



SPEEDUP
HIGH SPEED & FEED

HIPOSPRO^B

COPY MILL 12L8J
FOR FINISHING

FINISH MILL WITH BARREL-SHAPED INSERT

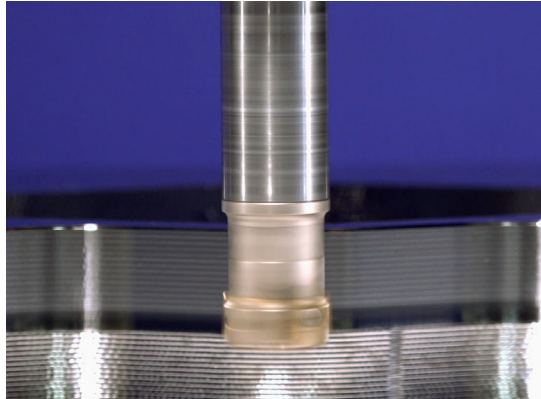
- Finish insert with barrel shape •*
- 2 radius sizes and 3 grades each •*
- Large path distance = short machining times •*
- Finishing at 90°-shoulders and mold inclines •*
- Up to 2.7-fold increase of productivity compared to cutters with round inserts •*
- Tool extensions in steel, carbide and heavy metal •*



Product Overview

With the new finishing cutters of the **HiPosPro^B** series semi-finishing and finishing applications on 90 ° sides or bevels, where traditional round insert tools were previously used, are now carried out more effectively and productively. Thanks to the special barrel shape of the insert cutting edge, higher path distances and feed rates can be achieved, with at least the same surface quality.

The new series is offered as a screw-in type with metric thread connection in diameters Ø16/20/25/35/42 and as well proven high-precision type with a Ts-adaption in diameters Ø16/20/25. On customer's request diameters and tool holder types that are not listed can also be manufactured as semi-standard tools.

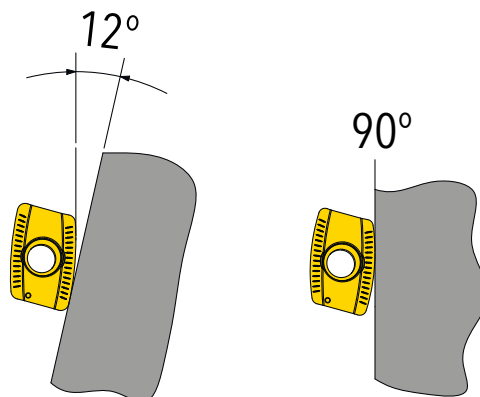


Application Range

Especially suited for die and mold industry, but also across industries for general mechanical engineering and aerospace industry.

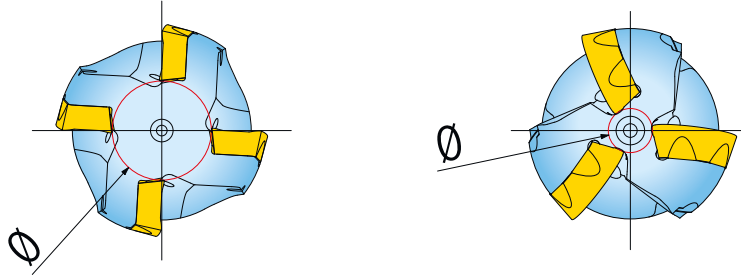
Thanks to the inclined insert seat in the tool body, a wide range of different mold inclines of up to 12 ° can be covered on workpieces without additionally adjusting the spindle axis.

Due to the availability of different cutting material grades, the common material groups P / M / K can be machined as well as hardened material group H up to 54HRC and difficult-to-machine materials of material group S.

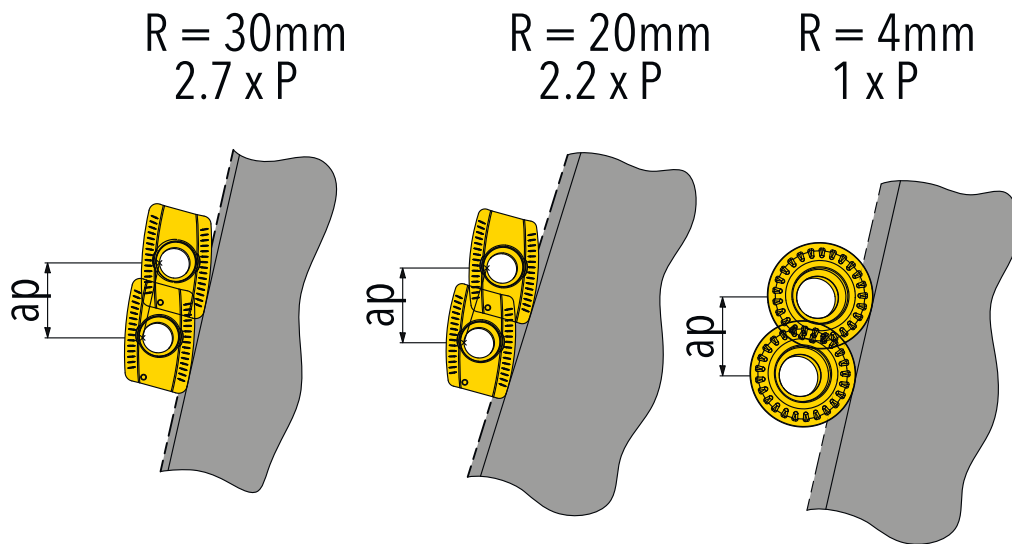


Technical Features

- Stable tool core compared to classic round insert tools
- Finer pitch



- Up to 2.7 times of infeed/path distance compared to round insert tools with the same theoretical roughness depth R_{th}

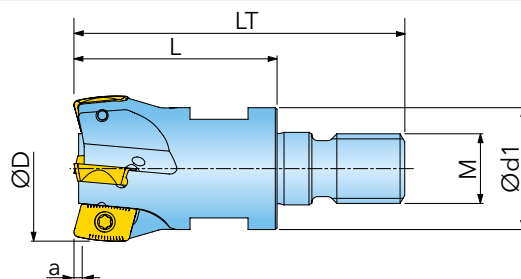


Advantages

- Barrel-shaped finishing insert
- 2 radius sizes and 3 grades each
- Large path distances = short machining times
- Finishing on 90 ° shoulders and mold inclines up to 12 ° without additional spindle adjustment
- Up to 2.7 times higher productivity compared to round insert tools
- Stable tool core compared to round insert tools
- Tool extensions in steel, hard metal and heavy metal

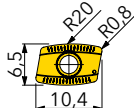
HIPOSPRO^B COPY MILL FOR FINISHING 12L8J...X

SCREW-IN TYPE ADAPTION

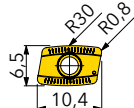


Designation	D	d1	LT	L	a	M	Z	IK	kg
12L8J016023X5R00	16	13	40,8	23	6	M8	2	✓	0,023
12L8J020030X6R00	20	18	49,8	30	6	M10	3	✓	0,052
12L8J025035X7R00	25	21	57	35	6	M12	4	✓	0,091
12L8J035043X8R00	35	29	67	43	6	M16	5	✓	0,226
12L8J042043X8R00	42	29	67	43	6	M16	6	✓	0,261

CDHT090320R-ML



CDHT090330R-ML



Designation	fz(min/max)	Design	Grade	IN2504	IN2505	IN2530					
CDHT090320R-ML	0,05/0,30	positive geometry R20		●	●	●					
CDHT090330R-ML	0,05/0,30	positive geometry R30		●	●	●					

● = P ● = M ● = K ● = N ● = S ○ = H

SPARE PARTS

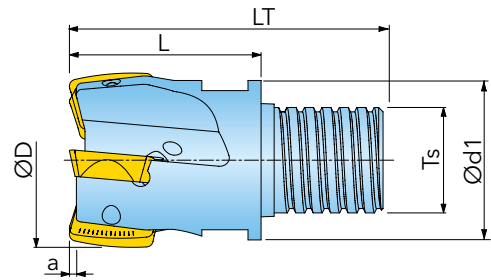


SM25-054-00 (1,1Nm) TX08x90-B

① = Insert screw ② = Torx-bit

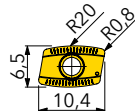
HIPOSPRO^B COPY MILL FOR FINISHING 12L8J...

FOR EXCHANGEABLE HEAD SYSTEM

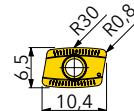


Designation	D	d1	LT	L	a	Ts	Z	IK	kg
12L8J016019TRR00	16	15,45	30,8	19	6	T10	2	✓	0,023
12L8J020022TSR00	20	18,25	35,8	22	6	T12	3	✓	0,039
12L8J025032TUR00	25	23,9	49,6	32	6	T15	4	✓	0,100

CDHT090320R-ML



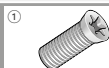
CDHT090330R-ML



Designation	fz(min/max)	Design	Grade	IN2504	IN2505	IN2530					
CDHT090320R-ML	0,05/0,30	positive geometry R20									
CDHT090330R-ML	0,05/0,30	positive geometry R30									

● = P ● = M ● = K ● = N ● = S ○ = H

SPARE PARTS



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

① = Insert screw ② = Torx-bit

Recommended cutting data CDHT09



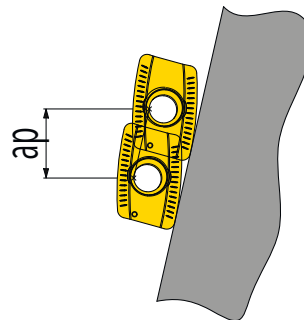
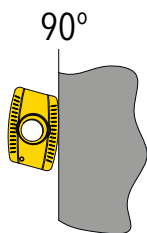
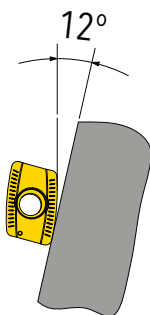
Insert:	CDHT090320R-ML	CDHT090330R-ML
Radius barrel shape	R20	R30
recom. path distance:	ap = 1,0-1,2 mm	ap = 1,2-1,5 mm

Recommended cutting data

ISO	material	cutting speed Vc [m/min]				radial infeed ae [mm]	feed per tooth fz [mm]
		1st choice dry machining resp. wear resistant carbide		1st choice wet machining resp. rough carbide			
P	unalloyed steel	IN2505	180 – 240	IN2530	150 – 200	0,3 – 0,5	0,1–0,25
	alloyed steel 800 N/mm²	IN2505	160 – 220	IN2530	130 – 180	0,2 – 0,4	0,1 – 0,25
	alloyed steel 1100 N/mm²	IN2505 / IN2504	140 – 200	IN2530	120 – 170	0,2 – 0,4	0,1 – 0,2
M	stainless steel	IN2530	120 – 180	IN2530	100 – 150	0,2 – 0,4	0,1 – 0,15
K	gray cast iron	IN2505 / IN2504	180 – 270	IN2530	140 – 220	0,3 – 0,5	0,1 – 0,25
	nodular cast iron	IN2505 / IN2504	160 – 220	IN2530	120 – 190	0,3 – 0,5	0,1 – 0,25
N	aluminum	-	-	-	-	-	-
S	high temperature alloys	IN2530	50 – 80	IN2530	40 – 70	0,1 – 0,3	0,07 – 0,15
	titanium alloys	-	-	IN2530	30 – 40	0,1 – 0,3	0,07 – 0,15
H	hard machining < 54 HRC	IN2504	60 – 100	-	-	0,1 – 0,2	0,1 – 0,15
	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.
- The starting feed rate should be reduced by 30%.



General information:

Insert screw: **SM25-044-00**

Torque: **1.1 Nm**

Torque wrench: **DTN011S with bit DS-T08TB**

Ingersoll Werkzeuge GmbH

Main Office:

Kalteiche-Ring 21-25 • D-35708 Haiger, Germany
Tel.: +49 (0)2773-742-0 • info@ingersoll-imc.de

Office South:

Florianstraße 13-17 • D-71665 Vaihingen-Horrheim
Tel.: +49 (0)7042-8316-0 • horrheim@ingersoll-imc.de

Office Wulften:

Steinstraße 11 • D-37199 Wulften
Tel.: +49 (0)5556-99 55 98-0 • wulften@ingersoll-imc.de