

DIPOSQUAD

90° END & SHOULDER MILL WITH ECONOMICAL 8 CUTTING EDGE SQUARE INSERT



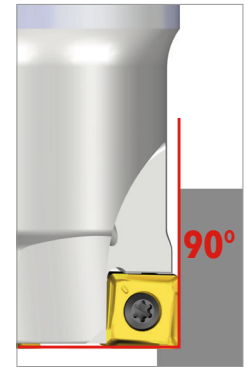
- ▶ True 90° machining
- ▶ Improved surface roughness
 - ▶ Reduced cutting forces
 - ▶ Strong insert clamping
 - ▶ Internal coolant supply

PRODUCT OVERVIEW

Ingersoll now offers an economical double-sided 8 corner insert for 90° machining.

Ingersoll's **DiPosQuad** line is capable of 90° machining despite being a double-sided insert; the helical cutting edge reduces cutting loads and vibration during machining yet achieves high productivity.

With the new **DiPosQuad** shoulder milling series, Ingersoll for the first time is offering an 8-edged, radial milling insert for 90° machining. In combination with the fine pitch, this promises maximum productivity and economy.



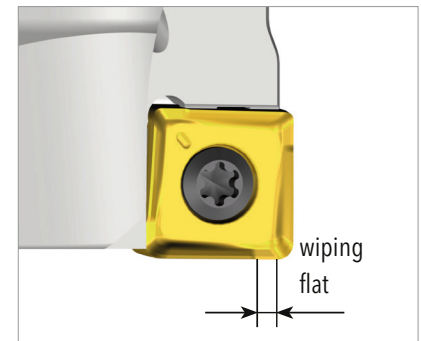
7 mm size

APPLICATION RANGE

With the small 7 mm insert and cutting tools, which are available as end mills, screw-in type and shoulder mills, the series enables excellent performance in applications where small and medium workpieces are involved.

TECHNICAL FEATURES AND ADVANTAGES - INSERT

- For 90° machining
- 8 corner double-sided insert
- The integrated wiping flat achieves a better surface
- Reduced cutting forces due to the positive axial rake angle



TECHNICAL FEATURES AND ADVANTAGES - CUTTER

- Internal coolant supply
- Stable clamping due to a wide supporting pocket
- Inclined screw clamping for rigid clamping



SQGU07_



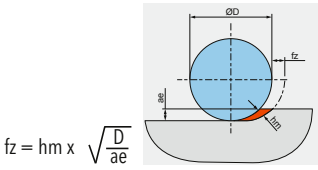
Insert:	SQGU0704_TR-M
average chip thickness:	hm = 0,10 mm
max. cutting depth:	ap = 5,0 mm

RECOMMENDED CUTTING DATA

ISO	material	cutting speed Vc [m/min]				feed per tooth fz [mm]
		1st choice dry machining resp. wear resistant carbide		1st choice wet machining resp. rough carbide		
P	unalloyed steel	IN2505	250 - 290	IN2530	200 - 240	0,10 - 0,15
	alloyed steel 800 N/mm ²	IN2505	210 - 250	IN2530	160 - 200	0,10 - 0,12
	alloyed steel 1100 N/mm ²	IN2505	160 - 180	IN2530	110 - 130	0,10
M	stainless steel	IN2505	120 - 180	IN2530	80 - 130	0,10 - 0,12
K	gray cast iron	IN2510	180 - 250	IN2530	150 - 200	0,10 - 0,20
	nodular cast iron	IN2510	140 - 210	IN2530	110 - 160	0,10 - 0,12
N	aluminum	-	-	-	-	-
S	high temperature alloys	IN2505	110 - 125	IN2530	60 - 80	0,10
	titanium alloys	IN2505	40 - 50	IN2530	30 - 40	0,10
H	hard machining < 54 HRC	-	-	-	-	-
	hard machining < 63 HRC	-	-	-	-	-

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 formula:



GENERAL INFORMATION

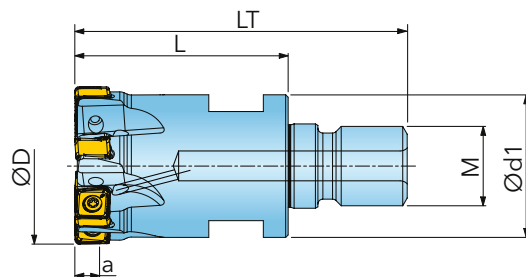
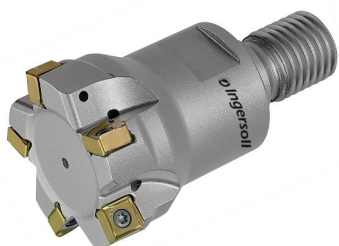
Insert screw: **SM25-060-90**

Torque: **1,1 Nm**

Torque wrench: **DTN011S with bit DS-TP07TB**

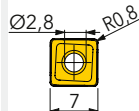
DIPOSQUAD END MILL 1DJ1E...X

SCREW-IN TYPE ADAPTION



Designation	D	d1	LT	L	a	M	Z		
1DJ1E016023X5R00	16	13	40,8	23	5	M8	2	✓	0,03
1DJ1E020030X6R00	20	18	49,8	30	5	M10	3	✓	0,06
1DJ1E025035X7R00	25	21	57	35	5	M12	3	✓	0,10
1DJ1E032043X8R00	32	29	67	43	5	M16	4	✓	0,22
1DJ1E040043X8R00	40	29	67	43	5	M16	5	✓	0,27

SQGU070408TR-M



Designation	fz(min/max)	Design	Grade	IN2505	IN2510	IN2530				
SQGU070408TR-M	0,10/0,20	positive geometry R0,8								

● = P ● = M ● = K ● = N ● = S ○ = H

SPARE PARTS



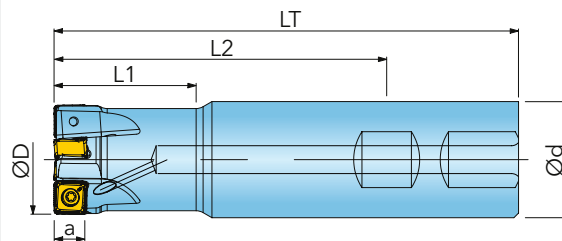
SM25-060-90 (1,1Nm)

TXPLUS07x90-B

① = Insert screw ② = Torx-bit

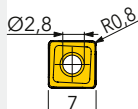
DIPOSQUAD END MILL 1DJ1E...W

ADAPTION ACC. TO DIN 1835 B



Designation	D	d	LT	L1	L2	a	Z		
1DJ1E016020W3R00	16	16	90	20	66,5	5	2	✓	0,12
1DJ1E020025W4R00	20	20	90	25	66,5	5	3	✓	0,33
1DJ1E025030W5R00	25	25	100	30	68,5	5	4	✓	0,32
1DJ1E032035W6R00	32	32	110	35	74,5	5	6	✓	0,61

SQGU070408TR-M



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SPARE PARTS

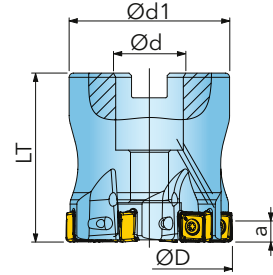
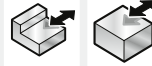


SM25-060-90 (1,1Nm) TXPLUS07x90-B

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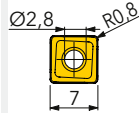
DIPOSQUAD SHOULDER MILL DJ5E

ADAPTION ACC. TO DIN 8030



Designation	D	d	d1	LT	a	Z		
DJ5E032R00	32	16	30	32	5	4	✓	0,12
DJ5E040R00	40	16	38	40	5	6	✓	0,27
DJ5E050R00	50	22	45	40	5	8	✓	0,39

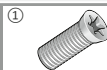
SQGU070408TR-M



Designation	fz(min/max)	Design	Grade	IN2505	IN2510	IN2530					
SQGU070408TR-M	0,10/0,20	positive geometry R0,8									

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SPARE PARTS



SM25-060-90 (1,1Nm) TXPLUS07x90-B

① = Insert screw ② = Torx-bit

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