

CUTTING TOOLS FOR

HOLEMAKING



B

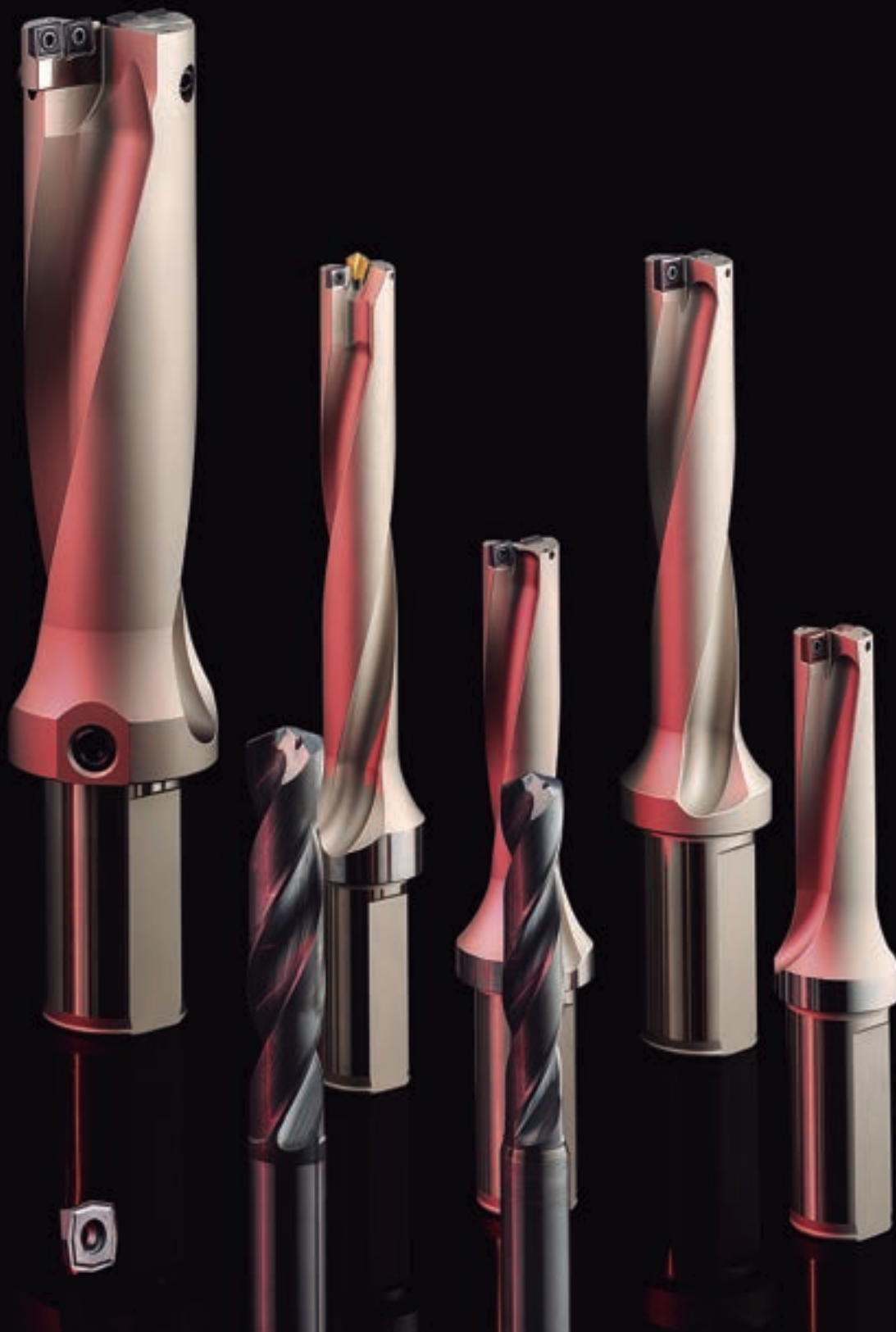
B - HOLEMAKING

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DRILLS WITHOUT CARTRIDGE

Brocas sem Cartucho | Brocas sin Cartucho

X M S

X C S

S C S

T D S

T F D

Drill group

2 1 5

DC
21.5 mm

2 5 - 3 D

DCONMS
25 mm

LU
3D

D H S

Drill group

0 0 4 0

DC
40 mm

3 2 - 5 D

DCONMS
32 mm

LU
5D

DRILLS WITH CARTRIDGE

Brocas com Cartucho | Brocas con Cartucho

S C C

T D C

D H C

Drill group

6 0 6 5

DCN
60 mm

DCX
65 mm

4 0 - 4 D

DCONMS
40 mm

LU
4D

DRILLS CODE KEY

Sistema de codificação para brocas | Sistema de codificación para brocas

VORTEX DRILLS Brocas Vortex | Brocas Vortex

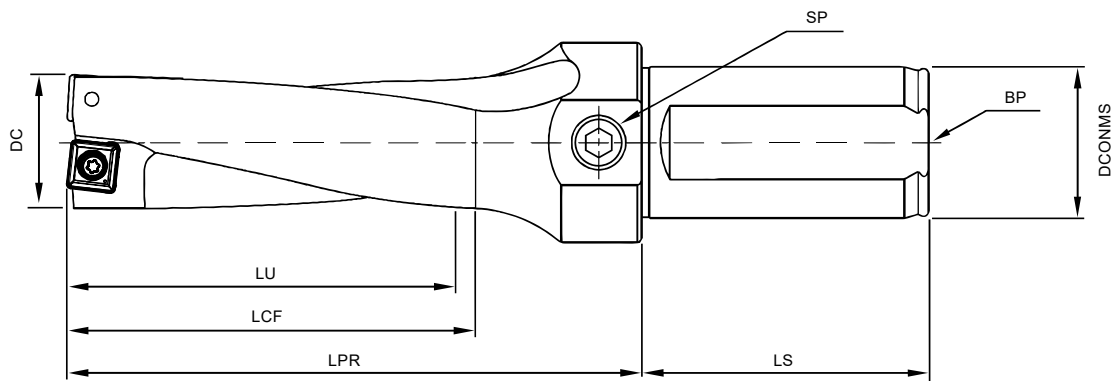
M D O	0 8 5 0 9 0	2 7	
Drill group	DCN 85 mm	DCX 90 mm	DCONMS 27 mm
M D S	3 2	1 1 5	1 3 0
Drill group adapter	DCONMS 32 mm	LF 115 mm	DCONWS 13 mm
M D E	1 3	1 1 5	2 8 0
Drill group adapter	DCONMS 13 mm	LF 115 mm	DCONWS 28 mm

TREPPANNING DRILLS Brocas de Trepanação | Brocas de Trepanación

P N D	0 5 5	4 0	- 2 D
Drill group	DC 55 mm	DCONMS 40 mm	LU 8D

SOLID CARBIDE DRILLS Brocas de Metal Duro | Brocas en Metal Duro

H	BD	P	U	E	2	03D	0860	-	089	047
Drill group					NOF 2 Flutes	LU 3D	DC 8,6 mm		OAL 89 mm	LCF 47 mm
	Drill Series BD: Ø6 to Ø20mm MD: Ø1 to Ø3mm									
		Main workpiece material P: Steel U: Universal								
			Cooling U: No coolant channel C: w/ coolant channel							
				Coupling E: cilindrical W: Weldon						



DC - Drill diameter

DCONMS - Shank diameter

LPR - Length

LS - Shank Length

LU - Cut length

LCF - Safety cut length

SP - Side plug

BP - Back plug

COOLANT SUPPLY

Furos de refrigeração | Agujeros de refrigeración

New version / Standard version *

Type	BP	SP
TDS	✓ / ✓	✗ / ✓
TDC	✓ / ✓	✓ / ✓
SCS	✓ / ✓	✗ / ✓
SCC	✓ / ✓	✓ / ✓
DHS	✓ / ✓	✗ / ✓
DHC	✓ / ✓	✗ / ✓
TFD	✓ / ✓	✓ / ✓
MDO	✓ / ✓	✓ / ✓
PND	✓ / ✓	✓ / ✓

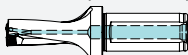
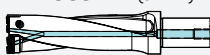
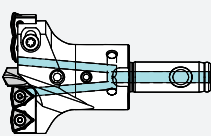
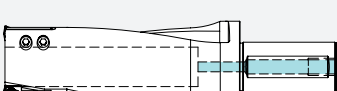
BP - Back Plug

SP - Side Plug

✓ - Available

✗ - Not Available

* The new Drill version will replace the standard version when this type will be sold out.

Diameter (mm)											
	01	03	12	20	32	50	60	70	80	110	... 180
Multicut			NEW XMS-R/L (2.25D)  Page B - 374 LU max = 72mm								
Jet Drills			NEW XCS Drill (2D-3D-4D-5D)  Page B - 380 LU max = 302mm								
			SCS Drill (3D-4D)  Page B - 394 LU max = 200mm								
						SCC Drill (3D-4D)  Page B - 398 LU max = 320mm					
			TDS 3D Drill  Page B - 401 LU max = 174mm								
								TDC 3D Drill  Page B - 403 LU max = 240mm			
Integrex Drills					DHS Drill (5D-8D)  Page B - 406 LU max = 300mm						
						DHC Drill (5D-8D)  Page B - 408 LU max = 640mm					
					TFD Drill (6D-8D)  Page B - 410 LU max = 240mm						
Vortex Drills						MDO 10D - Vortex Drill  Page B - 414 LU max = 900mm					
Trepanning Drills						PND Drill  Page B - 420 LU max = 250mm					
Solid Carbide Drills		NEW HMDU ... Micro Drill (3D-5D)  Page B - 454 LU max = 21mm									
			HBDP ... SC Drill (3D-5D)  Page B - 456 LU max = 101mm								
			HBDP ... SC Drill (8D)  Page B - 462 LU max = 162mm								

MULTICUT

NEW ALL-IN-ONE



A multipurpose tool designed to enhance productivity and reduce setup times is capable of executing internal, external, and face turning, as well as drilling with either a stationary or rotating tool.

Uma ferramenta multifuncional projetada para aumentar a produtividade e reduzir os tempos de configuração. Capaz de executar torneamento interno, externo e facejamento, e até mesmo furação com uma ferramenta estacionária ou giratória.

Una herramienta multifuncional diseñada para aumentar la productividad y reducir los tiempos de configuración. Capaz de realizar torneado interno, externo y frontal, e incluso perforación con una herramienta estacionaria o giratoria.

NEW XMS-R > page 374

- > From DC 8mm to 32mm
De DC 8mm a 32mm | Desde DC 8mm hasta 32mm
- > Available in 2,25D
Disponível em 2,25D | Disponible en 2,25D



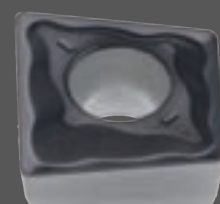
NEW XMS-L > page 374

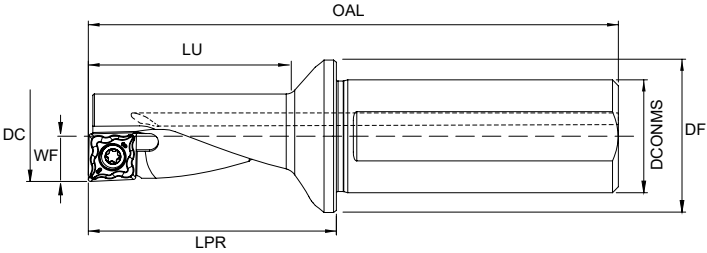
- > From DC 8mm to 32mm
De DC de 8mm a 32mm | Desde DC 8mm hasta 32mm
- > Available in 2,25D
Disponível em 2,25D | Disponible en 2,25D



NEW XCMT INSERTS > page 375

- > From sizes 04 to 17
De tamanhos de 04 a 17 | De tamaños de 04 a 17
- > Available in grades PH7920 and PHS225
Disponível nos graus PH7920 e PHS225 | Disponible en las calidades PH7920 y PHS225
- > Suitable for machining steels, stainless steels and HRSA
Adequado para maquinação de aços, aços inoxidáveis e HRSA | Adecuado para el mecanizado de aceros, aceros inoxidables y HRSA





*Right hand style show

Order code Código	Reference Referência Referencia	Hand		Dimensions Dimensões Dimensiones (mm)							WT	Insert	Stock
				DC	DCONMS	DF	WF	OAL	LU	LPR			
182021200	XMS-R 08010-2,25D	Right	1	8,0	10	15	4	60,0	18,0	22,0	0,027	XCMT 0401.. ER	
182021300	XMS-R 10012-2,25D	Right	1	10,0	12	18	5	69,5	22,5	27,5	0,046	XCMT 0502..	
182021400	XMS-R 12016-2,25D	Right	1	12,0	16	22	6	78,0	27,0	33,0	0,089	XCMT 0602..	
182021500	XMS-R 14016-2,25D	Right	1	14,0	16	22	7	83,5	31,5	38,5	0,094	XCMT 0703..	
182021600	XMS-R 16020-2,25D	Right	1	16,0	20	28	8	94,0	36,0	44,0	0,154	XCMT 0803..	
182021700	XMS-R 18025-2,25D	Right	1	18,0	25	36	9	109,5	40,5	53,5	0,293	XCMT 09T3..	
182021800	XMS-R 20025-2,25D	Right	1	20,0	25	36	10	111,0	45,0	55,0	0,311	XCMT 10T3..	
182021900	XMS-R 25032-2,25D	Right	1	25,0	32	44	12,5	129,0	56,5	69,0	0,563	XCMT 1304..	
182022000	XMS-R 32040-2,25D	Right	1	32,0	40	54	16	158,0	72,0	88,0	1,117	XCMT 1705..	
182022100	XMS-L 08010-2,25D	Left	1	8,0	10	15	4	60,0	18,0	22,0	0,027	XCMT 0401.. EL	
182022200	XMS-L 10012-2,25D	Left	1	10,0	12	18	5	69,5	22,5	27,5	0,046	XCMT 0502..	
182022300	XMS-L 12016-2,25D	Left	1	12,0	16	22	6	78,0	27,0	33,0	0,089	XCMT 0602..	
182022400	XMS-L 14016-2,25D	Left	1	14,0	16	22	7	83,5	31,5	38,5	0,094	XCMT 0703..	
182022500	XMS-L 16020-2,25D	Left	1	16,0	20	28	8	94,0	36,0	44,0	0,154	XCMT 0803..	
182022600	XMS-L 18025-2,25D	Left	1	18,0	25	36	9	109,5	40,5	53,5	0,293	XCMT 09T3..	
182022700	XMS-L 20025-2,25D	Left	1	20,0	25	36	10	111,0	45,0	55,0	0,311	XCMT 10T3..	
182022800	XMS-L 25032-2,25D	Left	1	25,0	32	44	12,5	129,0	56,5	69,0	0,563	XCMT 1304..	
182022900	XMS-L 32040-2,25D	Left	1	32,0	40	54	16	158,0	72,0	88,0	1,117	XCMT 1705..	

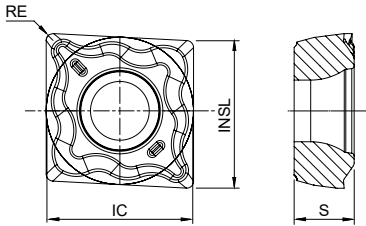
 Stock item | Produto de stock | Itens de stock  Available under request | Disponível sobre consulta | Disponible bajo consulta



XCMT-MP
(PH7 grade)



XCMT-MP
(PHS grade)



XCMT-MP

		P	M		S	Dimensions Dimensões Dimensiones (mm)				Hand
		PVD	CVD	PVD	PVD					
		⁽²⁾ Grade code	G4	U5	G4					
⁽¹⁾ Geometry code	ISO Reference	PH7920	PHS225	PH7920	PH7920	IC	S	INSL	RE	
1124790	XCMT 040104-MP ER					4,40	1,89	4,00	0,40	Right
1124791	XCMT 040104-MP EL					4,40	1,89	4,00	0,40	Left
1124792	XCMT 050204-MP EN					5,65	2,14	5,00	0,40	Neutral
1123788	XCMT 060204-MP EN					6,40	2,47	6,00	0,40	Neutral
1124784	XCMT 070304-MP EN					7,50	3,25	7,00	0,40	Neutral
1124785	XCMT 080304-MP EN					8,40	3,26	8,00	0,40	Neutral
1124786	XCMT 09T304-MP EN					9,45	4,00	9,00	0,40	Neutral
1124787	XCMT 10T308-MP EN					10,40	4,00	10,00	0,80	Neutral
1124788	XCMT 130408-MP EN					13,35	4,85	12,50	0,80	Neutral
1124789	XCMT 170508-MP EN					17,30	5,58	16,00	0,80	Neutral

Ⓐ First choice | Primeira opção | 1ª opción

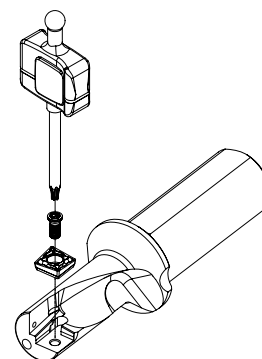
Ⓢ Stock item | Produto de stock | Ítems de stock

○ Available under request | Disponível sobre consulta | Disponible bajo consulta

Insert order code = (1) Geometry Code + (2) Grade Code

SPARE PARTS Acessórios | Repuestos

Cutter ØDc	Insert Screw	Key (Torx)	Order separately Key (Torx - Nm)	Torque Value
				
XMS-R/L 08010-2,25D	P0180400	XT06IP	DT0606IP	0,60
XMS-R/L 10012-2,25D	P0200500	XT06	DT0606	0,60
XMS-R/L 12016-2,25D	P0220500	XT07	DT0709	0,90
XMS-R/L 14016-2,25D	P0250704	XT08	DT0812	1,20
XMS-R/L 16020-2,25D	P0300701	XT08	DT0812	1,20
XMS-R/L 18025-2,25D	P0300701	XT08	DT0812	1,20
XMS-R/L 20025-2,25D	P0350800	PT15	DT1530	3,00
XMS-R/L 25032-2,25D	P0500900	PT20	DT2050	4,00
XMS-R/L 32040-2,25D	P0501302	PT20	DT2050	4,00



GRADES SELECTION GUIDE Guia para selecção de graus | Tabla para selección de calidades

ISO	PSM	Material	HB (Brinell)	Grades	
				← Wear Resistance	Toughness →
				PH7920 	PHS225 
P	1	Unalloyed Steel	125-170	✓	
	2	Low-Alloyed Steel	180-350	✓	
	3	High-Alloyed Steel	200-325	✓	
M	4	SS - Ferritic / Martensitic	200-330	✓	✓
	5	SS - Austenitic	180-330	✓	✓
	6	SS - Austenitic-ferritic (Duplex)	230-260	✓	✓
S	11	Heat Resistant Super Alloys	200-320	✓	



Good Conditions



Average Conditions



Difficult Conditions

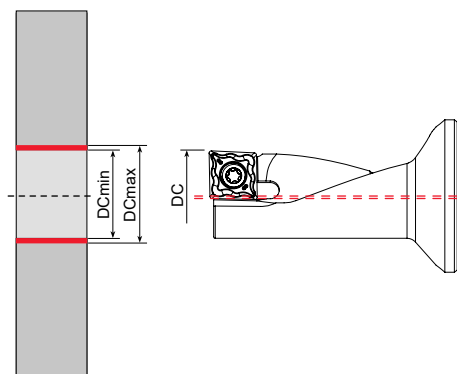
RECOMMENDED CUTTING CONDITIONS Condições de corte recomendadas | Condiciones de corte recomendables

ISO	PSM	Material	HB (Brinell)	Vc (m/min)	
				← Wear Resistance PH7920	Toughness → PHS225
P	1	Unalloyed Steel	125-170	110-220	-
	2	Low-Alloyed Steel	180-350	100-210	-
	3	High-Alloyed Steel	200-325	85-190	-
M	4	SS - Ferritic / Martensitic	200-330	95-210	70-230
	5	SS - Austenitic	180-330	85-205	65-225
	6	SS - Austenitic-ferritic (Duplex)	230-260	80-195	55-215
S	11	Heat Resistant Super Alloys	200-320	25-210	-

Reference	FN (mm/rev)			AP (mm)	
	Face Turning	Int/Ext Turning	Holemaking	Face Turning	Int/Ext Turning
XCMT 040104-MP ER/L	0,02-0,09	0,02-0,13	0,01-0,04	0,50-1,90	0,50-2,70
XCMT 050204-MP EN	0,02-0,12	0,02-0,15	0,01-0,05	0,50-2,20	0,50-3,20
XCMT 060204-MP EN	0,02-0,14	0,02-0,16	0,01-0,06	0,70-2,70	0,70-3,70
XCMT 070304-MP EN	0,02-0,16	0,02-0,18	0,01-0,08	0,80-3,00	0,80-4,00
XCMT 080304-MP EN	0,03-0,18	0,03-0,20	0,02-0,08	0,90-3,40	0,90-4,20
XCMT 09T304-MP EN	0,03-0,20	0,03-0,22	0,03-0,09	0,90-3,80	0,90-4,70
XCMT 10T308-MP EN	0,03-0,22	0,03-0,24	0,03-0,10	1,00-4,20	1,00-5,30
XCMT 130408-MP EN	0,03-0,24	0,03-0,26	0,04-0,12	1,00-5,00	1,00-6,50
XCMT 170508-MP EN	0,03-0,27	0,03-0,30	0,04-0,15	1,00-6,00	1,00-7,00

Off-center drilling:

Thanks to MultiCut's unique geometry, it is possible to perform off-center drilling. Therefore, with slight deviations from the center of the workpiece, it is possible to make holes with diameters different from the nominal diameter, as shown in the table below.



Reference	Drilling (mm)		
	DC nominal	DC _{min}	DC _{max}
XMS-R/L 08010-2,25D	8	7,85	8,30
XMS-R/L 10012-2,25D	10	9,85	10,50
XMS-R/L 12016-2,25D	12	11,85	12,50
XMS-R/L 14016-2,25D	14	13,80	14,50
XMS-R/L 16020-2,25D	16	15,80	16,50
XMS-R/L 18025-2,25D	18	17,80	18,50
XMS-R/L 20025-2,25D	20	19,75	20,50
XMS-R/L 25032-2,25D	25	24,75	25,80
XMS-R/L 32040-2,25D	32	31,75	33,00

JET DRILLS



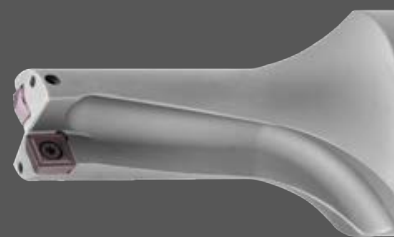
Jet drills provide an indexable insert solution for drilling across a wide range of diameters and cutting lengths, with or without cartridges. The innovative XCS drill demonstrates its versatility in drilling on any surface type, featuring dedicated chip breakers specially designed for steel, cast iron, stainless steel, and super alloys.

As brocas Jet oferecem uma solução de inserção indexável para perfurar numa ampla gama de diâmetros e comprimentos de corte, com ou sem cartuchos. A broca XCS demonstra versatilidade em qualquer tipo de superfície, apresentando quebra-aparas especialmente projetados para aço, ferro fundido, aço inoxidável e superligas.

Las brocas Jet proporcionan una solución de inserción indexable para la perforación en una amplia gama de diámetros y longitudes de corte, con o sin cartuchos. La broca XCS demuestra versatilidad en cualquier tipo de superficie, con rompevirutas especialmente diseñados para acero, hierro fundido, acero inoxidable y superaleaciones.

NEW XCS DRILL > page 380

- > From DC 14,0mm to 60,0mm
De DC 14mm a 60mm | Desde DC 14mm hasta 60mm
- > Available in 2D, 3D, 4D and 5D
Disponível em 2D, 3D, 4D e 5D | Disponible en 2D, 3D, 4D y 5D
- > Inserts XOKX and SOKX
Pastilhas XOKX e SOKX | Plaquetas XOKX y SOKX



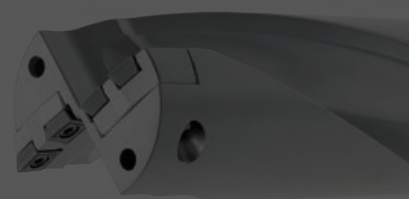
SCS DRILL > page 394

- > From DC 13,0mm to 50,0mm
De DC 13,0mm a 50,0mm | Desde DC 13,0mm hasta 50,0mm
- > Available in 3D and 4D
Disponível em 3D e 4D | Disponible en 3D y 4D
- > Insert SPKX
Pastilha SPKX | Plaqueta SPKX



SCC DRILL > page 398

- > From DC 50mm to 80mm
De DC 50mm a 80mm | Desde DC 50mm hasta 80mm
- > Available in 3D and 4D
Disponível em 3D e 4D | Disponible en 3D y 4D
- > 2 SPKX inserts per cartridge
2 pastilhas SPKX por cartucho | 2 plaquetas SPKX por cartucho



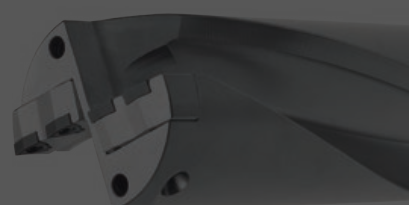
TDS DRILL > page 401

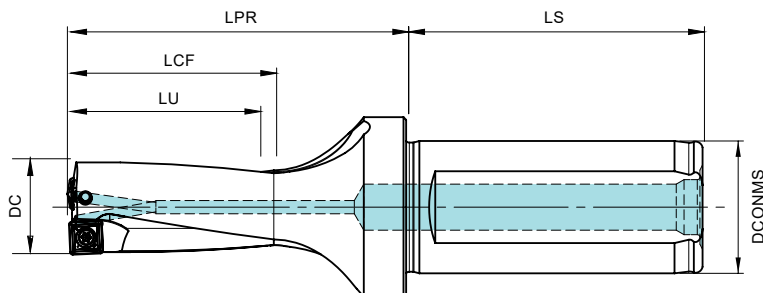
- > From DC 13,0mm to 58,0mm
De DC 13,0mm a 58,0mm | Desde DC 13,0mm hasta 58,0mm
- > Available in 3D
Disponível em 3D | Disponible en 3D
- > Insert WCKX
Pastilha WCKX | Plaqueta WCKX



TDC DRILL > page 403

- > From DC 59mm to 80mm
De DC 59mm a 80mm | Desde DC 59mm hasta 80mm
- > Available in 3D
Disponível em 3D | Disponible en 3D
- > 2 WCKX inserts per cartridge
2 pastilhas WCKX por cartucho | 2 plaquetas WCKX por cartucho





DCONMS	LS	BP / SP	2D		
20	50	PT - 1/8	DC	Drill tolerance	Hole tolerance
25	56	PT - 1/8	14-29,5	0/-0,15	-0,10/+0,20
32	60	PT - 1/4	30-42	0/-0,15	-0,10/+0,25
40	70	PT - 1/4	43-60	0/-0,15	-0,10/+0,28

Order code Código	Reference Referência Referencia	Dimensions Dimensões Dimensiones (mm)					Inner Insert	Outer Insert	Insert Screw	Torx key	Stock
		DC	DCONMS	LU	LCF	LPR					
184316800	XCS 14020-2D	14,0	20	28	31	51	XOKX 050204	SOKX 050204	P02004IP	XT06IP	
184316900	XCS 14520-2D	14,5	20	29	32	52	XOKX 050204	SOKX 050204	P02004IP	XT06IP	
184317000	XCS 15020-2D	15,0	20	30	33	53	XOKX 050204	SOKX 050204	P02004IP	XT06IP	
184317100	XCS 15520-2D	15,5	20	31	34	54	XOKX 050204	SOKX 050204	P02004IP	XT06IP	
184317200	XCS 16020-2D	16,0	20	32	35	55	XOKX 050204	SOKX 050204	P02004IP	XT06IP	
184317300	XCS 16525-2D	16,5	25	33	36	61	XOKX 060204	SOKX 060205	P02205IP	XT06IP	
184317400	XCS 17025-2D	17,0	25	34	37	62	XOKX 060204	SOKX 060205	P02205IP	XT06IP	
184317500	XCS 17525-2D	17,5	25	35	38	63	XOKX 060204	SOKX 060205	P02205IP	XT06IP	
184317600	XCS 18025-2D	18,0	25	36	39	64	XOKX 060204	SOKX 060205	P02205IP	XT06IP	
184317700	XCS 18525-2D	18,5	25	37	40	65	XOKX 060204	SOKX 060205	P02205IP	XT06IP	
184317800	XCS 19025-2D	19,0	25	38	41	66	XOKX 060204	SOKX 060205	P02205IP	XT06IP	
184317900	XCS 19525-2D	19,5	25	39	42	67	XOKX 060204	SOKX 060205	P02205IP	XT06IP	
184318000	XCS 20025-2D	20,0	25	40	43	68	XOKX 07T205	SOKX 07T208	P02507IP	XT08IP	
184318100	XCS 20525-2D	20,5	25	41	44	69	XOKX 07T205	SOKX 07T208	P02507IP	XT08IP	
184318200	XCS 21025-2D	21,0	25	42	45	70	XOKX 07T205	SOKX 07T208	P02507IP	XT08IP	
184318300	XCS 21525-2D	21,5	25	43	46	71	XOKX 07T205	SOKX 07T208	P02507IP	XT08IP	
184318400	XCS 22025-2D	22,0	25	44	47	72	XOKX 07T205	SOKX 07T208	P02507IP	XT08IP	
184318500	XCS 22525-2D	22,5	25	45	48	73	XOKX 07T205	SOKX 07T208	P02507IP	XT08IP	
184318600	XCS 23025-2D	23,0	25	46	49	74	XOKX 07T205	SOKX 07T208	P02507IP	XT08IP	
184318700	XCS 23525-2D	23,5	25	47	50	75	XOKX 07T205	SOKX 07T208	P02507IP	XT08IP	

 Stock item | Produto de stock | Itens de stock

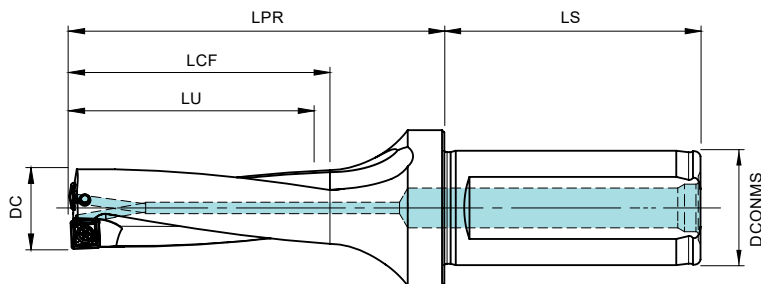
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Order code Código	Reference Referência Referencia	Dimensions Dimensões Dimensiones (mm)					Inner Insert	Outer Insert	Insert Screw	Torx key	Stock
		DC	DCONMS	LU	LCF	LPR					
184318800	XCS 24032-2D	24,0	32	48	51	81	XOKX 090305	SOKX 090308	P03007IP	XT08IP	
184318900	XCS 24532-2D	24,5	32	49	52	82	XOKX 090305	SOKX 090308	P03007IP	XT08IP	
184319000	XCS 25032-2D	25,0	32	50	53	83	XOKX 090305	SOKX 090308	P03007IP	XT08IP	
184319100	XCS 25532-2D	25,5	32	51	54	84	XOKX 090305	SOKX 090308	P03007IP	XT08IP	
184319200	XCS 26032-2D	26,0	32	52	55	85	XOKX 090305	SOKX 090308	P03007IP	XT08IP	
184319300	XCS 26532-2D	26,5	32	53	56	86	XOKX 090305	SOKX 090308	P03007IP	XT08IP	
184319400	XCS 27032-2D	27,0	32	54	57	87	XOKX 090305	SOKX 090308	P03007IP	XT08IP	
184319500	XCS 27532-2D	27,5	32	55	58	88	XOKX 090305	SOKX 090308	P03007IP	XT08IP	
184319600	XCS 28032-2D	28,0	32	56	59	89	XOKX 090305	SOKX 090308	P03007IP	XT08IP	
184319700	XCS 28532-2D	28,5	32	57	60	90	XOKX 090305	SOKX 090308	P03007IP	XT08IP	
184319800	XCS 29032-2D	29,0	32	58	61	91	XOKX 090305	SOKX 090308	P03007IP	XT08IP	
184319900	XCS 29532-2D	29,5	32	59	62	92	XOKX 090305	SOKX 090308	P03007IP	XT08IP	
184320000	XCS 30032-2D	30,0	32	62	65	95	XOKX 11T306	SOKX 11T308	P03508IP	XT15IP-S35	
184320100	XCS 31032-2D	31,0	32	64	67	97	XOKX 11T306	SOKX 11T308	P03508IP	XT15IP-S35	
184320200	XCS 32032-2D	32,0	32	66	69	99	XOKX 11T306	SOKX 11T308	P03508IP	XT15IP-S35	
184320300	XCS 33032-2D	33,0	32	68	71	101	XOKX 11T306	SOKX 11T308	P03508IP	XT15IP-S35	
184320400	XCS 34032-2D	34,0	32	70	73	103	XOKX 11T306	SOKX 11T308	P03508IP	XT15IP-S35	
184320500	XCS 35032-2D	35,0	32	72	75	105	XOKX 11T306	SOKX 11T308	P03508IP	XT15IP-S35	
184320600	XCS 36040-2D	36,0	40	74	77	112	XOKX 130406	SOKX 130410	P04010IP	XT15IP-S35	
184320700	XCS 37040-2D	37,0	40	76	79	114	XOKX 130406	SOKX 130410	P04010IP	XT15IP-S35	
184320800	XCS 38040-2D	38,0	40	78	81	116	XOKX 130406	SOKX 130410	P04010IP	XT15IP-S35	
184320900	XCS 39040-2D	39,0	40	80	83	118	XOKX 130406	SOKX 130410	P04010IP	XT15IP-S35	
184321000	XCS 40040-2D	40,0	40	82	85	120	XOKX 130406	SOKX 130410	P04010IP	XT15IP-S35	
184321100	XCS 41040-2D	41,0	40	84	87	122	XOKX 130406	SOKX 130410	P04010IP	XT15IP-S35	
184321200	XCS 42040-2D	42,0	40	86	89	124	XOKX 130406	SOKX 130410	P04010IP	XT15IP-S35	
184321300	XCS 43040-2D	43,0	40	88	91	126	XOKX 150508	SOKX 150510	P05013IP	XT20IP-S40	
184321400	XCS 44040-2D	44,0	40	90	93	128	XOKX 150508	SOKX 150510	P05013IP	XT20IP-S40	
184321500	XCS 45040-2D	45,0	40	92	95	130	XOKX 150508	SOKX 150510	P05013IP	XT20IP-S40	
184321600	XCS 46040-2D	46,0	40	94	97	132	XOKX 150508	SOKX 150510	P05013IP	XT20IP-S40	
184321700	XCS 47040-2D	47,0	40	96	99	134	XOKX 150508	SOKX 150510	P05013IP	XT20IP-S40	
184321800	XCS 48040-2D	48,0	40	98	101	136	XOKX 150508	SOKX 150510	P05013IP	XT20IP-S40	
184321900	XCS 49040-2D	49,0	40	100	103	138	XOKX 150508	SOKX 150510	P05013IP	XT20IP-S40	
184322000	XCS 50040-2D	50,0	40	102	105	140	XOKX 150508	SOKX 150510	P05013IP	XT20IP-S40	
184340200	XCS 51040-2D	51,0	40	104	107	142	XOKX 180508	SOKX 180510	P05013IP	XT20IP-S40	
184340300	XCS 52040-2D	52,0	40	106	109	144	XOKX 180508	SOKX 180510	P05013IP	XT20IP-S40	
184340400	XCS 53040-2D	53,0	40	108	111	146	XOKX 180508	SOKX 180510	P05013IP	XT20IP-S40	
184340500	XCS 54040-2D	54,0	40	110	113	148	XOKX 180508	SOKX 180510	P05013IP	XT20IP-S40	
184340600	XCS 55040-2D	55,0	40	112	115	150	XOKX 180508	SOKX 180510	P05013IP	XT20IP-S40	
184340700	XCS 56040-2D	56,0	40	114	117	152	XOKX 180508	SOKX 180510	P05013IP	XT20IP-S40	
184340800	XCS 57040-2D	57,0	40	116	119	154	XOKX 180508	SOKX 180510	P05013IP	XT20IP-S40	
184340900	XCS 58040-2D	58,0	40	118	121	156	XOKX 180508	SOKX 180510	P05013IP	XT20IP-S40	
184341000	XCS 59040-2D	59,0	40	120	123	158	XOKX 180508	SOKX 180510	P05013IP	XT20IP-S40	
184341100	XCS 60040-2D	60,00	40	122	125	160	XOKX 180508	SOKX 180510	P05013IP	XT20IP-S40	

 Stock item | Produto de stock | Itens de stock

 Available under request | Disponível sobre consulta | Disponible bajo consulta



DC	LS	BP / SP
20	50	PT - 1/8
25	56	PT - 1/8
32	60	PT - 1/4
40	70	PT - 1/4

3D		
DC	Drill tolerance	Hole tolerance
14-29,5	0/-0,15	-0,10/+0,20
30-42	0/-0,15	-0,10/+0,25
43-60	0/-0,15	-0,10/+0,28

Order code Código	Reference Referência Referencia	Dimensions Dimensões Dimensiones (mm)					Inner Insert	Outer Insert	Insert Screw	Torx key	Stock
		DC	DCONMS	LU	LCF	LPR					
184322100	XCS 14020-3D	14,0	20	42	45	65	XOKX 050204	SOKX 050204	P02004IP	XT06IP	
184322200	XCS 14520-3D	14,5	20	44	47	67	XOKX 050204	SOKX 050204	P02004IP	XT06IP	
184322300	XCS 15020-3D	15,0	20	45	48	68	XOKX 050204	SOKX 050204	P02004IP	XT06IP	
184322400	XCS 15520-3D	15,5	20	47	50	70	XOKX 050204	SOKX 050204	P02004IP	XT06IP	
184322500	XCS 16020-3D	16,0	20	48	51	71	XOKX 050204	SOKX 050204	P02004IP	XT06IP	
184322600	XCS 16525-3D	16,5	25	50	53	78	XOKX 060204	SOKX 060205	P02205IP	XT06IP	
184322700	XCS 17025-3D	17,0	25	51	54	79	XOKX 060204	SOKX 060205	P02205IP	XT06IP	
184322800	XCS 17525-3D	17,5	25	53	56	81	XOKX 060204	SOKX 060205	P02205IP	XT06IP	
184322900	XCS 18025-3D	18,0	25	54	57	82	XOKX 060204	SOKX 060205	P02205IP	XT06IP	
184323000	XCS 18525-3D	18,5	25	56	59	84	XOKX 060204	SOKX 060205	P02205IP	XT06IP	
184323100	XCS 19025-3D	19,0	25	57	60	85	XOKX 060204	SOKX 060205	P02205IP	XT06IP	
184323200	XCS 19525-3D	19,5	25	59	62	87	XOKX 060204	SOKX 060205	P02205IP	XT06IP	
184323300	XCS 20025-3D	20,0	25	60	63	88	XOKX 07T205	SOKX 07T208	P02507IP	XT08IP	
184323400	XCS 20525-3D	20,5	25	62	65	90	XOKX 07T205	SOKX 07T208	P02507IP	XT08IP	
184323500	XCS 21025-3D	21,0	25	63	66	91	XOKX 07T205	SOKX 07T208	P02507IP	XT08IP	
184323600	XCS 21525-3D	21,5	25	65	68	93	XOKX 07T205	SOKX 07T208	P02507IP	XT08IP	
184323700	XCS 22025-3D	22,0	25	66	69	94	XOKX 07T205	SOKX 07T208	P02507IP	XT08IP	
184323800	XCS 22525-3D	22,5	25	68	71	96	XOKX 07T205	SOKX 07T208	P02507IP	XT08IP	
184323900	XCS 23025-3D	23,0	25	69	72	97	XOKX 07T205	SOKX 07T208	P02507IP	XT08IP	
184324000	XCS 23525-3D	23,5	25	71	74	99	XOKX 07T205	SOKX 07T208	P02507IP	XT08IP	

Stock item | Produto de stock | Itens de stock

Available under request | Disponível sobre consulta | Disponible bajo consulta

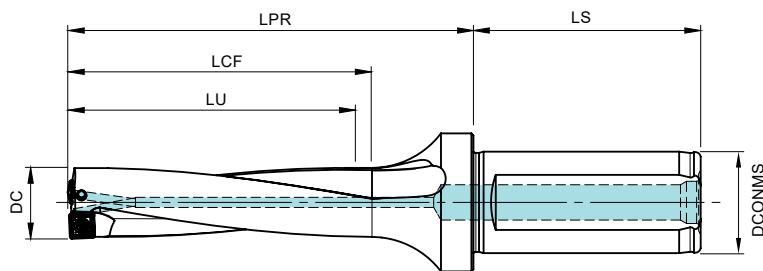
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XCS 3D

Jet drills | Brocas jet | Brocas jet

Order code Código	Reference Referência Referencia	Dimensions Dimensões Dimensiones (mm)					Inner Insert	Outer Insert	Insert Screw	Torx key	Stock
		DC	DCONMS	LU	LCF	LPR					
184324100	XCS 24032-3D	24,0	32	72	75	105	XOKX 090305	SOKX 090308	P03007IP	XT08IP	
184324200	XCS 24532-3D	24,5	32	74	77	107	XOKX 090305	SOKX 090308	P03007IP	XT08IP	
184324300	XCS 25032-3D	25,0	32	75	78	108	XOKX 090305	SOKX 090308	P03007IP	XT08IP	
184324400	XCS 25532-3D	25,5	32	77	80	110	XOKX 090305	SOKX 090308	P03007IP	XT08IP	
184324500	XCS 26032-3D	26,0	32	78	81	111	XOKX 090305	SOKX 090308	P03007IP	XT08IP	
184324600	XCS 26532-3D	26,5	32	80	83	113	XOKX 090305	SOKX 090308	P03007IP	XT08IP	
184324700	XCS 27032-3D	27,0	32	81	84	114	XOKX 090305	SOKX 090308	P03007IP	XT08IP	
184324800	XCS 27532-3D	27,5	32	83	86	116	XOKX 090305	SOKX 090308	P03007IP	XT08IP	
184324900	XCS 28032-3D	28,0	32	84	87	117	XOKX 090305	SOKX 090308	P03007IP	XT08IP	
184325000	XCS 28532-3D	28,5	32	86	89	119	XOKX 090305	SOKX 090308	P03007IP	XT08IP	
184325100	XCS 29032-3D	29,0	32	87	90	120	XOKX 090305	SOKX 090308	P03007IP	XT08IP	
184325200	XCS 29532-3D	29,5	32	89	92	122	XOKX 090305	SOKX 090308	P03007IP	XT08IP	
184325300	XCS 30032-3D	30,0	32	92	95	125	XOKX 11T306	SOKX 11T308	P03508IP	XT15IP-S35	
184325400	XCS 31032-3D	31,0	32	95	98	128	XOKX 11T306	SOKX 11T308	P03508IP	XT15IP-S35	
184325500	XCS 32032-3D	32,0	32	98	101	131	XOKX 11T306	SOKX 11T308	P03508IP	XT15IP-S35	
184325600	XCS 33032-3D	33,0	32	101	104	134	XOKX 11T306	SOKX 11T308	P03508IP	XT15IP-S35	
184325700	XCS 34032-3D	34,0	32	104	107	137	XOKX 11T306	SOKX 11T308	P03508IP	XT15IP-S35	
184325800	XCS 35032-3D	35,0	32	107	110	140	XOKX 11T306	SOKX 11T308	P03508IP	XT15IP-S35	
184325900	XCS 36040-3D	36,0	40	110	113	148	XOKX 130406	SOKX 130410	P04010IP	XT15IP-S35	
184326000	XCS 37040-3D	37,0	40	113	116	151	XOKX 130406	SOKX 130410	P04010IP	XT15IP-S35	
184326100	XCS 38040-3D	38,0	40	116	119	154	XOKX 130406	SOKX 130410	P04010IP	XT15IP-S35	
184326200	XCS 39040-3D	39,0	40	119	122	157	XOKX 130406	SOKX 130410	P04010IP	XT15IP-S35	
184326300	XCS 40040-3D	40,0	40	122	125	160	XOKX 130406	SOKX 130410	P04010IP	XT15IP-S35	
184326400	XCS 41040-3D	41,0	40	125	128	163	XOKX 130406	SOKX 130410	P04010IP	XT15IP-S35	
184326500	XCS 42040-3D	42,0	40	128	131	166	XOKX 130406	SOKX 130410	P04010IP	XT15IP-S35	
184326600	XCS 43040-3D	43,0	40	131	134	169	XOKX 150508	SOKX 150510	P05013IP	XT20IP-S40	
184326700	XCS 44040-3D	44,0	40	134	137	172	XOKX 150508	SOKX 150510	P05013IP	XT20IP-S40	
184310700	XCS 45040-3D	45,0	40	137	140	175	XOKX 150508	SOKX 150510	P05013IP	XT20IP-S40	
184310800	XCS 46040-3D	46,0	40	140	143	178	XOKX 150508	SOKX 150510	P05013IP	XT20IP-S40	
184326800	XCS 47040-3D	47,0	40	143	146	181	XOKX 150508	SOKX 150510	P05013IP	XT20IP-S40	
184326900	XCS 48040-3D	48,0	40	146	149	184	XOKX 150508	SOKX 150510	P05013IP	XT20IP-S40	
184327000	XCS 49040-3D	49,0	40	149	152	187	XOKX 150508	SOKX 150510	P05013IP	XT20IP-S40	
184327100	XCS 50040-3D	50,0	40	152	155	190	XOKX 150508	SOKX 150510	P05013IP	XT20IP-S40	
184341200	XCS 51040-3D	51,0	40	155	158	193	XOKX 180508	SOKX 180510	P05013IP	XT20IP-S40	
184341300	XCS 52040-3D	52,0	40	158	161	196	XOKX 180508	SOKX 180510	P05013IP	XT20IP-S40	
184341400	XCS 53040-3D	53,0	40	161	164	199	XOKX 180508	SOKX 180510	P05013IP	XT20IP-S40	
184341500	XCS 54040-3D	54,0	40	164	167	202	XOKX 180508	SOKX 180510	P05013IP	XT20IP-S40	
184341600	XCS 55040-3D	55,0	40	167	170	205	XOKX 180508	SOKX 180510	P05013IP	XT20IP-S40	
184341700	XCS 56040-3D	56,0	40	170	173	208	XOKX 180508	SOKX 180510	P05013IP	XT20IP-S40	
184341800	XCS 57040-3D	57,0	40	173	176	211	XOKX 180508	SOKX 180510	P05013IP	XT20IP-S40	
184341900	XCS 58040-3D	58,0	40	176	179	214	XOKX 180508	SOKX 180510	P05013IP	XT20IP-S40	
184342000	XCS 59040-3D	59,0	40	179	182	217	XOKX 180508	SOKX 180510	P05013IP	XT20IP-S40	
184342100	XCS 60040-3D	60,0	40	182	185	220	XOKX 180508	SOKX 180510	P05013IP	XT20IP-S40	

 Stock item | Produto de stock | Itens de stock Available under request | Disponível sobre consulta | Disponible bajo consulta



DCONMS	LS	BP / SP	4D		
20	50	PT - 1/8	DC	Drill tolerance	Hole tolerance
25	56	PT - 1/8	14-29,5	0/-0,15	-0,05/+0,25
32	60	PT - 1/4	30-42	0/-0,15	-0,05/+0,30
40	70	PT - 1/4	43-60	0/-0,15	-0,05/+0,33

Order code Código	Reference Referência Referencia	Dimensions Dimensões Dimensiones (mm)					Inner Insert	Outer Insert	Insert Screw	Torx key	Stock
		DC	DCONMS	LU	LCF	LPR					
184327200	XCS 14020-4D	14,0	20	56	59	79	XOKX 050204	SOKX 050204	P02004IP	XT06IP	
184327300	XCS 14520-4D	14,5	20	58	61	81	XOKX 050204	SOKX 050204	P02004IP	XT06IP	
184327400	XCS 15020-4D	15,0	20	60	63	83	XOKX 050204	SOKX 050204	P02004IP	XT06IP	
184327500	XCS 15520-4D	15,5	20	62	65	85	XOKX 050204	SOKX 050204	P02004IP	XT06IP	
184327600	XCS 16020-4D	16,0	20	64	67	87	XOKX 050204	SOKX 050204	P02004IP	XT06IP	
184327700	XCS 16525-4D	16,5	25	66	69	94	XOKX 060204	SOKX 060205	P02205IP	XT06IP	
184327800	XCS 17025-4D	17,0	25	68	71	96	XOKX 060204	SOKX 060205	P02205IP	XT06IP	
184327900	XCS 17525-4D	17,5	25	70	73	98	XOKX 060204	SOKX 060205	P02205IP	XT06IP	
184328000	XCS 18025-4D	18,0	25	72	75	100	XOKX 060204	SOKX 060205	P02205IP	XT06IP	
184328100	XCS 18525-4D	18,5	25	74	77	102	XOKX 060204	SOKX 060205	P02205IP	XT06IP	
184328200	XCS 19025-4D	19,0	25	76	79	104	XOKX 060204	SOKX 060205	P02205IP	XT06IP	
184328300	XCS 19525-4D	19,5	25	78	81	106	XOKX 060204	SOKX 060205	P02205IP	XT06IP	
184328400	XCS 20025-4D	20,0	25	80	83	108	XOKX 07T205	SOKX 07T208	P02507IP	XT08IP	
184328500	XCS 20525-4D	20,5	25	82	85	110	XOKX 07T205	SOKX 07T208	P02507IP	XT08IP	
184328600	XCS 21025-4D	21,0	25	84	87	112	XOKX 07T205	SOKX 07T208	P02507IP	XT08IP	
184328700	XCS 21525-4D	21,5	25	86	89	114	XOKX 07T205	SOKX 07T208	P02507IP	XT08IP	
184328800	XCS 22025-4D	22,0	25	88	91	116	XOKX 07T205	SOKX 07T208	P02507IP	XT08IP	
184328900	XCS 22525-4D	22,5	25	90	93	118	XOKX 07T205	SOKX 07T208	P02507IP	XT08IP	
184329000	XCS 23025-4D	23,0	25	92	95	120	XOKX 07T205	SOKX 07T208	P02507IP	XT08IP	
184329100	XCS 23525-4D	23,5	25	94	97	122	XOKX 07T205	SOKX 07T208	P02507IP	XT08IP	

 Stock item | Produto de stock | Itens de stock

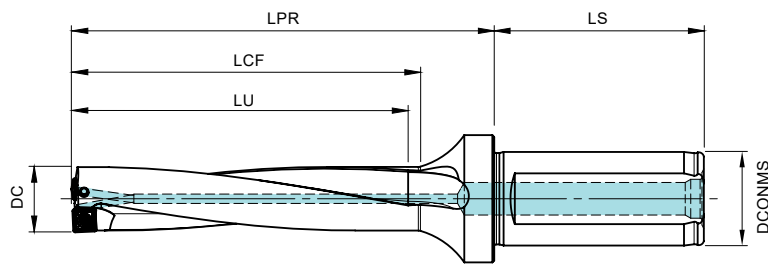
 Available under request | Disponível sobre consulta | Disponible bajo consulta

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Order code Código	Reference Referência Referencia	Dimensions Dimensões Dimensiones (mm)					Inner Insert	Outer Insert	Insert Screw	Torx key	Stock
		DC	DCONMS	LU	LCF	LPR					
184329200	XCS 24032-4D	24,0	32	96	99	129	XOKX 090305	SOKX 090308	P03007IP	XT08IP	
184329300	XCS 24532-4D	24,5	32	98	101	131	XOKX 090305	SOKX 090308	P03007IP	XT08IP	
184329400	XCS 25032-4D	25,0	32	100	103	133	XOKX 090305	SOKX 090308	P03007IP	XT08IP	
184329500	XCS 25532-4D	25,5	32	102	105	135	XOKX 090305	SOKX 090308	P03007IP	XT08IP	
184329600	XCS 26032-4D	26,0	32	104	107	137	XOKX 090305	SOKX 090308	P03007IP	XT08IP	
184329700	XCS 26532-4D	26,5	32	106	109	139	XOKX 090305	SOKX 090308	P03007IP	XT08IP	
184329800	XCS 27032-4D	27,0	32	108	111	141	XOKX 090305	SOKX 090308	P03007IP	XT08IP	
184329900	XCS 27532-4D	27,5	32	110	113	143	XOKX 090305	SOKX 090308	P03007IP	XT08IP	
184330000	XCS 28032-4D	28,0	32	112	115	145	XOKX 090305	SOKX 090308	P03007IP	XT08IP	
184330100	XCS 28532-4D	28,5	32	114	117	147	XOKX 090305	SOKX 090308	P03007IP	XT08IP	
184330200	XCS 29032-4D	29,0	32	116	119	149	XOKX 090305	SOKX 090308	P03007IP	XT08IP	
184330300	XCS 29532-4D	29,5	32	118	121	151	XOKX 090305	SOKX 090308	P03007IP	XT08IP	
184330400	XCS 30032-4D	30,0	32	122	125	155	XOKX 11T306	SOKX 11T308	P03508IP	XT15IP-S35	
184330500	XCS 31032-4D	31,0	32	126	129	159	XOKX 11T306	SOKX 11T308	P03508IP	XT15IP-S35	
184330600	XCS 32032-4D	32,0	32	130	133	163	XOKX 11T306	SOKX 11T308	P03508IP	XT15IP-S35	
184330700	XCS 33032-4D	33,0	32	134	137	167	XOKX 11T306	SOKX 11T308	P03508IP	XT15IP-S35	
184330800	XCS 34032-4D	34,0	32	138	141	171	XOKX 11T306	SOKX 11T308	P03508IP	XT15IP-S35	
184330900	XCS 35032-4D	35,0	32	142	145	175	XOKX 11T306	SOKX 11T308	P03508IP	XT15IP-S35	
184331000	XCS 36040-4D	36,0	40	146	149	184	XOKX 130406	SOKX 130410	P04010IP	XT15IP-S35	
184331100	XCS 37040-4D	37,0	40	150	153	188	XOKX 130406	SOKX 130410	P04010IP	XT15IP-S35	
184331200	XCS 38040-4D	38,0	40	154	157	192	XOKX 130406	SOKX 130410	P04010IP	XT15IP-S35	
184331300	XCS 39040-4D	39,0	40	158	161	196	XOKX 130406	SOKX 130410	P04010IP	XT15IP-S35	
184331400	XCS 40040-4D	40,0	40	162	165	200	XOKX 130406	SOKX 130410	P04010IP	XT15IP-S35	
184331500	XCS 41040-4D	41,0	40	166	169	204	XOKX 130406	SOKX 130410	P04010IP	XT15IP-S35	
184331600	XCS 42040-4D	42,0	40	170	173	208	XOKX 130406	SOKX 130410	P04010IP	XT15IP-S35	
184331700	XCS 43040-4D	43,0	40	174	177	212	XOKX 150508	SOKX 150510	P05013IP	XT20IP-S40	
184331800	XCS 44040-4D	44,0	40	178	181	216	XOKX 150508	SOKX 150510	P05013IP	XT20IP-S40	
184331900	XCS 45040-4D	45,0	40	182	185	220	XOKX 150508	SOKX 150510	P05013IP	XT20IP-S40	
184332000	XCS 46040-4D	46,0	40	186	189	224	XOKX 150508	SOKX 150510	P05013IP	XT20IP-S40	
184332100	XCS 47040-4D	47,0	40	190	193	228	XOKX 150508	SOKX 150510	P05013IP	XT20IP-S40	
184332200	XCS 48040-4D	48,0	40	194	197	232	XOKX 150508	SOKX 150510	P05013IP	XT20IP-S40	
184332300	XCS 49040-4D	49,0	40	198	201	236	XOKX 150508	SOKX 150510	P05013IP	XT20IP-S40	
184332400	XCS 50040-4D	50,0	40	202	205	240	XOKX 150508	SOKX 150510	P05013IP	XT20IP-S40	
184342200	XCS 51040-4D	51,0	40	204	209	244	XOKX 180508	SOKX 180510	P05013IP	XT20IP-S40	
184342300	XCS 52040-4D	52,0	40	208	213	248	XOKX 180508	SOKX 180510	P05013IP	XT20IP-S40	
184342400	XCS 53040-4D	53,0	40	212	217	252	XOKX 180508	SOKX 180510	P05013IP	XT20IP-S40	
184342500	XCS 54040-4D	54,0	40	216	221	256	XOKX 180508	SOKX 180510	P05013IP	XT20IP-S40	
184342600	XCS 55040-4D	55,0	40	220	225	260	XOKX 180508	SOKX 180510	P05013IP	XT20IP-S40	
184342700	XCS 56040-4D	56,0	40	224	229	264	XOKX 180508	SOKX 180510	P05013IP	XT20IP-S40	
184342800	XCS 57040-4D	57,0	40	228	233	264	XOKX 180508	SOKX 180510	P05013IP	XT20IP-S40	
184342900	XCS 58040-4D	58,0	40	232	237	272	XOKX 180508	SOKX 180510	P05013IP	XT20IP-S40	
184343000	XCS 59040-4D	59,0	40	236	241	276	XOKX 180508	SOKX 180510	P05013IP	XT20IP-S40	
184343100	XCS 60040-4D	60,0	40	240	245	280	XOKX 180508	SOKX 180510	P05013IP	XT20IP-S40	

 Stock item | Produto de stock | Itens de stock

 Available under request | Disponível sobre consulta | Disponible bajo consulta



DCONMS	LS	BP / SP	5D		
			DC	Drill tolerance	Hole tolerance
20	50	PT - 1/8	14-29,5	0/-0,15	-0,05/+0,25
25	56	PT - 1/8	30-42	0/-0,15	-0,05/+0,30
32	60	PT - 1/4	43-60	0/-0,15	-0,05/+0,33
40	70	PT - 1/4			

Order code Código	Reference Referência Referencia	Dimensions Dimensões Dimensiones (mm)					Inner Insert	Outer Insert	Insert Screw	Torx key	Stock
		DC	DCONMS	LU	LCF	LPR					
184332500	XCS 14020-5D	14,0	20	70	73	88	XOKX 050204	SOKX 050204	P02004IP	XT06IP	
184332600	XCS 14520-5D	14,5	20	73	76	91	XOKX 050204	SOKX 050204	P02004IP	XT06IP	
184332700	XCS 15020-5D	15,0	20	75	78	93	XOKX 050204	SOKX 050204	P02004IP	XT06IP	
184332800	XCS 15520-5D	15,5	20	78	81	96	XOKX 050204	SOKX 050204	P02004IP	XT06IP	
184332900	XCS 16020-5D	16,0	20	80	83	98	XOKX 050204	SOKX 050204	P02004IP	XT06IP	
184333000	XCS 16525-5D	16,5	25	83	86	106	XOKX 060204	SOKX 060205	P02205IP	XT06IP	
184333100	XCS 17025-5D	17,0	25	85	88	108	XOKX 060204	SOKX 060205	P02205IP	XT06IP	
184333200	XCS 17525-5D	17,5	25	88	91	111	XOKX 060204	SOKX 060205	P02205IP	XT06IP	
184333300	XCS 18025-5D	18,0	25	90	93	113	XOKX 060204	SOKX 060205	P02205IP	XT06IP	
184333400	XCS 18525-5D	18,5	25	93	96	116	XOKX 060204	SOKX 060205	P02205IP	XT06IP	
184333500	XCS 19025-5D	19,0	25	95	98	118	XOKX 060204	SOKX 060205	P02205IP	XT06IP	
184333600	XCS 19525-5D	19,5	25	98	101	121	XOKX 060204	SOKX 060205	P02205IP	XT06IP	
184333700	XCS 20025-5D	20,0	25	100	103	123	XOKX 07T205	SOKX 07T208	P02507IP	XT08IP	
184333800	XCS 20525-5D	20,5	25	103	106	126	XOKX 07T205	SOKX 07T208	P02507IP	XT08IP	
184333900	XCS 21025-5D	21,0	25	105	108	128	XOKX 07T205	SOKX 07T208	P02507IP	XT08IP	
184334000	XCS 21525-5D	21,5	25	108	111	131	XOKX 07T205	SOKX 07T208	P02507IP	XT08IP	
184334100	XCS 22025-5D	22,0	25	110	113	133	XOKX 07T205	SOKX 07T208	P02507IP	XT08IP	
184334200	XCS 22525-5D	22,5	25	113	116	136	XOKX 07T205	SOKX 07T208	P02507IP	XT08IP	
184334300	XCS 23025-5D	23,0	25	115	118	138	XOKX 07T205	SOKX 07T208	P02507IP	XT08IP	
184334400	XCS 23525-5D	23,5	25	118	121	141	XOKX 07T205	SOKX 07T208	P02507IP	XT08IP	

 Stock item | Produto de stock | Itens de stock

 Available under request | Disponível sobre consulta | Disponible bajo consulta

Continue next page

Order code Código	Reference Referência Referencia	Dimensions Dimensões Dimensiones (mm)					Inner Insert	Outer Insert	Insert Screw	Torx key	Stock
		DC	DCONMS	LU	LCF	LPR					
184334500	XCS 24032-5D	24,0	32	120	123	148	XOKX 090305	SOKX 090308	P03007IP	XT08IP	
184334600	XCS 24532-5D	24,5	32	123	126	151	XOKX 090305	SOKX 090308	P03007IP	XT08IP	
184334700	XCS 25032-5D	25,0	32	125	128	153	XOKX 090305	SOKX 090308	P03007IP	XT08IP	
184334800	XCS 25532-5D	25,5	32	128	131	156	XOKX 090305	SOKX 090308	P03007IP	XT08IP	
184334900	XCS 26032-5D	26,0	32	130	133	158	XOKX 090305	SOKX 090308	P03007IP	XT08IP	
184335000	XCS 26532-5D	26,5	32	133	136	161	XOKX 090305	SOKX 090308	P03007IP	XT08IP	
184335100	XCS 27032-5D	27,0	32	135	138	163	XOKX 090305	SOKX 090308	P03007IP	XT08IP	
184335200	XCS 27532-5D	27,5	32	138	141	176	XOKX 090305	SOKX 090308	P03007IP	XT08IP	
184335300	XCS 28032-5D	28,0	32	140	143	168	XOKX 090305	SOKX 090308	P03007IP	XT08IP	
184335400	XCS 28532-5D	28,5	32	143	146	171	XOKX 090305	SOKX 090308	P03007IP	XT08IP	
184335500	XCS 29032-5D	29,0	32	145	148	173	XOKX 090305	SOKX 090308	P03007IP	XT08IP	
184335600	XCS 29532-5D	29,5	32	148	151	176	XOKX 090305	SOKX 090308	P03007IP	XT08IP	
184335700	XCS 30032-5D	30,0	32	152	155	180	XOKX 11T306	SOKX 11T308	P03508IP	XT15IP-S35	
184335800	XCS 31032-5D	31,0	32	157	160	185	XOKX 11T306	SOKX 11T308	P03508IP	XT15IP-S35	
184335900	XCS 32032-5D	32,0	32	162	165	190	XOKX 11T306	SOKX 11T308	P03508IP	XT15IP-S35	
184336000	XCS 33032-5D	33,0	32	167	170	195	XOKX 11T306	SOKX 11T308	P03508IP	XT15IP-S35	
184336100	XCS 34032-5D	34,0	32	172	175	200	XOKX 11T306	SOKX 11T308	P03508IP	XT15IP-S35	
184336200	XCS 35032-5D	35,0	32	177	180	205	XOKX 11T306	SOKX 11T308	P03508IP	XT15IP-S35	
184336300	XCS 36040-5D	36,0	40	182	185	215	XOKX 130406	SOKX 130410	P04010IP	XT15IP-S35	
184336400	XCS 37040-5D	37,0	40	187	190	220	XOKX 130406	SOKX 130410	P04010IP	XT15IP-S35	
184336500	XCS 38040-5D	38,0	40	192	195	225	XOKX 130406	SOKX 130410	P04010IP	XT15IP-S35	
184336600	XCS 39040-5D	39,0	40	197	200	230	XOKX 130406	SOKX 130410	P04010IP	XT15IP-S35	
184336700	XCS 40040-5D	40,0	40	202	205	235	XOKX 130406	SOKX 130410	P04010IP	XT15IP-S35	
184336800	XCS 41040-5D	41,0	40	207	210	240	XOKX 130406	SOKX 130410	P04010IP	XT15IP-S35	
184336900	XCS 42040-5D	42,0	40	212	215	245	XOKX 130406	SOKX 130410	P04010IP	XT15IP-S35	
184337000	XCS 43040-5D	43,0	40	217	220	250	XOKX 150508	SOKX 150510	P05013IP	XT20IP-S40	
184337100	XCS 44040-5D	44,0	40	222	225	255	XOKX 150508	SOKX 150510	P05013IP	XT20IP-S40	
184337200	XCS 45040-5D	45,0	40	227	230	260	XOKX 150508	SOKX 150510	P05013IP	XT20IP-S40	
184337300	XCS 46040-5D	46,0	40	232	235	265	XOKX 150508	SOKX 150510	P05013IP	XT20IP-S40	
184337400	XCS 47040-5D	47,0	40	237	240	270	XOKX 150508	SOKX 150510	P05013IP	XT20IP-S40	
184337500	XCS 48040-5D	48,0	40	242	245	275	XOKX 150508	SOKX 150510	P05013IP	XT20IP-S40	
184337600	XCS 49040-5D	49,0	40	247	250	280	XOKX 150508	SOKX 150510	P05013IP	XT20IP-S40	
184337700	XCS 50040-5D	50,0	40	252	255	285	XOKX 150508	SOKX 150510	P05013IP	XT20IP-S40	
184343200	XCS 51040-5D	51,0	40	257	260	290	XOKX 180508	SOKX 180510	P05013IP	XT20IP-S40	
184343300	XCS 52040-5D	52,0	40	262	265	295	XOKX 180508	SOKX 180510	P05013IP	XT20IP-S40	
184343400	XCS 53040-5D	53,0	40	267	270	300	XOKX 180508	SOKX 180510	P05013IP	XT20IP-S40	
184343500	XCS 54040-5D	54,0	40	272	275	305	XOKX 180508	SOKX 180510	P05013IP	XT20IP-S40	
184343600	XCS 55040-5D	55,0	40	277	280	310	XOKX 180508	SOKX 180510	P05013IP	XT20IP-S40	
184343700	XCS 56040-5D	56,0	40	282	285	315	XOKX 180508	SOKX 180510	P05013IP	XT20IP-S40	
184343800	XCS 57040-5D	57,0	40	287	290	320	XOKX 180508	SOKX 180510	P05013IP	XT20IP-S40	
184343900	XCS 58040-5D	58,0	40	292	295	325	XOKX 180508	SOKX 180510	P05013IP	XT20IP-S40	
184344000	XCS 59040-5D	59,0	40	297	300	330	XOKX 180508	SOKX 180510	P05013IP	XT20IP-S40	
184344100	XCS 60040-5D	60,0	40	302	305	335	XOKX 180508	SOKX 180510	P05013IP	XT20IP-S40	

 Stock item | Produto de stock | Itens de stock

 Available under request | Disponível sobre consulta | Disponible bajo consulta

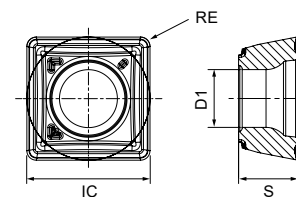
SOKX OUTER INSERT



SOKX-MP



SOKX-MS



SOKX-MP | MS

		P			M		K			S		Dimensions Dimensões Dimensiones (mm)			
		PVD		CVD	PVD		PVD		CVD	PVD					
		T1	P4	2C	Y3	X9	T1	P4	2C	Y3	X9				
⁽¹⁾ Geometry code	ISO Reference	PHP920	PHP930	PHS130	PHH920	PHH930	PHP920	PHP930	PHS130	PHH920	PHH930	IC	S	D1	RE
1142113	SOKX 050204-MP	Ⓐ		Ⓐ			Ⓐ		Ⓐ			5,10	2,50	2,40	0,40
1142115	SOKX 060205-MP	Ⓐ		Ⓐ			Ⓐ		Ⓐ			6,20	2,60	2,60	0,50
1142117	SOKX 07T208-MP	Ⓐ		Ⓐ			Ⓐ		Ⓐ			7,50	2,90	2,90	0,80
1142119	SOKX 090308-MP	Ⓐ		Ⓐ			Ⓐ		Ⓐ			9,20	3,50	3,50	0,80
1142121	SOKX 11T308-MP	Ⓐ		Ⓐ			Ⓐ		Ⓐ			11,00	4,20	4,10	0,80
1142123	SOKX 130410-MP	Ⓐ		Ⓐ			Ⓐ		Ⓐ			13,00	4,73	4,60	1,00
1142125	SOKX 150510-MP	Ⓐ		Ⓐ			Ⓐ		Ⓐ			15,20	5,30	5,60	1,00
1142160	SOKX 180510-MP	Ⓐ		Ⓐ			Ⓐ		Ⓐ			18,20	5,30	5,60	1,00
1142127	SOKX 050204-MS				Ⓐ					Ⓐ		5,10	2,50	2,40	0,40
1142129	SOKX 060205-MS				Ⓐ					Ⓐ		6,20	2,60	2,60	0,50
1142131	SOKX 07T208-MS				Ⓐ					Ⓐ		7,50	2,90	2,90	0,80
1142133	SOKX 090308-MS				Ⓐ					Ⓐ		9,20	3,50	3,50	0,80
1142135	SOKX 11T308-MS				Ⓐ					Ⓐ		11,00	4,20	4,10	0,80
1142137	SOKX 130410-MS				Ⓐ					Ⓐ		13,00	4,73	4,60	1,00
1142139	SOKX 150510-MS				Ⓐ					Ⓐ		15,20	5,30	5,60	1,00
1142162	SOKX 180510-MS				Ⓐ					Ⓐ		18,20	5,30	5,60	1,00

Ⓐ Stock item | Produto de stock | Itens de stock ○ Available under request | Disponível sob consulta | Disponible bajo consulta

Insert order code = ⁽¹⁾ Geometry code + ⁽²⁾ Grade code

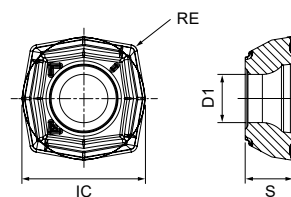
XOKX INNER INSERT



XOKX-MP



XOKX-MS



XOKX-MP | MS

		P		M		K		S		Dimensions Dimensões Dimensiones (mm)			
		PVD		PVD		PVD		PVD					
		T1	P4	Y3	X9	T1	P4	Y3	X9				
⁽¹⁾ Geometry code	ISO Reference	PHP920	PHP930	PHH920	PHH930	PHP920	PHP930	PHH920	PHH930	IC	S	D1	RE
1142112	XOKX 050204-MP		⊗				⊗			5,40	2,50	2,40	0,40
1142114	XOKX 060204-MP		⊗				⊗			6,56	2,50	2,60	0,40
1142116	XOKX 07T205-MP		⊗				⊗			7,80	2,90	2,90	0,50
1142118	XOKX 090305-MP		⊗				⊗			9,60	3,50	3,50	0,50
1142120	XOKX 11T306-MP		⊗				⊗			11,38	4,15	4,10	0,60
1142122	XOKX 130406-MP		⊗				⊗			13,60	4,68	4,60	0,60
1142124	XOKX 150508-MP		⊗				⊗			15,90	5,30	5,60	0,80
1142159	XOKX 180508-MP		⊗				⊗			18,20	5,30	5,60	0,80
1142126	XOKX 050204-MS				⊗				⊗	5,40	2,50	2,40	0,40
1142128	XOKX 060204-MS				⊗				⊗	6,60	2,60	2,60	0,40
1142130	XOKX 07T205-MS				⊗				⊗	7,80	2,90	2,90	0,50
1142132	XOKX 090305-MS				⊗				⊗	9,60	3,50	3,50	0,50
1142134	XOKX 11T306-MS				⊗				⊗	11,38	4,20	4,10	0,60
1142136	XOKX 130406-MS				⊗				⊗	13,60	4,68	4,60	0,60
1142138	XOKX 150508-MS				⊗				⊗	15,90	5,30	5,60	0,80
1142161	XOKX 180508-MS				⊗				⊗	18,20	5,30	5,60	0,80

⊗ Stock item | Produto de stock | Itens de stock ○ Available under request | Disponível sob consulta | Disponible bajo consulta

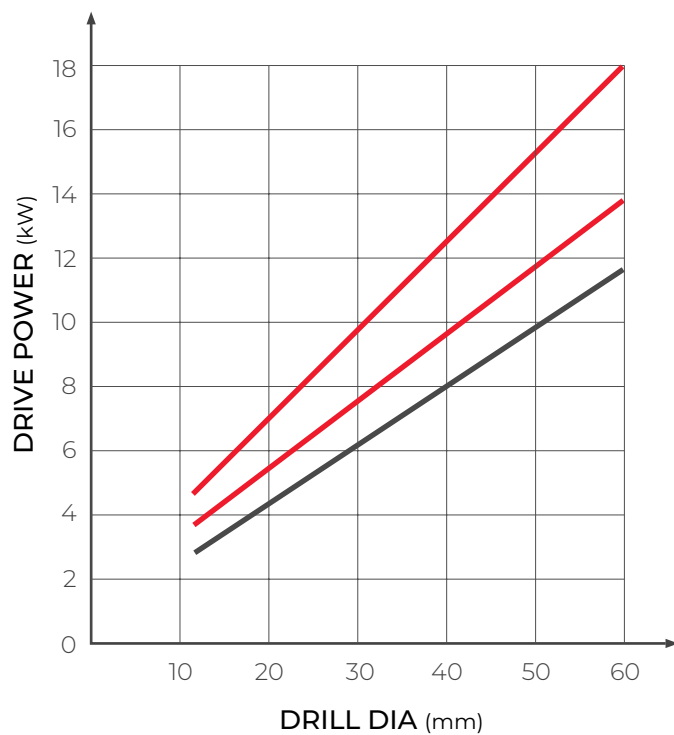
Insert order code = ⁽¹⁾ Geometry code + ⁽²⁾ Grade code

ISO	Material Group	Vc (m/min)	fn (mm/rev)				
			Ø14-Ø16	Ø16,5-Ø23,5	Ø24-Ø29,5	Ø30-Ø42	Ø43-Ø60
P	Unalloyed steel (-0,25%)	160-250	0,04-0,08	0,04-0,08	0,04-0,10	0,05-0,12	0,05-0,14
	Low-alloy steel	120-220	0,04-0,10	0,04-0,12	0,05-0,15	0,06-0,18	0,06-0,20
	High-alloy steel	120-180	0,04-0,12	0,05-0,12	0,07-0,16	0,08-0,18	0,08-0,20
M	Stainless steel	130-220	0,04-0,10	0,04-0,12	0,05-0,14	0,06-0,16	0,06-0,18
K	Grey cast iron	150-250	0,04-0,10	0,05-0,14	0,05-0,17	0,08-0,20	0,08-0,25
	Cast iron with nodular cast	100-200	0,04-0,12	0,04-0,12	0,05-0,14	0,06-0,15	0,06-0,18
S	Super-alloys and titanium	30-90	0,04-0,08	0,04-0,08	0,04-0,11	0,07-0,12	0,08-0,15

NOTES

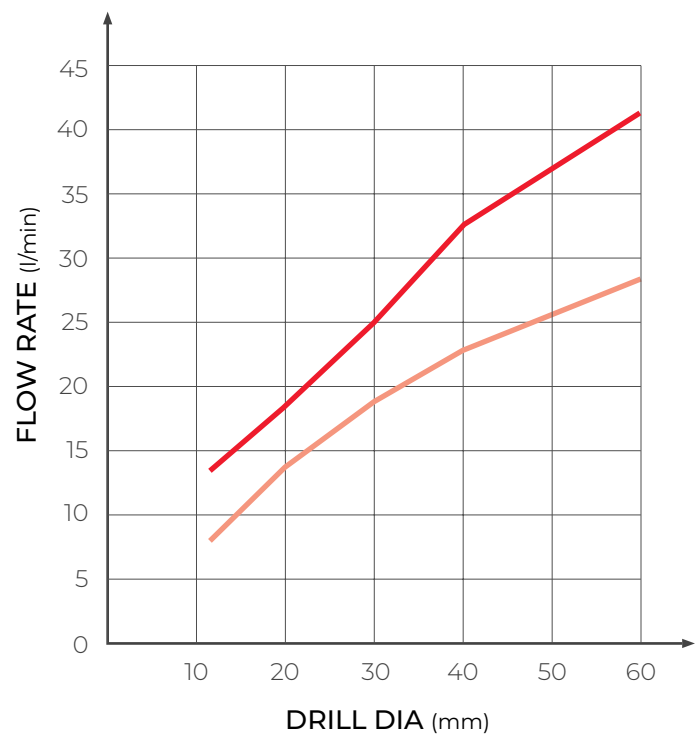
When working on irregular surfaces, please reduce the feed rate by 30%-50%. To ensure the best performance, make sure to use the proper oil pressure (over 5kg/cm2) and follow the cutting data parameters.

Power requirements



- F = 0,13 mm/r
- F = 0,10 mm/r
- F = 0,07 mm/r

Cutting oil quantity



- Recommended cutting oil quantity
- Min. cutting oil quantity

NOTES

Minimum pressure coolant: 5bar

GRADE SELECTION INNER INSERT

PVD

Due to the reduced cutting speed in the central area of the drill, a tougher grade is recommended for the inner insert.

PHP930
P20-P40
K10-K30

PHH930
M20-M40
S20-S30

GRADE SELECTION OUTER INSERT

PVD

First choice for stable machining and improved surface finish. Recommended for outer edge if chattering occurs.

PHP920
P10-P35
K10-K30

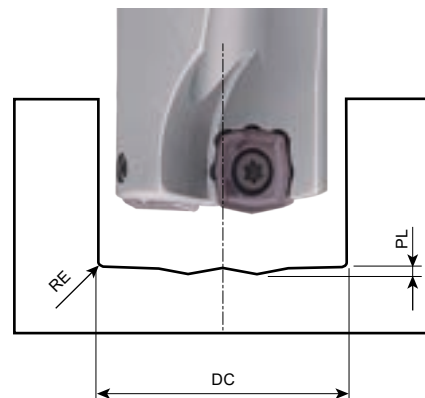
PHH920
M10-M25
S15-S30

CVD

First choice for high speeds and high efficiency machining, abrasion resistance and longer tool life.

PHS130
P10-P35
K20-K40

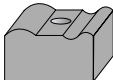
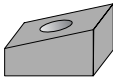
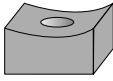
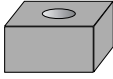
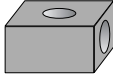
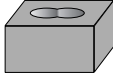
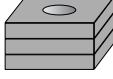
Drill diameter (Ø)	Diameter range (Ø)	Drill diameter (Ø)	Diameter range (Ø)	Drill diameter (Ø)	Diameter range (Ø)
Ø14,0	13,6~14,5	Ø28,0	27,4~28,6	Ø42,0	41,3~42,7
Ø14,5	14,1~15,0	Ø28,5	27,9~29,1	Ø42,5	41,8~43,2
Ø15,0	14,6~15,5	Ø29,0	28,4~29,6	Ø43,0	42,2~43,7
Ø15,5	15,1~16,0	Ø29,5	28,9~30,1	Ø43,5	42,7~44,2
Ø16,0	15,6~16,5	Ø30,0	29,3~30,7	Ø44,0	43,2~44,7
Ø16,5	16,0~17,0	Ø30,5	29,8~31,2	Ø44,5	43,7~45,2
Ø17,0	16,5~17,5	Ø31,0	30,3~31,7	Ø45,0	44,2~45,7
Ø17,5	17,0~18,0	Ø31,5	30,8~32,2	Ø45,5	44,7~46,2
Ø18,0	17,5~18,5	Ø32,0	31,3~32,7	Ø46,0	45,2~46,7
Ø18,5	18,0~19,0	Ø32,5	31,8~33,2	Ø46,5	45,7~47,2
Ø19,0	18,5~19,5	Ø33,0	32,3~33,7	Ø47,0	46,2~47,7
Ø19,5	19,0~20,0	Ø33,5	32,8~34,2	Ø47,5	46,7~48,2
Ø20,0	19,4~20,6	Ø34,0	33,3~34,7	Ø48,0	47,2~48,7
Ø20,5	19,9~21,1	Ø34,5	33,8~35,2	Ø48,5	47,7~49,2
Ø21,0	20,4~21,6	Ø35,0	34,3~35,7	Ø49,0	48,2~49,7
Ø21,5	20,9~22,1	Ø35,5	34,8~36,2	Ø49,5	48,7~50,2
Ø22,0	21,4~22,6	Ø36,0	35,3~36,7	Ø50,0	49,2~50,7
Ø22,5	21,9~23,1	Ø36,5	35,8~37,2	Ø51,0	50,2~51,7
Ø23,0	22,4~23,6	Ø37,0	36,3~37,7	Ø52,0	51,2~52,7
Ø23,5	22,9~24,1	Ø37,5	36,8~38,2	Ø53,0	52,2~53,7
Ø24,0	23,4~24,6	Ø38,0	37,3~38,7	Ø54,0	53,2~54,7
Ø24,5	23,9~25,1	Ø38,5	37,8~39,2	Ø55,0	54,2~55,7
Ø25,0	24,4~25,6	Ø39,0	38,3~39,7	Ø56,0	55,2~56,7
Ø25,5	24,9~26,1	Ø39,5	38,8~40,2	Ø57,0	56,2~57,7
Ø26,0	25,4~26,6	Ø40,0	39,3~40,7	Ø58,0	57,2~58,7
Ø26,5	25,9~27,1	Ø40,5	39,8~41,2	Ø59,0	58,2~59,7
Ø27,0	26,4~27,6	Ø41,0	40,3~41,7	Ø60,0	59,2~60,7
Ø27,5	26,9~28,1	Ø41,5	40,8~42,2		

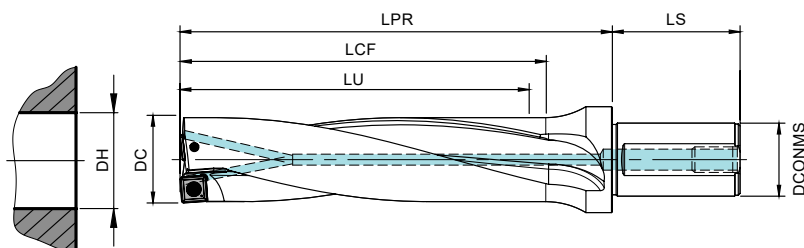


Drill diameter (mm)	Outer insert	Inner insert	PL	RE
Ø14,0-16,0	SOKX 050204	XOKX 050204	0,4	0,4
Ø16,5-19,5	SOKX 060205	XOKX 060205	0,5	0,5
Ø20,0-24,0	SOKX 07T208	XOKX 07T208	0,5	0,8
Ø24,5-30,0	SOKX 090308	XOKX 090308	0,7	0,8
Ø31,0-35,0	SOKX 11T308	XOKX 11T308	0,8	0,8
Ø36,0-42,0	SOKX 130410	XOKX 130410	1,0	1,0
Ø43,0-50,0	SOKX 150510	XOKX 150508	1,1	1,0
Ø51,0-60,0	SOKX 180510	XOKX 180508	1,2	1,0

RULES & TIPS

Regras e dicas | Reglas y consejos

Workpiece	Machining
 Irregular surface	- Decrease the feed by 25%; - Potential chipping and fracture;
 Inclined surface	Decrease the feed by 50%.
 Convex / Concave surface	- Decrease the feed by 50% until both inserts are engaged; - Potential initial contact with the central insert identified (convex surface);
 Boring	Decrease the feed by 50%.
 Crossing holes	Decrease the feed by 50% in the overlapped section.
 Chain holemaking	Decrease the feed by 50%.
 Stack holemaking	- Decrease the feed by 25%; - Potential chipping and fracture;



DCONMS	LS	BP / SP
20	50	PT - 1/8
25	56	PT - 1/8
32	60	PT - 1/4
40	70	PT - 1/4

ØDH tolerance (mm)	
DC	3D
13,0 - 21,5	-0,10 / +0,15
22,0 - 50,0	-0,12 / +0,20

Order code Código	Reference Referência Referencia	Dimensions Dimensões Dimensiones (mm)					Insert	Insert Screw	Torx key	Stock
		DC	DCONMS	LU	LCF	LPR				
184041400	SCS 13020-3D	13,0	20	39	42	62	SPKX 050204	P0200500	XT06	
184041500	SCS 13520-3D	13,5	20	41	44	64	SPKX 050204	P0200500	XT06	
184041600	SCS 14020-3D	14,0	20	42	45	65	SPKX 050204	P0200500	XT06	
184041700	SCS 14520-3D	14,5	20	44	47	67	SPKX 050204	P0200500	XT06	
184041800	SCS 15020-3D	15,0	20	45	48	68	SPKX 050204	P0200500	XT06	
184041900	SCS 15525-3D	15,5	25	47	50	75	SP.X 060204	P0220500	XT07	
184042000	SCS 16025-3D	16,0	25	48	51	76	SP.X 060204	P0220500	XT07	
184042100	SCS 16525-3D	16,5	25	50	53	78	SP.X 060204	P0220500	XT07	
184042200	SCS 17025-3D	17,0	25	51	54	79	SP.X 060204	P0220500	XT07	
184042300	SCS 17525-3D	17,5	25	53	56	81	SP.X 060204	P0220500	XT07	
184042400	SCS 18025-3D	18,0	25	54	57	82	SP.X 060204	P0220500	XT07	
184042500	SCS 18525-3D	18,5	25	56	59	84	SP.X 060204	P0220500	XT07	
184042600	SCS 19025-3D	19,0	25	57	60	85	SP.X 060204	P0220500	XT07	
184042700	SCS 19525-3D	19,5	25	59	62	87	SP.X 060204	P0220500	XT07	
184042800	SCS 20025-3D	20,0	25	60	63	88	SP.X 060204	P0220500	XT07	
184042900	SCS 20525-3D	20,5	25	62	65	90	SP.X 060204	P0220500	XT07	
184043000	SCS 21025-3D	21,0	25	63	66	91	SP.X 060204	P0220500	XT07	
184043100	SCS 21525-3D	21,5	25	65	68	93	SP.X 060204	P0220500	XT07	
184043200	SCS 22032-3D	22,0	32	66	69	99	SPKX 07T308	P0250704	XT08	
184043300	SCS 22532-3D	22,5	32	68	71	101	SPKX 07T308	P0250704	XT08	
184043400	SCS 23032-3D	23,0	32	69	72	102	SPKX 07T308	P0250704	XT08	
184043500	SCS 23532-3D	23,5	32	71	74	104	SPKX 07T308	P0250704	XT08	
184043600	SCS 24032-3D	24,0	32	72	75	105	SPKX 07T308	P0250704	XT08	
184043700	SCS 24532-3D	24,5	32	74	77	107	SPKX 07T308	P0250704	XT08	
184043800	SCS 25032-3D	25,0	32	75	78	108	SPKX 07T308	P0250704	XT08	
184043900	SCS 25532-3D	25,5	32	77	80	110	SPKX 07T308	P0250704	XT08	
184044000	SCS 26032-3D	26,0	32	78	81	111	SPKX 07T308	P0250704	XT08	

 Stock item | Produto de stock | Itens de stock

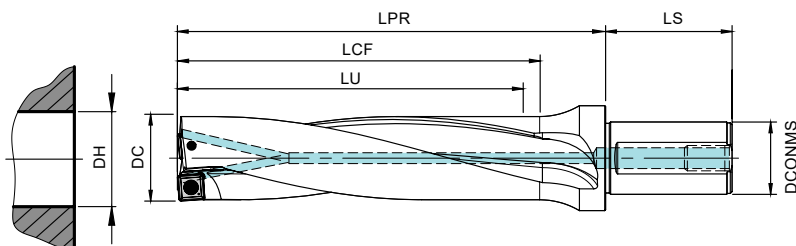
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Continue next page

Order code Código	Reference Referência Referencia	Dimensions Dimensões Dimensiones (mm)					Insert	Insert Screw	Torx key	Stock
		DC	DCONMS	LU	LCF	LPR				
184044100	SCS 26532-3D	26,5	32	80	83	113	SPKX 07T308	P0250704	XT08	
184044200	SCS 27032-3D	27,0	32	81	84	114	SPKX 07T308	P0250704	XT08	
184044400	SCS 27532-3D	27,5	32	83	86	116	SPKX 07T308	P0250704	XT08	
184044500	SCS 28032-3D	28,0	32	84	87	117	SPKX 090408	P0350903	XT15	
184044600	SCS 28532-3D	28,5	32	86	89	119	SPKX 090408	P0350903	XT15	
184044700	SCS 29032-3D	29,0	32	87	90	120	SPKX 090408	P0350903	XT15	
184044800	SCS 29532-3D	29,5	32	89	93	123	SPKX 090408	P0350903	XT15	
184044900	SCS 30032-3D	30,0	32	90	95	125	SPKX 090408	P0350903	XT15	
184045000	SCS 31032-3D	31,0	32	93	98	128	SPKX 090408	P0350903	XT15	
184045100	SCS 32032-3D	32,0	32	96	101	131	SPKX 090408	P0350903	XT15	
184045200	SCS 33032-3D	33,0	32	99	104	134	SPKX 090408	P0350903	XT15	
184045300	SCS 34040-3D	34,0	40	102	107	142	SPKX 110408	P0401200	XT15	
184045400	SCS 35040-3D	35,0	40	105	110	145	SPKX 110408	P0401200	XT15	
184045500	SCS 36040-3D	36,0	40	108	113	148	SPKX 110408	P0401200	XT15	
184045600	SCS 37040-3D	37,0	40	111	116	151	SPKX 110408	P0401200	XT15	
184045700	SCS 38040-3D	38,0	40	114	119	154	SPKX 110408	P0401200	XT15	
184045800	SCS 39040-3D	39,0	40	117	122	157	SPKX 110408	P0401200	XT15	
184045900	SCS 40040-3D	40,0	40	120	125	160	SPKX 110408	P0401200	XT15	
184046000	SCS 41040-3D	41,0	40	123	128	163	SPKX 110408	P0401200	XT15	
184046100	SCS 42040-3D	42,0	40	126	131	166	SPKX 140512	P0501300	XT20	
184046200	SCS 43040-3D	43,0	40	129	134	169	SPKX 140512	P0501300	XT20	
184046300	SCS 44040-3D	44,0	40	132	137	172	SPKX 140512	P0501300	XT20	
184046400	SCS 45040-3D	45,0	40	135	140	175	SPKX 140512	P0501300	XT20	
184046500	SCS 46040-3D	46,0	40	138	143	178	SPKX 140512	P0501300	XT20	
184046600	SCS 47040-3D	47,0	40	141	146	181	SPKX 140512	P0501300	XT20	
184046700	SCS 48040-3D	48,0	40	144	149	184	SPKX 140512	P0501300	XT20	
184046800	SCS 49040-3D	49,0	40	147	152	187	SPKX 140512	P0501300	XT20	
184046900	SCS 50040-3D	50,0	40	150	155	190	SPKX 140512	P0501300	XT20	

 Stock item | Produto de stock | Itens de stock

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DCONMS	LS	BP / SP
20	50	PT - 1/8
25	56	PT - 1/8
32	60	PT - 1/4
40	70	PT - 1/4

ØDH tolerance (mm)	
DC	3D
13,0 - 21,5	-0,15 / +0,20
22,0 - 50,0	-0,15 / +0,25

Order code Código	Reference Referência Referencia	Dimensions Dimensões Dimensiones (mm)					Insert	Insert Screw	Torx key	Stock
		DC	DCONMS	LU	LCF	LPR				
184047100	SCS 13020-4D	13,0	20	52	55	75	SPKX 050204	P0200500	XT06	
184047200	SCS 13520-4D	13,5	20	54	57	77	SPKX 050204	P0200500	XT06	
184047300	SCS 14020-4D	14,0	20	56	59	79	SPKX 050204	P0200500	XT06	
184047400	SCS 14520-4D	14,5	20	58	61	81	SPKX 050204	P0200500	XT06	
184047500	SCS 15020-4D	15,0	20	60	63	83	SPKX 050204	P0200500	XT06	
184047600	SCS 15525-4D	15,5	25	62	65	90	SP..X 060204	P0220500	XT07	
184047700	SCS 16025-4D	16,0	25	64	67	92	SP..X 060204	P0220500	XT07	
184047800	SCS 16525-4D	16,5	25	66	69	94	SP..X 060204	P0220500	XT07	
184047900	SCS 17025-4D	17,0	25	68	71	96	SP..X 060204	P0220500	XT07	
184048000	SCS 17525-4D	17,5	25	70	73	98	SP..X 060204	P0220500	XT07	
184048100	SCS 18025-4D	18,0	25	72	75	100	SP..X 060204	P0220500	XT07	
184048200	SCS 18525-4D	18,5	25	74	77	102	SP..X 060204	P0220500	XT07	
184048300	SCS 19025-4D	19,0	25	76	79	104	SP..X 060204	P0220500	XT07	
184048400	SCS 19525-4D	19,5	25	78	81	106	SP..X 060204	P0220500	XT07	
184048500	SCS 20025-4D	20,0	25	80	83	108	SP..X 060204	P0220500	XT07	
184048600	SCS 20525-4D	20,5	25	82	85	110	SP..X 060204	P0220500	XT07	
184048700	SCS 21025-4D	21,0	25	84	87	112	SP..X 060204	P0220500	XT07	
184048800	SCS 21525-4D	21,5	25	86	89	114	SP..X 060204	P0220500	XT07	
184048900	SCS 22032-4D	22,0	32	88	91	121	SPKX 07T308	P0250704	XT08	
184049000	SCS 22532-4D	22,5	32	90	93	123	SPKX 07T308	P0250704	XT08	
184049100	SCS 23032-4D	23,0	32	92	95	125	SPKX 07T308	P0250704	XT08	
184049200	SCS 23532-4D	23,5	32	94	97	127	SPKX 07T308	P0250704	XT08	
184049300	SCS 24032-4D	24,0	32	96	99	129	SPKX 07T308	P0250704	XT08	
184049400	SCS 24532-4D	24,5	32	98	101	131	SPKX 07T308	P0250704	XT08	
184049500	SCS 25032-4D	25,0	32	100	103	133	SPKX 07T308	P0250704	XT08	
184049600	SCS 25532-4D	25,5	32	102	105	135	SPKX 07T308	P0250704	XT08	
184049700	SCS 26032-4D	26,0	32	104	107	137	SPKX 07T308	P0250704	XT08	

 Stock item | Produto de stock | Itens de stock

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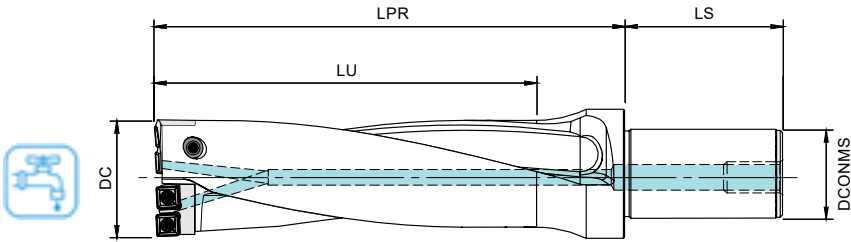
Order code Código	Reference Referência Referencia	Dimensions Dimensões Dimensiones (mm)					Insert	Insert Screw	Torx key	Stock
		DC	DCONMS	LU	LCF	LPR				
184049800	SCS 26532-4D	26,5	32	106	109	139	SPKX 07T308	P0250704	XT08	
184049900	SCS 27032-4D	27,0	32	108	111	141	SPKX 07T308	P0250704	XT08	
184050000	SCS 27532-4D	27,5	32	110	113	143	SPKX 07T308	P0250704	XT08	
184050100	SCS 28032-4D	28,0	32	112	115	145	SPKX 090408	P0350903	XT15	
184050200	SCS 28532-4D	28,5	32	114	117	147	SPKX 090408	P0350903	XT15	
184050300	SCS 29032-4D	29,0	32	116	120	150	SPKX 090408	P0350903	XT15	
184050400	SCS 29532-4D	29,5	32	118	123	153	SPKX 090408	P0350903	XT15	
184050500	SCS 30032-4D	30,0	32	120	125	155	SPKX 090408	P0350903	XT15	
184050600	SCS 31032-4D	31,0	32	124	129	159	SPKX 090408	P0350903	XT15	
184050700	SCS 32032-4D	32,0	32	128	133	163	SPKX 090408	P0350903	XT15	
184050800	SCS 33032-4D	33,0	32	132	137	167	SPKX 090408	P0350903	XT15	
184050900	SCS 34040-4D	34,0	40	136	141	176	SPKX 110408	P0401200	XT15	
184051000	SCS 35040-4D	35,0	40	140	145	180	SPKX 110408	P0401200	XT15	
184051100	SCS 36040-4D	36,0	40	144	149	184	SPKX 110408	P0401200	XT15	
184051200	SCS 37040-4D	37,0	40	148	153	188	SPKX 110408	P0401200	XT15	
184051300	SCS 38040-4D	38,0	40	152	157	192	SPKX 110408	P0401200	XT15	
184051400	SCS 39040-4D	39,0	40	156	161	196	SPKX 110408	P0401200	XT15	
184051500	SCS 40040-4D	40,0	40	160	165	200	SPKX 110408	P0401200	XT15	
184051600	SCS 41040-4D	41,0	40	164	169	204	SPKX 110408	P0401200	XT15	
184051700	SCS 42040-4D	42,0	40	168	173	208	SPKX 140512	P0501300	XT20	
184051800	SCS 43040-4D	43,0	40	172	177	212	SPKX 140512	P0501300	XT20	
184051900	SCS 44040-4D	44,0	40	176	181	216	SPKX 140512	P0501300	XT20	
184052000	SCS 45040-4D	45,0	40	180	185	220	SPKX 140512	P0501300	XT20	
184052100	SCS 46040-4D	46,0	40	184	189	224	SPKX 140512	P0501300	XT20	
184052200	SCS 47040-4D	47,0	40	188	193	228	SPKX 140512	P0501300	XT20	
184052300	SCS 48040-4D	48,0	40	192	197	232	SPKX 140512	P0501300	XT20	
184052400	SCS 49040-4D	49,0	40	196	201	236	SPKX 140512	P0501300	XT20	
184052500	SCS 50040-4D	50,0	40	200	205	240	SPKX 140512	P0501300	XT20	

 Stock item | Produto de stock | Itens de stock

 Available under request | Disponível sobre consulta | Disponible bajo consulta

SCC 3D CARTRIDGE TYPE (DOUBLE INSERT) Jet drills | Brocas jet | Brocas jet

SIZE ADAPTABLE CARTRIDGE (5MM)

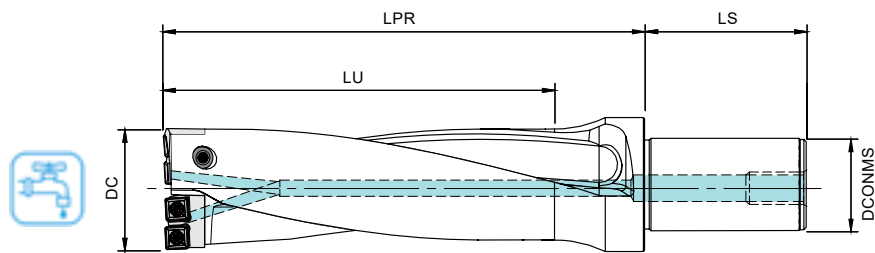


DCONMS	LS	BP / SP
40	70	PT - 1/4

Order code Código	Reference Referência Referencia	Dimensions Dimensões Dimensiones (mm)				Cartridge	Insert	Insert Screw	Torx key	Stock
		DC	DCONMS	LU	LPR					
184231800	SCC 505540-3D	50-55	40	165	205	SCC 050055-I/O	SPKX 090408	P0350903	XT15	
184231900	SCC 556040-3D	55-60	40	180	220	SCC 055060-I/O	SPKX 090408	P0350903	XT15	
184232000	SCC 606540-3D	60-65	40	195	235	SCC 060065-I/O	SPKX 110408	P0401200	XT15	
184232100	SCC 657040-3D	65-70	40	210	250	SCC 065070-I/O	SPKX 110408	P0401200	XT15	
184232200	SCC 707540-3D	70-75	40	225	265	SCC 070075-I/O	SPKX 110408	P0401200	XT15	
184232300	SCC 758040-3D	75-80	40	240	278	SCC 075080-I/O	SPKX 140512	P0501300	XT20	

Stock item | Produto de stock | Itens de stock Available under request | Disponível sobre consulta | Disponible bajo consulta

SCC 4D CARTRIDGE TYPE (DOUBLE INSERT)
 Jet drills | Brocas jet | Brocas jet
 SIZE ADAPTABLE CARTRIDGE (5MM)

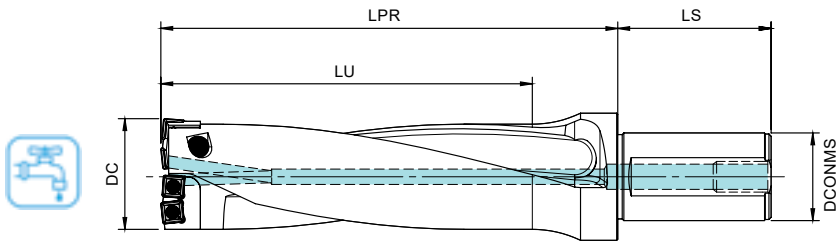


DCONMS	LS	BP / SP
40	70	PT - 1/4

Order code Código	Reference Referência Referencia	Dimensions Dimensões Dimensiones (mm)				Cartridge	Insert	Insert Screw	Torx key	Stock
		DC	DCONMS	LU	LPR					
184232400	SCC 505540-4D	50-55	40	220	260	SCC 050055-I/O	SPKX 090408	P0350903	XT15	
184232500	SCC 556040-4D	55-60	40	240	280	SCC 055060-I/O	SPKX 090408	P0350903	XT15	
184232600	SCC 606540-4D	60-65	40	260	300	SCC 060065-I/O	SPKX 110408	P0401200	XT15	
184232700	SCC 657040-4D	65-70	40	280	320	SCC 065070-I/O	SPKX 110408	P0401200	XT15	
184232800	SCC 707540-4D	70-75	40	300	340	SCC 070075-I/O	SPKX 110408	P0401200	XT15	
184232900	SCC 758040-4D	75-80	40	320	358	SCC 075080-I/O	SPKX 140512	P0501300	XT20	

 Stock item | Produto de stock | Itens de stock
  Available under request | Disponível sobre consulta | Disponible bajo consulta

SCC 4D CARTRIDGE TYPE (DOUBLE INSERT) Jet drills | Brocas jet | Brocas jet
SIZE ADJUSTMENT CARTRIDGE (1MM) *

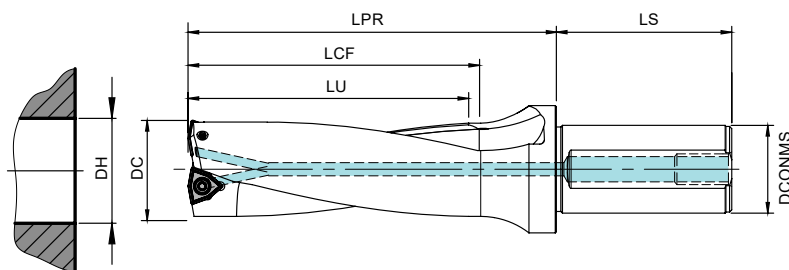


DCONMS	LS	BP / SP
40	70	PT - 1/4

Order code Código	Reference Referência Referencia	Dimensions Dimensões Dimensiones (mm)				Cartridge	Insert	Insert Screw	Torx key	Stock
		DC	DCONMS	LU	LPR					
184056300	SCC 575840-4D	57-58	40	235	275	CISP 5560 / COSP 5758	SPKX 090408	P0350903	XT15	
184056400	SCC 585940-4D	58-59	40	235	275	CISP 5560 / COSP 5859	SPKX 090408	P0350903	XT15	
184056500	SCC 596040-4D	59-60	40	235	275	CISP 5560 / COSP 5960	SPKX 090408	P0350903	XT15	
184057400	SCC 686940-4D	68-69	40	275	315	CISP 6570 / COSP 6869	SPKX 110408	P0401200	XT15	

 Stock item | Produto de stock | Itens de stock  Available under request | Disponível sobre consulta | Disponible bajo consulta  Available until sold out | Disponível até acabar o stock | Disponible hasta acabar el stock

* The 1mm size adjustment cartridge will be replaced by the 5mm adaptable cartridge when this type is sold out. See previous page for the new Drill version.



DCONMS	LS	BP / SP	ØDH tolerance (mm)	
			DC	3D
20	50	PT-1/8		
25	56	PT-1/8	13,0 - 21,5	-0,10 / +0,15
32	60	PT-1/4	22,0 - 50,0	-0,12 / +0,20
40	70	PT-1/4	50,0 - 58,0	-0,15 / +0,25

Order code Código	Reference Referência Referencia	Dimensions Dimensões Dimensiones (mm)					Insert	Insert Screw	Torx key	Stock
		DC	DCONMS	LU	LCF	LPR				
184034600	TDS 13020-3D	13,0	20	39	42	62	WCKX 02T104	P0180500	XT06	⊗
184034700	TDS 13520-3D	13,5	20	41	44	64	WCKX 02T104	P0180500	XT06	⊗
184034800	TDS 14020-3D	14,0	20	42	45	65	WCKX 02T104	P0180500	XT06	⊗
184034900	TDS 14520-3D	14,5	20	44	47	67	WCKX 02T104	P0180500	XT06	⊗
184035000	TDS 15020-3D	15,0	20	45	48	68	WCKX 02T104	P0180500	XT06	⊗
184035100	TDS 15520-3D	15,5	20	47	50	70	WCKX 02T104	P0180500	XT06	⊗
184035200	TDS 16025-3D	16,0	25	48	51	76	WCKX 030204	P0220500	XT07	⊗
184035300	TDS 16525-3D	16,5	25	50	53	78	WCKX 030204	P0220500	XT07	⊗
184035400	TDS 17025-3D	17,0	25	51	54	79	WCKX 030204	P0220500	XT07	⊗
184035500	TDS 17525-3D	17,5	25	53	56	81	WCKX 030204	P0220500	XT07	⊗
184035600	TDS 18025-3D	18,0	25	54	57	82	WCKX 030204	P0220500	XT07	⊗
184035700	TDS 18525-3D	18,5	25	56	59	84	WCKX 030204	P0220500	XT07	⊗
184035800	TDS 19025-3D	19,0	25	57	60	85	WCKX 030204	P0220500	XT07	⊗
184035900	TDS 19525-3D	19,5	25	59	62	87	WCKX 030204	P0220500	XT07	⊗
184036000	TDS 20025-3D	20,0	25	60	63	88	WCKX 030204	P0220500	XT07	⊗
184036100	TDS 20525-3D	20,5	25	62	65	90	WCKX 040204	P0250503	XT08	⊗
184036200	TDS 21025-3D	21,0	25	63	66	91	WCKX 040204	P0250503	XT08	⊗
184036300	TDS 21525-3D	21,5	25	65	68	93	WCKX 040204	P0250503	XT08	⊗
184036400	TDS 22025-3D	22,0	25	66	69	94	WCKX 040204	P0250503	XT08	⊗
184036500	TDS 22525-3D	22,5	25	68	71	96	WCKX 040204	P0250503	XT08	⊗
184036600	TDS 23025-3D	23,0	25	69	72	97	WCKX 040204	P0250503	XT08	⊗
184036700	TDS 23525-3D	23,5	25	71	74	99	WCKX 040204	P0250503	XT08	⊗
184036800	TDS 24025-3D	24,0	25	72	75	100	WCKX 040204	P0250503	XT08	⊗
184036900	TDS 24525-3D	24,5	25	74	77	102	WCKX 040204	P0250503	XT08	⊗
184037000	TDS 25025-3D	25,0	25	75	78	103	WCKX 040204	P0250503	XT08	⊗
184037100	TDS 25532-3D	25,5	32	77	80	110	WCKX 050308	P0300701	XT08	⊗
184037200	TDS 26032-3D	26,0	32	78	81	111	WCKX 050308	P0300701	XT08	⊗

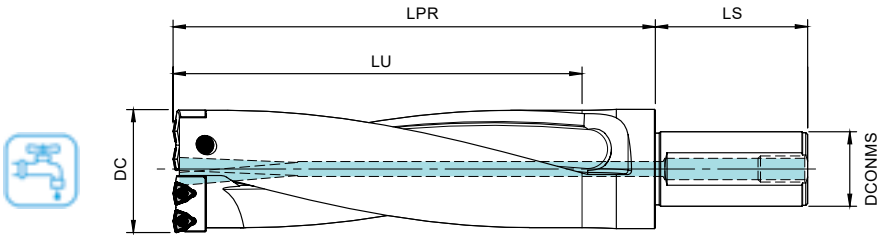
⊗ Stock item | Produto de stock | Itens de stock

○ Available under request | Disponível sobre consulta | Disponible bajo consulta

Continue next page

HOLEMAKING	TDS 3D										
	Jet drills Brocas jet Brocas jet										
	Order code Código	Reference Referência Referencia	Dimensions Dimensões Dimensiones (mm)					Insert	Insert Screw	Torx key	Stock
DC			DCONMS	LU	LCF	LPR					
Multi cut	184037300	TDS 26532-3D	26,5	32	80	83	113	WCKX 050308	P0300701	XT08	
	184037400	TDS 27032-3D	27,0	32	81	84	114	WCKX 050308	P0300701	XT08	
	184037500	TDS 27532-3D	27,5	32	83	86	116	WCKX 050308	P0300701	XT08	
	184037600	TDS 28032-3D	28,0	32	84	87	117	WCKX 050308	P0300701	XT08	
	184037700	TDS 28532-3D	28,5	32	86	89	119	WCKX 050308	P0300701	XT08	
Jet Drills	184037800	TDS 29032-3D	29,0	32	87	90	120	WCKX 050308	P0300701	XT08	
	184037900	TDS 29532-3D	29,5	32	89	92	122	WCKX 050308	P0300701	XT08	
	184038000	TDS 30032-3D	30,0	32	90	93	123	WCKX 050308	P0300701	XT08	
	184038100	TDS 31032-3D	31,0	32	93	96	126	WCKX 06T308	P0350903	XT15	
	184038200	TDS 32032-3D	32,0	32	96	99	129	WCKX 06T308	P0350903	XT15	
Integrex Drills	184038300	TDS 33032-3D	33,0	32	99	102	132	WCKX 06T308	P0350903	XT15	
	184038400	TDS 34032-3D	34,0	32	102	105	135	WCKX 06T308	P0350903	XT15	
	184038500	TDS 35032-3D	35,0	32	105	108	138	WCKX 06T308	P0350903	XT15	
	184038600	TDS 36032-3D	36,0	32	108	111	141	WCKX 06T308	P0350903	XT15	
	184038700	TDS 37032-3D	37,0	32	111	114	144	WCKX 06T308	P0350903	XT15	
Vortex Drills	184038800	TDS 38032-3D	38,0	32	114	117	147	WCKX 06T308	P0350903	XT15	
	184038900	TDS 39032-3D	39,0	32	117	120	150	WCKX 06T308	P0350903	XT15	
	184039000	TDS 40032-3D	40,0	32	120	123	153	WCKX 06T308	P0350903	XT15	
	184039100	TDS 41032-3D	41,0	32	123	126	156	WCKX 06T308	P0350903	XT15	
	184039200	TDS 42040-3D	42,0	40	126	129	164	WCKX 080408	P0401101	XT15	
Trepanning Drills	184039300	TDS 43040-3D	43,0	40	129	132	167	WCKX 080408	P0401101	XT15	
	184039400	TDS 44040-3D	44,0	40	132	135	170	WCKX 080408	P0401101	XT15	
	184039500	TDS 45040-3D	45,0	40	135	138	173	WCKX 080408	P0401101	XT15	
	184039600	TDS 46040-3D	46,0	40	138	141	176	WCKX 080408	P0401101	XT15	
	184039700	TDS 47040-3D	47,0	40	141	144	179	WCKX 080408	P0401101	XT15	
Inserts	184039800	TDS 48040-3D	48,0	40	144	147	182	WCKX 080408	P0401101	XT15	
	184039900	TDS 49040-3D	49,0	40	147	150	185	WCKX 080408	P0401101	XT15	
	184040000	TDS 50040-3D	50,0	40	150	153	188	WCKX 080408	P0401101	XT15	
	184040100	TDS 51040-3D	51,0	40	153	156	191	WCKX 080408	P0401101	XT15	
	184040200	TDS 52040-3D	52,0	40	156	159	194	WCKX 080408	P0401101	XT15	
Spare Parts	184040300	TDS 53040-3D	53,0	40	159	162	197	WCKX 080408	P0401101	XT15	
	184040400	TDS 54040-3D	54,0	40	162	165	200	WCKX 080408	P0401101	XT15	
	184040500	TDS 55040-3D	55,0	40	165	168	203	WCKX 080408	P0401101	XT15	
	184040600	TDS 56040-3D	56,0	40	168	171	206	WCKX 080408	P0401101	XT15	
	184040700	TDS 57040-3D	57,0	40	171	174	209	WCKX 080408	P0401101	XT15	
	184040800	TDS 58040-3D	58,0	40	174	177	212	WCKX 080408	P0401101	XT15	
 Stock item Produto de stock Itens de stock											
 Available under request Disponível sobre consulta Disponible bajo consulta											

TDC 3D CARTRIDGE TYPE (DOUBLE INSERT) Jet drills | Brocas jet | Brocas jet



DCONMS	LS	BP / SP
40	70	PT - 1/4

Order code Código	Reference Referência Referencia	Dimensions Dimensões Dimensiones (mm)					Insert	Insert Screw	Torx key	Stock
		DC	DCONMS	LU	LPR	Cartridge				
184040900	TDC 596540-3D	59-65	40	195	235	TDC 059065-I/O	WCKX 06T308	P0350903	XT15	
184041000	TDC 657040-3D	65-70	40	210	250	TDC 065070-I/O	WCKX 06T308	P0350903	XT15	
184041100	TDC 707540-3D	70-75	40	225	265	TDC 070075-I/O	WCKX 06T308	P0350903	XT15	
184041200	TDC 758040-3D	75-80	40	240	280	TDC 075080-I/O	WCKX 06T308	P0350903	XT15	

 Stock item | Produto de stock | Itens de stock

 Available under request | Disponível sobre consulta | Disponible bajo consulta

INTEGREX

DRILLS



Integrex drills offer an indexable insert solution that includes a pilot drill, making them highly effective for drilling holes with considerable cutting lengths. The pilot drill functions to create a clean and consistent working surface, enabling the subsequent drill to enter the workpiece smoothly and also acting as a guide throughout the drilling operation.

As brocas Integrex oferecem uma solução de inserção indexável que inclui uma broca piloto, tornando-as eficazes para perfurar com comprimentos de corte consideráveis. A broca piloto funciona para criar uma superfície de trabalho limpa e consistente, permitindo que a broca subsequente entre na peça suavemente e também atuando como um guia durante toda a operação de perfuração.

Las brocas Integrex ofrecen una solución de inserción indexable que incluye una broca piloto, lo que las hace efectivas para perforar con longitudes de corte considerable. La broca piloto funciona para crear una superficie de trabajo limpia y consistente, permitiendo que la broca posterior entre en la pieza suavemente y también actuando como guía durante toda la operación de perforación.

DHS > page 406

- > From DC 25mm to 40mm
De DC 25mm a 40mm | Desde DC 25mm hasta 40mm
- > Available in 5D and 8D
Disponível em 5D e 8D | Disponible en 5D y 8D
- > Insert WCKX
Pastilha WCKX | Plaquita WCKX
- > Pilot drill
Broca piloto | Taladro piloto



DHC > page 408

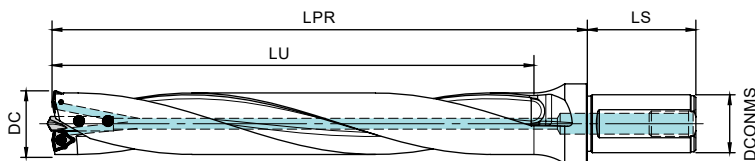
- > From DC 41mm to 80mm
De DC 41mm a 80mm | Desde DC 41mm hasta 80mm
- > Available in 5D and 8D
Disponível em 5D e 8D | Disponible en 5D y 8D
- > 1 or 2 WCKX inserts per cartridge
1 ou 2 pastilhas WCKX por cartucho | 1 o 2 plaquitas WCKX por cartucho
- > Pilot drill
Broca piloto | Taladro piloto



TFD > page 410

- > From DC 18,0mm to 30,0mm
De DC 18,0mm a 30,0mm | Desde DC 18,0mm hasta 30,0mm
- > Available in 6D and 8D
Disponível em 6D e 8D | Disponible en 6D y 8D
- > Insert SPKX
Pastilha SPKX | Plaquita SPKX
- > Pilot drill
Broca piloto | Taladro piloto





New version / Standard version*

DCONMS	LS	BP / SP
32	60 / 70	PT - 1/4

*Order seperately

Order code Código	Reference Referência Referencia	Dimensions Dimensões Dimensiones (mm)				Insert	Insert Screw	Torx key	Pilot drill*	Stock
		DC	DCONMS	LU	LPR					
184058600	DHS 002532-5D	25	32	150	180	WCKX 030204	P0220500	XT07	MDP 3006	☐
184058700	DHS 002632-5D	26	32	150	180	WCKX 040204	P0250503	XT08	MDP 3006	☐
184058800	DHS 002732-5D	27	32	150	180	WCKX 040204	P0250503	XT08	MDP 3006	☐
184058900	DHS 002832-5D	28	32	150	180	WCKX 040204	P0250503	XT08	MDP 3006	☐
184059000	DHS 002932-5D	29	32	150	180	WCKX 040204	P0250503	XT08	MDP 3006	☐
184059100	DHS 003032-5D	30	32	150	180	WCKX 040204	P0250503	XT08	MDP 3006	☐
184059200	DHS 003132-5D	31	32	175	205	WCKX 050308	P0300701	XT08	MDP 3508	☐
184059300	DHS 003232-5D	32	32	175	205	WCKX 050308	P0300701	XT08	MDP 3508	☐
184059400	DHS 003332-5D	33	32	175	205	WCKX 050308	P0300701	XT08	MDP 3508	☐
184059500	DHS 003432-5D	34	32	175	205	WCKX 050308	P0300701	XT08	MDP 3508	☐
184059600	DHS 003532-5D	35	32	175	205	WCKX 050308	P0300701	XT08	MDP 3508	☐
184059700	DHS 003632-5D	36	32	200	230	WCKX 050308	P0300701	XT08	MDP 3508	☐
184059800	DHS 003732-5D	37	32	200	230	WCKX 050308	P0300701	XT08	MDP 3508	☐
184059900	DHS 003832-5D	38	32	200	230	WCKX 050308	P0300701	XT08	MDP 3508	☐
184060000	DHS 003932-5D	39	32	200	230	WCKX 050308	P0300701	XT08	MDP 3508	☐
184060100	DHS 004032-5D	40	32	200	230	WCKX 050308	P0300701	XT08	MDP 3508	☐

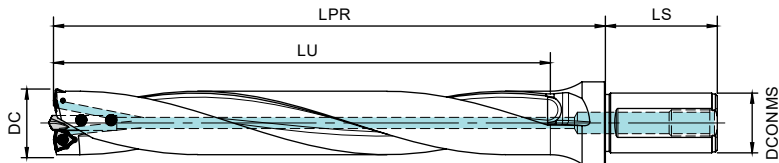
 Stock item | Produto de stock | Itens de stock  Available under request | Disponível sobre consulta | Disponible bajo consulta

Note:This type of drills are supplied without pilot drills. Please order them separately.

Please see Page B - 449 for setting pilot drill.

Pilot Drill
mounting procedure





New version / Standard version*

DCONMS	LS	BP / SP
32	60 / 70	PT - 1/4

*Order seperately

Order code Código	Reference Referência Referencia	Dimensions Dimensões Dimensiones (mm)				Insert	Insert Screw	Torx key	Pilot drill*	Stock
		DC	DCONMS	LU	LPR					
184062100	DHS 002532-8D	25	32	220	250	WCKX 030204	P0220500	XT07	MDP 3006	⊗
184062200	DHS 002632-8D	26	32	220	250	WCKX 040204	P0250503	XT08	MDP 3006	○
184062300	DHS 002732-8D	27	32	220	250	WCKX 040204	P0250503	XT08	MDP 3006	○
184062400	DHS 002832-8D	28	32	220	250	WCKX 040204	P0250503	XT08	MDP 3006	○
184062500	DHS 002932-8D	29	32	220	250	WCKX 040204	P0250503	XT08	MDP 3006	○
184062600	DHS 003032-8D	30	32	220	250	WCKX 040204	P0250503	XT08	MDP 3006	⊗
184062700	DHS 003132-8D	31	32	260	290	WCKX 050308	P0300701	XT08	MDP 3508	○
184062800	DHS 003232-8D	32	32	260	290	WCKX 050308	P0300701	XT08	MDP 3508	○
184062900	DHS 003332-8D	33	32	260	290	WCKX 050308	P0300701	XT08	MDP 3508	○
184063000	DHS 003432-8D	34	32	260	290	WCKX 050308	P0300701	XT08	MDP 3508	⊗
184063100	DHS 003532-8D	35	32	260	290	WCKX 050308	P0300701	XT08	MDP 3508	⊗
184063200	DHS 003632-8D	36	32	300	330	WCKX 050308	P0300701	XT08	MDP 3508	○
184063300	DHS 003732-8D	37	32	300	330	WCKX 050308	P0300701	XT08	MDP 3508	○
184063400	DHS 003832-8D	38	32	300	330	WCKX 050308	P0300701	XT08	MDP 3508	○
184063500	DHS 003932-8D	39	32	300	330	WCKX 050308	P0300701	XT08	MDP 3508	○
184063600	DHS 004032-8D	40	32	300	330	WCKX 050308	P0300701	XT08	MDP 3508	⊗

⊗ Stock item | Produto de stock | Itens de stock ○ Available under request | Disponível sobre consulta | Disponible bajo consulta

Note: This type of drills are supplied without pilot drills. Please order them separately.

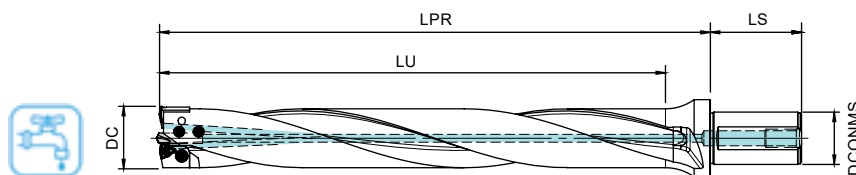
Please see Page B - 449 for setting pilot drill.

Pilot Drill
mounting procedure



DHC 5D CARTRIDGE TYPE (SINGLE & DOUBLE INSERT)

Integrex drills | Brocas integrex | Brocas integrex



New version / Standard version*

DCONMS	LS	BP / SP
40	70 / 80	PT - 1/4

*Order separately

Order code Código	Reference Referência Referencia	Dimensions Dimensões Dimensiones (mm)				Cartridge	Insert	Insert Screw	Torx key	Pilot drill*	Stock
		DC	DCONMS	LU	LPR						

1 INSERT PER CARTRIDGE

184192500	DHC 004140-5D	41	40	225	260	CWC 041045-I / CWC 000041-O	WCKX 06T308	P0350903	XT15	MDP 3510	○
184192600	DHC 004240-5D	42	40	225	260	CWC 041045-I / CWC 000042-O	WCKX 06T308	P0350903	XT15	MDP 3510	○
184192700	DHC 004340-5D	43	40	225	260	CWC 041045-I / CWC 000043-O	WCKX 06T308	P0350903	XT15	MDP 3510	○
184192800	DHC 004440-5D	44	40	225	260	CWC 041045-I / CWC 000044-O	WCKX 06T308	P0350903	XT15	MDP 3510	○
184192900	DHC 004540-5D	45	40	225	260	CWC 041045-I / CWC 000045-O	WCKX 06T308	P0350903	XT15	MDP 3510	○
184193000	DHC 004640-5D	46	40	250	285	CWC 046050-I / CWC 000046-O	WCKX 06T308	P0350903	XT15	MDP 3510	○
184193100	DHC 004740-5D	47	40	250	285	CWC 046050-I / CWC 000047-O	WCKX 06T308	P0350903	XT15	MDP 3510	○
184193200	DHC 004840-5D	48	40	250	285	CWC 046050-I / CWC 000048-O	WCKX 06T308	P0350903	XT15	MDP 3510	○
184193300	DHC 004940-5D	49	40	250	285	CWC 046050-I / CWC 000049-O	WCKX 06T308	P0350903	XT15	MDP 3510	○
184193400	DHC 005040-5D	50	40	250	285	CWC 046050-I / CWC 000050-O	WCKX 06T308	P0350903	XT15	MDP 3510	○
184193500	DHC 005140-5D	51	40	275	310	CWC 051055-I / CWC 000051-O	WCKX 080408	P0401101	XT15	MDP 3812	○
184193600	DHC 005240-5D	52	40	275	310	CWC 051055-I / CWC 000052-O	WCKX 080408	P0401101	XT15	MDP 3812	○
184193700	DHC 005340-5D	53	40	275	310	CWC 051055-I / CWC 000053-O	WCKX 080408	P0401101	XT15	MDP 3812	○
184193800	DHC 005440-5D	54	40	275	310	CWC 051055-I / CWC 000054-O	WCKX 080408	P0401101	XT15	MDP 3812	○
184193900	DHC 005540-5D	55	40	275	310	CWC 051055-I / CWC 000055-O	WCKX 080408	P0401101	XT15	MDP 3812	○
184194000	DHC 005640-5D	56	40	300	335	CWC 056059-I / CWC 000056-O	WCKX 080408	P0401101	XT15	MDP 3812	○
184194100	DHC 005740-5D	57	40	300	335	CWC 056059-I / CWC 000057-O	WCKX 080408	P0401101	XT15	MDP 3812	○
184194200	DHC 005840-5D	58	40	300	335	CWC 056059-I / CWC 000058-O	WCKX 080408	P0401101	XT15	MDP 3812	○
184194300	DHC 005940-5D	59	40	300	335	CWC 056059-I / CWC 000059-O	WCKX 080408	P0401101	XT15	MDP 3812	○

2 INSERTS PER CARTRIDGE

184065600	DHC 606540-5D	60-65	40	325	360	MDC 060065-I/O	WCKX 050308	P0300701	XT08	MDP 3812	○
184065700	DHC 657040-5D	65-70	40	350	385	MDC 065070-I/O	WCKX 050308	P0300701	XT08	MDP 3812	○
184065800	DHC 707540-5D	70-75	40	375	410	MDC 070075-I/O	WCKX 050308	P0300701	XT08	MDP 3812	○
184065900	DHC 758040-5D	75-80	40	400	435	MDC 075080-I/O	WCKX 06T308	P0350903	XT15	MDP 4516	○

Stock item | Produto de stock | Itens de stock Available under request | Disponível sobre consulta | Disponible bajo consulta

Note: This type of drills are supplied without pilot drills. Please order them separately.

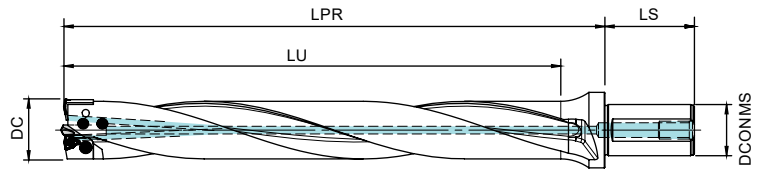
Please see Page B - 449 for setting pilot drill.

Pilot Drill
mounting procedure



DHC 8D CARTRIDGE TYPE (SINGLE & DOUBLE INSERT)

Integrex drills | Brocas integrex | Brocas integrex



New version / Standard version*

DCONMS	LS	BP / SP
40	70 / 80	PT - 1/4

*Order separately

Order code Código	Reference Referência Referencia	Dimensions Dimensões Dimensiones (mm)				Cartridge	Insert	Insert Screw	Torx key	Pilot drill*	Stock
		DC	DCONMS	LU	LPR						

1 INSERT PER CARTRIDGE

184194400	DHC 004140-8D	41	40	340	375	CWC 041045-I / CWC 000041-O	WCKX 06T308	P0350903	XT15	MDP 3510	○
184194500	DHC 004240-8D	42	40	340	375	CWC 041045-I / CWC 000042-O	WCKX 06T308	P0350903	XT15	MDP 3510	○
184194600	DHC 004340-8D	43	40	340	375	CWC 041045-I / CWC 000043-O	WCKX 06T308	P0350903	XT15	MDP 3510	○
184194700	DHC 004440-8D	44	40	340	375	CWC 041045-I / CWC 000044-O	WCKX 06T308	P0350903	XT15	MDP 3510	○
184194800	DHC 004540-8D	45	40	340	375	CWC 041045-I / CWC 000045-O	WCKX 06T308	P0350903	XT15	MDP 3510	○
184194900	DHC 004640-8D	46	40	380	415	CWC 046050-I / CWC 000046-O	WCKX 06T308	P0350903	XT15	MDP 3510	○
184195000	DHC 004740-8D	47	40	380	415	CWC 046050-I / CWC 000047-O	WCKX 06T308	P0350903	XT15	MDP 3510	○
184195100	DHC 004840-8D	48	40	380	415	CWC 046050-I / CWC 000048-O	WCKX 06T308	P0350903	XT15	MDP 3510	○
184195200	DHC 004940-8D	49	40	380	415	CWC 046050-I / CWC 000049-O	WCKX 06T308	P0350903	XT15	MDP 3510	○
184195300	DHC 005040-8D	50	40	380	415	CWC 046050-I / CWC 000050-O	WCKX 06T308	P0350903	XT15	MDP 3510	○
184195400	DHC 005140-8D	51	40	420	455	CWC 051055-I / CWC 000051-O	WCKX 080408	P0401101	XT15	MDP 3812	○
184195500	DHC 005240-8D	52	40	420	455	CWC 051055-I / CWC 000052-O	WCKX 080408	P0401101	XT15	MDP 3812	○
184195600	DHC 005340-8D	53	40	420	455	CWC 051055-I / CWC 000053-O	WCKX 080408	P0401101	XT15	MDP 3812	○
184195700	DHC 005440-8D	54	40	420	455	CWC 051055-I / CWC 000054-O	WCKX 080408	P0401101	XT15	MDP 3812	○
184195800	DHC 005540-8D	55	40	420	455	CWC 051055-I / CWC 000055-O	WCKX 080408	P0401101	XT15	MDP 3812	○
184195900	DHC 005640-8D	56	40	460	495	CWC 056059-I / CWC 000056-O	WCKX 080408	P0401101	XT15	MDP 3812	○
184196000	DHC 005740-8D	57	40	460	495	CWC 056059-I / CWC 000057-O	WCKX 080408	P0401101	XT15	MDP 3812	○
184196100	DHC 005840-8D	58	40	460	495	CWC 056059-I / CWC 000058-O	WCKX 080408	P0401101	XT15	MDP 3812	○
184196200	DHC 005940-8D	59	40	460	495	CWC 056059-I / CWC 000059-O	WCKX 080408	P0401101	XT15	MDP 3812	○

2 INSERTS PER CARTRIDGE

184066000	DHC 606540-8D	60-65	40	520	555	MDC 060065-I/O	WCKX 050308	P0300701	XT08	MDP 3812	○
184066100	DHC 657040-8D	65-70	40	560	595	MDC 065070-I/O	WCKX 050308	P0300701	XT08	MDP 3812	○
184066200	DHC 707540-8D	70-75	40	600	635	MDC 070075-I/O	WCKX 050308	P0300701	XT08	MDP 3812	○
184066300	DHC 758040-8D	75-80	40	640	675	MDC 075080-I/O	WCKX 06T308	P0350903	XT15	MDP 4516	○

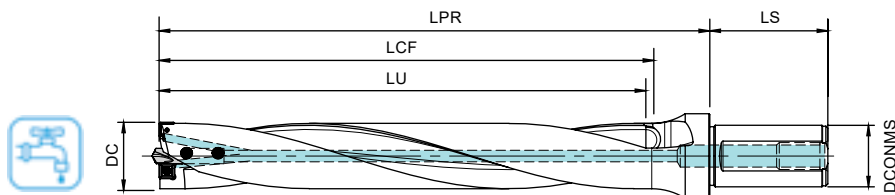
Stock item | Produto de stock | Itens de stock Available under request | Disponível sobre consulta | Disponible bajo consulta

Note: This type of drills are supplied without pilot drills. Please order them separately.

Please see Page B - 449 for setting pilot drill.

Pilot Drill
mounting procedure





DCONMS	LS	BP / SP
25	56	PT - 1/8
32	60	PT - 1/4

*Order separately

Order code Código	Reference Referência	Dimensions Dimensões Dimensiones (mm)					Insert	Insert Screw	Torx key	Pilot drill*	Stock
		DC	DCONMS	LU	LCF	LPR					
184154300	TFD 18025-6D	18,0	25	108	112	142	SPKX 050204	P0200500	XT06	MDP 2006	☑
184154400	TFD 18525-6D	18,5	25	111	115	145	SPKX 050204	P0200500	XT06	MDP 2006	○
184154500	TFD 19025-6D	19,0	25	114	118	148	SPKX 050204	P0200500	XT06	MDP 2006	○
184154600	TFD 19525-6D	19,5	25	117	121	151	SPKX 050204	P0200500	XT06	MDP 2006	○
184154700	TFD 20025-6D	20,0	25	120	124	154	SP.X 060204	P0220500	XT07	MDP 2006	☑
184154800	TFD 20525-6D	20,5	25	123	127	157	SP.X 060204	P0220500	XT07	MDP 2006	○
184154900	TFD 21025-6D	21,0	25	126	130	160	SP.X 060204	P0220500	XT07	MDP 2006	☑
184155000	TFD 21525-6D	21,5	25	129	133	163	SP.X 060204	P0220500	XT07	MDP 2006	○
184155100	TFD 22025-6D	22,0	25	132	136	166	SP.X 060204	P0220500	XT07	MDP 2006	☑
184155200	TFD 22525-6D	22,5	25	135	139	169	SP.X 060204	P0220500	XT07	MDP 2006	○
184155300	TFD 23025-6D	23,0	25	138	142	172	SP.X 060204	P0220500	XT07	MDP 2006	○
184155400	TFD 23525-6D	23,5	25	141	145	175	SP.X 060204	P0220500	XT07	MDP 2006	○
184155500	TFD 24025-6D	24,0	25	144	148	178	SP.X 060204	P0220500	XT07	MDP 2006	○
184155600	TFD 24525-6D	24,5	25	147	151	181	SP.X 060204	P0220500	XT07	MDP 2006	○
184155700	TFD 25025-6D	25,0	25	150	154	184	SP.X 060204	P0220500	XT07	MDP 2006	○
184155800	TFD 25532-6D	25,5	32	153	157	192	SPKX 07T308	P0250704	XT08	MDP 2508	○
184155900	TFD 26032-6D	26,0	32	156	160	195	SPKX 07T308	P0250704	XT08	MDP 2508	☑
184156000	TFD 26532-6D	26,5	32	159	163	198	SPKX 07T308	P0250704	XT08	MDP 2508	○
184156100	TFD 27032-6D	27,0	32	162	166	201	SPKX 07T308	P0250704	XT08	MDP 2508	○
184156200	TFD 27532-6D	27,5	32	165	169	204	SPKX 07T308	P0250704	XT08	MDP 2508	○
184156300	TFD 28032-6D	28,0	32	168	172	207	SPKX 07T308	P0250704	XT08	MDP 2508	○
184156400	TFD 28532-6D	28,5	32	171	175	210	SPKX 07T308	P0250704	XT08	MDP 2508	○
184156500	TFD 29032-6D	29,0	32	174	178	213	SPKX 07T308	P0250704	XT08	MDP 2508	○
184156600	TFD 29532-6D	29,5	32	177	181	216	SPKX 07T308	P0250704	XT08	MDP 2508	○
184156700	TFD 30032-6D	30,0	32	180	184	219	SPKX 07T308	P0250704	XT08	MDP 2508	☑

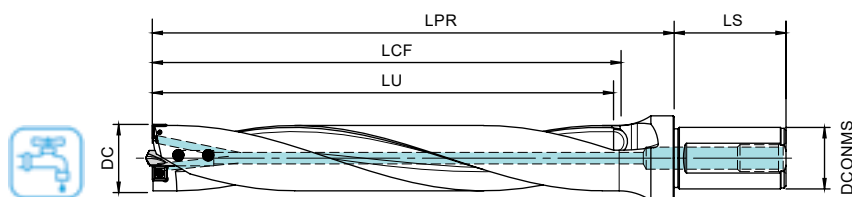
☑ Stock item | Produto de stock | Itens de stock ○ Available under request | Disponível sobre consulta | Disponible bajo consulta

Note: This type of drills are supplied without pilot drills. Please order them separately.

Please see Page B - 449 for setting pilot drill.

Pilot Drill
mounting procedure





DCNMS	LS	BP / SP
25	56	PT - 1/8
32	60	PT - 1/4

*Order separately

Order code Código	Reference Referência Referencia	Dimensions Dimensões Dimensiones (mm)					Insert	Insert Screw	Torx key	Pilot drill*	Stock
		DC	DCONMS	LU	LCF	LPR					
184151800	TFD 18025-8D	18,0	25	144	149	179	SPKX 050204	P0200500	XT06	MDP 2006	
184151900	TFD 18525-8D	18,5	25	148	153	183	SPKX 050204	P0200500	XT06	MDP 2006	
184152000	TFD 19025-8D	19,0	25	152	157	187	SPKX 050204	P0200500	XT06	MDP 2006	
184152100	TFD 19525-8D	19,5	25	156	161	191	SPKX 050204	P0200500	XT06	MDP 2006	
184152200	TFD 20025-8D	20,0	25	160	165	195	SP.X 060204	P0220500	XT07	MDP 2006	
184152300	TFD 20525-8D	20,5	25	164	169	199	SP.X 060204	P0220500	XT07	MDP 2006	
184152400	TFD 21025-8D	21,0	25	168	173	203	SP.X 060204	P0220500	XT07	MDP 2006	
184152500	TFD 21525-8D	21,5	25	172	177	207	SP.X 060204	P0220500	XT07	MDP 2006	
184151200	TFD 22025-8D	22,0	25	176	181	211	SP.X 060204	P0220500	XT07	MDP 2006	
184152700	TFD 22525-8D	22,5	25	180	185	215	SP.X 060204	P0220500	XT07	MDP 2006	
184152800	TFD 23025-8D	23,0	25	184	189	219	SP.X 060204	P0220500	XT07	MDP 2006	
184152900	TFD 23525-8D	23,5	25	188	193	223	SP.X 060204	P0220500	XT07	MDP 2006	
184153000	TFD 24025-8D	24,0	25	192	197	227	SP.X 060204	P0220500	XT07	MDP 2006	
184153100	TFD 24525-8D	24,5	25	196	201	231	SP.X 060204	P0220500	XT07	MDP 2006	
184151300	TFD 25025-8D	25,0	25	200	205	235	SP.X 060204	P0220500	XT07	MDP 2006	
184153300	TFD 25532-8D	25,5	32	204	209	244	SPKX 07T308	P0250704	XT08	MDP 2508	
184153400	TFD 26032-8D	26,0	32	208	213	248	SPKX 07T308	P0250704	XT08	MDP 2508	
184153500	TFD 26532-8D	26,5	32	212	217	252	SPKX 07T308	P0250704	XT08	MDP 2508	
184153600	TFD 27032-8D	27,0	32	216	221	256	SPKX 07T308	P0250704	XT08	MDP 2508	
184153700	TFD 27532-8D	27,5	32	220	225	260	SPKX 07T308	P0250704	XT08	MDP 2508	
184153800	TFD 28032-8D	28,0	32	224	229	264	SPKX 07T308	P0250704	XT08	MDP 2508	
184153900	TFD 28532-8D	28,5	32	228	233	268	SPKX 07T308	P0250704	XT08	MDP 2508	
184154000	TFD 29032-8D	29,0	32	232	237	272	SPKX 07T308	P0250704	XT08	MDP 2508	
184154100	TFD 29532-8D	29,5	32	236	241	276	SPKX 07T308	P0250704	XT08	MDP 2508	
184154200	TFD 30032-8D	30,0	32	240	245	280	SPKX 07T308	P0250704	XT08	MDP 2508	

 Stock item | Produto de stock | Itens de stock Available under request | Disponível sobre consulta | Disponible bajo consulta

Note: This type of drills are supplied without pilot drills. Please order them separately.

Please see Page B - 449 for setting pilot drill.

Pilot Drill
mounting procedure

VORTEX

DRILLS



Vortex drills offer the best solution for drilling extensive dimensions in both diameter and length. The drilling depth can be adjusted using extensions and reducers, while the diameter adjustment is accomplished by shortening the outer cartridge.

As brocas Vortex oferecem a melhor solução para perfurar dimensões extensas tanto em diâmetro quanto em comprimento. A profundidade de perfuração pode ser ajustada usando extensões e redutores, enquanto o ajuste de diâmetro é realizado encurtando o cartucho externo.

Las brocas Vortex ofrecen la mejor solución para perforar dimensiones extensas tanto en diámetro como en longitud. La profundidad de perforación puede ajustarse utilizando extensiones y reductores, mientras que el ajuste de diámetro se logra acortando el cartucho exterior.

MDO > page 414

- > From DC 45,0mm to 180,0mm
De DC 45,0mm a 180,0mm | Desde DC 45,0mm hasta 180,0mm
- > 2 or 3 WCKX inserts per cartridge
2 ou 3 pastilhas WCKX por cartucho | 2 o 3 plaquitas WCKX por cartucho
- > Pilot drill
Broca piloto | Taladro piloto



MDS > page 416

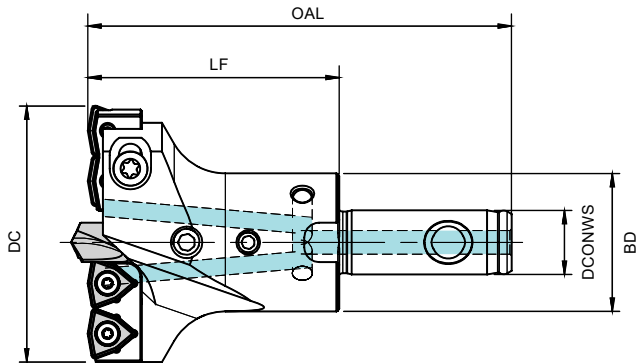
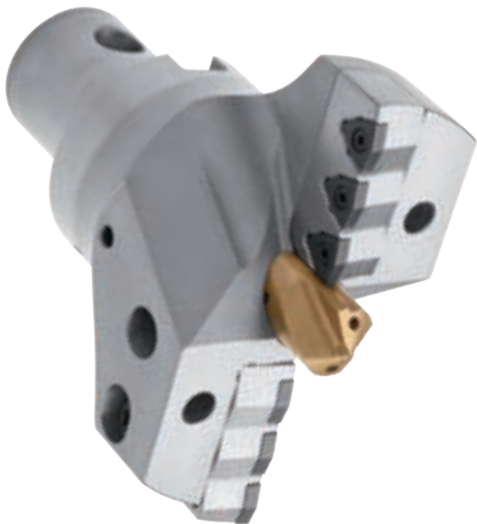
- > Shank
Encabadouro | Caña



MDE > page 417

- > Extension
Extensor | Extensor





*Order seperately

Order code Código	Reference Referência Referencia	Dimensions Dimensões Dimensiones (mm)					Cartridge	Insert	Insert Screw	Torx key	Pilot drill*	Stock
		DC	DCONWS	LF	OAL	BD						
									2 INSERTS PER CARTRIDGE			
184031000	MDO 04505013	45-50	13	50	85	28	MDC 045050-I/O	WCKX 030204	P0220500	XT07	MDP 3510	
184031100	MDO 05005513	50-55	13	50	85	28	MDC 050055-I/O	WCKX 030204	P0220500	XT07	MDP 3510	
184031200	MDO 05506016	55-60	16	60	100	32	MDC 055060-I/O	WCKX 040204	P0250503	XT08	MDP 3812	
184031300	MDO 06006516	60-65	16	60	100	32	MDC 060065-I/O	WCKX 050308	P0300701	XT08	MDP 3812	
184031500	MDO 06507016	65-70	16	60	100	32	MDC 065070-I/O	WCKX 050308	P0300701	XT08	MDP 3812	
184032400	MDO 07007522	70-75	22	70	115	40	MDC 070075-I/O	WCKX 050308	P0300701	XT08	MDP 3812	
184032500	MDO 07508022	75-80	22	70	115	40	MDC 075080-I/O	WCKX 06T308	P0350903	XT15	MDP 4516	
184032600	MDO 08008522	80-85	22	70	115	40	MDC 080085-I/O	WCKX 06T308	P0350903	XT15	MDP 4516	
184032700	MDO 08509027	85-90	27	70	120	48	MDC 085090-I/O	WCKX 06T308	P0350903	XT15	MDP 4516	
184032800	MDO 09009527	90-95	27	70	120	48	MDC 090095-I/O	WCKX 06T308	P0350903	XT15	MDP 4516	
184032900	MDO 09510027	95-100	27	70	120	48	MDC 095100-I/O	WCKX 06T308	P0350903	XT15	MDP 4516	

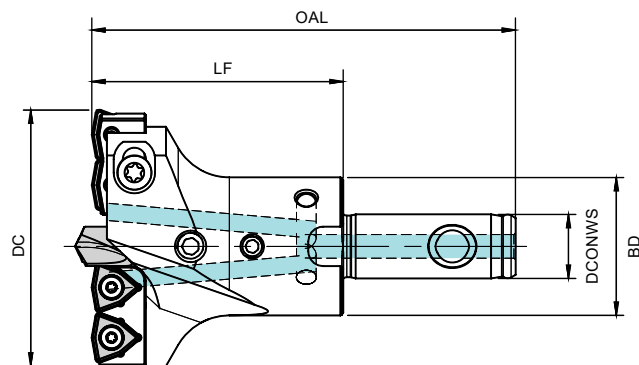
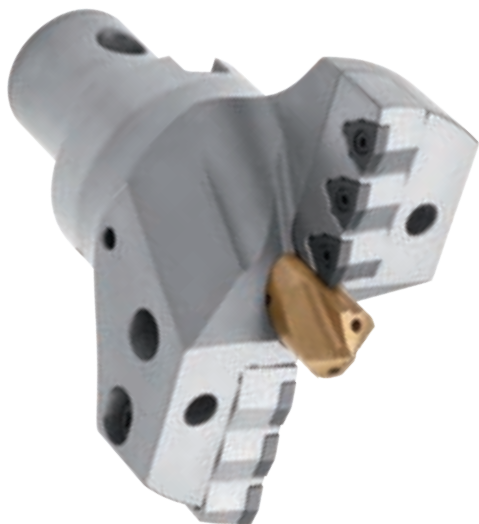
 Stock item | Produto de stock | Itens de stock  Available under request | Disponível sobre consulta | Disponible bajo consulta

Drills with larger diameter available under request with a minimum order quantity.
Note:This type of drills are supplied without pilot drills. Please order them separately.

Please see Page B - 450 for setting pilot drill.

MDO 10D

Vortex drills | Brocas vortex | Brocas vortex



*Order separately

Order code Código	Reference Referência Referencia	Dimensions Dimensões Dimensiones (mm)					Cartridge	Insert	Insert Screw	Torx key	Pilot drill*	Stock
		DC	DCONWS	LF	OAL	BD						
									3 INSERTS PER CARTRIDGE			
184033000	MDO 10010532	100-105	32	80	130	58	MDC 100105-I/O	WCKX 050308	P0300701	XT08	MDP 4520	
184066400	MDO 10511032	105-110	32	80	130	58	MDC 105110-I/O	WCKX 06T308	P0350903	XT15	MDP 4520	
184066500	MDO 11011532	110-115	32	80	130	58	MDC 110115-I/O	WCKX 06T308	P0350903	XT15	MDP 4520	
184066600	MDO 11512040	115-120	40	90	145	70	MDC 115120-I/O	WCKX 06T308	P0350903	XT15	MDP 4520	
184066700	MDO 12012540	120-125	40	90	145	70	MDC 120125-I/O	WCKX 06T308	P0350903	XT15	MDP 5625	
184066800	MDO 12513040	125-130	40	90	145	70	MDC 125130-I/O	WCKX 06T308	P0350903	XT15	MDP 5625	
184066900	MDO 13013540	130-135	40	90	145	70	MDC 130135-I/O	WCKX 06T308	P0350903	XT15	MDP 5625	
184067000	MDO 13514040	135-140	40	90	145	70	MDC 135140-I/O	WCKX 06T308	P0350903	XT15	MDP 5625	
184067100	MDO 14015050	140-150	50	100	160	80	MDC 140150-I/O	WCKX 080408	P0401101	XT15	MDP 5625	
184067200	MDO 15016050	150-160	50	100	160	80	MDC 150160-I/O	WCKX 080408	P0401101	XT15	MDP 5625	
184067300	MDO 16017050	160-170	50	100	160	80	MDC 160170-I/O	WCKX 080408	P0401101	XT15	MDP 6830	
184067400	MDO 17018050	170-180	50	100	160	80	MDC 170180-I/O	WCKX 080408	P0401101	XT15	MDP 6830	

 Stock item | Produto de stock | Itens de stock  Available under request | Disponível sobre consulta | Disponible bajo consulta

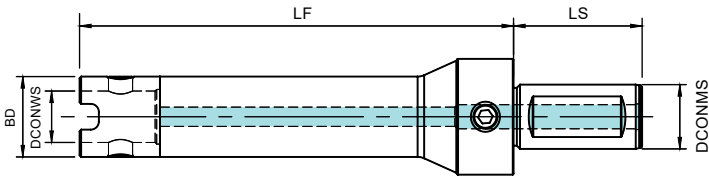
Drills with larger diameter available under request with a minimum order quantity.

Note: This type of drills are supplied without pilot drills. Please order them separately.

Please see Page B - 450 for setting pilot drill.

Pilot Drill
mounting procedure





New version / Standard version*

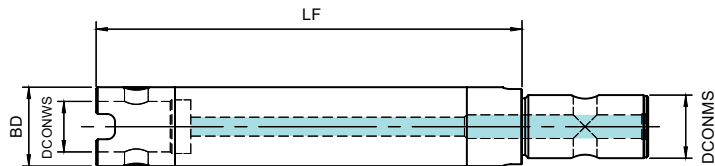
DCONWS	LS	BP / SP
32	70	PT - 1/4
40	80	PT - 1/4
50	80 / 100	PT - 1/4

*Order separately

Order code Código	Reference Referência Referencia	Dimensions Dimensões Dimensiones (mm)				Drive Ring*	Stock
		DCONMS	DCONWS	BD	LF		
184121900	MDS 32115130	32	13	28	115	MDR 1028	
184253700	MDS 32200130	32	13	28	200	MDR 1028	
184255400	MDS 32300130	32	13	28	300	MDR 1028	
184122100	MDS 40125160	40	16	32	125	MDR 1032	
184253800	MDS 40200160	40	16	32	200	MDR 1032	
184255500	MDS 40300160	40	16	32	300	MDR 1032	
184122300	MDS 40148220	40	22	40	148	MDR 1240	
184122400	MDS 40200220	40	22	40	200	MDR 1240	
184122500	MDS 40300220	40	22	40	300	MDR 1240	
184122600	MDS 40168270	40	27	48	168	MDR 1248	
184122700	MDS 40300270	40	27	48	300	MDR 1248	
184122800	MDS 40186320	40	32	58	186	MDR 1458	
184122900	MDS 40300320	40	32	58	300	MDR 1458	
184123000	MDS 50186400	50	40	70	186	MDR 1470	
184123100	MDS 50300400	50	40	70	300	MDR 1470	
184123200	MDS 50184500	50	50	80	184	MDR 1680	
184123300	MDS 50300500	50	50	80	300	MDR 1680	

 Stock item | Produto de stock | Itens de stock  Available under request | Disponível sobre consulta | Disponible bajo consulta

Note: This type of shank are supplied without drive ring. Please order them separately.



*Order seperately

Order code Código	Reference Referência Referencia	Dimensions Dimensões Dimensiones (mm)				Drive Ring*	Stock
		DCONMS	DCONWS	BD	LF		
184023500	MDE 13115280	13	13	28	115	MDR 1028	
184023600	MDE 13150280	13	13	28	150	MDR 1028	
184023700	MDE 13200280	13	13	28	200	MDR 1028	
184021800	MDE 13300280	13	13	28	300	MDR 1028	
184023800	MDE 16115320	16	16	32	115	MDR 1032	
184021900	MDE 16200320	16	16	32	200	MDR 1032	
184023900	MDE 16300320	16	16	32	300	MDR 1032	
184024000	MDE 22113400	22	22	40	113	MDR 1240	
184024100	MDE 22200400	22	22	40	200	MDR 1240	
184024200	MDE 22300400	22	22	40	300	MDR 1240	
184024300	MDE 27113480	27	27	48	113	MDR 1248	
184024400	MDE 27200480	27	27	48	200	MDR 1248	
184024500	MDE 27300480	27	27	48	300	MDR 1248	
184024600	MDE 32186580	32	32	58	186	MDR 1458	
184024700	MDE 32300580	32	32	58	300	MDR 1458	
184024800	MDE 40186700	40	40	70	186	MDR 1470	
184024900	MDE 40300700	40	40	70	300	MDR 1470	
184025000	MDE 40500700	40	40	70	500	MDR 1470	
184025100	MDE 50204800	50	50	80	204	MDR 1680	
184025200	MDE 50300800	50	50	80	300	MDR 1680	
184025300	MDE 50500800	50	50	80	500	MDR 1680	

 Stock item | Produto de stock | Itens de stock  Available under request | Disponível sobre consulta | Disponible bajo consulta

Note: This type of shank are supplied without drive ring. Please order them separately.

TREPANNING

DRILLS



Trepanning drills are ideal for drilling larger hole diameters in situations where machine power is restricted, as they consume less power compared to conventional drilling methods. Instead of machining the entire hole, only a peripheral ring is created. Consequently, this method is for through-hole applications.

As brocas de furação são ideais para perfurar diâmetros grandes em situações em que a potência da máquina é restrita, pois consomem menos energia em comparação com os métodos de perfuração convencionais. Na vez de maquinar todo o furo, é criado apenas um anel periférico. Consequentemente, este método é indicado para aplicações de furos passantes.

Las brocas de trepanación son ideales para perforar diámetros grandes en situaciones donde la potencia de la máquina está restringida, ya que consumen menos energía en comparación con los métodos de perforación convencionales. En lugar de mecanizar todo el agujero, solo se crea un anillo periférico. En consecuencia, este método es para aplicaciones de agujeros pasantes.

PND > page 420

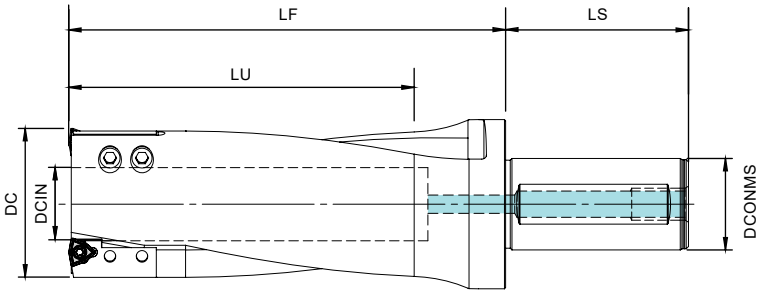
- > From DC 40,0mm to 110,0mm

De DC 40,0mm a 110,0mm | Desde DC 40,0mm hasta 110,0mm

- > Available in 2D

Disponível em 2D | Disponible en 2D





DCONMS	LS	BP / SP
32	70	PT - 1/4
40	80	PT - 1/4
50	100	PT - 1/4

Order code Código	Reference Referência Referencia	Dimensions Dimensões Dimensiones (mm)					Cartridge	Insert	Insert Screw	Torx key	Stock
		DC	DCIN	DCONMS	LU	LF					
184067500	PND 04032-2D	40,0	10,0	32	100	140	PNC 040055-I/O	WCKX 050308	P0300701	XT08	☐
184067600	PND 04540-2D	45,0	15,0	40	100	130	PNC 040055-I/O	WCKX 050308	P0300701	XT08	☐
184067700	PND 05040-2D	50,0	21,0	40	120	150	PNC 040055-I/O	WCKX 050308	P0300701	XT08	☐
184067800	PND 05540-2D	55,0	26,0	40	120	150	PNC 040055-I/O	WCKX 050308	P0300701	XT08	☐
184067900	PND 06040-2D	60,0	24,5	40	150	190	PNC 060110-I/O	WCKX 06T308	P0350903	XT15	☐
184068000	PND 06540-2D	65,0	30,5	40	150	190	PNC 060110-I/O	WCKX 06T308	P0350903	XT15	☐
184068100	PND 07040-2D	70,0	35,5	40	170	210	PNC 060110-I/O	WCKX 06T308	P0350903	XT15	☐
184068200	PND 07540-2D	75,0	40,5	40	170	210	PNC 060110-I/O	WCKX 06T308	P0350903	XT15	☐
184068300	PND 08040-2D	80,0	45,5	40	190	230	PNC 060110-I/O	WCKX 06T308	P0350903	XT15	☐
184068400	PND 08550-2D	85,0	50,5	50	190	230	PNC 060110-I/O	WCKX 06T308	P0350903	XT15	☐
184068500	PND 09050-2D	90,0	55,0	50	210	250	PNC 060110-I/O	WCKX 06T308	P0350903	XT15	☐
184068600	PND 09550-2D	95,0	60,0	50	210	250	PNC 060110-I/O	WCKX 06T308	P0350903	XT15	☐
184068700	PND 10050-2D	100,0	66,0	50	250	290	PNC 060110-I/O	WCKX 06T308	P0350903	XT15	☐
184068800	PND 11050-2D	110,0	76,0	50	250	290	PNC 060110-I/O	WCKX 06T308	P0350903	XT15	☐

 Stock item | Produto de stock | Itens de stock

☐ Available under request | Disponível sobre consulta | Disponible bajo consulta

CUTTING PARAMETERS AND ADJUSTMENTS

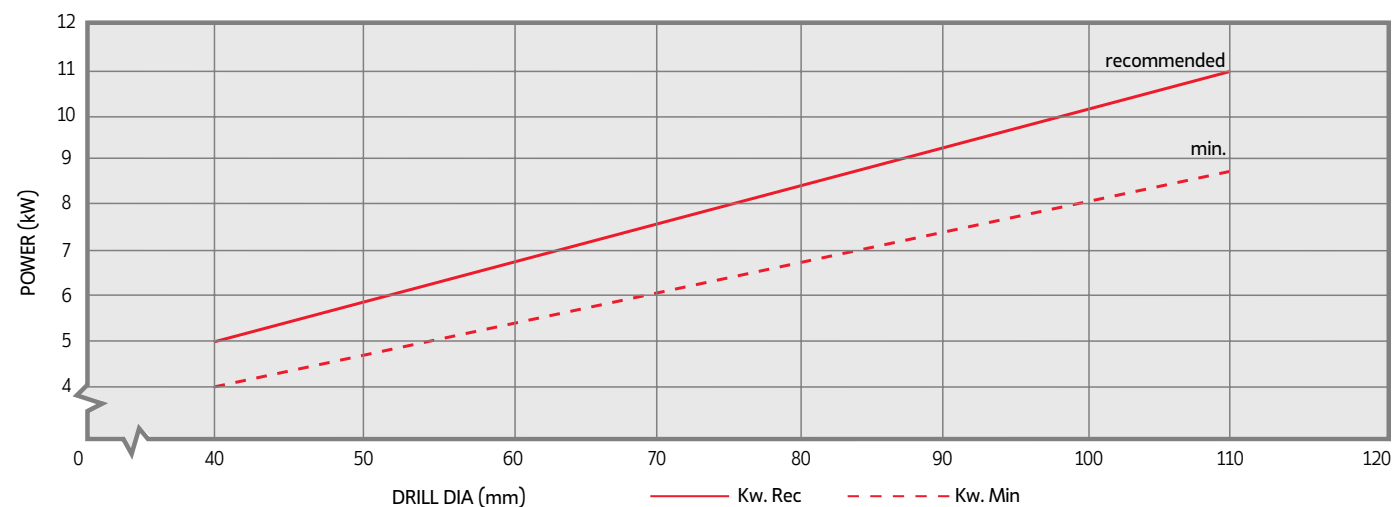
Parâmetros de corte e ajustes | Condiciones de corte y ajustes

B

RECOMMENDED SPEEDS AND FEEDS

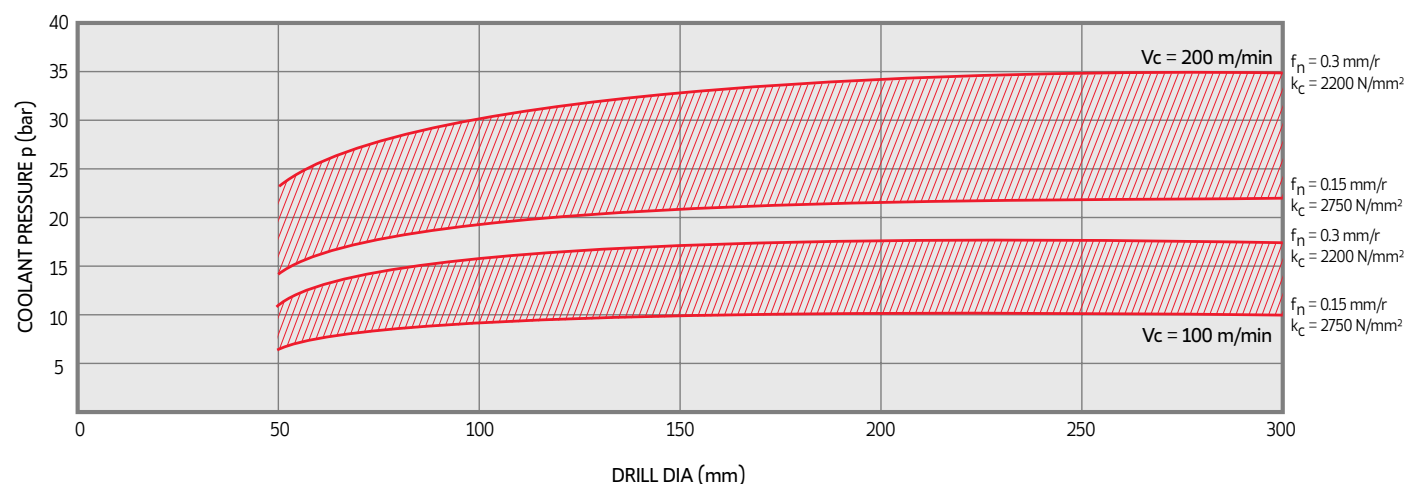
ISO	Material Group Grupo Materiais Grupo Materiales	DC (mm)	Fn (mm/r)	Vc (m/min)
P	Unalloyed steel (-0,25%)	60-110	0,07-0,20	130-345
	Low-alloy steel (0,25%-)	60-110	0,10-0,20	100-210
	Low-alloy steel	60-110	0,10-0,20	90-200
	Steel casting	60-110	0,06-0,18	120-280
M	Stainless steel	60-110	0,10-0,20	100-240
K	Grey cast iron	60-110	0,14-0,26	105-280
	Cast iron with nodular cast	60-110	0,14-0,20	110-195
N	Aluminium forging alloys	60-110	0,12-0,22	250-400
	Copper and copper alloys	60-110	0,12-0,22	180-350

POWER REQUIREMENTS



• The cutting fluid quantity is measured at the cutting edge of the drill

COOLANT APPLICATION CHART



INSERTS



Drilling inserts, specialized for various applications and materials, optimize cutting processes by providing precise geometries and coatings, resulting in improved chip evacuation, surface finish, and overall tool performance.

As pastilhas de furacão, especializadas para diversas aplicações e materiais, otimizam os processos de corte fornecendo geometrias e revestimentos precisos, resultando numa melhor evacuação de aparas, acabamento de superfície e desempenho geral da ferramenta.

Las plaquitas de furación, especializadas para diversas aplicaciones y materiales, optimizan los procesos de corte al proporcionar geometrías y recubrimientos precisos, lo que resulta en una mejor evacuación de rompevirutas, acabado superficial y rendimiento general de la herramienta.

SP...X > page 426

- > From sizes 05 to 14

De tamanhos de 05 a 14 | De tamaños de 05 a 14

- > Available in grades PH6920, PH6930, PHC930, PHL930 and PH0910

Disponível nos graus PH6920, PH6930, PHC930, PHL930 e PH0910 | Disponible en las calidades PH6920, PH6930, PHC930, PHL930 y PH0910

- > Suitable for machining steels, stainless steels, cast iron, HRSA and non-ferrous

Adequado para maquinação de aços, aços inoxidáveis, ferro fundido, HRSA e não ferrosos | Adecuado para el mecanizado de aceros, aceros inoxidables, hierro fundido, HRSA y no ferrosos



WCKX > page 426

- > From sizes 02 to 08

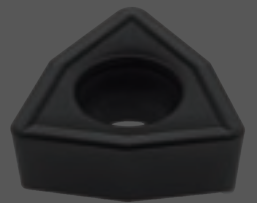
De tamanhos de 02 a 08 | De tamaños de 02 a 08

- > Available in grades PH6920 and PH6930

Disponível nos graus PH6920 e PH6930 | Disponible en las calidades PH6920 y PH6930

- > Suitable for machining steels, stainless steels, cast iron and HRSA

Adequado para maquinação de aços, aços inoxidáveis, ferro fundido e HRSA | Adecuado para el mecanizado de aceros, aceros inoxidables, hierro fundido y HRSA



WCKX-LC > page 427

- > From sizes 05 to 06

De tamanhos de 05 a 06 | De tamaños de 05 a 06

- > Available in grades PH6920 and PH6930

Disponível nos graus PH6920 e PH6930 | Disponible en las calidades PH6920 y PH6930

- > Suitable for machining steels

Adequado para maquinação de aços | Adecuado para el mecanizado de aceros



WCMX > page 427

- > From sizes 03 to 08

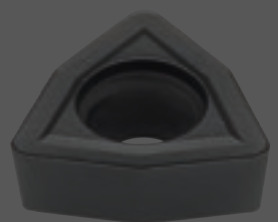
De tamanhos de 03 a 08 | De tamaños de 03 a 08

- > Available in grades PH6920, PHC930 and PHL930

Disponível nos graus PH6920, PHC930 e PHL930 | Disponible en las calidades PH6920, PHC930 y PHL930

- > Suitable for machining steels, stainless steels, cast iron and HRSA

Adequado para maquinação de aços, aços inoxidáveis, ferro fundido e HRSA | Adecuado para el mecanizado de aceros, aceros inoxidables, hierro fundido y HRSA



ISO HOLEMAKING INSERTS CODE KEY

Sistema de codificação para pastilhas de furação ISO | Codificación para plaquetas de furación ISO

H		M	
O		V	
P		W	
S		L	
T		A	
C		B	
D		K	
E		R	
F		X	Special

1- Insert shape symbol

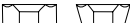
Symbol	m (mm)	d (mm)	s (mm)	Detailed dimension of M class insert Insert height Tolerances (mm)					
A	±0.005	±0.025	±0.025	Inscribed circle					
F	±0.005	±0.013	±0.025	6.35	±0.08	-	-	-	-
C	±0.013	±0.025	±0.025	9.525	±0.08	±0.08	±0.11	±0.10	±0.13
H	±0.013	±0.013	±0.025	12.70	±0.13	±0.13	±0.13	±0.15	-
E	±0.025	±0.025	±0.025	15.875	±0.15	±0.15	±0.15	±0.18	-
G	±0.025	±0.025	±0.13	19.05	±0.15	±0.15	±0.15	±0.18	-
J	±0.005	±0.05~±0.13	±0.025	25.40	-	±0.18	-	-	-
K*	±0.013	±0.05~±0.13	±0.025	31.75	-	±0.25	-	-	-
L*	±0.025	±0.05~±0.13	±0.025	Inscribed circle Tolerances (mm)					
M*	±0.08~±0.20	±0.05~±0.13	±0.13	Inscribed circle					
N*	±0.08~±0.20	±0.05~±0.13	±0.025	6.35	±0.05	-	-	-	-
U*	±0.13~±0.38	±0.08~±0.25	±0.13	9.525	±0.05	±0.05	±0.05	±0.05	±0.05
*As a rule, the sides of these inserts are as sintered. Tolerance differs with insert size, for the accuracy of class M, refer to the table on the right.				12.70	±0.08	±0.08	±0.08	±0.08	±0.08
				15.875	±0.10	±0.10	±0.10	±0.10	±0.10
				19.05	-	-	-	-	±0.10
				25.40	-	±0.13	-	-	±0.10
				31.75	-	±0.20	-	-	±0.12
				3 - Tolerances symbol					

A	B	C	D	E
F	G	N	P	O
				Other clearance angle

2 - Normal clearance symbol

ISO

W C K X

4 - Insert symbol														
symbol	Type	Hole type	Chipbreaker	Shape	symbol	Type	Hole type	Chipbreaker	Shape	symbol	Type	Hole type	Chipbreaker	Shape
W	with hole	Round hole / one countersink (40°~60°)	Without chipbreaker		H	with hole	Round hole / one countersink (70°~90°)	Chipbreaker on one side		G	with hole	Round hole	Chipbreaker on both sides	
T			Chipbreaker on one side		C		Round hole / double countersink (70°~90°)	Without chipbreaker		N	without hole	-	Without chipbreaker	
Q		Round hole / double countersink (40°~60°)	Without chipbreaker		J		Round hole	Chipbreaker on both sides		R		-	Chipbreaker on one side	
U			Chipbreaker on both sides		A			Without chipbreaker		F		-	Chipbreaker on both sides	
B		Round hole / one countersink (70°~90°)	Without chipbreaker		M			Round hole	Chipbreaker on one side		X	-	-	-

ISO HOLEMAKING INSERTS CODE KEY

Sistema de codificação para pastilhas de furação ISO | Codificación para plaquetas de furación ISO

 R's	 V's	 D's	 C's	 S's	 T's	 W's	Ø CI		ANSI
							mm	inch	Symbol
-	06	04	-	03	06	02	3,97	5/32	1,20
-	08	05	04	04	08	L3	4,76	3/16	1,50
-	09	06	05	05	09	03	5,56	7/32	1,80
06**	-	-	-	-	-	-	6,00	0,236	
06*	11	07	06	06	11	04	6,35	1/4	2,00
07*	13	09	08	07	13	05	7,94	5/16	2,50
08*	-	-	-	-	-	-	8,00	0,315	
09*	16	11	09	09	16	06	9,525	3/8	3,00
10**	-	-	-	-	-	-	10,00	0,394	
12**	-	-	-	-	-	-	12,00	0,472	
12*	22	15	12	12	22	08	12,70	1/2	4,00
15*	27	19	16	15	27	10	15,875	5/8	5,00
16**	-	-	-	-	-	-	16,00	0,63	
19*	33	23	19	19	33	13	19,05	3/4	6,00
20**	-	-	-	-	-	-	20,00	0,787	
25**	-	-	-	-	-	-	25,00	0,984	
25*	44	31	25	25	44	17	25,40	1,00	8,00
31*	54	38	32	31	54	21	31,75	1 1/4	10,00
32**	-	-	-	-	-	-	32,00	1,26	

5 - Insert size symbol

* ANSI designation only
(Radius Designation is R0)

** Metric designation only
(Radius Designation is M0)

According to International Standard ISO 1832 - 2012(E)

"Indexable inserts for cutting tools - Designation"

ISO	mm	ANSI	inch
01	1.59	1	0.062
T1	1.98	1.2	0.078
02	2.38	1.5	0.094
03	3.18	2	0.125
T3	3.97	2.5	0.156
04	4.76	3	0.188
05	5.56	3.5	0.219
06	6.35	4	0.250
07	7.94	5	0.312
09	9.52	6	0.375
12	12.70	8	0.500

6 - Insert thickness symbol

06 T3 08 E - LC



7 - Insert corner symbol			
ISO	mm	inch	ANSI
00	Sharp nose		0
01	0.10	.004	0.2
02	0.20	.008	0.5
04	0.40	.015	1
08	0.80	.032	2
12	1.2	.047	3
16	1.6	.062	4
20	2.0	.078	5
24	2.4	.094	6
28	2.8	.109	7
32	3.2	.125	8
00 (inch or M0/ metric)	Round insert		0

7.1* - Insert edges symbol			
For inserts having secondary edges two digits are used:			
1 st digit is secondary edge		2 nd digit is secondary edges relief angle	
A	45°	A	3°
D	60°	B	5°
E	75°	C	7°
F	85°	D	15°
P	90°	E	20°
Z	special	F	25°
*only when required.		G	30°
		N	0°
		P	11°
		Z	special

8 - Cutting edge information		
Shape	Honing	Symbol
	No honing	F
	With honing	E
	Chamfered No honing	T
	Chamfered with honing	S
*only when required.		

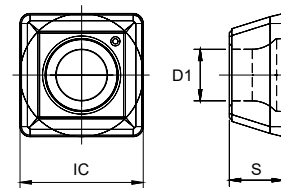
SP..X Inserts | Pastilhas | Plaquitas



SPKX

SPKX
(PHC | PHL grade)

SPHX-LN



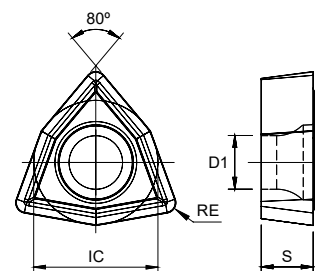
		P				M				K			S				N	Dimensions Dimensões Dimensiones (mm)			
		PVD				PVD				PVD			PVD				UNC				
		(2) Grade code																			
(1) Geometry code	ISO Reference	PH6920	PH6930	PHC930	PHL930	PH6920	PH6930	PHC930	PHL930	PH6920	PH6930	PHL930	PH6920	PH6930	PHC930	PHL930	PH0910	IC	S	D1	RE
1111281	SPKX 050204	⊗	⊗	⊗		⊗	⊗	⊗		⊗	⊗		⊗	⊗	⊗			5,00	2,38	2,20	0,40
1111282	SPKX 060204	⊗	⊗		⊗	⊗	⊗		⊗	⊗	⊗		⊗	⊗		⊗		6,00	2,38	2,55	0,40
1142099	SPHX 060204-LN																⊗	6,00	2,38	2,55	0,40
1111283	SPKX 07T308	⊗	⊗		⊗	⊗	⊗		⊗	⊗	⊗		⊗	⊗		⊗		7,94	3,97	2,85	0,80
1111284	SPKX 090408	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗		⊗	⊗		⊗		9,80	4,30	4,10	0,80
1111285	SPKX 110408	⊗	⊗		⊗	⊗	⊗		⊗	⊗	⊗		⊗	⊗		⊗		11,50	4,80	4,40	0,80
1111286	SPKX 140512	⊗	⊗		⊗	⊗	⊗		⊗	⊗	⊗		⊗	⊗		⊗		14,30	5,20	5,75	1,20

⊗ Stock item | Produto de stock | Itens de stock

○ Available under request | Disponível sobre consulta
Disponible bajo consulta⊗ Available until sold out | Disponível até acabar o stock
Disponible hasta acabar el stock

Insert order code = (1) Geometry Code + (2) Grade Code

WCKX Inserts | Pastilhas | Plaquitas



		P				M		K		S		Dimensions Dimensões Dimensiones (mm)			
		PVD				PVD		CVD		PVD					
		⁽²⁾ Grade code	68	66	I5	78	68	66	68	66	68				
⁽¹⁾ Geometry code	ISO Reference	PH6920	PH6930	PH6740	PH6125	PH6920	PH6930	PH6920	PH6930	PH6920	PH6930	IC	S	D1	RE
1140300	WCKX 02T104	⊗	⊗	○	○	⊗	⊗	⊗	⊗	⊗	⊗	4,76	1,98	2,00	0,40
1140276	WCKX 030204	⊗	⊗	○	○	⊗	⊗	⊗	⊗	⊗	⊗	5,56	2,38	2,55	0,40
1140277	WCKX 040204	⊗	⊗	○	○	⊗	⊗	⊗	⊗	⊗	⊗	6,35	2,38	2,85	0,40
1140278	WCKX 050308	⊗	⊗	○	○	⊗	⊗	⊗	⊗	⊗	⊗	7,94	3,18	3,50	0,80
1140279	WCKX 06T308	⊗	⊗	○	○	⊗	⊗	⊗	⊗	⊗	⊗	9,55	3,97	4,10	0,80
1140280	WCKX 080408	⊗	⊗	○	○	⊗	⊗	⊗	⊗	⊗	⊗	12,70	4,76	5,60	0,80

⊗ Stock item | Produto de stock | Itens de stock

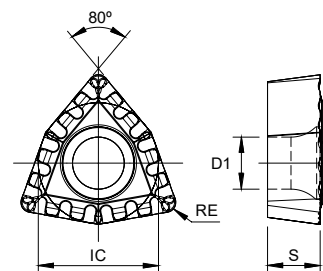
○ Available under request | Disponível sobre consulta | Disponible bajo consulta

Insert order code = (1) Geometry Code + (2) Grade Code

INSERTS

Pastilhas | Plaquetas

WCKX-LC FOR LOW CARBON STEELS Inserts | Pastilhas | Plaquetas



		P		Dimensions Dimensões Dimensiones (mm)			
		PVD					
		⁽²⁾ Grade code					
⁽¹⁾ Geometry code	ISO Reference	68	66	IC	S	D1	RE
		PH6920	PH6930				
1142068	WCKX 050308-LC	⊗	⊗	7,94	3,18	3,50	0,80
1142069	WCKX 06T308-LC	⊗	⊗	9,55	3,97	4,10	0,80

⊗ Stock item | Produto de stock | Itens de stock

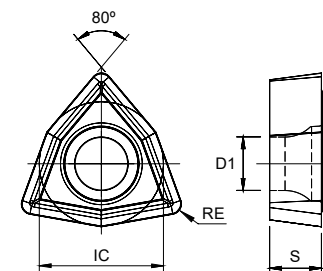
○ Available under request | Disponível sobre consulta | Disponible bajo consulta

Insert order code = (1) Geometry Code + (2) Grade Code

WCMX Inserts | Pastilhas | Plaquetas

ISO references for other holmaking systems

(PHC | PHL grade)



		P			M			K			S			Dimensions Dimensões Dimensiones (mm)			
		PVD			PVD			PVD			PVD						
		⁽²⁾ Grade code			68	J3	3B	68	J3	3B	68	J3	3B				
⁽¹⁾ Geometry code	ISO Reference	PH6920	PHC930	PHL930	PH6920	PHC930	PHL930	PH6920	PHC930	PHL930	PH6920	PHC930	PHL930	IC	S	D1	RE
1120827	WCMX 030204	○		○	○		○	○		○	○		○	5,56	2,38	2,80	0,40
1120828	WCMX 030208	⊗		⊗	⊗		⊗	⊗		⊗	⊗		⊗	5,56	2,38	2,80	0,80
1120829	WCMX 040208	⊗	⊖		⊗	⊖		⊗	⊖		⊗	⊖		6,35	2,38	3,10	0,80
1120830	WCMX 050308	⊗		⊗	⊗		⊗	⊗		⊗	⊗		⊗	7,94	3,18	3,20	0,80
1120831	WCMX 06T308	⊗	⊖	⊗	⊗	⊖	⊗	⊗	⊖	⊗	⊗	⊖	⊗	9,55	3,97	3,70	0,80
1120832	WCMX 080408	⊗	⊖	⊗	⊗	⊖	⊗	⊗	⊖	⊗	⊗	⊖	⊗	12,70	4,76	4,30	0,80
1120833	WCMX 080412	⊗		⊗	⊗		⊗	⊗		⊗	⊗		⊗	12,70	4,76	4,30	1,20

⊗ Stock item | Produto de stock | Itens de stock

○ Available under request | Disponível sobre consulta
Disponível bajo consulta

⊗ Available until sold out | Disponível até acabar o stock
Disponible hasta acabar el stock

Insert order code = (1) Geometry Code + (2) Grade Code

SPARE PARTS

1 CARTRIDGES

> See page B - 430

2 PILOT DRILL AND RDS

> See page B - 434

3 SCREWS AND KEYS

> See page B - 435

4 MDO CARTRIDGE

> See page B - 436

5 VORTEX SCREWS

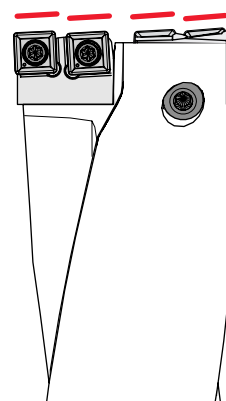
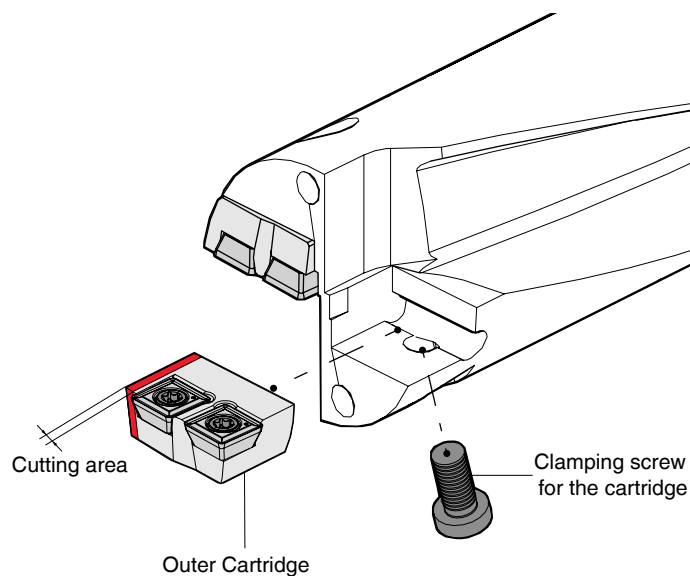
> See page B - 437

5 MDM AND DRIVE RING

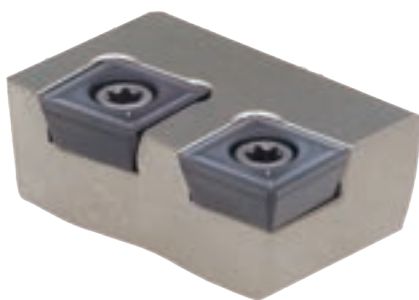
> See page B - 439

SIZE ADAPTABLE CARTRIDGE (5mm)

- Unlock the clamping screw of the outer cartridge and move out the cartridge from the body.
- Cut off the outer cartridge's inside contacted part after calculation of the diameter that you want to drill.
- Slick the rough corner surface of the cut cartridge.
- Adhere closely the cartridge to the body not to make chink and fix it with the clamping screw firmly.



SCC CARTRIDGE (5mm)



ØD	Inner Cartridge		Outer Cartridge		Insert	Insert Screw	Torx key	For Drill	Stock
	Order Code	Reference	Order Code	Reference					
50-55	184230600	SCC 050055-I	184230700	SCC 050055-O	SP... 090408	P0350903	XT15	SCC 505540-3D & 4D	○
55-60	184230800	SCC 055060-I	184230900	SCC 055060-O	SP... 090408	P0350903	XT15	SCC 556040-3D & 4D	○
60-65	184231000	SCC 060065-I	184231100	SCC 060065-O	SP... 110408	P0401200	XT15	SCC 606540-3D & 4D	○
65-70	184231200	SCC 065070-I	184231300	SCC 065070-O	SP... 110408	P0401200	XT15	SCC 657040-3D & 4D	○
70-75	184231400	SCC 070075-I	184231500	SCC 070075-O	SP... 110408	P0401200	XT15	SCC 707540-3D & 4D	○
75-80	184231600	SCC 075080-I	184231700	SCC 075080-O	SP... 140512	P0501300	XT20	SCC 758040-3D & 4D	○

Stock item | Produto de stock | Itens de stock
 Available under request | Disponível sobre consulta | Disponible bajo consulta

SCC CARTRIDGE (1mm)

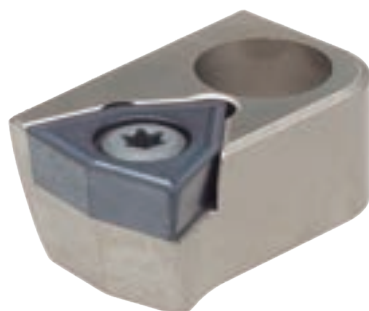


ØD	Inner Cartridge		Outer Cartridge		Insert	Insert Screw	Torx key	For Drill	Stock
	Order Code	Reference	Order Code	Reference					
50-51	184069500	CISP 5055	184070100	COSP 5051	SP... 090408	P0350903	XT15	SCC 505140-3D & 4D	○
51-52	184069500	CISP 5055	184070200	COSP 5152	SP... 090408	P0350903	XT15	SCC 515240-3D & 4D	○
52-53	184069500	CISP 5055	184070300	COSP 5253	SP... 090408	P0350903	XT15	SCC 525340-3D & 4D	○
53-54	184069500	CISP 5055	184070400	COSP 5354	SP... 090408	P0350903	XT15	SCC 535440-3D & 4D	○
54-55	184069500	CISP 5055	184070500	COSP 5455	SP... 090408	P0350903	XT15	SCC 545540-3D & 4D	○
55-56	184069600	CISP 5560	184070600	COSP 5556	SP... 090408	P0350903	XT15	SCC 555640-3D & 4D	○
56-57	184069600	CISP 5560	184070700	COSP 5657	SP... 090408	P0350903	XT15	SCC 565740-3D & 4D	○
57-58	184069600	CISP 5560	184070800	COSP 5758	SP... 090408	P0350903	XT15	SCC 575840-3D & 4D	○
58-59	184069600	CISP 5560	184070900	COSP 5859	SP... 090408	P0350903	XT15	SCC 585940-3D & 4D	○
59-60	184069600	CISP 5560	184071000	COSP 5960	SP... 090408	P0350903	XT15	SCC 596040-3D & 4D	○
60-61	184069700	CISP 6065	184071100	COSP 6061	SP... 110408	P0401200	XT15	SCC 606140-3D & 4D	○
61-62	184069700	CISP 6065	184071200	COSP 6162	SP... 110408	P0401200	XT15	SCC 616240-3D & 4D	○
62-63	184069700	CISP 6065	184071300	COSP 6263	SP... 110408	P0401200	XT15	SCC 626340-3D & 4D	○
63-64	184069700	CISP 6065	184071400	COSP 6364	SP... 110408	P0401200	XT15	SCC 636440-3D & 4D	○
64-65	184069700	CISP 6065	184071500	COSP 6465	SP... 110408	P0401200	XT15	SCC 646540-3D & 4D	○
65-66	184069800	CISP 6570	184071600	COSP 6566	SP... 110408	P0401200	XT15	SCC 656640-3D & 4D	○
66-67	184069800	CISP 6570	184071700	COSP 6667	SP... 110408	P0401200	XT15	SCC 666740-3D & 4D	○
67-68	184069800	CISP 6570	184071800	COSP 6768	SP... 110408	P0401200	XT15	SCC 676840-3D & 4D	○
68-69	184069800	CISP 6570	184071900	COSP 6869	SP... 110408	P0401200	XT15	SCC 686940-3D & 4D	○
69-70	184069800	CISP 6570	184072000	COSP 6970	SP... 110408	P0401200	XT15	SCC 697040-3D & 4D	○
70-71	184069900	CISP 7075	184250100	COSP 7071	SP... 110408	P0401200	XT15	SCC 707140-3D & 4D	○
71-72	184069900	CISP 7075	184072200	COSP 7172	SP... 110408	P0401200	XT15	SCC 717240-3D & 4D	○
72-73	184069900	CISP 7075	184072300	COSP 7273	SP... 110408	P0401200	XT15	SCC 727340-3D & 4D	○
73-74	184069900	CISP 7075	184072400	COSP 7374	SP... 110408	P0401200	XT15	SCC 737440-3D & 4D	○
74-75	184069900	CISP 7075	184072500	COSP 7475	SP... 110408	P0401200	XT15	SCC 747540-3D & 4D	○
75-76	184070000	CISP 7580	184072600	COSP 7576	SP... 140512	P0501300	XT20	SCC 757640-3D & 4D	○
76-77	184070000	CISP 7580	184072700	COSP 7677	SP... 140512	P0501300	XT20	SCC 767740-3D & 4D	○
77-78	184070000	CISP 7580	184072800	COSP 7778	SP... 140512	P0501300	XT20	SCC 777840-3D & 4D	○
78-79	184070000	CISP 7580	184072900	COSP 7879	SP... 140512	P0501300	XT20	SCC 787940-3D & 4D	○
79-80	184070000	CISP 7580	184073000	COSP 7980	SP... 140512	P0501300	XT20	SCC 798040-3D & 4D	○

 Stock item | Produto de stock | Itens de stock

 Available under request | Disponível sobre consulta | Disponible bajo consulta

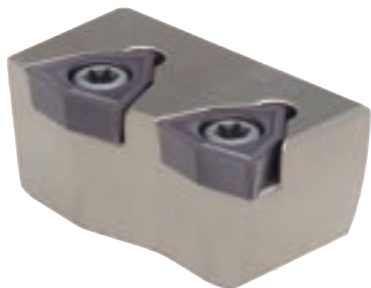
DHC CARTRIDGE



ØD	Inner Cartridge		Outer Cartridge		Insert	Insert Screw	Torx key	For Drill	Stock
	Order Code	Reference	Order Code	Reference					
1 INSERT PER CARTRIDGE									
41	184250300	CWC 041045-I	184226700	CWC 000041-O	WC... 06T308	P0350903	XT15	DHC 004140-5D & 8D	○
42	184250300	CWC 041045-I	184226800	CWC 000042-O	WC... 06T308	P0350903	XT15	DHC 004240-5D & 8D	○
43	184250300	CWC 041045-I	184226900	CWC 000043-O	WC... 06T308	P0350903	XT15	DHC 004340-5D & 8D	○
44	184250300	CWC 041045-I	184227000	CWC 000044-O	WC... 06T308	P0350903	XT15	DHC 004440-5D & 8D	○
45	184250300	CWC 041045-I	184227100	CWC 000045-O	WC... 06T308	P0350903	XT15	DHC 004540-5D & 8D	○
46	184226400	CWC 046050-I	184227200	CWC 000046-O	WC... 06T308	P0350903	XT15	DHC 004640-5D & 8D	○
47	184226400	CWC 046050-I	184227300	CWC 000047-O	WC... 06T308	P0350903	XT15	DHC 004740-5D & 8D	○
48	184226400	CWC 046050-I	184227400	CWC 000048-O	WC... 06T308	P0350903	XT15	DHC 004840-5D & 8D	○
49	184226400	CWC 046050-I	184227500	CWC 000049-O	WC... 06T308	P0350903	XT15	DHC 004940-5D & 8D	○
50	184226400	CWC 046050-I	184227600	CWC 000050-O	WC... 06T308	P0350903	XT15	DHC 005040-5D & 8D	○
51	184226500	CWC 051055-I	184227700	CWC 000051-O	WC... 080408	P0401101	XT15	DHC 005140-5D & 8D	○
52	184226500	CWC 051055-I	184227800	CWC 000052-O	WC... 080408	P0401101	XT15	DHC 005240-5D & 8D	○
53	184226500	CWC 051055-I	184227900	CWC 000053-O	WC... 080408	P0401101	XT15	DHC 005340-5D & 8D	○
54	184226500	CWC 051055-I	184228000	CWC 000054-O	WC... 080408	P0401101	XT15	DHC 005440-5D & 8D	○
55	184226500	CWC 051055-I	184228100	CWC 000055-O	WC... 080408	P0401101	XT15	DHC 005540-5D & 8D	○
56	184226600	CWC 056059-I	184228200	CWC 000056-O	WC... 080408	P0401101	XT15	DHC 005640-5D & 8D	○
57	184226600	CWC 056059-I	184228300	CWC 000057-O	WC... 080408	P0401101	XT15	DHC 005740-5D & 8D	○
58	184226600	CWC 056059-I	184228400	CWC 000058-O	WC... 080408	P0401101	XT15	DHC 005840-5D & 8D	○
59	184226600	CWC 056059-I	184228500	CWC 000059-O	WC... 080408	P0401101	XT15	DHC 005940-5D & 8D	○
2 INSERTS PER CARTRIDGE									
60-65	184250600	MDC 060065-I	184252900	MDC 060065-O	WC... 050308	P0300701	XT08	DHC 606540-5D & 8D	○
65-70	184250700	MDC 065070-I	184253000	MDC 065070-O	WC... 050308	P0300701	XT08	DHC 657040-5D & 8D	○
70-75	184250800	MDC 070075-I	184063700	MDC 070075-O	WC... 050308	P0300701	XT08	DHC 707540-5D & 8D	○
75-80	184250900	MDC 075080-I	184063800	MDC 075080-O	WC... 06T308	P0350903	XT15	DHC 758040-5D & 8D	○

 Stock item | Produto de stock | Itens de stock
  Available under request | Disponível sobre consulta | Disponible bajo consulta

TDC CARTRIDGE



ØD	Inner Cartridge		Outer Cartridge		Insert	Insert Screw	Torx key	For Drill	Stock
	Order Code	Reference	Order Code	Reference					
59-65	184109200	TDC 059065-I	184109300	TDC 059065-O	WC... 06T308	P0350903	XT15	TDC 596540-3D	☐
65-70	184109400	TDC 065070-I	184109500	TDC 065070-O	WC... 06T308	P0350903	XT15	TDC 657040-3D	☐
70-75	184109600	TDC 070075-I	184109700	TDC 070075-O	WC... 06T308	P0350903	XT15	TDC 707540-3D	☐
75-80	184109800	TDC 075080-I	184109900	TDC 075080-O	WC... 06T308	P0350903	XT15	TDC 758040-3D	☐

 Stock item | Produto de stock | Itens de stock ☐ Available under request | Disponível sobre consulta | Disponible bajo consulta

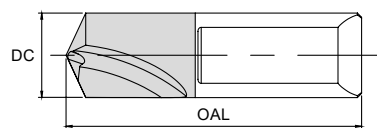
PND CARTRIDGE



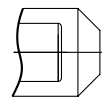
ØD	Inner Cartridge		Outer Cartridge		Insert	Insert Screw	Torx key	For Drill	Stock
	Order Code	Reference	Order Code	Reference					
40-55	184110000	PNC 040055-I	184128700	PNC 040055-O	WC... 050308	P0300701	XT08	PND 04032-2D ~ PND 05540-2D	☐
60-110	184110100	PNC 060110-I	184128800	PNC 060110-O	WC... 06T308	P0350903	XT15	PND 06040-2D ~ PND 11050-2D	☐

 Stock item | Produto de stock | Itens de stock ☐ Available under request | Disponível sobre consulta | Disponible bajo consulta

PILOT DRILL



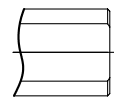
Shank Type



A (with cone)



B (with chamfer)



C

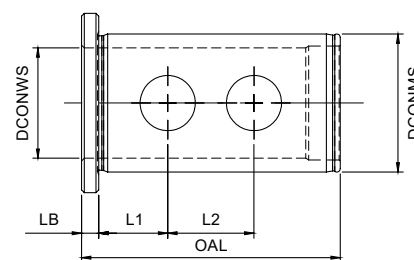
Order Code	Reference	Dimensions Dimensões Dimensiones (mm)		Type	Oil Hole	For Drill	Stock
		DC	OAL				
184150900	MDP 2006	6	20	A	-	TFD (Ø18,0 - Ø25,0)	⊗
184151000	MDP 2508	8	25	A	-	TFD (Ø25,5 - Ø30,0)	⊗
184104100	MDP 3006	6	30	B	-	DHS (Ø25 - Ø30)	⊗
184104400	MDP 3508	8	35	B	-	DHS (Ø31 - Ø40)	⊗
184033100	MDP 3510	10	35	B	✓	DHC (Ø41 - Ø50), MDO (Ø45-Ø55)	⊗
184033200	MDP 3812	12	38	B	✓	DHC (Ø51 - Ø75), MDO (Ø55-Ø75)	⊗
184033300	MDP 4516	16	45	B	✓	DHC (Ø75 - Ø80), MDO (Ø75-Ø100)	⊗
184033400	MDP 4520	20	45	C	✓	MDO (Ø100-Ø120)	⊗
184033500	MDP 5625	25	56	C	✓	MDO (Ø120-Ø160)	⊗
184033600	MDP 6830	30	68	C	✓	MDO (Ø160-Ø180)	⊗

⊗ Stock item | Produto de stock | Itens de stock

○ Available under request | Disponível sobre consulta | Disponible bajo consulta

Pilot Drill
mounting procedure

RDS - DRILL SLEEVE

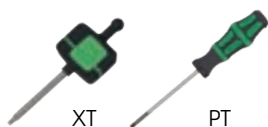


Order Code	Reference	Dimensions Dimensões Dimensiones (mm)						Stock
		DCONMS	DCONWS	OAL	L1	L2	LB	
184258900	RDS 203265	32	20	65	20	-	5	○
184259000	RDS 253265	32	25	65	20	20	5	○
184259100	RDS 204075	40	20	75	20	-	5	○
184259200	RDS 254075	40	25	75	20	25	5	○
184259300	RDS 324075	40	32	75	20	25	5	○
184259400	RDS 205095	50	20	95	35	-	5	○
184259500	RDS 255095	50	25	95	35	-	5	○
184259600	RDS 325095	50	32	95	35	35	5	○
184259700	RDS 405095	50	40	95	35	35	5	○

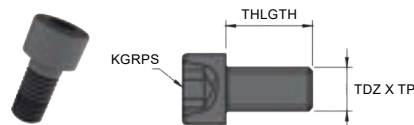
⊗ Stock item | Produto de stock | Itens de stock

○ Available under request | Disponível sobre consulta | Disponible bajo consulta

SCREWS & KEYS



Screw for Cartridge (DIN 912)

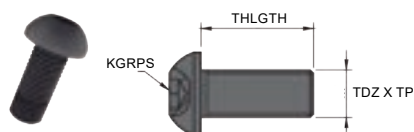


Order Code Código	Reference Referência Referencia
290058400	P0180400
290025800	P0180500
290095800	P02004IP
290031400	P0200500
290095900	P02205IP
290030600	P0220500
290033100	P0250503
290096000	P02507IP
290031300	P0250704
290096100	P03007IP
290030800	P0300701
290096200	P03508IP
290030900	P0350903
290096300	P04010IP
290031000	P0401101
290047500	P0401200
290095600	P0500900
290096400	P05013IP
290031700	P0501300
290078900	P0501302

Order Code	Reference Referência Referencia
290058600	XT06IP
290011400	XT06
290012900	XT07
290096500	XT08IP
290011700	XT08
290025700	XT09
290097300	XT15IP-S35
290012400	XT15
290097400	XT20IP-S40
290013200	XT20
290014800	PT15
290014900	PT20

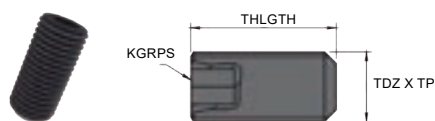
Order Code Código	Screw	Dimensions Dimensões Dimensiones (mm)		
		TDZ x TP	THLGTH	KGRPS
290042800	P0501079	M4 x 0,7	10,0	2,0
290042900	P0501279	M5 x 0,8	12,0	2,5
290043000	P0601279	M6 x 1,0	12,0	2,5
290043100	P0601479	M6 x 1,0	14,0	3,0
290043600	P0601679	M6 x 1,0	16,0	3,0
290043300	P0801879	M8 x 1,25	18,0	4,0
290043400	P0802079	M8 x 1,25	20,0	4,0
290043500	P0802579	M8 x 1,25	25,0	4,0

Screw for Cartridge (ISO 7380)



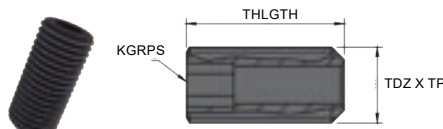
Order Code Código	Screw	Dimensions Dimensões Dimensiones (mm)		
		TDZ x TP	THLGTH	KGRPS
290042500	P0401078	M4 x 0,7	10,0	2,0
290042600	P0501078	M5 x 0,8	10,0	2,5
290042700	P0501278	M5 x 0,8	12,0	2,5

Fixing Screw and Clamping Bolt for Pilot Drill (DIN 916)



Order Code Código	Screw	Dimensions Dimensões Dimensiones (mm)		
		TDZ x TP	THLGTH	KGRPS
290040100	P0400875	M4 x 0,7	8,0	2,0
290040200	P0500875	M5 x 0,8	8,0	2,5
290040300	P0501075	M5 x 0,8	10,0	2,5
290040400	P0601075	M6 x 1,0	10,0	3,0
290040500	P0601275	M6 x 1,0	12,0	3,0
290040600	P0801275	M8 x 1,25	12,0	4,0
290040700	P0801575	M8 x 1,25	15,0	4,0
290040800	P1001575	M10 x 1,5	15,0	5,0
290040900	P1002075	M10 x 1,5	20,0	5,0
290041000	P1202075	M12 x 1,75	20,0	6,0
290041100	P1202575	M12 x 1,75	25,0	6,0
290041200	P1402575	M14 x 2,0	25,0	6,0
290041300	P1602575	M16 x 2,0	25,0	8,0

Adjustment Screw for Pilot Drill (DIN 916 w/ hole)



Order Code Código	Screw	Dimensions Dimensões Dimensiones (mm)		
		TDZ x TP	THLGTH	KGRPS
290041400	P0601076	M6 x 1,0	10,0	3,0
290041500	P0801576	M8 x 1,25	15,0	4,0
290097100	P1001576	M10 x 1,5	15,0	5,0
290041800	P1202076	M12 x 1,75	20,0	6,0
290041900	P1402076	M14 x 2,0	20,0	6,0

VORTEX SPARE PARTS - MDO CARTRIDGE



ØD	Inner Cartridge		Outer Cartridge		Insert	Insert Screw	Torx key	For Drill	Stock
	Order Code	Reference	Order Code	Reference					
2 INSERTS PER CARTRIDGE									
45-50	184062000	MDC 045050-I	184252600	MDC 045050-O	WC... 030204	P0220500	XT07	MDO 04505013	
50-55	184250400	MDC 050055-I	184252700	MDC 050055-O	WC... 030204	P0220500	XT07	MDO 05005513	
55-60	184250500	MDC 055060-I	184252800	MDC 055060-O	WC... 040204	P0250503	XT08	MDO 05506016	
60-65	184250600	MDC 060065-I	184252900	MDC 060065-O	WC... 050308	P0300701	XT08	MDO 06006516	
65-70	184250700	MDC 065070-I	184253000	MDC 065070-O	WC... 050308	P0300701	XT08	MDO 06507016	
70-75	184250800	MDC 070075-I	184063700	MDC 070075-O	WC... 050308	P0300701	XT08	MDO 07007522	
75-80	184250900	MDC 075080-I	184063800	MDC 075080-O	WC... 06T308	P0350903	XT15	MDO 07508022	
80-85	184251000	MDC 080085-I	184063900	MDC 080085-O	WC... 06T308	P0350903	XT15	MDO 08008522	
85-90	184251100	MDC 085090-I	184064000	MDC 085090-O	WC... 06T308	P0350903	XT15	MDO 08509027	
90-95	184251200	MDC 090095-I	184064100	MDC 090095-O	WC... 06T308	P0350903	XT15	MDO 09009527	
95-100	184251300	MDC 095100-I	184064200	MDC 095100-O	WC... 06T308	P0350903	XT15	MDO 09510027	
3 INSERTS PER CARTRIDGE									
100-105	184251400	MDC 100105-I	184064300	MDC 100105-O	WC... 050308	P0300701	XT08	MDO 10010532	
105-110	184251500	MDC 105110-I	184253100	MDC 105110-O	WC... 06T308	P0350903	XT15	MDO 10511032	
110-115	184251600	MDC 110115-I	184253200	MDC 110115-O	WC... 06T308	P0350903	XT15	MDO 11011532	
115-120	184251700	MDC 115120-I	184253300	MDC 115120-O	WC... 06T308	P0350903	XT15	MDO 11512040	
120-125	184251800	MDC 120125-I	184253400	MDC 120125-O	WC... 06T308	P0350903	XT15	MDO 12012540	
125-130	184251900	MDC 125130-I	184253500	MDC 125130-O	WC... 06T308	P0350903	XT15	MDO 12513040	
130-135	184252000	MDC 130135-I	184068900	MDC 130135-O	WC... 06T308	P0350903	XT15	MDO 13013540	
135-140	184252100	MDC 135140-I	184069000	MDC 135140-O	WC... 06T308	P0350903	XT15	MDO 13514040	
140-150	184252200	MDC 140150-I	184253600	MDC 140150-O	WC... 080408	P0401101	XT15	MDO 14015050	
150-160	184252300	MDC 150160-I	184069200	MDC 150160-O	WC... 080408	P0401101	XT15	MDO 15016050	
160-170	184252400	MDC 160170-I	184069300	MDC 160170-O	WC... 080408	P0401101	XT15	MDO 16017050	
170-180	184252500	MDC 170180-I	184069400	MDC 170180-O	WC... 080408	P0401101	XT15	MDO 17018050	

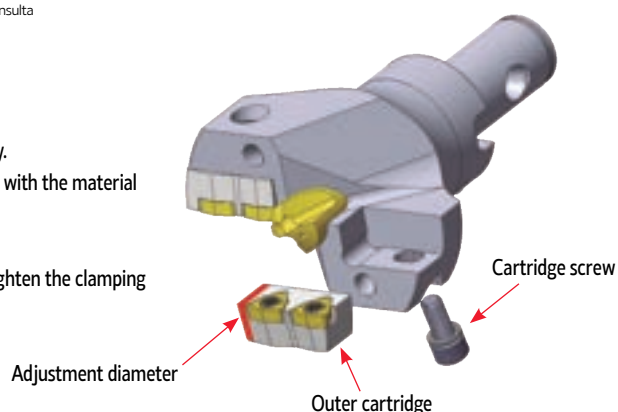
Ⓢ Stock item | Produto de stock | Itens de stock

○ Available under request | Disponível sobre consulta | Disponible bajo consulta

Adjusting the cutting diameter of Vortex MDO 10D

- 1 - Unscrew the clamping bolt that holds the outer cartridge in place and remove it from the drill body.
- 2 - Use a milling tool to carefully cut out the section of the outer cartridge that will come into contact with the material being drilled, making sure to calculate the correct diameter beforehand.
- 3 - Smooth out any sharp edges on the cartridge.
- 4 - Attach the cartridge securely to the drill body, ensuring there are no gaps between the two, and tighten the clamping bolt firmly to keep it in place.

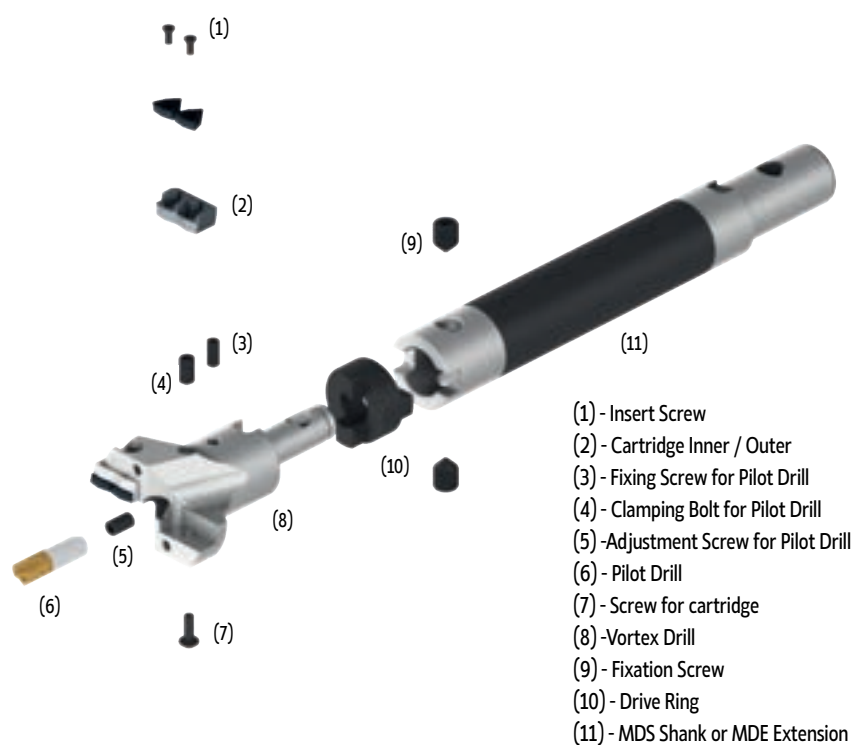
Example: for a standard diameter of Ø120mm and you want Ø116mm you should cut 2mm.



VORTEX SPARE PARTS - SCREWS

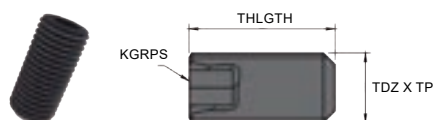
Vortex Drill	(3) Fixing Screw for Pilot Drill		(4) Clamping Bolt for Pilot Drill		(5) Adjustment Screw for Pilot Drill		(7) Screw for Cartridge	
	Order Code	Screw	Order Code	Screw	Order Code	Screw	Order Code	Screw
MDO 04505013	290040100	P0400875	290040400	P0601075	290041400	P0601076	290042500	P0401078
MDO 05005513	290040100	P0400875	290040400	P0601075	290041400	P0601076	290042500	P0401078
MDO 05506016	290040100	P0400875	290040600	P0801275	290041500	P0801576	290042700	P0501278
MDO 06006516	290040200	P0500875	290040600	P0801275	290041500	P0801576	290042700	P0501278
MDO 06507016	290040200	P0500875	290040600	P0801275	290041500	P0801576	290042700	P0501278
MDO 07007522	290040200	P0500875	290040700	P0801575	290041500	P0801576	290042700	P0501278
MDO 07508022	290040400	P0601075	290040900	P1002075	290097100	P1001676	290043000	P0601279
MDO 08008522	290040400	P0601075	290040900	P1002075	290097100	P1001676	290043100	P0601479
MDO 08509027	290040400	P0601075	290040900	P1002075	290097100	P1001876	290043600	P0601679
MDO 09009527	290040400	P0601075	290040900	P1002075	290097100	P1001876	290043600	P0601679
MDO 09510027	290040400	P0601075	290040900	P1002075	290097100	P1001876	290043600	P0601679
MDO 10010532	290040400	P0601075	290041000	P1202075	290041800	P1202076	290043300	P0801879
MDO 10511032	290040400	P0601075	290041000	P1202075	290041800	P1202076	290043300	P0801879
MDO 11011532	290040400	P0601075	290041000	P1202075	290041800	P1202076	290043300	P0801879
MDO 11512040	290040400	P0601075	290041100	P1202575	290041900	P1402076	290043400	P0802079
MDO 12012540	290040400	P0601075	290041200	P1402575	290041900	P1402076	290043500	P0802579
MDO 12513040	290040400	P0601075	290041200	P1402575	290041900	P1402076	290043500	P0802579
MDO 13013540	290040400	P0601075	290041200	P1402575	290041900	P1402076	290043500	P0802579
MDO 13514040	290040400	P0601075	290041200	P1402575	290041900	P1402076	290043500	P0802579
MDO 14015050	290040400	P0601075	290041200	P1402575	290041900	P1402076	290043500	P0802579
MDO 15016050	290040400	P0601075	290041200	P1402575	290041900	P1402076	290043500	P0802579
MDO 16017050	290040400	P0601075	290041300	P1602575	290041900	P1402076	290043500	P0802579
MDO 17018050	290040400	P0601075	290041300	P1602575	290041900	P1402076	290043500	P0802579

(9) Fixation Screw for MDS Shank, MDE Extension, MDM Reducer		
DC / BD	Order Code Código	Screw
28	290032400	P0801280
32	290032400	P0801280
40	290032500	P1001580
48	290032600	P1201880
58	290039600	P1202080
70	290032800	P1602780
80	290032800	P1602780



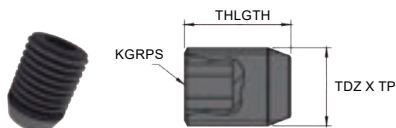
VORTEX SPARE PARTS - SCREWS

Fixing Screw and Clamping Bolt for Pilot Drill (DIN 916)



Order Code Código	Screw	Dimensions Dimensões Dimensiones (mm)		
		TDZ x TP	THLGTH	KGRPS
290040100	P0400875	M4 x 0,7	8,0	2,0
290040200	P0500875	M5 x 0,8	8,0	2,5
290040400	P0601075	M6 x 1,0	10,0	3,0
290040500	P0601275	M6 x 1,0	12,0	3,0
290040700	P0801575	M8 x 1,25	15,0	4,0
290040900	P1002075	M10 x 1,5	20,0	5,0
290041000	P1202075	M12 x 1,75	20,0	6,0
290041100	P1202575	M12 x 1,75	25,0	6,0
290041200	P1402575	M14 x 2,0	25,0	6,0
290041300	P1602575	M16 x 2,0	25,0	8,0

Fixation Screw for MDS Shank, MDE Extension, MDM Reducer



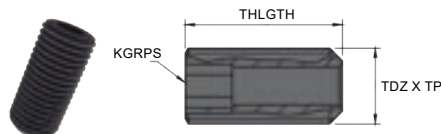
Order Code Código	Screw	Dimensions Dimensões Dimensiones (mm)		
		TDZ x TP	THLGTH	KGRPS
290032400	P0801280	M8	12,0	4,0
290032500	P1001580	M10	15,0	5,0
290032600	P1201880	M12	18,0	6,0
290039600	P1202080	M12	20,0	6,0
290032800	P1602780	M16	27,0	8,0

Insert Screw



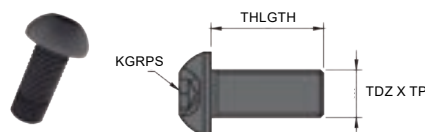
Order Code	Screw
290030600	P0220500
290033100	P0250503
290030800	P0300701
290030900	P0350903
290031000	P0401101

Adjustment Screw for Pilot Drill (DIN 916 w/ hole)



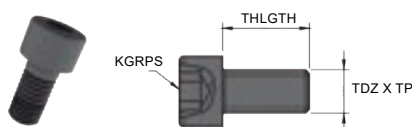
Order Code Código	Screw	Dimensions Dimensões Dimensiones (mm)		
		TDZ x TP	THLGTH	KGRPS
290041400	P0601076	M6 x 1,0	10,0	3,0
290041500	P0801576	M8 x 1,25	15,0	4,0
290097100	P1001676	M10 x 1,5	16,0	5,0
290097100	P1001876	M10 x 1,5	18,0	5,0
290041800	P1202076	M12 x 1,75	20,0	6,0
290041900	P1402076	M14 x 2,0	20,0	6,0

Screw for Cartridge (ISO 7380)



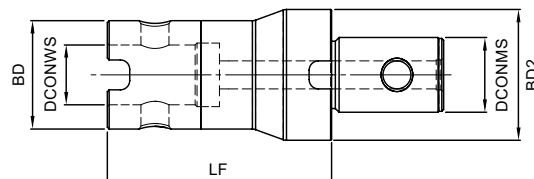
Order Code Código	Screw	Dimensions Dimensões Dimensiones (mm)		
		TDZ x TP	THLGTH	KGRPS
290042500	P0401078	M4 x 0,7	10,0	2,0
290042700	P0501278	M5 x 0,8	12,0	2,5

Screw for Cartridge (DIN 912)



Order Code Código	Screw	Dimensions Dimensões Dimensiones (mm)		
		TDZ x TP	THLGTH	KGRPS
290043000	P0601279	M6 x 1,0	12,0	2,5
290043100	P0601479	M6 x 1,0	14,0	3,0
290043600	P0601679	M6 x 1,0	16,0	3,0
290043300	P0801879	M8 x 1,25	18,0	4,0
290043400	P0802079	M8 x 1,25	20,0	4,0
290043500	P0802579	M8 x 1,25	25,0	4,0

MDM - REDUCER

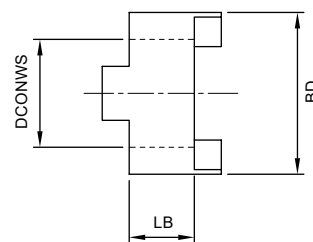


Order Code	Reference	Dimensions Dimensões Dimensiones (mm)					Drive Ring D1	Drive Ring D2	Stock
		DCONWS	DCONMS	BD	BD2	LF			
184253900	MDM 16100130	13	16	28	32	100	MDR 1028	MDR 1032	⊗
184254000	MDM 22100160	16	22	32	40	100	MDR 1032	MDR 1240	⊗
184254100	MDM 27100220	22	27	40	48	100	MDR 1240	MDR 1248	⊗
184254200	MDM 32100130	13	32	28	58	100	MDR 1028	MDR 1458	○
184254300	MDM 32100160	16	32	32	58	100	MDR 1032	MDR 1458	⊗
184254400	MDM 32100220	22	32	40	58	100	MDR 1240	MDR 1458	○
184254500	MDM 32100270	27	32	48	58	100	MDR 1248	MDR 1458	○
184254600	MDM 40100320	32	40	58	70	100	MDR 1458	MDR 1470	⊗
184254700	MDM 50080130	13	50	28	80	80	MDR 1028	MDR 1680	○
184254800	MDM 50080160	16	50	32	80	80	MDR 1032	MDR 1680	○
184254900	MDM 50080220	22	50	40	80	80	MDR 1240	MDR 1680	○
184255000	MDM 50080270	27	50	48	80	80	MDR 1248	MDR 1680	⊗
184255100	MDM 50080320	32	50	58	80	80	MDR 1458	MDR 1680	○
184250200	MDM 50150400	40	50	70	80	150	MDR 1470	MDR 1680	⊗

⊗ Stock item | Produto de stock | Itens de stock

○ Available under request | Disponível sobre consulta | Disponible bajo consulta

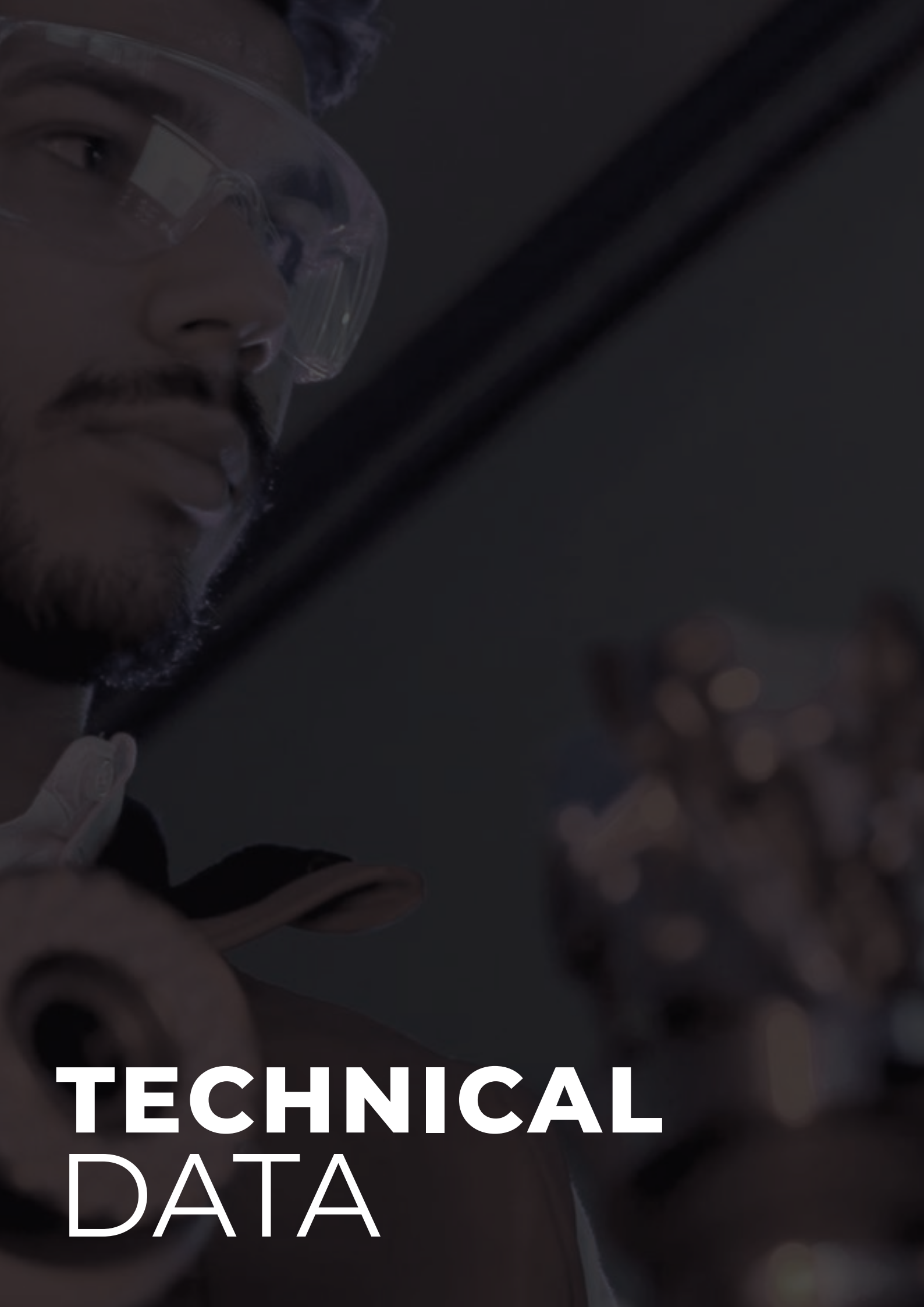
DRIVE RING



Order Code	Reference	Dimensions Dimensões Dimensiones (mm)			Stock
		BD	DCONWS	LB	
184021600	MDR 1028	28	13	10	○
184021700	MDR 1032	32	16	10	○
184022100	MDR 1240	40	22	12	○
184022200	MDR 1248	48	27	12	○
184022300	MDR 1458	58	32	14	○
184022400	MDR 1470	70	40	14	○
184022500	MDR 1680	80	50	16	○

⊗ Stock item | Produto de stock | Itens de stock

○ Available under request | Disponível sobre consulta | Disponible bajo consulta



TECHNICAL DATA

1 HOLEMAKING GRADES

> See page B - 442

2 TDS AND TDC DRILL TYPE

> See page B - 445

3 SCS AND SCC DRILL TYPE

> See page B - 448

4 DHS, DHC AND TFD DRILL TYPE

> See page B - 449

5 VORTEX DRILL - CUTTING PARAMETERS AND ADJUSTMENTS

> See page B - 450

B TECHNICAL DATA Dados técnicos | Datos técnicos

HOLEMAKING

Multi cut

Jet Drills

Integrex Drills

Vortex Drills

Trepanning Drills

Inserts

Spare Parts

Technical Data

Solid Carbide Drills

	1	5	10	15	20	25	30	35	40	45	50	
P STEEL					PH6920							PVD
					PHU920							
							PH6930					
							PHL930					
						PHP920						
							PHP930					
							PHS130					CVD
M STAINLESS STEEL					PH6920							PVD
					PHU920							
							PH6930					
							PHL930					
						PHH920						
							PHH930					
K CAST IRON					PH6920							PVD
					PHU920							
							PH6930					
							PHL930					
						PHP920						
							PHP930					
							PHS130					CVD
N ALUMINIUM			PH0910									UNC
S HEAT RESISTANT / TITANIUM ALLOYS							PHL930					PVD
							PHH920					
							PHH930					

PVD GRADES

PH6920

P10-P35
M10-M25
K10-K30

Coated grade over a tough wear resistance substrate for general purpose machining.

PHU920

P10-P35
M10-M25
K10-K30

With high thermal shock resistance and suitable for dry and wet machining, the PHU920 grade is recommended for steels, stainless steels and cast iron.

PH6930

P20-P40
M20-M30
K20-K40

Grade suitable for applications with instability conditions. Excellent solution for medium cutting speed applications.

PHL930

P20-P40
M20-M30
K20-K40
S20-S30

Grade suitable for applications with instability conditions. Excellent solution for medium cutting speed applications. Coated in Yellow to be visually distinguishable.

PHP930

P20-P40
K10-K30

Due to the reduced cutting speed in the central area of the drill, a tougher grade is recommended for the inner insert.
(Inner Insert)

PHH930

M20-M40
S20-S30

PHP920

P10-P35
K10-K30

First choice for stable machining and improved surface finish. Recommended for outer edge if chattering occurs.
(Outer Insert)

PHH920

M10-M25
S15-S30

PH0910

N05-N10

Uncoated carbide micro-grain grade combining a good abrasive wear resistance and toughness. Suitable for rough to finish operations of aluminum alloys.

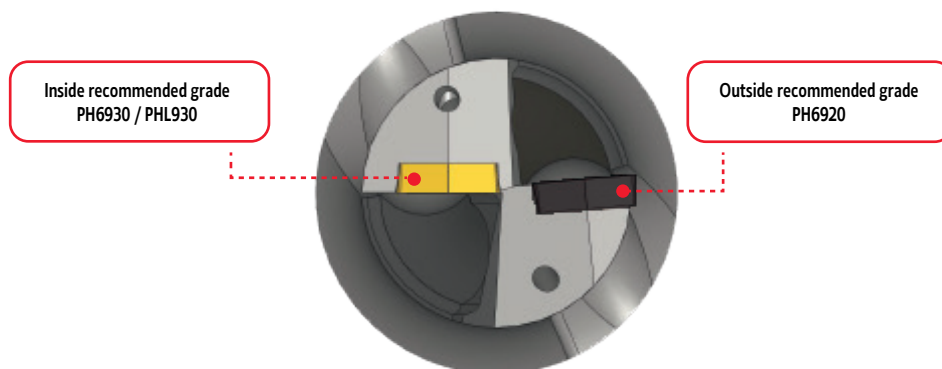
CVD GRADE

PHS130

P10-P35
K20-K40

First choice for high speeds and high efficiency machining, abrasion resistance and longer tool life.
(Outer Insert)

GRADES RECOMMENDATION FOR HOLEMAKING SYSTEMS



Note: This recommendation should be applied on High Alloy Steels, Stainless Steels and HRSA materials.

PHU920

Combining both excellent thermal resistance and excellent surface quality, the PHU920 grade is recommended for steels, stainless steels and cast iron.

Because of its surface quality and thermal resistance it is able to prevent built-up-edge in both low-alloy steels and stainless steels, making it a very versatile grade.

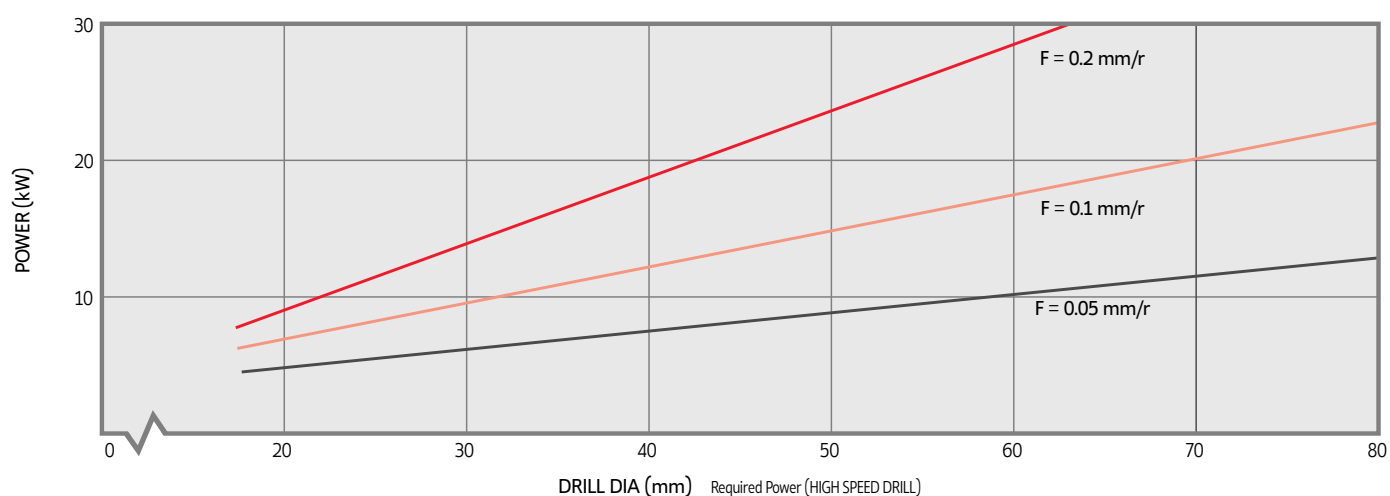
- High thermal shock resistance
- Carefully engineered surface quality
- Suitable for dry and wet machining
- Color: Grey



RECOMMENDED SPEEDS AND FEEDS

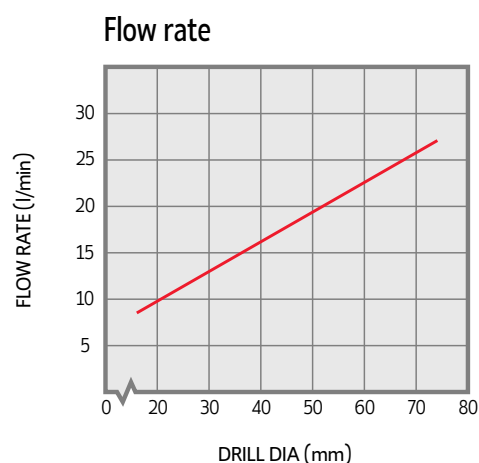
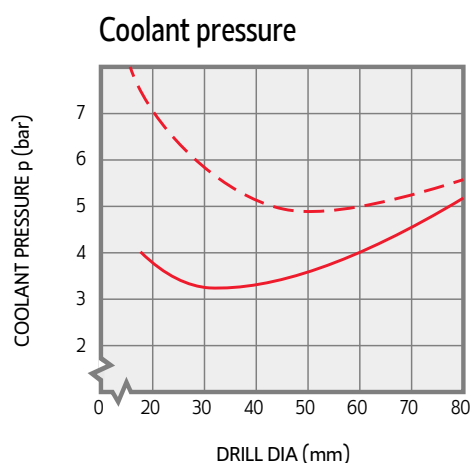
ISO	Material Group Grupo Materiais Grupo Materiales	Vc (m/min)	f (mm/rev)						
			Ø13-15,5	Ø16-20	Ø20,5-25	Ø25,5-30	Ø31-41	Ø42-58	Ø59-80
P	Unalloyed steel (-0,25%)	180-260	0,05-0,08	0,06-0,10	0,07-0,12	0,09-0,15	0,11-0,18	0,15-0,28	0,11-0,18
	Low-alloy steel (0,25%-)	150-240	0,05-0,08	0,06-0,10	0,07-0,12	0,09-0,15	0,11-0,18	0,15-0,28	0,11-0,18
	Low-alloy steel	120-240	0,05-0,08	0,06-0,10	0,07-0,12	0,09-0,15	0,11-0,18	0,15-0,28	0,11-0,18
	High-alloy steel	130-220	0,05-0,08	0,06-0,10	0,07-0,12	0,09-0,15	0,11-0,18	0,15-0,28	0,11-0,18
M	Stainless steel	150-220	0,04-0,08	0,05-0,09	0,06-0,12	0,07-0,13	0,08-0,16	0,10-0,20	0,08-0,16
K	Grey cast iron	150-250	0,05-0,11	0,07-0,13	0,08-0,12	0,10-0,18	0,14-0,26	0,18-0,35	0,14-0,26
	Cast iron with nodular cast	120-200	0,05-0,11	0,06-0,13	0,07-0,12	0,08-0,18	0,14-0,26	0,18-0,35	0,14-0,26
N	Aluminium forging alloys	180-280	0,04-0,06	0,07-0,12	0,08-0,13	0,09-0,15	0,12-0,20	0,08-0,13	0,09-0,15
	Aluminium cast alloys	120-270	0,04-0,06	0,06-0,12	0,08-0,13	0,09-0,15	0,12-0,20	0,08-0,13	0,09-0,15

POWER REQUIREMENTS



- These chart is based on machining experiences using steels with a hardness of 200-250HB and cutting speed of 100m/min.
- For cast iron the effective power requirement is around 30% lower.

COOLANT APPLICATION CHART



JET DRILLS TDS & TDC DRILL TYPE

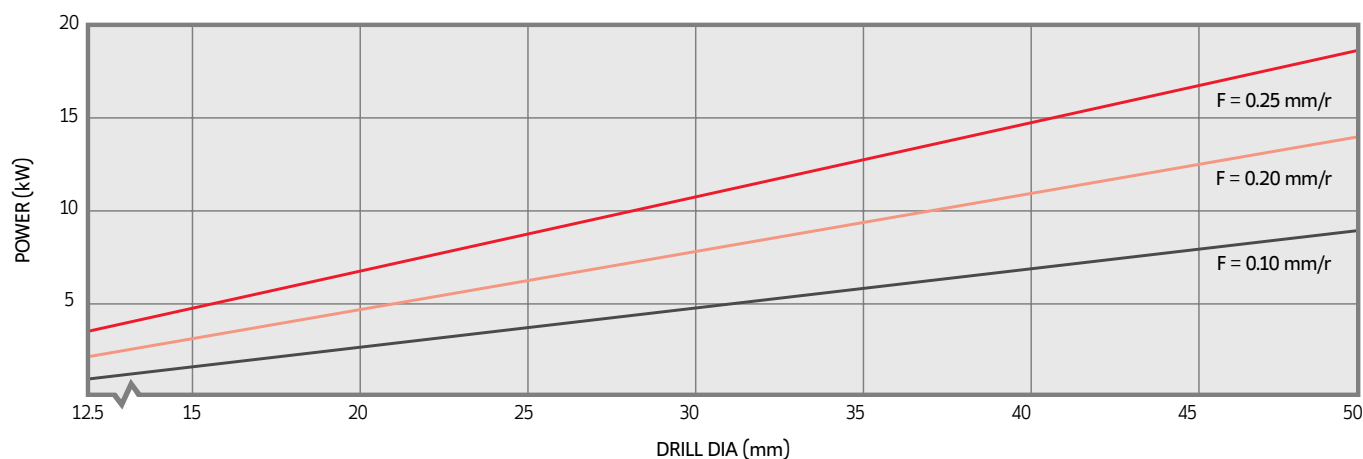
HOLE TOLERANCE AND MAXIMUM HOLE SIZE WITH RADIAL ADJUSTMENT

Drill D	Radial Adjust	Max Hole D	Drill D	Radial Adjust	Max Hole D
13.00	1.50	16.00	33.00	3.00	39.00
13.50	1.50	16.50	34.00	2.80	39.60
14.00	1.50	17.00	35.00	2.50	40.00
14.50	1.50	17.50	36.00	2.30	40.60
15.00	1.50	18.00	37.00	2.00	41.00
15.50	1.50	18.50	38.00	1.80	41.60
16.00	1.50	19.00	39.00	1.50	42.00
16.50	1.50	19.50	40.00	1.20	42.40
17.00	1.50	20.00	41.00	1.00	43.00
17.50	1.50	20.50	42.00	4.20	50.40
18.00	1.40	20.80	43.00	4.00	51.00
18.50	1.30	21.10	44.00	3.70	51.40
19.00	1.20	21.40	45.00	3.50	52.00
20.00	1.00	22.00	46.00	3.30	52.60
21.00	1.60	24.20	47.00	3.00	53.00
22.00	1.50	25.00	48.00	2.70	53.40
23.00	1.25	25.50	49.00	2.50	54.00
24.00	1.00	26.00	50.00	2.20	54.40
25.00	0.80	26.60	51.00	2.00	55.00
26.00	2.50	31.00	52.00	1.80	55.60
27.00	2.20	31.40	53.00	1.50	56.00
28.00	2.10	32.20	54.00	1.20	56.40
29.00	1.80	32.60	55.00	0.80	56.60
30.00	1.50	33.00	56.00	0.60	57.20
31.00	3.50	38.00	58.00	0.40	58.80
32.00	3.20	38.40			

RECOMMENDED SPEEDS AND FEEDS

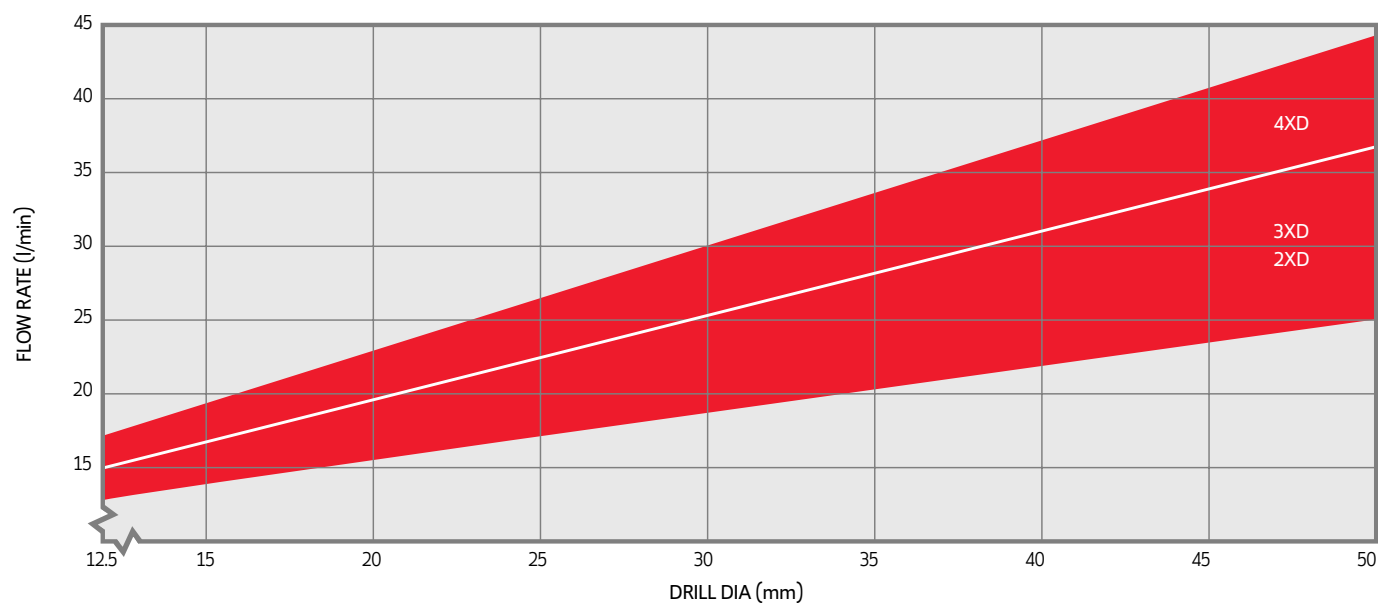
ISO	Material Group Grupo Materiais Grupo Materiales	V _c (m/min)	f (mm/rev)								
			Ø12,5-15	Ø15,5-21,5	Ø22-27,5	Ø28-33	Ø34-41	Ø42-50	Ø50-60	Ø60-75	Ø75-80
P	Unalloyed steel (-0,25%)	180-250	0,05-0,08	0,06-0,10	0,06-0,12	0,07-0,13	0,08-0,15	0,08-0,16	0,06-0,12	0,08-0,12	0,08-0,12
	Low-alloy steel (0,25%-)	160-220	0,06-0,12	0,08-0,15	0,10-0,18	0,12-0,22	0,12-0,24	0,13-0,25	0,10-0,14	0,12-0,18	0,11-0,18
	Low-alloy steel	150-220	0,06-0,12	0,08-0,14	0,10-0,18	0,12-0,22	0,12-0,23	0,13-0,24	0,08-0,15	0,10-0,18	0,10-0,18
	High-alloy steel	130-180	0,06-0,10	0,08-0,15	0,10-0,20	0,12-0,23	0,12-0,24	0,13-0,25	0,08-0,14	0,09-0,15	0,09-0,14
M	Stainless steel	170-240	0,05-0,10	0,06-0,12	0,08-0,15	0,09-0,16	0,10-0,17	0,11-0,19	0,06-0,13	0,08-0,15	0,08-0,14
K	Grey cast iron	180-250	0,06-0,12	0,08-0,16	0,12-0,20	0,15-0,25	0,16-0,28	0,18-0,30	0,12-0,20	0,15-0,20	0,15-0,20
	Cast iron with nodular cast	130-200	0,06-0,10	0,08-0,15	0,10-0,18	0,12-0,20	0,15-0,23	0,16-0,25	0,10-0,15	0,09-0,18	0,10-0,18

POWER REQUIREMENTS



- These chart is based on machining experiences using steels with a hardness of 200-250HB and cutting speed of 100m/min.
- For cast iron the effective power requirement is around 30% lower.

COOLANT APPLICATION CHART

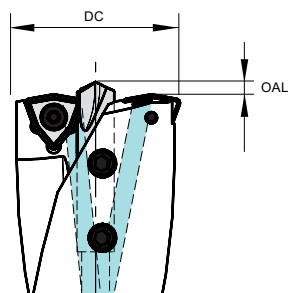


HOLE TOLERANCE AND MAXIMUM HOLE SIZE WITH RADIAL ADJUSTMENT

Drill D	3xD		
	Normal	Radial Adjust	Max. Hole D
13	13.16	0.50	14.0
14	14.10	0.50	15.0
15	15.10	0.50	16.0
16	16.07	0.50	17.0
17	17.08	0.50	18.0
18	18.05	0.50	19.0
19	19.08	0.50	20.0
20	20.06	0.50	21.0
21	20.97	0.25	21.5
22	21.94	0.50	23.0
23	23.10	0.50	24.0
24	24.10	0.50	25.0
25	25.06	0.50	26.0
26	26.03	0.25	26.5
27	27.05	0.25	27.5
28	28.11	0.50	29.0
29	28.54	0.50	30.0
30	30.23	0.50	31.0
31	31.07	0.25	31.5
32	32.06	0.25	32.5
33	33.12	0.25	33.5
34	34.10	0.50	35.0
35	35.07	0.50	36.0
36	36.03	0.50	37.0
37	37.14	0.50	38.0
38	38.05	0.50	39.0
39	39.03	0.50	40.0
40	40.00	0.25	40.5
41	40.99	0.25	41.5
42	42.03	0.50	43.0
43	42.99	0.50	44.0
44	44.17	0.50	45.0
45	45.21	0.50	46.0
46	46.17	0.50	47.0
47	47.15	0.50	48.0
48	48.12	0.25	48.5
49	49.00	0.25	49.5
50	50.02	0.25	50.5

Drill D	4xD		
	Normal	Radial Adjust	Max. Hole D
13	13.22	0.50	14.0
14	14.15	0.50	15.0
15	15.17	0.50	16.0
16	16.09	0.50	17.0
17	17.13	0.50	18.0
18	18.20	0.50	19.0
19	19.18	0.50	20.0
20	20.05	0.50	21.0
21	21.00	0.25	21.5
22	22.01	0.50	23.0
23	23.10	0.50	24.0
24	24.15	0.50	25.0
25	25.13	0.50	26.0
26	26.09	0.25	26.5
27	26.96	0.25	27.5
28	27.97	0.50	29.0
29	29.07	0.50	30.0
30	30.13	0.50	31.0
31	31.12	0.25	31.5
32	32.11	0.25	32.5
33	33.17	0.25	33.5
34	34.15	0.50	35.0
35	35.12	0.50	36.0
36	36.08	0.50	37.0
37	37.19	0.50	38.0
38	38.08	0.50	39.0
39	39.08	0.50	40.0
40	40.05	0.25	40.5
41	41.04	0.25	41.5
42	42.08	0.50	43.0
43	43.04	0.50	44.0
44	44.22	0.50	45.0
45	45.26	0.50	46.0
46	46.23	0.50	47.0
47	47.20	0.50	48.0
48	48.17	0.25	48.5
49	49.05	0.25	49.5
50	50.07	0.25	50.5

PILOT DRILL ADJUSTEMENT

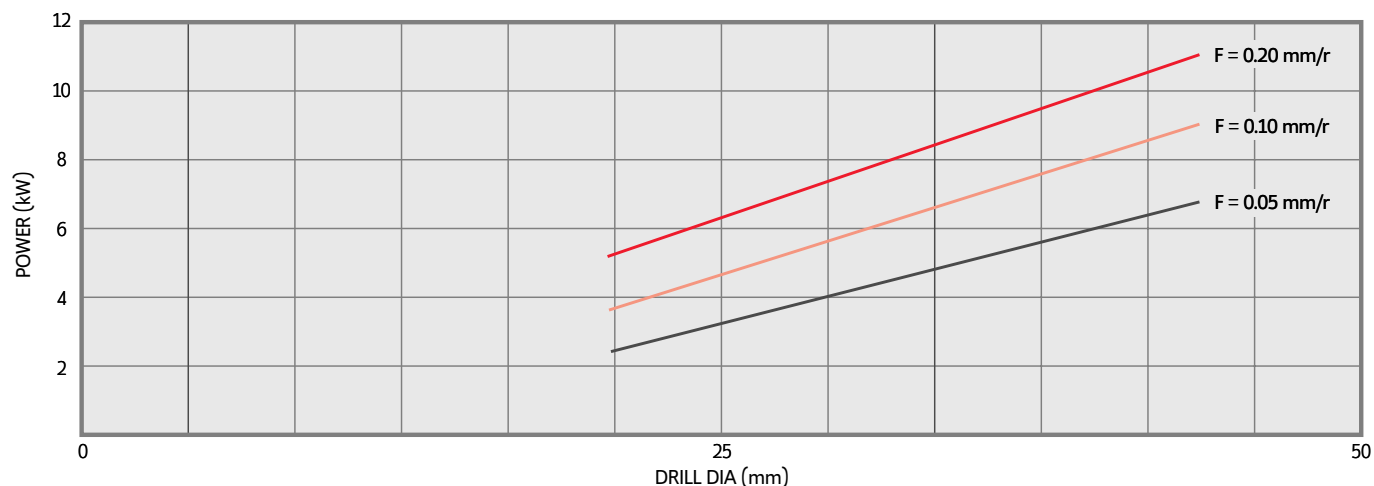


DC	OAL
18-24	2,5
25-30	3,0
31-39	4,0
40-59	4,5
60-80	5,0

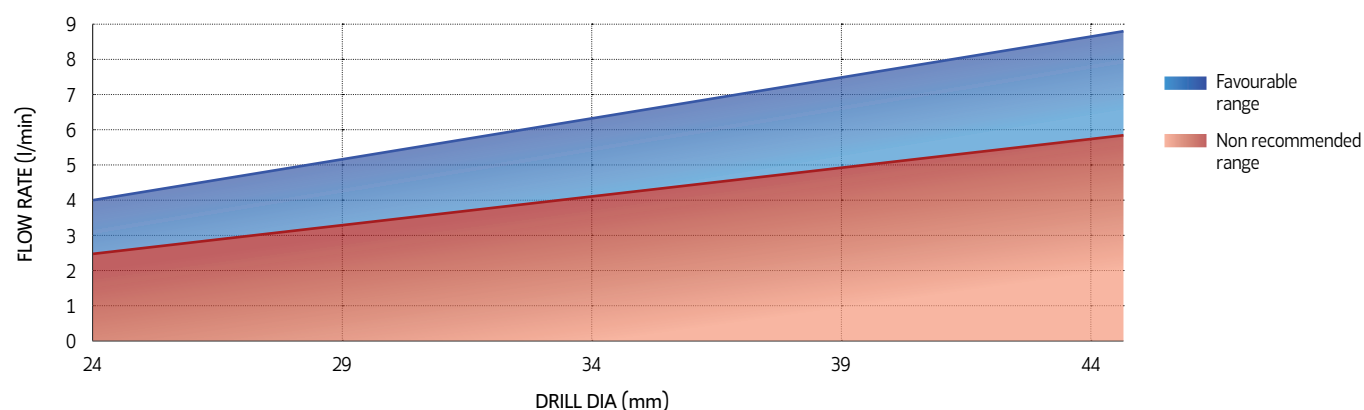
RECOMMENDED SPEEDS AND FEEDS

ISO	Material Group Grupo Materials Grupo Materiales	V _c (m/min)	f (mm/rev)						
			Ø25	Ø26-30	Ø31-40	Ø41-50	Ø51-59	Ø60-75	Ø75-80
P	Unalloyed steel (-0,25%)	130-190	0,06-0,10	0,07-0,11	0,08-0,12	0,10-0,14	0,14-0,20	0,08-0,12	0,10-0,14
	Low-alloy steel (0,25%-)	130-190	0,06-0,10	0,07-0,11	0,08-0,12	0,10-0,14	0,12-0,18	0,08-0,12	0,10-0,14
	Low-alloy steel (-HB300)	100-140	0,06-0,10	0,07-0,11	0,08-0,12	0,10-0,14	0,12-0,18	0,08-0,12	0,10-0,14
	High-alloy steel (HB300-)	60-100	0,05-0,07	0,05-0,07	0,06-0,08	0,06-0,10	0,09-0,13	0,06-0,08	0,06-0,10
M	Stainless steel	60-110	0,04-0,07	0,04-0,11	0,06-0,12	0,08-0,14	0,10-0,18	0,06-0,12	0,08-0,14
K	Grey cast iron	130-190	0,07-0,13	0,07-0,15	0,08-0,16	0,10-0,18	0,12-0,22	0,08-0,16	0,10-0,18
	Cast iron with nodular cast	110-190	0,04-0,13	0,07-0,15	0,08-0,16	0,10-0,25	0,12-0,26	0,08-0,16	0,10-0,25

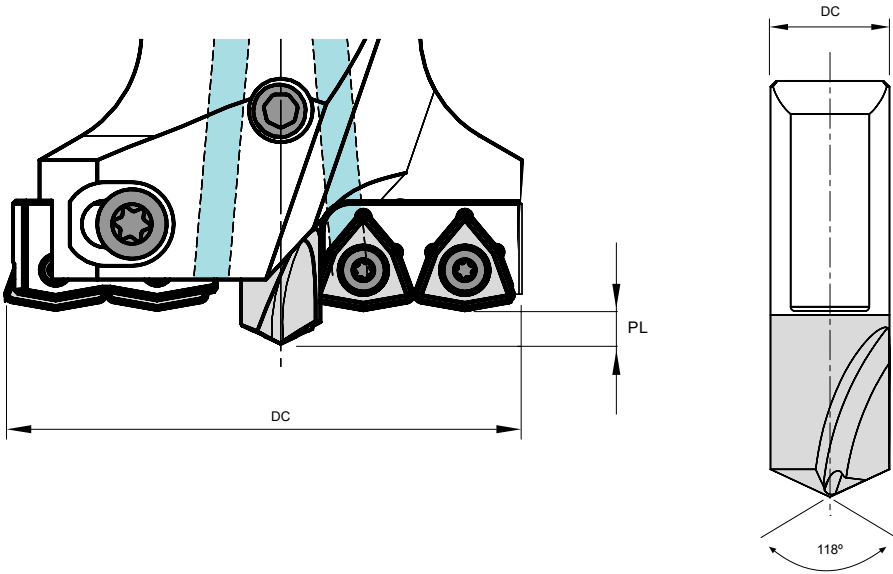
POWER REQUIREMENTS



COOLANT APPLICATION CHART



PILOT DRILL ADJUSTEMENT

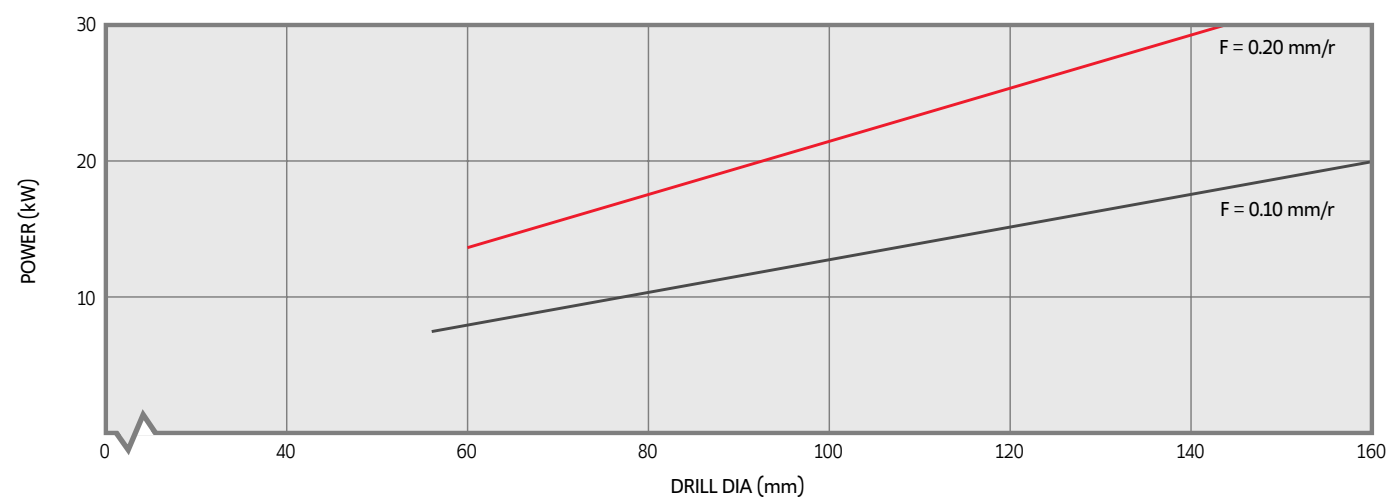


DC (mm)	2D to 4D	4D to 6D	> 6D
	PL	PL	PL
45-55	4,0	4,2	4,4
55-75	5,4	5,6	5,8
75-100	6,5	6,8	7,1
100-120	7,7	8,1	8,5
120-170	9,9	10,3	10,7
170-180	12,2	12,6	13,0

RECOMMENDED SPEEDS AND FEEDS

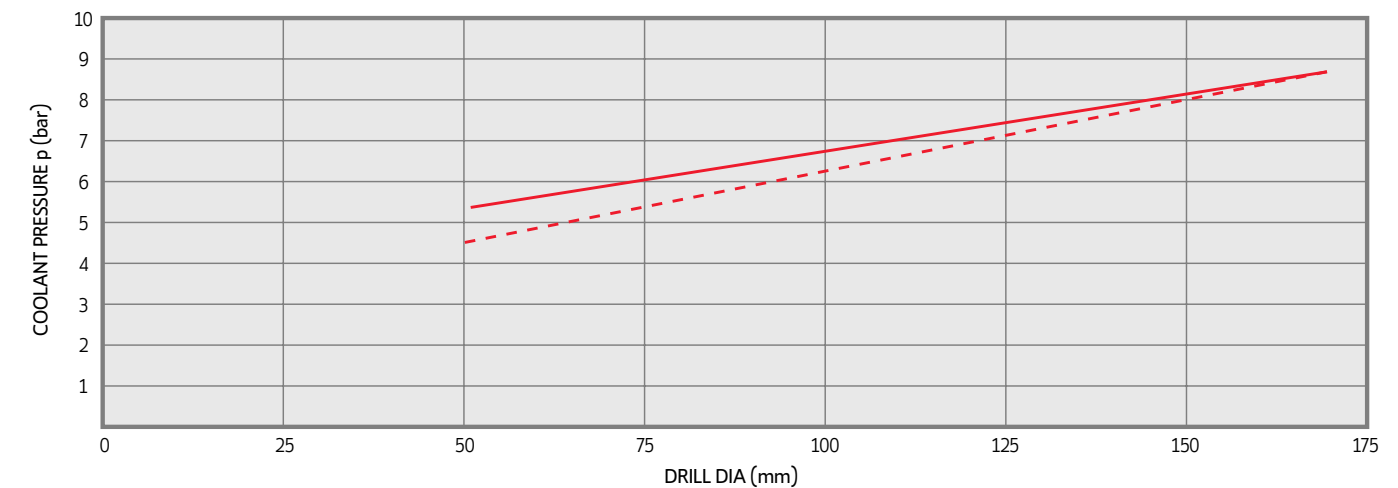
ISO	Material Group Grupo Materiais Grupo Materiales	Vc (m/min)	f (mm/rev)						
			Ø45~55	Ø55~60	Ø60~75	Ø75~100	Ø100~105	Ø105~150	Ø150~180
P	Unalloyed steel (-0,25%)	120-180	0,06-0,10	0,07-0,11	0,08-0,12	0,10-0,14	0,14-0,20	0,08-0,12	0,10-0,14
	Low-alloy steel (0,25%-)	110-170	0,06-0,10	0,07-0,11	0,08-0,12	0,10-0,14	0,12-0,18	0,08-0,12	0,10-0,14
	Low-alloy steel (-HB300)	90-130	0,06-0,10	0,07-0,11	0,08-0,12	0,10-0,14	0,12-0,18	0,08-0,12	0,10-0,14
	High-alloy steel (HB300-)	60-100	0,05-0,07	0,05-0,07	0,06-0,08	0,06-0,10	0,09-0,13	0,06-0,08	0,06-0,10
M	Stainless steel	60-110	0,04-0,07	0,04-0,11	0,06-0,12	0,08-0,14	0,10-0,18	0,06-0,12	0,08-0,14
K	Grey cast iron	120-180	0,07-0,13	0,07-0,15	0,08-0,16	0,10-0,18	0,12-0,22	0,08-0,16	0,10-0,18
	Cast iron with nodular cast	100-180	0,04-0,13	0,07-0,15	0,08-0,16	0,10-0,25	0,12-0,26	0,08-0,16	0,10-0,25

POWER REQUIREMENTS



• These chart is based on machining experiences using steels with a hardness of 200-250HB and cutting speed of 100m/min.

COOLANT APPLICATION CHART



SOLID CARBIDE

DRILLS



Solid carbide drills represent an excellent choice for ensuring excellent process security and achieving high-quality holes. They offer an optimal combination of feed rate and precision. This includes micro drills and optimized drills.

As brocas de metal duro representam uma excelente escolha para garantir segurança no processo e alcançar furos de alta qualidade. Oferecem uma combinação ideal de taxa de avanço e precisão. Inclui microbrocas e brocas otimizadas.

Las brocas de carburo sólido representan una excelente opción para garantizar seguridad del proceso y lograr orificios de alta calidad. Ofrecen una combinación óptima de velocidad de avance y precisión. Incluye microbrocas y brocas optimizadas.

NEW HMDUUE > page 454

- > From DC 1,0mm to 2,9mm
De DC 1,0mm a 2,9mm | Desde DC 1,0mm hasta 2,9mm
- > Available in 3D
Disponível em 3D | Disponible en 3D
- > Without coolant
Sem refrigeração | Sin refrigeración



NEW HMDUCE > page 455

- > From DC 1,0mm to 2,9mm
De DC 1,0mm a 2,9mm | Desde DC 1,0mm hasta 2,9mm
- > Available in 5D
Disponível em 5D | Disponible en 5D
- > With coolant
Com refrigeração | Con refrigeración



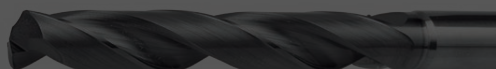
HBDPCE/W > page 456

- > From DC 3,0mm to 20,0mm
De DC 3,0mm a 20,0mm | Desde DC 3,0mm hasta 20,0mm
- > Available in 3D, 5D and 8D
Disponível em 3D, 5D e 8D | Disponible en 3D, 5D y 8D
- > With coolant
Com refrigeração | Con refrigeración



HBDPUE/W > page 465

- > From DC 3,0mm to 20,0mm
De DC 3,0mm a 20,0mm | Desde DC 3,0mm hasta 20,0mm
- > Available in 3D and 5D
Disponível em 3D e 5D | Disponible en 3D y 5D
- > Without coolant
Sem refrigeração | Sin refrigeración



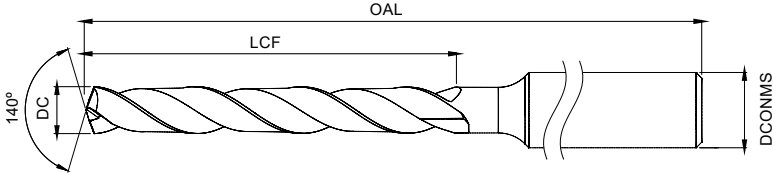


P

K

HRC
≤
60

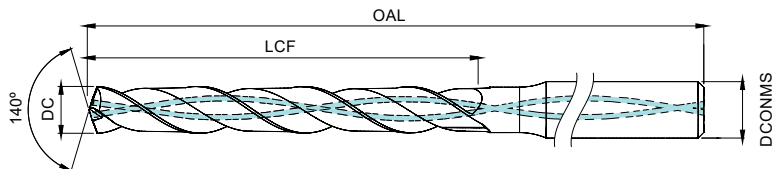
IT8-9
IT class



Order code	Reference Referência Referencia	Dimensions Dimensões Dimensiones (mm)				NOF	Stock PHU920
		DC	DCONMS	LCF	OAL		HA (Cylindrical)
1181796Z9	HMDUUE 2 03D 0100-045005	1,00	4	5	45	2	⊗
1181797Z9	HMDUUE 2 03D 0110-045007	1,10	4	7	45	2	⊗
1181798Z9	HMDUUE 2 03D 0120-045007	1,20	4	7	45	2	⊗
1181799Z9	HMDUUE 2 03D 0130-045007	1,30	4	7	45	2	⊗
1181800Z9	HMDUUE 2 03D 0140-045007	1,40	4	7	45	2	⊗
1181801Z9	HMDUUE 2 03D 0150-045007	1,50	4	7	45	2	⊗
1181802Z9	HMDUUE 2 03D 0160-055014	1,60	4	14	55	2	⊗
1181803Z9	HMDUUE 2 03D 0170-055014	1,70	4	14	55	2	⊗
1181804Z9	HMDUUE 2 03D 0180-055014	1,80	4	14	55	2	⊗
1181814Z9	HMDUUE 2 03D 0190-055014	1,90	4	14	55	2	⊗
1181501Z9	HMDUUE 2 03D 0200-055020	2,00	4	20	55	2	⊗
1182307Z9	HMDUUE 2 03D 0210-055020	2,10	4	20	55	2	⊗
1181817Z9	HMDUUE 2 03D 0220-055020	2,20	4	20	55	2	⊗
1181818Z9	HMDUUE 2 03D 0230-055020	2,30	4	20	55	2	⊗
1181819Z9	HMDUUE 2 03D 0240-055020	2,40	4	20	55	2	⊗
1182308Z9	HMDUUE 2 03D 0250-055020	2,50	4	20	55	2	⊗
1181821Z9	HMDUUE 2 03D 0260-055020	2,60	4	20	55	2	⊗
1181822Z9	HMDUUE 2 03D 0270-055020	2,70	4	20	55	2	⊗
1182309Z9	HMDUUE 2 03D 0280-055020	2,80	4	20	55	2	⊗
1182310Z9	HMDUUE 2 03D 0290-055020	2,90	4	20	55	2	⊗

⊗ Stock item | Produto de stock | Itens de stock

○ Available under request | Disponível sobre consulta | Disponible bajo consulta



P

K

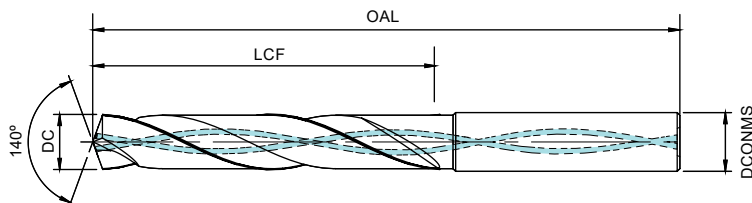
HRC ≤ 60

IT8-9
IT class

Order code	Reference Referência Referencia	Dimensions Dimensões Dimensiones (mm)				NOF	Stock PHU920
HA (Cylindrical)		DC	DCONMS	LCF	OAL		HA (Cylindrical)
1181838Z9	HMDUCE 2 05D 0100-055010	1,00	3	10	55	2	⊗
1181839Z9	HMDUCE 2 05D 0110-055012	1,10	3	12	55	2	⊗
1181840Z9	HMDUCE 2 05D 0120-055012	1,20	3	12	55	2	⊗
1181841Z9	HMDUCE 2 05D 0130-055012	1,30	3	12	55	2	⊗
1181842Z9	HMDUCE 2 05D 0140-055012	1,40	3	12	55	2	⊗
1181843Z9	HMDUCE 2 05D 0150-055012	1,50	3	12	55	2	⊗
1181844Z9	HMDUCE 2 05D 0160-055016	1,60	3	16	55	2	⊗
1181845Z9	HMDUCE 2 05D 0170-055016	1,70	3	16	55	2	⊗
1181846Z9	HMDUCE 2 05D 0180-055016	1,80	3	16	55	2	⊗
1181847Z9	HMDUCE 2 05D 0190-055016	1,90	3	16	55	2	⊗
1181848Z9	HMDUCE 2 05D 0200-055016	2,00	3	16	55	2	⊗
1181849Z9	HMDUCE 2 05D 0210-055021	2,10	3	21	55	2	⊗
1181850Z9	HMDUCE 2 05D 0220-055021	2,20	3	21	55	2	⊗
1182311Z9	HMDUCE 2 05D 0230-055021	2,30	3	21	55	2	⊗
1182312Z9	HMDUCE 2 05D 0240-055021	2,40	3	21	55	2	⊗
1182313Z9	HMDUCE 2 05D 0250-055021	2,50	3	21	55	2	⊗
1182314Z9	HMDUCE 2 05D 0260-055021	2,60	3	21	55	2	⊗
1181855Z9	HMDUCE 2 05D 0270-055021	2,70	3	21	55	2	⊗
1182315Z9	HMDUCE 2 05D 0280-055021	2,80	3	21	55	2	⊗
1182316Z9	HMDUCE 2 05D 0290-055021	2,90	3	21	55	2	⊗

⊗ Stock item | Produto de stock | Itens de stock

○ Available under request | Disponível sobre consulta | Disponible bajo consulta



P	K
HRC ≤ 60	IT8-9 IT class

Drill Dia. DC	DC3,0	3,0<DC≤6,0	6,0<DC≤10,0	10,0<DC≤18,0	18,0<DC≤20,0
Hole Tolerances	+0,002 +0,012	+0,004 +0,016	+0,006 +0,021	+0,007 +0,025	+0,008 +0,028

Order code		Reference Referência Referencia	Dimensions Dimensões Dimensiones (mm)				NOF	Stock PHU920	
HA (Cylindrical)	HB (Weldon)		DC	DCONMS	LCF	OAL		HA	HB
1180956Z9	1181963Z9	HBDPCE/W 2 03D 0300-062020	3,00	6	20	62	2	⊗	⊗
1180957Z9	1181964Z9	HBDPCE/W 2 03D 0310-062020	3,10	6	20	62	2	⊗	⊗
1180958Z9	1181965Z9	HBDPCE/W 2 03D 0320-062020	3,20	6	20	62	2	⊗	⊗
1181791Z9	1181966Z9	HBDPCE/W 2 03D 0325-062020	3,25	6	20	62	2	⊗	○
1180959Z9	1181967Z9	HBDPCE/W 2 03D 0330-062020	3,30	6	20	62	2	⊗	⊗
1180960Z9	1181968Z9	HBDPCE/W 2 03D 0340-062020	3,40	6	20	62	2	⊗	○
1180961Z9	1181969Z9	HBDPCE/W 2 03D 0350-062020	3,50	6	20	62	2	⊗	⊗
1180962Z9	1181970Z9	HBDPCE/W 2 03D 0360-062020	3,60	6	20	62	2	⊗	⊗
1180963Z9	1181971Z9	HBDPCE/W 2 03D 0370-062020	3,70	6	20	62	2	⊗	○
1180964Z9	1181972Z9	HBDPCE/W 2 03D 0380-066024	3,80	6	24	66	2	⊗	○
1180965Z9	1181973Z9	HBDPCE/W 2 03D 0390-066024	3,90	6	24	66	2	⊗	⊗
1180966Z9	1181974Z9	HBDPCE/W 2 03D 0400-066024	4,00	6	24	66	2	⊗	○
1180967Z9	1181975Z9	HBDPCE/W 2 03D 0410-066024	4,10	6	24	66	2	⊗	⊗
1180968Z9	1181976Z9	HBDPCE/W 2 03D 0420-066024	4,20	6	24	66	2	⊗	⊗
1180969Z9	1181977Z9	HBDPCE/W 2 03D 0430-066024	4,30	6	24	66	2	⊗	⊗
1180970Z9	1181978Z9	HBDPCE/W 2 03D 0440-066024	4,40	6	24	66	2	⊗	⊗
1180971Z9	1181979Z9	HBDPCE/W 2 03D 0450-066024	4,50	6	24	66	2	⊗	○
1180972Z9	1181980Z9	HBDPCE/W 2 03D 0460-066024	4,60	6	24	66	2	⊗	○
1181793Z9	1181981Z9	HBDPCE/W 2 03D 0465-066024	4,65	6	24	66	2	⊗	○
1180973Z9	1181982Z9	HBDPCE/W 2 03D 0470-066024	4,70	6	24	66	2	⊗	⊗
1180974Z9	1181983Z9	HBDPCE/W 2 03D 0480-066028	4,80	6	28	66	2	⊗	○
1180975Z9	1181984Z9	HBDPCE/W 2 03D 0490-066028	4,90	6	28	66	2	⊗	⊗
1180976Z9	1181985Z9	HBDPCE/W 2 03D 0500-066028	5,00	6	28	66	2	⊗	○
1180977Z9	1181986Z9	HBDPCE/W 2 03D 0510-066028	5,10	6	28	66	2	⊗	○
1180978Z9	1181987Z9	HBDPCE/W 2 03D 0520-066028	5,20	6	28	66	2	⊗	○
1180979Z9	1181988Z9	HBDPCE/W 2 03D 0530-066028	5,30	6	28	66	2	⊗	⊗

⊗ Stock item | Produto de stock | Itens de stock

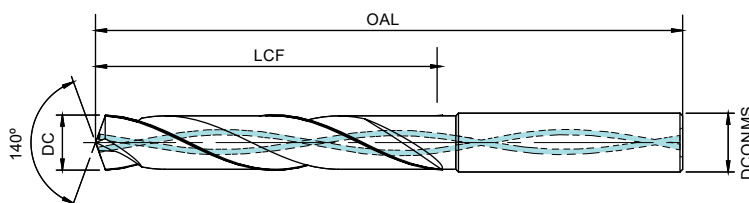
○ Available under request | Disponível sobre consulta | Disponible bajo consulta

Continue next page

HBDPCE/W 2 03D

Solid carbide drills | Brocas de metal duro | Brocas en metal duro

Order code		Reference Referência Referencia	Dimensions Dimensões Dimensiones (mm)				NOF	Stock PHU920	
HA (Cylindrical)	HB (Weldon)		DC	DCONMS	LCF	OAL		HA	HB
1180980Z9	1181989Z9	HBDPCE/W 2 03D 0540-066028	5,40	6	28	66	2	🔍	🔍
1180981Z9	1181990Z9	HBDPCE/W 2 03D 0550-066028	5,50	6	28	66	2	🔍	🔍
1181795Z9	1181991Z9	HBDPCE/W 2 03D 0555-066028	5,55	6	28	66	2	🔍	🔍
1180982Z9	1181992Z9	HBDPCE/W 2 03D 0560-066028	5,60	6	28	66	2	🔍	🔍
1180983Z9	1181993Z9	HBDPCE/W 2 03D 0570-066028	5,70	6	28	66	2	🔍	🔍
1180984Z9	1181994Z9	HBDPCE/W 2 03D 0580-066028	5,80	6	28	66	2	🔍	🔍
1180985Z9	1181995Z9	HBDPCE/W 2 03D 0590-066028	5,90	6	28	66	2	🔍	🔍
1180986Z9	1181996Z9	HBDPCE/W 2 03D 0600-066028	6,00	6	28	66	2	🔍	🔍
1180987Z9	1181997Z9	HBDPCE/W 2 03D 0610-079034	6,10	8	34	79	2	🔍	🔍
1180988Z9	1181998Z9	HBDPCE/W 2 03D 0620-079034	6,20	8	34	79	2	🔍	🔍
1180989Z9	1181999Z9	HBDPCE/W 2 03D 0630-079034	6,30	8	34	79	2	🔍	🔍
1180990Z9	1182000Z9	HBDPCE/W 2 03D 0640-079034	6,40	8	34	79	2	🔍	🔍
1180991Z9	1182001Z9	HBDPCE/W 2 03D 0650-079034	6,50	8	34	79	2	🔍	🔍
1180792Z9	1182002Z9	HBDPCE/W 2 03D 0660-079034	6,60	8	34	79	2	🔍	🔍
1180992Z9	1182003Z9	HBDPCE/W 2 03D 0670-079034	6,70	8	34	79	2	🔍	🔍
1180993Z9	1182004Z9	HBDPCE/W 2 03D 0680-079034	6,80	8	34	79	2	🔍	🔍
1180994Z9	1182005Z9	HBDPCE/W 2 03D 0690-079034	6,90	8	34	79	2	🔍	🔍
1180995Z9	1182006Z9	HBDPCE/W 2 03D 0700-079034	7,00	8	34	79	2	🔍	🔍
1180996Z9	1182007Z9	HBDPCE/W 2 03D 0710-079041	7,10	8	41	79	2	🔍	🔍
1180997Z9	1182008Z9	HBDPCE/W 2 03D 0720-079041	7,20	8	41	79	2	🔍	🔍
1180998Z9	1182009Z9	HBDPCE/W 2 03D 0730-079041	7,30	8	41	79	2	🔍	🔍
1180999Z9	1182010Z9	HBDPCE/W 2 03D 0740-079041	7,40	8	41	79	2	🔍	🔍
1181000Z9	1182011Z9	HBDPCE/W 2 03D 0750-079041	7,50	8	41	79	2	🔍	🔍
1181001Z9	1182012Z9	HBDPCE/W 2 03D 0760-079041	7,60	8	41	79	2	🔍	🔍
1181002Z9	1182013Z9	HBDPCE/W 2 03D 0770-079041	7,70	8	41	79	2	🔍	🔍
1181003Z9	1182014Z9	HBDPCE/W 2 03D 0780-079041	7,80	8	41	79	2	🔍	🔍
1181004Z9	1182015Z9	HBDPCE/W 2 03D 0790-079041	7,90	8	41	79	2	🔍	🔍
1181005Z9	1182016Z9	HBDPCE/W 2 03D 0800-079041	8,00	8	41	79	2	🔍	🔍
1181006Z9	1182017Z9	HBDPCE/W 2 03D 0810-089047	8,10	10	47	89	2	🔍	🔍
1181007Z9	1182018Z9	HBDPCE/W 2 03D 0820-089047	8,20	10	47	89	2	🔍	🔍
1181008Z9	1182019Z9	HBDPCE/W 2 03D 0830-089047	8,30	10	47	89	2	🔍	🔍
1181009Z9	1182020Z9	HBDPCE/W 2 03D 0840-089047	8,40	10	47	89	2	🔍	🔍
1181010Z9	1182021Z9	HBDPCE/W 2 03D 0850-089047	8,50	10	47	89	2	🔍	🔍
1181011Z9	1182022Z9	HBDPCE/W 2 03D 0860-089047	8,60	10	47	89	2	🔍	🔍
1181012Z9	1182023Z9	HBDPCE/W 2 03D 0870-089047	8,70	10	47	89	2	🔍	🔍
1181013Z9	1182024Z9	HBDPCE/W 2 03D 0880-089047	8,80	10	47	89	2	🔍	🔍
1181014Z9	1182025Z9	HBDPCE/W 2 03D 0890-089047	8,90	10	47	89	2	🔍	🔍
1181015Z9	1182026Z9	HBDPCE/W 2 03D 0900-089047	9,00	10	47	89	2	🔍	🔍
1181016Z9	1182027Z9	HBDPCE/W 2 03D 0910-089047	9,10	10	47	89	2	🔍	🔍
1181017Z9	1182028Z9	HBDPCE/W 2 03D 0920-089047	9,20	10	47	89	2	🔍	🔍
1181018Z9	1182029Z9	HBDPCE/W 2 03D 0930-089047	9,30	10	47	89	2	🔍	🔍
1181019Z9	1182030Z9	HBDPCE/W 2 03D 0940-089047	9,40	10	47	89	2	🔍	🔍
1181020Z9	1182031Z9	HBDPCE/W 2 03D 0950-089047	9,50	10	47	89	2	🔍	🔍
1181021Z9	1182032Z9	HBDPCE/W 2 03D 0960-089047	9,60	10	47	89	2	🔍	🔍
1181022Z9	1182033Z9	HBDPCE/W 2 03D 0970-089047	9,70	10	47	89	2	🔍	🔍
1181023Z9	1182034Z9	HBDPCE/W 2 03D 0980-089047	9,80	10	47	89	2	🔍	🔍



P	K
HRC ≤ 60	IT8-9 IT class

Drill Dia. DC	DC3,0	3,0<DC≤6,0	6,0<DC≤10,0	10,0<DC≤18,0	18,0<DC≤20,0
Hole Tolerances	+0,002 +0,012	+0,004 +0,016	+0,006 +0,021	+0,007 +0,025	+0,008 +0,028

Order code		Reference Referência Referencia	Dimensions Dimensões Dimensiones (mm)				NOF	Stock PHU920	
HA (Cylindrical)	HB (Weldon)		DC	DCONMS	LCF	OAL		HA	HB
1180788Z9	1182067Z9	HBDPCE/W 2 05D 0300-066028	3,00	6	28	66	2	⊗	⊗
1181160Z9	1182068Z9	HBDPCE/W 2 05D 0310-066028	3,10	6	28	66	2	⊗	○
1181161Z9	1182069Z9	HBDPCE/W 2 05D 0320-066028	3,20	6	28	66	2	⊗	○
1181825Z9	1182070Z9	HBDPCE/W 2 05D 0325-066028	3,25	6	28	66	2	⊗	⊗
1181162Z9	1182071Z9	HBDPCE/W 2 05D 0330-066028	3,30	6	28	66	2	⊗	⊗
1180797Z9	1182072Z9	HBDPCE/W 2 05D 0340-066028	3,40	6	28	66	2	⊗	○
1181163Z9	1182073Z9	HBDPCE/W 2 05D 0350-066028	3,50	6	28	66	2	⊗	⊗
1181164Z9	1182074Z9	HBDPCE/W 2 05D 0360-066028	3,60	6	28	66	2	⊗	○
1180798Z9	1182075Z9	HBDPCE/W 2 05D 0370-066028	3,70	6	28	66	2	⊗	⊗
1181165Z9	1182076Z9	HBDPCE/W 2 05D 0380-074036	3,80	6	36	74	2	⊗	○
1181166Z9	1182077Z9	HBDPCE/W 2 05D 0390-074036	3,90	6	36	74	2	⊗	○
1181167Z9	1182078Z9	HBDPCE/W 2 05D 0400-074036	4,00	6	36	74	2	⊗	⊗
1181168Z9	1182079Z9	HBDPCE/W 2 05D 0410-074036	4,10	6	36	74	2	⊗	⊗
1180799Z9	1182080Z9	HBDPCE/W 2 05D 0420-074036	4,20	6	36	74	2	⊗	⊗
1180800Z9	1182081Z9	HBDPCE/W 2 05D 0430-074036	4,30	6	36	74	2	⊗	⊗
1181169Z9	1182082Z9	HBDPCE/W 2 05D 0440-074036	4,40	6	36	74	2	⊗	⊗
1181170Z9	1182083Z9	HBDPCE/W 2 05D 0450-074036	4,50	6	36	74	2	⊗	⊗
1181171Z9	1182084Z9	HBDPCE/W 2 05D 0460-074036	4,60	6	36	74	2	⊗	⊗
1181535Z9	1182085Z9	HBDPCE/W 2 05D 0465-074036	4,65	6	36	74	2	⊗	⊗
1181172Z9	1182086Z9	HBDPCE/W 2 05D 0470-074036	4,70	6	36	74	2	⊗	⊗
1181173Z9	1182087Z9	HBDPCE/W 2 05D 0480-082044	4,80	6	44	82	2	⊗	○
1181174Z9	1182088Z9	HBDPCE/W 2 05D 0490-082044	4,90	6	44	82	2	⊗	⊗
1180801Z9	1182089Z9	HBDPCE/W 2 05D 0500-082044	5,00	6	44	82	2	⊗	⊗
1181175Z9	1182090Z9	HBDPCE/W 2 05D 0510-082044	5,10	6	44	82	2	⊗	⊗
1181176Z9	1182091Z9	HBDPCE/W 2 05D 0520-082044	5,20	6	44	82	2	⊗	⊗
1181177Z9	1182092Z9	HBDPCE/W 2 05D 0530-082044	5,30	6	44	82	2	⊗	⊗

⊗ Stock item | Produto de stock | Itens de stock

○ Available under request | Disponível sobre consulta | Disponible bajo consulta

Continue next page

 Stock item | Produto de stock | Itens de stock
 Available under request | Disponível sobre consulta | Disponible bajo consulta
 Continue next page

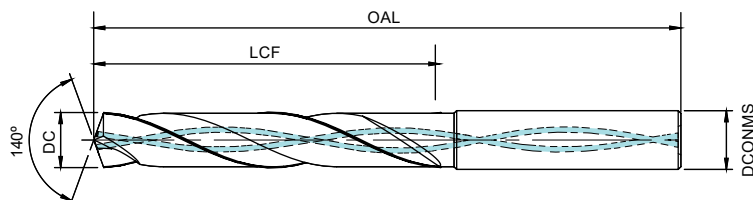
HBDPCE/W 2 05D

Solid carbide drills | Brocas de metal duro | Brocas en metal duro

Order code		Reference Referência Referencia	Dimensions Dimensões Dimensiones (mm)				NOF	Stock PHU920	
HA (Cylindrical)	HB (Weldon)		DC	DCONMS	LCF	OAL		HA	HB
1181216Z9	1182139Z9	HBDPCE/W 2 05D 0990-103061	9,90	10	61	103	2	⊗	○
1181217Z9	1182140Z9	HBDPCE/W 2 05D 1000-103061	10,00	10	61	103	2	⊗	⊗
1181218Z9	1182141Z9	HBDPCE/W 2 05D 1010-118071	10,10	12	71	118	2	⊗	⊗
1180808Z9	1182142Z9	HBDPCE/W 2 05D 1020-118071	10,20	12	71	118	2	⊗	○
1181219Z9	1182143Z9	HBDPCE/W 2 05D 1030-118071	10,30	12	71	118	2	⊗	⊗
1181220Z9	1182144Z9	HBDPCE/W 2 05D 1040-118071	10,40	12	71	118	2	⊗	○
1180809Z9	1182145Z9	HBDPCE/W 2 05D 1050-118071	10,50	12	71	118	2	⊗	⊗
1180810Z9	-	HBDPCE/W 2 05D 1060-118071	10,60	12	71	118	2	⊗	-
1181221Z9	-	HBDPCE/W 2 05D 1070-118071	10,70	12	71	118	2	⊗	-
1181222Z9	1182146Z9	HBDPCE/W 2 05D 1080-118071	10,80	12	71	118	2	⊗	⊗
1181223Z9	-	HBDPCE/W 2 05D 1090-118071	10,90	12	71	118	2	⊗	-
1180811Z9	1182147Z9	HBDPCE/W 2 05D 1100-118071	11,00	12	71	118	2	⊗	⊗
1181224Z9	1182148Z9	HBDPCE/W 2 05D 1110-118071	11,10	12	71	118	2	⊗	⊗
1181225Z9	1182149Z9	HBDPCE/W 2 05D 1120-118071	11,20	12	71	118	2	⊗	⊗
1181226Z9	1182150Z9	HBDPCE/W 2 05D 1130-118071	11,30	12	71	118	2	⊗	⊗
1181227Z9	-	HBDPCE/W 2 05D 1140-118071	11,40	12	71	118	2	⊗	-
1180812Z9	1182151Z9	HBDPCE/W 2 05D 1150-118071	11,50	12	71	118	2	⊗	○
1181228Z9	-	HBDPCE/W 2 05D 1160-118071	11,60	12	71	118	2	⊗	-
1181229Z9	-	HBDPCE/W 2 05D 1170-118071	11,70	12	71	118	2	⊗	-
1181230Z9	1182152Z9	HBDPCE/W 2 05D 1180-118071	11,80	12	71	118	2	⊗	⊗
1181231Z9	-	HBDPCE/W 2 05D 1190-118071	11,90	12	71	118	2	⊗	-
1180813Z9	1182153Z9	HBDPCE/W 2 05D 1200-118071	12,00	12	71	118	2	⊗	○
1181805Z9	1182154Z9	HBDPCE/W 2 05D 1220-124077	12,20	14	77	124	2	⊗	○
1181232Z9	1182155Z9	HBDPCE/W 2 05D 1250-124077	12,50	14	77	124	2	⊗	○
1181806Z9	1182156Z9	HBDPCE/W 2 05D 1280-124077	12,80	14	77	124	2	⊗	○
1180814Z9	1182157Z9	HBDPCE/W 2 05D 1300-124077	13,00	14	77	124	2	⊗	⊗
1182267Z9	-	HBDPCE/W 2 05D 1320-124077	13,20	14	77	124	2	⊗	-
1181233Z9	1182158Z9	HBDPCE/W 2 05D 1350-124077	13,50	14	77	124	2	⊗	⊗
1181807Z9	1182159Z9	HBDPCE/W 2 05D 1380-124077	13,80	14	77	124	2	⊗	⊗
1181808Z9	1182160Z9	HBDPCE/W 2 05D 1390-124077	13,90	14	77	124	2	⊗	⊗
1181234Z9	1182161Z9	HBDPCE/W 2 05D 1400-124077	14,00	14	77	124	2	⊗	⊗
1181809Z9	1182162Z9	HBDPCE/W 2 05D 1420-133083	14,20	16	83	133	2	⊗	○
1181235Z9	1182163Z9	HBDPCE/W 2 05D 1450-133083	14,50	16	83	133	2	⊗	⊗
1181810Z9	1182164Z9	HBDPCE/W 2 05D 1480-133083	14,80	16	83	133	2	⊗	⊗
1181236Z9	1182165Z9	HBDPCE/W 2 05D 1500-133083	15,00	16	83	133	2	⊗	⊗
1181811Z9	1182166Z9	HBDPCE/W 2 05D 1520-133083	15,20	16	83	133	2	⊗	○
1181237Z9	1182167Z9	HBDPCE/W 2 05D 1550-133083	15,50	16	83	133	2	⊗	⊗
1181812Z9	1182168Z9	HBDPCE/W 2 05D 1570-133083	15,70	16	83	133	2	⊗	⊗
1180815Z9	1182169Z9	HBDPCE/W 2 05D 1580-133083	15,80	16	83	133	2	⊗	⊗
1181238Z9	1182170Z9	HBDPCE/W 2 05D 1600-133083	16,00	16	83	133	2	⊗	⊗
1181239Z9	1182171Z9	HBDPCE/W 2 05D 1650-143093	16,50	18	93	143	2	⊗	⊗
1181240Z9	1182172Z9	HBDPCE/W 2 05D 1700-143093	17,00	18	93	143	2	⊗	⊗
1180816Z9	1182173Z9	HBDPCE/W 2 05D 1750-143093	17,50	18	93	143	2	⊗	○
1181241Z9	1182174Z9	HBDPCE/W 2 05D 1800-143093	18,00	18	93	143	2	⊗	○
1181242Z9	1182175Z9	HBDPCE/W 2 05D 1850-153101	18,50	20	101	153	2	⊗	○
1181243Z9	1182176Z9	HBDPCE/W 2 05D 1900-153101	19,00	20	101	153	2	⊗	⊗
1181244Z9	1182177Z9	HBDPCE/W 2 05D 1950-153101	19,50	20	101	153	2	⊗	⊗
1181245Z9	1182178Z9	HBDPCE/W 2 05D 2000-153101	20,00	20	101	153	2	⊗	⊗

⊗ Stock item | Produto de stock | Itens de stock

○ Available under request | Disponível sobre consulta | Disponible bajo consulta



P	K
HRC ≤ 48	IT8-9 IT class

Drill Dia. DC	3,0<DC≤5,0	5,0<DC≤6,0	6,0<DC≤10,0	10,0<DC≤12,0
Hole Tolerances	+0,002 +0,012	+0,004 +0,016	+0,006 +0,021	+0,007 +0,025

Order code		Reference Referência Referencia	Dimensions Dimensões Dimensiones (mm)				NOF	Stock PHU920	
HA (Cylindrical)	HB (Weldon)		DC	DCONMS	LCF	OAL		HA	HB
1181246Z9	-	HBDPCE/W 2 08D 0300-072034	3,00	6	34	72	2	⊗	-
1181247Z9	-	HBDPCE/W 2 08D 0310-072034	3,10	6	34	72	2	○	-
1181248Z9	-	HBDPCE/W 2 08D 0320-072034	3,20	6	34	72	2	○	-
1181249Z9	-	HBDPCE/W 2 08D 0330-072034	3,30	6	34	72	2	⊗	-
1181250Z9	-	HBDPCE/W 2 08D 0340-072034	3,40	6	34	72	2	⊗	-
1181251Z9	-	HBDPCE/W 2 08D 0350-072034	3,50	6	34	72	2	○	-
1181252Z9	-	HBDPCE/W 2 08D 0360-072034	3,60	6	34	72	2	○	-
1181253Z9	-	HBDPCE/W 2 08D 0370-072034	3,70	6	34	72	2	⊗	-
1181254Z9	-	HBDPCE/W 2 08D 0380-081043	3,80	6	43	81	2	○	-
1181255Z9	-	HBDPCE/W 2 08D 0390-081043	3,90	6	43	81	2	○	-
1181256Z9	-	HBDPCE/W 2 08D 0400-081043	4,00	6	43	81	2	⊗	-
1181257Z9	-	HBDPCE/W 2 08D 0410-081043	4,10	6	43	81	2	○	-
1181258Z9	-	HBDPCE/W 2 08D 0420-081043	4,20	6	43	81	2	⊗	-
1181259Z9	-	HBDPCE/W 2 08D 0430-081043	4,30	6	43	81	2	⊗	-
1181260Z9	-	HBDPCE/W 2 08D 0440-081043	4,40	6	43	81	2	○	-
1181261Z9	-	HBDPCE/W 2 08D 0450-081043	4,50	6	43	81	2	○	-
1181262Z9	-	HBDPCE/W 2 08D 0460-081043	4,60	6	43	81	2	○	-
1181263Z9	-	HBDPCE/W 2 08D 0470-081043	4,70	6	43	81	2	○	-
1181264Z9	-	HBDPCE/W 2 08D 0480-095057	4,80	6	57	95	2	⊗	-
1181265Z9	-	HBDPCE/W 2 08D 0490-095057	4,90	6	57	95	2	○	-
1181266Z9	-	HBDPCE/W 2 08D 0500-095057	5,00	6	57	95	2	⊗	-
1181267Z9	-	HBDPCE/W 2 08D 0510-095057	5,10	6	57	95	2	⊗	-
1181268Z9	-	HBDPCE/W 2 08D 0520-095057	5,20	6	57	95	2	○	-
1181269Z9	-	HBDPCE/W 2 08D 0530-095057	5,30	6	57	95	2	○	-
1181270Z9	-	HBDPCE/W 2 08D 0540-095057	5,40	6	57	95	2	○	-
1181271Z9	-	HBDPCE/W 2 08D 0550-095057	5,50	6	57	95	2	⊗	-

⊗ Stock item | Produto de stock | Itens de stock

○ Available under request | Disponível sobre consulta | Disponible bajo consulta

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HBDPCE/W 2 08D

Solid carbide drills | Brocas de metal duro | Brocas en metal duro

Order code		Reference Referência Referencia	Dimensions Dimensões Dimensiones (mm)				NOF	Stock PHU920	
HA (Cylindrical)	HB (Weldon)		DC	DCONMS	LCF	OAL		HA	HB
1181272Z9	-	HBDPCE/W 2 08D 0560-095057	5,60	6	57	95	2	○	-
1181273Z9	-	HBDPCE/W 2 08D 0570-095057	5,70	6	57	95	2	○	-
1181274Z9	-	HBDPCE/W 2 08D 0580-095057	5,80	6	57	95	2	○	-
1181275Z9	-	HBDPCE/W 2 08D 0590-095057	5,90	6	57	95	2	○	-
1181276Z9	-	HBDPCE/W 2 08D 0600-095057	6,00	6	57	95	2	⊗	-
1181277Z9	-	HBDPCE/W 2 08D 0610-114076	6,10	8	76	114	2	○	-
1181278Z9	-	HBDPCE/W 2 08D 0620-114076	6,20	8	76	114	2	○	-
1181279Z9	-	HBDPCE/W 2 08D 0630-114076	6,30	8	76	114	2	○	-
1181280Z9	-	HBDPCE/W 2 08D 0640-114076	6,40	8	76	114	2	○	-
1181281Z9	-	HBDPCE/W 2 08D 0650-114076	6,50	8	76	114	2	⊗	-
1181282Z9	-	HBDPCE/W 2 08D 0660-114076	6,60	8	76	114	2	○	-
1181283Z9	-	HBDPCE/W 2 08D 0670-114076	6,70	8	76	114	2	○	-
1181284Z9	-	HBDPCE/W 2 08D 0680-114076	6,80	8	76	114	2	⊗	-
1181285Z9	-	HBDPCE/W 2 08D 0690-114076	6,90	8	76	114	2	○	-
1181286Z9	-	HBDPCE/W 2 08D 0700-114076	7,00	8	76	114	2	⊗	-
1181287Z9	-	HBDPCE/W 2 08D 0710-114076	7,10	8	76	114	2	○	-
1181288Z9	-	HBDPCE/W 2 08D 0720-114076	7,20	8	76	114	2	○	-
1181289Z9	-	HBDPCE/W 2 08D 0730-114076	7,30	8	76	114	2	○	-
1181290Z9	-	HBDPCE/W 2 08D 0740-114076	7,40	8	76	114	2	○	-
1181291Z9	-	HBDPCE/W 2 08D 0750-114076	7,50	8	76	114	2	○	-
1181292Z9	-	HBDPCE/W 2 08D 0760-114076	7,60	8	76	114	2	○	-
1181293Z9	-	HBDPCE/W 2 08D 0770-114076	7,70	8	76	114	2	○	-
1181294Z9	-	HBDPCE/W 2 08D 0780-114076	7,80	8	76	114	2	⊗	-
1181295Z9	-	HBDPCE/W 2 08D 0790-114076	7,90	8	76	114	2	○	-
1181296Z9	-	HBDPCE/W 2 08D 0800-114076	8,00	8	76	114	2	⊗	-
1181297Z9	-	HBDPCE/W 2 08D 0810-142095	8,10	10	95	142	2	○	-
1181298Z9	-	HBDPCE/W 2 08D 0820-142095	8,20	10	95	142	2	○	-
1181299Z9	-	HBDPCE/W 2 08D 0830-142095	8,30	10	95	142	2	○	-
1181300Z9	-	HBDPCE/W 2 08D 0840-142095	8,40	10	95	142	2	○	-
1181301Z9	-	HBDPCE/W 2 08D 0850-142095	8,50	10	95	142	2	⊗	-
1181302Z9	-	HBDPCE/W 2 08D 0860-142095	8,60	10	95	142	2	○	-
1181303Z9	-	HBDPCE/W 2 08D 0870-142095	8,70	10	95	142	2	⊗	-
1181304Z9	-	HBDPCE/W 2 08D 0880-142095	8,80	10	95	142	2	⊗	-
1181305Z9	-	HBDPCE/W 2 08D 0890-142095	8,90	10	95	142	2	○	-
1181306Z9	-	HBDPCE/W 2 08D 0900-142095	9,00	10	95	142	2	○	-
1181307Z9	-	HBDPCE/W 2 08D 0910-142095	9,10	10	95	142	2	○	-
1181308Z9	-	HBDPCE/W 2 08D 0920-142095	9,20	10	95	142	2	○	-
1181309Z9	-	HBDPCE/W 2 08D 0930-142095	9,30	10	95	142	2	○	-
1181310Z9	-	HBDPCE/W 2 08D 0940-142095	9,40	10	95	142	2	○	-
1181311Z9	-	HBDPCE/W 2 08D 0950-142095	9,50	10	95	142	2	○	-
1181312Z9	-	HBDPCE/W 2 08D 0960-142095	9,60	10	95	142	2	○	-
1181313Z9	-	HBDPCE/W 2 08D 0970-142095	9,70	10	95	142	2	○	-
1181314Z9	-	HBDPCE/W 2 08D 0980-142095	9,80	10	95	142	2	○	-
1181315Z9	-	HBDPCE/W 2 08D 0990-142095	9,90	10	95	142	2	○	-
1181316Z9	-	HBDPCE/W 2 08D 1000-142095	10,00	10	95	142	2	○	-
1181317Z9	-	HBDPCE/W 2 08D 1010-162114	10,10	12	114	162	2	○	-

⊗ Stock item | Produto de stock | Itens de stock

○ Available under request | Disponível sobre consulta | Disponible bajo consulta

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HBDPCE/W 2 08D

Solid carbide drills | Brocas de metal duro | Brocas en metal duro

Order code		Reference Referência Referencia	Dimensions Dimensões Dimensiones (mm)				NOF	Stock PHU920	
HA (Cylindrical)	HB (Weldon)		DC	DCONMS	LCF	OAL		HA	HB
1181318Z9	-	HBDPCE/W 2 08D 1020-162114	10,20	12	114	162	2	⊗	-
1181319Z9	-	HBDPCE/W 2 08D 1030-162114	10,30	12	114	162	2	○	-
1181320Z9	-	HBDPCE/W 2 08D 1040-162114	10,40	12	114	162	2	○	-
1181321Z9	-	HBDPCE/W 2 08D 1050-162114	10,50	12	114	162	2	⊗	-
1181322Z9	-	HBDPCE/W 2 08D 1060-162114	10,60	12	114	162	2	○	-
1181323Z9	-	HBDPCE/W 2 08D 1070-162114	10,70	12	114	162	2	○	-
1181324Z9	-	HBDPCE/W 2 08D 1080-162114	10,80	12	114	162	2	○	-
1181325Z9	-	HBDPCE/W 2 08D 1090-162114	10,90	12	114	162	2	○	-
1181326Z9	-	HBDPCE/W 2 08D 1100-162114	11,00	12	114	162	2	○	-
1181327Z9	-	HBDPCE/W 2 08D 1110-162114	11,10	12	114	162	2	○	-
1181328Z9	-	HBDPCE/W 2 08D 1120-162114	11,20	12	114	162	2	○	-
1181329Z9	-	HBDPCE/W 2 08D 1130-162114	11,30	12	114	162	2	○	-
1181330Z9	-	HBDPCE/W 2 08D 1140-162114	11,40	12	114	162	2	○	-
1181331Z9	-	HBDPCE/W 2 08D 1150-162114	11,50	12	114	162	2	○	-
1181332Z9	-	HBDPCE/W 2 08D 1160-162114	11,60	12	114	162	2	○	-
1181333Z9	-	HBDPCE/W 2 08D 1170-162114	11,70	12	114	162	2	○	-
1181334Z9	-	HBDPCE/W 2 08D 1180-162114	11,80	12	114	162	2	⊗	-
1181335Z9	-	HBDPCE/W 2 08D 1190-162114	11,90	12	114	162	2	○	-
1181336Z9	-	HBDPCE/W 2 08D 1200-162114	12,00	12	114	162	2	○	-

⊗ Stock item | Produto de stock | Itens de stock

○ Available under request | Disponível sobre consulta | Disponible bajo consulta

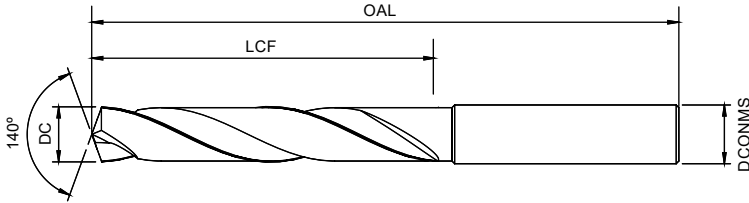


P

K

HRC
≤
60

IT8-9
IT class



Drill Dia. DC	DC3,0	3,0<DC≤6,0	6,0<DC≤10,0	10,0<DC≤18,0	18,0<DC≤20,0
Hole Tolerances	+0,002	+0,004	+0,006	+0,007	+0,008
	+0,012	+0,016	+0,021	+0,025	+0,028

Order code		Reference Referência Referencia	Dimensions Dimensões Dimensiones (mm)				NOF	Stock PHU920	
HA (Cylindrical)	HB (Weldon)		DC	DCONMS	LCF	OAL		HA	HB
1180784Z9	1181859Z9	HBDPUE/W 2 03D 0300-062020	3,00	6	20	62	2		
1180852Z9	1181860Z9	HBDPUE/W 2 03D 0310-062020	3,10	6	20	62	2		
1180853Z9	1181861Z9	HBDPUE/W 2 03D 0320-062020	3,20	6	20	62	2		
1181790Z9	1181862Z9	HBDPUE/W 2 03D 0325-062020	3,25	6	20	62	2		
1180854Z9	1181863Z9	HBDPUE/W 2 03D 0330-062020	3,30	6	20	62	2		
1180790Z9	1181864Z9	HBDPUE/W 2 03D 0340-062020	3,40	6	20	62	2		
1180855Z9	1181865Z9	HBDPUE/W 2 03D 0350-062020	3,50	6	20	62	2		
1180856Z9	1181866Z9	HBDPUE/W 2 03D 0360-062020	3,60	6	20	62	2		
1180857Z9	1181867Z9	HBDPUE/W 2 03D 0370-062020	3,70	6	20	62	2		
1180858Z9	1181868Z9	HBDPUE/W 2 03D 0380-066024	3,80	6	24	66	2		
1180859Z9	1181869Z9	HBDPUE/W 2 03D 0390-066024	3,90	6	24	66	2		
1180860Z9	1181870Z9	HBDPUE/W 2 03D 0400-066024	4,00	6	24	66	2		
1180861Z9	1181871Z9	HBDPUE/W 2 03D 0410-066024	4,10	6	24	66	2		
1180862Z9	1181872Z9	HBDPUE/W 2 03D 0420-066024	4,20	6	24	66	2		
1180863Z9	1181873Z9	HBDPUE/W 2 03D 0430-066024	4,30	6	24	66	2		
1180864Z9	1181874Z9	HBDPUE/W 2 03D 0440-066024	4,40	6	24	66	2		
1180865Z9	1181875Z9	HBDPUE/W 2 03D 0450-066024	4,50	6	24	66	2		
1180866Z9	1181876Z9	HBDPUE/W 2 03D 0460-066024	4,60	6	24	66	2		
1181792Z9	1181877Z9	HBDPUE/W 2 03D 0465-066024	4,65	6	24	66	2		
1180867Z9	1181878Z9	HBDPUE/W 2 03D 0470-066024	4,70	6	24	66	2		
1180868Z9	1181879Z9	HBDPUE/W 2 03D 0480-066028	4,80	6	28	66	2		
1180869Z9	1181880Z9	HBDPUE/W 2 03D 0490-066028	4,90	6	28	66	2		
1180870Z9	1181881Z9	HBDPUE/W 2 03D 0500-066028	5,00	6	28	66	2		
1180871Z9	1181882Z9	HBDPUE/W 2 03D 0510-066028	5,10	6	28	66	2		
1180872Z9	1181883Z9	HBDPUE/W 2 03D 0520-066028	5,20	6	28	66	2		
1180873Z9	1181884Z9	HBDPUE/W 2 03D 0530-066028	5,30	6	28	66	2		

Order code		Reference Referência Referencia	Dimensions Dimensões Dimensiones (mm)				NOF	Stock PHU920	
HA (Cylindrical)	HB (Weldon)		DC	DCONMS	LCF	OAL		HA	HB
1180874Z9	1181885Z9	HBDPUE/W 2 03D 0540-066028	5,40	6	28	66	2	🔒	🔒
1180875Z9	1181886Z9	HBDPUE/W 2 03D 0550-066028	5,50	6	28	66	2	🔒	○
1181794Z9	1181887Z9	HBDPUE/W 2 03D 0555-066028	5,55	6	28	66	2	🔒	🔒
1180791Z9	1181888Z9	HBDPUE/W 2 03D 0560-066028	5,60	6	28	66	2	🔒	🔒
1180876Z9	1181889Z9	HBDPUE/W 2 03D 0570-066028	5,70	6	28	66	2	🔒	🔒
1180877Z9	1181890Z9	HBDPUE/W 2 03D 0580-066028	5,80	6	28	66	2	🔒	🔒
1180878Z9	1181891Z9	HBDPUE/W 2 03D 0590-066028	5,90	6	28	66	2	🔒	○
1180879Z9	1181892Z9	HBDPUE/W 2 03D 0600-066028	6,00	6	28	66	2	🔒	🔒
1180880Z9	1181893Z9	HBDPUE/W 2 03D 0610-079034	6,10	8	34	79	2	🔒	🔒
1180881Z9	1181894Z9	HBDPUE/W 2 03D 0620-079034	6,20	8	34	79	2	🔒	○
1180882Z9	1181895Z9	HBDPUE/W 2 03D 0630-079034	6,30	8	34	79	2	🔒	○
1180883Z9	1181896Z9	HBDPUE/W 2 03D 0640-079034	6,40	8	34	79	2	🔒	○
1180884Z9	1181897Z9	HBDPUE/W 2 03D 0650-079034	6,50	8	34	79	2	🔒	🔒
1180885Z9	1181898Z9	HBDPUE/W 2 03D 0660-079034	6,60	8	34	79	2	🔒	○
1180886Z9	1181899Z9	HBDPUE/W 2 03D 0670-079034	6,70	8	34	79	2	🔒	🔒
1180887Z9	1181900Z9	HBDPUE/W 2 03D 0680-079034	6,80	8	34	79	2	🔒	○
1180888Z9	1181901Z9	HBDPUE/W 2 03D 0690-079034	6,90	8	34	79	2	🔒	○
1180889Z9	1181902Z9	HBDPUE/W 2 03D 0700-079034	7,00	8	34	79	2	🔒	🔒
1180890Z9	1181903Z9	HBDPUE/W 2 03D 0710-079041	7,10	8	41	79	2	🔒	○
1180891Z9	1181904Z9	HBDPUE/W 2 03D 0720-079041	7,20	8	41	79	2	🔒	🔒
1180892Z9	1181905Z9	HBDPUE/W 2 03D 0730-079041	7,30	8	41	79	2	🔒	🔒
1180893Z9	1181906Z9	HBDPUE/W 2 03D 0740-079041	7,40	8	41	79	2	🔒	○
1180894Z9	1181907Z9	HBDPUE/W 2 03D 0750-079041	7,50	8	41	79	2	🔒	○
1180895Z9	1181908Z9	HBDPUE/W 2 03D 0760-079041	7,60	8	41	79	2	🔒	○
1180896Z9	1181909Z9	HBDPUE/W 2 03D 0770-079041	7,70	8	41	79	2	🔒	🔒
1180897Z9	1181910Z9	HBDPUE/W 2 03D 0780-079041	7,80	8	41	79	2	🔒	🔒
1180898Z9	1181911Z9	HBDPUE/W 2 03D 0790-079041	7,90	8	41	79	2	🔒	🔒
1180899Z9	1181912Z9	HBDPUE/W 2 03D 0800-079041	8,00	8	41	79	2	🔒	🔒
1180900Z9	1181913Z9	HBDPUE/W 2 03D 0810-089047	8,10	10	47	89	2	🔒	🔒
1180901Z9	1181914Z9	HBDPUE/W 2 03D 0820-089047	8,20	10	47	89	2	🔒	○
1180902Z9	1181915Z9	HBDPUE/W 2 03D 0830-089047	8,30	10	47	89	2	🔒	○
1180903Z9	1181916Z9	HBDPUE/W 2 03D 0840-089047	8,40	10	47	89	2	🔒	🔒
1180904Z9	1181917Z9	HBDPUE/W 2 03D 0850-089047	8,50	10	47	89	2	🔒	○
1180905Z9	1181918Z9	HBDPUE/W 2 03D 0860-089047	8,60	10	47	89	2	🔒	🔒
1180906Z9	1181919Z9	HBDPUE/W 2 03D 0870-089047	8,70	10	47	89	2	🔒	○
1180907Z9	1181920Z9	HBDPUE/W 2 03D 0880-089047	8,80	10	47	89	2	🔒	○
1180908Z9	1181921Z9	HBDPUE/W 2 03D 0890-089047	8,90	10	47	89	2	○	🔒
1180909Z9	1181922Z9	HBDPUE/W 2 03D 0900-089047	9,00	10	47	89	2	🔒	🔒
1180910Z9	1181923Z9	HBDPUE/W 2 03D 0910-089047	9,10	10	47	89	2	🔒	○
1180911Z9	1181924Z9	HBDPUE/W 2 03D 0920-089047	9,20	10	47	89	2	🔒	🔒
1180912Z9	1181925Z9	HBDPUE/W 2 03D 0930-089047	9,30	10	47	89	2	🔒	🔒
1180913Z9	1181926Z9	HBDPUE/W 2 03D 0940-089047	9,40	10	47	89	2	🔒	🔒
1180914Z9	1181927Z9	HBDPUE/W 2 03D 0950-089047	9,50	10	47	89	2	🔒	○
1180915Z9	1181928Z9	HBDPUE/W 2 03D 0960-089047	9,60	10	47	89	2	🔒	🔒
1180916Z9	1181929Z9	HBDPUE/W 2 03D 0970-089047	9,70	10	47	89	2	🔒	🔒
1180917Z9	1181930Z9	HBDPUE/W 2 03D 0980-089047	9,80	10	47	89	2	🔒	🔒
1180918Z9	1181931Z9	HBDPUE/W 2 03D 0990-089047	9,90	10	47	89	2	🔒	○
1180919Z9	1181932Z9	HBDPUE/W 2 03D 1000-089047	10,00	10	47	89	2	🔒	🔒

 Stock item | Produto de stock | Itens de stock

○ Available under request | Disponível sobre consulta | Disponible bajo consulta

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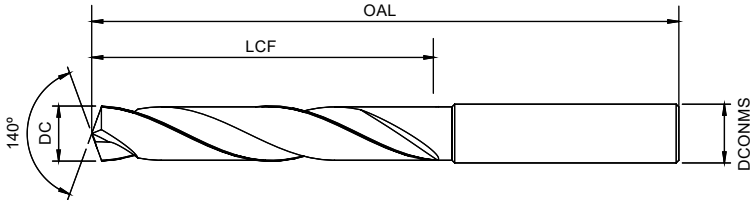
HBDPUE/W 2 03D

Solid carbide drills | Brocas de metal duro | Brocas en metal duro

Order code		Reference Referência Referencia	Dimensions Dimensões Dimensiones (mm)				NOF	Stock PHU920	
HA (Cylindrical)	HB (Weldon)		DC	DCONMS	LCF	OAL		HA	HB
1180920Z9	-	HBDPUE/W 2 03D 1010-102055	10,10	12	55	102	2	⊗	-
1180921Z9	1181933Z9	HBDPUE/W 2 03D 1020-102055	10,20	12	55	102	2	⊗	⊗
1180922Z9	1181934Z9	HBDPUE/W 2 03D 1030-102055	10,30	12	55	102	2	⊗	○
1180923Z9	-	HBDPUE/W 2 03D 1040-102055	10,40	12	55	102	2	⊗	-
1180924Z9	1181935Z9	HBDPUE/W 2 03D 1050-102055	10,50	12	55	102	2	⊗	⊗
1180925Z9	-	HBDPUE/W 2 03D 1060-102055	10,60	12	55	102	2	○	-
1180926Z9	-	HBDPUE/W 2 03D 1070-102055	10,70	12	55	102	2	○	-
1180927Z9	1181936Z9	HBDPUE/W 2 03D 1080-102055	10,80	12	55	102	2	⊗	⊗
1180928Z9	-	HBDPUE/W 2 03D 1090-102055	10,90	12	55	102	2	○	-
1180929Z9	1181937Z9	HBDPUE/W 2 03D 1100-102055	11,00	12	55	102	2	⊗	⊗
1180930Z9	-	HBDPUE/W 2 03D 1110-102055	11,10	12	55	102	2	⊗	-
1180931Z9	1181938Z9	HBDPUE/W 2 03D 1120-102055	11,20	12	55	102	2	⊗	⊗
1180932Z9	-	HBDPUE/W 2 03D 1130-102055	11,30	12	55	102	2	○	-
1180933Z9	-	HBDPUE/W 2 03D 1140-102055	11,40	12	55	102	2	○	-
1180934Z9	1181939Z9	HBDPUE/W 2 03D 1150-102055	11,50	12	55	102	2	⊗	⊗
1180935Z9	-	HBDPUE/W 2 03D 1160-102055	11,60	12	55	102	2	○	-
1180936Z9	-	HBDPUE/W 2 03D 1170-102055	11,70	12	55	102	2	○	-
1180937Z9	1181940Z9	HBDPUE/W 2 03D 1180-102055	11,80	12	55	102	2	⊗	⊗
1180938Z9	-	HBDPUE/W 2 03D 1190-102055	11,90	12	55	102	2	⊗	-
1180939Z9	1181941Z9	HBDPUE/W 2 03D 1200-102055	12,00	12	55	102	2	⊗	⊗
1180940Z9	1181942Z9	HBDPUE/W 2 03D 1250-107060	12,50	14	60	107	2	⊗	○
1181769Z9	1181943Z9	HBDPUE/W 2 03D 1280-107060	12,80	14	60	107	2	⊗	⊗
1180941Z9	1181944Z9	HBDPUE/W 2 03D 1300-107060	13,00	14	60	107	2	⊗	⊗
1182437Z9	-	HBDPUE/W 2 03D 1310-107060	13,10	14	60	107	2	○	-
1182400Z9	1182401Z9	HBDPUE/W 2 03D 1320-107060	13,20	14	60	107	2	⊗	○
1180942Z9	1181945Z9	HBDPUE/W 2 03D 1350-107060	13,50	14	60	107	2	⊗	○
1181771Z9	1181946Z9	HBDPUE/W 2 03D 1380-107060	13,80	14	60	107	2	⊗	⊗
1180943Z9	1181947Z9	HBDPUE/W 2 03D 1400-107060	14,00	14	60	107	2	⊗	⊗
1181773Z9	1181948Z9	HBDPUE/W 2 03D 1420-115065	14,20	16	65	115	2	⊗	⊗
1180944Z9	1181949Z9	HBDPUE/W 2 03D 1450-115065	14,50	16	65	115	2	⊗	○
1181775Z9	1181950Z9	HBDPUE/W 2 03D 1480-115065	14,80	16	65	115	2	⊗	⊗
1180945Z9	1181951Z9	HBDPUE/W 2 03D 1500-115065	15,00	16	65	115	2	⊗	○
1180946Z9	1181952Z9	HBDPUE/W 2 03D 1550-115065	15,50	16	65	115	2	⊗	⊗
1181777Z9	1181953Z9	HBDPUE/W 2 03D 1580-115065	15,80	16	65	115	2	⊗	⊗
1180947Z9	1181954Z9	HBDPUE/W 2 03D 1600-115065	16,00	16	65	115	2	⊗	⊗
1180948Z9	1181955Z9	HBDPUE/W 2 03D 1650-123073	16,50	18	73	123	2	⊗	○
1180949Z9	1181956Z9	HBDPUE/W 2 03D 1700-123073	17,00	18	73	123	2	⊗	⊗
1180950Z9	1181957Z9	HBDPUE/W 2 03D 1750-123073	17,50	18	73	123	2	⊗	○
1180951Z9	1181958Z9	HBDPUE/W 2 03D 1800-123073	18,00	18	73	123	2	⊗	⊗
1180952Z9	1181959Z9	HBDPUE/W 2 03D 1850-131079	18,50	20	79	131	2	⊗	⊗
1180953Z9	1181960Z9	HBDPUE/W 2 03D 1900-131079	19,00	20	79	131	2	⊗	⊗
1180954Z9	1181961Z9	HBDPUE/W 2 03D 1950-131079	19,50	20	79	131	2	⊗	⊗
1180955Z9	1181962Z9	HBDPUE/W 2 03D 2000-131079	20,00	20	79	131	2	⊗	⊗

⊗ Stock item | Produto de stock | Itens de stock

○ Available under request | Disponível sobre consulta | Disponible bajo consulta



P

K

HRC
≤
60

IT8-9
IT class

Drill Dia. DC	DC3,0	3,0<DC≤6,0	6,0<DC≤10,0	10,0<DC≤18,0	18,0<DC≤20,0
Hole Tolerances	+0,002 +0,012	+0,004 +0,016	+0,006 +0,021	+0,007 +0,025	+0,008 +0,028

Order code		Reference Referência Referencia	Dimensions Dimensões Dimensiones (mm)				NOF	Stock PHU920	
HA (Cylindrical)	HB (Weldon)		DC	DCONMS	LCF	OAL		HA	HB
1180793Z9	-	HBDPUE/W 2 05D 0300-066028	3,00	6	28	66	2	⊗	-
1180794Z9	-	HBDPUE/W 2 05D 0310-066028	3,10	6	28	66	2	⊗	-
1181062Z9	-	HBDPUE/W 2 05D 0320-066028	3,20	6	28	66	2	⊗	-
1181063Z9	-	HBDPUE/W 2 05D 0330-066028	3,30	6	28	66	2	⊗	-
1180789Z9	-	HBDPUE/W 2 05D 0340-066028	3,40	6	28	66	2	⊗	-
1181064Z9	-	HBDPUE/W 2 05D 0350-066028	3,50	6	28	66	2	○	-
1181065Z9	-	HBDPUE/W 2 05D 0360-066028	3,60	6	28	66	2	○	-
1181066Z9	-	HBDPUE/W 2 05D 0370-066028	3,70	6	28	66	2	○	-
1181067Z9	-	HBDPUE/W 2 05D 0380-074036	3,80	6	36	74	2	⊗	-
1180795Z9	-	HBDPUE/W 2 05D 0390-074036	3,90	6	36	74	2	○	-
1181068Z9	-	HBDPUE/W 2 05D 0400-074036	4,00	6	36	74	2	⊗	-
1181069Z9	-	HBDPUE/W 2 05D 0410-074036	4,10	6	36	74	2	⊗	-
1180785Z9	-	HBDPUE/W 2 05D 0420-074036	4,20	6	36	74	2	⊗	-
1181070Z9	-	HBDPUE/W 2 05D 0430-074036	4,30	6	36	74	2	⊗	-
1181071Z9	-	HBDPUE/W 2 05D 0440-074036	4,40	6	36	74	2	○	-
1181072Z9	-	HBDPUE/W 2 05D 0450-074036	4,50	6	36	74	2	⊗	-
1181073Z9	-	HBDPUE/W 2 05D 0460-074036	4,60	6	36	74	2	○	-
1181534Z9	-	HBDPUE/W 2 05D 0465-074036	4,65	6	36	74	2	○	-
1180786Z9	-	HBDPUE/W 2 05D 0470-074036	4,70	6	36	74	2	⊗	-
1181074Z9	-	HBDPUE/W 2 05D 0480-082044	4,80	6	44	82	2	⊗	-
1181075Z9	-	HBDPUE/W 2 05D 0490-082044	4,90	6	44	82	2	○	-
1180782Z9	-	HBDPUE/W 2 05D 0500-082044	5,00	6	44	82	2	⊗	-
1181076Z9	-	HBDPUE/W 2 05D 0510-082044	5,10	6	44	82	2	⊗	-
1181077Z9	-	HBDPUE/W 2 05D 0520-082044	5,20	6	44	82	2	⊗	-
1181078Z9	-	HBDPUE/W 2 05D 0530-082044	5,30	6	44	82	2	○	-
1181079Z9	-	HBDPUE/W 2 05D 0540-082044	5,40	6	44	82	2	○	-

HBDPUE/W 2 05D

Solid carbide drills | Brocas de metal duro | Brocas en metal duro

Order code		Reference Referência Referencia	Dimensions Dimensões Dimensiones (mm)				NOF	Stock PHU920	
HA (Cylindrical)	HB (Weldon)		DC	DCONMS	LCF	OAL		HA	HB
1181080Z9	-	HBDPUE/W 2 05D 0550-082044	5,50	6	44	82	2	○	-
1181081Z9	-	HBDPUE/W 2 05D 0560-082044	5,60	6	44	82	2	⊗	-
1181082Z9	-	HBDPUE/W 2 05D 0570-082044	5,70	6	44	82	2	○	-
1181083Z9	-	HBDPUE/W 2 05D 0580-082044	5,80	6	44	82	2	⊗	-
1181084Z9	-	HBDPUE/W 2 05D 0590-082044	5,90	6	44	82	2	○	-
1181085Z9	-	HBDPUE/W 2 05D 0600-082044	6,00	6	44	82	2	⊗	-
1181086Z9	-	HBDPUE/W 2 05D 0610-091053	6,10	8	53	91	2	○	-
1181087Z9	-	HBDPUE/W 2 05D 0620-091053	6,20	8	53	91	2	○	-
1181088Z9	-	HBDPUE/W 2 05D 0630-091053	6,30	8	53	91	2	○	-
1181089Z9	-	HBDPUE/W 2 05D 0640-091053	6,40	8	53	91	2	⊗	-
1181090Z9	-	HBDPUE/W 2 05D 0650-091053	6,50	8	53	91	2	⊗	-
1181091Z9	-	HBDPUE/W 2 05D 0660-091053	6,60	8	53	91	2	○	-
1181092Z9	-	HBDPUE/W 2 05D 0670-091053	6,70	8	53	91	2	○	-
1180781Z9	-	HBDPUE/W 2 05D 0680-091053	6,80	8	53	91	2	⊗	-
1181093Z9	-	HBDPUE/W 2 05D 0690-091053	6,90	8	53	91	2	⊗	-
1181094Z9	-	HBDPUE/W 2 05D 0700-091053	7,00	8	53	91	2	⊗	-
1181095Z9	-	HBDPUE/W 2 05D 0710-091053	7,10	8	53	91	2	○	-
1181096Z9	-	HBDPUE/W 2 05D 0720-091053	7,20	8	53	91	2	⊗	-
1181097Z9	-	HBDPUE/W 2 05D 0730-091053	7,30	8	53	91	2	○	-
1181098Z9	-	HBDPUE/W 2 05D 0740-091053	7,40	8	53	91	2	○	-
1181099Z9	-	HBDPUE/W 2 05D 0750-091053	7,50	8	53	91	2	○	-
1181100Z9	-	HBDPUE/W 2 05D 0760-091053	7,60	8	53	91	2	○	-
1181101Z9	-	HBDPUE/W 2 05D 0770-091053	7,70	8	53	91	2	○	-
1181102Z9	-	HBDPUE/W 2 05D 0780-091053	7,80	8	53	91	2	⊗	-
1181103Z9	-	HBDPUE/W 2 05D 0790-091053	7,90	8	53	91	2	○	-
1181104Z9	-	HBDPUE/W 2 05D 0800-091053	8,00	8	53	91	2	○	-
1181105Z9	-	HBDPUE/W 2 05D 0810-103061	8,10	10	61	103	2	○	-
1181106Z9	-	HBDPUE/W 2 05D 0820-103061	8,20	10	61	103	2	○	-
1181107Z9	-	HBDPUE/W 2 05D 0830-103061	8,30	10	61	103	2	⊗	-
1181108Z9	-	HBDPUE/W 2 05D 0840-103061	8,40	10	61	103	2	○	-
1181109Z9	-	HBDPUE/W 2 05D 0850-103061	8,50	10	61	103	2	⊗	-
1181110Z9	-	HBDPUE/W 2 05D 0860-103061	8,60	10	61	103	2	○	-
1181111Z9	-	HBDPUE/W 2 05D 0870-103061	8,70	10	61	103	2	○	-
1181112Z9	-	HBDPUE/W 2 05D 0880-103061	8,80	10	61	103	2	○	-
1181113Z9	-	HBDPUE/W 2 05D 0890-103061	8,90	10	61	103	2	○	-
1181114Z9	-	HBDPUE/W 2 05D 0900-103061	9,00	10	61	103	2	⊗	-
1181115Z9	-	HBDPUE/W 2 05D 0910-103061	9,10	10	61	103	2	○	-
1181116Z9	-	HBDPUE/W 2 05D 0920-103061	9,20	10	61	103	2	○	-
1181117Z9	-	HBDPUE/W 2 05D 0930-103061	9,30	10	61	103	2	○	-
1181118Z9	-	HBDPUE/W 2 05D 0940-103061	9,40	10	61	103	2	○	-
1181119Z9	-	HBDPUE/W 2 05D 0950-103061	9,50	10	61	103	2	⊗	-
1181120Z9	-	HBDPUE/W 2 05D 0960-103061	9,60	10	61	103	2	○	-
1181121Z9	-	HBDPUE/W 2 05D 0970-103061	9,70	10	61	103	2	○	-
1181122Z9	-	HBDPUE/W 2 05D 0980-103061	9,80	10	61	103	2	⊗	-
1181123Z9	-	HBDPUE/W 2 05D 0990-103061	9,90	10	61	103	2	○	-
1181124Z9	-	HBDPUE/W 2 05D 1000-103061	10,00	10	61	103	2	○	-
1181125Z9	-	HBDPUE/W 2 05D 1010-118071	10,10	12	71	118	2	○	-
1181126Z9	-	HBDPUE/W 2 05D 1020-118071	10,20	12	71	118	2	⊗	-

⊗ Stock item | Produto de stock | Itens de stock

○ Available under request | Disponível sobre consulta | Disponible bajo consulta

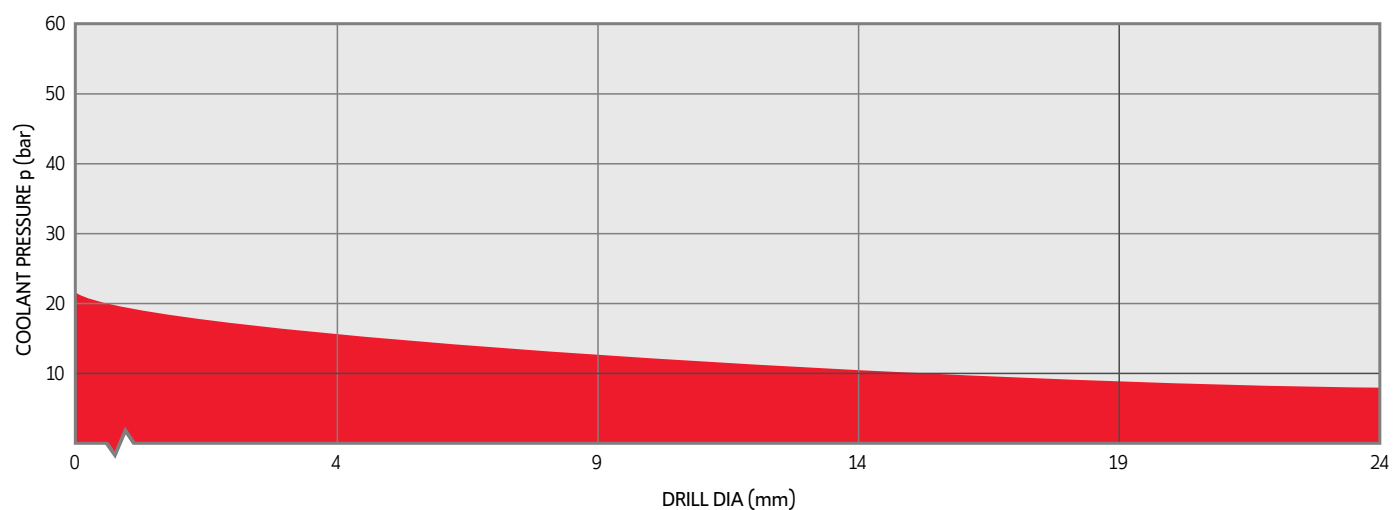
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○ Available under request | Disponível sobre consulta | Disponible bajo consulta

RECOMMENDED SPEEDS AND FEEDS

ISO	Material Group Grupo Materiais Grupo Materiales	Vc (m/min)	f (mm/rev)			
			Ø3~8mm	Ø8~12mm	Ø12~16mm	Ø16~20mm
P	Unalloyed steel (-0,25%)	80-100	0,10-0,20	0,15-0,25	0,20-0,40	0,25-0,50
	Low-alloy steel (0,25%-)	70-100	0,10-0,20	0,20-0,30	0,20-0,35	0,25-0,40
	High-alloy steel	40-70	0,08-0,15	0,12-0,22	0,20-0,40	0,25-0,40
M	Stainless steel	35-50	0,08-0,15	0,12-0,25	0,15-0,30	0,20-0,35
K	Maleable cast iron	70-100	0,10-0,30	0,20-0,40	0,25-0,40	0,25-0,50
	Grey cast iron	70-100	0,10-0,25	0,20-0,35	0,30-0,45	0,35-0,55

COOLANT APPLICATION CHART



LOOKING FOR MORE TROUBLESHOOTING?



Check the qrcode for more information