

BLUE-MASTER[®]
by *celesa*



CONSTRUCTION
DRILL BITS

**DIAMOND DRILL BITS FOR VERY HARD MATERIALS
LIKE STONWARE, HARD CERAMIC, ETC**

PD:
Diamond interchangeable point cutters.

CPD:
Body length.
Available in 50 or 100 mm

HPD:
Shank with internal water cooling.



PD			CPD		CPD-100		HPD	
	Ø mm	€		€		€		€
PD0500	5,00	21,54	CPD0500	30,23	CPD0500-100	43,09	HPD1	220,44
PD0600	6,00	25,58	CPD0600	31,31	CPD0600-100	43,09		
PD0650	6,50	25,58						
PD0800	8,00	43,09						
PD0850	8,50	43,09						
PD0900	9,00	47,12	CPD0850	34,55	CPD0850-100	48,47		
PD1000	10,00	47,12	CPD1050	34,55	CPD1050-100	48,47		
PD1050	10,50	47,12						
PD1200	12,00	53,86						
PD1450	14,50	61,94						
PD1600	16,00	68,67	CPD1450	40,49	CPD1450-100	53,86	HPD2	273,35
PD1800	18,00	76,74			CPD1600-100	53,86		
PD2000	20,00	90,20			CPD1800-100	53,86		
					CPD2000-100	59,24		



GUIDE FOR CENTERING DRILLS AND DIAMOND CUTTERS

- 8 holes: Ø 4 - 5 - 6 - 6,5 - 8 - 10 - 12 - 13 mm
- Easy adaptation of cooling system.
- Fixing with suction pad for a perfect adherence in plane surfaces.
- Center drilling and cooling in glass, stoneware, hard tiles, etc.

GBD
23,90 €



CAN FOR WATER REFRIGERATION

GBP
9,73 €

- Capacity: 1,1L.

PROFESSIONAL HIGH PERFORMANCE TILE BITS

Ref. BW9



Revolutionary tip geometry

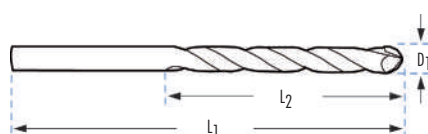
Extra Professional Series



- The innovation of this drill bit comes from its carbide grade, the welding technique and its revolutionary geometry.
- For use with portable or electric drill in rotary mode.
- Always cooling with water, using preferably the CGB guide.

APPLICATIONS:

- For hard and abrasive ceramics, as stoneware or hard tile. This high performance bit will make a hole where all the others have failed.



BW9

	D1 mm	L1 x L2 mm	€
BW90300	3,0	85 x 40	25,06
BW90350	3,5	85 x 40	25,06
BW90400	4,0	85 x 45	25,06
BW90450	4,5	85 x 45	25,06
BW90500	5,0	85 x 45	26,50
BW90550	5,5	100 x 60	27,02
BW90600	6,0	100 x 60	27,72
BW90650	6,5	100 x 60	28,23
BW90700	7,0	125 x 70	31,72
BW90750	7,5	125 x 70	32,31
BW90800	8,0	125 x 70	34,40
BW90850	8,5	125 x 70	35,04
BW90900	9,0	150 x 85	41,69
BW91000	10,0	150 x 85	41,69
BW91050	10,5	150 x 85	55,11
BW91100	11,0	150 x 85	54,11



REFERENCE	BW99325	BW99318
QUANTITY	4	5
QUALITY	EXTRA-PROFESSIONAL	EXTRA-PROFESSIONAL
CONTENT	Ø 4 - 5 - 6 - 8 mm	Ø 3 - 4 - 5 - 6 - 8 mm
PRICE €	117,37	142,97

WATER COOLING GUIDE WITH TANK

CUTTING SPEED R.P.M.		
Ø mm	R.P.M. Max.	R.P.M. Min.
3,0	1350	1100
4,0	1200	1000
5,0	1100	920
6,0	1000	830
7,0	900	740
8,0	800	650
9,0	700	550
10,0	600	500
11,0	550	450



- Guide to drill 5-6-7-8-10-12-15-35 mm

CGB
11,08 €

STANDARD HIGH PERFORMANCE TILE BITS

Ref. BW7

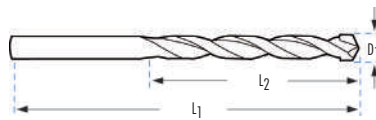


- Always drill in rotary mode
- Always cooling with water, using preferably the CGB guide.

APPLICATIONS:

- Very hard and abrasives ceramics, tile...

- Special application: Due to its cutting geometry this drill is also recommended to drill broken screws and also HARDOX 450 and lowers.



BW7				
	D1 mm	L1x L2 mm		€
BW703	3,0	60 x 32	1	7,10
BW704	4,0	75 x 43	1	7,10
BW705	5,0	85 x 50	1	7,22
BW706	6,0	100 x 60	1	7,22
BW707	7,0	100 x 62	1	9,98

Blister: 190x60 mm.

BW7				
	D1 mm	L1x L2 mm		€
BW708	8,0	120 x 80	1	11,56
BW709	9,0	120 x 82	1	12,23
BW710	10,0	120 x 82	1	12,58
BW712	12,0	150 x 101	1	25,46
BW713	13,0	150 x 92	1	27,68

Blister: 230x60 mm.

REFERENCE	BW79325
QUANTITY	4
QUALITY	STANDARD
CONTENT	Ø 4 - 5 - 6 - 8 mm
PRICE €	37,25



WATER COOLING GUIDE WITH TANK

CUTTING SPEED R.P.M.		
Ø mm	R.P.M. Max.	R.P.M. Min.
4,0	1000	830
5,0	900	740
6,0	800	650
8,0	600	500
10,0	500	400



CGB
11,08 €

- Guide to drill 5-6-7-8-10-12-15-35 mm

GLASS AND TILE DRILL BITS

Ref. BW13



- Always drill in rotary mode.
- Cool down the drill bit while being used.
- 4 teeth sharpening provides high performance, less effort, and better hole quality.

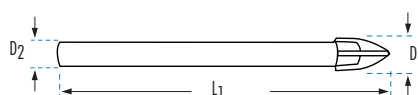
APPLICATIONS:

- Glass, Tile and Phenolic compact panel.
- The solution for drilling PHENOLIC PANEL (toilet screens, changing room lockers, even all types of boards or countertops made with phenolic panel).
- PERFECT finishing, the phenolic board does not chip off NEITHER WHEN INTRODUCING NOR WHEN REMOVING THE DRILL.

CUTTING SPEED
R.P.M.

Ø mm	R.P.M.
3 - 6	900
8 - 10	700
12 - 14	600

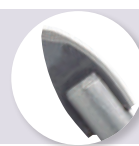
BW13				
	D1 mm	D2 mm	L1 mm	€
BW1303	3,0	2,5	62	9,06
BW1304	4,0	3,0	65	9,82
BW1305	5,0	4,0	68	10,42
BW1306	6,0	4,0	72	11,01
BW1308	8,0	6,0	80	11,98
BW1310	10,0	8,0	90	16,75
BW1312	12,0	10,0	100	23,33
BW1314	14,0	10,0	100	26,57
BW1316	16,0	10,0	100	31,25
BW1318	18,0	10,0	110	34,25
BW1320	20,0	10,0	110	35,36
BW1322	22,0	10,0	120	38,36
BW1325	25,0	10,0	120	40,05



REFERENCE	BW139325
QUANTITY	4
QUALITY	PROFESSIONAL
CONTENT	Ø 4 - 5 - 6 - 8 mm
PRICE €	49,14

GLASS DRILL BIT

Ref. BC90B



BC90B				
	D1 mm	D2 mm	L1 mm	€
BC9003B	3,0	2,5	65	6,65
BC9004B	4,0	3,0	65	7,27
BC9005B	5,0	4,0	65	7,72
BC9006B	6,0	4,0	65	8,16
BC9008B	8,0	6,0	70	9,03
BC9010B	10,0	8,0	80	12,64
BC9012B	12,0	10,0	80	17,60
BC9014B	14,0	10,0	80	19,68



REFERENCE	BC909325
QUANTITY	4
QUALITY	STANDARD
CONTENT	Ø 4 - 5 - 6 - 8 mm
PRICE €	34,14

CARBIDE TIPPED TILE DRILLS PROFESSIONAL QUALITY
NEW

Ref. BW5



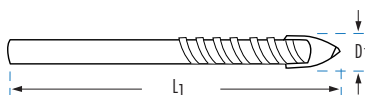
Professional series



- Always drill in rotary mode.
- Cool down the drill bit while being used.
- Special high performance carbide tip for easy drilling, less effort, and better hole quality.

APPLICATIONS:

- Tile, Hard Ceramic, Slate, Glass, etc.

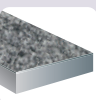


BW5			
	D1 mm	L1 x L2 mm	€
BW50300	3,0	80 x 40	7,10
BW50400	4,0	80 x 40	7,10
BW50500	5,0	80 x 40	7,22
BW50600	6,0	80 x 40	7,22
BW50700	7,0	80 x 40	9,98
BW50800	8,0	100 x 60	11,56
BW50900	9,0	100 x 60	12,23
BW51000	10,0	100 x 60	12,58
BW51200	12,0	100 x 60	25,46
BW51300	13,0	100 x 60	27,68



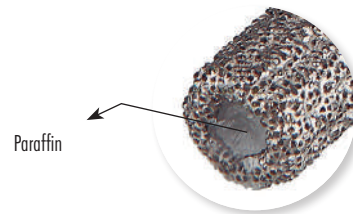
DIAMOND TILE DRILL BIT

Ref. CPS

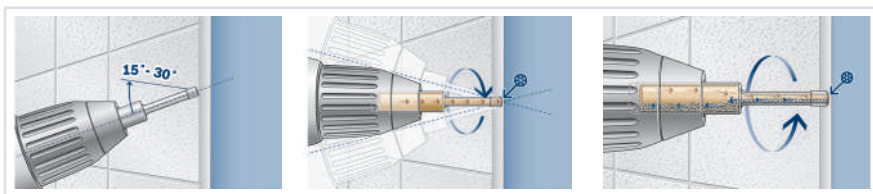


Dry Working

Diamond series



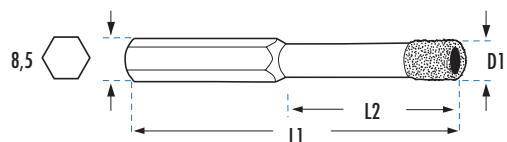
Paraffin



- Always drill with rotary mode
- CPS may drill ceramics without water thanks to its innovative mechanism of autolubrication with paraffin. Nevertheless, by using water you'll increase the performance of the drill dramatically.
- Start drilling with an angle between 15° and 30° and then keep on drilling horizontally. No guide needed.
- Drill ceramics with soft circular movements to make easier the further extraction of the core
- Before finishing, stop pushing strongly to avoid the core to get stuck inside the holesaw.
- It's suitable to extract manually the perforated core, after each drilling operation.
- More holes in less time and with less effort.
- The internal tank of paraffin can not be refilled.

M14x2

Diamond holesaw for dry drilling
M14x2 shank available
Ref.CSE Ø 5-83 mm Page 601



	CPS			
	D1 mm	Hexagon	L1x L2 mm	€
CPS05	5,0	8,5	67 x 33	32,24
CPS06	6,0	8,5	67 x 33	32,71
CPS08	8,0	8,5	80 x 33	36,17
CPS10	10,0	8,5	80 x 33	44,40
CPS12	12,0	8,5	80 x 33	52,51
CPS14	14,0	8,5	80 x 33	57,87
CPS15	15,0	8,5	80 x 33	59,81
CPS20	20,0	8,5	80 x 50	65,45
CPS22	22,0	8,5	80 x 50	71,94
CPS25	25,0	8,5	80 x 50	76,41
CPS30	30,0	8,5	80 x 50	83,09



REFERENCE	CPS9328
QUANTITY	4
CONTENT	Ø 5 - 6 - 8 - 10 mm
PRICE €	145,53



CAN OF PARAFFIN LUBRICANT

PACSE	9,17 €
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WATER COOLING GUIDE WITH TANK

CUTTING SPEED R.P.M.

Ø mm	R.P.M. Max.	R.P.M. Min.
4,0	1000	830
5,0	900	740
6,0	800	650
8,0	600	500
10,0	500	400



CGB
11,08 €

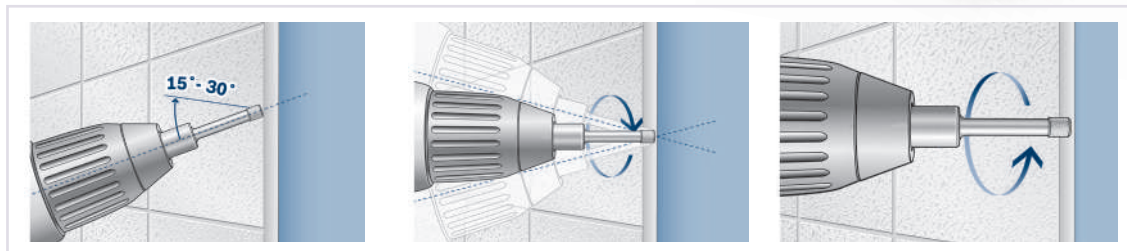
- Guide to drill 5-6-7-8-10-12-15-35 mm

DIAMOND TILE DRILL BIT

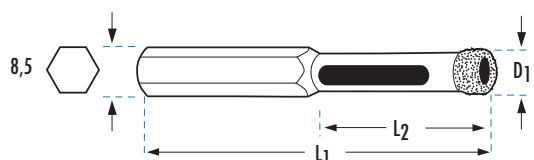
Ref. CPH



Diamond series



- Always drill with rotary mode.
- Cooling with plenty of water during the drilling operation.
- CPH drill may drill ceramics whenever some water will be between the diamond and the piece to be machined.
- Never put the CPH Drill in water after drilling operations. Once the drill achieve high temperatures, let it getting cooled by the air.
- Start drilling with an angle between 15° and 30° and then keep on drilling horizontally. No guide needed.
- Drill ceramics with soft circulary movements to make easier the further extraction of the core.
- Before finishing, stop pushing strongly to avoid the core to get stucked inside the holesaw.
- Extract the perforated core by the lateral opening.
- More holes in less time and with less effort.



	CPH			
	D1 mm	Hexagon	L1 x L2 mm	€
CPH05	5,0	8,5	55 x 25	19,05
CPH06	6,0	8,5	55 x 25	20,42
CPH08	8,0	8,5	55 x 25	26,76
CPH10	10,0	8,5	55 x 25	28,23
CPH12	12,0	8,5	55 x 25	34,83
CPH14	14,0	8,5	55 x 25	39,51

REFERENCE	CPH9328
QUANTITY	4
CONTENT	Ø 5 - 6 - 8 - 10 mm
PRICE €	94,47

WATER COOLING GUIDE WITH TANK



Ø mm	CUTTING SPEED R.P.M.	
	R.P.M. Max.	R.P.M. Min.
4,0	1000	830
5,0	900	740
6,0	800	650
8,0	600	500
10,0	500	400

CGB
11,08 €

- Guide to drill 5-6-7-8-10-12-15-35 mm

DIAMOND TILE DRILL BIT

NEW

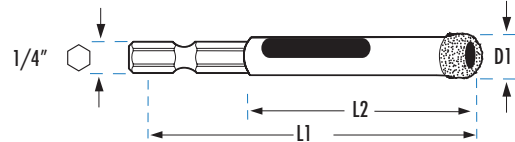
Ref. CAH



Diamond series



Large core removal slot



- Always drill with rotary mode.
- Cooling with plenty of water during the drilling operation.
- CPH drill may drill ceramics whenever some water will be between the diamond and the piece to be machined.
- Never put the CPH Drill in water after drilling operations. Once the drill achieves high temperatures, let it getting cooled by the air.
- Start drilling with an angle between 15° and 30° and then keep on drilling horizontally. No guide needed.
- Drill ceramics with soft circular movements to make easier the further extraction of the core.
- Before finishing, stop pushing strongly to avoid the core to get stuck inside the holesaw.
- Extract the perforated core by the lateral opening.
- More holes in less time and with less effort.

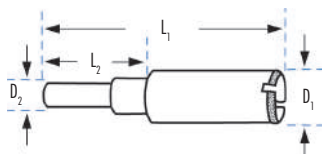
CAH				
	D1 mm	Hexagon	L1 x L2 mm	€
CAH05	5,0	1/4	65 x 30	19,05
CAH06	6,0	1/4	65 x 30	20,42
CAH07	7,0	1/4	65 x 30	23,25
CAH08	8,0	1/4	65 x 30	26,76
CAH10	10,0	1/4	65 x 30	28,23
CAH12	12,0	1/4	65 x 30	34,83
CAH14	14,0	1/4	65 x 30	39,51
CAH15	15,0	1/4	65 x 30	59,81
CAH16	16,0	1/4	65 x 30	62,36
CAH18	18,0	1/4	65 x 30	64,25
CAH20	20,0	1/4	65 x 30	65,45
CAH22	22,0	1/4	65 x 30	71,94
CAH25	25,0	1/4	65 x 30	76,41
CAH28	28,0	1/4	65 x 30	77,36
CAH30	30,0	1/4	65 x 30	83,09
CAH32	32,0	1/4	65 x 30	89,36
CAH35	35,0	1/4	65 x 30	96,36

ELECTRODEPOSITED DIAMOND HOLESAW FOR GLASS

Ref. BC70..B



Diamond series



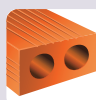
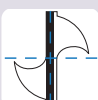
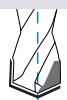
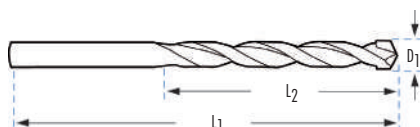
Given the characteristics and small diameter of these holesaws it is important to keep in mind that they do not come with a pilot drill. For portable drilling machines, we highly recommend making an exterior guide (see picture). In stationary machines, both workpiece and the machine should be securely fastened.



BC70..B					
	D1 mm	D2 mm	L2 mm	L1 mm	€
BC700400B	4,0	6,0	25	45	8,46
BC700500B	5,0	6,0	25	45	10,28
BC700600B	6,0	6,0	30	66	12,00
BC700700B	7,0	6,0	30	66	13,72
BC700800B	8,0	6,0	30	66	14,69
BC700900B	9,0	6,0	30	66	16,38
BC701000B	10,0	6,0	30	66	18,10
BC701200B	12,0	6,5	20	66	22,48
BC701400B	14,0	6,5	20	66	28,60
BC701500B	15,0	6,5	20	66	33,02
BC701600B	16,0	6,5	20	66	36,57
BC701800B	18,0	6,5	20	66	40,11
BC702000B	20,0	6,5	20	66	43,51

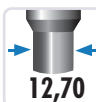
CARBIDE TIPPED HAMMER DRILLS

Ref. BW1


**DIN
8039**

**Standard
series**


D1 mm	SHORT SERIES			LONG SERIES					
		L1x L2 mm	€	150 mm		200 mm			
3	BW103	70x30	1,41						
4	BW104	70x30	1,43						
5	BW105	85x45	1,56	BW105X150	150x80	2,78			
6	BW106	100x50	1,73	BW106X150	150x80	2,78	BW106X200	200x125	5,40
7	BW107	100x50	2,05	BW107X150	150x80	3,53			
8	BW108	120x70	2,26	BW108X150	150x80	4,00	BW108X200	200x125	5,40
9	BW109	120x70	2,60	BW109X150	150x80	4,66			
10	BW110	120x70	2,76	BW110X150	150x80	5,22	BW110X200	200x125	6,77
11	BW111	150x80	4,03						
12	BW112	150x80	4,67				BW112X200	200x125	7,45
13	BW113*	150x80	5,35						
14	BW114*	150x80	6,84				BW114X200*	200x125	9,86
15	BW115*	160x80	8,83						
16	BW116*	160x80	10,19				BW116X200*	200x125	14,61
18	BW118*	160x80	12,11				BW118X200*	200x125	16,65
20	BW120*	160x80	14,87						
22	BW122*	160x80	17,31						
24	BW124*	160x80	22,63						
25	BW125*	160x80	21,59						
30	BW130*	160x80	42,85						

D1 mm	EXTRA LONG SERIES								
	300 mm			400 mm			600 mm		
6	BW106X300	300x210	6,99	BW106X400	400x280	8,59			
8	BW108X300	300x210	6,99	BW108X400	400x280	9,46			
10	BW110X300	300x210	8,29	BW110X400	400x280	10,17	BW110X600	600x480	12,44
12	BW112X300	300x210	9,46	BW112X400	400x280	12,47	BW112X600	600x480	15,64
13	BW113X300*	300x210	11,19	BW113X400*	400x280	12,95	BW113X600*	600x480	16,48
14	BW114X300*	300x210	11,50	BW114X400*	400x280	13,73	BW114X600*	600x480	18,67
15	BW115X300*	300x210	15,50	BW115X400*	400x280	16,89	BW115X600*	600x480	22,20
16	BW116X300*	300x210	15,43	BW116X400*	400x280	18,10	BW116X600*	600x480	24,65
18	BW118X300*	300x210	17,51	BW118X400*	400x280	20,51	BW118X600*	600x480	28,12
20	BW120X300*	300x210	20,97	BW120X400*	400x280	23,92	BW120X600*	600x480	33,59
22	BW122X300*	300x210	26,56	BW122X400*	400x280	34,72	BW122X600*	600x480	40,53
24	BW124X300*	300x210	39,52	BW124X400*	400x280	39,96	BW124X600*	600x480	52,31
25	BW125X300*	300x210	39,96	BW125X400*	400x280	42,65	BW125X600*	600x480	52,86



12,70

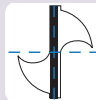
From Ø 13 mm all the drills have reduced shank

CARBIDE TIPPED HAMMER DRILLS IN PLASTIC BOXES

Ref. BW1



**DIN
8039**



**Standard
series**

Construction drill bits

Grey



REFERENCE	BW19325	BW19328	BW19318
QUANTITY	4	4	5
QUALITY	STANDARD	STANDARD	STANDARD
CONTENT	Ø 4 - 5 - 6 - 8 mm	Ø 5 - 6 - 8 - 10 mm	Ø 3 - 4 - 5 - 6 - 8 mm
PRICE €	12,66	12,65	14,07



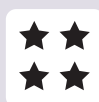
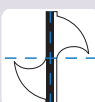
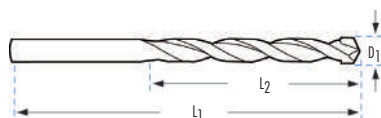
REFERENCE	BW19327	BW19434	BW19319
QUANTITY	5	7	8
QUALITY	STANDARD	STANDARD	STANDARD
CONTENT	Ø 4 - 5 - 6 - 8 - 10 mm	Ø 4 - 5 - 6 - 7 - 8 - 10 - 12 mm	Ø 3 - 4 - 5 - 6 - 7 - 8 - 9 - 10 mm
PRICE €	14,12	26,55	21,15

CUTTING SPEED R.P.M.

Soft material	Ø 3	Ø 5	Ø 8	Ø 10	Ø 12	Hard material	Ø 3	Ø 5	Ø 8	Ø 10	Ø 12
Brick						Marble					
Sandstone						Cement					
Plaster	2800	1750	1150	1000	800	Concrete	1800	1000	1000	600	500
Gypsum						Blackboard					
Asbestos						Limestone					
						Granite					

CARBIDE TIPPED HAMMER DRILLS PROFESSIONAL QUALITY

Ref. BW6


**DIN
8039**

**Professional
series**


SHORT SERIES				LONG SERIES					
D1 mm		L1x L2 mm	€	150 mm		200 mm			
				L1x L2 mm	€	L1x L2 mm	€		
3,0	BW603	70x30	3,59						
3,5	BW60350	70x30	3,86						
4,0	BW604	70x30	3,59						
4,5	BW60450	85x45	3,88						
5,0	BW605	85x45	3,64	BW605X150	150x80	5,01			
5,5	BW60550	85x45	3,95						
6,0	BW606	100x50	4,02	BW606X150	150x80	5,54	BW606X200	200x140	7,32
6,5	BW60650	100x50	4,59						
7,0	BW607	100x50	4,62	BW607X150	150x80	6,49			
8,0	BW608	120x70	4,88	BW608X150	150x80	7,74	BW608X200	200x140	8,24
9,0	BW609	120x70	6,00						
10,0	BW610	120x70	6,86	BW610X150	150x80	10,12	BW610X200	200x140	11,00
11,0	BW611	150x80	8,93						
12,0	BW612	150x80	10,52				BW612X200	200x140	12,76
13,0	BW613*	150x80	12,72						
14,0	BW614*	150x80	15,37				BW614X200*	200x140	21,07
15,0	BW615*	160x80	17,87						
16,0	BW616*	160x80	19,47				BW616X200*	200x140	24,46
18,0	BW618*	160x80	24,28				BW618X200*	200x140	31,33
20,0	BW620*	160x80	31,81						
22,0	BW622*	160x80	36,11						
24,0	BW624*	160x80	56,90						
25,0	BW625*	160x80	58,29						

EXTRA LONG SERIES

D1 mm	300 mm			400 mm			600 mm			1000 mm		
	L1x L2 mm	€		L1x L2 mm	€		L1x L2 mm	€		L1x L2 mm	€	
6,0	BW606X300	300x200	11,09	BW606X400	400x300	12,53	BW606X600	600x500	20,45			
8,0	BW608X300	300x200	12,23	BW608X400	400x300	12,79	BW608X600	600x500	25,56			
10,0	BW610X300	300x200	12,97	BW610X400	400x300	16,99	BW610X600	600x500	25,99			
12,0	BW612X300	300x200	16,74	BW612X400	400x300	21,32	BW612X600	600x500	32,66	BW612X1000	1000x900 96,15	
13,0	BW613X300*	300x200	19,59	BW613X400*	400x300	25,68				BW613X1000*	1000x900 101,52	
14,0	BW614X300*	300x200	23,82	BW614X400*	400x300	27,88	BW614X600*	600x500	38,98	BW614X1000*	1000x900 104,41	
15,0	BW615X300*	300x200	27,13	BW615X400*	400x300	32,60	BW615X600*	600x500	48,64	BW615X1000*	1000x900 109,30	
16,0	BW616X300*	300x200	29,46	BW616X400*	400x300	32,60	BW616X600*	600x500	46,76	BW616X1000*	1000x900 122,50	
17,0										BW617X1000*	1000x900 131,59	
18,0				BW618X400*	400x300	40,52	BW618X600*	600x500	59,83	BW618X1000*	1000x900 137,26	
20,0	BW620X300*	300x200	42,56**	BW620X400*	400x300	45,85	BW620X600*	600x500	70,13	BW620X1000*	1000x900 140,68	
22,0				BW622X400*	400x300	58,12	BW622X600*	600x500	87,73	BW622X1000*	1000x900 141,46	
24,0	BW624X300*	300x200	57,24**	BW624X400*	400x300	69,93	BW624X600*	600x500	107,46	BW624X1000*	1000x900 169,42	
25,0	BW625X300*	300x200	61,35**	BW625X400*	400x300	75,06	BW625X600*	600x500	115,66	BW625X1000*	1000x900 178,50	
26,0										BW626X1000*	1000x900 185,49	
28,0										BW628X1000*	1000x900 192,49	
30,0										BW630X1000*	1000x900 202,29	



From Ø 13 mm all the drills have reduced shank

** Till end of stock

CARBIDE TIPPED HAMMER DRILLS PROFESSIONAL QUALITY IN PLASTIC BOXES

Ref. BW6



**DIN
8039**



**Professional
series**

Construction drill bits

Grey



REFERENCE	BW69325	BW69328	BW69318	BW69327
QUANTITY	4	4	5	5
QUALITY	PROFESSIONAL SERIES	PROFESSIONAL SERIES	PROFESSIONAL SERIES	PROFESSIONAL SERIES
CONTENT	Ø 4 - 5 - 6 - 8 mm	Ø 5 - 6 - 8 - 10 mm	Ø 3 - 4 - 5 - 6 - 8 mm	Ø 4 - 5 - 6 - 8 - 10 mm
PRICE €	21,60	26,19	25,09	28,22



REFERENCE	BW69434	BW69319
QUANTITY	7	8
QUALITY	PROFESSIONAL SERIES	PROFESSIONAL SERIES
CONTENT	Ø 4 - 5 - 6 - 7 - 8 - 10 - 12 mm	Ø 3 - 4 - 5 - 6 - 7 - 8 - 9 - 10 mm
PRICE €	46,25	44,71

CUTTING SPEED R.P.M.

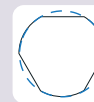
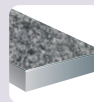
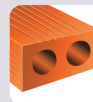
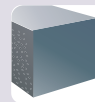
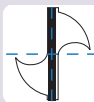
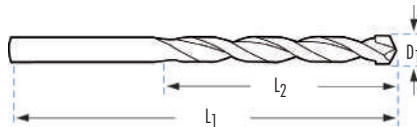
Soft material	Ø 3	Ø 5	Ø 8	Ø 10	Ø 12	Hard material	Ø 3	Ø 5	Ø 8	Ø 10	Ø 12
Brick						Marble					
Sandstone						Cement					
Plaster	3200	1900	1300	1100	900	Concrete	2100	1200	900	700	600
Gypsum						Blackboard					
Asbestos						Limestone					
						Granite					

CARBIDE TIPPED CONCRETE HAMMER DRILL EXTRA PROFESSIONAL QUALITY

Construction drill bits

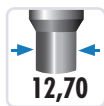
Grey

Ref. BW16


**Extra
Professional
series**


D1 mm	SHORT SERIES			LONG SERIES			EXTRA LONG SERIES						
		L1 x L2 mm	€		150 mm L1 x L2 mm	€		200 mm		400 mm			
								L1 x L2 mm	€		L1 x L2 mm	€	
4,0	BW1604	75x38	3,87										
5,0	BW1605	85x45	3,90	BW1605X150	150x100	5,40							
6,0	BW1606	100x55	4,31	BW1606X150	150x100	5,96	BW1606X200	200x150	7,88				
7,0	BW1607	100x55	4,97				BW1608X200	200x150	9,31				
8,0	BW1608	120x70	5,51	BW1608X150	150x100	8,75							
9,0	BW1609	120x70	6,78										
10,0	BW1610	120x70	7,76	BW1610X150	150x100	11,45	BW1610X200	200x150	12,44				
12,0	BW1612	150x80	11,89				BW1612X200	200x150	14,44				
14,0	BW1614*	150x80	17,38				BW1614X200*	200x150	23,83				
16,0	BW1616*	150x80	22,03				BW1616X200*	200x150	27,67				
18,0	BW1618*	160x80	27,46							BW1618X400*	400x350	45,82	
20,0	BW1620*	160x80	35,97							BW1620X400*	400x350	51,84	

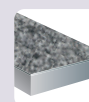
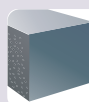
* From 13 mm Ø all the drills have reduced shank



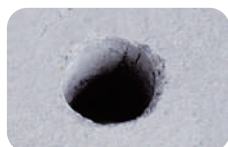
REFERENCE	BW169325	BW169327	BW169434
QUANTITY	4	5	7
QUALITY	EXTRA-PROFESSIONAL	EXTRA-PROFESSIONAL	EXTRA-PROFESSIONAL
CONTENT	Ø 4 - 5 - 6 - 8 mm	Ø 4 - 5 - 6 - 8 - 10 mm	Ø 4 - 5 - 6 - 7 - 8 - 10 - 12 mm
PRICE €	23,22	30,33	49,71

THREE EDGE MASONRY DRILL BIT DELTA 3 PLUS

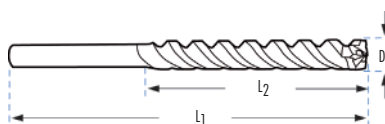
Ref. BW35



- Drill always with percussion mode
- Innovative geometry of the tip. 3 edge monoblock tip
- Centered, Rounded and accurate holes
- 3 flutes for an improved dust removal and an improved lifetime of the drill bit
- Minimum wear of the drill bit
- Less effort and higher performance



STANDARD



SHORT SERIES				LONG SERIES		
				200 mm		
D1 mm		L1x L2 mm	€		L1x L2 mm	€
5	BW3505	90x50	5,06	BW3505X150	150x100	8,95
6	BW3506	100x60	5,10	BW3506X150	150x100	9,12
8	BW3508	120x80	6,29	BW3508X200	200x150	11,15
10	BW3510	120x80	8,37	BW3510X200	200x150	14,78
12	BW3512	130x90	11,79	BW3512X200	200x150	16,09



REFERENCE	BW359328
QUANTITY	4
QUALITY	DELTA 3 PLUS
CONTENT	Ø 5 - 6 - 8 - 10 mm
PRICE €	30,88

CARBIDE TIPPED MULTI-PURPOSE HAMMER DRILLS

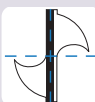
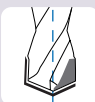
Construction drill bits

Grey

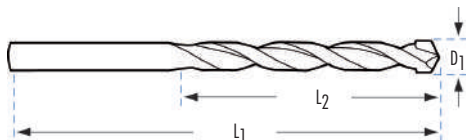
Ref. BW8



**DIN
8039**



Multi
purpose
Professional

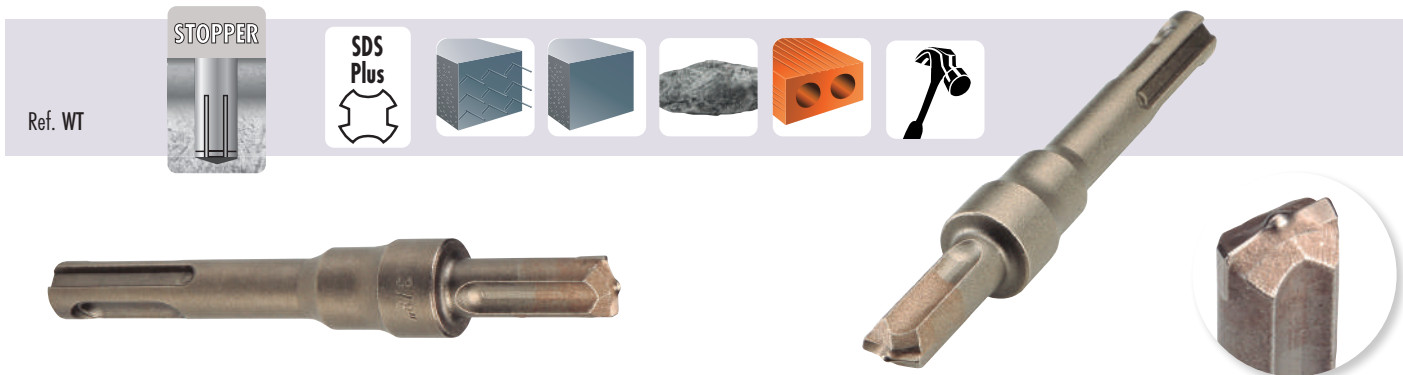


			BW8
	D1 mm	L1x L2 mm	€
BW804	4	70 x 30	7,44
BW805	5	85 x 45	7,55
BW806	6	100 x 50	8,65
BW806X150	6	150 x 50	10,36
BW807	7	100 x 50	9,93
BW808	8	120 x 70	10,92
BW808X150	8	150 x 70	12,36
BW809	9	120 x 70	12,49
BW810	10	120 x 70	16,12
BW810X150	10	150 x 70	18,12
BW812	12	150 x 80	17,29



REFERENCE	BW89325	BW89328	BW89327	BW89434
QUANTITY	4	4	5	7
QUALITY	MULTIPURPOSE PROF.	MULTIPURPOSE PROF.	MULTIPURPOSE PROF.	MULTIPURPOSE PROF.
CONTENT	Ø 4 - 5 - 6 - 8 mm	Ø 5 - 6 - 8 - 10 mm	Ø 4 - 5 - 6 - 8 - 10 mm	Ø 4 - 5 - 6 - 7 - 8 - 10 - 12 mm
PRICE €	37,70	48,28	53,93	83,51

SDS PLUS HAMMER DRILL WITH STOPPER FOR PREVIOUS HOLES FOR METALLIC ANCHORAGES



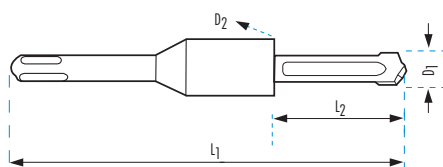
- Carbide tipped monoblock with self-centering.
- Hole centering, prevents the slide effect. More accuracy.
- Straight extraction flute. In short length the extraction volume is increased
- Depth stopper, control of the hole length
- Stopper which allows repetitive drill operations with full accuracy
- Better quality of the hole.

APPLICATIONS:

- Special for works with repetitive drilling operations which require depth control.
- Appropriate for the previous holes for placing metallic anchorages in concrete.
- Allows the assembly of fastening systems which require accurate and regular holes.
- Commonly used to install grandstands, refrigeration systems, rack systems, etc.

VERY IMPORTANT:

The material to drill must be solid, Concrete, Reinforced Concrete, Stone, Brick. If the previous hole is made in a lightweight material the anchorage will not bear up.



	WT					
	D1 mm	L1 mm	D2 mm	L2 mm	Thread Anchorage	€
WT08x27	8	103	16	27	M6	24,98
WT10x33	10	103	22	33	M8	28,12
WT12x43	12	113	22	43	M10	30,87
WT15x54	15	128	22	54	M12	39,61



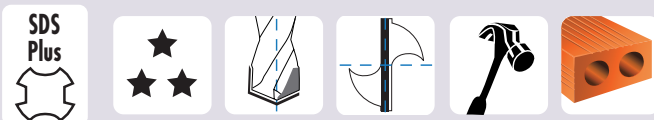
- Metal threaded anchorages, wedge anchor
Special for solid materials.

METAL THREADED ANCHORAGES

INTERNAL THREAD	PREVIOUS HOLE Ø (mm)	ANCHORAGE LENGTH (mm)
M6	8	25
M8	10	30
M10	12	40
M12	15	50

PROFESSIONAL HAMMER DRILL BITS SDS PLUS

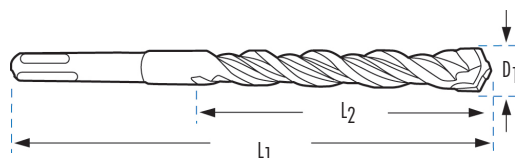
Ref. W08



- Self centering carbided tipped point.
- Higher durability.
- Spiral flutes for improved dust removal.
- Accurate drill holes thanks to reduced friction.
- Long lifetime thanks to minimum friction in flutes and head point.
- Easier drilling thanks to higher dust removal.
- For use in rotary hammer machines with SDS PLUS shank.

APPLICATIONS:

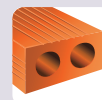
- Concrete and construction materials, marble, granite, blackboard, stone.



D1 mm	W08									
	L1 x L2 (mm)									
	110x50	160x100	200x150	250x200	300x250	450x400	600x550	800x750	1000x950	1400x1350
	€	€	€	€	€	€	€	€	€	€
3,00	6,13	6,13								
3,50	6,19									
4,00	6,51	7,03								
5,00	5,33	6,78	10,77	12,92	13,77	18,86				
5,50	6,22	7,23	12,91	15,72						
6,00	5,49	6,33	9,52	13,31	18,38	20,66				
6,50	6,57	7,13	14,77	15,13	19,48	21,57				
7,00	6,91	7,63	10,82			28,84				
8,00	6,73	6,96	8,60	11,52	18,83	25,66	44,63			
9,00		8,79	10,75	13,08						
10,00	7,22	8,65	10,48	12,65	17,36	27,53	40,44	73,32	95,79	
11,00		10,10	11,25	14,63						
12,00		9,70	11,93	14,68	21,81	27,81	41,57		92,42	
13,00		10,52	13,89	18,77						
14,00		13,31	17,20	18,93	23,34	30,86	45,86		108,66	
15,00		17,66		22,86		37,58				
16,00			21,54	22,77	25,01	36,70	49,29	78,94	123,36	174,56
17,00			28,92							
18,00			29,14		37,48	41,90	66,54		128,38	185,80
19,00			35,59		44,07					
20,00			33,31		43,96	54,23	75,12		132,87	207,03
22,00				41,80		60,04	85,80		134,11	241,86
24,00				49,15		74,55			175,68	
25,00				52,69		68,21	95,60		148,60	271,07
26,00				55,17		86,33				298,16
28,00				127,34		136,86	163,21		208,15	320,63
30,00				152,52		174,84	220,63		288,04	

PROFESSIONAL HAMMER DRILL BITS SDS PLUS

Ref. W08



W08 DRILLS 10 UNITS BOX



Ø mm	10 U.		
	L1 x L2 (mm)		
	110x50	160x100	200x150
	€	€	€
5,0	50,68	64,34	
6,0	52,14	60,12	90,33
8,0	65,75	66,28	83,60
10,0	70,35	82,15	99,68
12,0		92,03	113,38

Ex. W0806X110-10

W08 DRILLS 50 UNITS BOX



Ø mm	50 U.	
	L1 x L2 (mm)	
	160x100	
	€	
6,0	281,41	
8,0	295,08	

Ex. W0806X160-50



REFERENCE	W08D9358	W08D9412	W08D9319	W08D9320
QUANTITY	4	6	4	5
CONTENT	Ø 5 -6 -8 -10 x 110 mm	Ø 5-6-8x110 mm Ø 6-8-10x160 mm	Ø 5 -6 -8 -10 x 160 mm	Ø 5-6-x110 mm Ø 6-8-10x160 mm
PRICE €	30,38	46,51	34,34	39,34



REFERENCE	W08D0080	W08D0708
QUANTITY	7	6
CONTENT	Ø 5-6-8 x 110 mm Ø 6-8-10-12 x 160 mm	Ø 6 x 110 mm Ø 6-8-10-12-14 x 160 mm
PRICE €	57,05	58,30

PROFESSIONAL HAMMER DRILL BITS SDS PLUS

Construction drill bits

Grey

Ref. W05

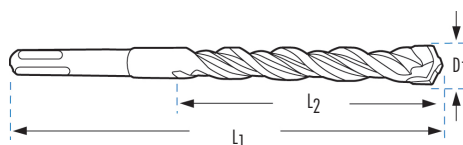

Professional series


- Self centering high performance carbided tipped point.
- Higher drilling speed and better durability.
- 4 spiral flutes for faster drilling and fast dust removal.
- Accurate drill holes thanks to reduced friction.
- Longer lifetime thanks to minimum friction in flutes and head point.

- Easier drilling thanks to faster drilling and dust removal.
- For use in rotary hammer machines with SDS PLUS shank.

APPLICATIONS:

- Concrete and construction materials, marble, granite, blackboard, stone.

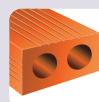
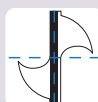


D1 mm	L1 x L2 (mm)										W05
	110x50 €	160x100 €	200x150 €	250x200 €	300x250 €	400x350 €	450x400 €	600x550 €	800x750 €	1000x950 €	
3,00		19,32 *									
3,50	15,04 *	15,40 *									
4,00	7,23	12,32									
5,00	5,93	7,54	11,97	16,02	18,26		37,37 *				
5,50	6,92	8,02	14,35	20,04 *							
6,00	6,10	7,04	10,58	15,70	21,63		35,63				
6,50	7,78	8,60	16,41	16,80							
7,00	7,78	8,60	13,78	18,13	22,91		32,65 *				
8,00	7,67	7,74	9,78	14,23	21,72	26,36	28,51	49,58		106,36	
9,00		9,92	12,67	14,53 *							
9,50		12,20									
10,00	8,24	9,60	11,65	14,74	19,81	28,25	30,59	44,93		117,82	
11,00		11,88	14,45	16,25 *	22,95						
12,00		10,77	13,25	16,31	24,23	30,02	31,75	46,35		119,36	
13,00		16,99	22,12	22,83	24,36	27,25	36,36				
14,00		18,77	19,12	21,35	28,52	30,25	34,28	50,94		120,73	
15,00		19,62	23,36	25,41	36,36		41,75 *				
16,00		21,21	23,93	26,32	29,79	36,36	40,77	54,77		137,07	
17,00			32,14 *		54,07 *		58,83 *				
18,00			32,38	34,25	43,15	45,36	46,56	75,34		164,19	
19,00			39,56 *		48,97 *		63,36 *				
20,00			37,00	39,36	50,85	55,36	60,25	83,46		172,82	
22,00			44,25	50,16	55,36	61,25	66,72	108,49		177,61	
24,00			56,31	58,99	65,36	75,75	82,84	108,36			
25,00			59,79	63,22	73,40	82,36	86,36	110,40		194,56	
26,00				66,20 *	83,99		95,91	119,36	135,37 *		
28,00					166,36		175,36				
30,00							222,25				

* Till end of stock

PROFESSIONAL HAMMER DRILL BITS SDS PLUS

Ref. W05



Professional series

Construction drill bits

Grey

W05 DRILLS 10 UNITS BOX

W05 DRILLS 50 UNITS BOX



Ø mm	10 U.				
	L1 x L2 (mm)				
	110x50	160x100	210x150	250x200	300x250
	€	€	€	€	€
4,0	65,07				
5,0	53,37	67,86			
6,0	54,90	63,36	95,22	141,30	194,67
7,0		77,40			
8,0	69,03	69,66	88,02	128,07	195,48
10,0	74,16	86,40	104,85	132,66	178,29
12,0		96,93	119,25	146,79	218,07
14,0		168,93	172,08	192,15	256,71
16,0		190,89	215,37	236,88	268,11



Ø mm	50 U.					
	L1 x L2 (mm)					
	110x50	160x100	200x150	250x200	300x250	
	€	€	€	€	€	€
4,0	307,28					
5,0	252,03	320,45				
6,0	259,25	299,20	449,65	667,25	919,28	
7,0		365,50				
8,0	325,98	328,95	415,65	604,78	923,10	
10,0		408,00	495,13	626,45	841,93	
12,0		457,73	563,13	693,18	1.029,78	
14,0		797,74	812,60	907,38	1.212,23	

Ex. W0506X110-10

Ex. W0506X160-50



REFERENCE	W05D9358	W05D9412	W05D9319	W05D9320
QUANTITY	4	6	4	5
CONTENT	Ø 5 - 6 - 8 - 10 x 110 mm	Ø 5 - 6 - 8 x 110 mm Ø 6 - 8 - 10 x 160 mm	Ø 5 - 6 - 8 - 10 x 160 mm	Ø 5 - 6 x 110 mm Ø 6 - 8 - 10 x 160 mm
PRICE €	33,56	51,10	37,53	42,97



REFERENCE	W05D0080	W05D0708
QUANTITY	7	6
CONTENT	Ø 5 - 6 - 8 x 110 mm Ø 6 - 8 - 10 - 12 x 160 mm	Ø 6 x 110 mm Ø 6 - 8 - 10 - 12 - 14 x 160 mm
PRICE €	62,72	66,50

4 EDGE HAMMER DRILL BITS (OPTIMAL CENTERING)

Ref. W55



4 Z

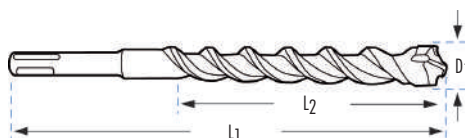

 Extra
 Professional
 series


4 EDGES

- 4 Carbide edges. High performance.
- Higher efficiency.
- Centering of the drill, accurate holes and finishing.
- Higher lifetime due to reduced friction.
- For use in rotary hammer machines with SDS PLUS shank.

APPLICATIONS:

- Concrete and construction materials, marble, granite, blackboard, stone.



W55



D1 mm	L1 x L2 mm									
	110x50 €	160x100 €	210x160 €	250x200 €	300x250 €	350x300 €	460x410 €	600x550 €	800x750 €	1000x950 €
5,0	8,24	10,26	15,39	17,67	23,17					
5,5	9,06	11,29	16,93	19,44						
6,0	8,45	10,27	14,17	16,96	23,26		37,98			
6,5	10,20	10,80	17,99	18,35	23,40		37,21			
7,0	11,22	11,88	18,11	20,18			40,92			
8,0	10,65	10,87	15,45	17,60	25,12		36,62	61,29		
9,0		11,95	17,01							
10,0	11,42	13,23	17,28	20,31	29,33	36,36	40,43	58,89	120,66	128,78
11,0		14,55	19,01	22,34						
12,0		14,94	18,39	22,92	30,79	36,36	44,06	67,58		123,42
13,0		17,36	23,29	25,21						
14,0		21,92	26,50	29,63	35,96	39,55	47,57	72,44		137,87
15,0		24,11		32,58			52,33			
16,0			35,11	36,22	39,73	44,22	56,13	78,38	103,91	145,93
17,0			38,62		43,70					
18,0			40,85	50,46	57,58		64,07	107,83		174,81
19,0			46,35		63,34		70,48			
20,0			52,09	54,01	68,82		82,95	119,47		183,99
22,0				62,65			91,82	149,30		189,09
24,0				73,69			114,01	166,11		202,25
25,0				92,42			104,30	173,25		215,42
26,0				158,71			166,57			
28,0				168,34			180,91	222,48		220,69
30,0				201,65			231,12	284,23		275,75
32,0				205,92			224,78			
35,0				211,80			258,67			
38,0				231,79			298,40			
40,0				272,70			340,33			

4 EDGE HAMMER DRILL BITS (OPTIMAL CENTERING)

Ref. W55



4 Z



Extra Professional series

W55 DRILLS 10 UNITS BOX



Ø mm	10 U.		
	L1 x L2 (mm)		
	110x50	160x100	210x150
	€	€	€
5,0	78,26	97,47	
6,0	80,26	97,58	134,66
8,0	101,24	103,24	146,87
10,0	108,46	125,66	164,18
12,0		141,87	174,73

Ex. W5506X110-10

W55 DRILLS 50 UNITS BOX



Ø mm	50 U.	
	L1 x L2 (mm)	
	160x100	
	€	
6,0	472,48	
8,0	499,91	

Ex. W5506X160-50



REFERENCE	W55D9358	W55D9412	W55D9319	W55D9320
QUANTITY	4	6	4	5
QUALITY	EXTRA PROFESSIONAL	EXTRA PROFESSIONAL	EXTRA PROFESSIONAL	EXTRA PROFESSIONAL
CONTENT	Ø 5 -6 -8 -10 x 110 mm	Ø 5-6-8x110 mm Ø 6-8-10x160 mm	Ø 5 -6 -8 -10 x 160 mm	Ø 5-6-x110 mm Ø 6-8-10x160 mm
PRICE €	44,38	68,73	50,24	57,62



REFERENCE	W55D0080	W55D0708
QUANTITY	7	6
QUALITY	EXTRA PROFESSIONAL	EXTRA PROFESSIONAL
CONTENT	Ø 5-6-8 x 110 mm Ø 6-8-10-12 x 160 mm	Ø 6 x 110 mm Ø 6-8-10-12-14 x 160 mm
PRICE €	84,51	87,53

DELTATOP PROFESSIONAL HAMMER DRILL BITS SDS PLUS SHANK WITH 3 CUTTING EDGE SOLID CARBIDE HEAD

Ref. W88


Super

DeltaTOP
 series

Improved drilling in reinforced concrete.

Drills into a concrete steel rebar when it does not cover more than 1/3 of the tip.

Exclusive features that offer superior performance to any other drill bit and reduces the cost per hole.

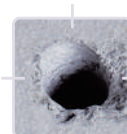
Penetrate through sheet plates.

Drill into metal deck plate up to 1mm thick and then concrete.

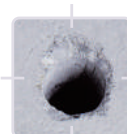
Innovative carbide head welding technology.

Supports continuous and great efforts and pressure in reinforced concrete.

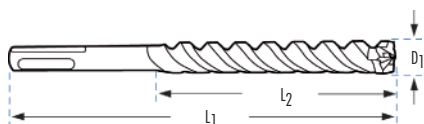
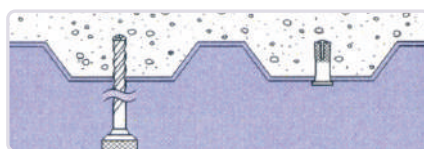
APPLICATIONS: Granite, marble, concrete, stone, brick.



Standard drill



DeltaTOP drill



D1 mm	L1 x L2 mm								W88
	120x50	170x100	220x150	270x200	320x250	370x300	470x400	600x550	€
3,00	11,46 *	11,91 *							
4,00	11,46 *	11,91 *							
5,00	10,81	12,10	21,16 *		29,71 *				
6,00	11,02	11,98	18,42	20,42	25,59		42,49 *		
6,50	13,64	14,22	18,48	24,08	29,79				
7,00	12,96 *	14,23 *	20,58 *		27,01				
8,00	12,78	13,35	17,14	20,09	28,18	32,67 *	42,64	54,43	
9,00		15,93	19,10		31,20				
10,00	14,97	15,58	20,02	23,27	31,83	34,66 *	45,80	61,90	
12,00		20,27	23,69	27,58	31,97		53,52	65,30	
13,00		21,63	28,00		39,88			76,66	
14,00		29,71	34,23	37,61	39,91	50,63 *	63,50	78,65	
15,00		32,30	43,82		41,11				
16,00		40,98	42,82	45,34	48,94		86,55	95,00	
18,00			47,70	62,59	72,36		105,12	110,40	
20,00			55,88	69,19	82,04		115,95	126,90	

* Till end of stock



Concrete



Concrete

DELTATOP PROFESSIONAL HAMMER DRILL BITS SDS PLUS SHANK WITH 3 CUTTING EDGE SOLID CARBIDE HEAD

Ref. W88



W88 DRILLS 10 UNITS BOX



Ø mm	L1 x L2 (mm)		
	120x50	170x100	220x150
	€	€	€
5,0	99,48	111,31	
6,0	100,30	107,81	169,49
8,0	117,57	122,82	157,70
10,0	137,71	143,38	184,18
12,0		184,48	217,98

Ex. W8806X110-10

W88 DRILLS 50 UNITS BOX



50 U.	
L1 x L2 (mm)	
Ø mm	170x100 €
6,0	527,08
8,0	600,74

Ex. W8806X160-50



REFERENCE **W88D9358**

CONTENT (x4) Ø 5-6-8-10 x 110 mm

PRICE € 55,20

REFERENCE **W88D9412**

CONTENT (x6) Ø 5-6-8x110mm Ø 6-8-10x160 mm

PRICE € 82,55

REFERENCE **W88D9319**

CONTENT (x4) Ø 5-6-8-10 x 160 mm

PRICE € 58,61

REFERENCE **W88D9320**

CONTENT (x5) Ø 5-6-x110mm Ø 6-8-10x160mm

PRICE € 69,28

REFERENCE **W88D0080**

CONTENT (x7) Ø 5-6-8 x 110 mm
Ø 6-8-10-12 x 160 mm

PRICE € 103,67



REFERENCE **W88D0708**

CONTENT (x6) Ø 6 x 110 mm
Ø 6 - 8 - 10 - 12 - 14 x 160 mm

PRICE € 109,79

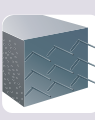


REINFORCED CONCRETE HAMMER DRILL BITS SDS PLUS SHANK WITH 4 CUTTING EDGE SOLID CARBIDE HEAD

Construction drill bits

Grey

Ref. W77



- 4 cutting edge solid carbide head.
- Maximum performance and durability in reinforced concrete.
- Drill faster and easier in high resistance reinforced concrete, with the best drill.
- SDS-Plus Shank
- Faster dust removal thanks to its 4 flutes
- APPLICATIONS: Reinforced concrete, concrete and masonry.

4 CUTTING EDGE SOLID CARBIDE HEAD

Point specially designed for reinforced concrete.



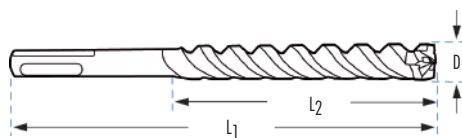
Self-centering 90° angled point for perfectly centered hole



4 flute high performance design increasing dust removal volume and decreasing drill wear



Side wear marks



W77

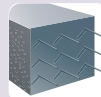
D1 mm	L1 x L2 mm										
	115x50	165x100	215x150	250x200	265x200	315x250	365x300	450x400	465x400	600x550	1000x950
	€	€	€	€	€	€	€	€	€	€	€
3,50	12,13	13,65									
4,00	13,17	13,79									
5,00	11,14	13,26	22,37		22,76	28,10			39,08		
5,50	12,48	14,05			23,77	31,24			42,23		
6,00	11,14	12,17	20,72		22,99	26,01			39,08		
6,50	14,44	15,86	18,68		27,48	33,36			55,42		
7,00	15,22	16,64	19,30		26,67						
8,00	14,44	14,60	17,43		23,20	32,02	41,13		49,84		
9,00		14,60	19,65								
10,00	16,95	17,19	20,49		25,82	32,16	42,29		51,15	63,95	138,78
11,00		19,49	23,39		27,58						
12,00		20,64	24,18		28,38	32,31	52,12		54,62	73,92	155,61
13,00		22,64	28,70		34,38						
14,00		30,38	34,53		38,46	40,74	54,22		64,83	79,05	171,68
15,00		37,21			49,92				69,28		
16,00			44,27		50,22	51,79			88,22	96,73	175,21
17,00			78,27			107,88					
18,00				90,45				111,73		144,82	291,93
20,00				106,18				118,38		234,73	334,89
22,00				130,39				173,50		234,73	354,62
24,00								193,93			
25,00								197,86		289,62	403,13
28,00								220,38			
30,00								235,49			

REINFORCED CONCRETE HAMMER DRILL BITS SDS PLUS SHANK WITH 4 CUTTING EDGE SOLID CARBIDE HEAD

Ref. W77



4 Z



W77 DRILLS 10 UNITS BOX



Ø mm	10 U. L1 x L2 (mm)		
	115x50 €	165x100 €	215x150 €
5,0	100,31	119,38	
6,0	100,31	109,49	186,49
8,0	129,98	131,39	156,82
10,0	152,58	154,70	184,37
12,0		185,78	217,57

Ex. W7706X110-10

W77 DRILLS 50 UNITS BOX



Ø mm	50 U. L1 x L2 (mm)
	165x100 €
6,0	529,19
8,0	635,04

Ex. W7706X160-50



REFERENCE	W77D9358	W77D9412	W77D9319	W77D9320
QUANTITY	4	6	4	5
CONTENT	Ø 5 - 6 - 8 - 10 x 115 mm	Ø 5 - 6 - 8 x 115 mm Ø 6 - 8 - 10 x 165 mm	Ø 5 - 6 - 8 - 10 x 165 mm	Ø 5 - 6 x 115 mm Ø 6 - 8 - 10 x 165 mm
PRICE €	59,31	87,70	62,84	72,81



REFERENCE	W77D0080	W77D0708
QUANTITY	7	6
CONTENT	Ø 5 - 6 - 8 x 115 mm Ø 6 - 8 - 10 - 12 x 165 mm	Ø 6 x 115 mm Ø 6 - 8 - 10 - 12 - 14 x 165 mm
PRICE €	109,19	113,98

DOUBLE FLUTE MULTIFUNCTION CARBIDE TIPPED DRILL FOR SDS PLUS HAMMER

Ref. W99


**DIN
8039**

**Multi
purpose
Professional**


- **SPECIAL SDS PLUS Short Shank** which allows drilling light materials.
 - **The Short Shank produces a low impact in the material to drill;** the solution to drill light materials as bricks, tiles, slates...
 - High performance solid carbide tipped special to drill in all kind of materials.
 - Double helix flute to enhance the extraction of the drilling dust.
- APPLICATIONS:**
- Low impact geometry to ensure a high performance in materials as tiles, bricks, cellular concrete.
 - Particularly suitable to place anchorages under tiles ensuring the multi drilling; first tile and afterwards the concrete to install the anchorage under the roof.



New SDS PLUS Shank
low impact.

D1 mm	W99				
	L1 x L2 mm				
	110 x 60 €	160 x 110 €	210 x 160 €	260 x 210 €	400 x 350 €
4,00	16,28	20,94			
5,00	10,07	12,82	20,34		
6,00	10,37	11,96	17,98	26,68	
8,00	13,05	13,15	16,63	24,18	
10,00	14,00	16,32	19,80	25,07	
12,00		18,32	22,53	27,73	
14,00		29,56	32,50	36,29	
16,00		33,13	40,68	44,73	52,36
18,00					58,36
20,00					65,21
22,00					76,36



Drills all kind of light building materials.

Particularly suitable to place anchorages under tiles ensuring the multi drilling; first tile and afterwards the concrete to install the anchorage under the roof.

Specially sharpened solid carbide tipped for universal use in a wide variety of materials. Ideal to drill light building materials.

Special SDS PLUS short shank to reduce the impact in light materials avoiding to damage them.

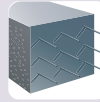
Creation of perfect holes in surfaces where other drills have unexpected breaks.

REBAR CUTTER

Ref. REB



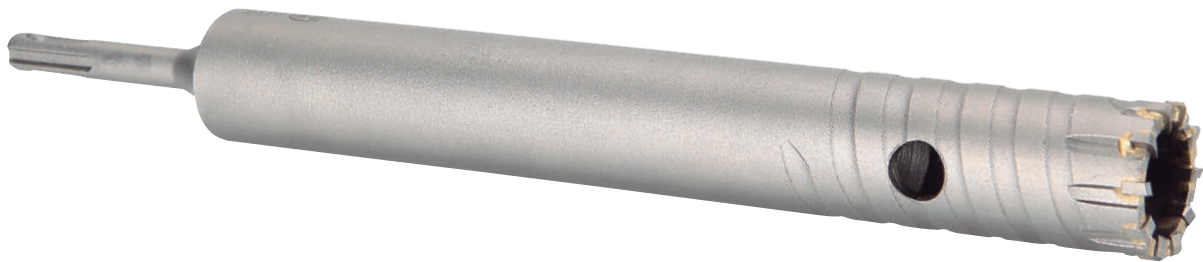
ROTATION



**Z
4-10**



1. Use the Rebar cutter with water and only in rotation mode.
2. Once the rebar is cut, remove the metal chips from the hole with a magnet. If not, the hammer drill you will use to drill the concrete, won't be able to work properly.



					REB
	D1 mm	L1 mm	L2 mm	Z	€
REB10X300	10	300	80	4	37,00
REB12X300	12	300	80	4	40,11
REB14X300	14	300	80	4	44,17
REB16X300	16	300	80	6	53,00
REB18X300	18	300	80	6	56,47
REB20X300	20	300	80	6	57,78
REB22X300	22	300	80	8	65,09
REB26X300	26	300	80	8	70,16
REB28X300	28	300	80	10	76,75
REB32X300	32	300	80	10	86,68



NEW MODULAR DRILLING SYSTEM FOR PROFESSIONAL USE

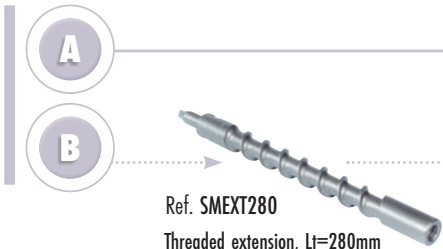
**3.000 mm
CUTTING
CAPACITY**

NEW



Serie
Modular
Drilling

DRILL easily up to 3 metres depth, in diameters from 26mm to 150mm.
ADD as many extensions as you need to obtain the required drilling length.
COMBINE SDS MAX arbor with extensions, drill bits, drilling heads or core bits to reach extremely long and inaccessible drilling depths.
MAXIMUM RECOMMENDED LENGTH, 3 METERS.



EXAMPLES OF AVAILABLE COMBINATIONS

COMBINATION FOR EXTENDABLE 4-EDGE CONCRETE DRILL BIT, Ø 26-32 mm



COMBINATION FOR EXTENDABLE BREAKTHROUGH DRILL BIT Ø 35-90 mm



COMBINATION FOR EXTENDABLE CORE BIT, Ø 50-125 mm



COMBINATION FOR EXTENDABLE 1:8 TAPER CLAMPING CORE BIT, Ø 30-150 mm



NEW MODULAR DRILLING SYSTEM FOR PROFESSIONAL USE



- For drilling depths greater than 720mm, we recommend using a pre-drill bit equal to at least half the final measurement to avoid breakage.

Serie Modular Drilling

SDS MAX THREADED ADAPTER



SMADMAX		
SDS Max	L1 mm	€
SMADMAX250	250	140,20
SMADMAX450	450	230,07
SMADMAX850	850	424,18

THREADED EXTENSION



SMEXT			
	L1 mm	D1 mm	€
SMEXT280	280	25	181,54

- Includes 1 built-in SM2 connecting screw.

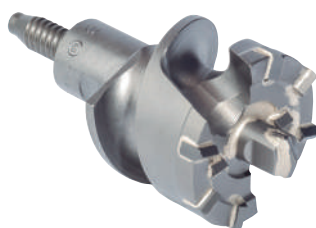
4-EDGE THREADED CONCRETE DRILL BIT



SM			
	D1 mm	L1 mm	€
SM26	26	300	275,14
SM28	28	300	293,84
SM30	30	300	312,53
SM32	32	300	331,22

- Includes 1 built-in SM2 connecting screw.

BREAKTHROUGH DRILL BIT



SM		
	D1 mm	€
SM35	35	466,53
SM40	40	516,14
SM45	45	568,26
SM50	50	590,62
SM55	55	615,42
SM60	60	652,67
SM68	68	689,84
SM80	80	799,05
SM90	90	1.007,47

- Includes 1 built-in SM2 connecting screw.

THREADED CORE BIT



70 mm CUTTING CAPACITY

SMCC			
	D1 mm	Z	€
SMCC50	50	7	260,76
SMCC65	65	8	330,43
SMCC80	80	9	385,14
SMCC90	90	10	431,37
SMCC105	105	11	587,89
SMCC125	125	12	645,12

- Does not include SM2 connecting screw required for connection to the threaded extension or SDS Max adapter.



Ref. SM2

Ref. SM3

Ref. SM4

CONNECTING SCREW

THREADED ARBOR FOR CORE BIT CLA 1:8

THREADED PILOT DRILL

SM			
	D1 mm	L1 mm	€
SM2	14	62	22,29
SM3*	26	90	131,50
SM4*	11	150	67,94

- Includes 1 built-in SM2 connecting screw.

- When using the system without a pilot drill (SM4), the use of the union screw (SM2) will be necessary.

SDS MAX HAMMER DRILL BITS

Ref. QT



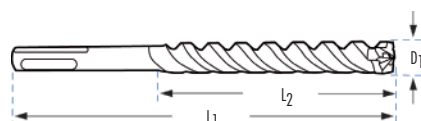
4 EDGES

- Self centering high performance carbided tipped point.
- Higher drilling speed and better durability.
- 4 spiral flutes for faster drilling and fast dust removal.
- Accurate drill holes thanks to reduced friction.
- Longer lifetime thanks to minimum friction in flutes and head point.

- Easier drilling thanks to faster drilling and dust removal.
- For use in rotary hammer machines with SDS Max shank.

APPLICATIONS:

- Concrete and construction materials, marble, granite, blackboard, stone.



	QT		
	D1 mm	L1x L2 mm	€
QT12X340	12	340x200	57,63
QT12X540	12	540x400	67,91
QT12X740	12	740x600	85,97
QT12X940	12	920x800	125,48
QT14X340	14	340x200	62,62
QT14X540	14	540x400	71,62
QT14X740	14	740x600	101,53
QT14X940	14	920x800	130,89
QT15X340	15	340x200	65,72
QT15X540	15	540x400	72,68
QT16X340	16	340x200	78,48
QT16X540	16	540x400	89,02
QT16X740	16	740x600	105,24
QT16X940	16	920x800	131,96
QT16X1340	16	1320x1200	292,10
QT17X340	17	340x200	83,09
QT17X540	17	540x400	94,89
QT18X340	18	340x200	85,34
QT18X540	18	540x400	96,64
QT18X720	18	740x600	115,54
QT18X940	18	920x800	133,89
QT18X1320	18	1320x1200	297,85

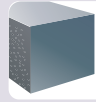
	QT		
	D1 mm	L1x L2 mm	€
QT19X320	19	320x200	88,15
QT19X520	19	520x400	98,27
QT20X320	20	320x200	90,57
QT20X520	20	520x400	98,58
QT20X720	20	720x600	132,30
QT20X920	20	920x800	152,19
QT20X1320	20	1320x1200	301,70
QT22X320	22	320x200	91,74
QT22X520	22	520x400	105,46
QT22X720	22	720x600	135,21
QT22X920	22	920x800	159,77
QT22X1320	22	1320x1200	306,38
QT24X320	24	320x200	95,83
QT24X520	24	520x400	112,28
QT25X320	25	320x200	98,88
QT25X520	25	520x400	112,96
QT25X720	25	720x600	151,80
QT25X920	25	920x800	175,25
QT25X1320	25	1320x1200	319,49
QT26X320	26	320x200	120,59
QT26X520	26	520x400	124,26
QT28X320	28	320x200	122,38

	QT		
	D1 mm	L1x L2 mm	€
QT28X520	28	520x400	130,52
QT28X720	28	720x600	167,45
QT28X920	28	920x800	209,65
QT28X1320	28	1320x1200	363,87
QT30X320	30	320x200	123,29
QT30X520	30	520x400	135,92
QT32X320	32	320x200	133,25
QT32X520	32	520x400	164,33
QT32X720	32	720x600	219,50
QT32X920	32	920x800	265,70
QT35X520	35	520x400	196,17
QT35X720	35	720x600	222,94
QT35X920	35	920x800	318,74
QT35X1320	35	1320x1200	471,19
QT38X520	38	520x400	237,62
QT38X720	38	720x600	279,56
QT40X520	40	520x400	283,30
QT40X720	40	720x600	323,29
QT40X920	40	920x800	350,26
QT40X1320	40	1320x1200	561,23



SDS MAX HAMMER DRILL BITS

Ref. AX



Professional series



4 EDGES



2 EDGES

	D1 mm	L1x L2 mm	AX €
AX12.0X340	12	340x200	83,27
AX12.0X540	12	540x400	98,13
AX14.0X340	14	340x200	90,49
AX14.0X540	14	540x400	103,50
AX15.0X340	15	340x200	94,95
AX15.0X540	15	540x400	115,51
AX16.0X340	16	340x200	113,40
AX16.0X540	16	540x400	128,63
AX16.0X740	16	690x550	152,06
AX16.0X940	16	920x780	190,67
AX18.0X340	18	340x200	117,36
AX18.0X540	18	540x400	139,63
AX18.0X720	18	690x550	166,95
AX18.0X940	18	920x780	193,46
AX19.0X320	19	340x200	127,38
AX19.0X540	19	540x400	142,00
AX20.0X320	20	340x200	119,65
AX20.0X520	20	540x400	142,44
AX20.0X720	20	690x550	191,17
AX20.0X920	20	920x780	219,91
AX20.0X1320	20	1300x1160	401,07
AX20.0X1500	20	1500x1360	435,36
AX22.0X320	22	340x200	132,56
AX22.0X520	22	540x400	152,38
AX22.0X720	22	690x550	195,38
AX22.0X920	22	920x780	230,87
AX22.0X1320	22	1300x1160	442,71
AX22.0X2000	22	1925x1785	731,90
AX22.0X2500	22	2500x2360	1.222,22
AX22.0X3000	22	3000x2860	1.522,85
AX22.0X3500	22	3500x3360	1.719,50
AX22.0X3850	22	3850x3710	1.965,36
AX24.0X320	24	340x200	138,48
AX24.0X520	24	540x400	162,23

	D1 mm	L1x L2 mm	AX €
AX24.0X720	24	690x550	215,36
AX24.0X920	24	920x780	241,25
AX24.0X1500	24	1500x1360	441,15
AX25.0X320	25	340x200	142,88
AX25.0X520	25	540x400	163,23
AX25.0X720	25	690x550	219,35
AX25.0X920	25	920x780	253,22
AX25.0X1320	25	1300x1160	460,96
AX25.0X1500	25	1500x1360	601,32
AX25.0X2000	25	1925x1785	775,90
AX25.0X2500	25	2500x2360	1.275,30
AX25.0X3000	25	3000x2860	1.723,73
AX25.0X3500	25	3500x3360	2.128,19
AX25.0X3850	25	3850x3710	2.553,08
AX26.0X320	26	340x200	174,23
AX26.0X520	26	540x400	177,82
AX26.0X720	26	690x550	235,36
AX26.0X920	26	920x780	275,75
AX28.0X320	28	340x200	175,68
AX28.0X520	28	540x400	188,60
AX28.0X720	28	690x550	241,96
AX28.0X920	28	920x780	302,94
AX28.0X1320	28	1300x1160	525,77
AX28.0X1500	28	1500x1360	655,36
AX30.0X320	30	340x200	178,15
AX30.0X520	30	540x400	196,40
AX30.0X720	30	690x550	272,36
AX30.0X920	30	920x780	322,25
AX32.0X320	32	340x200	203,03
AX32.0X520	32	540x400	237,45
AX32.0X720	32	690x550	285,74
AX32.0X920	32	920x780	345,88
AX32.0X1320	32	1300x1160	580,35
AX32.0X1500	32	1500x1360	659,39

	D1 mm	L1x L2 mm	AX €
AX35.0X320	35	340x200	241,25
AX35.0X520	35	540x400	255,38
AX35.0X720	35	690x550	290,22
AX35.0X920	35	920x780	414,93
AX35.0X1320	35	1300x1160	613,37
AX36.0X320	36	340x200	285,36
AX36.0X520	36	540x400	290,36
AX36.0X720	36	690x550	355,25
AX36.0X920	36	920x780	435,36
AX36.0X1500	36	1500x1360	716,56
AX38.0X320	38	340x200	309,36
AX38.0X520	38	540x400	318,36
AX38.0X720	38	690x550	377,66
AX38.0X920	38	920x780	444,44
AX40.0X320	40	340x200	342,33
AX40.0X520	40	540x400	368,78
AX40.0X720	40	690x550	436,73
AX40.0X920	40	920x780	455,96
AX40.0X1500	40	1500x1360	876,68
AX42.0X320	42	340x200	389,58
AX42.0X520	42	540x400	401,25
AX42.0X720	42	690x550	487,99
AX42.0X920	42	920x780	496,36
AX42.0X1320	42	1300x1160	654,38
AX42.0X1500	42	1500x1360	920,97
AX45.0X320	45	340x200	441,84
AX45.0X520	45	540x400	481,25
AX45.0X720	45	690x550	514,49
AX45.0X920	45	920x780	591,25
AX45.0X1320	45	1300x1160	689,90
AX45.0X1500	45	1500x1360	1.013,18
AX52.0X520	52	540x400	558,28
AX52.0X720	52	690x550	587,15



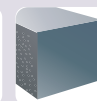
Construction drill bits

Grey

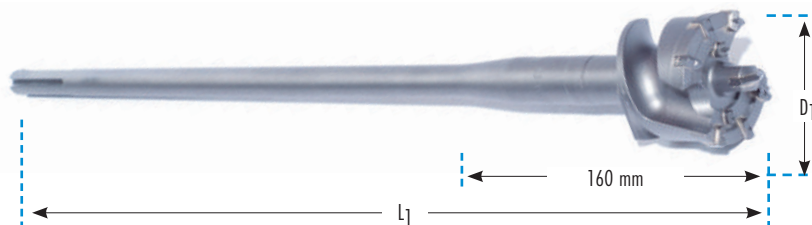
SDS MAX BREAKTHROUGH ONE PIECE DRILL BITS FOR DRILLING LARGE DIAMETERS FROM Ø 45 TO 80 MM

	D1 mm	L1x L2 mm	AX €
AX45.0X590	45,0	590x450	567,45
AX45.0X990	45,0	990x850	611,14
AX50.0X590	50,0	590x450	599,36
AX50.0X990	50,0	990x850	653,36
AX55.0X590	55,0	590x450	635,17
AX55.0X990	55,0	990x850	697,84
AX65.0X590	65,0	590x450	702,42
AX65.0X990	65,0	990x850	789,39
AX80.0X590	80,0	590x450	821,93
AX80.0X990	80,0	990x850	960,97

Ref. AX



Professional series

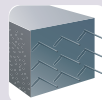


REINFORCED CONCRETE HAMMER DRILL BITS SDS MAX SHANK WITH 4 CUTTING EDGE SOLID CARBIDE HEAD

Ref. X4AX



4 Z

High
Performance

Ø 12-28



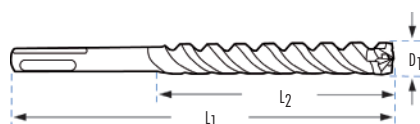
Ø 30-45



- Maximum performance and durability in reinforced concrete.
- Drill faster and easier in high resistance reinforced concrete, with the best drill.
- SDS-Max Shank.
- Faster dust removal thanks to its 4 flutes. APPLICATIONS: Reinforced concrete, concrete and masonry

4 CUTTING EDGE SOLID CARBIDE HEAD

- Point specially designed for reinforced concrete.
- Self-centering 90° angled point for perfectly centered hole
- High performance design increasing dust removal volume and decreasing drill wear
- Side wear marks



X4AX			
	D1 mm	L1x L2 mm	€
X4AX12X340	12	340x200	114,47
X4AX12X540	12	540x400	134,97
X4AX12X740	12	740x600	191,35
X4AX12X940	12	940x800	256,28
X4AX14X340	14	340x200	127,28
X4AX14X540	14	540x400	152,06
X4AX14X740	14	740x600	203,32
X4AX14X940	14	940x800	259,70
X4AX16X340	16	340x200	137,54
X4AX16X540	16	540x400	160,60
X4AX16X740	16	740x600	210,15
X4AX16X940	16	940x800	263,11
X4AX18X340	18	340x200	142,32
X4AX18X540	18	540x400	169,65
X4AX18X740	18	740x600	216,81
X4AX18X940	18	940x800	263,80
X4AX20X320	20	320x200	149,84
X4AX20X520	20	520x400	172,56
X4AX20X720	20	720x600	220,58
X4AX20X920	20	920x800	271,32
X4AX20X1300	20	1300x1160	485,25
X4AX20X1500	20	1500x1360	500,66
X4AX22X320	22	320x200	160,26
X4AX22X520	22	520x400	181,96
X4AX22X640	22	540x400	215,36
X4AX22X720	22	690x550	229,63

X4AX			
	D1 mm	L1x L2 mm	€
X4AX22X920	22	920x800	275,07
X4AX22X1300	22	1300x1160	509,12
X4AX24X320	24	320x200	174,44
X4AX24X520	24	520x400	192,04
X4AX24X720	24	690x550	247,66
X4AX24X920	24	920x780	277,44
X4AX24X1500	24	1500x1360	507,32
X4AX25X320	25	320x200	174,44
X4AX25X520	25	520x400	201,78
X4AX25X720	25	720x600	263,80
X4AX25X920	25	920x800	327,87
X4AX25X1300	25	1300x1160	530,10
X4AX25X1500	25	1500x1360	610,36
X4AX26X320	26	320x200	197,66
X4AX26X520	26	520x400	227,97
X4AX26X720	26	690x550	270,66
X4AX26X920	26	920x780	333,36
X4AX28X320	28	320x200	203,50
X4AX28X520	28	520x400	230,22
X4AX28X720	28	720x600	272,04
X4AX28X920	28	920x800	343,69
X4AX28X1300	28	1300x1160	604,64
X4AX28X1500	28	1500x1360	673,59
X4AX30X320	30	340x200	204,87
X4AX30X520	30	540x400	241,25
X4AX30X720	30	690x550	313,21

X4AX			
	D1 mm	L1x L2 mm	€
X4AX30X920	30	920x780	370,59
X4AX32X320	32	340x200	233,48
X4AX32X520	32	540x400	273,07
X4AX32X720	32	690x550	328,60
X4AX32X920	32	920x780	397,76
X4AX32X1300	32	1300x1160	667,40
X4AX32X1500	32	1500x1360	758,30
X4AX35X320	35	340x200	294,76
X4AX35X520	35	540x400	311,31
X4AX35X720	35	690x550	333,75
X4AX35X920	35	920x780	477,17
X4AX35X1300	35	1300x1160	705,38
X4AX36X320	36	340x200	333,75
X4AX36X520	36	540x400	346,36
X4AX36X720	36	690x550	408,54
X4AX36X920	36	920x780	500,66
X4AX36X1500	36	1500x1360	824,04
X4AX38X320	38	340x200	365,25
X4AX38X520	38	540x400	386,68
X4AX38X720	38	690x550	434,31
X4AX38X920	38	920x780	511,11
X4AX40X320	40	340x200	393,68
X4AX40X720	40	690x550	502,24
X4AX42X320	42	340x200	448,01
X4AX45X320	45	340x200	508,12
X4AX45X520	45	540x400	591,66



ADAPTORS WITH SLOT LOCKING DEVICE FOR FITTING HAMMER DRILL BITS WITH SDS PLUS SHANK



SDS-PLUS EXIT



SDS-MAX SHANK

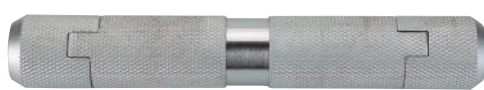
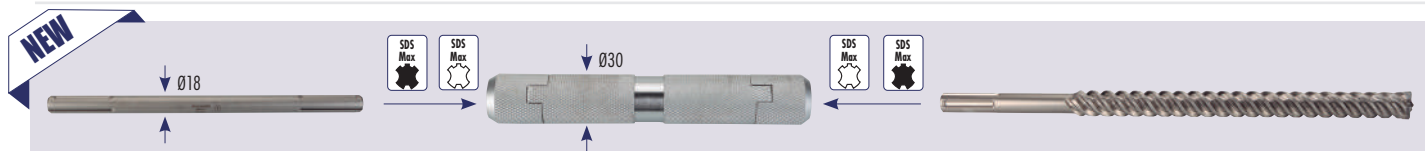


This mechanism was designed to use SDS PLUS Drills, till 18 mm maximum diameter, which are not available with SDS-MAX shank. The lifetime and performance of these adaptors will depend on their adequate use

SHANK		MACHINE TYPE (SDS-PLUS EXIT IN ALL CASES)		€
QFMX	SDS-MAX	All machines with SDS MAX shank		156,36
QFK2 HEX. 14 mm	14 mm Hexagonal shank	PETIT KANGO	501 - 637 - 430C	156,36

SDS-PLUS & SDS-MAX ADAPTOR

SDS-MAX



	Ø mm	L mm		€
HMAX	30	-	Connector SDS-MAX	106,35



	Ø mm	L mm		€
MMAX1	18	320	SDS-MAX Bar	25,36
MMAX2		750	SDS-MAX Bar	56,44
MMAX3		1100	SDS-MAX Bar	74,11

SDS-PLUS



	Ø mm	L mm		€
HPLUS	21	-	Connector SDS-MAX	89,36

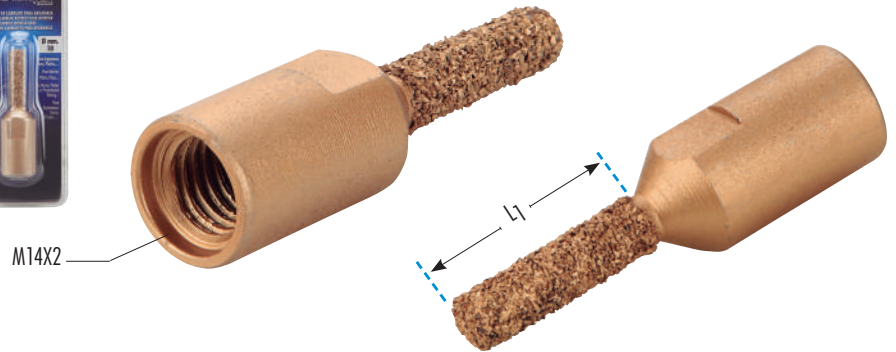


	Ø mm	L mm		€
MPLUS1	10	250	SDS-MAX Bar	15,36
MPLUS2		350	SDS-MAX Bar	21,28
MPLUS3		500	SDS-MAX Bar	26,36

CARBIDE MORTAR RAKE
**CARBIDE
GRIT**

Ref. BW33

To remove the mortar between the bricks before grouting
Can be used on angular grinder with M14x2.00 threads



				BW33
	Thread mm	L1 mm	D1 mm	€
BW3308	M14x2	33	8	20,63
BW3310	M14x2	33	10	23,88
BW3312	M14x2	33	12	28,38

CLAIM ACCEPTANCE

The concrete drill bit may be damaged in the following situations:

- Continue working when the tool is worn.
- When drilling in improper material.
- When drilling deeper than the flute's length.
- When the drill bit is used with an improper machine.

How can I check the wear limit of drill bits?

- Check the state and wear level of the carbide tip.
- Verify the state of the drill's flutes.
- The drill holder of the power tool is a good indicator of wear.



Carbide tip worn out

LOOSE
CARBIDE TIP

Happens when the drill is still being used even if completely worn. The heat generated can melt the brazing and loosen the carbide insert.

NON-ACCEPTABLE CLAIM



FLUTE RUPTURE

The metal fatigue has worn out the tip and, if used beyond this point, can lead to a flute breach.

NON-ACCEPTABLE CLAIM



Carbide tip worn out



FLUTE RUPTURE

Flute rupture caused by insufficient heat treatment (carbide tip is visibly not worn).

ACCEPTABLE CLAIM



Carbide tip in good condition



FLUTE RUPTURE

Drilling over the flute length causes the dust channel to clog and the subsequent overload results in flute breach. The non-fluted part of the drill shows unusual wear when it should be clear.

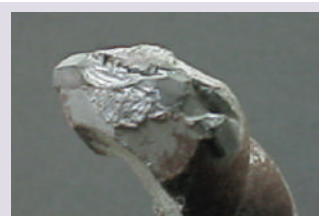
NON-ACCEPTABLE CLAIM



HEAD BREACH

Can be due to operator drilling over the useful length or possibly keeping on using a worn out drill until rupture.

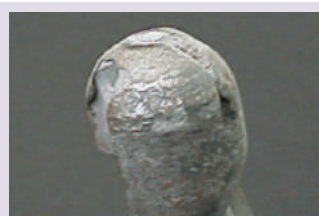
NON-ACCEPTABLE CLAIM



CARBIDE TIP
BREACH

Due to the tip violently impacting very hard bodies like the metal rebar of reinforced concrete.

NON-ACCEPTABLE CLAIM





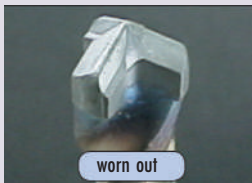




CARBIDE
TIPPED CRACK

The tip crack was caused by the hard material, then drilling continued as it is.

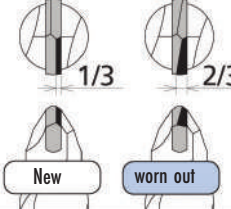
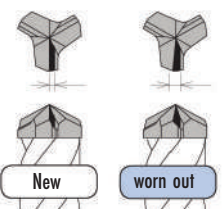
NON-ACCEPTABLE CLAIM



CLAIM ACCEPTANCE FOR DELTATOP DRILL BITS


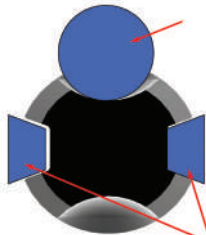
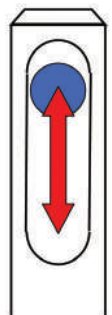

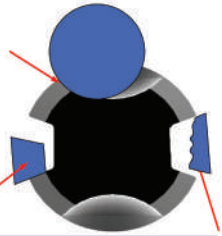


 <p>worn out</p>	<p>USUAL LIFE OF DELTATOP BIT</p>	<p>When the tip's ridge line of the drill bits looks like the picture, it is considered worn out (see left)</p> <p>NON-ACCEPTABLE CLAIM</p> 
 <p>worn out</p>	<p>USUAL LIFE OF DELTATOP BIT</p>	<p>The shank part of the drill bit is considered worn out when it is burnt blue (Used with only rotation or used after the tip has worn out). The shank of the drill bit could turn blue also when drilling on extremely hard material.</p> <p>NON-ACCEPTABLE CLAIM</p> 
 <p>accepted worn out</p>	<p>LOOSE DELTATOP CARBIDE TIP</p>	<p> If the head shows burnt blue areas, it means the operator has continued working with a worn out drill bit. The heat generated has melted the brazing and caused the carbide insert to loosen.</p> <p>NON-ACCEPTABLE CLAIM</p> <p> However, when the tip is detached at the early stage without having the flute turning blue, this claim will be accepted.</p> <p>ACCEPTABLE CLAIM</p>

HOW TO VERIFY THE DRILL BIT'S WEAR LEVEL ?

	<p>When the tip's ridge line of the drill bits looks like the picture, it is considered worn out (see left).</p>		<p>When the tip's ridge line of the drill bits looks like the picture, it is considered worn out (see left).</p>
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CLAIM ACCEPTANCE

DYSFUNCTION AT THE POWER CHUCKS SDS PLUS NOTCHES

<p>POWER TOOL CHUCK IN GOOD CONDITION </p>  <p>Steel ball, responsible for axial fixing.</p> <p>Trapezoidal noses responsible for rotation.</p>  <p>Axial movement of the drill is correct.</p>	<p>DAMAGED POWER TOOL CHUCK </p>  <p>A worn out trapezoidal does not transmit the rotation movement correctly, thus forcing the ball to transmit rotation as well as axial movement. The ball impacts and forces against the notch, damaging the chuck.</p> <p>Worn out trapezoidal nose.</p> <p>Broken trapezoidal nose.</p>  <p>Extreme example</p> <p>A worn out chuck does not allow a correct transmission of the axial impact movement.</p> <p>CONCLUSION: This results in the drill rotating without correctly hammering which leads to excessive friction and over-heating of the drill bit.</p> <p>NON-ACCEPTABLE CLAIM</p> 
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