

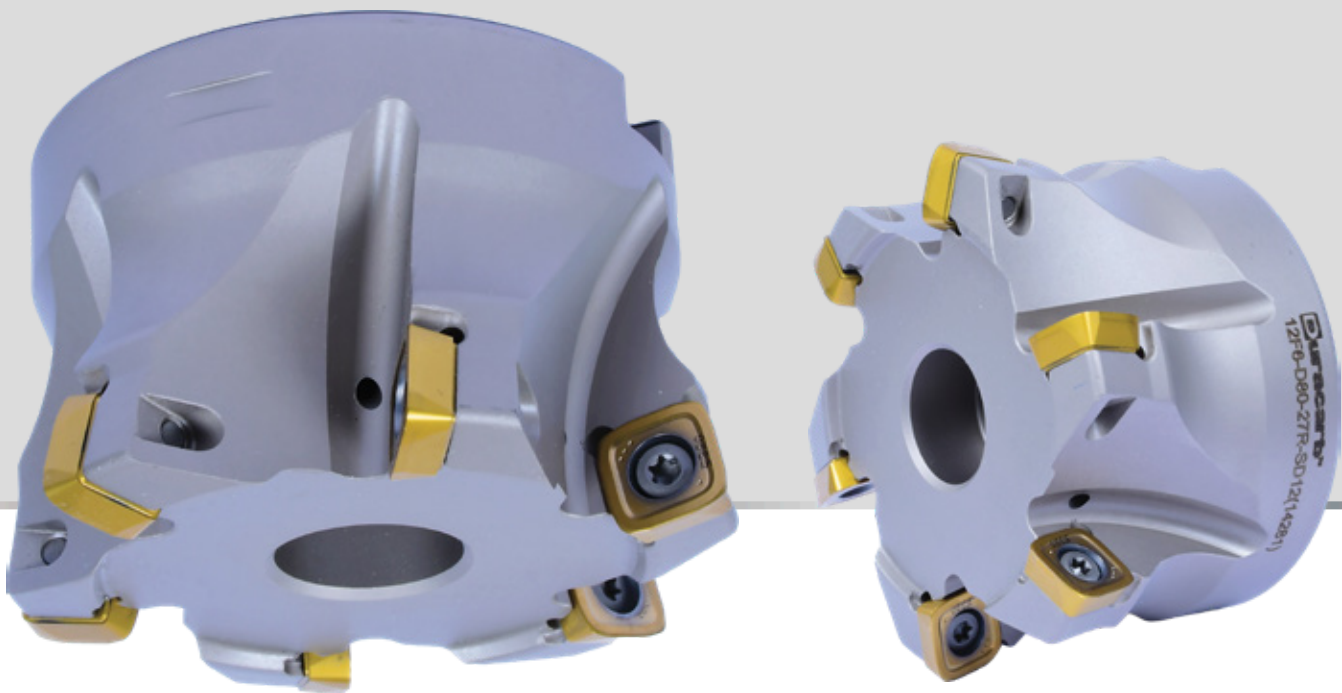
# NPA

New Product Announcement



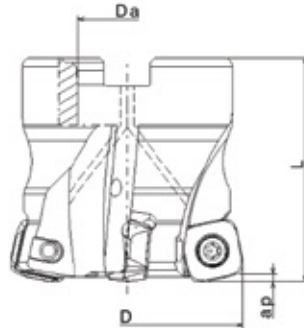
## HF-Mill

ECONOMICAL CUTTING  
EDGE SOLUTION  
FOR HIGH MATERIAL  
REMOVAL RATES  
For High Feed Face Machining



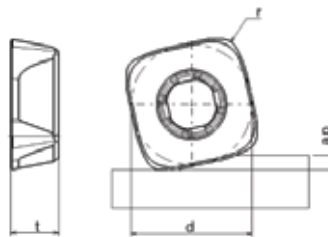
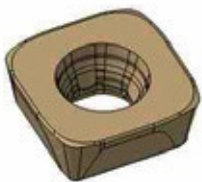
## Features

- Suitable for high feed face milling and high material removal milling applications in various industries including Oil & Gas, Power, General, Die & Mold, Aerospace and Heavy Engineering
- SD 12 insert with 5mm thickness is perfectly suitable for high feed milling with higher depth of cut. Being a positive 4 cutting edge insert, the SD 12 induces lower cutting forces compared to a double sided negative insert
- Four corner positive insert enables smooth machining with higher overhangs and on low power machines
- Latest grades ensure excellent tool life in machining steel, stainless steel, cast iron and titanium materials
- Includes Face Mill type from Dia 50 to 125 mm



Designation	Insert	Pitch	Dimension			
			D	DaL		ap
<b>12F6-D80-27R-SD12</b>	SD 1205 DMR	6	80	2	5	2
<b>12F7-D100-32R-</b>		7	10	7	0	2
<b>SD12 12F8-D125-</b>		8	0	3	6	2
<b>40R-SD12</b>			12	2	0	
			5	4	6	
				0	0	

**Insert SD 12**

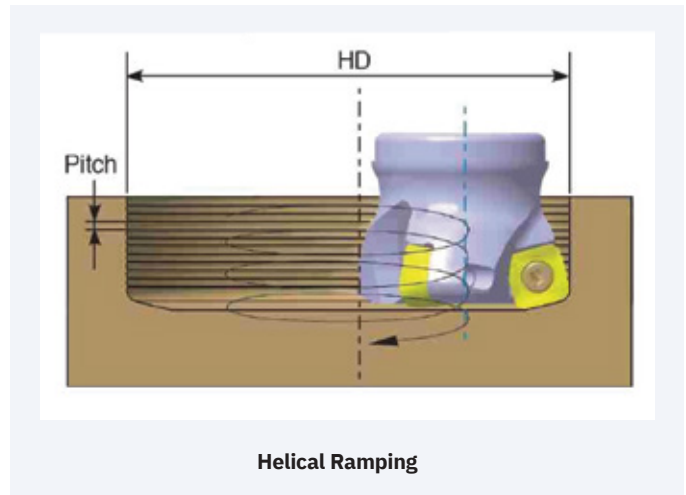
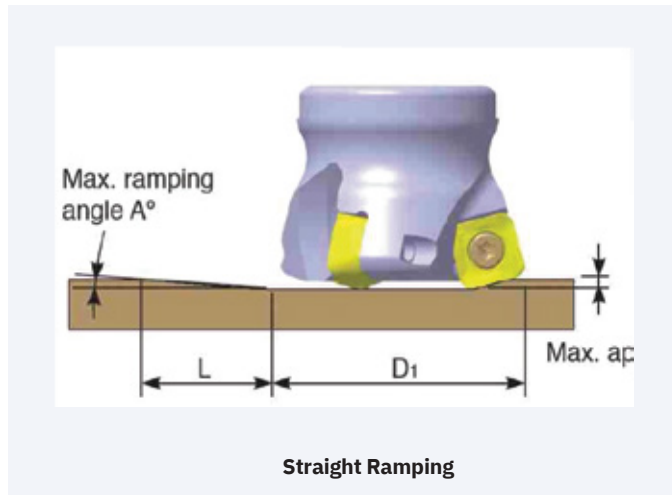


Screw	Wrench
DS 40BI001-TS	DTTW-15

Insert	Designation	Recommended machining conditions		PVD Coated
		Fz (mm/tooth)	ap (mm)	DP5320
	SD 1205 DMR	0.5-3.0	0.5-2.0	•

Size	Designation(mm)			
	D	TAP		R
13	12.84	5.08	2	1.52

## Technical Data Recommended Ramping Angle



### SD 1205

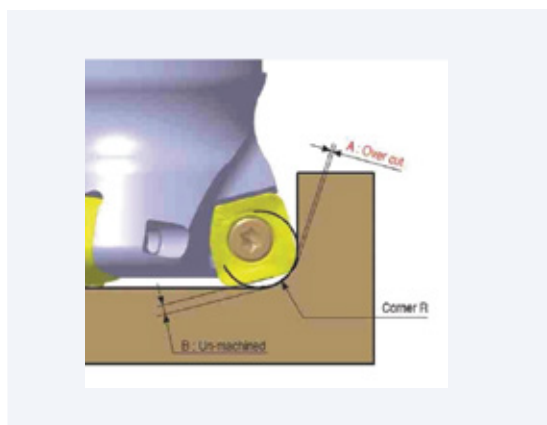
Cutter Dia (D1)	Straight ramp down			Helical ramp down	
	Max Ramp (A°)	Max ap (mm)	Min Length (L)	Min Dia (HD)	Max Dia Max (HD) Pitch/Rev
80	0.9	2	60	151	1602
10	0.6	2	80	191	2002
0	0.5	2	105	241	2502
12	0.4	2	140	311	3202

5

16

0

### Programming Tip

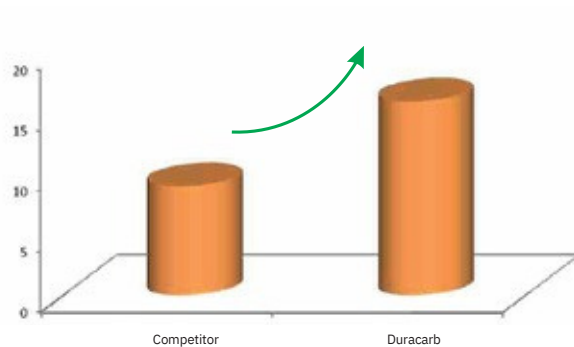


	Corner 'R' Program	(A) Overcut	(B) Un-machined Material Thickness
SDMT 13	3	0	1.22
	3.5	0	1.13
	4	0.03	1.04
	4.5	0.13	0.94
	5	0.27	0.85
	5.5	0.43	0.76

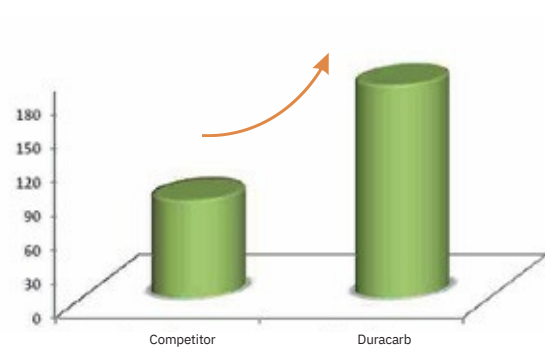
## Test Reports

		Competitor	Duracarb
WorkPiece Material		Alloy Steel (250 BHN)	
Cutter		D50	HFSD 450-22R-13
Insert		WXXX (PVD Coated)	SDGW 1305 ZDR-HF DP5320
No. of Teeth		4 (3-corner insert)	4 (4-corner insert)
V (m/min)		140	140
Cutting Speed N (rpm)		891	891
	Fz (mm/tooth)	0.82	1.1
Feed Rate F (mm/min)		2922	3921
	Ae (mm)	30	30
Width of Cut		1.0	1.0
Depth of Cut		Dry	Dry
Coolant		3 components / edge	4 components /edge
Tool Life		87	188
MRR (cm3/min)			

**Tool Life**



**Productivity**



## Recommended Cutting Conditions

Material	Hardness (HB)	D.O.C (mm)	Cutting Speed (m/min)	Best Grades	Feed (mm/tooth)
Carbon Steel	85-225	0.5-	130-250	DP5320	0.6-
Alloy Steel	275-	2.0	120-200	DP5320	3.0
Alloy Steel	375	0.5-	60-140	DP5320	0.4-2.5
Pre-Hardened Steel	375-	1.6	50-200	DP5320	0.4-
Stainless 300 Series	480	0.5-	80-170	DP5320	2.0
Stainless 400 Series	250-	1.6	100-210	DP5320	0.3-
High Temp. Alloy	470 -	0.3-	30-100	DP5320	1.0
Inconel	-	1.5	20-60	DP5320	0.4-
Titanium Alloy	-	0.3-	30-80	DP5320	1.5
Grey Cast Iron		1.5	150-300	DP5320	0.4
Nodular Cast Iron	-	0.3-	100-250	DP5320	1.5
	190-	1.5			0.4-
	220	0.3-			1.0
	140-	1.2			0.4-
	200	0.3-			1.0
		1.2			0.4-
		0.3-			1.0
		1.2			0.5-
		0.3-			3.5
		2.0			0.5-
		0.3-			2.5
		2.0			

**Price**  
Available in GAL

**Availability**  
In stock

**Sincerely,**  
Team Duracarb