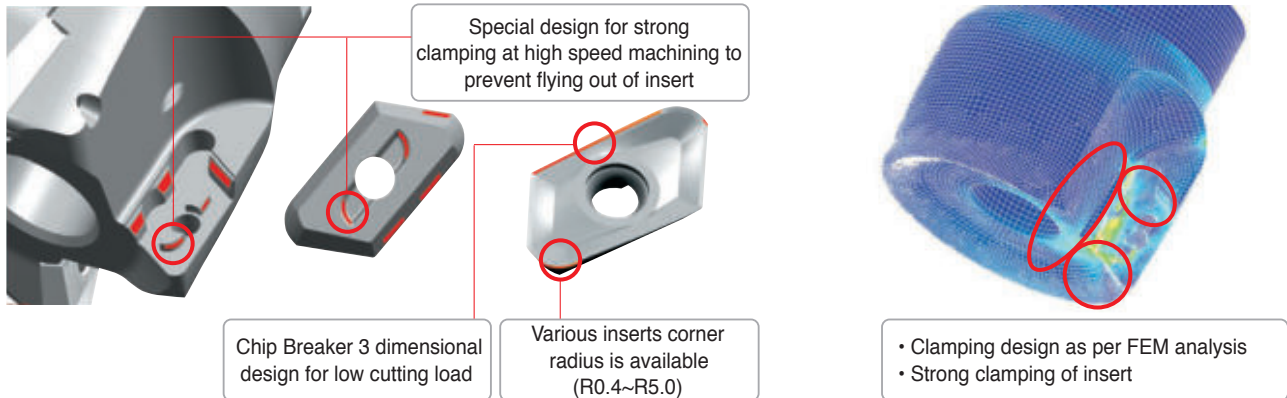


Features a strong clamping provided by the concave grooves on the back surface of the inserts

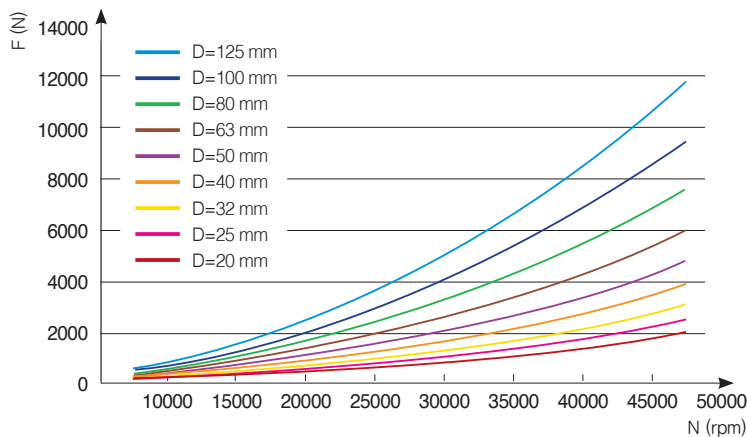
Pro-X Mill

- Inserts feature a buffed top surface ensuring a smoother chip evacuation and reducing built-up edge
- High rake angle of insert provides good surface finish and low cutting load
- Specially designed for high speed machining of aluminum
- Suitable for square shouldering and curved surface machining

Clamping system for high speed



Centrifugal force as per RPM



Marking [• Designation • Max. RPM]



Max. RPM as per cutting diameter

Cutting diameter OD (mm)	5000 type		6000 type	
	n (min ⁻¹)	vc (m/min)	n (min ⁻¹)	vc (m/min)
20	14,000	879	-	-
25	28,000	2,199	15,000	1,178
32	25,000	2,513	23,000	2,312
40	22,000	2,764	20,000	2,513
50	20,000	3,141	18,000	2,827
63	18,000	3,562	16,000	3,166
80	16,000	4,021	14,000	3,518
100	14,000	4,398	13,000	4,084
125	13,000	5,105	11,000	4,319

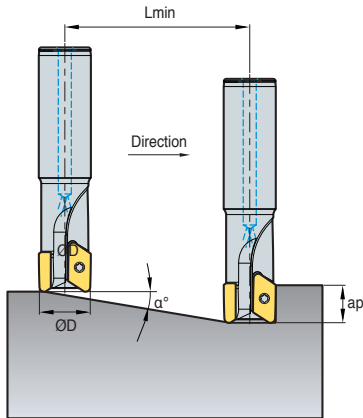
Recommended cutting condition

Workpiece		Cutting Speed vc (m/min)	Feed fz (mm/t)
Aluminum alloy	Rm280 < MPa	1200	0.30
	Rm280 > MPa	1000	0.25
Copper alloy	Long chipping	400	0.20
	-	350	0.15
Aluminum alloy	Si < 12%	1000	0.25
	Si ≥ 12%	300	0.23
Copper alloy	Short chipping	500	0.20
Magnesium alloy	-	450	0.20
Duroplastics	-	200	0.15

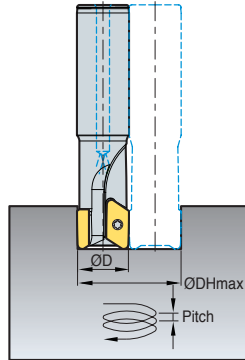
※ In case of actual machining accidental breakage of insert or tool could happen even under the written RPM special cover or door is necessary to prevent damage from broken insert or broken tool

Pro-X Mill ramping & helical cutting technical data

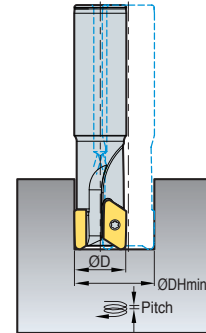
1. Ramping



2. Blind hole helical cutting



3. Thru hole helical cutting



(mm)

Designation	ØD	Ramping		Blind hole Helical cutting				Thru hole Helical cutting	
		α°	Lmin	ØDHmin	dmax	ØDHmax	dmax	ØDHmin	dmax
PAXS5020HR	20	8.4	68	32	4.7	34	5.0	27	4.0
PAXS5025HR	25	13.2	43	42	9.9	44	10.4	34	8.0
PAXS5032HR	32	9.5	60	56	9.3	58	9.7	48	8.0
PAXS5040HR	40	7.1	80	72	9.0	74	9.3	64	8.0
PAXCM5050HR	50	5.4	105	92	8.8	94	9.0	84	8.0
PAXCM5063HR	63	4.2	138	118	8.6	120	8.7	110	8.0
PAXC(M)5080HR	80	3.2	180	152	8.4	154	8.6	144	8.0
PAXC(M)5100HR	100	2.5	230	192	8.3	194	8.4	184	8.0
PAXC(M)5125HR	125	2.0	293	242	8.3	244	8.3	234	8.0
PAXS6025HR	25	9.0	63	42	6.6	44	6.9	38	6.0
PAXS6032HR	32	6.6	87	56	6.5	58	6.7	52	6.0
PAXS6040HR	40	12.1	47	72	15.4	74	15.9	56	12.0
PAXCM6050HR	50	9.0	63	92	14.5	94	14.8	76	12.0
PAXCM6063HR	63	6.7	85	118	13.9	120	14.1	102	12.0
PAXC(M)6080HR	80	5.0	113	152	13.4	154	13.6	136	12.0
PAXC(M)6100HR	100	3.9	147	192	13.1	194	13.2	176	12.0
PAXC(M)6125HR	125	3.0	188	242	12.8	244	13.0	226	12.0

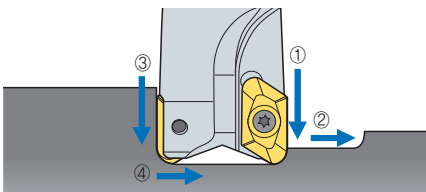
• Lmin: When ap = 10mm

• Lmin: Minimum inclination cutting length $Lmin = \frac{ap}{\tan \alpha^\circ}$ (mm)

α°: Max. ramping angle

ap: Depth of cut

Plunging, slotting, drilling technical data



1. When drilling, grooving machining sequence is

① → ② → ③ → ④

2. When drilling, grooving, decrease the feed and cutting speed 30%~50% from the recommended data

• Cutting condition for drilling

Holder	ap (mm)	
	5000 type	6000 type
Ø20	8	-
Ø25	4	11
Ø32	4	6
Ø40~125	4	6
Insert	ap (mm)	
XETK19	4	
XETK25	6	

Uses



Copying

Helical cutting



Slotting & Shouldering

Ramping

