

LOGIQ4FEED
HIGH FEED MILLING

**New Small Diameter
Fast Feed Tools Carrying
Four Cutting Edged Inserts**

Highlights

ISCAR is introducing new small diameter Fast Feed tools carrying four narrow cutting edged inserts.

The new FFX4...-04 tools are available in the following configurations:

FFX4 ED - endmills in 12,16 ,20 ,25 and 32 mm diameters, cylindrical and Weldon shank types

FFX4 ED-MM - 16 mm diameter interchangeable milling head with MULTI-MASTER adaptation

FFX4 ED-M - interchangeable milling heads with FLEXFIT adaptation in 20, 25. 32 and 35 mm diameters

FFX4 FD - face mills in 32 and 40 mm diameter

Tool Features

- 17° cutting edge angle
- Ramping down capability
- Positive axial rake angle
- Fine pitch due to narrow insert width
- Very firm insert clamping
- Coolant holes, directed to each individual cutting edge, for an efficient cooling effect
- Polish coating on the cutter's body providing better chip flow and protection from corrosion and wear
- 1.8 mm radius for programming

FFX4 XNMU 040310... Insert Features

- Double-sided insert with 4 cutting edges
- 0.8 mm maximum depth of cut
- High positive rake angle for easy cut
- Available with two types of cutting geometries for optimal machining of different materials:
 - T** - for steel, ferritic and martensitic stainless steel and hardened steel
 - HP** - for austenitic stainless steel and high temperature alloys
- Produced from ISCAR's latest SUMOTEC carbide grades to ensure high productivity

Applications

Designed for roughing operations in the die & mold industry for machining narrow cavities, general engineering and the aerospace industry.



Advantages

- Covers a wide range of applications
- Suitable for machining the main types of workpiece materials
- An optimal solution for roughing operations
- High metal removal rates
- Economical solution

LOGIQ4FEED tools maximize productivity, with potential for increasing ISCAR's milling market share.

Availability

In stock

Prices

Your price list will be sent to you by the pricing department and is available in the **GAL** system.

Sincerely,

A handwritten signature in black ink that reads "Kobi Kisos".

Kobi Kisos

Chief Technical Officer,
Marketing Division
ISCAR Headquarters

Sincerely,

A handwritten signature in black ink that reads "Yaron Pless".

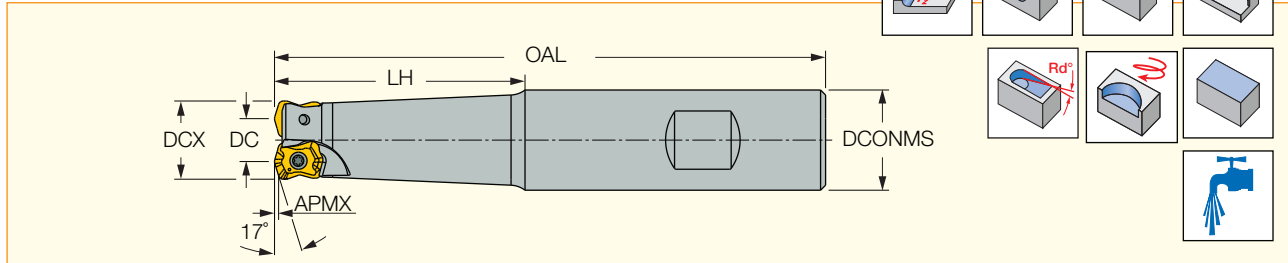
Yaron Pless

Product Manager,
Profiling Tools
ISCAR Headquarters



FFX4 ED

Endmills Carrying Small Double-Sided "Bone Shape" Inserts with 4 Cutting Edges for Fast Feed Milling



Designation	DCX	DC	APMX	CICT ⁽¹⁾	LH	OAL	DCONMS	RMPX ⁽²⁾	Shank ⁽³⁾	WT ⁽⁴⁾
FFX4 ED12-1-030-C12-04	12.00	4.60	0.80	1	30.0	90.00	12.00	3.6	C	0.07
FFX4 ED16-2-030-C16-04	16.00	8.60	0.80	2	30.0	120.00	16.00	4.3	C	0.16
FFX4 ED16-2-050-W20-04	16.00	8.60	0.80	2	50.0	110.00	20.00	4.3	W	0.20
FFX4 ED20-3-050-C20-04	20.00	12.60	0.80	3	50.0	140.00	20.00	2.7	C	0.29
FFX4 ED20-3-060-W20-04	20.00	12.60	0.80	3	60.0	120.00	20.00	2.7	W	0.24
FFX4 ED25-4-060-C25-04	25.00	17.60	0.80	4	60.0	150.00	25.00	1.8	C	0.50
FFX4 ED25-4-080-W25-04	25.00	17.60	0.80	4	80.0	140.00	25.00	1.8	W	0.45
FFX4 ED32-5-080-W32-04	32.00	24.60	0.80	5	80.0	150.00	32.00	1.2	W	0.80
FFX4 ED32-5-120-C32-04	32.00	24.60	0.80	5	120.0	205.00	32.00	1.2	C	1.02

• Radius for programming 1.8 mm

⁽¹⁾ Number of inserts ⁽²⁾ Ramping angle maximum ⁽³⁾ C-Cylindrical, W-Weldon ⁽⁴⁾ Item weight

Spare Parts

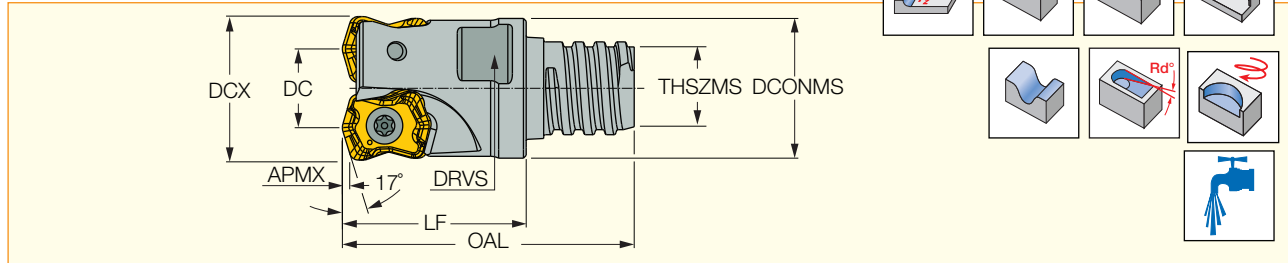


Designation	Screw	Key
FFX4 ED12-1-030-C12-04	SR M2.5X6-T7-60	T-7/51
FFX4 ED16-2-030-C16-04	SR M2.5X6-T7-60	T-7/51
FFX4 ED16-2-050-W20-04	SR M2.5X6-T7-60	T-7/51
FFX4 ED20-3-050-C20-04	SR M2.5X0.45-L6 IP7	IP-7/51
FFX4 ED20-3-060-W20-04	SR M2.5X6-T7-60	T-7/51
FFX4 ED25-4-060-C25-04	SR M2.5X6-T7-60	T-7/51
FFX4 ED25-4-080-W25-04	SR M2.5X6-T7-60	T-7/51
FFX4 ED32-5-080-W32-04	SR M2.5X6-T7-60	T-7/51
FFX4 ED32-5-120-C32-04	SR M2.5X6-T7-60	T-7/51



FFX4 ED-MM

Endmills with MULTI-MASTER Adaptation Carrying Small "Bone Shape" Inserts with 4 Cutting Edges for Fast Feed



Designation	DCX	DC	CICT ⁽¹⁾	APMX	THSZMS	LF	OAL	RMPX ⁽²⁾	DCONMS	DRVS ⁽³⁾	WT ⁽⁴⁾
FFX4 ED16/.63-2-MMT10-04	16.00	8.60	2	0.80	T10	20.00	31.75	4.3	15.20	12.0	0.02

• Radius for programming 1.8 mm

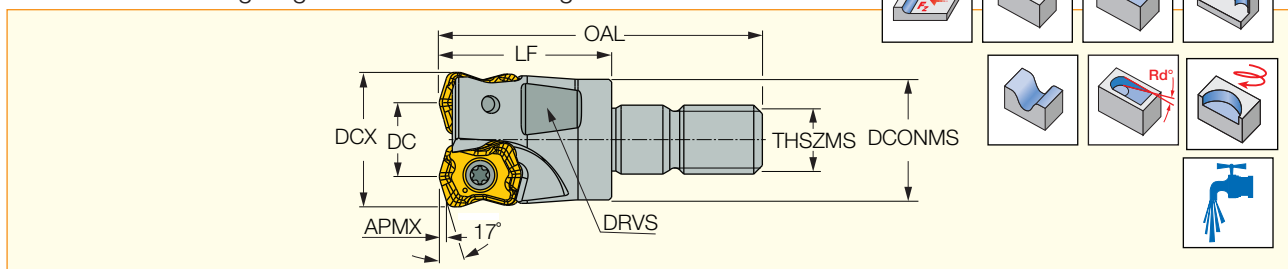
⁽¹⁾ Number of inserts ⁽²⁾ Ramping angle maximum ⁽³⁾ Key flat size ⁽⁴⁾ Item weight

Spare Parts

Designation	Screw	Key
FFX4 ED-MM	SR M2.5X6-T7-60	T-7/51

FFX4 ED-M

Endmills with FLEXFIT Adaptation Carrying Small "Bone Shape" Inserts with 4 Cutting Edges for Fast Feed Milling



Designation	DCX	DC	CICT ⁽¹⁾	APMX	THSZMS	LF	OAL	RMPX ⁽²⁾	DCONMS	DRVS ⁽³⁾	WT ⁽⁴⁾
FFX4 ED20/.78-3-M10-04	20.00	12.60	3	0.80	M10	25.00	45.00	2.7	18.00	17.0	0.04
FFX4 ED25/.98-4-M12-04	25.00	17.60	4	0.80	M12	30.00	52.00	1.8	21.00	19.0	0.08
FFX4 ED32/1.26-5-M16-04	32.00	24.60	5	0.80	M16	35.00	60.00	1.2	29.00	27.0	0.18
FFX4 ED35/1.38-5-M16-04	35.00	27.60	5	0.80	M16	35.00	60.00	1.1	29.00	27.0	0.20

• Radius for programming 1.8 mm

⁽¹⁾ Number of inserts ⁽²⁾ Ramping angle maximum ⁽³⁾ Key flat size ⁽⁴⁾ Item weight

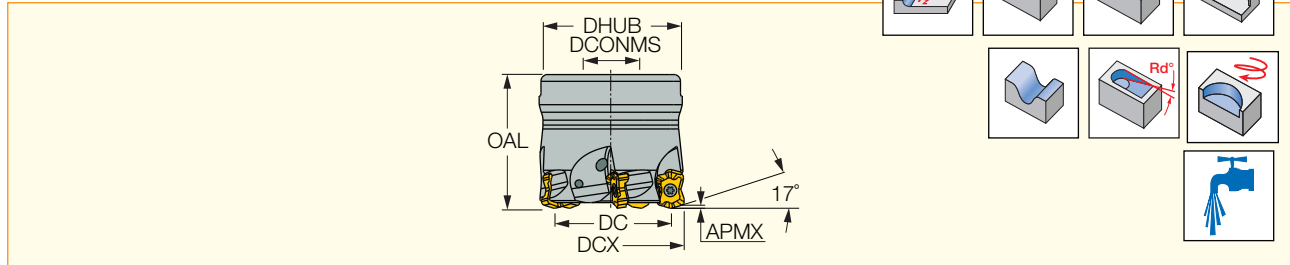
Spare Parts

Designation	Screw	Key
FFX4 ED-M	SR M2.5X6-T7-60	T-7/51



FFX4 FD

Face Mills Carrying Small "Bone Shape" Inserts with 4 Cutting Edges for Fast Feed Milling



Designation	DCX	DC	CICT ⁽¹⁾	APMX	KAPR	OAL	DCONMS	DHUB	R _d [°]	WT ⁽²⁾
FFX4 FD032-5-16-04	32.00	24.60	5	0.80	17.0	40.00	16.00	38.00	1.2	0.17
FFX4 FD040-6-16-04	40.00	32.60	6	0.80	17.0	40.00	16.00	38.00	0.9	0.23

• Radius for programming 1.8 mm

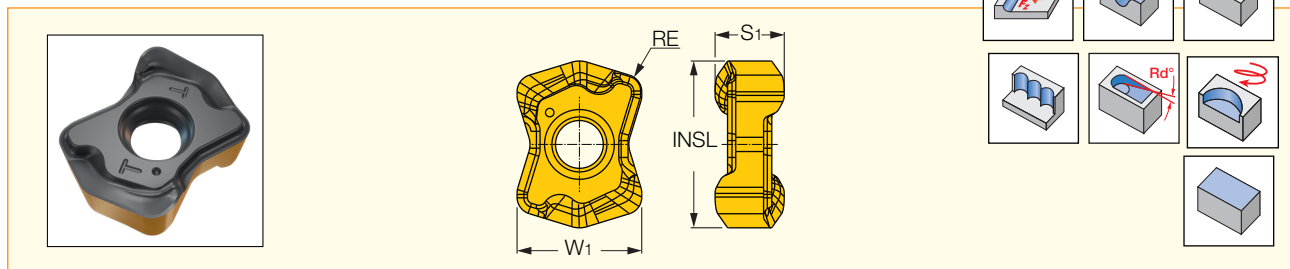
⁽¹⁾ Number of inserts ⁽²⁾ Item weight

Spare Parts

Designation	Screw	Key	Screw 1
FFX4 FD032-5-16-04	SR M2.5X6-T7-60	T-7/51	SR M8X25-D11.5
FFX4 FD040-6-16-04	SR M2.5X6-T7-60	T-7/51	SR M8X25DIN912

FFX4 XNMU

Small "Bone Shape" Inserts with 4 Cutting Edges for Fast Feed Milling



Designation	Dimensions				Tough ↔ Hard						Recommended Machining Data	
	INSL	S ₁	RE	W ₁	IC882	IC840	IC830	IC5820	IC808	IC810	a _p (mm)	f _z (mm/t)
FFX4 XNMU 040310HP	9.29	3.97	1.00	7.16	•	•	•	•	•	•	0.20-0.80	0.20-0.90
FFX4 XNMU 040310T	9.29	3.97	1.00	7.16	•	•	•	•	•	•	0.20-0.80	0.20-1.20

• HP- for austenitic stainless steel and high temperature alloys • T- for steel, ferritic and martensitic stainless steel, cast iron and hardened steel



Cutting Recommendations for FFX4 Fast Feed Cutters

ISO class DIN/ISO 513	Description	Workpiece material				Insert type	Carbide grade	D.O.C. ap [mm]	Cutting Speed & Feed		Coolant		
		ISCAR mat. group*	Hardness, HB	Typical materials					Vc [m/min]	fz [mm/tooth]			
				AISI/SAE/ ASTM	DIN W.-Nr.								
P	Non-alloy steel	1-5	130-180	1020	1.0402	T	IC808	0.2-0.8	150-220	0.2-1.0	Dry		
		6-8	260-300	4340	1.6582				140-200	0.2-1.2	Dry/Wet		
	Low alloy steel	9	HRC 35-42**	3135	1.5710				IC830	140-200	0.2-0.9	Dry/Wet	
									IC830	120-180	0.2-1.1	Dry/Wet	
									IC808	130-180	0.2-0.8	Dry	
	High alloy steel	10-11	200-220	H13	1.2344				IC830	120-160	0.2-1.0	Dry/Wet	
									IC808	120-170	0.2-0.8	Dry	
	Ferritic/ martensitic stainless steel	12-13	200	420	1.4021				IC808	100-150	0.2-0.9	Dry/Wet	
									IC810	110-160	0.2-0.8	Dry	
									IC830	100-150	0.2-0.9	Dry/Wet	
M	Austenitic stainless steel	14	200	304L	1.4306	HP	0.2-0.8	80-120	0.2-0.9	Wet			
											IC840	80-140	0.2-0.8
											IC5820	100-160	0.2-0.7
											IC882	80-130	0.2-0.8
K	Grey cast iron	15-16	250	Class 40	0.6025 (GG25)	T	0.2-0.8	150-220	0.4-1.2	Dry			
	Nodular cast iron	17-18	200	Class 65-45-12	0.7050 (GGG50)						IC810	120-200	0.4-1.2
S	High temperature alloys	33-35	340	Inconel 718	2.4668	HP	0.2-0.8	20-30	0.2-0.7	Wet			
											IC5820	25-35	0.2-0.6
											IC840	25-35	0.2-0.6
											IC830	25-30	0.2-0.7
		36-37	HRC 30-32	AMS R56400	3.7165 (Ti6Al4V ELI)						IC882	25-35	0.2-0.7
											IC5820	25-40	0.2-0.6
											IC840	25-35	0.2-0.6
											IC830	20-30	0.2-0.7
H	Hardened steel	38	HRC 45-49	HARDOX 450 plate		T	IC808	0.2-0.8	50-75	0.2-0.5	Dry		

* ISCAR material group in accordance with VDI 3323 standard

** Quenched and tempered

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

