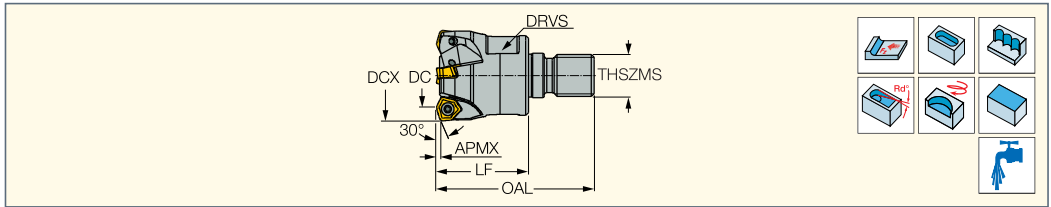




MF EWX-M

Moderate Feed Endmills with FLEXFIT Threaded Connection Carrying Double-Sided Inserts with 6 Cutting Edges



Designation	DCX ⁽¹⁾	DC	APMX	CICT ⁽²⁾	LF	OAL	THSZMS	DRVS ⁽³⁾	RMPX ⁽⁴⁾	MDN ⁽⁵⁾	MDX ⁽⁶⁾	MIID ⁽⁷⁾	TQ ⁽⁸⁾	TQ_3 ⁽⁹⁾	
MF EWX D20-3-M10-04	20.00	13.00	1.50	3	28.00	48.00	M10	14.0	2.4	33.00	39.00	H600 WXCUC 040310T	0.9	29	0.05
MF EWX D25-4-M12-04	25.00	18.00	1.50	4	32.00	54.00	M12	17.0	1.7	43.00	49.00	H600 WXCUC 040310T	0.9	33	0.09
MF EWX D25-3-M12-05	25.00	15.50	2.00	3	30.00	52.00	M12	17.0	3.0	40.50	49.00	H600 WXCUC 05T312T	2.0	33	0.07
MF EWX D32-4-M16-05	32.00	22.50	2.00	4	35.00	60.00	M16	24.0	1.9	54.50	63.00	H600 WXCUC 05T312T	2.0	40	0.16
MF EWX D32-3-M16-07	32.00	19.70	2.70	3	35.00	60.00	M16	24.0	3.0	51.70	63.00	H600 WXCUC 070515HP	4.8	40	0.15

- For machining recommendations and radius for programming, see table on page 522 • To generate a straight surface without cusps, the width of cut must not exceed DC
- For user guide, see pages 542-547

- (1) Cutting diameter maximum
- (2) Number of inserts
- (3) Clamping wrench size
- (4) Maximum ramping angle
- (5) For interpolation
- (6) For interpolation
- (7) Master insert identification
- (8) Recommended tightening torque (N*m) for insert screw
- (9) Tool tightening torque Nxm (lbfxin)

Inserts: H600 WXCUC

Holders: BT-ODP (FLEXFIT) • C#-ODP (FLEXFIT) • CAB M-M (FLEXFIT) • DIN69871-ODP • ER-ODP • HSK A-ODP (FLEXFIT) • S M • S M-C-H • S M-CF

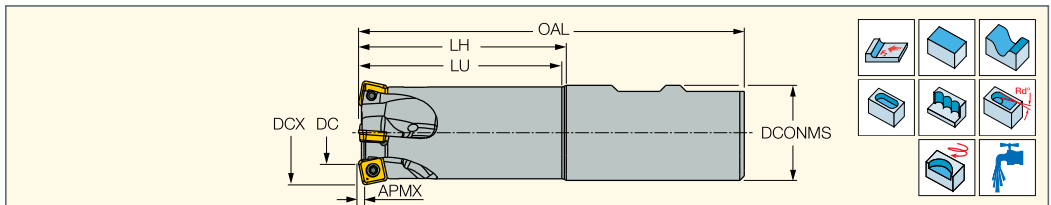
Spare Parts

Designation				
MF EWX D20-3-M10-04	SR M2.5X6-T7-60	T-7/51		
MF EWX D25-4-M12-04	SR M2.5X6-T7-60	T-7/51		
MF EWX D25-3-M12-05	SR 10508600	T-9/51		
MF EWX D32-4-M16-05	SR 10508600	T-9/51		
MF EWX D32-3-M16-07	SR 34-535-SN		BLD T15/S7	SW6-T-SH



FFQ4 D-W-09

Fast Feed Endmills Carrying Single-Sided Inserts with 4 Cutting Edges



Designation	DC	DCX ⁽¹⁾	APMX	AE ⁽²⁾	CICT ⁽³⁾	LU	LH	DCONMS	OAL	RMPX ⁽⁴⁾	MDN ⁽⁵⁾	MDX ⁽⁶⁾	MIID ⁽⁷⁾	TQ ⁽⁸⁾	
FFQ4 D022-2-044-W20-09	7.70	22.00	1.20	7.1	2	-	44.0	20.00	94.00	8.2	29.70	43.00	FFQ4 SOMT 090412T	2.0	0.19
FFQ4 D025-3-050-W25-09	10.70	25.00	1.20	7.1	3	-	50.0	25.00	110.00	5.5	35.70	49.00	FFQ4 SOMT 090412T	2.0	0.25
FFQ4 D032-4-064-W25-09	17.70	32.00	1.20	7.1	4	-	64.0	25.00	120.00	3.2	49.70	63.00	FFQ4 SOMT 090412T	2.0	0.50
FFQ4 D035-5-070-W32-09	20.70	35.00	1.20	7.1	5	68.50	70.0	32.00	130.00	2.7	55.70	69.00	FFQ4 SOMT 090412T	2.0	0.70

- To generate a straight surface without cusps, the width of cut must not exceed DC • Radius for programming: for insert SOMT 2.5 mm, for insert SOMW 3 mm
- When mounting insert SOMW, APMX=1.0 mm • For slot milling or machining with high tool overhang, the maximum depth of cut should be reduced by 50%
- For user guide, see pages 542-547

- (1) Cutting diameter maximum
- (2) Maximum plunging width
- (3) Number of inserts
- (4) Maximum ramping angle
- (5) Machinable diameter minimum for interpolation
- (6) Machinable diameter maximum for interpolation
- (7) Master insert identification
- (8) Recommended tightening torque (N*m) for insert screw

Inserts: FFQ4 SOMT/W 0904

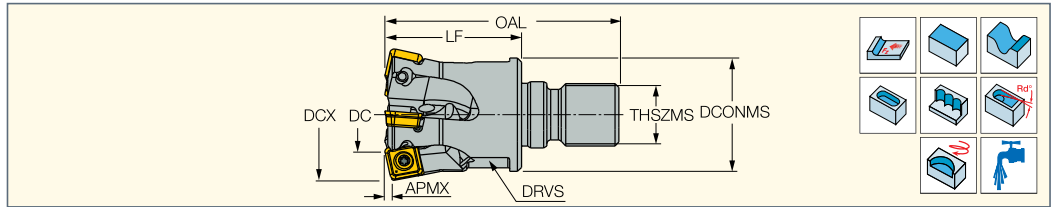
Spare Parts

Designation		
FFQ4 D-W-09	SR M3X0.5-L7.4 IP9 ^(a)	IP-9/151

- (a) Recommended tightening torque: 2.0 N*m

FFQ4 D-M-09

Fast Feed Endmills with FLEXFIT Threaded Adaptation Carrying Single-Sided Inserts with 4 Cutting Edges



Designation	DC	DCX ⁽¹⁾	APMX	AE ⁽²⁾	CICT ⁽³⁾	LF	OAL	DCONMS	THSZMS	RMPX ⁽⁴⁾	MDN ⁽⁵⁾	MDX ⁽⁶⁾	DRVS ⁽⁷⁾	MIID ⁽⁸⁾	TQ ⁽⁹⁾	TQ_3 ⁽¹⁰⁾	kg
FFQ4 D022-02-M10-09	7.70	22.00	1.20	7.1	2	25.00	45.00	18.00	M10	8.2	29.70	43.00	15.0	FFQ4 SOMT 090412T	2.0	29	0.04
FFQ4 D025-02-M12-09	10.70	25.00	1.20	7.1	2	30.00	52.00	21.00	M12	5.5	35.70	49.00	17.0	FFQ4 SOMT 090412T	2.0	33	0.05
FFQ4 D025-03-M12-09	10.70	25.00	1.20	7.1	3	30.00	52.00	21.00	M12	5.5	35.70	49.00	17.0	FFQ4 SOMT 090412T	2.0	33	0.07
FFQ4 D032-03-M16-09	17.70	32.00	1.20	7.1	3	35.00	60.00	29.00	M16	3.2	49.70	63.00	25.0	FFQ4 SOMT 090412T	2.0	40	0.14
FFQ4 D032-04-M16-09	17.70	32.00	1.20	7.1	4	35.00	60.00	29.00	M16	3.2	49.70	63.00	25.0	FFQ4 SOMT 090412T	2.0	40	0.14
FFQ4 D035-05-M16-09	20.70	35.00	1.20	7.1	5	35.00	60.00	29.00	M16	2.7	55.70	69.00	25.0	FFQ4 SOMT 090412T	2.0	40	0.16
FFQ4 D040-05-M16-09	25.70	40.00	1.20	7.1	5	35.00	60.00	29.00	M16	2.0	65.70	79.00	25.0	FFQ4 SOMT 090412T	2.0	40	0.18



- To generate a straight surface without cusps, the width of cut must not exceed DC
- When mounting insert SOMW, APMX=1.0 mm
- For user guide, see pages 542-547
- Radius for programming: for insert SOMT 2.5 mm, for insert SOMW 3 mm
- For slot milling or machining with high tool overhang, the maximum depth of cut should be reduced by 50%

- (1) Cutting diameter maximum
- (2) Maximum plunging width
- (3) Number of inserts
- (4) Maximum ramping angle
- (5) Machinable diameter minimum for interpolation
- (6) Machinable diameter maximum for interpolation
- (7) Torque key size
- (8) Master insert identification
- (9) Recommended tightening torque (N*m) for insert screw
- (10) Tool tightening torque Nxm (lbfxin)

Inserts: FFQ4 SOMT/W 0904

Holders: BT-ODP (FLEXFIT) • C#-ODP (FLEXFIT) • CAB M-M (FLEXFIT) • DIN69871-ODP • ER-ODP • HSK A-ODP (FLEXFIT) • S M • S M-C-H • S M-CF

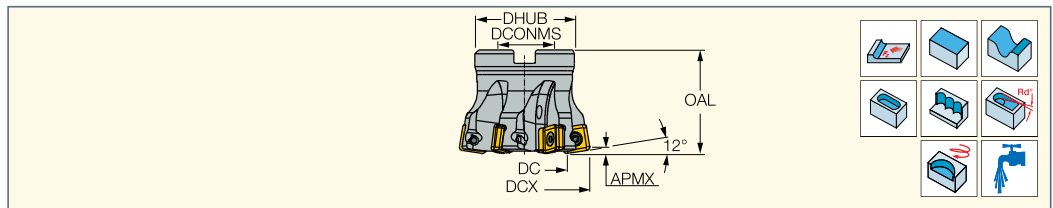
Spare Parts

Designation		
FFQ4 D-M-09	SR M3X0.5-L7.4 IP9 ^(a)	IP-9/151

(a) Recommended tightening torque:2.0 N*m

FFQ4 D-09

Fast Feed Face Mills Carrying Single-Sided Inserts with 4 Cutting Edges






Designation	DC	DCX ⁽¹⁾	APMX	AE ⁽²⁾	CICT ⁽³⁾	OAL	DCONMS	DHUB	RMPX ⁽⁴⁾	MDN ⁽⁵⁾	MDX ⁽⁶⁾	Arbor	MIID ⁽⁷⁾	TQ ⁽⁸⁾	kg
FFQ4 D40-05-16-09	25.70	40.00	1.20	7.1	5	35.00	16.00	38.00	2.0	65.70	79.00	A	FFQ4 SOMT 090412T	2.0	0.17
FFQ4 D50-07-22-09	35.70	50.00	1.20	7.1	7	40.00	22.00	48.00	1.5	85.70	99.00	A	FFQ4 SOMT 090412T	2.0	0.36
FFQ4 D52-07-22-09	37.70	52.00	1.20	7.1	7	40.00	22.00	48.00	1.4	89.70	103.00	A	FFQ4 SOMT 090412T	2.0	0.34
FFQ4 D63-08-22-09	48.70	63.00	1.20	7.1	8	45.00	22.00	48.00	1.1	111.70	125.00	A	FFQ4 SOMT 090412T	2.0	0.49

- To generate a straight surface without cusps, the width of cut must not exceed DC
- When mounting insert SOMW, APMX=1.0 mm
- For user guide, see pages 542-547
- Radius for programming: for insert SOMT 2.5 mm, for insert SOMW 3 mm
- For slot milling or machining with high tool overhang, the maximum depth of cut should be reduced by 50%

- (1) Cutting diameter maximum
- (2) Maximum plunging width
- (3) Number of inserts
- (4) Maximum ramping angle
- (5) Machinable diameter minimum for interpolation
- (6) Machinable diameter maximum for interpolation
- (7) Master insert identification
- (8) Recommended tightening torque (N*m) for insert screw

Inserts: FFQ4 SOMT/W 0904

Spare Parts

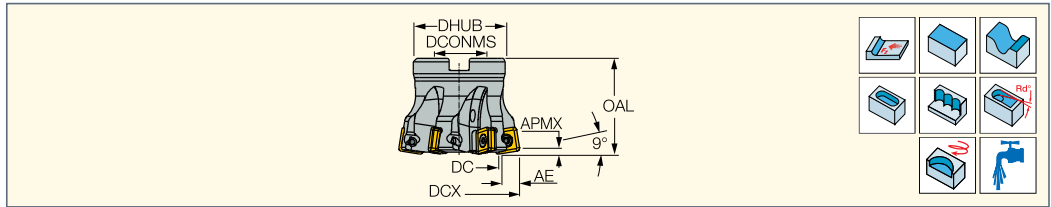
Designation			
FFQ4 D40-05-16-09	SR M3X0.5-L7.4 IP9 ^(a)	IP-9/151	SR M8X25DIN912
FFQ4 D50-07-22-09	SR M3X0.5-L7.4 IP9 ^(a)	IP-9/151	SR M10X25 DIN912
FFQ4 D52-07-22-09	SR M3X0.5-L7.4 IP9 ^(a)	IP-9/151	SR M10X25 DIN912
FFQ4 D63-08-22-09	SR M3X0.5-L7.4 IP9 ^(a)	IP-9/151	SR M10X30 DIN912

(a) Recommended tightening torque:2.0 N*m



FFQ4 D-12

Fast Feed Face Mills
Carrying Single-Sided Inserts
with 4 Cutting Edges



Designation	DC	DCX ⁽¹⁾	APMX	AE ⁽²⁾	CICT ⁽³⁾	OAL	DHUB	DCONMS	Arbor	RMPX ⁽⁴⁾	MDN ⁽⁵⁾	MDX ⁽⁶⁾	MIID ⁽⁷⁾	TQ ⁽⁸⁾	
FFQ4 D040-3-16-12	18.00	40.00	1.50	10.0	3	45.00	38.00	16.00	A	4.3	58.00	79.00	FFQ4 SOMT 120516HP	4.8	0.23
FFQ4 D040-4-16-12	18.00	40.00	1.50	10.0	4	45.00	38.00	16.00	A	4.3	58.00	79.00	FFQ4 SOMT 120516HP	4.8	0.22
FFQ4 D050-4-22-12	28.00	50.00	1.50	10.0	4	50.00	48.00	22.00	A	2.7	78.00	99.00	FFQ4 SOMT 120516HP	4.8	0.38
FFQ4 D050-5-22-12	28.00	50.00	1.50	10.0	5	50.00	48.00	22.00	A	2.7	78.00	99.00	FFQ4 SOMT 120516HP	4.8	0.37
FFQ4 D052-5-22-12	29.00	52.00	1.50	10.0	5	50.00	48.00	22.00	A	2.5	81.00	103.00	FFQ4 SOMT 120516HP	4.8	0.39
FFQ4 D063-6-22-12	41.00	63.00	1.50	10.0	6	50.00	48.00	22.00	A	1.8	104.00	125.00	FFQ4 SOMT 120516HP	4.8	0.50
FFQ4 D066-6-27-12	43.00	66.00	1.50	10.0	6	50.00	60.00	27.00	A	1.6	109.00	131.00	FFQ4 SOMT 120516HP	4.8	0.65
FFQ4 D080-7-27-12	58.00	80.00	1.50	10.0	7	50.00	60.00	27.00	A	1.2	138.00	159.00	FFQ4 SOMT 120516HP	4.8	0.84
FFQ4 D100-8-32-12	78.00	100.00	1.50	10.0	8	50.00	78.00	32.00	B	0.9	178.00	199.00	FFQ4 SOMT 120516HP	4.8	1.30
FFQ4 D125-10-40-12	103.00	125.00	1.50	10.0	10	63.00	92.00	40.00	B	0.7	228.00	249.00	FFQ4 SOMT 120516HP	4.8	2.17

- To generate a straight surface without cusps, the width of cut must not exceed DC
- Radius for programming: for insert SOMT 3 mm, for insert SOMW 4 mm
- When mounting insert SOMW, APMX=1.2 mm
- For slot milling or machining with high tool overhang, the maximum depth of cut should be reduced by 50%
- For user guide, see pages 542-547

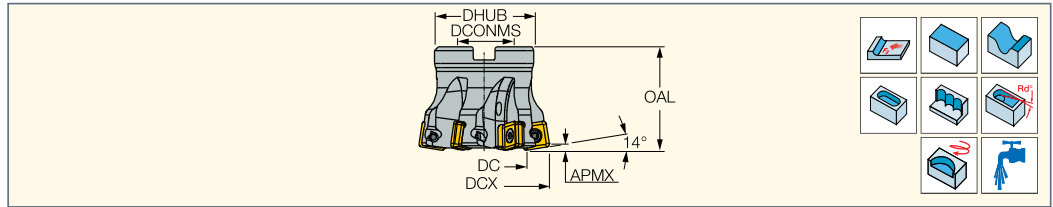
- (1) Cutting diameter maximum
 - (2) Maximum plunging width
 - (3) Number of inserts
 - (4) Maximum ramping angle
 - (5) Machinable diameter minimum for interpolation
 - (6) Machinable diameter maximum for interpolation
 - (7) Master insert identification
 - (8) Recommended tightening torque (N*m) for insert screw
- Inserts:** FFQ4 SOMT/W 1205

Spare Parts

Designation					
FFQ4 D040-3-16-12	SR M4X0.7-L9.6 IP15	SW6-T	BLD IP15/S7		SR PS 118-0416
FFQ4 D040-4-16-12	SR M4X0.7-L9.6 IP15	SW6-T	BLD IP15/S7		SR PS 118-0416
FFQ4 D050-4-22-12	SR M4X0.7-L9.6 IP15	SW6-T	BLD IP15/S7	SR M10X35 DIN912	
FFQ4 D050-5-22-12	SR M4X0.7-L9.6 IP15	SW6-T	BLD IP15/S7	SR M10X35 DIN912	
FFQ4 D052-5-22-12	SR M4X0.7-L9.6 IP15	SW6-T	BLD IP15/S7	SR M10X35 DIN912	
FFQ4 D063-6-22-12	SR M4X0.7-L9.6 IP15	SW6-T	BLD IP15/S7	SR M10X35 DIN912	
FFQ4 D066-6-27-12	SR M4X0.7-L9.6 IP15	SW6-T	BLD IP15/S7	SR M12X30DIN912	
FFQ4 D080-7-27-12	SR M4X0.7-L9.6 IP15	SW6-T	BLD IP15/S7	SR M12X30DIN912	
FFQ4 D100-8-32-12	SR M4X0.7-L9.6 IP15	SW6-T	BLD IP15/S7		
FFQ4 D125-10-40-12	SR M4X0.7-L9.6 IP15	SW6-T	BLD IP15/S7		

FFQ4 D-17

Fast Feed Face Mills
Carrying Single-Sided Inserts
with 4 Cutting Edges



Designation	DCX ⁽¹⁾	DC	APMX	AE ⁽²⁾	CICT ⁽³⁾	OAL	DCONMS	Da	DHUB	RMPX ⁽⁴⁾	MDN ⁽⁵⁾	MDX ⁽⁶⁾	CSP ⁽⁷⁾	Arbor	MIID ⁽⁸⁾	TQ ⁽⁹⁾	
FFQ4 D080-06-27-17	80.00	50.80	3.00	14.6	6	50.00	27.00	27.00	60.00	1.2	130.80	159.00	1	A	FFQ4 SOMT 170625T	9.0	0.78
FFQ4 D100-07-32-17	100.00	70.80	3.00	14.6	7	50.00	32.00	32.00	78.00	0.8	170.80	199.00	1	A	FFQ4 SOMT 170625T	9.0	1.18
FFQ4 D125-08-40-17	125.00	95.80	3.00	14.6	8	63.00	40.00	40.00	92.00	0.6	220.80	249.00	1	B	FFQ4 SOMT 170625T	9.0	2.48
FFQ4 D160-10-40-17	160.00	130.80	3.00	14.6	10	63.00	40.00	40.00	95.00	0.2	290.80	319.00	0	C	FFQ4 SOMT 170625T	9.0	2.90

- To generate a straight surface without cusps, the width of cut must not exceed DC
- When mounting insert SOMW, APMX=2.5 mm
- For slot milling or machining with high tool overhang, the maximum depth of cut should be reduced by 50%
- Radius for programming: for insert SOMT 5.5 mm, for insert SOMW 6.4 mm

• For user guide, see pages 542-547

- (1) Cutting diameter maximum
- (2) Maximum plunging width
- (3) Number of inserts
- (4) Maximum ramping angle
- (5) Machinable diameter minimum for interpolation
- (6) Machinable diameter maximum for interpolation
- (7) 0 - Without coolant supply, 1 - With coolant supply
- (8) Master insert identification
- (9) Recommended tightening torque (N*m) for insert screw

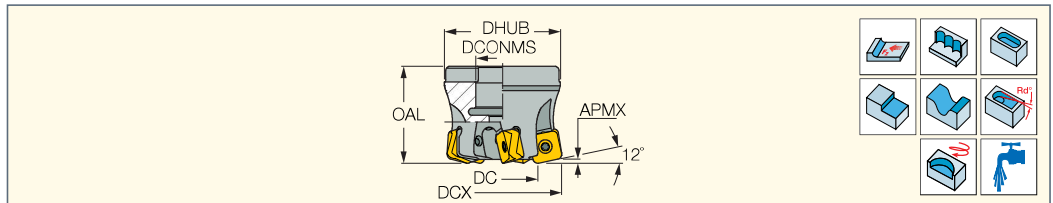
Inserts: FFQ4 SOMT/W 1706

Spare Parts

Designation				
FFQ4 D080-06-27-17	SR M5-14 IP20	SW6-T	BLD IP20/S7	SR M12X30DIN912
FFQ4 D100-07-32-17	SR M5-14 IP20	SW6-T	BLD IP20/S7	SR M16X30 DIN912
FFQ4 D125-08-40-17	SR M5-14 IP20	SW6-T	BLD IP20/S7	
FFQ4 D160-10-40-17	SR M5-14 IP20	SW6-T	BLD IP20/S7	

FFQ8-12

Fast Feed Face Mills Carrying
Double-Sided Inserts
with 8 Cutting Edges



Designation	DC	DCX ⁽¹⁾	APMX	CICT ⁽²⁾	OAL	DHUB	DCONMS	Arbor	RMPX ⁽³⁾	MDN ⁽⁴⁾	MDX ⁽⁵⁾	MIID ⁽⁶⁾	
FFQ8 D050-05-22-12	30.60	50.00	1.50	5	40.00	48.00	22.00	A	0.3	80.60	99.00	FFQ8 SZMU 120520	0.46
FFQ8 D063-06-22-12	43.60	63.00	1.50	6	40.00	48.00	22.00	A	0.2	106.60	125.00	FFQ8 SZMU 120520	0.94
FFQ8 D080-07-27-12	60.60	80.00	1.50	7	50.00	60.00	27.00	A	0.2	140.60	159.00	FFQ8 SZMU 120520	1.98
FFQ8 D100-08-32-12	80.60	100.00	1.50	8	50.00	78.00	32.00	B	0.1	180.60	199.00	FFQ8 SZMU 120520	3.03

- Radius for programming 3.6 mm
- For user guide, see pages 542-547
- To generate a straight surface without cusps, the width of cut must not exceed DC
- For slot milling or machining with high tool overhang, the maximum depth of cut should be reduced by 30%.

- (1) Cutting diameter maximum
- (2) Number of inserts
- (3) Maximum ramping angle
- (4) Machinable diameter minimum for interpolation
- (5) Machinable diameter maximum for interpolation
- (6) Master insert identification

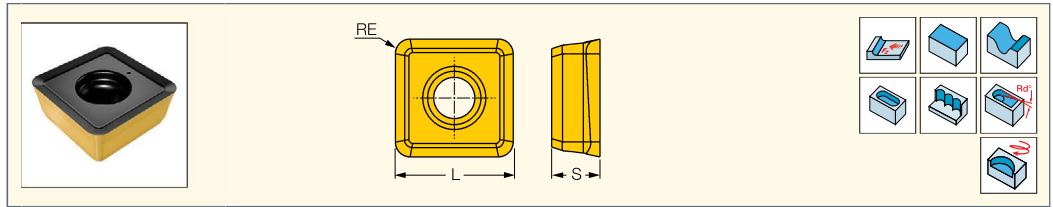
Inserts: FFQ8 SZMU

Spare Parts

Designation				
FFQ8 D050-05-22-12	SR M4X0.7-L11.5 IP15	BLD IP15/S7	SW6-T-SH	SR M10X25 DIN912
FFQ8 D063-06-22-12	SR M4X0.7-L11.5 IP15	BLD IP15/S7	SW6-T-SH	SR M10X25 DIN912
FFQ8 D080-07-27-12	SR M4X0.7-L11.5 IP15	BLD IP15/S7	SW6-T-SH	SR M12X30DIN912
FFQ8 D100-08-32-12	SR M4X0.7-L11.5 IP15	BLD IP15/M7	SW6-T-SH	



FFQ4 SOMT/W 0904
Single-Sided Square Inserts
with 4 Cutting Edges for
Fast Feed Milling



Designation	Dimensions			Tough ↔ Hard				
	L	S	RE	IC882	IC830	IC820	IC808	IC810
FFQ4 SOMT 090412T	8.50	3.90	1.20		•		•	•
FFQ4 SOMT 0904RM-T	8.60	3.80	1.20				•	
FFQ4 SOMT 0904RM-HP	8.60	3.80	1.20	•				
FFQ4 SOMT 090412HP	8.50	3.80	1.20	•	•	•	•	
FFQ4 SOMW 090420T	8.80	3.90	2.00				•	

- For side plunging, the initial cutting feed is 0.1 mm/t • T type for steel, ferritic and martensitic stainless steel, cast iron
- RM-... reinforced radius type for machining near straight shoulders wall • HP type for austenitic stainless steel and high temperature alloys
- SOMW-T flat insert for interrupted and hard material up to 60 HRC

Tools: FFQ4 D-09 • FFQ4 D-M-09 • FFQ4 D-W-09



Averaged Cutting Data for FFQ4-09 Fast Feed Cutters

ISO class DIN/ ISO 513	Workpiece Material					Insert type	Carbide grade	D.O.C. Ap [mm]		Cutting speed Vc [m/min]	Feed fz [mm/tooth]		Coolant
	Description	ISCAR mat. group*	Hardness HB	Typical Representative AISI/SAE/ ASTM	DIN W.-Nr.			Recommended	Range		Recommended	Range	
P	Non-alloysteel	1-5	130-180	1020	1.0402	T / RM-T	IC808	1.0	0.4-1.2	150-220	1.2	0.5-1.5	Dry
	Low alloysteel	6-8	260-300	4340	1.6582		IC830			140-200	1.3	0.5-1.5	Dry/Wet
							IC808			140-200	1.2	0.5-1.5	Dry
		9	HRC 35-42	3135	1.5710		IC830			120-180	1.3	0.5-1.5	Dry/Wet
							IC808			130-180	1.2	0.5-1.4	Dry
	High alloysteel	10-11	200-220	H13	1.2344		IC830			120-160	1.2	0.5-1.4	Dry/Wet
							IC808			120-170	1.2	0.5-1.4	Dry
	Ferritic/martensitic stainless steel	12-13	200	420	1.4021		IC830			100-150	1.3	0.5-1.4	Dry/Wet
IC808						110-160	1.2	0.5-1.4	Dry				
M	Austenitic stainless steel	14	200	304L	1.4306	HP	IC830	1.0	0.4-1.2	80-140	1.0	0.5-1.2	Wet
							IC808			100-160	1.0	0.5-1.2	
							IC5820			100-160	1.0	0.5-1.3	
							IC882			80-130	1.0	0.5-1.4	
K	Grey cast iron	15-16	250	Class 40	0.6025 (GG25)	T20 / RM-T	IC810	1.2	0.4-1.2	150-220	1.2	0.5-1.5	Dry
	Nodular cast iron	17-18	200	Class 65-45-12	0.7050 (GGG50)					IC810	120-200	1.2	
S	High temperature alloys and titanium	33-35	340	Inconel 718	2.4668	HP	IC830	1.0	0.4-1.2	25-35	0.5	0.5-1.0	Wet
							IC808			25-36	0.5	0.5-1.0	
							IC5820			25-40	0.5	0.5-1.0	
		IC882	25-35	0.5	0.5-1.0								
		36-37	HRC 35-40	AMS R56400	3.7165 (Ti6Al4V ELI)		IC830			40-55	0.6	0.5-1.0	
							IC808			40-55	0.6	0.5-1.0	
IC5820	30-60					0.6	0.5-1.0						
H	Hardened steel	38	HRC 45-49	HARDOX 450 plate		SOMW	IC808	1	0.3-1.0	55-75	0.5	0.3-1.0	Dry
			HRC 58-62	D2	1.2379					0.3**	0.3-1.0	50-70	

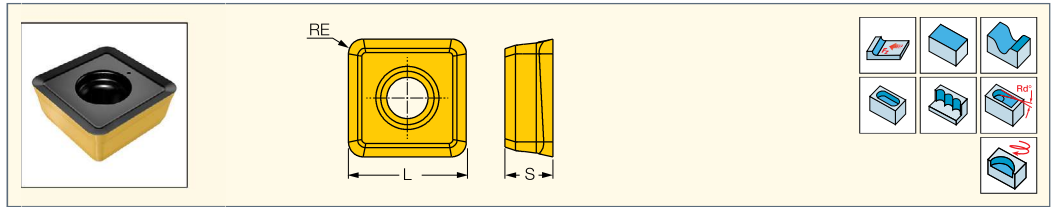
* ISCAR material group in accordance with VDI 3323 standard

** For better performance it recommended to machine with a width of cut up to 0.4*DC

For machining in unstable conditions, the recommended cutting data should be reduced by 20-30%

FFQ4 SOMT/W 1205

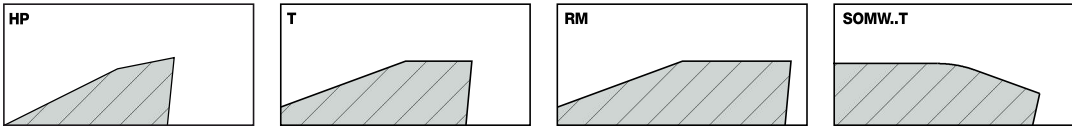
Single-Sided Square Inserts with 4 Cutting Edges for Fast Feed Milling



Designation	Dimensions			Tough ↔ Hard				
	L	S	RE	IC882	IC830	IC5820	IC808	IC810
FFQ4 SOMT 1205RM-HP	12.70	5.20	1.60	•	•			
FFQ4 SOMT 1205RM-T	12.70	5.20	1.60				•	
FFQ4 SOMT 120516HP	12.70	5.20	1.60	•	•	•	•	
FFQ4 SOMT 120516T	12.70	5.20	1.60		•		•	
FFQ4 SOMT 120516T20	12.70	5.20	1.60					•
FFQ4 SOMW 120530T	13.00	5.30	3.00				•	

- For side plunging, the initial cutting feed is 0.1 mm/t • T- for steel, ferritic and martensitic stainless steel, cast iron and hardened steel
- RM-.. type for interrupted cut and machining near straight shoulders wall • HP- for austenitic stainless steel and high temperature alloys
- T20- for grey and nodular cast iron • SOMW-T flat insert for interrupted and hard material up to 60 HRC

Tools: FFQ4 D-12



Averaged Cutting Data for FFQ4-12 Fast Feed Cutters

ISO class DIN/ ISO 513	Workpiece Material					Insert type	Carbide grade	D.O.C. Ap [mm]		Cutting speed Vc, [m/min]	Feed fz [mm/tooth]		Coolant
	Description	ISCAR mat. group*	Hardness HB	Typical representative AISI/SAE/ ASTM DIN W.-Nr.				Recom- mended	Range		Recom- mended	Range	
P	Non-alloysteel	1-5	130-180	1020	1.0402	T / RM-T	IC808	1.2	0.4-1.5	150-220	1.5	0.5-2.0	Dry
	Low alloysteel	6-8	260-300	4340	1.6582		IC830			140-200	1.6	0.5-2.0	Dry/Wet
							IC808			140-200	1.5	0.5-2.0	Dry
	High alloysteel	9	HRC 35-42	3135	1.5710		IC830			120-180	1.6	0.5-2.0	Dry/Wet
							IC808			130-180	1.5	0.5-1.8	Dry
							IC830			120-160	1.5	0.5-1.8	Dry/Wet
							IC808			120-170	1.3	0.5-1.8	Dry
	Ferritic/ martensitic stainless steel	12-13	200	420	1.4021		IC830			100-150	1.4	0.5-1.8	Dry/Wet
IC808						110-160	1.3	0.5-1.8	Dry				
M	Austenitic stainless steel	14	200	304L	1.4306	HP	IC830	1.0	0.4-1.5	80-140	1.0	0.5-1.5	Wet
							IC808			100-160	1.0	0.5-1.5	
							IC5820			100-160	1.0	0.5-1.6	
							IC882			80-130	1.0	0.5-1.8	
K	Grey cast iron	15-16	250	Class 40	0.6025 (GG25)	T20 / RM-T	IC810	1.5	0.4-1.5	150-220	1.5	0.5-2.0	Dry
	Nodular cast iron	17-18	200	Class 65-45-12	0.7050 (GGG50)		IC810			120-200	1.5	0.5-2.0	
S	High temperature alloys and titanium	33-35	340	Inconel 718	2.4668	HP	IC830	1.0	0.4-1.5	25-35	0.5	0.5-1.0	Wet
							IC808			25-36	0.5	0.5-1.0	
							IC5820			25-40	0.5	0.5-1.0	
							IC882			25-35	0.5	0.5-1.0	
		36-37	HRC 35-40	AMS R56400	3.7165 (Ti6Al4V ELI)		IC830			40-55	0.6	0.5-1.0	
							IC808			40-55	0.6	0.5-1.0	
							IC5820			30-60	0.6	0.5-1.0	
							IC882			35-55	0.6	0.5-1.0	
H	Hardened steel	38	HRC 45-49 HRC 58-62	HARDOX 450 plate D2	1.2379	SOMW	IC808	1.0 0.5**	0.3-1.2 0.3-1.2	55-75	0.5	0.3-1.0	Dry
							50-70			0.3	0.3-0.5		

* ISCAR material group in accordance with VDI 3323 standard

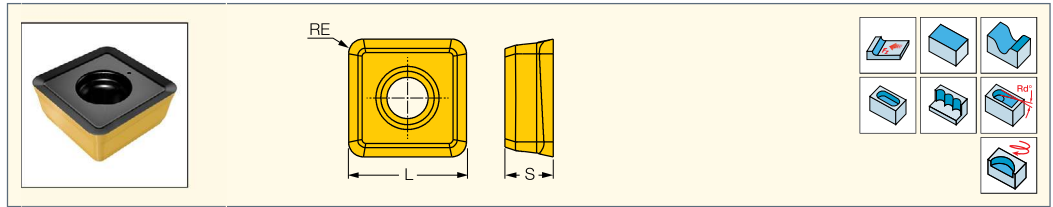
** For better performance it recommended to machine with a width of cut up to 0.4*DC

For machining in unstable conditions, the recommended cutting data should be reduced by 20-30%



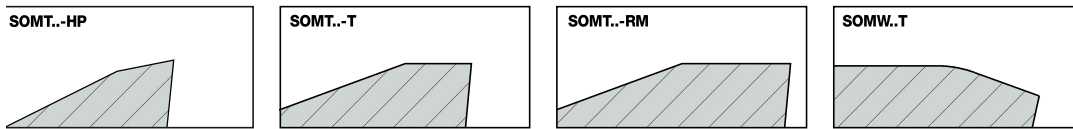
FFQ4 SOMT/W 1706

Single-Sided Square Inserts with 4 Cutting Edges for Fast Feed Milling



Designation	Dimensions			Tough ↔ Hard			
	L	S	RE	IC882	IC830	IC808	IC810
FFQ4 SOMT 1706RM-HP	17.50	6.00	2.50		•		
FFQ4 SOMT 1706RM-T	17.50	6.00	2.50			•	
FFQ4 SOMT 170625HP	17.50	6.00	2.50	•	•	•	
FFQ4 SOMT 170625T	17.50	6.00	2.50		•		•
FFQ4 SOMW 170640T	18.00	6.10	4.00			•	

- For side plunging, the initial cutting feed is 0.1 mm/t
 - T type for steel, ferritic and martensitic stainless steel, cast iron and hardened steel
 - RM-.. type for interrupted cut and machining near straight shoulders wall
 - HP type for austenitic stainless steel and high temperature alloys
 - SOMW-T flat insert for interrupted and hard material up to 60 HRC
- Tools: FFQ4 D-17



Averaged Cutting Data for FFQ4-17 Fast Feed Cutters

ISO class DIN/ ISO 513	Workpiece Material					Insert type	Carbide grade	D.O.C. Ap [mm]		Cutting speed V _c [m/min]	Feed f _z [mm/tooth]		Coolant
	Description	ISCAR mat. group*	Hardness HB	Typical representative				Recommended	Range		Recommended	Range	
				AISI/SAE/ASTM	DIN W.-Nr.								
P	Non-alloysteel	1-5	130-180	1020	1.0402	T / RM-T	IC808	2.5	0.4-3.0	150-220	1.5	0.5-2.0	Dry
	Low alloysteel	6-8	260-300	4340	1.6582		IC830			140-200	1.6	0.5-2.0	Dry/Wet
							IC808			140-200	1.5	0.5-2.0	Dry
		9	HRC 35-42	3135	1.5710		IC830			120-180	1.6	0.5-2.0	Dry/Wet
							IC808			130-180	1.5	0.5-1.8	Dry
	High alloysteel	10-11	200-220	H13	1.2344		IC830			120-160	1.5	0.5-1.8	Dry/Wet
							IC808			120-170	1.3	0.5-1.8	Dry
	Ferritic/martensitic stainless steel	12-13	200	420	1.4021		IC830			100-150	1.4	0.5-1.8	Dry/Wet
IC808						110-160	1.3	0.5-1.8	Dry				
M	Austenitic stainless steel	14	200	304L	1.4306	HP	IC830	2.0	0.4-3.0	80-140	1.0	0.5-1.5	Wet
							IC808			100-160	1.0	0.5-1.5	
							IC5820			100-160	1.0	0.5-1.6	
							IC882			80-130	1.0	0.5-1.8	
K	Grey cast iron	15-16	250	Class 40	0.6025 (GG25)	T20 / RM-T	IC810	3.0	0.4-3.0	150-220	1.5	0.5-2.0	Dry
	Nodular cast iron	17-18	200	Class 65-45-12	0.7050 (GGG50)		IC810			120-200	1.5	0.5-2.0	
S	High temperature alloys and titanium	33-35	340	Inconel 718	2.4668	HP	IC830	1.5	0.4-3.0	25-35	0.5	0.5-1.0	Wet
							IC808			25-36	0.5	0.5-1.0	
		IC5820	25-40	0.5	0.5-1.0								
		IC882	25-35	0.5	0.5-1.0								
	36-37	HRC 35-40	AMS R56400	3.7165 (Ti6Al4V ELI)	IC830		40-55			0.6	0.5-1.0		
					IC808		40-55			0.6	0.5-1.0		
					IC5820		30-60			0.6	0.5-1.0		
					IC882		35-55			0.6	0.5-1.0		
H	Hardened steel	38	HRC 45-49	HARDOX 450 plate	1.2379	SOMW	IC808	1	0.3-2.5	55-75	0.5	0.3-1.0	Dry
			HRC 58-62	D2				0.5**	0.3-2.5	50-70	0.3	0.3-0.5	

* ISCAR material group in accordance with VDI 3323 standard
 ** For better performance it recommended to machine with a width of cut up to 0.4*DC
 For machining in unstable conditions, the recommended cutting data should be reduced by 20-30%