 x 1.50 | 14.00 | 3621-8.00HDK | 301,70 | 3721-8.00HDK | 352,50 | 5 | 12.80 | M03M14X1,50 | 3600-312T |
| M 10 x 1.25 | 16.00 x 1.50 | 16.00 | 3621-10.00HDK | 329,94 | 3721-10.00HDK | 375,12 | 5 | 14.75 | M03M16X1,50 | 3600-375T |
| M 12 x 1.25 | 18.00 x 1.50 | 18.00 | 3621-12.00HDK | 487,18 | 3721-12.00HDK | 522,74 | 5 | 16.75 | M03M18X1,50 | 3600-500T |
| M 16 x 1.50 | 22.00 x 1.50 | 22.00 | 3621-16.00HDK | 654,47 | 3721-16.00HDK | 684,03 | 5 | 20.50 | M03M22X1,50 | 3600-625T |

| Diagram | | | AC | INOX | mm | mm | mm | mm | | |
|---------------|---------------|-------|--------------|--------|--------------|--------|----|-------|--------------|-----------|
| Diagram | | | € | € | mm | mm | mm | mm | | |
| UNC N°10 x 24 | UNC 3/8 x 16 | 7.87 | 3632-10GHDK | 191,71 | 3732-10GHDK | 253,63 | 5 | 8.40 | M03NC3/8X16 | 3600-190T |
| UNC 1/4 x 20 | UNC 7/16 x 14 | 9.40 | 3632-1/4HDK | 236,82 | 3732-1/4HDK | 303,18 | 5 | 10.10 | M03NC7/16X14 | 3600-250T |
| UNC 5/16 x 18 | UNC 1/2 x 13 | 10.92 | 3632-5/16HDK | 212,71 | 3732-5/16HDK | 283,52 | 5 | 11.50 | M03NC1/2X13 | 3600-312T |
| UNC 3/8 x 16 | UNC 9/16 x 12 | 12.70 | 3632-3/8HDK | 275,05 | 3732-3/8HDK | 348,64 | 5 | 13.00 | M03NC9/16X12 | 3600-375T |
| UNC 7/16x14 | UNC 5/8 x 11 | 14.22 | 3632-7/16HDK | 263,42 | 3732-7/16HDK | 283,29 | 5 | 14.75 | M03NC5/8X11 | 3600-375T |
| UNC 1/2x13 | UNF 3/4 x 16 | 15.75 | 3632-1/2HDK | 400,76 | 3732-1/2HDK | 431,01 | 5 | 17.75 | M03NF3/4X16 | 3600-500T |
| UNC 9/16x12 | UNF 3/4 x 16 | 20.57 | 3632-9/16HDK | 400,76 | 3732-9/16HDK | 431,01 | 5 | 17.75 | M03NF3/4X16 | 3600-500T |
| UNC 5/8x11 | UNF 7/8 x 14 | 22.10 | 3632-5/8HDK | 541,96 | 3732-5/8HDK | 601,61 | 5 | 21.00 | M03NF7/8X14 | 3600-625T |

| Diagram | | | AC | INOX | mm | mm | mm | mm | | |
|---------------|---------------|-------|--------------|--------|--------------|--------|----|-------|--------------|-----------|
| Diagram | | | € | € | mm | mm | mm | mm | | |
| UNF N°10 x 32 | UNC 3/8 x 16 | 7.87 | 3634-10GHDK | 191,71 | 3734-10GHDK | 253,63 | 5 | 8.40 | M03NC3/8X16 | 3600-190T |
| UNF 1/4 x 28 | UNC 7/16 x 14 | 9.40 | 3634-1/4HDK | 236,82 | 3734-1/4HDK | 303,18 | 5 | 10.10 | M03NC7/16X14 | 3600-250T |
| UNF 5/16 x 24 | UNC 1/2 x 13 | 10.92 | 3634-5/16HDK | 212,71 | 3734-5/16HDK | 283,52 | 5 | 11.50 | M03NC1/2X13 | 3600-312T |
| UNF 3/8 x 24 | UNC 9/16 x 12 | 12.70 | 3634-3/8HDK | 275,05 | 3734-3/8HDK | 348,64 | 5 | 13.00 | M03NC9/16X12 | 3600-375T |
| UNF 7/16 x 20 | UNC 5/8 x 11 | 14.22 | 3634-7/16HDK | 306,84 | 3734-7/16HDK | 374,44 | 5 | 14.75 | M03NC5/8X11 | 3600-375T |
| UNF 1/2 x 20 | UNF 3/4 x 16 | 15.75 | 3634-1/2HDK | 452,51 | 3734-1/2HDK | 514,84 | 5 | 17.75 | M03NF3/4X16 | 3600-500T |
| UNF 9/16 x 18 | UNF 3/4 x 16 | 20.57 | 3634-9/16HDK | 470,90 | 3734-9/16HDK | 529,07 | 5 | 17.75 | M03NF3/4X16 | 3600-500T |
| UNF 5/8 x 18 | UNF 7/8 x 14 | 22.10 | 3634-5/8HDK | 541,96 | 3734-5/8HDK | 601,61 | 5 | 21.00 | M03NF7/8X14 | 3600-625T |


EXTRAÇÃO

1
Furar

Fure o material entre as guias e a rosca interior na profundidade especificada. Consulte pela informação técnica.


2
Dobrar

Dobre as guias para dentro e quebre-las.


3
Extraír

Tire o inserto com um extrator de parafusos.


4
Instalar

Pelo procedimento habitual, coloque um novo inserto Locksert.



| Rosca Interna | Rosca Externa | Q mm | Ferramenta de instalação | Macho | | | | |
|--------------------|---------------|------|--------------------------|-------|------------|-----------|-------|-------|
| | | | | A mm | Tol 6H mm | T Min. mm | R1 mm | R2 mm |
| PAREDE FINA | | | | | | | | |
| M 5 X 0.8 | M8 X 1.25 | 8.0 | 3600-190T | 6.9 | M8 X 1.25 | 9.5 | 5.50 | 4.00 |
| M 6 X 1.0 | M10 X 1.25 | 10.0 | 3600-250T | 8.8 | M10 X 1.25 | 11.5 | 7.50 | 4.75 |
| M 8 X 1.25 | M12 X 1.25 | 12.0 | 3600-312T | 10.8 | M12 X 1.25 | 13.5 | 9.50 | 4.75 |
| M 8 X 1.0 | M12 X 1.25 | 12.0 | 3600-312T | 10.8 | M12 X 1.25 | 13.5 | 9.50 | 4.75 |
| M 10 X 1.5 | M14 X 1.5 | 14.0 | 3600-375T | 12.8 | M14 X 1.5 | 15.5 | 11.50 | 4.75 |
| M 10 X 1.25 | M14 X 1.5 | 14.0 | 3600-375T | 12.8 | M14 X 1.5 | 15.5 | 11.50 | 4.75 |
| M 12 X 1.75 | M16 X 1.5 | 16.0 | 3600-500T | 14.75 | M16 X 1.5 | 17.5 | 13.50 | 4.75 |
| M 12 X 1.25 | M16 X 1.5 | 16.0 | 3600-500T | 14.75 | M16 X 1.5 | 17.5 | 13.50 | 4.75 |

| | | | | | | | | |
|-------------------------|------------|------|--------------|-------|------------|------|-------|------|
| PAREDE REFORÇADA | | | | | | | | |
| M 4 X 0.7 | M8 X 1.25 | 8.0 | 3600-4.00HT | 6.9 | M8 X 1.25 | 9.5 | 5.50 | 4.00 |
| M 5 X 0.8 | M10 X 1.25 | 10.0 | 3600-190T | 8.8 | M10 X 1.25 | 12.5 | 7.50 | 4.75 |
| M 6 X 1.0 | M12 X 1.25 | 12.0 | 3600-250T | 10.8 | M12 X 1.25 | 14.5 | 9.50 | 4.75 |
| M 8 X 1.25 | M14 X 1.5 | 14.0 | 3600-312T | 12.8 | M14 X 1.5 | 16.5 | 11.50 | 4.75 |
| M 8 X 1.0 | M14 X 1.5 | 14.0 | 3600-312T | 12.8 | M14 X 1.5 | 16.5 | 11.50 | 4.75 |
| M 10 X 1.5 | M16 X 1.5 | 16.0 | 3600-375T | 14.75 | M16 X 1.5 | 18.5 | 13.50 | 4.75 |
| M 10 X 1.25 | M16 X 1.5 | 16.0 | 3600-375T | 14.75 | M16 X 1.5 | 18.5 | 13.50 | 4.75 |
| M 12 X 1.75 | M18 X 1.5 | 18.0 | 3600-500T | 16.75 | M18 X 1.5 | 20.5 | 15.50 | 4.75 |
| M 12 X 1.25 | M18 X 1.5 | 18.0 | 3600-500T | 16.75 | M18 X 1.5 | 20.5 | 15.50 | 4.75 |
| M 14 X 2.0 | M20 X 1.5 | 20.0 | 3600-14.00HT | 18.75 | M20 X 1.5 | 22.5 | 17.50 | 4.75 |
| M 14 X 1.5 | M20 X 1.5 | 20.0 | 3600-14.00HT | 18.75 | M20 X 1.5 | 22.5 | 17.50 | 4.75 |
| M 16 X 2.0 | M22 X 1.5 | 22.0 | 3600-625T | 20.5 | M22 X 1.5 | 24.5 | 17.75 | 6.35 |
| M 16 X 1.5 | M22 X 1.5 | 22.0 | 3600-625T | 20.5 | M22 X 1.5 | 24.5 | 17.75 | 6.35 |
| M 18 X 1.5 | M24 X 1.5 | 24.0 | 3600-18.00HT | 22.5 | M24 X 1.5 | 26.5 | 19.75 | 6.35 |
| M 20 X 2.5 | M30 X 2.0 | 30.0 | 3600-875T | 28.0 | M30 X 2.0 | 34.5 | 25.75 | 6.35 |
| M 20 X 1.5 | M30 X 2.0 | 30.0 | 3600-875T | 28.0 | M30 X 2.0 | 34.5 | 25.75 | 6.35 |
| M 22 X 1.5 | M32 X 2.0 | 32.0 | 3600-22.00HT | 30.0 | M32 X 2.0 | 36.5 | 27.75 | 6.35 |
| M 24 X 3.0 | M33 X 2.0 | 33.0 | 3600-24.00HT | 31.0 | M33 X 2.0 | 37.5 | 28.75 | 6.35 |
| M 24 X 2.0 | M33 X 2.0 | 33.0 | 3600-24.00HT | 31.0 | M33 X 2.0 | 37.5 | 28.75 | 6.35 |

| Rosca Interna | Rosca Externa | Q mm | Ferramenta de instalação | A mm | Macho | | | |
|-------------------------|---------------|-------|--------------------------|-------|--------------|-----------|-------|-------|
| | | | | | Tol 2B " | T Min. mm | R1 mm | R2 mm |
| PAREDE FINA | | | | | | | | |
| Nº10 X 24 | 5/16 X 18 | 7.87 | 3600-190T | 6.90 | UNC 5/16X18 | 9.40 | 5.56 | 3.20 |
| Nº10 X 32 | 5/16 X 18 | 7.87 | 3600-190T | 6.90 | UNC 5/16X18 | 9.40 | 5.56 | 3.20 |
| 1/4 X 20 | 3/8 X 16 | 9.40 | 3600-250T | 8.40 | UNC 3/8X16 | 10.92 | 7.14 | 4.75 |
| 1/4 X 28 | 3/8 X 16 | 9.40 | 3600-250T | 8.40 | UNC 3/8X16 | 10.92 | 7.14 | 4.75 |
| 5/16 X 18 | 7/16 X 14 | 10.92 | 3600-312T | 10.10 | UNC 7/16X14 | 12.70 | 8.73 | 4.75 |
| 5/16 X 24 | 7/16 X 14 | 10.92 | 3600-312T | 10.10 | UNC 7/16X14 | 12.70 | 8.73 | 4.75 |
| 3/8 X 16 | 1/2 X 13 | 12.70 | 3600-375T | 11.50 | UNC 1/2X13 | 14.22 | 10.32 | 4.75 |
| 3/8 X 24 | 1/2 X 13 | 12.70 | 3600-375T | 11.50 | UNC 1/2X13 | 14.22 | 10.32 | 4.75 |
| 7/16 X 14 | 9/16 X 12 | 14.22 | 3600-375T | 13.10 | UNC 9/16X12 | 15.75 | 11.91 | 4.75 |
| 7/16 X 20 | 9/16 X 12 | 14.22 | 3600-375T | 13.10 | UNC 9/16X12 | 15.75 | 11.91 | 4.75 |
| 1/2 X 13 | 5/8 X 11 | 15.75 | 3600-500T | 14.75 | UNC 5/8X11 | 17.27 | 13.49 | 4.75 |
| 1/2 X 20 | 5/8 X 11 | 15.75 | 3600-500T | 14.75 | UNC 5/8X11 | 17.27 | 13.49 | 4.75 |
| PAREDE REFORÇADA | | | | | | | | |
| Nº8 X 32 | 5/16 X 18 | 7.87 | 3600-8GHT | 6.90 | UNC 5/16X18 | 9.40 | 5.56 | 3.20 |
| Nº10 X 24 | 3/8 X 16 | 7.87 | 3600-190T | 8.40 | UNC 3/8X16 | 9.40 | 7.14 | 3.20 |
| Nº10 X 32 | 3/8 X 16 | 7.87 | 3600-190T | 8.40 | UNC 3/8X16 | 9.40 | 7.14 | 3.20 |
| 1/4 X 20 | 7/16 X 14 | 9.40 | 3600-250T | 10.10 | UNC 7/16X14 | 10.92 | 8.73 | 4.75 |
| 1/4 X 28 | 7/16 X 14 | 9.40 | 3600-250T | 10.10 | UNC 7/16X14 | 10.92 | 8.73 | 4.75 |
| 5/16 X 18 | 1/2 X 13 | 10.92 | 3600-312T | 11.50 | UNC 1/2X13 | 12.70 | 10.32 | 4.75 |
| 5/16 X 24 | 1/2 X 13 | 10.92 | 3600-312T | 11.50 | UNC 1/2X13 | 12.70 | 10.32 | 4.75 |
| 3/8 X 16 | 9/16 X 12 | 12.70 | 3600-375T | 13.10 | UNC 9/16X12 | 14.22 | 11.91 | 4.75 |
| 3/8 X 24 | 9/16 X 12 | 12.70 | 3600-375T | 13.10 | UNC 9/16X12 | 14.22 | 11.91 | 4.75 |
| 7/16 X 14 | 5/8 X 11 | 15.75 | 3600-375T | 14.75 | UNC 5/8X11 | 17.27 | 13.49 | 4.75 |
| 7/16 X 20 | 5/8 X 11 | 15.75 | 3600-375T | 14.75 | UNC 5/8X11 | 17.27 | 13.49 | 4.75 |
| 1/2 X 13 | 3/4 X 16 | 15.75 | 3600-500T | 17.50 | UNF 3/4X16 | 17.27 | 16.67 | 4.75 |
| 1/2 X 20 | 3/4 X 16 | 15.75 | 3600-500T | 17.50 | UNF 3/4X16 | 17.27 | 16.67 | 4.75 |
| 9/16 X 12 | 3/4 X 16 | 20.57 | 3600-500T | 17.50 | UNF 3/4X16 | 23.88 | 16.67 | 4.75 |
| 9/16 X 18 | 3/4 X 16 | 20.57 | 3600-500T | 17.50 | UNF 3/4X16 | 23.88 | 16.67 | 4.75 |
| 5/8 X 11 | 7/8 X 14 | 22.10 | 3600-625T | 21.00 | UNF 7/8X14 | 25.40 | 19.84 | 7.90 |
| 5/8 X 18 | 7/8 X 14 | 22.10 | 3600-625T | 21.00 | UNF 7/8X14 | 25.40 | 19.84 | 7.90 |
| 3/4 X 10 | 1-1/8 X 12 | 28.45 | 3600-875T | 27.00 | UNF 1-1/8X12 | 33.27 | 24.61 | 7.90 |
| 3/4 X 16 | 1-1/8 X 12 | 28.45 | 3600-875T | 27.00 | UNF 1-1/8X12 | 33.27 | 24.61 | 7.90 |
| 7/8 X 9 | 1-1/4 X 12 | 31.75 | 3600-875T | 30.00 | UNF 1-1/4X12 | 36.58 | 27.75 | 7.90 |
| 7/8 X 14 | 1-1/4 X 12 | 31.75 | 3600-875T | 30.00 | UNF 1-1/4X12 | 36.58 | 27.75 | 7.90 |
| 1 X 8 | 1-3/8 X 12 | 34.80 | 3600-100T | 33.25 | UNF 1-3/8X12 | 39.62 | 31 | 7.90 |
| 1 X 12 | 1-3/8 X 12 | 34.80 | 3600-100T | 33.25 | UNF 1-3/8X12 | 39.62 | 31 | 7.90 |
| 1 X 14 | 1-3/8 X 12 | 34.80 | 3600-100T | 33.25 | UNF 1-3/8X12 | 39.62 | 31 | 7.90 |
| 1-1/8 X 7 | 1-1/2 X 12 | 41.15 | 3600-1.1/8HT | 36.50 | UNF 1-1/2X12 | 46.74 | 34 | 7.90 |
| 1-1/8 X 12 | 1-1/2 X 12 | 41.15 | 3600-1.1/8HT | 36.50 | UNF 1-1/2X12 | 46.74 | 34 | 7.90 |
| 1-1/4 X 7 | 1-5/8 X 12 | 45.97 | 3600-1.1/4HT | 39.75 | UNF 1-5/8X12 | 52.32 | 37.25 | 7.90 |
| 1-1/4 X 12 | 1-5/8 X 12 | 45.97 | 3600-1.1/4HT | 39.75 | UNF 1-5/8X12 | 52.32 | 37.25 | 7.90 |
| 1-1/2 X 6 | 1-7/8 X 12 | 50.80 | 3600-1.1/2HT | 46.00 | UNF 1-7/8X12 | 57.91 | 43.50 | 7.90 |
| 1-1/2 X 12 | 1-7/8 X 12 | 50.80 | 3600-1.1/2HT | 46.00 | UNF 1-7/8X12 | 57.91 | 43.50 | 7.90 |

PAREDE FINA E REFORÇADA

| | | | | |
|---------------------|---|---------------------------|--|--------------------------|
| Material do inserto | Aço ao carbono - C1215. Aço inoxidável - AISI 303 | Nº Guias | 4 guias nos insertos com a rosca interna M7 ou maior 2 guias nos insertos com a rosca interna inferior à M7 | |
| Guias | AISI 302 | | | |
| Tolerâncias | Aço ao carbono - Zincado fosfatado; Aço inoxidável - Pasivado | Tolerancia do furo prévio | 6.90 - 10.80 = +0.100 / -0.025 | +12.80 = +0.130 / -0.025 |

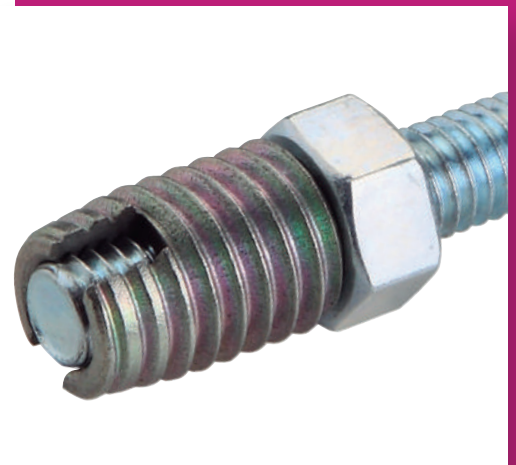


INSERTOS AUTO-ROSCANTES

Os insertos TAPSERT são insertos auto-roscantes com roscas internas e externas. Eles devem ser instalados num furo previamente feito com o tamanho indicado no catálogo. A parte frontal do inserto TAPSERT consiste num cone de entrada que faz de macho e rosca o furo prévio. A ranhura do inserto permite alojar a limança gerada na operação. Os insertos TAPSERT são perfeitos para gerar roscas muito fortes em materiais com baixa capacidade de resistência, onde as roscas deterioram-se facilmente.

Características e Vantagens

- Instalação simples nos furos prévios feitos com brocas de tamanho standard. Como colocador, é usado um parafuso igual à rosca interna.
- Não é necessário usar machos na sua instalação. O próprio inserto faz a rosca.
- O inserto suporta cargas de compressão e tração muito altas.
- Permite apertar em pares extremamente altos em materiais macios como plástico, alumínio, madeira, etc.
- A tolerância da rosca mantém-se apesar de múltiplos usos da rosca. Baixo desgaste.



Aparafuse o Tapsert no parafuso com as ranhuras na parte inferior.
Ajuste a porca ao comprimento do inserto até que o parafuso esteja nivelado com o inserto.

INSERTOS AUTO-ROSCANTES COM RANHURA



AC 302



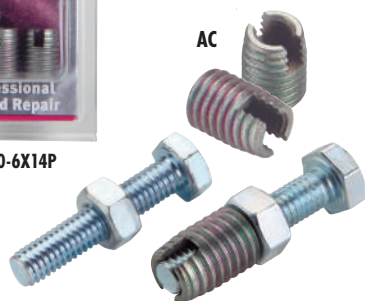
INOX 302



| Diagram | Diagram | mm | Ø | L | AC | € | | | INOX | € | | |
|---------------|---------------|-------|-------|-------|------------|---------|----------|----------|--------------|----------|----------|----------|
| | | | | | | 100-499 | 500-1999 | 2000-... | | AISI 303 | 25-499 | 500-1999 |
| M 2.50 x 0.45 | M 4.50 x 0.50 | 6.00 | 4.30 | 8.00 | 3920-2.5X6 | 0,48 | 0,44 | 0,40 | 3920-2.5X6SS | 0,83 | 0,79 | 0,70 |
| M 3 x 0.50 | M 5 x 0.50 | 6.00 | 4.80 | 8.00 | 3920-3X6 | 0,49 | 0,45 | 0,42 | 3920-3X6SS | 0,84 | 0,80 | 0,71 |
| M 4 x 0.70 | M 6.50 x 0.75 | 8.00 | 6.20 | 10.00 | 3920-4X8 | 0,51 | 0,49 | 0,46 | 3920-4X8SS | 1,12 | 1,07 | 0,96 |
| M 5 x 0.80 | M 8 x 1.00 | 10.00 | 7.60 | 13.00 | 3920-5X10 | 0,64 | 0,61 | 0,57 | 3920-5X10SS | 1,46 | 1,39 | 1,25 |
| M 6 x 1.00 | M 10 x 1.50 | 14.00 | 9.40 | 17.00 | 3920-6X14 | 0,82 | 0,78 | 0,70 | 3920-6X14SS | 1,81 | 1,71 | 1,54 |
| M 8 x 1.25 | M 12 x 1.50 | 15.00 | 11.40 | 18.00 | 3920-8X15 | 1,00 | 0,95 | 0,86 | 3920-8X15SS | 2,28 | 2,14 | 1,94 |
| M 10 x 1.50 | M 14 x 1.50 | 18.00 | 13.50 | 22.00 | 3920-10X18 | 1,45 | 1,38 | 1,25 | 3920-10X18SS | 3,33 | 3,14 | 2,84 |
| | | | | | | 25-499 | 500-1999 | 2000-... | | 1-499 | 500-1999 | 2000-... |
| M 12 x 1.75 | M 16 x 1.50 | 22.00 | 15.50 | 26.00 | 3920-12X22 | 2,28 | 2,14 | 1,96 | 3920-12X22SS | 4,49 | 4,22 | 3,81 |
| M 14 x 2.00 | M 18 x 1.50 | 24.00 | 17.50 | 28.00 | 3920-14X24 | 3,10 | 2,92 | 2,67 | 3920-14X24SS | 5,90 | 5,55 | 5,00 |
| M 16 x 2.00 | M 20 x 1.50 | 22.00 | 19.50 | 26.00 | 3920-16X22 | 4,16 | 3,79 | 3,44 | 3920-16X22SS | 7,23 | 6,59 | 5,94 |
| | | | | | | 5-499 | 500-1999 | 2000-... | | 1-499 | 500-1999 | 2000-... |
| M 18 x 2.50 | M 22 x 1.50 | 24.00 | 21.50 | 29.00 | 3920-18X24 | 6,25 | 5,68 | 5,19 | 3920-18X24SS | 7,93 | 7,22 | 6,51 |
| M 20 x 2.50 | M 26 x 1.50 | 27.00 | 25.50 | 32.00 | 3920-20X26 | 7,02 | 6,41 | 5,83 | 3920-20X26SS | 9,15 | 8,34 | 7,51 |
| M 22 x 2.50 | M 26 x 1.50 | 30.00 | 25.50 | 36.00 | 3920-22X30 | 8,37 | 7,61 | 6,93 | 3920-22X30SS | 10,16 | 9,26 | 8,34 |
| M 24 x 3.00 | M 30 x 1.50 | 30.00 | 29.50 | 36.00 | 3920-24X30 | 10,34 | 9,44 | 8,59 | 3920-24X30SS | 11,62 | 10,58 | 9,53 |



3920-6X14P



| Diagram | Diagram | mm | Ø | L | AC | € | AC |
|---------------|---------------|-------|--------|-------|-------------|-------|----|
| M 2.50 x 0.45 | M 4.50 x 0.50 | 6.00 | 4.30* | 8.00 | 3920-2.5X6P | 11,72 | 2 |
| M 3 x 0.50 | M 5 x 0.50 | 6.00 | 4.80* | 8.00 | 3920-3X6P | 11,72 | 2 |
| M 4 x 0.70 | M 6.50 x 0.75 | 8.00 | 6.20* | 10.00 | 3920-4X8P | 10,65 | 2 |
| M 5 x 0.80 | M 8 x 1.00 | 10.00 | 7.60* | 13.00 | 3920-5X10P | 10,65 | 2 |
| M 6 x 1.00 | M 10 x 1.50 | 14.00 | 9.40* | 17.00 | 3920-6X14P | 10,65 | 2 |
| M 8 x 1.25 | M 12 x 1.50 | 15.00 | 11.40* | 18.00 | 3920-8X15P | 11,72 | 2 |
| M 10 x 1.50 | M 14 x 1.50 | 18.00 | 13.50* | 22.00 | 3920-10X18P | 12,78 | 2 |
| M 12 x 1.75 | M 16 x 1.50 | 22.00 | 15.50* | 26.00 | 3920-12X22P | 14,90 | 2 |
| M 14 x 2.00 | M 18 x 1.50 | 24.00 | 17.50* | 28.00 | 3920-14X24P | 15,58 | 2 |
| M 16 x 2.00 | M 20 x 1.50 | 22.00 | 19.50* | 26.00 | 3920-16X22P | 22,35 | 2 |

*Broca previa não incluída

INSERTOS AUTO-ROSCANTES COM RANHURA



BRASS 302



INOX AISI 316L



| Diagram | Diagram | mm | Ø | L | BRASS | € | | | INOX | € | | |
|-------------|--------------|-------|-------|-------|---------------|---------|----------|----------|-------------|-----------|----------|----------|
| | | | | | | 100-499 | 500-1999 | 2000-... | | AISI 316L | 25-499 | 500-1999 |
| M 3 x 0.50 | M 5 x 0.50 | 6.00 | 4.80 | 8.00 | 3920-3X6LAT | 0,48 | 0,46 | 0,42 | - | | | |
| M 4 x 0.70 | M 6.5 x 0.75 | 8.00 | 6.20 | 10.00 | 3920-4X8LAT | 0,55 | 0,51 | 0,48 | 3920-4X8DY | 1,46 | 1,39 | 1,25 |
| M 5 x 0.80 | M 8 x 1.00 | 10.00 | 7.60 | 13.00 | 3920-5X10LAT | 0,68 | 0,64 | 0,59 | 3920-5X10DY | 1,90 | 1,79 | 1,62 |
| M 6 x 1.00 | M 10 x 1.50 | 14.00 | 9.40 | 17.00 | 3920-6X14LAT | 0,86 | 0,82 | 0,76 | 3920-6X14DY | 2,35 | 2,22 | 2,00 |
| M 8 x 1.25 | M 12 x 1.50 | 15.00 | 11.40 | 18.00 | 3920-8X15LAT | 1,17 | 1,09 | 1,00 | 3920-8X15DY | 3,23 | 3,05 | 2,75 |
| M 10 x 1.50 | M 14 x 1.50 | 18.00 | 13.50 | 22.00 | 3920-10X18LAT | 2,06 | 1,94 | 1,77 | - | | | |
| | | | | | | 25-499 | 500-1999 | 2000-... | | 1-499 | 500-1999 | 2000-... |
| M 12 x 1.75 | M 16 x 1.50 | 22.00 | 15.50 | 26.00 | 3920-12X22LAT | 2,64 | 2,49 | 2,27 | | | | |

APLICAÇÕES

- Madeiras duras
- Madeiras macias
- Termoplásticos macios
- Materiais aglomerados



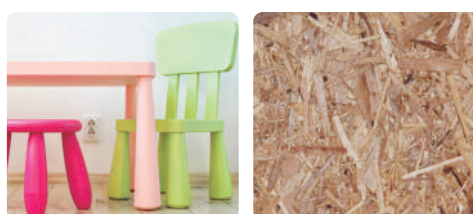
BRASS 309

| Diagram | Diagram | mm | SOFT | | HARD | L | BRASS | € | | |
|-------------|--------------|-------|-------|-------------|-------|------------|--------|----------|----------|----------|
| | | | Ø | Ø | | | | 100-499 | 500-1999 | 2000-... |
| M 3 x 0.50 | M 5.5 x 1.60 | 6.00 | 4.10 | 4.20-4.30 | 9.00 | 3925-3X6 | 0,88 | 0,83 | 0,79 | |
| M 4 x 0.70 | M 7 x 2.50 | 10.00 | 5.10 | 5.20-5.30 | 13.00 | 3925-4X10 | 1,19 | 1,13 | 1,07 | |
| M 5 x 0.80 | M 9 x 3.00 | 12.00 | 6.60 | 6.70-6.90 | 15.00 | 3925-5X12 | 1,37 | 1,30 | 1,24 | |
| M 6 x 1.00 | M 10 x 4.00 | 14.00 | 7.60 | 7.70-7.90 | 17.00 | 3925-6X14 | 1,52 | 1,45 | 1,38 | |
| M 8 x 1.25 | M 13 x 4.00 | 20.00 | 9.90 | 10.10-10.30 | 23.00 | 3925-8X20 | 2,08 | 1,97 | 1,88 | |
| M 10 x 1.50 | M 16 x 5.00 | 23.00 | 12.40 | 12.60-12.80 | 26.00 | 3925-10X23 | 3,11 | 2,95 | 2,80 | |
| | | | | | | | 25-499 | 500-1999 | 2000-... | |
| M 12 x 1.75 | M 19 x 5.00 | 26.00 | 15.40 | 15.60-15.80 | 30.00 | 3925-12X26 | 5,20 | 4,94 | 4,68 | |

Materiais Duros



Materiais Macios



INSERTOS AUTO-ROSCANTES COM RANHURA

UNC



UNC

AC

INOX



AC 302



INOX 302



| UNC | | M | | mm | Ø | L | AC | € | INOX | € |
|----------|-----------|----------|-------------|-------|-------|-------|--------------|-------|----------------|-------|
| Nº4 x 40 | | 5 x 0.50 | | 6.00 | 4.80 | 8.00 | 3932-4GX6 | 1,34 | 3932-4GX6SS | 2,47 |
| UNC | Nº6 x 32 | M | 6 x 0.75 | 8.00 | 5.70 | 10.00 | 3932-6GX8 | 1,72 | 3932-6GX8SS | 3,22 |
| UNC | Nº8 x 32 | M | 6.50 x 0.75 | 8.00 | 6.20 | 10.00 | 3932-8GX8 | 2,32 | 3932-8GX8SS | 4,19 |
| UNC | Nº10 x 24 | M | 8 x 1.00 | 10.00 | 7.60 | 13.00 | 3932-10GX10 | 2,63 | 3932-10GX10SS | 4,87 |
| UNC | 1/4 x 20 | M | 10 x 1.50 | 14.00 | 9.40 | 17.00 | 3932-1/4X14 | 3,22 | 3932-1/4X14SS | 6,22 |
| UNC | 5/16 x 18 | M | 12 x 1.50 | 15.00 | 11.40 | 18.00 | 3932-5/16X15 | 4,19 | 3932-5/16X15SS | 8,24 |
| UNC | 3/8 x 16 | M | 14 x 1.50 | 18.00 | 13.50 | 22.00 | 3932-3/8X18 | 5,92 | 3932-3/8X18SS | 11,76 |
| UNC | 7/16 x 14 | M | 16 x 1.50 | 22.00 | 15.50 | 26.00 | 3932-7/16X22 | 8,68 | 3932-7/16X22SS | 17,16 |
| UNC | 1/2 x 13 | M | 18 x 1.50 | 22.00 | 17.50 | 26.00 | 3932-1/2X22 | 10,93 | 3932-1/2X22SS | 22,85 |
| UNC | 5/8 x 11 | M | 20 x 1.50 | 22.00 | 19.50 | 26.00 | 3932-5/8X22 | 12,51 | 3932-5/8X22SS | 22,85 |

UNF



UNF

AC

INOX



AC 302

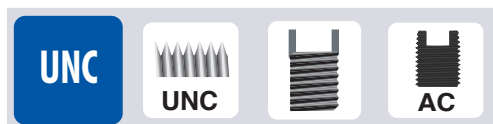


INOX 302



| UNF | | M | | mm | Ø | L | AC | € | INOX | € |
|-----------|-----------|----------|-----------|-------|-------|-------|--------------|-------|----------------|-------|
| Nº10 x 32 | | 8 x 1.00 | | 10.00 | 7.60 | 13.00 | 3934-10GX10 | 2,63 | 3934-10GX10SS | 4,87 |
| UNF | 1/4 x 28 | M | 10 x 1.50 | 14.00 | 9.40 | 17.00 | 3934-1/4X14 | 3,22 | 3934-1/4X14SS | 6,22 |
| UNF | 5/16 x 24 | M | 12 x 1.50 | 15.00 | 11.40 | 18.00 | 3934-5/16X15 | 4,19 | 3934-5/16X15SS | 8,24 |
| UNF | 3/8 x 24 | M | 14 x 1.50 | 18.00 | 13.50 | 22.00 | 3934-3/8X18 | 5,92 | 3934-3/8X18SS | 11,76 |
| UNF | 7/16 x 20 | M | 16 x 1.50 | 22.00 | 15.50 | 26.00 | 3934-7/16X22 | 8,68 | 3934-7/16X22SS | 17,16 |
| UNF | 1/2 x 20 | M | 18 x 1.50 | 22.00 | 17.50 | 26.00 | 3934-1/2X22 | 10,93 | 3934-1/2X22SS | 22,85 |
| UNF | 5/8 x 18 | M | 20 x 1.50 | 22.00 | 19.50 | 26.00 | 3934-5/8X22 | 12,51 | 3934-5/8X22SS | 22,85 |

INSERTOS AUTO-ROSCANTES COM RANHURA EM BLISTER



| | | | | | | € | |
|---------------|---------------|-------|--------|-------|---------------|-------|---|
| UNC Nº4 x 40 | M 5 x 0.50 | 6.00 | 4.80* | 8.00 | 3932-4GX6P | 22,85 | 2 |
| UNC Nº6 x 32 | M 6 x 0.75 | 8.00 | 5.70* | 10.00 | 3932-6GX8P | 22,85 | 2 |
| UNC Nº8 x 32 | M 6.50 x 0.75 | 8.00 | 6.20* | 10.00 | 3932-8GX8P | 22,85 | 2 |
| UNC Nº10 x 24 | M 8 x 1.00 | 10.00 | 7.60* | 13.00 | 3932-10GX10P | 22,85 | 2 |
| UNC 1/4 x 20 | M 10 x 1.50 | 14.00 | 9.40* | 17.00 | 3932-1/4X14P | 25,85 | 2 |
| UNC 5/16 x 18 | M 12 x 1.50 | 15.00 | 11.40* | 18.00 | 3932-5/16X15P | 28,42 | 2 |
| UNC 3/8 x 16 | M 14 x 1.50 | 18.00 | 13.50* | 22.00 | 3932-3/8X18P | 31,00 | 2 |
| UNC 7/16 x 14 | M 16 x 1.50 | 22.00 | 15.50* | 26.00 | 3932-7/16X22P | 33,57 | 2 |
| UNC 1/2 x 13 | M 18 x 1.50 | 24.00 | 17.50* | 26.00 | 3932-1/2X22P | 36,14 | 2 |
| UNC 5/8 x 11 | M 20 x 1.50 | 22.00 | 19.50* | 26.00 | 3932-5/8X22P | 40,30 | 2 |

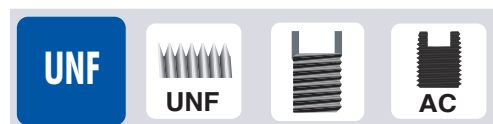


3932-4GX6P



tapsert
by CELESA

Rosa



| | | | | | | € | |
|---------------|-------------|-------|--------|-------|---------------|-------|---|
| UNF Nº10 x 32 | M 8 x 1.00 | 10.00 | 7.60* | 13.00 | 3934-10GX10P | 22,85 | 2 |
| UNF 1/4 x 28 | M 10 x 1.50 | 14.00 | 9.40* | 17.00 | 3934-1/4X14P | 25,85 | 2 |
| UNF 5/16 x 24 | M 12 x 1.50 | 15.00 | 11.40* | 18.00 | 3934-5/16X15P | 28,42 | 2 |
| UNF 3/8 x 24 | M 14 x 1.50 | 18.00 | 13.50* | 22.00 | 3934-3/8X18P | 31,00 | 2 |
| UNF 7/16 x 20 | M 16 x 1.50 | 22.00 | 15.50* | 26.00 | 3934-7/16X22P | 33,57 | 2 |
| UNF 1/2 x 20 | M 18 x 1.50 | 22.00 | 17.50* | 26.00 | 3934-1/2X22P | 36,14 | 2 |
| UNF 5/8 x 18 | M 20 x 1.50 | 22.00 | 19.50* | 26.00 | 3934-5/8X22P | 40,30 | 2 |

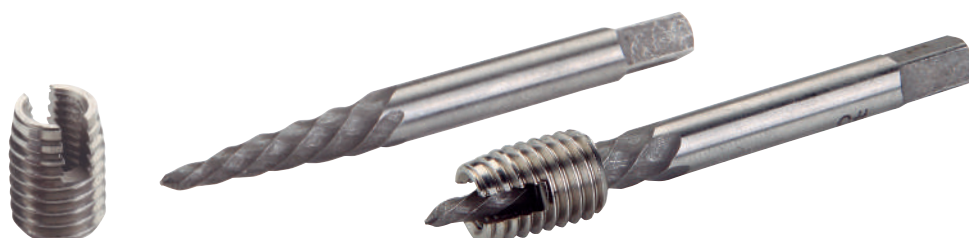


3934-1/4X14P

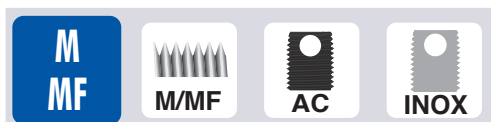


* Broca previa não incluída.

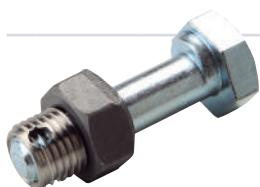
EXTRAÇÃO



INSERTO AUTO-ROSCANTES COM 3 FUROS



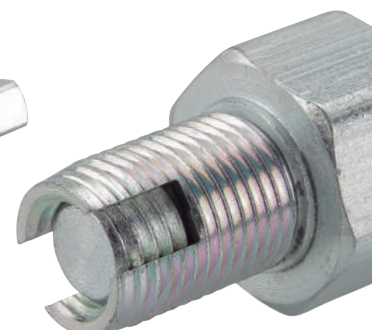
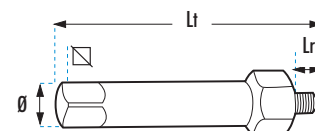
| Ø | L | Lr | Ø | L | AC | € | | | INOX AISI 303 | € | | |
|-------------|---------------|-------|-------------|-------|-------------|---------|----------|----------|------------------|--------|----------|----------|
| | | | | | | 100-499 | 500-1999 | 2000-... | | 25-499 | 500-1999 | 2000-... |
| M 4 x 0.70 | M 6.50 x 0.80 | 6.00 | 6.00-6.10 | 8.00 | 3333-M4X6 | 0,76 | 0,72 | 0,66 | 3333-M4X6SS | 1,26 | 1,19 | 1,09 |
| M 5 x 0.80 | M 8 x 1.00 | 7.00 | 7.40-7.50 | 9.00 | 3333-M5X7 | 0,89 | 0,85 | 0,78 | 3333-M5X7SS | 1,55 | 1,47 | 1,34 |
| M 6 x 1.00 | M 10 x 1.25 | 8.00 | 9.30-9.40 | 10.00 | 3333-M6X8 | 1,03 | 0,97 | 0,89 | 3333-M6X8SS | 1,94 | 1,83 | 1,67 |
| M 8 x 1.25 | M 12 x 1.50 | 9.00 | 11.10-11.20 | 11.00 | 3333-M8X9 | 1,23 | 1,16 | 1,07 | 3333-M8X9SS | 2,47 | 2,34 | 2,12 |
| M 10 x 1.50 | M 14 x 1.50 | 10.00 | 13.10-13.20 | 13.00 | 3333-M10X10 | 1,82 | 1,72 | 1,56 | 3333-M10X10SS | 3,72 | 3,50 | 3,19 |
| M 12 x 1.75 | M 16 x 1.75 | 12.00 | 15.00-15.10 | 15.00 | 3333-M12X12 | 2,87 | 2,70 | 2,46 | 3333-M12X12SS | 5,95 | 5,61 | 5,10 |
| M 14 x 2.00 | M 18 x 2.00 | 14.00 | 17.00-17.10 | 17.00 | 3333-M14X14 | 3,74 | 3,52 | 3,20 | 3333-M14X14SS | 6,84 | 6,43 | 5,85 |
| M 16 x 2.00 | M 20 x 2.00 | 14.00 | 19.00-19.10 | 17.00 | 3333-M16X14 | 5,08 | 4,78 | 4,36 | 3333-M16X14SS | 9,22 | 8,67 | 7,90 |



| Ø | L | Lr | Ø | L | AC | € | | | INOX AISI 303 | € | | |
|-------------|---------------|-------|-------------|-------|-------------|---------|----------|----------|------------------|--------|----------|----------|
| | | | | | | 100-499 | 500-1999 | 2000-... | | 25-499 | 500-1999 | 2000-... |
| M 4 x 0.70 | M 6.50 x 0.80 | 8.00 | 6.10-6.20 | 10.00 | 3333-M4X8 | 0,84 | 0,79 | 0,72 | 3333-M4X8SS | 1,42 | 1,33 | 1,22 |
| M 5 x 0.80 | M 8 x 1.00 | 10.00 | 7.60-7.70 | 13.00 | 3333-M5X10 | 1,06 | 1,01 | 0,92 | 3333-M5X10SS | 1,79 | 1,69 | 1,54 |
| M 6 x 1.00 | M 10 x 1.25 | 12.00 | 9.50-9.60 | 15.00 | 3333-M6X12 | 1,34 | 1,27 | 1,17 | 3333-M6X12SS | 2,13 | 2,03 | 1,84 |
| M 8 x 1.25 | M 12 x 1.50 | 14.00 | 11.30-11.15 | 17.00 | 3333-M8X14 | 1,73 | 1,64 | 1,50 | 3333-M8X14SS | 2,79 | 2,63 | 2,39 |
| M 10 x 1.50 | M 14 x 1.50 | 18.00 | 13.30-13.50 | 22.00 | 3333-M10X18 | 2,50 | 2,34 | 2,15 | 3333-M10X18SS | 4,24 | 4,00 | 3,64 |
| M 12 x 1.75 | M 16 x 1.75 | 22.00 | 15.20-15.40 | 26.00 | 3333-M12X22 | 3,78 | 3,56 | 3,24 | 3333-M12X22SS | 9,12 | 8,58 | 7,82 |
| M 14 x 2.00 | M 18 x 2.00 | 24.00 | 17.20-17.40 | 28.00 | 3333-M14X24 | 5,43 | 5,11 | 4,65 | 3333-M14X24SS | 10,80 | 10,16 | 9,26 |
| M 16 x 2.00 | M 20 x 2.00 | 24.00 | 19.20-19.10 | 28.00 | 3333-M16X24 | 6,33 | 5,95 | 5,43 | 3333-M16X24SS | 12,80 | 12,03 | 10,96 |

FERRAMENTA PARA INSTALAÇÃO DE INSERTOS AUTO-ROSCANTES

| Ø | L mm | Lr mm | Ø mm | ∇ mm | 3920-M | € |
|-------------|-------|-------|-------|-------|----------|--------|
| M 3 x 0.50 | 73.00 | 6.00 | 12.00 | 12.00 | 3920-M3 | 60,86 |
| M 4 x 0.70 | 75.00 | 7.00 | 12.00 | 12.00 | 3920-M4 | 60,86 |
| M 5 x 0.80 | 77.00 | 9.00 | 12.00 | 12.00 | 3920-M5 | 60,86 |
| M 6 x 1.00 | 78.00 | 11.00 | 12.00 | 12.00 | 3920-M6 | 60,86 |
| M 8 x 1.25 | 80.00 | 12.00 | 12.00 | 12.00 | 3920-M8 | 60,86 |
| M 10 x 1.50 | 80.00 | 16.00 | 18.00 | 14.00 | 3920-M10 | 60,86 |
| M 12 x 1.75 | 83.50 | 20.00 | 18.00 | 14.00 | 3920-M12 | 68,80 |
| M 14 x 2.00 | 83.50 | 20.00 | 22.00 | 22.00 | 3920-M14 | 76,07 |
| M 16 x 2.00 | 83.50 | 20.00 | 22.00 | 22.00 | 3920-M16 | 91,29 |
| M 18 x 2.50 | 85.50 | 21.50 | 26.00 | 26.00 | 3920-M18 | 114,44 |
| M 20 x 2.50 | 85.50 | 21.50 | 26.00 | 26.00 | 3920-M20 | 114,44 |
| M 22 x 2.50 | 85.50 | 21.50 | 30.00 | 30.00 | 3920-M22 | 121,72 |
| M 24 x 3.00 | 87.50 | 23.50 | 30.00 | 30.00 | 3920-M24 | 136,93 |

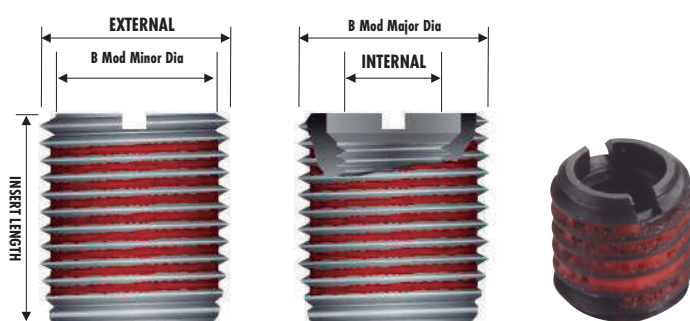




INSERTOS SÓLIDOS COM VEDANTE ANAERÓBICO

Características e Vantagens

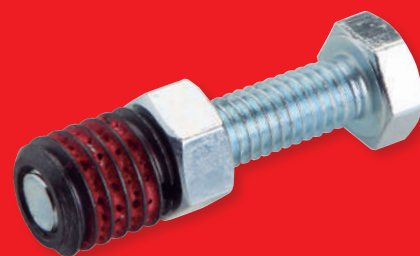
- Fácil instalação do inserto EZ Sert com um parafuso de rosca igual à interna ou também por meio duma chave de fenda ou ferramenta elétrica.
- Eles são instalados usando machos e brocas Standard.
- O adesivo microencapsulado reage em 3-5 minutos e evita que o inserto deixe o seu alojamento devido às vibrações externas. O inserto fica aderido gerando uma rosca estanque para líquidos e gases com resistência até 400 bar de pressão quando a reação se estabiliza (72 horas).



EXTRAÇÃO







- NOTA: O inserto EZ SERT requer uma rosca externa ligeiramente diferente da marcada pela norma DIN 13. O diâmetro externo é standard, mas o diâmetro interno é um pouco maior que o normal, então deve adicionar um décimo ao tamanho usual da broca. Exemplo: inserto de rosca externa M6X1, será usada uma broca de 5,1mm em vez de 5mm, o que seria o habitual.



INSERTOS SÓLIDOS COM VEDANTE ANAERÓBICO
M
MF

PD
PAREDE FINA







|  |  | L mm |  |  | | € |
|---|---|---------|---|---|----------------------|-------|
| M 4 x 0.70 | UNC 5/16 x 18h | 7.92 | 6,90 | 9.52 | 3320-4.00TWF | 5,11 |
| M 5 x 0.80 | UNC 5/16 x 18h | 7.92 | 6,90 | 9.52 | 3320-5.00TWF | 5,11 |
| M 6 x 1.00 | UNC 3/8 x 16h | 9.52 | 8,40 | 11.10 | 3320-6.00TWF | 6,44 |
| M 8 x 1.25 | UNC 7/16 x 14h | 11.10 | 10,10 | 12.70 | 3320-8.00TWF | 7,32 |
| M 10 x 1.50 | UNC 1/2 x 13h | 12.70 | 11,50 | 14.22 | 3320-10.00TWF | 10,34 |
| M 12 x 1.75 | UNC 5/8 x 11h | 15.75 | 14,50 | 17.27 | 3320-12.00TWF | 11,61 |



AISI 303

AC



PR
PAREDE REFORÇADA



|  |  | L mm |  |  |  | € |  | € |
|---|---|---------|---|---|---|-------|---|-------|
| M 3 x 0.50 | M6 x 1.00 | 6.50 | 5.10 | 7.80 | 3320-3.00HWM | 3,15 | 3320-3.00HWSS | 6,93 |
| M 4 x 0.70 | M8 x 1.25 | 7.50 | 6.90 | 9.00 | 3320-4.00HWM | 3,36 | 3320-4.00HWSS | 8,42 |
| M 5 x 0.80 | M8 x 1.25 | 7.50 | 6.90 | 9.00 | 3320-5.00HWM | 3,79 | 3320-5.00HWSS | 9,19 |
| M 6 x 1.00 | M10 x 1.50 | 10.50 | 8.60 | 12.00 | 3320-6.00HWM | 4,26 | 3320-6.00HWSS | 7,17 |
| M 8 x 1.25 | M12 x 1.75 | 12.50 | 10.40 | 14.50 | 3320-8.00HWM | 4,81 | 3320-8.00HWSS | 11,39 |
| M 10 x 1.50 | M16 x 2.00 | 17.00 | 14.00 | 19.00 | 3320-10.00HWM | 7,41 | 3320-10.00HWSS | 11,36 |
| M 12 x 1.75 | M16 x 2.00 | 17.00 | 14.00 | 19.00 | 3320-12.00HWM | 8,33 | 3320-12.00HWSS | 12,96 |
| M 16 x 2.00 | M24 x 3.00 | 20.00 | 21.00 | 24.00 | 3320-16.00HWM | 10,04 | 3320-16.00HWSS | 21,67 |
| M 20 x 2.50 | M36 x 4.00 | 30.00 | 33.00 | 35.00 | 3320-20.00HWM | 29,59 | | |



PAREDE REFORÇADA

| | | | | | | | | |
|-------------|----------------|-------|-------|-------|----------------------|------|------------------------|-------|
| M 6 x 1.00 | UNC 3/8 x 16h | 10.31 | 8.00 | 11.90 | 3320-6.00HWF | 2,40 | 3320-6.00HWSSF | 9,95 |
| M 8 x 1.25 | UNC 1/2 x 13h | 12.29 | 10.70 | 14.29 | 3320-8.00HWF | 2,94 | 3320-8.00HWSSF | 11,45 |
| M 10 x 1.50 | UNC 9/16 x 12h | 13.08 | 12.30 | 15.08 | 3320-10.00HWF | 3,36 | 3320-10.00HWSSF | 13,08 |
| M 10 x 1.25 | UNC 9/16 x 12h | 13.08 | 12.30 | 15.08 | 3321-10.00HWF | 4,95 | 3321-10.00HWSSF | - |
| M 12 x 1.75 | UNC 3/4 x 10h | 16.66 | 16.60 | 19.05 | 3320-12.00HWF | 4,33 | 3320-12.00HWSSF | 18,65 |
| M 14 x 2.00 | UNC 7/8 x 9h | 17.45 | 19.50 | 20.64 | 3320-14.00HWF | 8,69 | 3320-14.00HWSSF | 22,98 |
| M 16 x 2.00 | UNC 1 x 8h | 19.84 | 22.00 | 22.25 | 3320-16.00HWF | 8,66 | 3320-16.00HWSSF | - |



* Ficha de dados de segurança disponível.



|  |  |
|--|---|
| M3 x 0.50 | M6 x 1.00 |
| M4 x 0.70 | M8 x 1.25 |
| M5 x 0.80 | M8 x 1.25 |
| M6 x 1.00 | M10 x 1.50 |
| M8 x 1.25 | M12 x 1.75 |

|  | SET 50 Unit M3-M8 |  |
|---|----------------------|---|
| 10 | 3320-3.00HW | 3320-WK0 |
| 10 | 3320-4.00HW | |
| 10 | 3320-5.00HW | |
| 10 | 3320-6.00HW | |
| 10 | 3320-8.00HW | |
| | | 304,41 € |



|  | SET 50 Unit M3-M8 |  |
|---|----------------------|---|
| 10 | 3320-3.00HWSS | 3320-SSWK0 |
| 10 | 3320-4.00HWSS | |
| 10 | 3320-5.00HWSS | |
| 10 | 3320-6.00HWSS | |
| 10 | 3320-8.00HWSS | |
| | | 569,54 € |

| | |
|------------|-------------|
| M8 x 1.25 | M12 x 1.75 |
| M10 x 1.50 | M16 x 2.00 |
| M12 x 1.75 | M16 x 2.00 |
| M16 x 2.00 | M 24 x 3.00 |

|  | SET 33 Unit M8-M16 |  |
|---|-----------------------|---|
| 10 | 3320-8.00HW | 3320-WK1 |
| 10 | 3320-10.00HW | |
| 8 | 3320-12.00HW | |
| 5 | 3320-16.00HW | |
| | | 348,61 € |

|  | SET 33 Unit M8-M16 |  |
|---|-----------------------|---|
| 10 | 3320-8.00HWSS | 3320-SSWK1 |
| 10 | 3320-10.00HWSS | |
| 8 | 3320-12.00HWSS | |
| 5 | 3320-16.00HWSS | |
| | | 602,08 € |

| | |
|------------|------------|
| M5 x 0.80 | M8 x 1.25 |
| M6 x 1.00 | M10 x 1.50 |
| M8 x 1.25 | M12 x 1.75 |
| M10 x 1.50 | M16 x 2.00 |
| M12 x 1.75 | M16 x 2.00 |

|  | SET 46 Unit M5-M12 |  |
|---|-----------------------|---|
| 10 | 3320-5.00HWSS | 3320-SSWK2 |
| 10 | 3320-6.00HWSS | |
| 10 | 3320-8.00HWSS | |
| 10 | 3320-10.00HWSS | |
| 6 | 3320-12.00HWSS | 585,82 € |


EXTRAÇÃO


t-sert
by *celesa*



INSERTOS T-SERT COM CABEÇA ESCAREADA

Características e Vantagens

- T-SERT é um inserto sólido de aplicação universal em todos os tipos de materiais e de fácil instalação.
- T-SERT possui uma parede muito fina devido ao sincronismo entre a rosca externa e interna. Permite a instalação do inserto em espaços apertados.
- Gera vedação na rosca: água, óleo, ...
- T-SERT é um Inserto AUTOBLOCANTE, que fica instalado automaticamente na passagem da ferramenta de instalação, que, por laminação, deforma algumas roscas internas para fora, bloqueando o inserto no seu orifício.
- O assento escareado garante um posicionamento preciso na peça, não havendo necessidade de aplicação de selante adicional. Não desparafusa, nem mesmo em ambientes de vibração extrema.
- Adequado para processos que devem suportar cargas extremas, sem desparafusar.
- O Macho, o escareador e o instalador são exclusivos para os insertos T-SERT.



INSERTOS T-SERT COM CABEÇA ESCAREADA
t-sert
 by CELESA

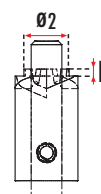
ROSCA



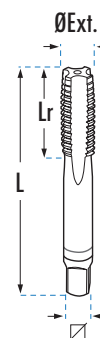
| INSERTO | | | | | | | | | | | | | |
|-------------|------------|-------|-------|------|-------|-------|-----------------|------|---|---|--|--|--|
| | | | | | | | | | | € | | | |
| M 3 x 0.50 | M5 x 0.50 | 4.30 | 6.00 | 0.50 | 4.50 | 3.80 | 3910-3.00x4.3 | 4,04 | 5 | | | | |
| M 4 x 0.70 | M6 x 0.70 | 6.00 | 7.00 | 0.50 | 5.30 | 5.50 | 3910-4.00x6.0 | 4,04 | 5 | | | | |
| M 5 x 0.80 | M7 x 0.80 | 7.60 | 8.00 | 0.50 | 6.20 | 7.20 | 3910-5.00x7.6 | 4,04 | 5 | | | | |
| M 6 x 1.00 | M8 x 1.00 | 9.40 | 9.00 | 0.70 | 7.00 | 8.90 | 3910-6.00x9.4 | 4,36 | 5 | | | | |
| M 8 x 1.25 | M10 x 1.25 | 11.70 | 12.00 | 0.80 | 8.70 | 11.20 | 3910-8.00x11.7 | 4,50 | 5 | | | | |
| M 10 x 1.50 | M12 x 1.50 | 14.00 | 14.00 | 1.00 | 10.50 | 13.50 | 3910-10.00x14.0 | 5,51 | 5 | | | | |
| M 12 x 1.75 | M14 x 1.75 | 16.00 | 16.00 | 1.00 | 12.70 | 15.50 | 3910-12.00x16.2 | 6,08 | 5 | | | | |

ESCREADOR

| | Ø mm | L mm | Ø mm | Ø2 mm | h mm | | € |
|-------------|-------|-------|------|-------|------|-----------------|-------|
| M 3 x 0.50 | 6.50 | 60.00 | 3.50 | 6.50 | 1.00 | 3910-3.00AVELL | 72,83 |
| M 4 x 0.70 | 7.50 | 65.00 | 3.80 | 7.50 | 1.00 | 3910-4.00AVELL | 73,76 |
| M 5 x 0.80 | 8.50 | 70.00 | 5.00 | 8.50 | 1.00 | 3910-5.00AVELL | 77,96 |
| M 6 x 1.00 | 9.50 | 70.00 | 5.00 | 9.50 | 1.20 | 3910-6.00AVELL | 80,06 |
| M 8 x 1.25 | 12.50 | 79.00 | 7.00 | 12.50 | 1.30 | 3910-8.00AVELL | 81,82 |
| M 10 x 1.50 | 14.50 | 89.00 | 8.00 | 14.50 | 1.50 | 3910-10.00AVELL | 87,50 |
| M 12 x 1.75 | 16.50 | 80.00 | 9.00 | 16.50 | 1.50 | 3910-12.00AVELL | 92,66 |

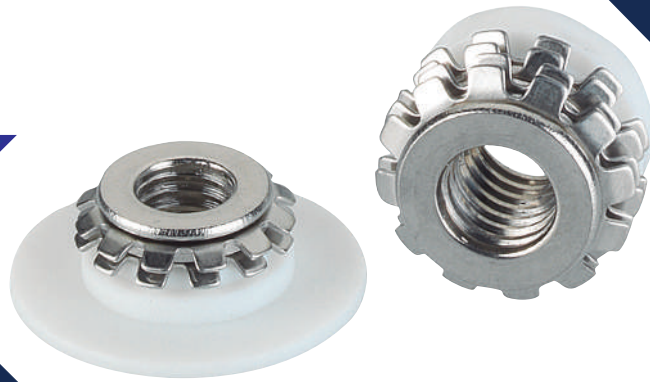

MACHO PARA ROSCAGEM

| | Ø Ext. | L mm | Lr mm | Ø mm | Ø mm | | € |
|-------------|------------|-------|-------|-------|------|-------------|--------|
| M 3 x 0.50 | M5 x 0.50 | 60.00 | 20.00 | 5.08 | 4.00 | 3910-3.00I | 68,13 |
| M 4 x 0.70 | M6 x 0.70 | 70.00 | 22.00 | 6.09 | 4.90 | 3910-4.00I | 68,13 |
| M 5 x 0.80 | M7 x 0.80 | 68.00 | 22.00 | 7.10 | 4.50 | 3910-5.00I | 72,80 |
| M 6 x 1.00 | M8 x 1.00 | 72.00 | 22.00 | 8,12 | 4.90 | 3910-6.00I | 76,06 |
| M 8 x 1.25 | M10 x 1.25 | 80.00 | 24.00 | 10,12 | 6.00 | 3910-8.00I | 82,60 |
| M 10 x 1.50 | M12 x 1.50 | 88.00 | 29.00 | 12,14 | 7.10 | 3910-10.00I | 102,67 |
| M 12 x 1.75 | M14 x 1.75 | 90.00 | 30.00 | 14,15 | 8.70 | 3910-12.00I | 113,86 |


FERRAMENTA PARA INSTALAÇÃO

| | L mm | Lr mm | Ø mm | Ø mm | | € |
|-------------|-------|-------|-------|------|---------------|-------|
| M 3 x 0.50 | 54.00 | 15.00 | 3.50 | 3.80 | 3910-3.00HIP | 61,16 |
| M 4 x 0.70 | 62.00 | 18.00 | 5.00 | 3.80 | 3910-4.00HIP | 62,67 |
| M 5 x 0.80 | 71.00 | 30.00 | 5.80 | 5.00 | 3910-5.00HIP | 63,00 |
| M 6 x 1.00 | 72.00 | 22.00 | 7.60 | 5.00 | 3910-6.00HIP | 68,51 |
| M 8 x 1.25 | 79.00 | 25.00 | 10.00 | 6.00 | 3910-8.00HIP | 71,40 |
| M 10 x 1.50 | 90.00 | 30.00 | 12.00 | 7.00 | 3910-10.00HIP | 75,60 |
| M 12 x 1.75 | 95.00 | 30.00 | 15.00 | 9.00 | 3910-12.00HIP | 88,20 |

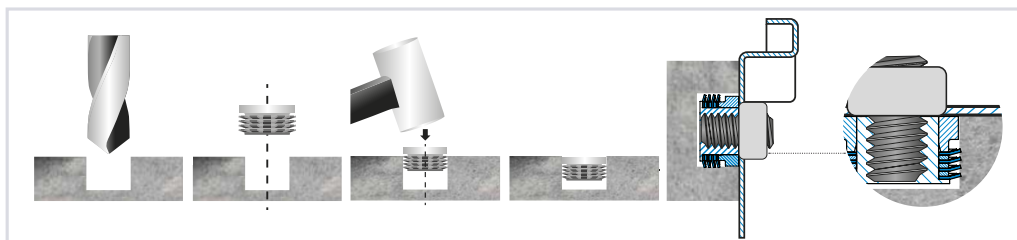




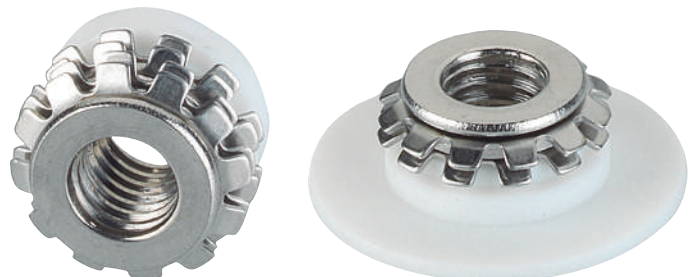
INSERTOS ROSCADOS PARA ÂNCORAS EM SUPERFÍCIES SÓLIDAS

Características e Vantagens

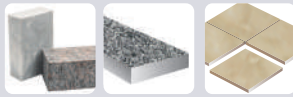
- O inserto **WALLSERT** permite a fixação de buchas roscadas em materiais como mármore, granito, pedra natural, cerâmica, pedra sinterizada, materiais compósitos como corian, painel compacto fenólico, superfícies sólidas em geral e uma vasta gama de materiais. Adequado para utilização em interiores e exteriores.
- É uma excelente solução para a inserção fácil de âncoras roscadas em painéis de fachada ventilados, revestimentos exteriores e designs de interiores, tais como cozinhas, casas de banho, mobiliário ...
- O design inovador do **WALLSERT** permite a ancoragem de elementos roscados de uma forma simples, suportando grandes tensões. A sua instalação é muito simples, basta fazer o furo recomendado no material à profundidade recomendada, e inseri-lo exercendo uma pequena pressão sobre a ancoragem, ou um golpe suave com um martelo de nylon. Sempre em materiais sólidos ou de alta densidade.

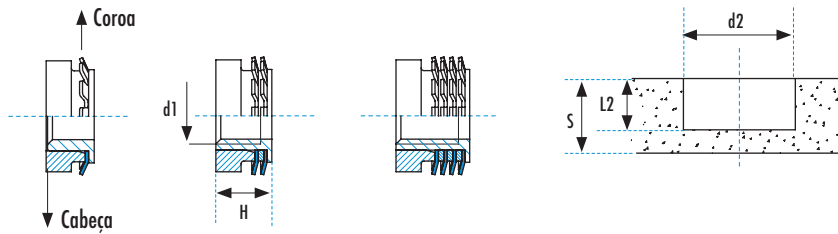


- Disponível em 2 modelos de **WALLSERT**, cabeça reta e cabeça plana.
O inserto wallert é composto por 3 partes:
 - Bucha roscada, aço inoxidável AISI 303
 - Coroas, aço inoxidável AISI 303
 - Cabeça, nylon PA6

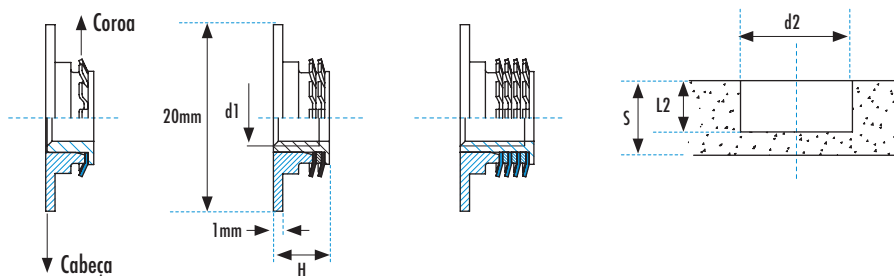


M

INOX
AISI303

wall sert
 by CELESA

INSERTOS WALLSERT COM CABEÇA RECTA


| d1 | H mm | d2 mm | L2 mm | S mm | Nº Coronas | kN x wallsert | | € | |
|------------|------|-------|-------|-------|------------|---------------|----------------------|-------------|----|
| M 4 x 0.70 | 5.00 | 12.00 | 5.50 | 8.00 | 1 | 1.1 | 3820-M4X5SS | 2,44 | 50 |
| M 5 x 0.80 | | | | | | | 3820-M5X5SS | 2,44 | 50 |
| M 6 x 1.00 | | | | | | | 3820-M6X5SS | 2,44 | 50 |
| M 4 x 0.70 | 6.00 | 12.00 | 6.50 | 8.50 | 2 | 2.1 | 3820-M4X6SS | 2,67 | 50 |
| M 5 x 0.80 | | | | | | | 3820-M5X6SS | 2,67 | 50 |
| M 6 x 1.00 | | | | | | | 3820-M6X6SS | 2,67 | 50 |
| M 4 x 0.70 | 8.50 | 12.00 | 9.00 | 11.00 | 4 | 3.4 | 3820-M4X8,5SS | 2,89 | 50 |
| M 5 x 0.80 | | | | | | | 3820-M5X8,5SS | 2,89 | 50 |
| M 6 x 1.00 | | | | | | | 3820-M6X8,5SS | 2,89 | 50 |


INSERTOS WALLSERT COM CABEÇA PLANA


| d1 | H mm | d2 mm | L2 mm | S mm | Nº Coronas | kN x wallsert | | € | |
|------------|------|-------|-------|-------|------------|---------------|--------------------|-------------|----|
| M 4 x 0.70 | 5.00 | 12.00 | 4.50 | 7.00 | 1 | 0.7 | 3825-M4X5SS | 2,67 | 50 |
| M 5 x 0.80 | | | | | | | 3825-M5X5SS | 2,67 | 50 |
| M 6 x 1.00 | | | | | | | 3825-M6X5SS | 2,67 | 50 |
| M 4 x 0.70 | 6.00 | 12.00 | 5.50 | 7.50 | 2 | 1.9 | 3825-M4X6SS | 2,89 | 50 |
| M 5 x 0.80 | | | | | | | 3825-M5X6SS | 2,89 | 50 |
| M 6 x 1.00 | | | | | | | 3825-M6X6SS | 2,89 | 50 |
| M 4 x 0.70 | 8.00 | 12.00 | 8.05 | 10.00 | 4 | 3.0 | 3825-M4X8SS | 3,11 | 50 |
| M 5 x 0.80 | | | | | | | 3825-M5X8SS | 3,11 | 50 |
| M 6 x 1.00 | | | | | | | 3825-M6X8SS | 3,11 | 50 |



rivetsert
by *celesa*



PORCAS DE REBITES

Características e Vantagens

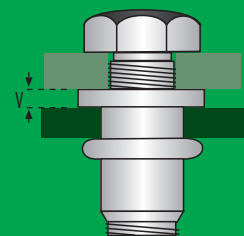
A porca de rebite RIVETSERT é um elemento de fixação mecânica que garante uma rosca forte, resistente e confiável que pode ser usada em muitos materiais, como Metal, Plástico, Fibra de Vidro e Fibra de Carbono. É particularmente útil na Indústria Automotiva, bem como na Indústria Pesada, que tende a reduzir o peso de todos os seus componentes, facilitando os processos de produção, mas assegurando rosca forte.

Sendo a Cabeça Plana a mais universal, as porcas de rebite RIVETSERT foram projetadas especialmente para suportar altos torques de aperto na montagem de todos os tipos de componentes mecânicos:

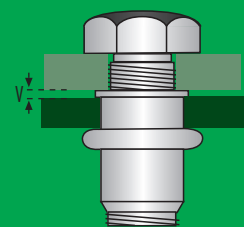
- Excelente solução para obter uma rosca confiável e resistente em peças de espessura reduzida (0,5 mm).
- Função dupla: rebita a junta gerando uma rosca.
- Disponível em três tipos diferentes de cabeças; plana, reduzida e escareada.
- Uso de ferramentas ergonômicas e simples, que podem ser pneumáticas, manuais ou automáticas.

TIPOS DE CABEÇA: PLANA, REDUZIDA E ESCAREADA

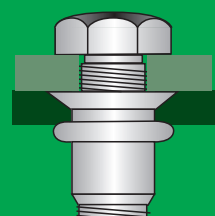
- **PLANA:** É o tipo de cabeça mais versátil e universal. Ele fornece suficiente superfície de suporte para reter todos os tipos de materiais, exceto os extremamente macios e quebradiços, oferecendo um alto torque de aperto. O espaço "V" é considerável.
- **REDUZIDA:** Eles são projetados para as aplicações nas que um material macio ou quebradiço deve ser montado num material de suporte rígido. O espaço em "V" é quase insignificante, mas oferecem torques de aperto mais baixos do que os rebites de Cabeça Plana.
- **ESCAREADA:** Este tipo de cabeça permite rebitar peças de maior espessura e é projetada para obter uma superfície plana e sem projeções, com um grande torque de aperto. O espaço "V" é inexistente, mas é necessário um escareamento prévio.



PLANA



REDUZIDA



ESCAREADA



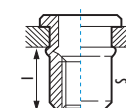
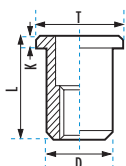
PORCAS DE REBITE CILINDRICAS

M
MF

HCS

rivetsert
by CELESA

Rosca



CABEÇA PLANA - CURTO

| | S mm | D mm +0,07/-0,1 | Ø +0,1/-0 | T mm +/-0,3 | K mm +/-0,15 | L mm +/-0,3 | I mm | Nm | | €/100 Unit | |
|-----------|-------------|-----------------------|------------------|-------------------|--------------------|-------------------|---------|--------|------------|------------|-----|
| M 3x0.50 | 0.50 - 1.50 | 4.90 | 5.00 | 7.20 | 0.80 | 8.50 | 4.70 | 2.00 | 3850-M3 | 6,95 | 100 |
| M 4x0.70 | 0.50 - 2.00 | 5.90 | 6.00 | 8.50 | 0.80 | 10.50 | 6.00 | 5.00 | 3850-M4 | 7,10 | 100 |
| M 5x0.80 | 0.50 - 2.50 | 6.90 | 7.00 | 10.00 | 1.00 | 13.00 | 7.50 | 8.50 | 3850-M5 | 7,25 | 100 |
| M 6x1.00 | 0.50 - 3.00 | 8.90 | 9.00 | 12.30 | 1.30 | 15.50 | 9.20 | 15.00 | 3850-M6 | 8,76 | 100 |
| M 8x1.25 | 1.00 - 3.50 | 10.90 | 11.00 | 15.00 | 1.50 | 18.50 | 11.50 | 26.00 | 3850-M8 | 14,68 | 50 |
| M 10x1.50 | 1.00 - 3.50 | 11.90 | 12.00 | 16.00 | 1.50 | 19.00 | 11.00 | 50.00 | 3850-M10 | 24,00 | 50 |
| M 10x1.50 | 1.00 - 2.50 | 12.90 | 13.00 | 16.30 | 1.60 | 17.00 | 11.50 | 50.00 | 3850-M10E1 | 24,20 | 50 |
| M 12x1.75 | 1.00 - 4.00 | 14.90 | 15.00 | 18.00 | 1.70 | 22.00 | 13.50 | 80.00 | 3850-M12 | 43,88 | 50 |
| M 12x1.75 | 1.00 - 4.00 | 15.90 | 16.00 | 22.00 | 2.00 | 25.00 | 16.00 | 80.00 | 3850-M12E1 | 45,09 | 50 |

* Todos os preços cotados referem-se a embalagens de 100 peças

CABEÇA REDUZIDA - CURTO

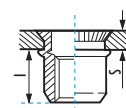
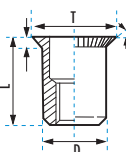
| | S mm | D mm +0,07/-0,1 | Ø +0,1/-0 | T mm +/-0,3 | K mm +/-0,15 | L mm +/-0,3 | I mm | Nm | | €/100 Unit | |
|-----------|-------------|-----------------------|------------------|-------------------|--------------------|-------------------|---------|--------|------------|------------|-----|
| M 3x0.50 | 0.50 - 2.00 | 4.90 | 5.00 | 6.00 | 0.50 | 9.00 | 6.20 | 1.00 | 3851-M3 | 6,95 | 100 |
| M 4x0.70 | 0.50 - 2.00 | 5.90 | 6.00 | 7.00 | 0.50 | 10.50 | 6.50 | 3.00 | 3851-M4 | 7,10 | 100 |
| M 5x0.80 | 0.50 - 2.00 | 6.90 | 7.00 | 8.00 | 0.50 | 11.50 | 7.00 | 6.00 | 3851-M5 | 7,25 | 100 |
| M 6x1.00 | 0.50 - 2.50 | 8.90 | 9.00 | 10.00 | 0.60 | 14.00 | 8.50 | 11.00 | 3851-M6 | 8,76 | 100 |
| M 8x1.25 | 1.00 - 3.00 | 10.90 | 11.00 | 12.00 | 0.60 | 16.50 | 10.00 | 20.00 | 3851-M8 | 14,68 | 100 |
| M 10x1.50 | 0.50 - 3.50 | 11.90 | 12.00 | 13.00 | 0.85 | 18.00 | 13.00 | 32.00 | 3851-M10 | 24,00 | 50 |
| M 10x1.50 | 1.00 - 3.00 | 12.90 | 13.00 | 14.00 | 0.70 | 17.70 | 12.00 | 32.00 | 3851-M10E1 | 24,20 | 50 |
| M 12x1.75 | 0.50 - 3.50 | 14.90 | 15.00 | 16.50 | 0.85 | 22.50 | 16.00 | 50.00 | 3851-M12 | 43,88 | 50 |

* Todos os preços cotados referem-se a embalagens de 100 peças

CABEÇA ESCAREADA - CURTO

| | S mm | D mm +0,07/-0,1 | Ø +0,1/-0 | T mm +/-0,3 | K mm +/-0,15 | L mm +/-0,3 | I mm | Nm | | €/100 Unit | |
|-----------|-------------|-----------------------|------------------|-------------------|--------------------|-------------------|---------|--------|------------|------------|-----|
| M 3x0.50 | 1.60 - 3.50 | 4.90 | 5.00 | 7.20 | 1.50 | 9.50 | 4.50 | 1.00 | 3852-M3 | 6,95 | 100 |
| M 4x0.70 | 1.50 - 3.00 | 5.90 | 6.00 | 9.00 | 1.50 | 12.00 | 6.50 | 4.00 | 3852-M4 | 7,10 | 100 |
| M 5x0.80 | 1.50 - 3.50 | 6.90 | 7.00 | 10.00 | 1.50 | 13.00 | 7.50 | 8.00 | 3852-M5 | 7,25 | 100 |
| M 6x1.00 | 1.50 - 4.00 | 8.90 | 9.00 | 12.00 | 1.50 | 15.50 | 9.00 | 15.00 | 3852-M6 | 8,76 | 100 |
| M 8x1.25 | 2.00 - 4.50 | 10.90 | 11.00 | 14.00 | 1.50 | 18.50 | 10.00 | 26.00 | 3852-M8 | 14,68 | 100 |
| M 10x1.50 | 1.60 - 5.00 | 11.90 | 12.00 | 15.00 | 1.50 | 21.00 | 11.50 | 45.00 | 3852-M10 | 24,00 | 50 |
| M 10x1.50 | 1.60 - 5.00 | 12.90 | 13.00 | 16.00 | 1.50 | 21.00 | 11.50 | 45.00 | 3852-M10E1 | 24,20 | 50 |

* Todos os preços cotados referem-se a embalagens de 100 peças

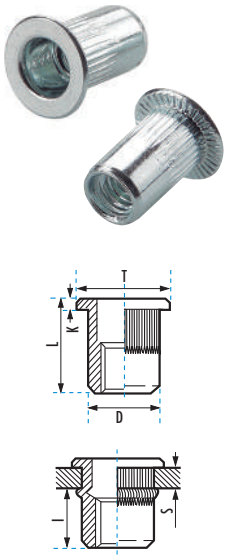




PORCAS DE REBITE CILINDRICAS ESTRIADAS



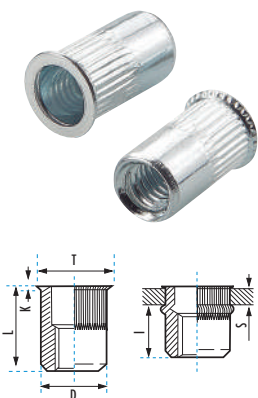
CABEÇA PLANA



| | S mm | D mm +0,07/-0,1 | ∅ +0,1/-0 | T mm +/-0,3 | K mm +/-0,15 | L mm +/-0,3 | I mm | Nm | | €/100 Unit | |
|-----------|-------------|-----------------------|------------------|-------------------|--------------------|-------------------|---------|--------|------------|------------|-----|
| M 3x0.50 | 0.50 - 1.50 | 4.90 | 5.00 | 8.00 | 0.80 | 10.00 | 6.00 | 2.00 | 3853-M3 | 6,95 | 100 |
| M 3x0.50 | 1.50 - 3.00 | 4.90 | 5.00 | 7.00 | 0.80 | 11.50 | 8.00 | 2.00 | 3853-M3E1 | 7,50 | 100 |
| M 4x0.70 | 0.50 - 2.00 | 5.90 | 6.00 | 9.00 | 0.80 | 10.50 | 6.00 | 5.00 | 3853-M4 | 7,10 | 100 |
| M 4x0.70 | 2.00 - 3.50 | 5.90 | 6.00 | 9.00 | 0.80 | 12.00 | 6.00 | 5.00 | 3853-M4E1 | 8,29 | 100 |
| M 5x0.80 | 0.50 - 2.50 | 6.90 | 7.00 | 10.00 | 1.00 | 13.00 | 7.50 | 8.50 | 3853-M5 | 7,25 | 100 |
| M 5x0.80 | 2.50 - 5.00 | 6.90 | 7.00 | 10.00 | 1.00 | 16.50 | 8.50 | 8.50 | 3853-M5E1 | 8,46 | 100 |
| M 6x1.00 | 0.50 - 3.00 | 8.90 | 9.00 | 12.30 | 1.30 | 15.50 | 9.20 | 15.00 | 3853-M6 | 8,76 | 100 |
| M 6x1.00 | 3.00 - 5.50 | 8.90 | 9.00 | 12.30 | 1.30 | 19.50 | 10.50 | 15.00 | 3853-M6E1 | 11,42 | 100 |
| M 8x1.25 | 1.00 - 3.50 | 10.90 | 11.00 | 14.50 | 1.50 | 18.50 | 11.50 | 26.00 | 3853-M8 | 14,68 | 100 |
| M 8x1.25 | 3.50 - 6.00 | 10.90 | 11.00 | 14.50 | 1.50 | 21.00 | 11.50 | 26.00 | 3853-M8E1 | 17,76 | 100 |
| M 10x1.50 | 1.00 - 3.50 | 11.90 | 12.00 | 16.00 | 1.70 | 19.00 | 12.50 | 50.00 | 3853-M10 | 24,00 | 50 |
| M 10x1.50 | 3.00 - 6.00 | 11.90 | 12.00 | 16.00 | 1.60 | 24.00 | 18.50 | 50.00 | 3853-M10E1 | 25,38 | 50 |
| M 10x1.50 | 1.00 - 4.00 | 12.90 | 13.00 | 17.00 | 1.70 | 21.50 | 13.50 | 50.00 | 3853-M10E2 | 24,20 | 50 |
| M 10x1.50 | 4.00 - 6.50 | 12.90 | 13.00 | 17.00 | 1.70 | 24.00 | 13.50 | 50.00 | 3853-M10E3 | 28,47 | 50 |
| M 12x1.75 | 1.00 - 4.00 | 14.90 | 15.00 | 18.00 | 1.70 | 22.00 | 13.50 | 80.00 | 3853-M12 | 43,88 | 50 |
| M 12x1.75 | 4.00 - 6.50 | 14.90 | 15.00 | 18.00 | 1.70 | 25.00 | 14.00 | 80.00 | 3853-M12E1 | 56,21 | 50 |
| M 12x1.75 | 1.00 - 3.50 | 15.90 | 16.00 | 22.00 | 2.00 | 25.00 | 15.00 | 80.00 | 3853-M12E2 | 57,73 | 50 |
| M 12x1.75 | 3.50 - 6.00 | 15.90 | 16.00 | 22.00 | 2.00 | 28.00 | 16.50 | 80.00 | 3853-M12E3 | 59,84 | 50 |

* Todos os preços cotados referem-se a embalagens de 100 peças

CABEÇA REDUZIDA



| | S mm | D mm +0,07/-0,1 | ∅ +0,1/-0 | T mm +/-0,3 | K mm +/-0,15 | L mm +/-0,3 | I mm | Nm | | €/100 Unit | |
|-----------|-------------|-----------------------|------------------|-------------------|--------------------|-------------------|---------|--------|------------|------------|-----|
| M 3x0.50 | 0.50 - 2.00 | 4.90 | 5.00 | 6.00 | 0.50 | 9.00 | 6.50 | 1.00 | 3854-M3 | 6,95 | 100 |
| M 3x0.50 | 2.00 - 3.50 | 4.90 | 5.00 | 6.00 | 0.50 | 11.50 | 5.50 | 1.00 | 3854-M3E1 | 7,50 | 100 |
| M 4x0.70 | 0.50 - 2.00 | 5.90 | 6.00 | 7.00 | 0.50 | 11.20 | 7.00 | 3.00 | 3854-M4 | 7,10 | 100 |
| M 4x0.70 | 2.00 - 4.00 | 5.90 | 6.00 | 7.00 | 0.50 | 13.00 | 7.00 | 3.00 | 3854-M4E1 | 8,29 | 100 |
| M 5x0.80 | 0.50 - 2.50 | 6.90 | 7.00 | 8.00 | 0.50 | 11.50 | 7.00 | 6.00 | 3854-M5 | 7,25 | 100 |
| M 5x0.80 | 2.00 - 4.00 | 6.90 | 7.00 | 8.00 | 0.50 | 13.00 | 7.00 | 6.00 | 3854-M5E1 | 8,46 | 100 |
| M 6x1.00 | 0.50 - 2.50 | 8.90 | 9.00 | 10.00 | 0.60 | 14.00 | 8.50 | 11.00 | 3854-M6 | 8,76 | 100 |
| M 6x1.00 | 2.50 - 4.50 | 8.90 | 9.00 | 10.00 | 0.60 | 16.00 | 8.50 | 11.00 | 3854-M6E1 | 11,42 | 100 |
| M 8x1.25 | 1.00 - 3.00 | 10.90 | 11.00 | 12.00 | 0.60 | 16.50 | 10.00 | 20.00 | 3854-M8 | 14,68 | 100 |
| M 8x1.25 | 3.00 - 5.00 | 10.90 | 11.00 | 12.00 | 0.60 | 18.50 | 10.00 | 20.00 | 3854-M8E1 | 17,76 | 100 |
| M 10x1.50 | 1.00 - 3.50 | 11.90 | 12.00 | 13.00 | 0.70 | 19.50 | 13.00 | 32.00 | 3854-M10 | 24,00 | 50 |
| M 10x1.50 | 3.50 - 6.00 | 11.90 | 12.00 | 13.00 | 0.70 | 22.00 | 17.00 | 32.00 | 3854-M10E1 | 25,38 | 50 |
| M 10x1.50 | 1.00 - 3.50 | 12.90 | 13.00 | 14.00 | 0.70 | 19.50 | 12.50 | 32.00 | 3854-M10E2 | 26,58 | 50 |
| M 10x1.50 | 3.50 - 6.00 | 12.90 | 13.00 | 14.00 | 0.70 | 22.00 | 12.50 | 32.00 | 3854-M10E3 | 28,47 | 50 |
| M 12x1.75 | 0.50 - 3.50 | 14.90 | 15.00 | 16.50 | 0.85 | 22.50 | 16.00 | 50.00 | 3854-M12 | 43,88 | 50 |
| M 12x1.75 | 1.00 - 4.00 | 15.90 | 16.00 | 17.60 | 0.75 | 24.20 | 16.00 | 50.00 | 3854-M12E1 | 45,09 | 50 |
| M 12x1.75 | 4.00 - 6.00 | 15.90 | 16.00 | 17.15 | 0.60 | 27.00 | 16.00 | 50.00 | 3854-M12E2 | 59,84 | 50 |

* Todos os preços cotados referem-se a embalagens de 100 peças

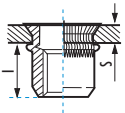
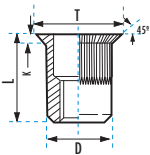


PORCAS DE REBITE CILINDRICAS ESTRIADAS

M
MF

HCS

CABEÇA ESCAREADA



|  | S mm | D mm +0,07/-0,1 |  Ø +0,1/-0 | T mm +/-0,3 | K mm +/-0,15 | L mm +/-0,3 | I mm |  Nm | | €/100 Unit |  |
|---|-------------|-----------------------|---|-------------------|--------------------|-------------------|---------|---|------------|------------|---|
| M 3x0.50 | 1.60 - 2.50 | 4.90 | 5.00 | 6.60 | 1.05 | 9.50 | 4.50 | 1.00 | 3855-M3 | 8,88 | 100 |
| M 3x0.50 | 2.50 - 4.00 | 4.90 | 5.00 | 6.60 | 1.50 | 10.50 | 4.50 | 1.00 | 3855-M3E1 | 10,58 | 100 |
| M 4x0.70 | 1.50 - 3.00 | 5.90 | 6.00 | 9.00 | 1.50 | 12.00 | 6.50 | 4.00 | 3855-M4 | 9,10 | 100 |
| M 4x0.70 | 3.00 - 5.00 | 5.90 | 6.00 | 9.00 | 1.50 | 14.00 | 6.00 | 4.00 | 3855-M4E1 | 11,60 | 100 |
| M 5x0.80 | 1.50 - 3.50 | 6.90 | 7.00 | 10.00 | 1.50 | 13.00 | 7.50 | 8.00 | 3855-M5 | 9,13 | 100 |
| M 5x0.80 | 3.50 - 6.00 | 6.90 | 7.00 | 10.00 | 1.50 | 16.50 | 8.50 | 8.00 | 3855-M5E1 | 12,75 | 100 |
| M 6x1.00 | 1.50 - 4.00 | 8.90 | 9.00 | 12.00 | 1.50 | 15.50 | 9.00 | 15.00 | 3855-M6 | 10,09 | 100 |
| M 6x1.00 | 4.00 - 6.00 | 8.90 | 9.00 | 12.00 | 1.50 | 18.00 | 9.00 | 15.00 | 3855-M6E1 | 18,92 | 100 |
| M 8x1.25 | 2.00 - 4.50 | 10.90 | 11.00 | 14.00 | 1.50 | 18.50 | 10.00 | 26.00 | 3855-M8 | 19,13 | 100 |
| M 8x1.25 | 4.00 - 6.50 | 10.90 | 11.00 | 14.00 | 1.50 | 21.00 | 10.00 | 26.00 | 3855-M8E1 | 19,22 | 100 |
| M 10x1.50 | 1.60 - 5.00 | 11.90 | 12.00 | 15.00 | 1.50 | 19.00 | 11.50 | 45.00 | 3855-M10 | 25,38 | 50 |
| M 10x1.50 | 5.00 - 7.50 | 11.90 | 12.00 | 15.00 | 1.50 | 24.00 | 11.50 | 45.00 | 3855-M10E1 | 38,98 | 50 |
| M 10x1.50 | 2.00 - 5.00 | 12.90 | 13.00 | 16.00 | 1.50 | 21.00 | 11.50 | 45.00 | 3855-M10E2 | 38,97 | 50 |
| M 10x1.50 | 5.00 - 7.50 | 12.90 | 13.00 | 16.00 | 1.50 | 24.00 | 11.50 | 45.00 | 3855-M10E3 | 38,98 | 50 |
| M 12x1.75 | 1.60 - 5.00 | 14.90 | 15.00 | 18.00 | 1.50 | 22.50 | 14.50 | 70.00 | 3855-M12 | 48,05 | 50 |
| M 12x1.75 | 1.70 - 4.50 | 15.90 | 16.00 | 19.00 | 1.90 | 24.00 | 17.50 | 70.00 | 3855-M12E1 | 56,21 | 50 |
| M 12x1.75 | 4.00 - 7.50 | 15.90 | 16.00 | 19.00 | 1.90 | 29.00 | 17.50 | 70.00 | 3855-M12E2 | 101,99 | 50 |

* Todos os preços cotados referem-se a embalagens de 100 peças









PORCAS DE REBITE SEMI-SEXTAVADASS

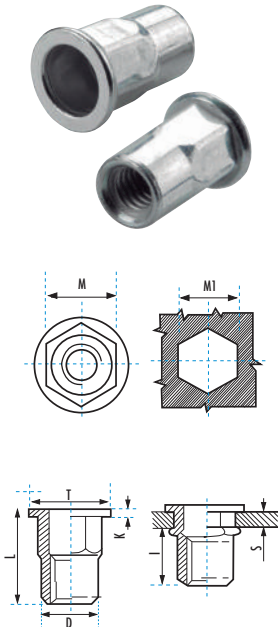


CABEÇA PLANA



|  | S mm | D mm +0,07/-0,1 |  Ø +0,1/-0 | T mm +/-0,3 | K mm +/-0,15 | L mm +/-0,3 | I mm |  Nm | | €/100 Unit |  |
|---|-------------|--------------------|---|----------------|-----------------|----------------|-------|---|-------------------|--------------|---|
| M 3x0.50 | 0.50 - 1.50 | 4.90 | 5.00 | 7.20 | 0.80 | 8.50 | 5.50 | 2.00 | 3856-M3 | 9,67 | 100 |
| M 4x0.70 | 0.50 - 2.00 | 5.90 | 6.00 | 9.00 | 0.80 | 11.00 | 6.50 | 5.00 | 3856-M4 | 9,79 | 100 |
| M 4x0.70 | 2.50 - 4.00 | 5.90 | 6.00 | 9.00 | 0.80 | 13.50 | 6.50 | 5.00 | 3856-M4E1 | 17,54 | 100 |
| M 5x0.80 | 0.50 - 3.00 | 6.90 | 7.00 | 10.00 | 1.00 | 13.00 | 8.00 | 8.50 | 3856-M5 | 10,58 | 100 |
| M 5x0.80 | 3.00 - 5.50 | 6.90 | 7.00 | 10.00 | 0.80 | 16.00 | 11.00 | 8.50 | 3856-M5E1 | 17,54 | 100 |
| M 6x1.00 | 0.50 - 4.00 | 8.90 | 9.00 | 12.00 | 1.50 | 16.50 | 8.50 | 15.00 | 3856-M6 | 11,96 | 100 |
| M 6x1.00 | 3.00 - 5.50 | 8.90 | 9.00 | 13.00 | 1.50 | 18.50 | 10.50 | 15.00 | 3856-M6E1 | 29,62 | 100 |
| M 8x1.25 | 1.00 - 4.00 | 10.90 | 11.00 | 15.90 | 1.50 | 18.20 | 10.50 | 20.00 | 3856-M8 | 16,97 | 100 |
| M 8x1.25 | 4.00 - 6.00 | 10.90 | 11.00 | 15.00 | 1.50 | 20.50 | 12.50 | 26.00 | 3856-M8E1 | 31,79 | 100 |
| M 10x1.50 | 1.00 - 3.50 | 11.90 | 12.00 | 17.00 | 1.60 | 19.00 | 12.00 | 50.00 | 3856-M10 | 27,13 | 50 |
| M 10x1.50 | 0.50 - 3.50 | 12.90 | 13.00 | 17.00 | 1.80 | 21.00 | 12.00 | 50.00 | 3856-M10E1 | 27,75 | 50 |
| M 12x1.75 | 2.00 - 5.00 | 15.90 | 16.00 | 23.00 | 2.20 | 27.50 | 16.50 | 80.00 | 3856-M12 | 59,84 | 50 |

* Todos os preços cotados referem-se a embalagens de 100 peças

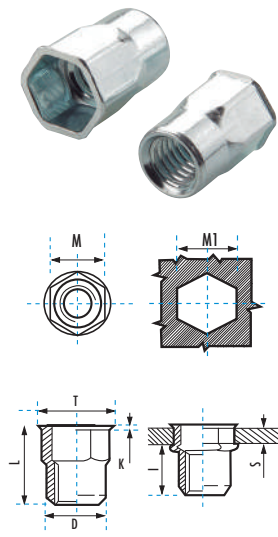


CABEÇA REDUZIDA



|  | S mm | D mm +0,07/-0,1 |  Ø +0,1/-0 | T mm +/-0,3 | K mm +/-0,15 | L mm +/-0,3 | I mm |  Nm | | €/100 Unit |  |
|---|-------------|--------------------|---|----------------|-----------------|----------------|-------|---|-------------------|--------------|---|
| M 3x0.50 | 0.30 - 1.50 | 4.90 | 5.00 | 6.00 | 0.50 | 9.00 | 5.50 | 1.00 | 3857-M3 | 14,63 | 100 |
| M 3x0.50 | 1.50 - 2.50 | 4.90 | 5.00 | 6.00 | 0.50 | 10.00 | 5.50 | 1.00 | 3857-M3E1 | 16,80 | 100 |
| M 4x0.70 | 0.50 - 2.00 | 5.90 | 6.00 | 7.00 | 0.50 | 12.00 | 8.30 | 3.00 | 3857-M4 | 8,46 | 100 |
| M 5x0.80 | 0.50 - 2.50 | 6.90 | 7.00 | 8.00 | 0.50 | 13.00 | 8.70 | 6.00 | 3857-M5 | 9,49 | 100 |
| M 6x1.00 | 1.00 - 3.50 | 8.90 | 9.00 | 10.00 | 0.60 | 16.00 | 10.50 | 11.00 | 3857-M6 | 10,70 | 100 |
| M 8x1.25 | 1.00 - 3.50 | 10.90 | 11.00 | 12.00 | 0.65 | 17.50 | 11.30 | 20.00 | 3857-M8 | 14,50 | 100 |
| M 10x1.50 | 1.00 - 4.00 | 11.90 | 12.00 | 13.25 | 0.70 | 18.30 | 12.80 | 32.00 | 3857-M10 | 23,26 | 50 |
| M 10x1.50 | 1.00 - 4.00 | 12.90 | 13.00 | 14.50 | 0.75 | 21.00 | 12.80 | 32.00 | 3857-M10E1 | 23,58 | 50 |
| M 12x1.75 | 1.50 - 4.00 | 15.90 | 16.00 | 17.50 | 0.80 | 24.00 | 16.00 | 50.00 | 3857-M12 | 59,28 | 50 |

* Todos os preços cotados referem-se a embalagens de 100 peças



CABEÇA REDUZIDA - FURAÇÃO



|  | S mm | D mm +0,07/-0,1 |  Ø +0,1/-0 | T mm +/-0,3 | K mm +/-0,15 | L mm +/-0,3 | I mm |  Nm | | €/100 Unit |  |
|---|-------------|--------------------|---|----------------|-----------------|----------------|-------|---|----------------|--------------|---|
| M 4x0.70 | 0.50 - 2.00 | 6.30 | 6.40 | 7.40 | 0.50 | 10.50 | 6.50 | 3.00 | 3858-M4 | 9,67 | 100 |
| M 5x0.80 | 0.50 - 2.50 | 7.10 | 7.20 | 8.20 | 0.50 | 12.00 | 7.50 | 6.00 | 3858-M5 | 11,49 | 100 |
| M 6x1.00 | 1.00 - 3.00 | 9.50 | 9.60 | 10.60 | 0.60 | 15.00 | 9.20 | 11.00 | 3858-M6 | 12,38 | 100 |
| M 8x1.25 | 1.00 - 3.50 | 10.50 | 10.60 | 11.60 | 0.60 | 16.50 | 10.50 | 20.00 | 3858-M8 | 17,10 | 100 |

* Todos os preços cotados referem-se a embalagens de 100 peças





PORCAS DE REBITE SEXTAVADAS

M
MF

M/MF

HCS

CABEÇA PLANA

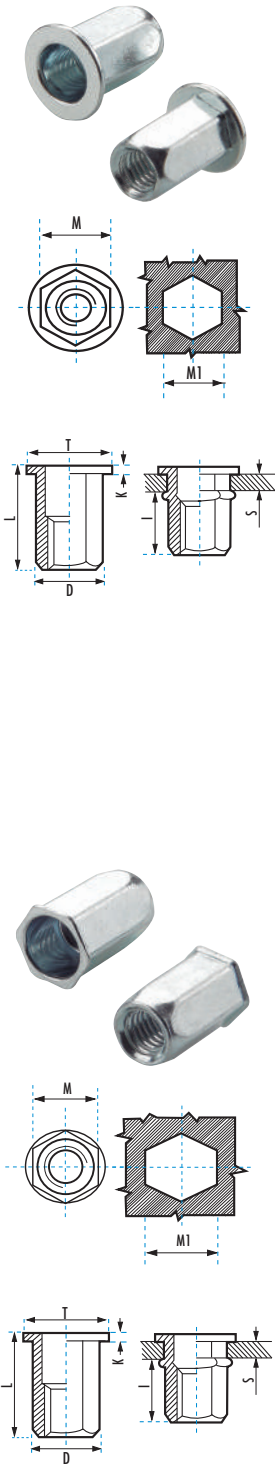
| | S mm | M mm | M1 mm | T mm | K mm | L mm | I mm | | Nm | | €/100 Unit | |
|-----------|-------------|---------|----------|---------|---------|---------|---------|-------|------------|-------|------------|--|
| M 4x0.70 | 0.50 - 2.00 | 5.90 | 6.00 | 9.00 | 0.80 | 11.00 | 6.50 | 5.00 | 3859-M4 | 9,67 | 100 | |
| M 4x0.70 | 2.00 - 5.00 | 5.90 | 6.00 | 9.00 | 0.80 | 13.50 | 6.50 | 5.00 | 3859-M4E1 | 15,71 | 100 | |
| M 5x0.80 | 0.50 - 3.00 | 6.90 | 7.00 | 10.00 | 1.00 | 14.00 | 8.00 | 8.50 | 3859-M5 | 10,58 | 100 | |
| M 5x0.80 | 3.00 - 6.00 | 6.90 | 7.00 | 10.00 | 1.00 | 16.50 | 8.00 | 8.50 | 3859-M5E1 | 16,62 | 100 | |
| M 6x1.00 | 0.50 - 3.00 | 8.90 | 9.00 | 13.00 | 1.20 | 16.00 | 9.50 | 15.00 | 3859-M6 | 11,96 | 100 | |
| M 6x1.00 | 3.00 - 5.00 | 8.90 | 9.00 | 13.00 | 1.50 | 19.50 | 8.50 | 15.00 | 3859-M6E1 | 17,54 | 100 | |
| M 8x1.25 | 1.00 - 3.50 | 10.90 | 11.00 | 16.00 | 1.50 | 17.00 | 9.50 | 26.00 | 3859-M8 | 16,97 | 100 | |
| M 8x1.25 | 3.50 - 6.00 | 10.90 | 11.00 | 15.00 | 1.50 | 21.50 | 10.50 | 26.00 | 3859-M8E1 | 22,97 | 100 | |
| M 10x1.50 | 1.00 - 3.50 | 11.90 | 12.00 | 18.00 | 1.70 | 21.00 | 13.50 | 50.00 | 3859-M10 | 27,13 | 50 | |
| M 10x1.50 | 1.00 - 3.50 | 12.90 | 13.00 | 18.00 | 1.70 | 21.00 | 13.50 | 50.00 | 3859-M10E1 | 27,75 | 50 | |
| M 10x1.50 | 3.50 - 6.50 | 12.90 | 13.00 | 17.00 | 1.50 | 24.00 | 14.50 | 50.00 | 3859-M10E2 | 42,67 | 50 | |
| M 12x1.75 | 1.00 - 3.50 | 14.90 | 15.00 | 19.00 | 2.00 | 24.30 | 16.00 | 80.00 | 3859-M12 | 69,51 | 50 | |
| M 12x1.75 | 2.00 - 5.00 | 15.90 | 16.00 | 23.00 | 2.00 | 27.00 | 16.50 | 80.00 | 3859-M12E1 | 59,84 | 50 | |

* Todos os preços cotados referem-se a embalagens de 100 peças

CABEÇA REDUZIDA

| | S mm | M mm | M1 mm | T mm | K mm | L mm | I mm | | Nm | | €/100 Unit | |
|-----------|-------------|---------|----------|---------|---------|---------|---------|-------|------------|-------|------------|--|
| M 3x0.50 | 0.50 - 1.50 | 4.90 | 5.00 | 6.00 | 0.45 | 8.50 | 5.00 | 1.00 | 3860-M3 | 14,63 | 100 | |
| M 4x0.70 | 0.50 - 2.50 | 5.90 | 6.00 | 7.00 | 0.50 | 11.00 | 6.70 | 3.00 | 3860-M4 | 8,46 | 100 | |
| M 4x0.70 | 2.50 - 5.00 | 5.90 | 6.00 | 7.00 | 0.50 | 13.50 | 6.70 | 3.00 | 3860-M4E1 | 12,70 | 100 | |
| M 5x0.80 | 0.50 - 3.00 | 6.90 | 7.00 | 8.00 | 0.50 | 14.50 | 9.00 | 6.00 | 3860-M5 | 9,49 | 100 | |
| M 5x0.80 | 3.00 - 5.00 | 6.90 | 7.00 | 8.00 | 0.50 | 16.00 | 9.00 | 6.00 | 3860-M5E1 | 13,59 | 100 | |
| M 6x1.00 | 1.00 - 3.50 | 8.90 | 9.00 | 10.00 | 0.60 | 16.00 | 10.00 | 11.00 | 3860-M6 | 10,70 | 100 | |
| M 6x1.00 | 3.50 - 6.00 | 8.90 | 9.00 | 10.00 | 0.60 | 18.00 | 10.00 | 11.00 | 3860-M6E1 | 14,50 | 100 | |
| M 8x1.25 | 1.00 - 4.00 | 10.90 | 11.00 | 12.00 | 0.65 | 18.00 | 11.50 | 20.00 | 3860-M8 | 14,50 | 100 | |
| M 8x1.25 | 4.00 - 6.00 | 10.90 | 11.00 | 12.00 | 0.65 | 20.00 | 11.50 | 20.00 | 3860-M8E1 | 21,27 | 100 | |
| M 10x1.50 | 0.50 - 3.50 | 11.90 | 12.00 | 14.50 | 1.00 | 19.00 | 12.50 | 32.00 | 3860-M10 | 23,26 | 50 | |
| M 10x1.50 | 1.00 - 3.50 | 12.90 | 13.00 | 14.50 | 0.75 | 19.00 | 12.50 | 32.00 | 3860-M10E1 | 23,58 | 50 | |
| M 10x1.50 | 3.50 - 6.00 | 12.90 | 13.00 | 14.50 | 0.75 | 23.50 | 14.50 | 32.00 | 3860-M10E2 | 37,47 | 50 | |
| M 12x1.75 | 1.00 - 4.00 | 14.90 | 15.00 | 17.50 | 1.10 | 22.50 | - | 50.00 | 3860-M12 | 75,55 | 50 | |
| M 12x1.75 | 1.00 - 5.00 | 15.90 | 16.00 | 17.80 | 1.10 | 25.00 | - | 50.00 | 3860-M12E1 | 74,94 | 50 | |
| M 12x1.75 | 5.00 - 7.50 | 15.90 | 16.00 | 17.80 | 1.10 | 28.00 | - | 50.00 | 3860-M12E2 | 74,94 | 50 | |

* Todos os preços cotados referem-se a embalagens de 100 peças





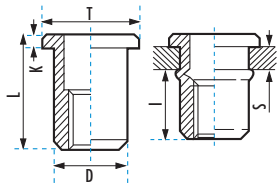
rivetsert
by CELESA

PORCAS DE REBITE CILINDRICAS



rivetsert
by CELESA

Rosa



CABEÇA PLANA

| | S mm | D mm +0,07/-0,1 | Ø +0,1/-0 | T mm +/-0,3 | K mm +/-0,15 | L mm +/-0,3 | I mm | Nm | | €/Unit | |
|-----------|-------------|-----------------------|------------------|-------------------|--------------------|-------------------|---------|--------|-------------------|--------|----|
| M 3x0.50 | 0.30 - 1.80 | 4.90 | 5.00 | 8.00 | 0.75 | 9.00 | 5.50 | 2.00 | 3950-M3 | - | 25 |
| M 4x0.70 | 0.50 - 2.00 | 5.90 | 6.00 | 8.50 | 0.80 | 10.50 | 6.00 | 5.00 | 3950-M4 | 0,29 | 25 |
| M 5x0.80 | 0.50 - 2.50 | 6.90 | 7.00 | 10.00 | 1.00 | 13.00 | 7.50 | 8.50 | 3950-M5 | 0,32 | 25 |
| M 6x1.00 | 0.50 - 3.00 | 8.90 | 9.00 | 12.30 | 1.30 | 15.50 | 9.20 | 15.00 | 3950-M6 | 0,54 | 25 |
| M 8x1.25 | 1.00 - 3.50 | 10.90 | 11.00 | 15.00 | 1.50 | 18.50 | 11.50 | 26.00 | 3950-M8 | 0,80 | 25 |
| M 10x1.50 | 0.80 - 3.50 | 11.90 | 12.00 | 16.00 | 1.70 | 19.00 | 10.50 | 50.00 | 3950-M10 | - | 1 |
| M 10x1.50 | 1.00 - 4.00 | 12.90 | 13.00 | 17.00 | 1.60 | 21.00 | 12.50 | 50.00 | 3950-M10E1 | 1,25 | 1 |
| M 12x1.75 | 1.00 - 4.00 | 14.90 | 15.00 | 18.00 | 1.70 | 22.00 | 13.50 | 80.00 | 3950-M12 | - | 1 |
| M 12x1.75 | 1.00 - 4.00 | 15.90 | 16.00 | 23.00 | 2.00 | 26.00 | 16.50 | 80.00 | 3950-M12E1 | - | 1 |

- Consulte preço e disponibilidade.

CABEÇA REDUZIDA

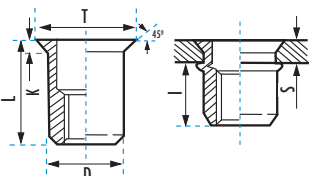
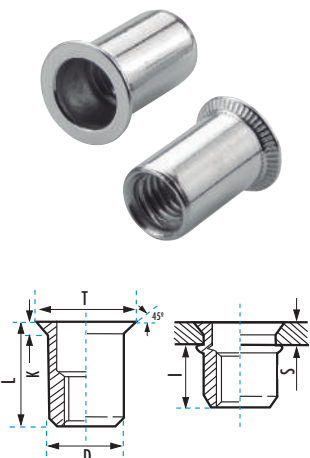
| | S mm | D mm +0,07/-0,1 | Ø +0,1/-0 | T mm +/-0,3 | K mm +/-0,15 | L mm +/-0,3 | I mm | Nm | | €/Unit | |
|-----------|-------------|-----------------------|------------------|-------------------|--------------------|-------------------|---------|--------|-------------------|--------|----|
| M 3x0.50 | 0.30 - 1.50 | 4.90 | 5.00 | 5.60 | 0.35 | 8.50 | 5.50 | 1.00 | 3951-M3 | - | 25 |
| M 4x0.70 | 0.50 - 2.00 | 5.90 | 6.00 | 7.00 | 0.50 | 10.50 | 6.50 | 3.00 | 3951-M4 | 0,26 | 25 |
| M 5x0.80 | 0.50 - 2.00 | 6.90 | 7.00 | 8.00 | 0.50 | 11.50 | 7.00 | 6.00 | 3951-M5 | 0,30 | 25 |
| M 6x1.00 | 0.50 - 2.50 | 8.90 | 9.00 | 10.00 | 0.60 | 14.00 | 8.50 | 11.00 | 3951-M6 | 0,50 | 25 |
| M 8x1.25 | 0.50 - 3.00 | 10.90 | 11.00 | 12.00 | 0.50 | 16.50 | 10.50 | 20.00 | 3951-M8 | 0,73 | 25 |
| M 10x1.50 | 0.80 - 3.00 | 11.90 | 12.00 | 13.50 | 0.80 | 18.00 | 10.20 | 32.00 | 3951-M10 | - | 1 |
| M 10x1.50 | 1.00 - 3.50 | 12.90 | 13.00 | 14.10 | 0.60 | 19.50 | 11.50 | 32.00 | 3951-M10E1 | 1,22 | 1 |
| M 12x1.75 | 0.5 - 3.5 | 14.90 | 15.00 | 16.50 | 0.85 | 22.50 | 16.00 | 49.00 | 3951-M12 | - | 1 |

- Consulte preço e disponibilidade.

CABEÇA ESCAREADA

| | S mm | D mm +0,07/-0,1 | Ø +0,1/-0 | T mm +/-0,3 | K mm +/-0,15 | L mm +/-0,3 | I mm | Nm | | €/Unit | |
|-----------|-------------|-----------------------|------------------|-------------------|--------------------|-------------------|---------|--------|-------------------|--------|----|
| M 3x0.50 | 1.70 - 3.00 | 4.90 | 5.00 | 8.00 | 1.50 | 11.50 | 5.50 | 1.00 | 3952-M3 | - | 25 |
| M 4x0.70 | 1.50 - 3.00 | 5.90 | 6.00 | 9.00 | 1.50 | 12.00 | 7.50 | 4.00 | 3952-M4 | 0,35 | 25 |
| M 5x0.80 | 1.50 - 3.50 | 6.90 | 7.00 | 10.00 | 1.50 | 13.00 | 7.80 | 8.00 | 3952-M5 | 0,39 | 25 |
| M 6x1.00 | 1.50 - 4.00 | 8.90 | 9.00 | 12.00 | 1.50 | 15.50 | 9.00 | 15.00 | 3952-M6 | 0,56 | 25 |
| M 8x1.25 | 2.00 - 4.50 | 10.90 | 11.00 | 14.00 | 1.50 | 18.50 | 12.00 | 26.00 | 3952-M8 | 0,84 | 25 |
| M 10x1.50 | 1.00 - 4.00 | 11.90 | 12.00 | 15.00 | 1.50 | 18.00 | 10.50 | 45.00 | 3952-M10 | - | 1 |
| M 10x1.50 | 2.00 - 5.00 | 12.90 | 13.00 | 16.00 | 1.50 | 21.00 | 13.00 | 45.00 | 3952-M10E1 | 1,25 | 1 |


- Consulte preço e disponibilidade.






INOX


PORCAS DE REBITE CILINDRICAS ESTRIADAS




CABEÇA PLANA




|  | S mm | D mm +0,07/-0,1 | $\frac{T}{\phi}$ +0,1/-0 | T mm +/-0,3 | K mm +/-0,15 | L mm +/-0,3 | I mm |  Nm | | €/Unit |  |
|---|-------------|--------------------|-----------------------------|----------------|-----------------|----------------|-------|---|------------|--------|---|
| M 3x0.50 | 0.50 - 1.50 | 4.90 | 5.00 | 7.00 | 0.80 | 10.00 | 5.00 | 2.00 | 3953-M3 | - | 25 |
| M 3x0.50 | 1.50 - 3.00 | 4.90 | 5.00 | 8.00 | 0.75 | 10.00 | 5.50 | 2.00 | 3953-M3E1 | - | 25 |
| M 4x0.70 | 0.50 - 2.00 | 5.90 | 6.00 | 9.00 | 0.80 | 10.50 | 6.50 | 5.00 | 3953-M4 | 0,29 | 25 |
| M 4x0.70 | 2.50 - 4.00 | 5.90 | 6.00 | 9.00 | 0.75 | 12.50 | 6.50 | 5.00 | 3953-M4E1 | - | 25 |
| M 5x0.80 | 0.50 - 2.50 | 6.90 | 7.00 | 10.00 | 1.00 | 13.00 | 8.00 | 8.50 | 3953-M5 | 0,32 | 25 |
| M 5x0.80 | 2.00 - 4.00 | 6.90 | 7.00 | 10.00 | 1.00 | 16.00 | 8.00 | 8.50 | 3953-M5E1 | - | 25 |
| M 6x1.00 | 0.50 - 3.00 | 8.90 | 9.00 | 12.30 | 1.30 | 15.50 | 9.20 | 15.00 | 3953-M6 | 0,54 | 25 |
| M 6x1.00 | 3.50 - 6.00 | 8.90 | 9.00 | 13.00 | 1.50 | 19.00 | 9.00 | 15.00 | 3953-M6E1 | 0,74 | 25 |
| M 8x1.25 | 1.00 - 3.50 | 10.90 | 11.00 | 14.50 | 1.50 | 18.50 | 11.50 | 26.00 | 3953-M8 | 0,80 | 25 |
| M 8x1.25 | 3.00 - 6.00 | 10.90 | 11.00 | 14.50 | 1.50 | 21.00 | 11.50 | 26.00 | 3953-M8E1 | 1,02 | 25 |
| M 10x1.50 | 0.80 - 3.50 | 11.90 | 12.00 | 16.00 | 1.70 | 19.00 | 10.50 | 50.00 | 3953-M10 | 1,48 | 1 |
| M 10x1.50 | 3.50 - 6.00 | 11.90 | 12.00 | 16.00 | 1.70 | 22.00 | 10.50 | 50.00 | 3953-M10E1 | - | 1 |
| M 10x1.50 | 1.00 - 4.00 | 12.90 | 13.00 | 17.00 | 1.60 | 21.00 | 13.50 | 50.00 | 3953-M10E2 | 1,25 | 1 |
| M 10x1.50 | 3.00 - 6.00 | 12.90 | 13.00 | 19.00 | 2.00 | 26.00 | 14.50 | 50.00 | 3953-M10E3 | 1,77 | 1 |
| M 12x1.75 | 1.00 - 4.00 | 14.90 | 15.00 | 18.00 | 1.70 | 22.00 | 13.50 | 80.00 | 3953-M12 | - | 1 |
| M 12x1.75 | 4.00 - 6.50 | 14.90 | 15.00 | 18.00 | 1.70 | 25.00 | 14.00 | 80.00 | 3953-M12E1 | - | 1 |
| M 12x1.75 | 1.00 - 4.00 | 15.90 | 16.00 | 23.00 | 2.00 | 25.00 | 16.50 | 80.00 | 3953-M12E2 | 2,11 | 1 |
| M 12x1.75 | 3.50 - 7.00 | 15.90 | 16.00 | 23.00 | 1.60 | 29.00 | 16.50 | 80.00 | 3953-M12E3 | - | 1 |




CABEÇA REDUZIDA



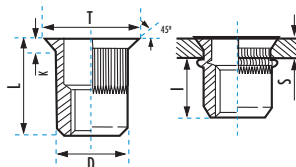
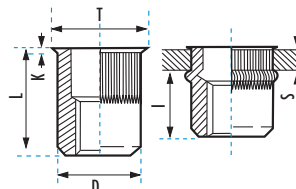
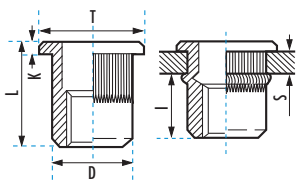
|  | S mm | D mm +0,07/-0,1 | $\frac{T}{\phi}$ +0,1/-0 | T mm +/-0,3 | K mm +/-0,15 | L mm +/-0,3 | I mm |  Nm | | €/Unit |  |
|---|-------------|--------------------|-----------------------------|----------------|-----------------|----------------|-------|---|------------|--------|---|
| M 3x0.50 | 0.50 - 2.00 | 4.90 | 5.00 | 6.00 | 0.40 | 9.00 | 5.50 | 1.00 | 3954-M3 | - | 25 |
| M 3x0.50 | 1.50 - 2.50 | 4.90 | 5.00 | 5.80 | 0.50 | 10.00 | 5.50 | 1.00 | 3954-M3E1 | - | 25 |
| M 4x0.70 | 0.50 - 2.00 | 5.90 | 6.00 | 7.00 | 0.50 | 10.50 | 6.50 | 3.00 | 3954-M4 | 0,26 | 25 |
| M 4x0.70 | 2.50 - 4.00 | 5.90 | 6.00 | 7.00 | 0.50 | 12.50 | 6.50 | 3.00 | 3954-M4E1 | 0,51 | 25 |
| M 5x0.80 | 0.50 - 2.00 | 6.90 | 7.00 | 8.00 | 0.50 | 11.50 | 7.20 | 6.00 | 3954-M5 | 0,30 | 25 |
| M 5x0.80 | 2.50 - 4.50 | 6.90 | 7.00 | 8.00 | 0.50 | 13.00 | 6.80 | 6.00 | 3954-M5E1 | 0,62 | 25 |
| M 6x1.00 | 0.50 - 3.00 | 8.90 | 9.00 | 10.00 | 0.60 | 14.00 | 9.00 | 11.00 | 3954-M6 | 0,50 | 25 |
| M 6x1.00 | 3.00 - 6.00 | 8.90 | 9.00 | 10.00 | 0.50 | 17.50 | 8.60 | 11.00 | 3954-M6E1 | 0,77 | 25 |
| M 8x1.25 | 1.00 - 3.50 | 10.90 | 11.00 | 12.00 | 0.50 | 16.50 | 10.50 | 20.00 | 3954-M8 | 0,73 | 25 |
| M 8x1.25 | 3.50 - 6.00 | 10.90 | 11.00 | 12.00 | 0.65 | 19.50 | 10.00 | 20.00 | 3954-M8E1 | 1,08 | 25 |
| M 10x1.50 | 0.80 - 3.00 | 11.90 | 12.00 | 13.50 | 0.80 | 18.00 | 11.20 | 32.00 | 3954-M10 | 1,48 | 1 |
| M 10x1.50 | 2.00 - 4.50 | 11.90 | 12.00 | 13.50 | 0.80 | 19.50 | 11.20 | 32.00 | 3954-M10E1 | - | 1 |
| M 10x1.50 | 1.00 - 3.50 | 12.90 | 13.00 | 14.00 | 0.70 | 17.70 | 10.70 | 32.00 | 3954-M10E2 | 1,48 | 1 |
| M 10x1.50 | 3.00 - 6.00 | 12.90 | 13.00 | 14.00 | 0.50 | 23.00 | 13.30 | 32.00 | 3954-M10E3 | - | 1 |
| M 12x1.75 | 0.50 - 3.50 | 14.90 | 15.00 | 16.50 | 0.85 | 22.50 | 16.00 | 50.00 | 3954-M12 | - | 1 |
| M 12x1.75 | 1.00 - 4.00 | 15.90 | 16.00 | 17.60 | 0.75 | 24.20 | 14.00 | 50.00 | 3954-M12E1 | 2,11 | 1 |
| M 12x1.75 | 4.00 - 6.00 | 15.90 | 16.00 | 17.50 | 0.60 | 27.00 | 16.00 | 50.00 | 3954-M12E2 | - | 1 |

CABEÇA ESCAREADA



|  | S mm | D mm +0,07/-0,1 | $\frac{T}{\phi}$ +0,1/-0 | T mm +/-0,3 | K mm +/-0,15 | L mm +/-0,3 | I mm |  Nm | | €/Unit |  |
|---|-------------|--------------------|-----------------------------|----------------|-----------------|----------------|-------|---|------------|--------|---|
| M 3x0.50 | 1.70 - 3.00 | 4.90 | 5.00 | 8.00 | 1.50 | 11.50 | 11.50 | 1.00 | 3955-M3 | 0,35 | 25 |
| M 3x0.50 | 3.00 - 4.00 | 4.90 | 5.00 | 8.00 | 1.50 | 12.50 | 11.50 | 1.00 | 3955-M3E1 | - | 25 |
| M 4x0.70 | 1.50 - 3.00 | 5.90 | 6.00 | 9.00 | 1.50 | 12.00 | 7.50 | 4.00 | 3955-M4 | 0,37 | 25 |
| M 4x0.70 | 3.50 - 5.00 | 5.90 | 6.00 | 9.00 | 1.50 | 13.00 | 7.50 | 4.00 | 3955-M4E1 | 0,49 | 25 |
| M 5x0.80 | 1.50 - 3.50 | 6.90 | 7.00 | 10.00 | 1.50 | 13.00 | 7.00 | 8.00 | 3955-M5 | 0,39 | 25 |
| M 5x0.80 | 4.00 - 6.00 | 6.90 | 7.00 | 10.00 | 1.50 | 15.00 | 7.00 | 8.00 | 3955-M5E1 | 0,61 | 25 |
| M 6x1.00 | 1.50 - 4.00 | 8.90 | 9.00 | 12.00 | 1.50 | 15.50 | 9.00 | 15.00 | 3955-M6 | 0,56 | 25 |
| M 6x1.00 | 4.50 - 6.50 | 8.90 | 9.00 | 12.00 | 1.50 | 19.00 | 9.00 | 15.00 | 3955-M6E1 | 0,95 | 25 |
| M 8x1.25 | 2.00 - 4.50 | 10.90 | 11.00 | 14.00 | 1.50 | 18.50 | 12.00 | 26.00 | 3955-M8 | 0,84 | 25 |
| M 8x1.25 | 3.50 - 6.50 | 10.90 | 11.00 | 13.70 | 1.50 | 21.00 | 12.00 | 26.00 | 3955-M8E1 | 1,15 | 25 |
| M 10x1.50 | 1.50 - 4.00 | 11.90 | 12.00 | 15.00 | 1.50 | 18.00 | 10.50 | 45.00 | 3955-M10 | - | 1 |
| M 10x1.50 | 3.00 - 6.00 | 11.90 | 12.00 | 15.00 | 1.50 | 20.00 | 10.50 | 45.00 | 3955-M10E1 | - | 1 |
| M 10x1.50 | 2.00 - 5.00 | 12.90 | 13.00 | 16.00 | 1.50 | 21.00 | 13.00 | 45.00 | 3955-M10E2 | 1,25 | 1 |
| M 10x1.50 | 3.50 - 6.50 | 12.90 | 13.00 | 15.70 | 1.60 | 25.00 | 14.50 | 45.00 | 3955-M10E3 | 2,02 | 1 |
| M 12x1.75 | 1.60 - 5.00 | 14.90 | 15.00 | 18.00 | 1.50 | 22.50 | 14.50 | 50.00 | 3955-M12 | - | 1 |
| M 12x1.75 | 1.50 - 4.50 | 15.90 | 16.00 | 19.00 | 1.70 | 24.00 | 14.00 | 50.00 | 3955-M12E1 | 2,11 | 1 |
| M 12x1.75 | 4.00 - 7.50 | 15.90 | 16.00 | 19.00 | 1.90 | 29.00 | 17.50 | 50.00 | 3955-M12E2 | - | 1 |

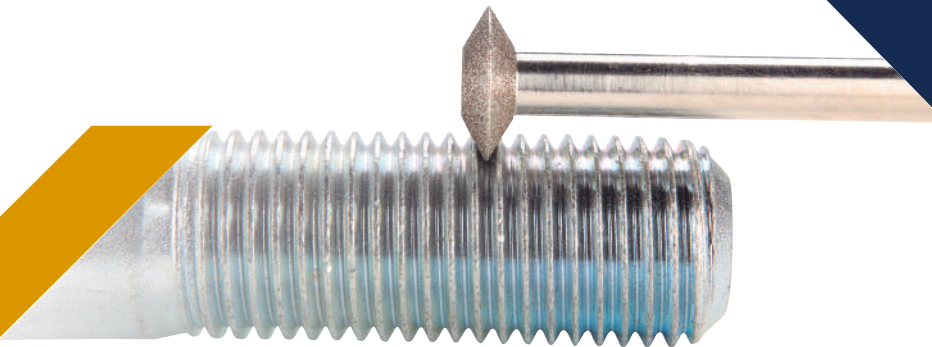
- Consulte preço e disponibilidade.



3951

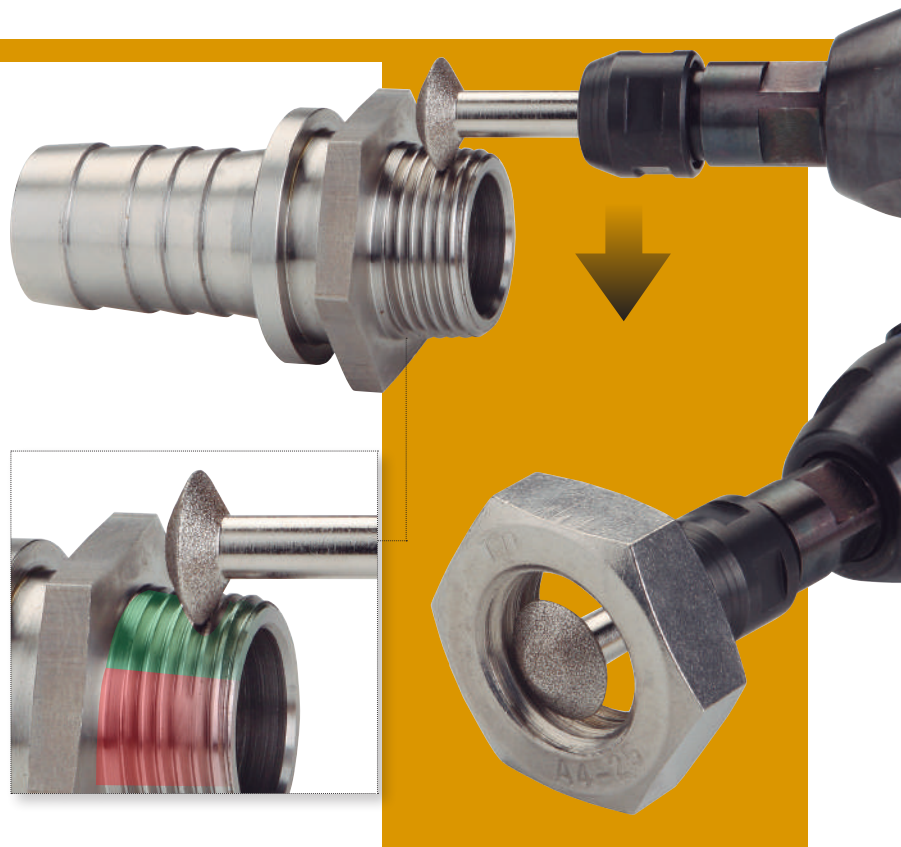
3952

**ROTA
HREAD®**
by *celesa*

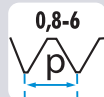
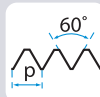


FRESAS ROTATIVAS CBN PARA REPARAÇÃO DE ROSCAS

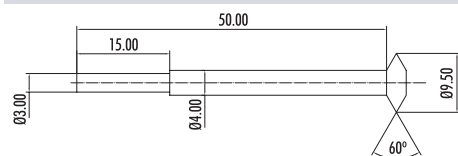
- Comece com os fios em boas condições (Zona Verde) e trabalhe na área danificada (Zona Vermelha). Balance a ferramenta sem sobre-pressionar para frente e para trás para repassar os fios danificados. Deixe a ferramenta fazer o trabalho.
- Mantenha a ferramenta limpa e use óleo de corte para aumentar a vida e o desempenho da ferramenta.
- Repita o passo 1 em todas as áreas danificadas.



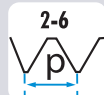
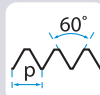
FRESAS ROTATIVAS CBN PARA REPARAÇÃO DE ROSCAS

ROTA
THREAD[®]
by CELESA

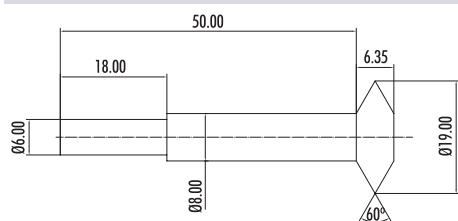
- Repara com precisão tanto as roscas internas como as externas.
- **Limitações:** passo mínimo de 0,80mm ou 28tpi. Nas roscas internas, o tamanho mínimo é de M12 ou 1/2" ou 1/2".



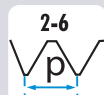
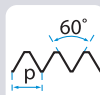
Ø3 mm

Ref. LRR1
55,86 €

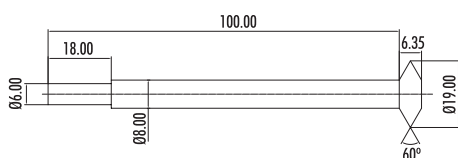
- Repara com precisão tanto as roscas internas como as externas, especialmente passos grossos.
- **Limitações:** passo mínimo de 2mm ou 12 fios. Nas roscas internas, o tamanho mínimo é de M22 ou 7/8.



Ø6 mm

Ref. LRR2
70,76 €

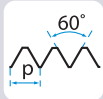
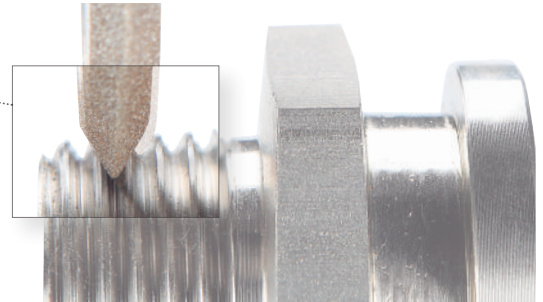
- Repara com precisão tanto as roscas internas como as externas, especialmente passos grossos.
- **Limitações:** passo mínimo de 2mm ou 12 fios. Nas roscas internas, o tamanho mínimo é de M22 ou 7/8.



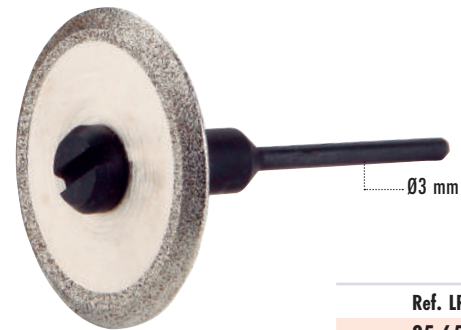
Ø6 mm

Ref. LRR3
80,07 €

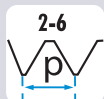
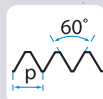
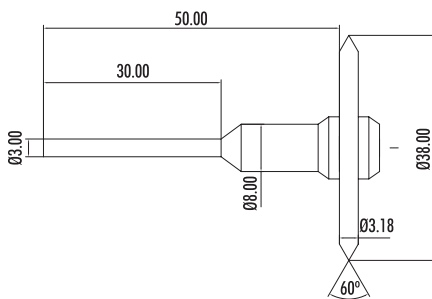
ROTA THREAD[®] by CELESA



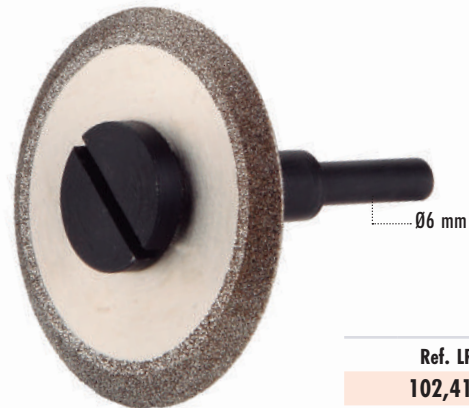
- Repara as roscas externas com precisão. Diâmetro de 38 milímetros para atuar em áreas inacessíveis, como os fios pertos da cabeça do parafuso.
- **Limitações:** passo mínimo de 0,8mm ou 28 fios.



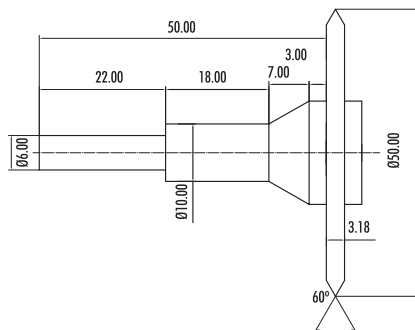
Ref. LRR4
85,65 €

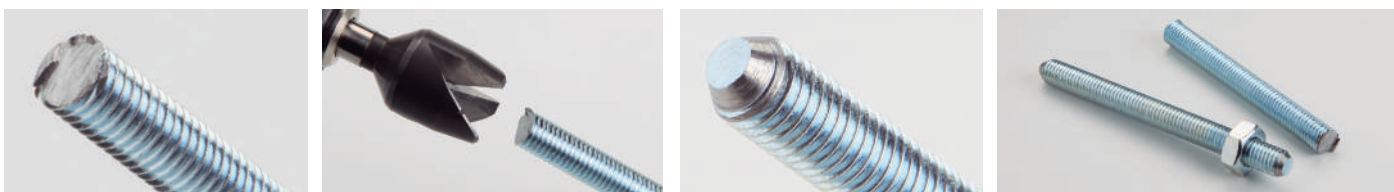


- Repara as roscas externas com precisão. Diâmetro de 50 milímetros para atuar em áreas inacessíveis, como os fios pertos da cabeça do parafuso.
- **Limitações:** passo mínimo de 2mm ou 12 fios.



Ref. LRR5
102,41 €



ESCREADOR EXTERNO PARA REPARAÇÃO DE FIOS DE ENTRADA

Escareador Externo

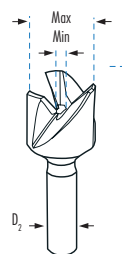
Os escareadores externos servem para corrigir os fios iniciais dum parafuso ou uma vareta roscada. Istos fios puderam ser batidos ou cortados por radial, de modo que a rebarba gerada não permite introduzir uma porca nele. O escareador limpa esses fios e gera um chanfro de 60° que facilita a entrada da porca.

- Não gera calor ou faíscas.
- O escareador deve ser usado em voltas baixas (Max 500RPM).
- O óleo de corte CUT MAGIC facilita a operação.
- É comumente usado com berbequins de mão, e especialmente de bateria.

HSS



HSS



| MIN.-MAX. | Hexagon | L1 mm | AVEXT | € |
|-----------|---------|-------|-------|-------|
| M8-M18 | 1/4" | 75 | AVEXT | 28,11 |

AVMDEXT

| MIN.-MAX. | Hexagon | AVMDEXT | € |
|-----------|---------|---------|-------|
| 5-25 mm | 1/4" | AVMDEXT | 32,36 |

| MIN.-MAX. | D1 mm | D2 mm | L1 mm | AV | € |
|-----------|-------|-------|-------|---------|--------|
| M3-M8 | 3,0 | 8,0 | 55 | AVX1-60 | 63,40 |
| M6-M14 | 6,0 | 10,0 | 60 | AVX2-60 | 121,66 |
| M10-M27 | 10,0 | 13,0 | 75 | AVX3-60 | 182,33 |

INOX

MD

LIMAS PARA REPARAÇÃO DE ROSCAS
Não compre, repare.

Identificação do passo: Se você ignora o passo da rosca a ser reparado, insira a lima nos fios saudáveis da rosca até verificar se as cristas e os vales se encaixam perfeitamente, cobrindo todo o perfil olhando a contraluz. É importante dar com o passo exato, pois existem passos que parecem semelhantes e podem causar erros. Se ficarmos confusos, definitivamente vamos estragar a peça.

Reparação: Uma vez que o passo é identificado, lime a rosca danificada suavemente, combinando o perfil da lima com o da rosca danificada. Sem abrupto, mas fazendo trabalhar a lima. Não se preocupe em aprofundar muito, a própria lima limita a profundidade do fio. É conveniente começar com os fios saudáveis para guiar a lima corretamente. Use o óleo de corte CUT MAGIC, que facilitará a rebarbação. Verifique a bondade da rosca com uma porca e, se não encaixar confortavelmente, não a force e repasse novamente a rosca.

Fácil
 de Usar

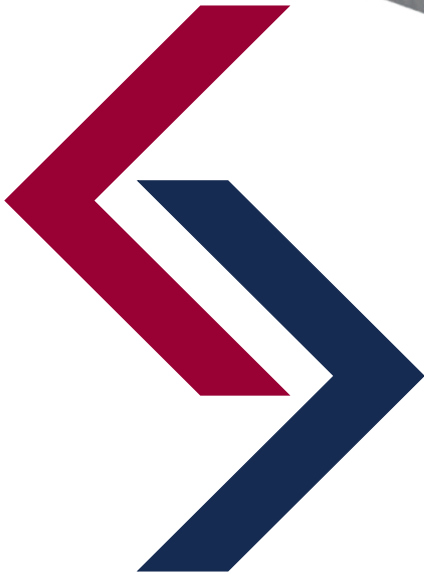
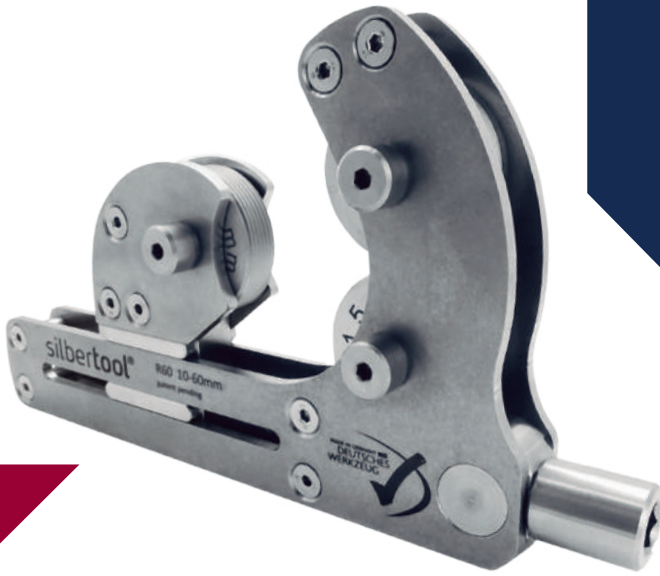
Para roscas externas
 Passos métricos:
 0,75 - 1,00 - 1,25 - 1,50 - 1,75 - 2,00 - 2,50 - 3,00


 Ref. LR1
 40,09 €

Para roscas externas e internas
 Passos métricos:
 0,80 - 1,00 - 1,25 - 1,50 - 1,75 - 2,00 - 2,50 - 3,00


 Ref. LR2
 60,20 €

silbertool[®]
by *celesa*

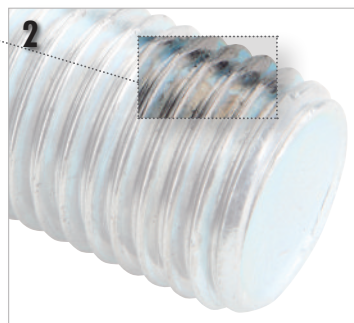
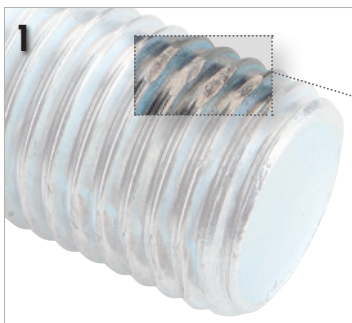


REPARADOR DE ROSCAS EXTERNAS POR LAMINAÇÃO

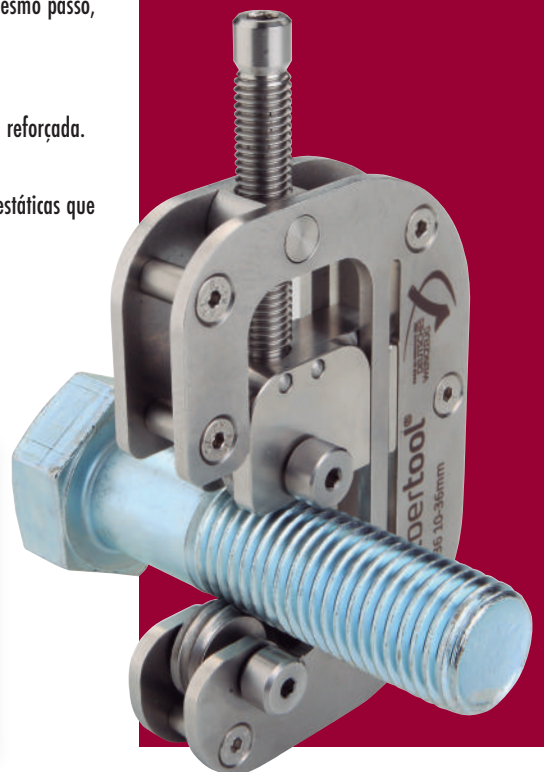
Os reparadores de roscas Silbertool são a solução perfeita para as roscas extremamente danificadas, que não podem ser repassadas por caçonetes ou outros reparadores de roscas externas, pois uma extração do material dos fios suporia enfraquecê-la irremediavelmente e inutilizar o parafuso. A ampla gama de rolos com diferentes passos oferece versatilidade já que só com a mudança dos rolos, as roscas de passos muito diferentes podem ser reparadas. Uma vez fixado o passo, é possível reparar parafusos do mesmo passo, por exemplo: M6X1, M8X1, M10X1, M12X1, M14X1, etc ... versátil, fácil ... muito útil.

Vantagens

- A rosca é reparada por conformação a frio para que a rosca reparada não seja enfraquecida, mas reforçada.
- Todos os passos são reparados com a mesma ferramenta. Cada rolo tem o seu passo.
- Foi comprovado que uma rosca reparada com Silbertool®, suporta as mesmas cargas dinâmicas e estáticas que a rosca original. Além disso, está provado que oferece maior resistência à fadiga.
- Durante o processo de reparação, a superfície da rosca fica perfeitamente limpa; sem rebites.
- Use o fluido de corte para reduzir o esforço na reparação.



REPARAÇÃO NÃO INVASIVA



REPARADOR DE ROSCAS EXTERNAS POR LAMINAÇÃO

M
MF

Ref. R16



| M / MF | | | R16 |
|----------|-------------|-----|--------------------|
| M5 - M16 | 0,50 - 2,00 | R16 | € / Unit 394,18 |

Não inclui os rolos.



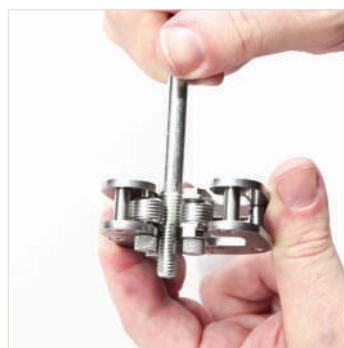
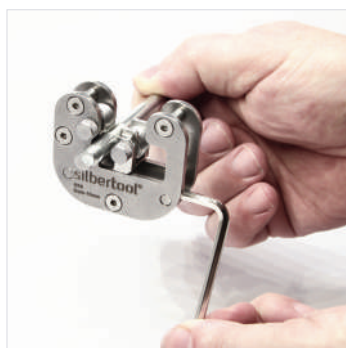
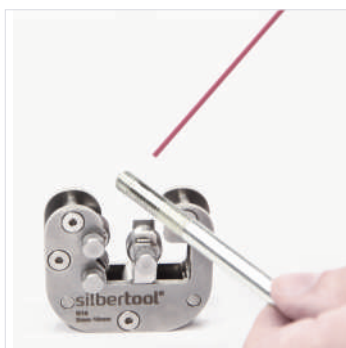
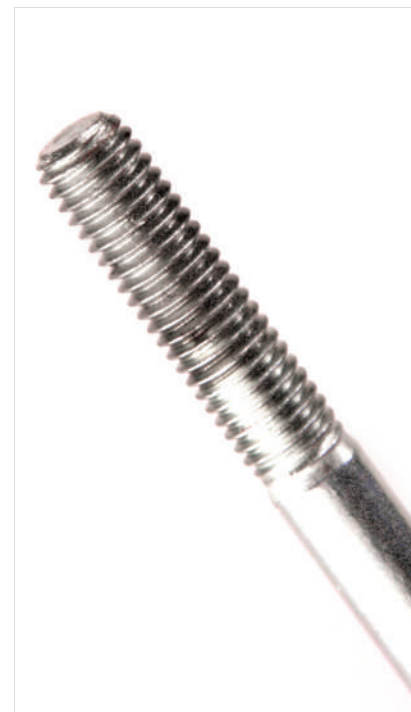
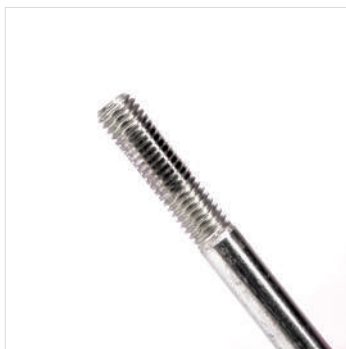
Ref. R160175



Ref. R160125

JOGOS DE ROLOS

| M / MF | | | € / Unit | | € / Unit |
|----------|------|---------|----------|----------|----------|
| M5 - M16 | 0.50 | R160050 | 84,25 | R16I0050 | 112,42 |
| M5 - M16 | 0.75 | R160075 | 84,25 | R16I0075 | 112,42 |
| M5 - M16 | 0.80 | R160080 | 84,25 | R16I0080 | 112,42 |
| M5 - M16 | 1.00 | R160100 | 84,25 | R16I0100 | 112,42 |
| M5 - M16 | 1.25 | R160125 | 84,25 | R16I0125 | 112,42 |
| M5 - M16 | 1.50 | R160150 | 84,25 | R16I0150 | 112,42 |
| M5 - M16 | 1.75 | R160175 | 84,25 | R16I0175 | 112,42 |
| M5 - M16 | 2.00 | R160200 | 84,25 | R16I0200 | 112,42 |



REPARADOR DE ROSCAS EXTERNAS POR LAMINAÇÃO

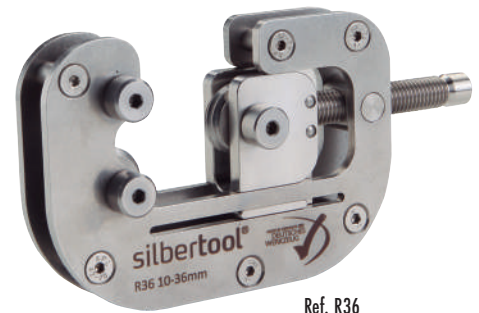


Ref. R360250



JOGOS DE ROLOS

| M / MF | | | €/ Unit | | €/ Unit |
|-----------|------|---------|---------|----------|---------|
| M10 - M36 | 0.50 | R360050 | 128,37 | R36I0050 | 154,10 |
| M10 - M36 | 0.75 | R360075 | 128,37 | R36I0075 | 154,10 |
| M10 - M36 | 1.00 | R360100 | 128,37 | R36I0100 | 154,10 |
| M10 - M36 | 1.25 | R360125 | 128,37 | R36I0125 | 154,10 |
| M10 - M36 | 1.50 | R360150 | 128,37 | R36I0150 | 154,10 |
| M10 - M36 | 1.75 | R360175 | 128,37 | R36I0175 | 154,10 |
| M10 - M36 | 2.00 | R360200 | 128,37 | R36I0200 | 154,10 |
| M10 - M36 | 2.50 | R360250 | 128,37 | R36I0250 | 154,10 |
| M10 - M36 | 3.00 | R360300 | 128,37 | R36I0300 | 154,10 |
| M10 - M36 | 3.50 | R360350 | 128,37 | R36I0350 | 154,10 |
| M10 - M36 | 4.00 | R360400 | 128,37 | R36I0400 | 154,10 |



Ref. R36

| R36 | | | |
|-----------|-------------|-----|---------|
| M / MF | | | €/ Unit |
| M10 - M36 | 0.50 - 4.00 | R36 | 900,12 |

Não inclui os rolos.



Ref. R600050



JOGOS DE ROLOS

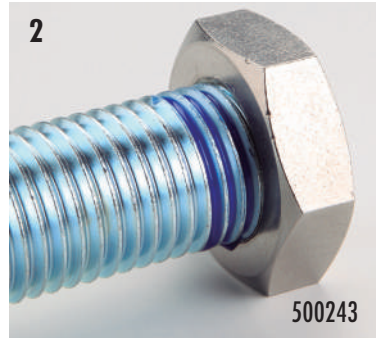
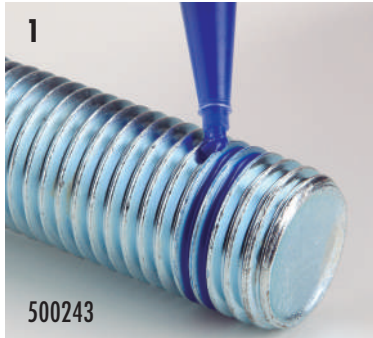
| M / MF | | | €/ Unit | | €/ Unit |
|------------------|------|---------|---------|----------|---------|
| M10 - M60 - M110 | 0.50 | R600050 | 231,27 | R60I0050 | 257,00 |
| M10 - M60 - M110 | 0.80 | R600080 | 231,27 | R60I0080 | 257,00 |
| M10 - M60 - M110 | 1.00 | R600100 | 231,27 | R60I0100 | 257,00 |
| M10 - M60 - M110 | 1.25 | R600125 | 231,27 | R60I0125 | 257,00 |
| M10 - M60 - M110 | 1.50 | R600150 | 231,27 | R60I0150 | 257,00 |
| M10 - M60 - M110 | 1.75 | R600175 | 231,27 | R60I0175 | 257,00 |
| M10 - M60 - M110 | 2.00 | R600200 | 231,27 | R60I0200 | 257,00 |
| M10 - M60 - M110 | 2.50 | R600250 | 231,27 | R60I0250 | 257,00 |
| M10 - M60 - M110 | 3.00 | R600300 | 231,27 | R60I0300 | 257,00 |



Ref. R60

| R60/110 | | | |
|------------|-------------|------|----------|
| M / MF | | | €/ Unit |
| M10 - M60 | 0.50 - 3.00 | R60 | 1.157,37 |
| M50 - M110 | 0.50 - 3.00 | R110 | 1.800,50 |

Não inclui os rolos.



Aderentes anaeróbicos para roscas

Este produto foi concebido para fixar e selar juntas roscadas no campo industrial, obtendo uma maior resistência mecânica na mesma.

Vantagens

- 1. A característica destacada dos aderentes anaeróbicos é o endurecimento da ligação após o contato de metal com metal sob ausência de ar.
- 2. Desta forma, obtém-se uma fixação resistente às vibrações, aos impactos e extremamente resistente aos produtos químicos e solventes.
- 3. Graças ao estado líquido do POWERLOCK, é possível preencher completamente osocos do acoplamento, selar os vazamentos e proteger contra a corrosão causada por agentes externos, permitindo uma maior durabilidade do acoplamento roscado. Além disso, o POWERLOCK é muitas vezes aplicado no campo da vedação das flanges.
- 4. A aplicação do POWERLOCK é simples e rápida; o aderente consegue o endurecimento inicial em poucos minutos e o endurecimento final em poucas horas a temperatura ambiente.
- 5. POWERLOCK é adequado especialmente para todos os metais e para certos plásticos.

Principais aplicações

- Conexões aparafusadas de M5 a M36.
- Permite fixar de forma segura caxonetes, buchas, parafusos, eixos e outras peças montadas.
- Sela conexões hidráulicas e pneumáticas.

Materiais ativos e passivos

Materiais ativos (secagem rápida)

- Bronze
- Ferro
- Cobre
- Latão
- Aço

Materiais passivos (secagem lenta)

- Aço de alta liga
- Alumínio, níquel, zinco, ouro
- Camadas de óxido



| | Cor | Faixa de aplicação | Viscosidade a +25 | Folga max. | Resistência à ruptura | Força residual | Resistência ao cisalhamento (N/mm ²) | Tempo de cura fase inicial a temperatura ambiente | Tempo de cura total a temperatura ambiente | Temperatura de trabalho | € |
|------------|-----|--------------------|---------------------|------------|-----------------------|----------------|--|---|--|--------------------------------|--------------|
| 500222 * | | M1-M36 | 1.000 mPa-s | 0,20 mm | 4-8 Nm | 2-4 Nm | 3-5 N/mm ² (435-725 psi) | 10-20 min. | 3-6 h. | -60 - +150°C (-76 - +302°F) | 42,99 |
| 500243 ** | | M1-M36 | 2.000 - 7.000 mPa-s | 0,25 mm | 17-22 Nm | 8-12 Nm | 9-13 N/mm ² (1.305-1.885 psi) | 10-20 min. | 1-3 h. | -60 - +150°C (-76 - +302°F) | 42,99 |
| 500270 *** | | M1-M20 | 500 mPa-s | 0,15 mm | 28-35 Nm | 50-65 Nm | 15-20 N/mm ² (2.175-2.900 psi) | 10-20 min. | 3-6 h. | -60 - +150°C (-76 - +302°F) | 42,99 |

* Força baixa (desmontagem fácil) ** Força meia (desmontagem com ferramenta) *** Força alta (desmontagem com calor)

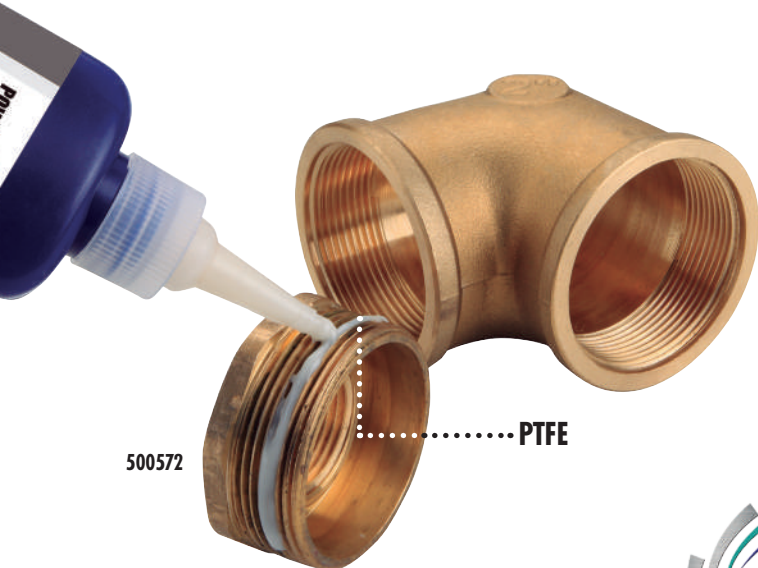


Limpeza previa à utilização de adesivos e vedantes.

O limpador de superfícies utiliza-se para limpar e desengordurar as superfícies que devem ser coladas ou seladas com os adesivos e os vedantes POWERLOCK. Limpa e evapora-se sem deixar rasto.



500001
16,01 €



500572

PTFE



500572

Vedantes de roscas para tubulação em sistemas hidráulicos e pneumáticos

Os vedantes de tubulações roscadas POWERLOCK impedem vazamentos de qualquer fluido gasoso e líquido usado na indústria, que são conduzidos a altas pressões.

Vantagens

- São resistentes à maioria dos fluidos aplicados na indústria e evitam as obstruções das peças de conexão (cotovelos, etc.) em sistemas hidráulicos e pneumáticos (como aconteceria usando cânhamo ou fitas de teflon).
- A conexão roscada fica protegida contra a corrosão de tais fluidos e as diferentes resistências disponíveis permitem uma desmontagem mesmo após vários anos de conexão estável.
- Os selantes POWERLOCK são a melhor opção para criar uma união roscada ESTANQUE e evitar o risco de vazamento.

Recomendações de Uso

Aplicação direta

POWERLOCK aplica-se diretamente desde a sua ponta dosadora evitando o contato direto da ponta dosadora com o metal. Se é uma questão de uniões prensadas e elementos de união de grande medida, molhe ambas as superfícies formando uma camada fina e uniforme. No caso de roscas em furos cegos, aplique uma quantidade suficiente do POWERLOCK no furo. No caso de parafusos e pernos, aplique o aderente em forma anular. Não verter novamente à garrafa o POWERLOCK que já tenha estado em contato com o metal. Mesmo as partículas mais finas levam ao endurecimento na garrafa.












































500542

| | Cor | Faixa de aplicação | Viscosidade a +25 | Folga max. | Resistência à ruptura | Força residual | Resistência ao cisalhamento (N/mm ²) | Tempo de cura fase inicial a temperatura ambiente | Tempo de cura total a temperatura ambiente | Temperatura de trabalho | € |
|--|---|--------------------|---------------------|------------|-----------------------|----------------|--|---|--|--------------------------------|-------|
| 500542  |  | G 1/8"-3/4" | 500 mPa-s | 0,15 mm | 12-15 Nm | 18-22 Nm | 8-12 N/mm ² (1.160-1.740 psi) | 10-20 min. | 2-4 h. | -60 - +150°C (-76 - +302°F) | 42,99 |
| 500572 **  | | G 1/8"-3" | 17.000-50.000 mPa-s | 0,40 mm | 7-10 Nm | 2-4 Nm | 4-6 N/mm ² (580-870 psi) | 20-40 min. | 5-10 h. | -60 - +150°C (-76 - +302°F) | 25,84 |

** PTFE líquido

* Ficha de dados de segurança disponível.

powercoil®
 by CELESA

| | | | | | |
|--|------------------------------|---|---|--|--|
|  FREE | Inserto standard (livre) |  ...X | Código de Família |  HSS | Macho manual HSS |
|  LOCK | Inserto Auto-bloqueador |  1.0D | Longitude do inserto instalado = Ø x 1.0 |  HSS | Macho manual M/MF, UNC, UNF, 8 UN, NPT |
|  M/MF | Métrica e métrica fina |  1.5D | Longitude do inserto instalado= Ø x 1.5 |  HSS | Macho manual BSW, BSF, BSP, BSB |
|  UNC | Rosca americana UNC |  2.0D | Longitude do inserto instalado = Ø x 2.0 |  HSS | Macho manual BA |
|  UNF | Rosca americana UNF |  2.5D | Longitude do inserto instalado = Ø x 2.5 |  HSS-V3 | Macho com dupla entrada para as velas de ignição |
|  BSW | Rosca inglesa Whitworth |  3.0D | Longitude do inserto instalado = Ø x 3.0 |  HSS-V3 | Macho Helicoidal 35° HSS-V3 (3%V) |
|  BSF | Rosca inglesa Withworth fina |  3.5D | Longitude do inserto instalado = Ø x 3.5 |  HSS-V3 | Macho com entrada corrigida HSS-V3 (3%V) |
|  BSP | Rosca inglesa Withworth fina |  X.XD | Codificação da long. do inserto instalado = Ø x "D" |  TOL5H-6H | Macho em tolerância 5H/6H |
|  BSP | Rosca inglesa BSP / GAS |  AISI 304 | Inserto de aço inoxidável 304 |  TOL(2B-3B) | Macho em tolerância 2B-3B |
|  NPT | Rosca conica Americana NPT |  ↕ | Longitude da rosca da vela de ignição |  ○ ○ ○ ○ | Carreto de inserts |
|  8-UN | Rosca Americana UN-8 Fios |  ☎ | Conformidade em encomenda especial |  ○ ○ ○ | Series curtas |
|  BA | Rosca inglesa |  📄 | Conformidade de inserto |  ○ ○ ○ ○ | Series medias |
|  BSB | Rosca inglesa BSB (Latão) |  HSS | Broca de HSS |  ○ ○ ○ ○ ○ | Series longas |
| | |  🔧 | Verificador passa, não passa |  ✋ | Ferramentas de instalação manual |



Diâmetro do inserto



Passo em mm e polegada



Longitude instalada



Unidades da embalagem



Nº de Inserts



Diâmetro da broca



Macho



Ferramenta de instalação Nº



Quebrador