

NEW

Member IMC Group
Ingersoll
Cutting Tools

DIPOS•DEKA[®]

FACE MILLING SYSTEM DM5E_/1DM1E_

FACE MILLS DM5E_/1DM1E_

- *Highly productive face milling system*
- *10-edged indexable insert*
- *66° lead angle allows to work near existing contours*
- *Diameter range 16 - 80 mm*
- *For cutting depths up to 3.8 mm*



■ **Product Description**

Small, dynamic machine tools and minimal allowances increasingly determine the requirements for a modern face milling system for metal removal.

But also the trend toward complete machining on turning-milling centers often requires smaller tool dimensions than has hitherto been the case.

Ingersoll now covers this range of applications with the new face milling system **DiPosDeka[®]**.

■ **Insert PNMU05**

With a maximum cutting depth of **3.8 mm**, common allowances can be machined in one cut despite the small indexable insert.

Easy handling and process-reliable machining of the **PNMU05** insert is ensured by a sturdy M2.5 screw.

The insert itself is more robust than the compact size would suggest and manages feeds of up to **0.3 mm** per tooth.



■ **Technical Features**

The lead angle of **66°** allows to work very close to existing contours such as component geometries or clamping devices.

The face milling cutters are available in the diameter range from **16 to 80 mm** with TopOn screw-type adaption and as shell mills with adaptations according to DIN8030.

■ **Advantages**

- **Highly productive face milling system**
- **10-edged indexable insert**
- **66° lead angle allows to work near existing contours**
- **Diameter range 16 - 80 mm**
- **For cutting depths up to 3.8 mm**



Tips & Parameters



insert:

PNMU0503GNTR

average chip thickness:

hm = 0.10 mm

max. cutting depth:

ap = 3.8 mm

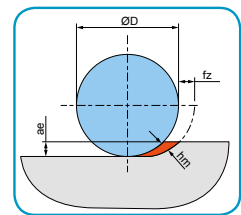
Recommended Cutting Data:

material	cutting speed Vc [m/min]				feed per tooth fz [mm]
	1st choice dry machining resp. wear resistant carbide		1st choice wet machining resp. tough carbide		
unalloyed steel	IN2505	250 - 290	IN2530	200 - 240	0.10 - 0.25
alloyed steel 800 N/mm ²	IN2505	210 - 250	IN2530	160 - 200	0.10 - 0.20
alloyed steel 1100 N/mm ²	IN2505	160 - 180	IN2530	110 - 130	0.10
stainless steel	IN2035	120 - 180	IN2035	80 - 130	0.10 - 0.25
cast iron	IN2505	180 - 250	IN2530	150 - 200	0.10 - 0.30
nodular cast iron	IN2505	140 - 210	IN2530	110 - 160	0.10 - 0.20
high temperature alloys	IN2035	110 - 125	IN2530	60 - 80	0.10
titanium alloys	IN2505	40 - 50	IN2530	30 - 40	0.10

Tips

- The worse the material machinability, the smaller the tool engagement should be chosen.
- The smaller the cutting tool diameter, the higher the cutting speed can be.
- If tool engagement is less than 1/3 of cutting tool diameter, the feed per tooth should be calculated with the following formular:

$$fz = hm \times \sqrt{\frac{D}{ae}}$$



General Information:

insert screw:

SM25-064-00

torque:

1.1 Nm

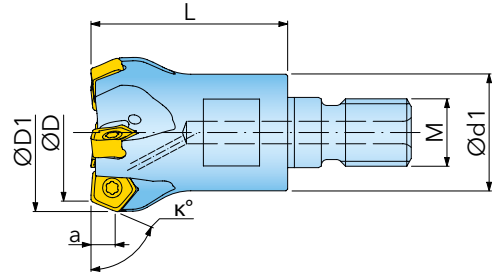
torque wrench:

DTN011S with bit DS-T08TB

Successful machining result depend on many factors, so cutting data recommendations can only be a rough guideline. Therefore in any case of doubt do not hesitate to contact your Ingersoll partner.

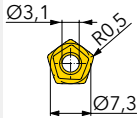
DIPOSODEKA[®] FACE MILL 1DM1E

SCREW-IN TYPE ADAPTION



Designation	D	D1	d1	L	κ	a	M	Z		
1DM1E016030X6R00	16	19,9	18	30	66	3,8	M10	3	✓	0,05
1DM1E020035X7R00	20	23,9	21	35	66	3,8	M12	4	✓	0,09
1DM1E025035X7R00	25	28,9	21	35	66	3,8	M12	5	✓	0,10
1DM1E032043X8R00	32	35,9	29	43	66	3,8	M16	6	✓	0,23
1DM1E040043X8R00	40	43,9	29	43	66	3,8	M16	8	✓	0,27

PNMU0503GNTR



Designation	fz(min/max)	Design	Grade	IN2035	IN2505	IN2530				
PNMU0503GNTR	0,10/0,30	positive geometry								

● = P ● = M ● = K ● = N ● = S ○ = H

SPARE PARTS

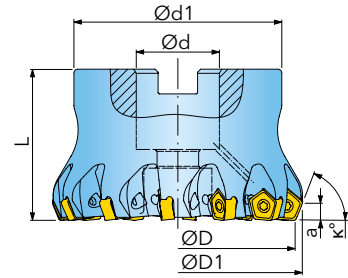


SM25-064-00 (1,1Nm) DS-T08S

① = Insert screw ② = Screw driver

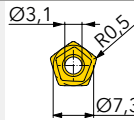
DIPOSODEKA[®] FACE MILL DM5E

ADAPTION ACC. TO DIN 8030



Designation	D	D1	d	d1	L	κ	a	Z	IK	kg
DM5E032R00	32	35,9	16	30	40	66	3,8	6	✓	0,14
DM5E040R00	40	43,9	16	30	40	66	3,8	8	✓	0,19
DM5E050R00	50	53,9	22	45	40	66	3,8	9	✓	0,36
DM5E063R00	63	66,9	22	55	40	66	3,8	11	✓	0,62
DM5E080R00	80	83,9	27	70	50	66	3,8	13	✓	1,31

PNMU0503GNTR



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PNMU0503GNTR	0,10/0,30	positive geometry		●	●	●				

● = P ● = M ● = K ● = N ● = S ○ = H

SPARE PARTS



SM25-064-00 (1,1Nm) DS-T08S

① = Insert screw ② = Screw driver

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