

High Precision and High Quality 90°- Shoulder Milling Cutter

Wave Mill WFX Type

Expansion

New Lineup for smaller depth of cut!

WFX08000



 **SUMITOMO**

CARBIDE - CBN - DIAMOND

Wave Mill Series

WFX Type



General Features

Wave Mill WFX type for shoulder milling is a screw-locking type cutter capable of using four corners. Ideal cutting edge design delivers good squareness. The **WFX08000** type has been added (max. depth of cut: 6,0mm) for smaller depth cutting. This new lineup covers a wide variety of applications.



Wave Mill
WFX_08000
Type

Characteristics

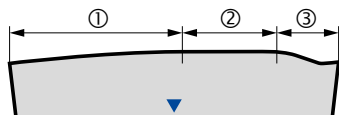
The insert shape, optimized for shoulder milling and combined with a high-precision body, leaves a superior machined surface finish.



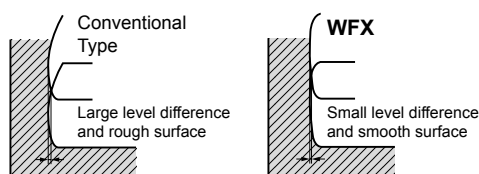
Max. Depth of Cut



Optimized Edge Shape



- ① The convex shape ensures the cutting edge strength.
- ② The flat shape minimises differences in step levels.



- ③ The wiper edge function improves the surface roughness.

Product Range

Shell Type

WFX	WFXM	WFXF
Standard Pitch	Fine Pitch	Extra-Fine Pitch
WFX08000RS Ø40-100mm, 3-8 teeth	WFXM08000RS Ø40-100mm, 4-10 teeth	WFXF08000RS Ø40-100mm, 6-12 teeth
WFX12000RS Ø50-100mm, 3-5 teeth		WFXF12000RS Ø50-100mm, 4-7 teeth

Endmill Type

WFX-E	WFXM-E	WFXF-E
Standard Pitch	Fine Pitch	Extra-Fine Pitch
WFX08000E Ø20-63mm, 2-5 teeth	WFXM08000E Ø25-63mm, 3-6 teeth	
WFX12000E Ø40-80mm, 3-4 teeth		WFXF12000E Ø50-80mm, 4-6 teeth

Modular Type

WFX-M
Standard Pitch
WFX08000M Ø20-40mm, 2-3 teeth

Inserts

Cat. No.	R0,2	R0,4	R0,8	R1,2	R1,6
SOMT 0803_ _PZER-L		●	●		
0803_ _PZER-G		●	●	●	
0803_ _PZER-H			●	●	
SOET 0803_ _PZER-G		●	●	●	
0803_ _PZFR-S	●	●	●		
SOMT 1204_ _PDER-L			●		
1204_ _PDER-G		●	●	●	●
1204_ _PDER-H			●		
SOET 1204_ _PDFR-S			●		



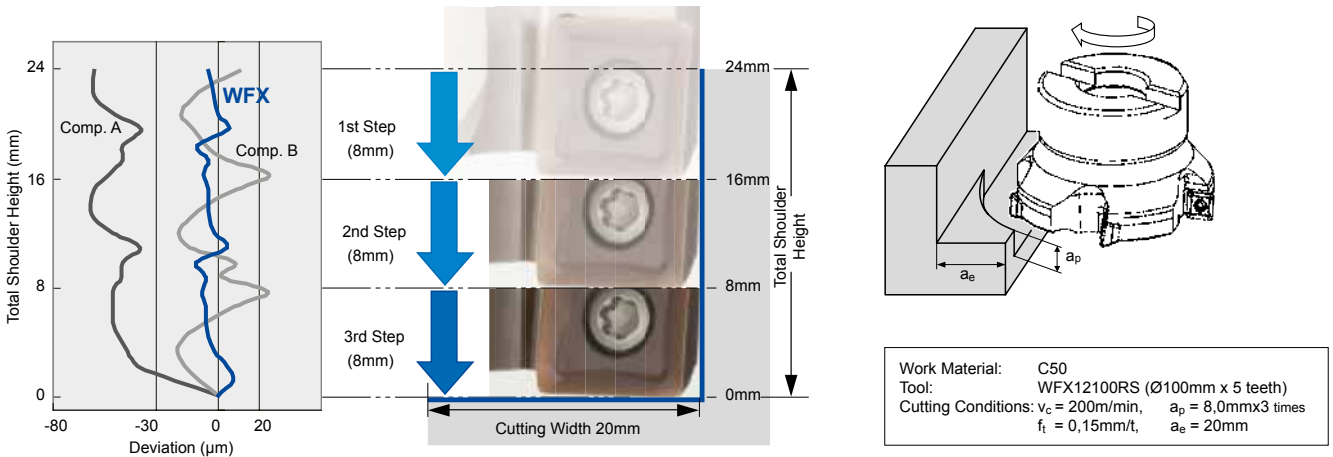
WFX08000 type insert
(General Purpose
G type chipbreaker)



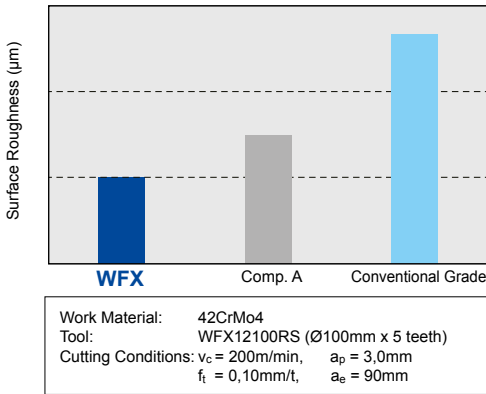
WFX12000 type insert
(General Purpose
G type chipbreaker)

Cutting Performance

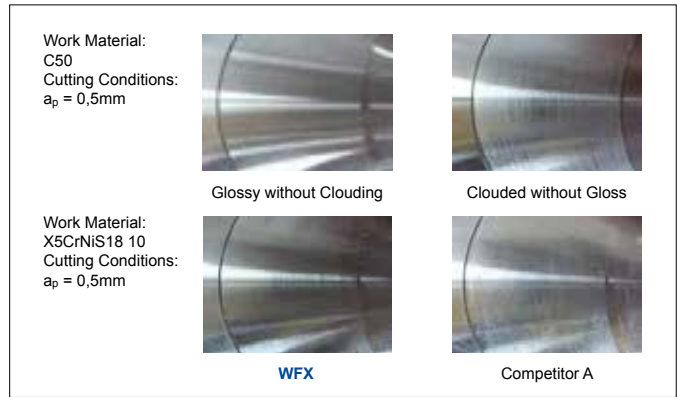
Squareness of Machined Shoulder



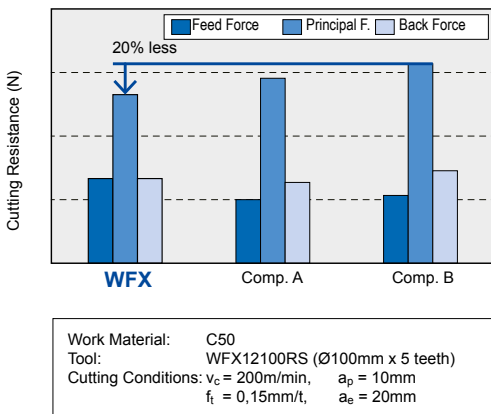
Surface Roughness Comparison



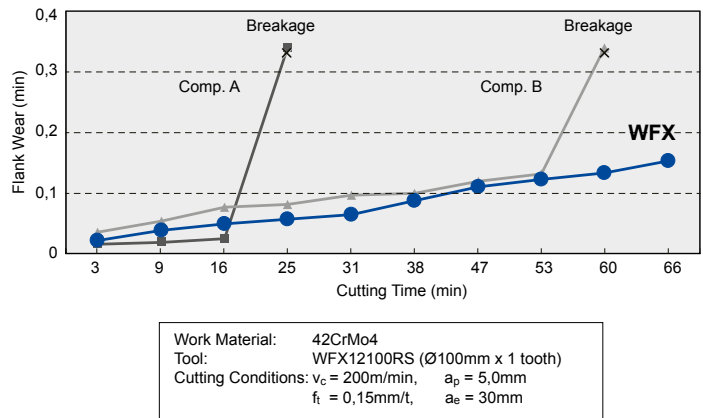
Comparison of Machined Surface



Cutting Resistance Comparison



Comparison of Wear Resistance



Wave Mill Series

WFX Type

■ Insert Grades

The WFX type offers the newly developed multi-layer PVD coating structure „New Super ZX Coat“ on these grades: new ACP200, new ACP300 and new ACK300.

With excellent resistance against wear, fracture and adhesion the grades achieve 1,5 times longer tool life than conventional coatings.

In addition to the DL1000 and H1 for non-ferrous metals were released the ACM200 and ACM300 grades for stainless steel and super alloys, thereby covering a wide range of work materials.



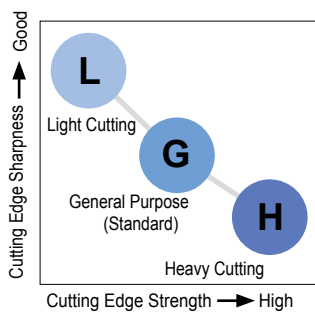
■ Grade Selection

ISO	Grade	Finishing to Light Cutting	Medium Cut	Rough to Heavy Cutting
P	Coated Carbide	ACP100		
			ACP200	
				ACP300
MS	Coated Carbide	ACM200		
			ACM300	

ISO	Grade	Finishing to Light Cutting	Medium Cut	Rough to Heavy Cutting
K	Coated Carbide	ACK200		
			ACK300	
N	Coated Carbide	DL1000		
			H1	

▽ CVD ▲ PVD

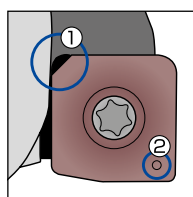
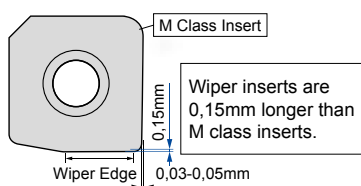
■ Chipbreaker Selection



Work Material	Steel, Cast Iron				Aluminium Alloy
	L Type	G Type	H Type	Wiper Type	S Type
Breaker					
Characteristic	Low Cutting Force	General Purpose	Strong Edge	Wiper Edge	Sharp Edge
Cutting Edge Figure					
Work Material-Application	Light Cutting Low rigidity Milling Low-Burr Design	Main Chipbreaker General to Interrupted Milling	Heavy Cut Heavy Interrupted Machining Tempered Steel	Precision Finishing	Non-Ferrous Metal

■ Wiper Insert

Optimised wiper edge shape provides superior surface roughness.

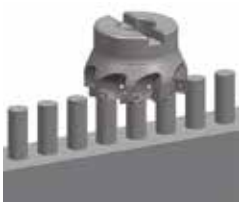


Wiper inserts are single-cornered. Attach the wiper insert so that the chamfered corner is in location ① shown in the figure. Be sure to use the corner with the ID mark (② in the figure). (08 size inserts have no marks)

Wave Mill Series


WFX Type

Application Examples

Work Material: C50		Sumitomo	Conventional Tool
	Body	WFXF08063RS	
	Grade	ACP200	
	Diameter (mm)	Ø63	Ø63
	No. of Teeth	8	5
	v_c (m/min)	220	220
	v_f (mm/min)	1100	1100
	f_t (mm/t)	0,15	0,20
	a_p (mm)	3,0	4,0
	a_e (mm)	50	50
	Coolant	Wet	Wet
Results	Vibration reduced by approximately 30%. Good machined surface. Tool life is doubled.		

Work Material: GGG-40,3		Sumitomo	Conventional Tool
	Body	WFXF12100RS	
	Grade	ACK300	
	Diameter (mm)	Ø100	Ø100
	No. of Teeth	7	6
	v_c (m/min)	200	200
	v_f (mm/min)	446	382
	f_t (mm/t)	0,10	0,10
	a_p (mm)	0,05	0,05
	a_e (mm)	-	-
	Coolant	Dry	Dry
Results	Good surface roughness Ra 0,98 ~ 0,38µm Rz 7,63 ~ 3,34µm. Cutting time is shortened. Insert life is extended by approximately 20%.		

Work Material: GGG-60		Sumitomo	Conventional Tool
	Body	WFXF12100RS	
	Grade	ACK300	
	Diameter (mm)	Ø100	Ø100
	No. of Teeth	7	8
	v_c (m/min)	150	100
	f_t (mm/t)	0,10	0,10
	a_p (mm)	2,5	2,0
	a_e (mm)	50-100	50-100
	Coolant	Dry	Dry
	Results	Machining efficiency is 1,3 times the conventional tool.	

Work Material: St44-2		Sumitomo	Conventional Tool
	Body	WFX12050E	
	Grade	ACP200	
	Diameter (mm)	Ø50	Ø50
	No. of Teeth	3	3
	v_c (m/min)	135	135
	f_t (mm/t)	0,14	0,14
	a_p (mm)	1,5	1,5
	a_e (mm)	20	20
	Coolant	Wet	Wet
	Results	Tool life is improved by 20% compared to the conventional tool.	

Wave Mill Series

WFX(M/F) 08000 RS

Shoulder Milling for Steel, Stainless Steel,
Die Steel, Cast Iron, Non-Ferrous Metal, Exotic Alloy

Body - Shell Type

Rake Angle	Radial	-6°	6 mm	90°
	Axial	12°		



Fig. 1

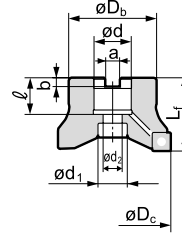
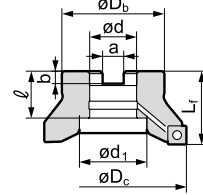


Fig. 2



Body - WFX, Standard Pitch

Cat. No.	Stock	Dimensions (mm)									No. of Teeth	Weight (kg)	Figure
		$\varnothing D_c$	$\varnothing D_b$	L_f	$\varnothing d$	a	b	ℓ	$\varnothing d_1$	$\varnothing d_2$			
WFX 08040 RS	●	40	33	40	16	8,4	5,6	18	14	9	3	0,2	1
WFX 08050 RS	●	50	41	40	22	10,4	6,3	20	18	11	4	0,3	1
WFX 08063 RS	●	63	50	40	22	10,4	6,3	20	18	11	5	0,6	1
WFX 08080 RS	●	80*	55	50	27	12,4	7,0	25	20	14	6	1,0	1
WFX 08100 RS	●	100*	70	50	32	14,4	8,0	32	46	-	8	1,4	2

Body - WFXM, Fine Pitch

Cat. No.	Stock	Dimensions (mm)									No. of Teeth	Weight (kg)	Figure
		$\varnothing D_c$	$\varnothing D_b$	L_f	$\varnothing d$	a	b	ℓ	$\varnothing d_1$	$\varnothing d_2$			
WFXM 08040 RS	●	40	33	40	16	8,4	5,6	18	14	9	4	0,2	1
WFXM 08050 RS	●	50	41	40	22	10,4	6,3	20	18	11	5	0,3	1
WFXM 08063 RS	●	63	50	40	22	10,4	6,3	20	18	11	6	0,5	1
WFXM 08080 RS	●	80*	55	50	27	12,4	7,0	25	20	14	8	1,0	1
WFXM 08100 RS	●	100*	70	50	32	14,4	8,0	32	46	-	10	1,4	2

Body - WFXF, Extra-Fine Pitch

Cat. No.	Stock	Dimensions (mm)									No. of Teeth	Weight (kg)	Figure
		$\varnothing D_c$	$\varnothing D_b$	L_f	$\varnothing d$	a	b	ℓ	$\varnothing d_1$	$\varnothing d_2$			
WFXF 08040 RS	●	40	33	40	16	8,4	5,6	18	14	9	6	0,2	1
WFXF 08050 RS	●	50	41	40	22	10,4	6,3	20	18	11	7	0,3	1
WFXF 08063 RS	●	63	50	40	22	10,4	6,3	20	18	11	8	0,5	1
WFXF 08080 RS	●	80*	55	50	27	12,4	7,0	25	20	14	10	0,9	1
WFXF 08100 RS	●	100*	70	50	32	14,4	8,0	32	46	-	12	1,4	2

Inserts are not included.

*Please use JIS B1176 hexagonal bolt ($\varnothing 80$: M12x30~35mm, $\varnothing 100$: M16x40~45mm) for securing $\varnothing 80$ / $\varnothing 100$ cutter on the arbor.

Recommended Cutting Conditions

ISO	Work Material	Hardness (HB)	Cutting Speed	Feed Rate	DOC	Grades
P	General Steel	180~280	150-200-250	0,08-0,12-0,18	<6	ACP200 ACP300
	Soft Steel	≤180	180-250-350	0,10-0,15-0,20	<6	ACP200 ACP300
	Die Steel	200~220	100-150-200	0,08-0,12-0,18	<4	ACP200 ACP300
M	Stainless Steel	-	160-200-250	0,10-0,15-0,20	<6	ACM300
K	Cast Iron	250	100-175-250	0,10-0,15-0,20	<6	ACK200 ACK300
N	Non Ferrous Metal	-	300-500-1000	0,10-0,15-0,20	<6	H1 DL1000

Min. - Optimum - Max.

Identification Details

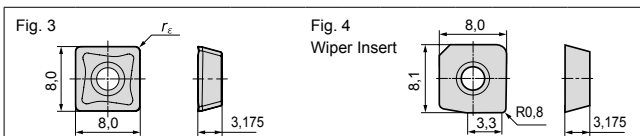
WFX	F	08	040	R	S
Cutter Series	M: Fine Pitch F: Extra-Fine Pitch	Insert Size	Cutter Diameter	Direction	Metric Type

Spare Parts

Screw	Wrench
BFTX0306IP	TRDR08IP

Recommended tightening torque

Inserts

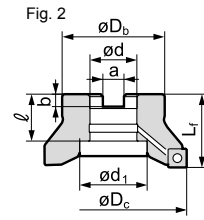
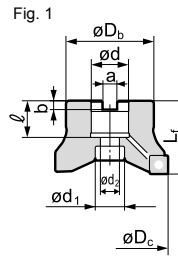
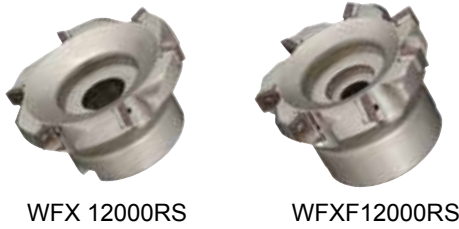


Application	Coated Carbide						Carbide	DLC	Radius	Fig.	
	P	M	K	M/S	M/S	M/S	H1	DL1000			
High Speed / Light cut	●	●	●	●	●	●	●	●	0,4	3	
General Purpose	●	●	●	●	●	●	●	●	0,8	3	
Roughing	●	●	●	●	●	●	●	●	1,2	3	
Cat. No.	ACP100	ACP200	ACP300	ACK200	ACK300	ACM200	ACM300	H1	DL1000	Radius	Fig.
SOMT 080304 PZER L	●	●	●	●	●	●	●	-	-	0,4	3
080308 PZER L	●	●	●	●	●	●	●	-	-	0,8	3
SOMT 080304 PZER G	●	●	●	●	●	●	●	-	-	0,4	3
080308 PZER G	●	●	●	●	●	●	●	-	-	0,8	3
080312 PZER G	●	●	●	●	●	●	●	-	-	1,2	3
SOMT 080308 PZER H	●	●	●	●	●	●	●	-	-	0,8	3
080312 PZER H	●	●	●	●	●	●	●	-	-	1,2	3
SOET 080304 PZER G	●	●	●	●	●	●	●	-	-	0,4	3
080308 PZER G	●	●	●	●	●	●	●	-	-	0,8	3
080312 PZER G	●	●	●	●	●	●	●	-	-	1,2	3
SOET 080302 PZFR S	-	-	-	-	-	-	-	●	●	0,2	3
080304 PZFR S	-	-	-	-	-	-	-	●	●	0,4	3
080308 PZFR S	-	-	-	-	-	-	-	●	●	0,8	3
XOEW080308 PZTR W	-	-	-	-	●	-	-	-	-	0,8	4

● Euro stock

Body - Shell Type

Rake Angle	Radial	-8°	10mm	90°
	Axial	8°		



Body - WFX, Standard Pitch

Cat. No.	Stock	Dimensions (mm)									No. of Teeth	Weight (kg)	Figure
		$\varnothing D_c$	$\varnothing D_b$	L_f	$\varnothing d$	a	b	ℓ	$\varnothing d_1$	$\varnothing d_2$			
WFX 12050 RS	●	50	40	40	22	10,4	6,3	20	18	11	3	0,2	1
WFX 12063 RS	●	63	50	40	22	10,4	6,3	20	18	11	4	0,4	1
WFX 12080 RS	●	80*	60	50	27	12,4	7,0	25	20	13,5	4	0,9	1
WFX 12100 RS	●	100*	70	50	32	14,4	8,5	32	46	-	5	1,3	2
WFX 12125 RS	●	125	90	63	40	16,4	9,5	29	52	-	6	2,7	2
WFX 12160 RS	●	160	130	63	40	16,4	9,5	29	88	-	8	4,8	3

Body - WFXF, Extra-Fine Pitch

Cat. No.	Stock	Dimensions (mm)									No. of Teeth	Weight (kg)	Figure
		$\varnothing D_c$	$\varnothing D_b$	L_f	$\varnothing d$	a	b	ℓ	$\varnothing d_1$	$\varnothing d_2$			
WFXF 12050 RS	●	50	40	40	22	10,4	6,3	20	18	11	4	0,2	1
WFXF 12063 RS	●	63	50	40	22	10,4	6,3	20	18	11	5	0,4	1
WFXF 12080 RS	●	80*	60	50	27	12,4	7,0	25	20	13,5	6	0,9	1
WFXF 12100 RS	●	100*	70	50	32	14,4	8,5	32	46	-	7	1,2	2
WFXF 12125 RS	●	125	90	63	40	16,4	9,5	29	52	-	8	2,6	2
WFXF 12160 RS	●	160	130	63	40	16,4	9,5	29	88	-	12	4,7	3

Inserts are not included.
*Please use JIS B1176 hexagonal bolt ($\varnothing 80$: M12x30~35mm, $\varnothing 100$: M16x40~45mm) for securing $\varnothing 80$ / $\varnothing 100$ cutter on the arbor.

Recommended Cutting Conditions

ISO	Work Material	Hardness (HB)	Cutting Speed	Feed Rate	DOC	Grades
P	General Steel	180~280	150-200-250	0,10-0,15-0,20	<10	ACP200 ACP300
	Soft Steel	≤ 180	180-250-350	0,10-0,15-0,20	<10	ACP200 ACP300
	Die Steel	200~220	100-150-200	0,10-0,15-0,20	<6	ACP200 ACP300
M	Stainless Steel	-	160-200-250	0,10-0,15-0,20	<10	ACM300
K	Cast Iron	250	100-175-250	0,10-0,15-0,20	<10	ACK200 ACK300
N	Non Ferrous Metal	-	300-500-1000	0,10-0,15-0,20	<10	H1 DL1000

Min. - Optimum - Max.

Identification Details

WFX	F	12	050	R	S
Cutter Series	M: Fine Pitch F: Extra-Fine Pitch	Insert Size	Cutter Diameter	Direction	Metric Type

Inserts

Application	Coated Carbide							Carbide	DLC
High Speed / Light cut	P			K		M		K	N
General Purpose		P	P	K		M			N
Roughing		P	P	K		M			N
Cat. No.	ACP100	ACP200	ACP300	ACK200	ACK300	ACM200	ACM300	H1	DL1000
SOMT 120408 PDER L	●	●	●	●	●	●	●	-	-
SOMT 120404 PDER G	●	●	●	●	●	●	●	-	-
120408 PDER G	●	●	●	●	●	●	●	-	-
120412 PDER G	●	●	●	●	●	●	●	-	-
120416 PDER G	●	●	●	●	●	●	●	-	-
SOMT 120408 PDER H	●	●	●	●	●	●	●	-	-
SOET 120408 PDTR S	-	-	-	-	-	-	-	●	●
XOEW 120408 PDTR W	-	-	-	-	●	-	-	-	-

● Euro stock

Spare Parts

Shim	Shim Screw	Insert Screw	Wrench (Insert)	Wrench (Shim)
WFXS4R	BW0507F	BFTX03512IP	3,0	TRDR151P

Recommended tightening torque



Wave Mill Series

WFX(M) 08000 E

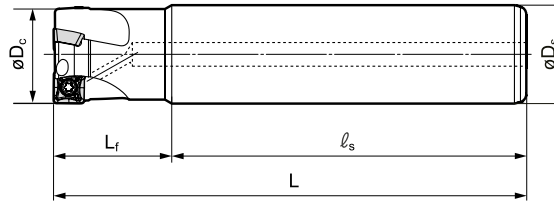
Shoulder Milling for Steel, Stainless Steel,
Die Steel, Cast Iron, Non-Ferrous Metal, Exotic Alloy

Body - Shank Type



WFX08000E

Rake Angle	Radial	-6°	6 mm	90°
	Axial	12°		



Body - WFX_E, Standard Pitch

Cat. No.	Stock	Dimensions (mm)					No. of Teeth
		$\varnothing D_c$	$\varnothing D_s$	L_f	ℓ	L	
WFX 08020 E-16	●	20	16	30	80	110	2
WFX 08020 E	●	20	20	30	80	110	2
WFX 08022 E	●	22	20	30	90	120	2
WFX 08025 E-20	●	25	20	30	90	120	2
WFX 08025 E	●	25	25	30	90	120	2
WFX 08028 E	●	28	25	30	90	120	2
WFX 08030 E	●	30	25	30	90	120	3
WFX 08032 E	●	32	32	30	90	120	3
WFX 08033 E	●	33	32	30	90	120	3
WFX 08040 E	●	40	32	30	90	120	3
WFX 08050 E	●	50	32	30	90	120	4
WFX 08063 E	●	63	32	30	90	120	5

Inserts are not included.

Body - WFXM_E, Fine Pitch

Cat. No.	Stock	Dimensions (mm)					No. of Teeth
		$\varnothing D_c$	$\varnothing D_s$	L_f	ℓ	L	
WFXM 08025 E	●	25	25	30	90	120	3
WFXM 08032 E	●	32	32	30	90	120	4
WFXM 08040 E	●	40	32	30	90	120	4
WFXM 08050 E	●	50	32	30	90	120	5
WFXM 08063 E	●	63	32	30	90	120	6

Inserts are not included.

Recommended Cutting Conditions

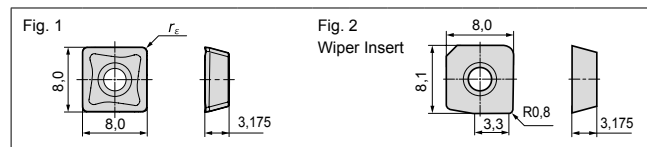
ISO	Work Material	Hardness (HB)	Cutting Speed	Feed Rate	DOC	Grades
P	General Steel	180-280	150-200-250	0,08-0,12-0,18	<6	ACP200 ACP300
	Soft Steel	≤180	180-250-350	0,10-0,15-0,20	<6	ACP200 ACP300
	Die Steel	200-220	100-150-200	0,08-0,12-0,18	<4	ACP200 ACP300
M	Stainless Steel	-	160-200-250	0,10-0,15-0,20	<6	ACM300
K	Cast Iron	250	100-175-250	0,10-0,15-0,20	<6	ACK200 ACK300
N	Non Ferrous Metal	-	300-500-1000	0,10-0,15-0,20	<6	H1 DL1000

Min. - Optimum - Max.

Identification Details

WFX	M	08	025	E
Cutter Series	M: Fine Pitch	Insert Size	Cutter Diameter	Endmill Type

Inserts



Application	Coated Carbide						Carbide	DLC	Radius	Fig.
	P	P _M	P _M	K	M _S	M _S	K _N	N		
High Speed / Light cut	●			●	●	●	●	●		
General Purpose		●	●	●		●	●		●	
Roughing		●	●		●	●				
Cat. No.	ACP100	ACP200	ACP300	ACK200	ACK300	ACM200	ACM300	H1	DL1000	
SOMT 080304 PZER L	●	●	●	●	●	●	●	-	-	0,4 1
080308 PZER L	●	●	●	●	●	●	●	-	-	0,8 1
SOMT 080304 PZER G	●	●	●	●	●	●	●	-	-	0,4 1
080308 PZER G	●	●	●	●	●	●	●	-	-	0,8 1
080312 PZER G	●	●	●	●	●	●	●	-	-	1,2 1
SOMT 080308 PZER H	●	●	●	●	●	●	●	-	-	0,8 1
080312 PZER H	●	●	●	●	●	●	●	-	-	1,2 1
SOET 080304 PZER G	●	●	●	●	●	●	●	-	-	0,4 1
080308 PZER G	●	●	●	●	●	●	●	-	-	0,8 1
080312 PZER G	●	●	●	●	●	●	●	-	-	1,2 1
SOET 080302 PZFR S	-	-	-	-	-	-	-	●	●	0,2 1
080304 PZFR S	-	-	-	-	-	-	-	●	●	0,4 1
080308 PZFR S	-	-	-	-	-	-	-	●	●	0,8 1
XOEW080308 PZTR W	-	-	-	-	●	-	-	-	-	2

● Euro stock

Spare Parts

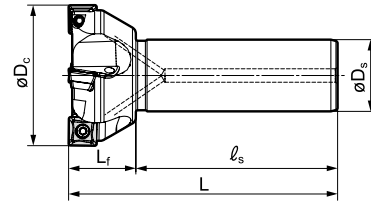
Screw	Wrench
BFTX0306IP	TRDR08IP
Recommended tightening torque	

Body - Shank Type



WFX12000E

Rake Angle	Radial	-8°	10mm	90°
	Axial	8°		



Body - WFX_E, Standard Pitch

Cat. No.	Stock	Dimensions (mm)					No. of Teeth
		ϕD_c	ϕD_s	L_f	ℓ	L	
WFX 12040 E	●	40	32	30	90	120	3
12050 E	●	50	32	30	90	120	3
12063 E	●	63	32	30	90	120	4
12080 E	●	80	32	30	90	120	4

Inserts are not included.

Body - WFXF_E, Fine Pitch

Cat. No.	Stock	Dimensions (mm)					No. of Teeth
		ϕD_c	ϕD_s	L_f	ℓ	L	
WFXF 12050 E	●	50	32	30	90	120	4
12063 E	●	63	32	30	90	120	5
12080 E	●	80	32	30	90	120	6

Inserts are not included.

Recommended Cutting Conditions

ISO	Work Material	Hardness (HB)	Cutting Speed	Feed Rate	DOC	Grades
P	General Steel	180~280	150-200-250	0,10-0,15-0,20	<10	ACP200 ACP300
	Soft Steel	≤180	180-250-350	0,10-0,15-0,20	<10	ACP200 ACP300
	Die Steel	200~220	100-150-200	0,10-0,15-0,20	<6	ACP200 ACP300
M	Stainless Steel	-	160-200-250	0,10-0,15-0,20	<10	ACM300
K	Cast Iron	250	100-175-250	0,10-0,15-0,20	<10	ACK200 ACK300
N	Non Ferrous Metal	-	300-500-1000	0,10-0,15-0,20	<10	H1 DL1000

Min. - Optimum - Max.

Identification Details

WFX	F	12	050	E
Cutter Series	F: Extra-Fine Pitch	Insert Size	Cutter Diameter	Endmill Type

Inserts

Fig. 1

Fig. 2
Wiper Insert

Application	Coated Carbide							Carbide	DLC
High Speed / Light cut	P			K		M		K	N
General Purpose		P	P	K		M	M		N
Roughing		P	P	K		M			
Cat. No.	ACP100	ACP200	ACP300	ACK200	ACK300	ACM200	ACM300	H1	DL1000
SOMT 120408 PDER L	●	●	●	●	●	●	●	-	-
SOMT 120404 PDER G	●	●	●	●	●	●	●	-	-
120408 PDER G	●	●	●	●	●	●	●	-	-
120412 PDER G	●	●	●	●	●	●	●	-	-
120416 PDER G	●	●	●	●	●	●	●	-	-
SOMT 120408 PDER H	●	●	●	●	●	●	●	-	-
SOET 120408 PDFR S	-	-	-	-	-	-	-	●	●
XOEW 120408 PDTR W	-	-	-	-	●	-	-	-	-

● Euro stock

Spare Parts

Shim	Shim Screw	Insert Screw	Wrench (Insert)	Wrench (Shim)
WFXS4R	BW0507F	BFTX03512IP	3,0	TRDR15IP

Recommended tightening torque



Wave Mill Series

WFX 08000 - Modular Tools

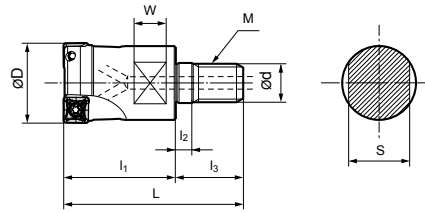
Shoulder Milling for Steel, Stainless Steel,
Die Steel, Cast Iron, Non-Ferrous Metal, Exotic Alloy

Modular Tools



WFX08000M

Rake Angle	Radial	-6°	6 mm	90°
	Axial	12°		



Head

Cat. No.	Stock	Dimensions (mm)									No. of Teeth
		øD	ød	M	L	l ₁	l ₂	l ₃	W	S	
WFX 08020 M10Z2	●	20	10,5	M10	49	30	5	19	8	15	2
08022 M10Z2	●	22	10,5	M10	49	30	5	19	8	15	2
WFX 08025 M12Z2	●	25	12,5	M12	56	35	5	21	10	19	2
08028 M10Z2	●	28	12,5	M12	56	35	5	21	10	19	2
WFX 08030 M16Z3	●	30	17,0	M16	63	40	5	23	10	24	3
08032 M16Z3	●	32	17,0	M16	63	40	5	23	10	24	3
08040 M16Z3	●	40	17,0	M16	63	40	5	23	10	24	3

Recommended Cutting Conditions

ISO	Work Material	Hardness (HB)	Cutting Speed	Feed Rate	DOC	Grades
P	General Steel	180-280	150-200-250	0,08-0,12-0,18	<6	ACP200 ACP300
	Soft Steel	≤180	180-250-350	0,10-0,15-0,20	<6	ACP200 ACP300
	Die Steel	200-220	100-150-200	0,08-0,12-0,18	<4	ACP200 ACP300
M	Stainless Steel	-	160-200-250	0,10-0,15-0,20	<6	ACM300
K	Cast Iron	250	100-175-250	0,10-0,15-0,20	<6	ACK200 ACK300
N	Non Ferrous Metal	-	300-500-1000	0,10-0,15-0,20	<6	H1 DL1000

Min. - Optimum - Max.

Identification Details

WFX	08	020	M10	Z2
Cutter Series	Insert Size	Cutter Diameter	Screw Size	No. of Teeth

Inserts

Fig. 1

Fig. 2
Wiper Insert

Application	Coated Carbide						Carbide	DLC			
High Speed / Light cut	P			K	M	S	K	N			
General Purpose		P	P	K	M	S		N			
Roughing		P	P	K	M	S					
Cat. No.	ACP100	ACP200	ACP300	ACK200	ACK300	ACM200	ACM300	H1	DL1000	Radius r _ε	Fig.
SOMT 080304 PZER L	●	●	●	●	●	●	●	-	-	0,4	1
080308 PZER L	●	●	●	●	●	●	●	-	-	0,8	1
SOMT 080304 PZER G	●	●	●	●	●	●	●	-	-	0,4	1
080308 PZER G	●	●	●	●	●	●	●	-	-	0,8	1
080312 PZER G	●	●	●	●	●	●	●	-	-	1,2	1
SOMT 080308 PZER H	●	●	●	●	●	●	●	-	-	0,8	1
080312 PZER H	●	●	●	●	●	●	●	-	-	1,2	1
SOET 080304 PZER G	●	●	●	●	●	●	●	-	-	0,4	1
080308 PZER G	●	●	●	●	●	●	●	-	-	0,8	1
080312 PZER G	●	●	●	●	●	●	●	-	-	1,2	1
SOET 080302 PZFR S	-	-	-	-	-	-	-	●	●	0,2	1
080304 PZFR S	-	-	-	-	-	-	-	●	●	0,4	1
080308 PZFR S	-	-	-	-	-	-	-	●	●	0,8	1
XOEW080308 PZTR W	-	-	-	-	●	-	-	-	-	-	2

● Euro stock

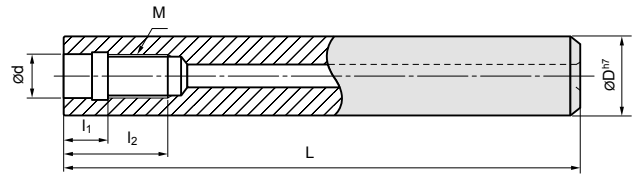
Spare Parts

Screw	Wrench
BFTX0306IP	TRDR08IP
2,0	
Recommended tightening torque	

Wave Mill Series

WFX 08000 - Modular Tools

Special Arbors for Modular Tools



Carbide Arbor

Cat. No.	Stock	Dimensions (mm)						
		M	ød	øD	L	l ₁	l ₂	L _M
MA15M08L120C	●	M8	8,5	15	120	10	18	145
15M08L160C	●	M8	8,5	15	160	10	18	185
16M08L120C	●	M8	8,5	16	120	10	18	145
16M08L160C	●	M8	8,5	16	160	10	18	185
MA18M10L150C	●	M10	10,5	18	150	10	20	180
18M10L200C	●	M10	10,5	18	200	10	20	230
20M10L150C	●	M10	10,5	20	150	10	20	180
20M10L200C	●	M10	10,5	20	200	10	20	230
MA23M12L200C	●	M12	12,5	23	200	10	22	235
23M12L250C	●	M12	12,5	23	250	10	22	285
25M12L200C	●	M12	12,5	25	200	10	22	235
25M12L250C	●	M12	12,5	25	250	10	22	285
MA28M16L200C	●	M16	17,0	28	200	10	24	240
28M16L300C	●	M16	17,0	28	300	10	24	340
32M16L200C	●	M16	17,0	32	200	10	24	240
32M16L300C	●	M16	17,0	32	300	10	24	340

● Euro stock

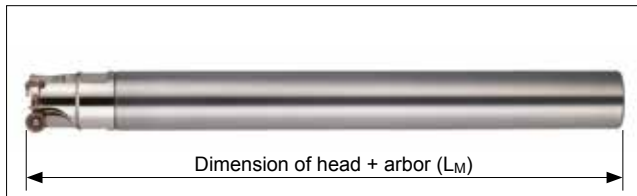
Steel Arbor

Cat. No.	Stock	Dimensions (mm)						
		M	ød	øD	L	l ₁	l ₂	L _M
MA16M08L120S	●	M8	8,5	16	120	10	18	145
20M10L150S	●	M10	10,5	20	150	10	20	180
25M12L200S	●	M12	12,5	25	200	10	22	235
32M16L200S	●	M16	17,0	32	200	10	24	240

Arbor Identification

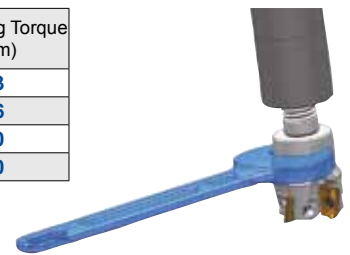
MA	15	M08	L120	C
Modular Arbor	Shank Diameter	Mounting Screw	Arbor Length	Material C: Carbide S: Steel

Set Dimensions



Recommended Tightening Torque

Screw Size	Tightening Torque (N·m)
M08	23
M10	46
M12	60
M16	80



Notes about tightening the head:

When attaching the cutter head to an arbor, follow the recommended tightening torque. (table above) Confirm the mounting screw size for the head and the arbor before assembly. When attaching head to an arbor, follow the standard tightening torque in the table.



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