

NEW

Member IMC Group
Ingersoll
Cutting Tools

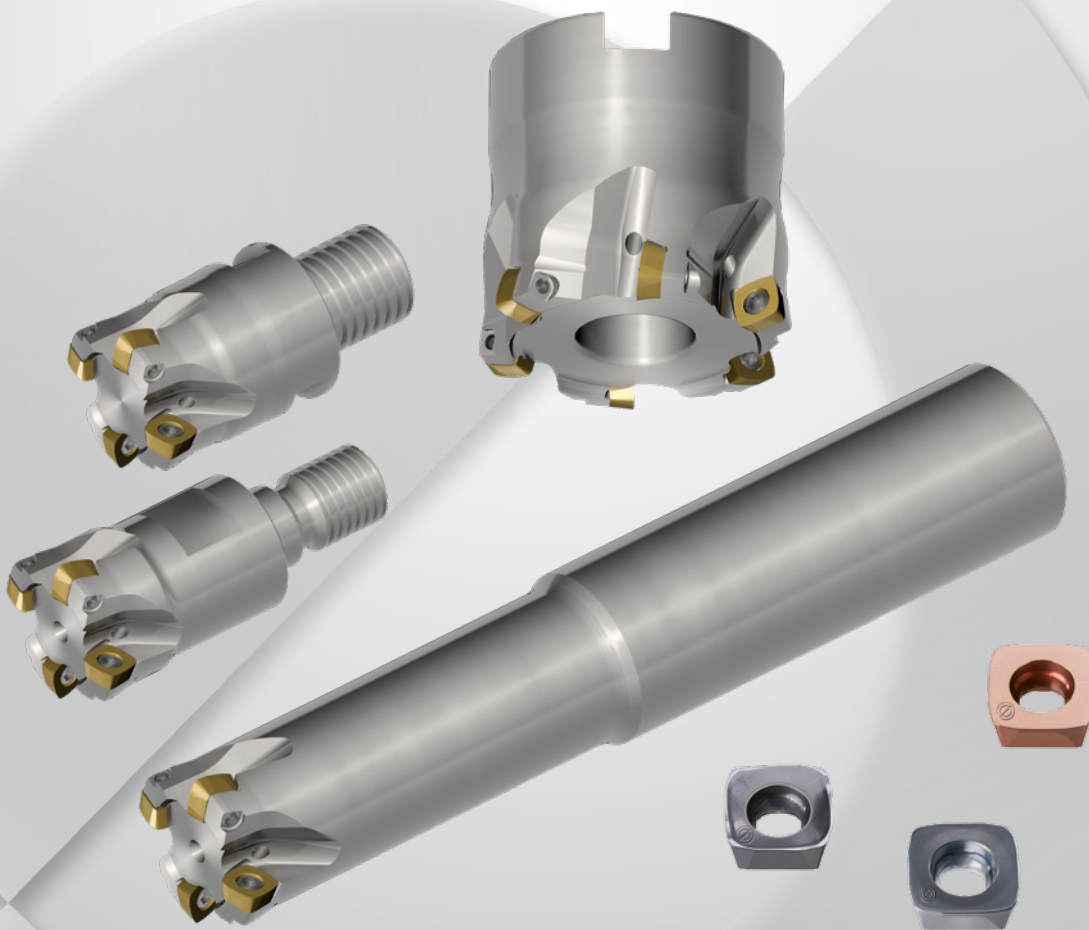
SPEED UP
HIGH SPEED & FEED

GOLDSFEED

HIGH FEED MILLS
15G1D_ / 5G1D

HIGH FEED MILLS 15G1D_ / 5G1D WITH INSERT SDXS06

- *Very smooth cutting geometry*
- *4-edged inserts*
- *3 different insert geometries in 3 different carbide grades each*
- *Shell-type and screw-in type cutters with TopOn and TS-adaption*
- *Cylindrical end mill*
- *Diameter range of cutters: Ø16 - 50 mm*



Product Overview

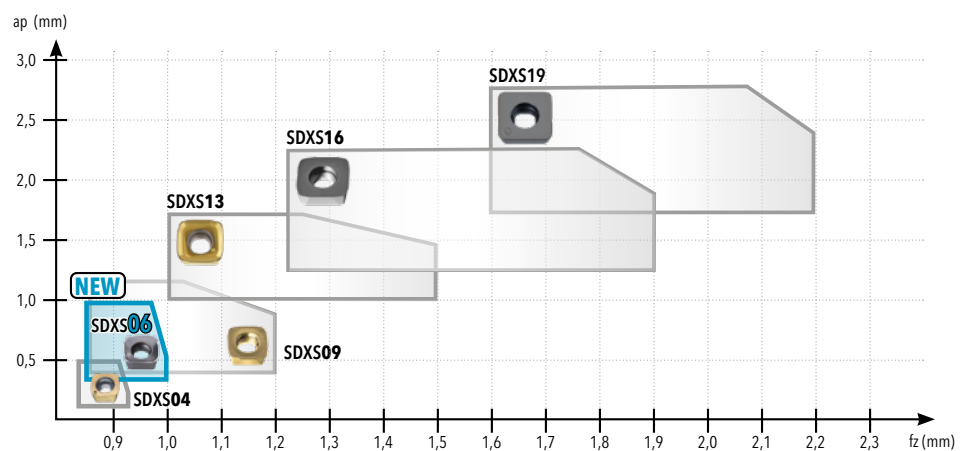
New high feed milling cutters **15G1D_ / 5G1D** for rough machining in diameter range \varnothing 16 – 50 mm with new 4-edged insert **SDXS06**.

Various insert geometries for machining steel, cast iron and materials of material groups **M** (stainless steel) and **S** (heat resistant alloys and titanium alloys).

The extension of the **GoldSFeed** high feed mills are offered as end mills, screw-in mills with metric adaption and TS-adaption, as well as shell-type mills.

Application Range

Face and contour milling in general machining, die and mold industry and above all in aerospace industry.



Technical Features

4-edged inserts with cutting depths a_p up to 1.0 mm. Different geometries for stable and unstable conditions. Neutral and positive geometries in 3 different carbide grades for a wide variety of applications enable max. cutting volume even with difficult applications. \varnothing 16 with $Z=2$, up to \varnothing 50 with $Z=7$ as narrow spaced tools for high productive machining.

The machining of 90° shoulders can be carried out without any problems due to the secondary cutting edge on 90° cutting diameter. In contrast to the series with insert sizes 13 and 19, with this new insert series 06 the effective diameter is retained when changing from neutral to positive cutting edge. Thus the nominal diameter is also the effective diameter for programming. The programming radius is R1.7 mm.

Advantages

- Smooth cutting, axially positive insert seat
- Cutting depths up to 1.0 mm
- 4-edged inserts
- 3 different insert geometries with 3 different carbide grades
- Cylindrical end mills / TopOn screw-in type mills / screw-in type mills with Ts-adaption / shell-type mills
- Cutting tool diameters \varnothing 16 with $Z=2$ up to \varnothing 50 with $Z=7$
- No diameter changes when using different insert geometries
- Protective cutting edge for machining 90° shoulders

SDXS06



Insert:	SDXS0603MPR-MM	SDXS0603MPR-MR	SDXS0603MPR-MR1
Recommended cutting depth:	ap = 1.0 mm	ap = 1.0 mm	ap = 1.0
Programming radius:	R1.7	R1.7	R1.7

Recommended Cutting Data:

ISO	material	cutting speed Vc [m/min]				recommended cutting depth ap [mm]	feed per tooth fz [mm]
		1st choice dry machining resp. wear resistant carbide		1st choice wet machining resp. tough carbide			
P	unalloyed steel	IN2505	160 - 240	IN6537	130 - 200	0,5 - 1,0	0,5 - 1,2
	alloyed steel < 800 N/mm ²	IN2505	140 - 220	IN6537	110 - 180	0,5 - 1,0	0,5 - 1,2
	alloyed steel < 1100 N/mm ²	IN2505	120 - 200	IN6537	100 - 160	0,5 - 1,0	0,5 - 1,0
M	stainless steel	IN4036	90 - 160	IN4036 / IN6537	80 - 140	0,5 - 1,0	0,5 - 1,0
K	cast iron	IN2505	160 - 250	IN6537	140 - 200	0,5 - 1,0	0,5 - 1,2
	nodular cast iron	IN2505	140 - 200	IN6537	120 - 180	0,5 - 1,0	0,5 - 1,2
N	aluminum	-	-	-	-	-	-
S	high temperature alloys	-	-	IN4036 / IN6537	50 - 70	0,5 - 1,0	0,5 - 1,0
	titanium alloys	-	-	IN4036 / IN6537	30 - 50	0,5 - 1,0	0,5 - 1,0

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.
- Approaching feed rate should be reduced by 30%.
- 4-edge inserts

Ramping Angle and Circular Interpolation:

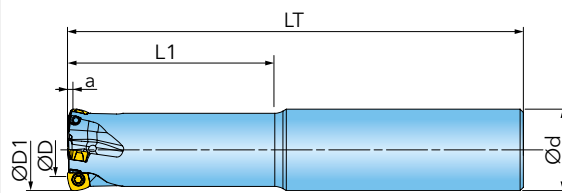
tool diameter [mm]	max. ramp. angle [°]	min. bore dia. [mm]	max. ap/rev. [mm]	max. bore dia. [mm]
16	3,5	22,0	1,0	32,0
20	3,5	30,0	1,0	40,0
25	2,5	40,0	1,0	50,0
32	2,0	54,0	1,0	64,0
35	2,0	60,0	1,0	70,0
40	1,3	70,0	1,0	80,0
42	1,2	74,0	1,0	84,0
50	1,0	90,0	1,0	100,0

General Information:

Insert screw: **SM25-054-00**
 Torque: **1,1 Nm**
 Torque wrench: **DTN011S with bit DS-T08TB**

GOLDFEED HIGH FEED MILL 15G1D...T/U

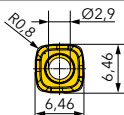
ADAPTION ACC. TO DIN 1835 A



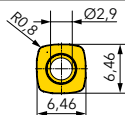
Designation	D	D1	d	LT	L1	κ	a	Rp	Z		
15G1D016040T3R00	8	16	16	100	40	12	1	1,7	2	✓	0,06
15G1D020050T4R00	12	20	20	130	50	12	1	1,7	3	✓	0,13
15G1D025060T5R00	17	25	25	140	60	12	1	1,7	4	✓	0,35
15G1D032070U7R00	24	32	32	150	70	12	1	1,7	5	✓	0,81

Rp = Programming radius

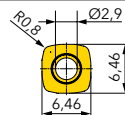
SDXS0603MPR-MM



SDXS0603MPR-MR



SDXS0603MPR-MR1



Designation	fz(min/max)	Design	Grade	IN2505	IN4036	IN6537					
SDXS0603MPR-MM	0,50/1,20	positive geometry, convex									
SDXS0603MPR-MR	0,50/1,20	neutral geometry, convex, chamfered									
SDXS0603MPR-MR1	0,50/1,20	neutral geometry, convex									

● = P ● = M ● = K ● = N ● = S ○ = H

SPARE PARTS



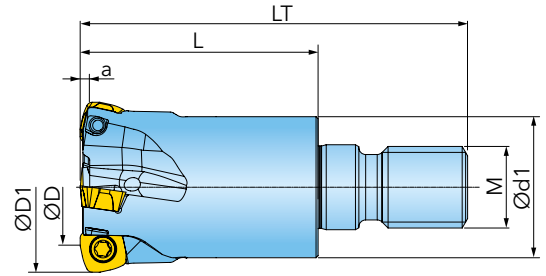
SM25-054-00 (1,1Nm)

TX08x90-B

① = Insert screw ② = Torx-bit

GOLDSPEED HIGH FEED MILL 15G1D...X

WITH SCREW-IN TYPE ADAPTION



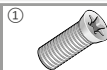
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15G1D016023X5R00	8	16	13	40,8	23	12	1	1,7	M8	2	✓	0,03
15G1D020030X6R00	12	20	18	49,8	30	12	1	1,7	M10	3	✓	0,03
15G1D025035X7R00	17	25	21	57	35	12	1	1,7	M12	4	✓	0,05
15G1D032043X8R00	24	32	29	67	43	12	1	1,7	M16	5	✓	0,13
15G1D035043X8R00	27	35	29	67	43	12	1	1,7	M16	5	✓	0,13
15G1D040043X8R00	32	40	29	67	43	12	1	1,7	M16	6	✓	0,18

Rp = Programming radius

SDXS0603MPR-MM			SDXS0603MPR-MR			SDXS0603MPR-MR1		
Designation	fz(min/max)	Design	Grade	IN2505	IN4036	IN6537		
SDXS0603MPR-MM	0,50/1,20	positive geometry, convex						
SDXS0603MPR-MR	0,50/1,20	neutral geometry, convex, chamfered						
SDXS0603MPR-MR1	0,50/1,20	neutral geometry, convex						

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SPARE PARTS

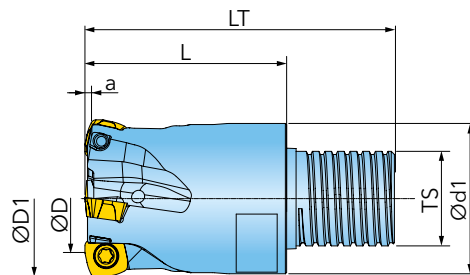
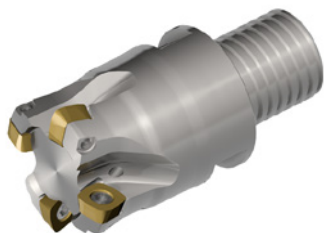
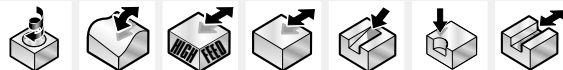


SM25-054-00 (1,1Nm) TX08x90-B

① = Insert screw ② = Torx-bit

GOLDFEED HIGH FEED MILL 15G1D...

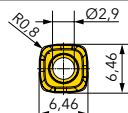
FOR EXCHANGEABLE HEAD SYSTEM



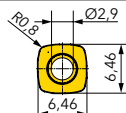
Designation	D	D1	d1	LT	L	κ	a	Rp	Ts	Z		
15G1D016019TRR00	8	16	15,2	30,8	19	12	1	1,7	T10	2	✓	0,02
15G1D020022TSR00	12	20	18,3	35,8	22	12	1	1,7	T12	3	✓	0,02
15G1D025032TUR00	17	25	23,9	49,6	32	12	1	1,7	T15	4	✓	0,04

Rp = Programming radius

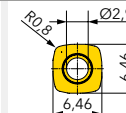
SDXS0603MPR-MM



SDXS0603MPR-MR



SDXS0603MPR-MR1



Designation	fz(min/max)	Design	Grade	IN2505	IN4036	IN6537					
SDXS0603MPR-MM	0,50/1,20	positive geometry, convex									
SDXS0603MPR-MR	0,50/1,20	neutral geometry, convex, chamfered									
SDXS0603MPR-MR1	0,50/1,20	neutral geometry, convex									

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SPARE PARTS

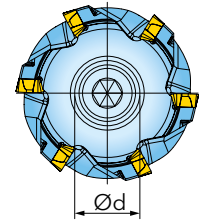
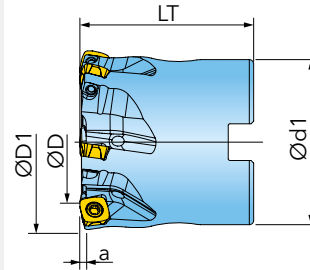


SM25-054-00 (1,1Nm) TX08x90-B

① = Insert screw ② = Torx-bit

GOLDSPEED HIGH FEED MILL 5G1D

ADAPTION ACC. TO DIN 8030



Designation	D	D1	d	d1	LT	κ	a	Rp	Z		
5G1D040R00	32	40	16	38	40	12	1	1,7	6	✓	0,48
5G1D042R01	34	42	16	38	40	12	1	1,7	6	✓	0,52
5G1D042R00	34	42	16	38	40	12	1	1,7	7	✓	0,52
5G1D050R01	42	50	22	45	50	12	1	12	6	✓	1,08
5G1D050R00	42	50	22	45	50	12	1	12	7	✓	1,08

Rp = Programming radius

SDXS0603MPR-MM			SDXS0603MPR-MR			SDXS0603MPR-MR1		
Designation	fz(min/max)	Design	Grade	IN2505	IN4036	IN6537		
SDXS0603MPR-MM	0,50/1,20	positive geometry, convex						
SDXS0603MPR-MR	0,50/1,20	neutral geometry, convex, chamfered						
SDXS0603MPR-MR1	0,50/1,20	neutral geometry, convex						

● = P ● = M ● = K ● = N ● = S ○ = H

SPARE PARTS		
	SM25-054-00 (1,1Nm)	TX08x90-B

① = Insert screw ② = Torx-bit

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