

The Best Solution for High Productivity Milling

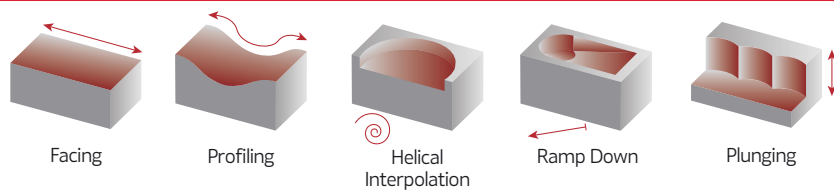
palbit
TOOLING SOLUTIONS EXPERTS
SINCE 1916

PalbitUSA.com

PILOT
Precision Products

HIFEED

SO10-08 | SO10-13 | SO15-16



INSERT SIZE
08 SO...
0803



INSERT SIZE
13 SO...
13M5



INSERT SIZE
16 SO...
1605

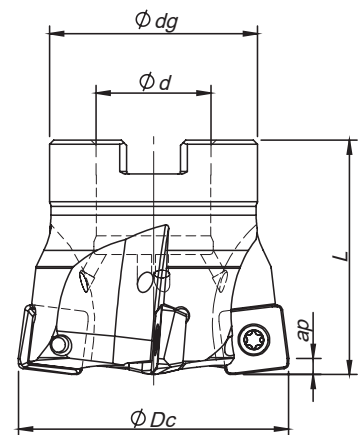


SINCE **1916**



Arbor Mounting

$K_r=10^\circ$ | $\gamma_p=+2^\circ$ | $\gamma_f=+2^\circ$ | $R_p=0.079$



Order code	Reference		Dimensions(in)					Specifications		Insert	Stock
			ϕDc	$\phi d/M$	ϕdg	L		Ap max (in)	Arbor Type		
181135300	SO10 D1.50-A.500/1.50-05-08	5	1.500	0.500	1.200	1.500	0.33	0.039	A	SO...0803...	
181135400	SO10 D2.00-A.750/1.75-06-08	6	2.000	0.750	1.457	1.750	0.63	0.039	A	SO...0803...	

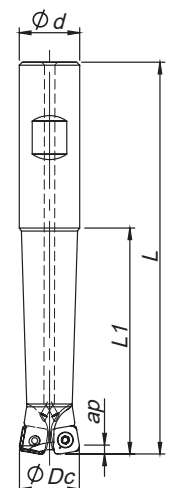
Stock item

Available Upon Request (see page A-10)



Weldon Shank

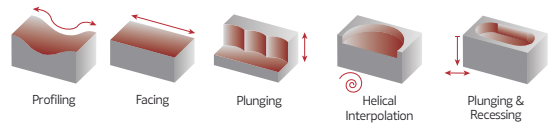
$K_r=10^\circ$ | $\gamma_p=+2^\circ$ | $\gamma_f=+2^\circ$ | $R_p=0.079$



Order code	Reference		Dimensions (in)					Specifications		Insert	Stock
			ϕDc	$\phi d/M$	L	L1		Ap max (in)			
181078700	SO10 D.750-W.750/5.00-02-08	2	0.750	0.750	5.000	2.835	0.79	0.039		SO...0803...	
181078800	SO10 D.750-W.750/8.00-02-08	2	0.750	0.750	8.000	2.835	0.69	0.039		SO...0803...	
181078900	SO10 D1.00-W1.00/5.00-03-08	3	1.000	1.000	5.000	2.835	0.90	0.039		SO...0803...	
181079000	SO10 D1.00-W1.00/8.00-03-08	3	1.000	1.000	8.000	4.843	1.26	0.039		SO...0803...	
181134800	SO10 D1.25-W1.25/6.00-04-08	4	1.250	1.250	6.000	3.425	0.76	0.039		SO...0803...	
181134900	SO10 D1.25-W1.25/8.00-04-08	4	1.250	1.250	8.000	4.843	1.68	0.039		SO...0803...	

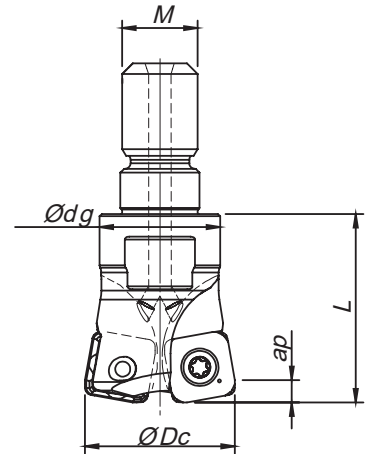
Stock item

Available Upon Request (see page A-10)



Threaded Coupling

$K_r=10^\circ$ | $\gamma_p=+2^\circ$ | $\gamma_f=+2^\circ$ | $R_p=0.079$



Order code	Reference		Dimensions (in)					Specifications	Insert	Stock
			ØDc	Ød/M	Ødg	L		Ap max (in)		
181135000	SO10 D.750-R-10/.984-02-08	2	0.750	M10	0.630	0.984	0.088	0.039	SO...0803...	
181135100	SO10 D1.00-R-12/1.18-03-08	3	1.000	M12	0.827	1.181	0.154	0.039	SO...0803...	
181135200	SO10 D1.25-R-16/1.37-04-08	4	1.250	M16	1.142	1.378	0.358	0.039	SO...0803...	

Stock item

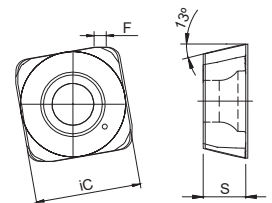
Available Upon Request (see page A-10)

SO...0803... || Inserts

SOEW



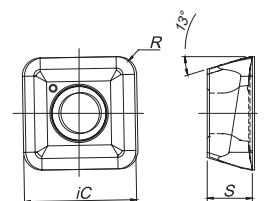
SOEW



SOET



SOET



		P			M		K			S		Dimensions (in)			
		PVD			PVD		PVD			PVD					
		X5	T1	G6	X9	G6	X5	T1	G6	X9	G6				
⁽¹⁾ Geometry code	ISO Reference	PHP910	PHP920	PH7740	PHH930	PH7740	PHP910	PHP920	PH7740	PHH930	PH7740	iC	S	R	F
1111884	SOEW 080310 S											0.339	0.137	0.039	0.039
1112149	SOET 080315-MS											0.339	0.137	0.059	-

First choice

Stock item

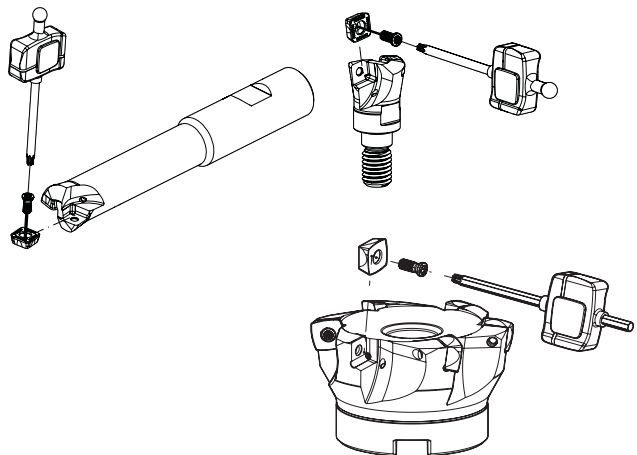
Available Upon Request (see page A-11)

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

HIFEED SO10-08

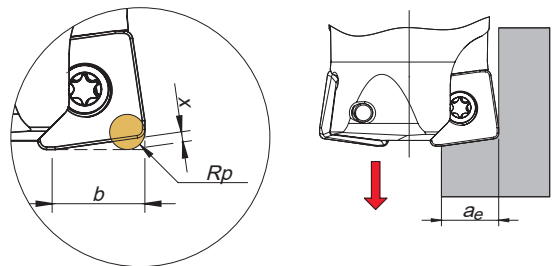
SPARE PARTS

Cutter ØDc	Order separately			
	Insert Screw 	Key (Torx) 	Torque Key (Torx) 	Torque Value 
SO10-W-08 – 0.75-1.25	P0300800	XT09	DT0914	12.4
SO10-R-08 – 0.75-1.25	P0300800	XT09	DT0914	12.4
SO10-A-08 – 1.50-2.00	P0300800	XT09	DT0914	12.4



PROGRAMMING DATA

Insert	Programming Data			
	Rp	X	b	ae
SO... 0803..	0.079	0.031	0.268	0.248



GRADE SELECTION GUIDE

ISO	PSM	Material	HB (Brinell)	Grades				
				← Wear Resistance		Toughness →		
				PH7910	PH7920	PH7930	PH7740	PHM740
								
P	1	Unalloyed Steel	125-220	✓	✓	✓	✓	
	2	Low-Alloyed Steel	220-280	✓	✓	✓	✓	
	3	High-Alloyed Steel	280-380	✓	✓	✓	✓	
M	4	SS - Ferritic / Martensitic	200-330			✓	✓	✓
	5	SS - Austenitic / Duplex	200-330			✓	✓	✓
	6	SS - Duplex	230-260			✓	✓	✓
K	7	Malleable Cast Iron	130-230	✓	✓			
	8	Grey Cast Iron	180-245	✓	✓			
	9	Nodular Cast iron	160-250	✓	✓			
S	11	Heat Resistant Super Alloys	200-320			✓		✓

-  Good Conditions
-  Average Conditions
-  Difficult Conditions

RECOMMENDED CUTTING CONDITIONS

ISO	PSM	Material	HB (Brinell)	Vc (sfm)				Feed fz (in/t)	
				← Wear Resistance		Toughness →		SOEW 08...	SOET 08...
				PHP910	PHP920	PHH930	PH7740		
P	1	Unalloyed Steel	125-220	590-820	590-820	-	460-656	0.015-0.070	0.015-0.070
	2	Low-Alloyed Steel	220-280	525-788	525-755	-	426-590	0.015-0.070	-
	3	High-Alloyed Steel	280-380	460-755	460-722	-	328-558	0.015-0.060	-
M	4	SS - Ferritic / Martensitic	200-330	-	-	460-690	426-590	-	0.015-0.050
	5	SS - Austenitic	200-330	-	-	394-558	360-525	-	0.015-0.050
	6	SS - Austenitic-ferritic (Duplex)	230-260	-	-	328-492	-	-	0.004-0.040
K	7	Malleable Cast Iron	130-230	590-1004	525-886	-	460-722	0.015-0.070	0.015-0.070
	8	Grey Cast Iron	180-245	525-820	460-820	-	394-690	0.015-0.070	-
	9	Nodular Cast iron	160-250	492-690	394-690	-	328-624	0.015-0.070	-
S	11	Heat Resistant Super Alloys	200-320	-	-	100-360	100-328	-	0.015-0.040

(Note 1) Cutting conditions $a_e/D_c=70\%$.

(Note 2) It's possible for vibration to occur in certain cases. Please reduce depth of cut and/or reduce cutting conditions in these cases:

- When using long shank;
- When using long tool overhang with arbor type;
- When application has poor clamping rigidity or when using a low rigidity machine.

(Note 3) PH5... and PH5... can be used wet or dry. PH7... use only air.

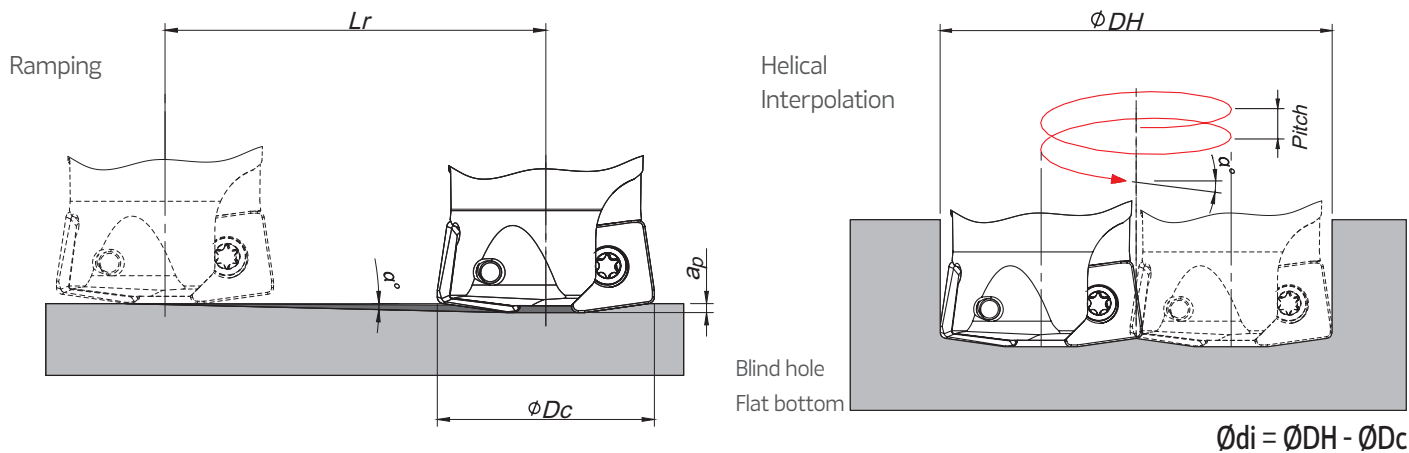
(Note 4) It's possible for vibration to occur in certain cases. Please reduce depth of cut and/or reduce cutting conditions in these cases:

- When using long shank;
- When using long tool overhang with arbor type;
- When application has poor clamping rigidity or when using a low rigidity machine.

CHIP BREAKER SELECTION GUIDE

ISO	PSM	Material	HB (Brinell)	Chip Breaker Application	
				1st choice	Difficult Operations
P	1	Unalloyed Steel	125-220	SOET 08...	SOEW 08...
	2	Low-Alloyed Steel	220-280	SOEW 08...	-
	3	High-Alloyed Steel	280-380	SOEW 08...	-
M	4	SS - Ferritic / Martensitic	200-330	SOET 08...	-
	5	SS - Austenitic	200-330	SOET 08...	-
	6	SS - Austenitic-ferritic (Duplex)	230-260	SOET 08...	-
K	7	Malleable Cast Iron	130-230	SOET 08...	SOEW 08...
	8	Grey Cast Iron	180-245	SOEW 08...	-
	9	Nodular Cast iron	160-250	SOEW 08...	-
S	11	Heat Resistant Super Alloys	200-320	SOET 08...	-

RAMPING AND HELICAL INTERPOLATION

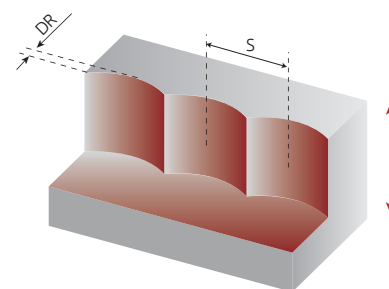


ϕD_c	Ramping			Helical Interpolation		
	Max Ramp a°	Max a_p	Min L_r	ϕDH_{min}	ϕDH_{max}	Max Pitch/Rev.
0.750	15.0	0.039	0.146	0.964 -	- 1.421	0.039 0.039
1.000	9.5	0.039	0.233	1.464 -	- 1.921	0.039 0.039
1.250	5.5	0.039	0.405	1.964 -	- 2.421	0.039 0.039
1.500	4.0	0.039	0.558	2.464 -	- 2.921	0.039 0.039
2.000	2.5	0.039	0.893	3.464 -	- 3.921	0.039 0.039

Note: During helical interpolation do not exceed max Pitch.

PLUNGING

L≤3Dc	L>3Dc	S max.
f _z (in/t)		
0.004-0.006	0.002-0.004	$S_{max} = \sqrt{D_c \cdot DR - DR^2}$



S max and DR corresponding cutting diameter Dc (in)					
DR (in)	Dc (in)				
	0.750	1.000	1.250	1.500	2.000
0.039	0.167	0.194	0.217	0.239	0.277
0.079	0.230	0.270	0.304	0.335	0.390
0.118	0.273	0.323	0.365	0.404	0.471
0.157	0.305	0.364	0.414	0.459	0.538
0.197	0.330	0.398	0.455	0.507	0.596
0.236	0.348	0.425	0.489	0.546	0.645

Note: Recommended for L ≤ 4 Dc for extra long tool. This step and side cut must be reduced.

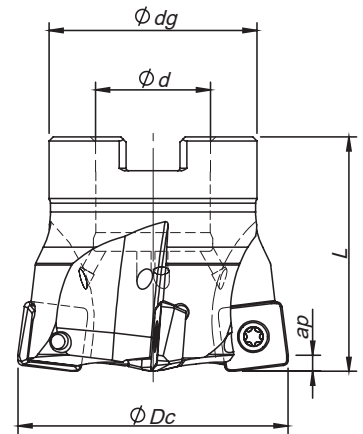
HIFEED SO10-13

Proprietary milling line



Arbor Mounting

$K_r=10^\circ$ | $\gamma_p=+5^\circ$ | $R_p=0.098$



Order code	Reference		Dimensions (in)					Specifications		Insert	Stock
			ϕDc	$\phi d/M$	ϕdg	L		Ap max (in)	Arbor Type		
181099300	SO10 D2.00-A.750/1.75-04-13	4	2.000	0.750	1.772	1.750	0.73	0.059	A	SO...13M5	
NEW 181139300	SO10 D2.00-A.750/1.75-05-13	5	2.000	0.750	1.772	1.750	0.70	0.059	A	SO...13M5	
181099400	SO10 D2.50-A1.00/2.00-05-13	5	2.500	1.000	2.205	2.000	1.32	0.059	A	SO...13M5	
181099500	SO10 D3.00-A1.00/2.00-06-13	6	3.000	1.000	2.205	2.000	1.98	0.059	A	SO...13M5	
NEW 181137800	SO10 D3.00-A1.25/2.00-06-13	6	3.000	1.250	2.441	2.000	1.82	0.059	A	SO...13M5	
181099600	SO10 D4.00-A1.25/2.00-06-13	6	4.000	1.250	2.874	2.000	3.31	0.059	A	SO...13M5	
NEW 181137900	SO10 D4.00-A1.50/2.50-08-13	8	4.000	1.500	3.150	2.500	4.41	0.059	A	SO...13M5	

Stock item

Available Upon Request

Inventory maintained. To be replaced by new item.

SO...13M5... || Inserts

SOEW

SOEW-MD

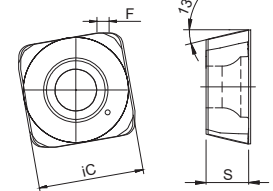
NEW



PHH
NEW
GRADE

PHP
NEW
GRADE

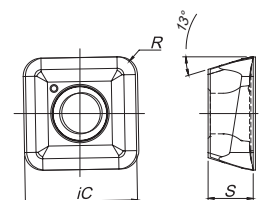
SOEW | SOEW-MD



SOET



SOET



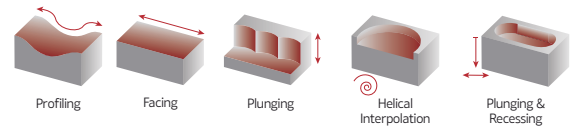
		P			M		K			S		Dimensiones (in)			
		PVD			PVD		PVD			PVD					
		(2) Grade code			X5	T1	G6	X9	G6	X5	T1				
(1) Geometry code	ISO Reference	PHP910	PHP920	PH7740	PHH930	PH7740	PHP910	PHP920	PH7740	PHH930	PH7740	ic	S	R	F
1111906	SOEW 13M510 S											0.489	0.197	0.047	0.039
1112813	SOEW 13M510-MD											0.489	0.197	0.047	0.039
1112147	SOET 13M520-MS											0.489	0.197	0.079	-

First choice

Stock item

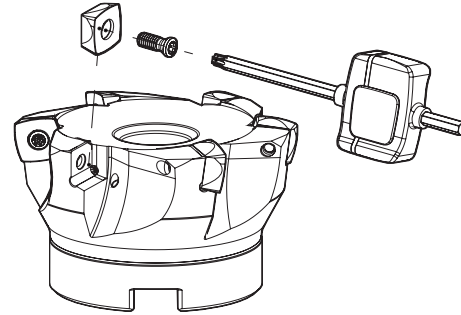
Available Upon Request (see page A-11)

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



SPARE PARTS

Cutter ØDc	Insert Screw 	Key (Torx) 	Torque Value 
SO10-A-13 - 2.00-3.00	P0401200	XT15	26.6
SO10-A-13 - 4.00	P0401200	PT15	26.6



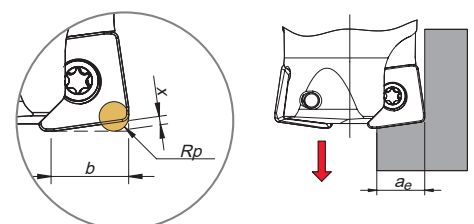
GRADES SELECTION GUIDE

ISO	PSM	Material	HB (Brinell)	Grades			
				← Wear Resistance		Toughness →	
				PHP910 	PHP920 	PHH930 	PH7740 
P	1	Unalloyed Steel	125-220	✓	✓		✓
	2	Low-Alloyed Steel	220-280	✓	✓		✓
	3	High-Alloyed Steel	280-380	✓	✓		✓
M	4	SS - Ferritic / Martensitic	200-330			✓	✓
	5	SS - Austenitic	200-330			✓	✓
	6	SS - Austenitic-ferritic (Duplex)	230-260			✓	✓
K	7	Malleable Cast Iron	130-230	✓	✓		✓
	8	Grey Cast Iron	180-245	✓	✓		✓
	9	Nodular Cast iron	160-250	✓	✓		✓
S	11	Heat Resistant Super Alloys	200-320			✓	✓

-  Good Conditions
-  Average Conditions
-  Difficult Conditions

PROGRAMMING DATA

Insert	Programming Data			
	Rp	X	b	ae
SO... 13M5..	0.098	0.043	0.413	0.394



RECOMMENDED CUTTING CONDITIONS

ISO	PSM	Material	HB (Brinell)	Vc (sfm)				Feed fz (in/t)		
				← Wear Resistance		Toughness →		SOEW S	SOEW MD	SOET MS
				PHP910	PHP920	PHH930	PH7740			
P	1	Unalloyed Steel	125-220	590-820	590-820	-	460-656	0.020-0.082	0.020-0.088	0.020-0.082
	2	Low-Alloyed Steel	220-280	525-788	525-755	-	426-590	0.020-0.082	0.020-0.088	-
	3	High-Alloyed Steel	280-380	460-755	460-722	-	328-558	0.020-0.080	0.020-0.082	-
M	4	SS - Ferritic / Martensitic	200-330	-	-	460-690	426-590	-	-	0.020-0.070
	5	SS - Austenitic	200-330	-	-	394-558	360-525	-	-	0.020-0.070
	6	SS - Austenitic-ferritic (Duplex)	230-260	-	-	328-492	-	-	-	0.020-0.060
K	7	Malleable Cast Iron	130-230	590-1004	525-886	-	460-722	0.020-0.082	0.020-0.088	0.020-0.082
	8	Grey Cast Iron	180-245	525-820	460-820	-	394-690	0.020-0.082	0.020-0.088	-
	9	Nodular Cast iron	160-250	492-690	394-690	-	328-624	0.020-0.082	0.020-0.088	-
S	11	Heat Resistant Super Alloys	200-320	-	-	100-360	100-328	-	-	0.016-0.050

(Note 1) Cutting conditions $a_p/D_c=70\%$.

(Note 2) It's possible for vibration to occur in certain cases. Please reduce depth of cut and/or reduce cutting conditions in these cases:

- When using long shank;
- When using long tool overhang with arbor type;
- When application has poor clamping rigidity or when using a low rigidity machine.

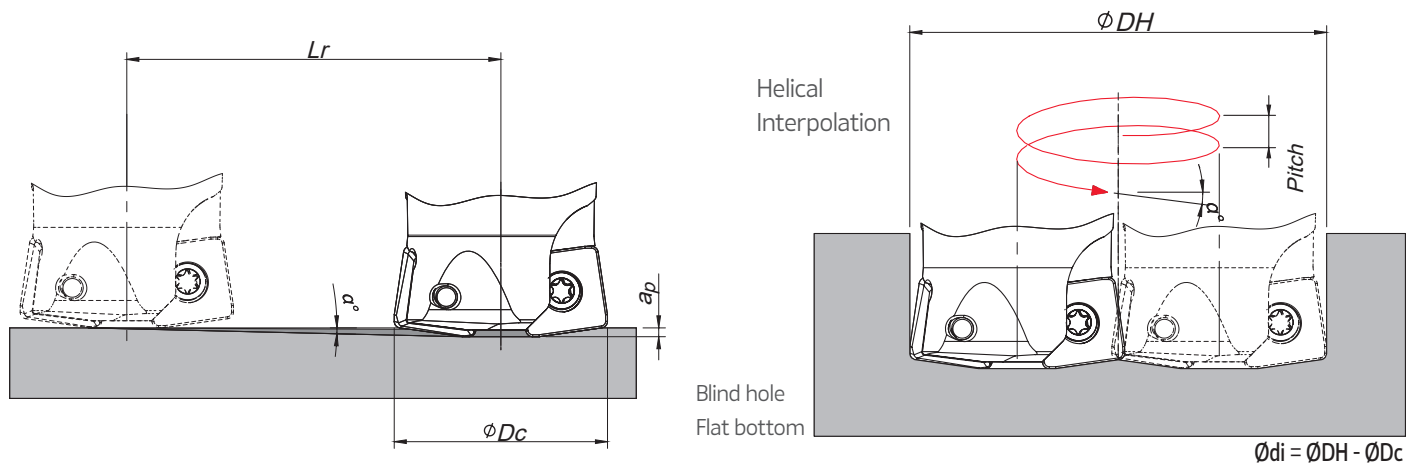
(Note 3) It's possible for vibration to occur in certain cases. Please reduce depth of cut and/or reduce cutting conditions in these cases:

- When using long shank;
- When using long tool overhang with arbor type;
- When application has poor clamping rigidity or when using a low rigidity machine.

CHIP-BREAKER SELECTION GUIDE

ISO	PSM	Material	HB (Brinell)	Chip Breaker Application	
				1st choice	Difficult Operations
P	1	Unalloyed Steel	125-220	SOEW-MD	SOEW-S
	2	Low-Alloyed Steel	220-280	SOEW-MD	SOEW-S
	3	High-Alloyed Steel	280-380	SOEW-MD	SOEW-S
M	4	SS - Ferritic / Martensitic	200-330	SOET-MS	-
	5	SS - Austenitic	200-330	SOET-MS	-
	6	SS - Austenitic-ferritic (Duplex)	230-260	SOET-MS	-
K	7	Malleable Cast Iron	130-230	SOET-MS	SOEW-S
	8	Grey Cast Iron	180-245	SOEW-MD	SOEW-S
	9	Nodular Cast iron	160-250	SOEW-MD	SOEW-S
S	11	Heat Resistant Super Alloys	200-320	SOET-MS	-

RAMPING AND HELICAL INTERPOLATION

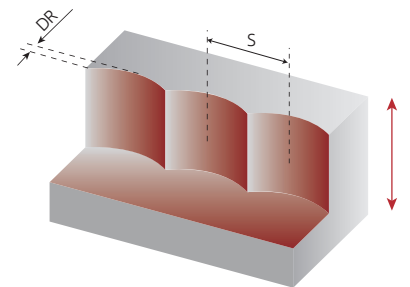


ϕD_c	Ramping			Helical Interpolation		
	Max Ramp a°	Max a_p	Min L_r	ϕDH_{min}	ϕDH_{max}	Max Pitch/Rev.
2.000	4.3	0.059	0.785	3.924 -	- 3.921	0.059 0.059
2.500	3.0	0.059	1.126	4.924 -	- 4.921	0.059 0.059
3.000	2.0	0.059	1.690	5.924 -	- 5.921	0.059 0.059
4.000	0.7	0.059	4.829	7.924 -	- 7.921	0.059 0.059

Note: During helical interpolation do not exceed max Pitch.

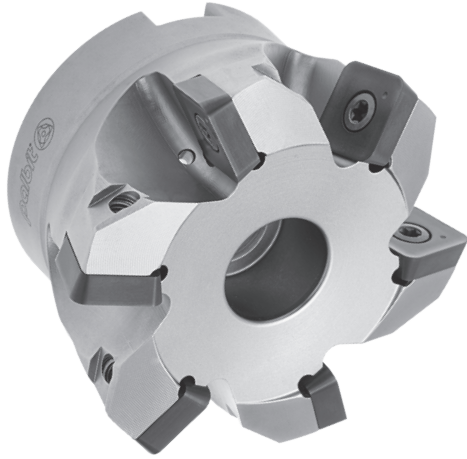
PLUNGING

L≤3Dc	L>3Dc	S max.
fz (in/t)		
0.004-0.008	0.003-0.006	Smax = √DC.DR.DR²



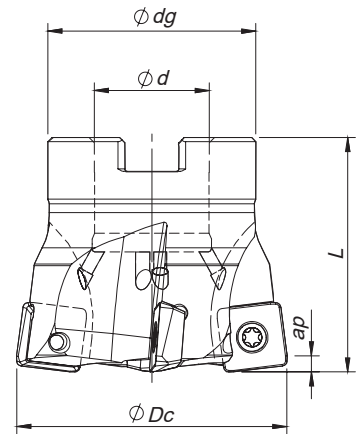
S max and DR corresponding cutting diameter D_c (in)				
DR (mm)	D_c (in)			
	2.000	2.500	3.000	4.000
0.039	0.277	0.310	0.340	0.393
0.079	0.390	0.437	0.480	0.557
0.118	0.471	0.530	0.583	0.677
0.157	0.538	0.607	0.668	0.777
0.197	0.596	0.674	0.743	0.866
0.236	0.645	0.731	0.808	0.942
0.276	0.690	0.783	0.867	1.014
0.315	0.729	0.830	0.920	1.077
0.354	0.763	0.872	0.968	1.136
0.394	0.795	0.911	1.013	1.192

Note: Recommended for $L \leq 4 D_c$ for extra long tool. This step and side cut must be reduced.



Arbor Mounting

$K_r=15^\circ$ | $\gamma_p=+2^\circ$ | $R_p=4,5$



Order code	Reference		Dimensions (in)				lbs	Specifications		Insert	Stock
			ϕDc	$\phi d/M$	ϕdg	L		Ap max (in)	Arbor Type		
181073900	SO15 D2.50-A1.00/1.75-05-16	5	2.500	1.000	2.205	1.750	1.42	0.138	A	SO...1605...	⊗
181074000	SO15 D3.00-A1.00/2.00-06-16	6	3.000	1.000	2.205	2.000	1.69	0.138	A	SO...1605...	⊗
181138400	SO15 D3.00-A1.25/2.00-06-16	6	3.000	1.250	2.441	2.000	1.69	0.138	A	SO...1605...	⊗
181074100	SO15 D4.00-A1.25/2.00-08-16	8	4.000	1.250	2.874	2.000	3.19	0.138	A	SO...1605...	⊗
181138500	SO15 D4.00-A1.50/2.50-08-16	8	4.000	1.500	3.150	2.500	3.19	0.138	A	SO...1605...	⊗
181074200	SO15 D5.00-A1.50/2.50-10-16	10	5.000	1.500	3.386	2.500	6.92	0.138	A	SO...1605...	⊗
181074300	SO15 D6.00-A2.00/2.50U-12-16	12	6.000	2.000	4.882	2.500	8.22	0.138	B	SO...1605...	⊗

⊗ Stock item

○ Available Upon Request (see page A-10)

⊗ Inventory maintained. To be replaced by new item.

SO...1605... | Inserts

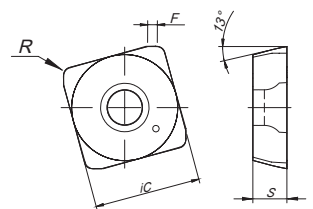
SOEW



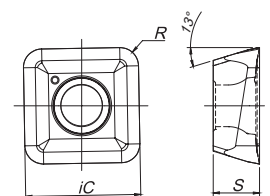
SOET



SOEW



SOET



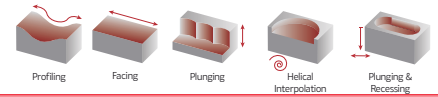
		P			M		K			S		Dimensions (in)			
		PVD			PVD		PVD			PVD					
		⁽²⁾ Grade code			X5	T1	G6	X9	G6	X5	T1				
⁽¹⁾ Geometry code	ISO Reference	PHP910	PHP920	PH7740	PHH930	PH7740	PHP910	PHP920	PH7740	PHH930	PH7740	iC	S	R	F
1111907	SOEW 160512 S											0.646	0.207	0.047	0.059
1112221	SOET 160520-MS											0.646	0.207	0.079	-

⊗ First choice

⊗ Stock item

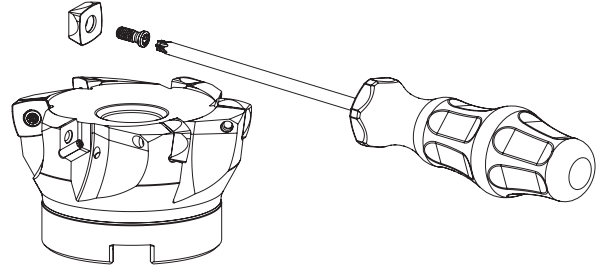
○ Available Upon Request (see page A-11)

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



SPARE PARTS

Cutter ØDc	Insert Screw 	Key (Torx) 	Torque Value 
SO15-A-16 - 2.50-6.00	P0501302	PT20	44.3



GRADE SELECTION GUIDE

ISO	PSM	Material	HB (Brinell)	Grades			
				← Wear Resistance		Toughness →	
				PHP910 	PHP920 	PHH930 	PH7740 
P	1	Unalloyed Steel	125-220	✓	✓		✓
	2	Low-Alloyed Steel	220-280	✓	✓		✓
	3	High-Alloyed Steel	280-380	✓	✓		✓
M	4	SS - Ferritic / Martensitic	200-330			✓	✓
	5	SS - Austenitic	200-330			✓	✓
	6	SS - Austenitic-ferritic (Duplex)	230-260			✓	✓
K	7	Malleable Cast Iron	130-230	✓	✓		✓
	8	Grey Cast Iron	180-245	✓	✓		✓
	9	Nodular Cast iron	160-250	✓	✓		✓
S	11	Heat Resistant Super Alloys	200-320			✓	✓

 Good Conditions
 Average Conditions
 Difficult Conditions

RECOMMENDED CUTTING CONDITIONS

ISO	PSM	Material	HB (Brinell)	Vc (sfm)				Feed fz (in/t)	
				← Wear Resistance		Toughness →		SOEW S	SOET MS
				PHP910	PHP920	PHH930	PH7740		
P	1	Unalloyed Steel	125-220	590-820	590-820	-	460-656	0.020-0.082	0.020-0.088
	2	Low-Alloyed Steel	220-280	525-788	525-755	-	426-590	0.020-0.082	0.020-0.088
	3	High-Alloyed Steel	280-380	460-755	460-722	-	328-558	0.020-0.080	0.020-0.070
M	4	SS - Ferritic / Martensitic	200-330	-	-	460-690	426-590	-	0.020-0.070
	5	SS - Austenitic	200-330	-	-	394-558	360-525	-	0.020-0.070
	6	SS - Austenitic-ferritic (Duplex)	230-260	-	-	328-492	-	-	0.020-0.060
K	7	Malleable Cast Iron	130-230	590-1004	525-886	-	460-722	0.020-0.082	0.020-0.080
	8	Grey Cast Iron	180-245	525-820	460-820	-	394-690	0.020-0.082	0.020-0.080
	9	Nodular Cast iron	160-250	492-690	394-690	-	328-624	0.020-0.082	0.020-0.070
S	11	Heat Resistant Super Alloys	200-320	-	-	100-360	100-328	-	0.015-0.050

(Note 1) Cutting conditions $a_e/D_c=70\%$.

(Note 2) It's possible for vibration to occur in certain cases. Please reduce depth of cut and/or reduce cutting conditions in these cases:

- When using long shank;
- When using long tool overhang with arbor type;
- When application has poor clamping rigidity or when using a low rigidity machine.

(Note 3) PH5... and PH8... can be used wet or dry. PH7... use only air.

(Note 4) It's possible for vibration to occur in certain cases. Please reduce depth of cut and/or reduce cutting conditions in these cases:

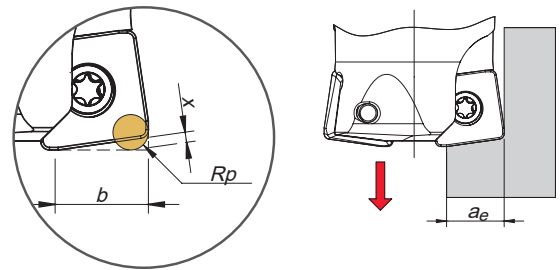
- When using long shank;
- When using long tool overhang with arbor type;
- When application has poor clamping rigidity or when using a low rigidity machine.

CHIP BREAKER SELECTION GUIDE

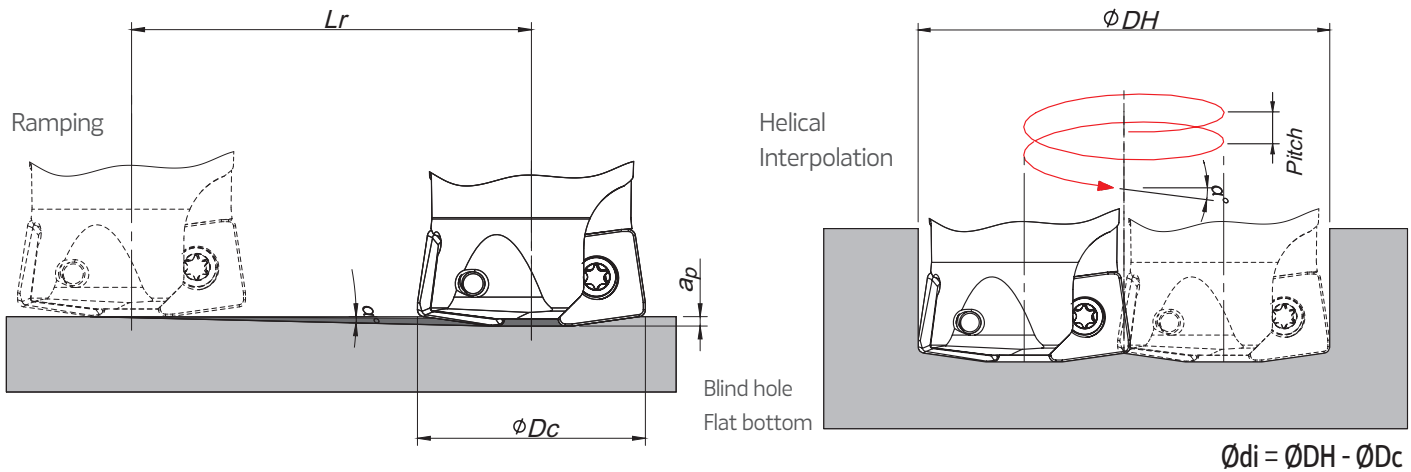
ISO	PSM	Material	HB (Brinell)	Chip Breaker Application	
				1st Choice	Difficult Operations
P	1	Unalloyed Steel	125-220	SOET 16...	SOEW 16...
	2	Low-Alloyed Steel	220-280	SOEW 16...	-
	3	High-Alloyed Steel	280-380	SOEW 16...	-
M	4	SS - Ferritic / Martensitic	200-330	SOET 16...	-
	5	SS - Austenitic	200-330	SOET 16...	-
	6	SS - Austenitic-ferritic (Duplex)	230-260	SOET 16...	-
K	7	Malleable Cast Iron	130-230	SOET 16...	SOEW 16...
	8	Grey Cast Iron	180-245	SOEW 16...	-
	9	Nodular Cast iron	160-250	SOEW 16...	-
S	11	Heat Resistant Super Alloys	200-320	SOET 16...	-

PROGRAMMING DATA

Insert	Programming Data			
	Rp	X	b	ae
SO... 1605..	0.177	0.091	0.531	0.504



RAMPING AND HELICAL INTERPOLATION

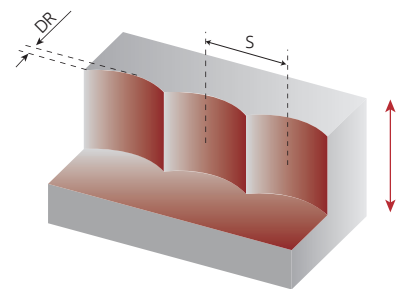


ØDc	Ramping			Helical Interpolation		
	Max Ramp a°	Max ap	Min Lr	ØDHmin	ØDHmax	Max Pitch/Rev.
2.500	3.5	0.138	2.256	3.938	-	0.138
				-	4.921	0.138
3.000	2.0	0.138	3.952	4.938	-	0.138
				-	5.921	0.138
4.000	1.5	0.138	5.270	6.938	-	0.138
				-	7.921	0.138
5.000	1.0	0.138	7.906	8.938	-	0.138
				-	9.921	0.138
6.000	0.5	0.138	15.813	10.938	-	0.130
				-	11.921	0.138

Note: During helical interpolation do not exceed max Pitch.

PLUNGING

L≤3Dc	L>3Dc	S max.
fz (in/t)		
0.004-0.008	0.003-0.006	Smax = √DC.DR-DR²



S max and DR corresponding cutting diameter Dc (in)					
DR (in)	Dc (in)				
	2.500	3.000	4.000	5.000	6.000
0.039	0.310	0.340	0.393	0.440	0.482
0.079	0.437	0.480	0.557	0.624	0.684
0.118	0.530	0.583	0.677	0.759	0.833
0.157	0.607	0.668	0.777	0.872	0.958
0.197	0.674	0.743	0.866	0.973	1.069
0.236	0.731	0.808	0.942	1.060	1.166
0.276	0.783	0.867	1.014	1.142	1.257
0.315	0.830	0.920	1.077	1.215	1.338
0.354	0.872	0.968	1.136	1.282	1.414
0.394	0.911	1.013	1.192	1.347	1.486
0.433	0.946	1.054	1.243	1.406	1.553
0.472	0.978	1.092	1.290	1.462	1.615

Note: Recommended for $L \leq 4 D_c$ for extra long tool. This step and side cut must be reduced.



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SO10-08 | SO10-13 | SO15-16

U.S. Partner:



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413-350-5200 | PilotPrecision.com

ISO 9001:2015



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