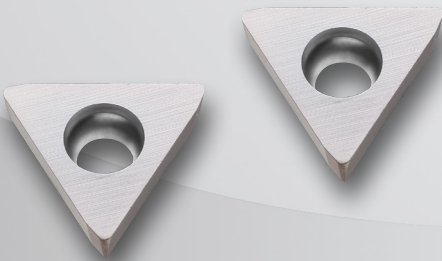
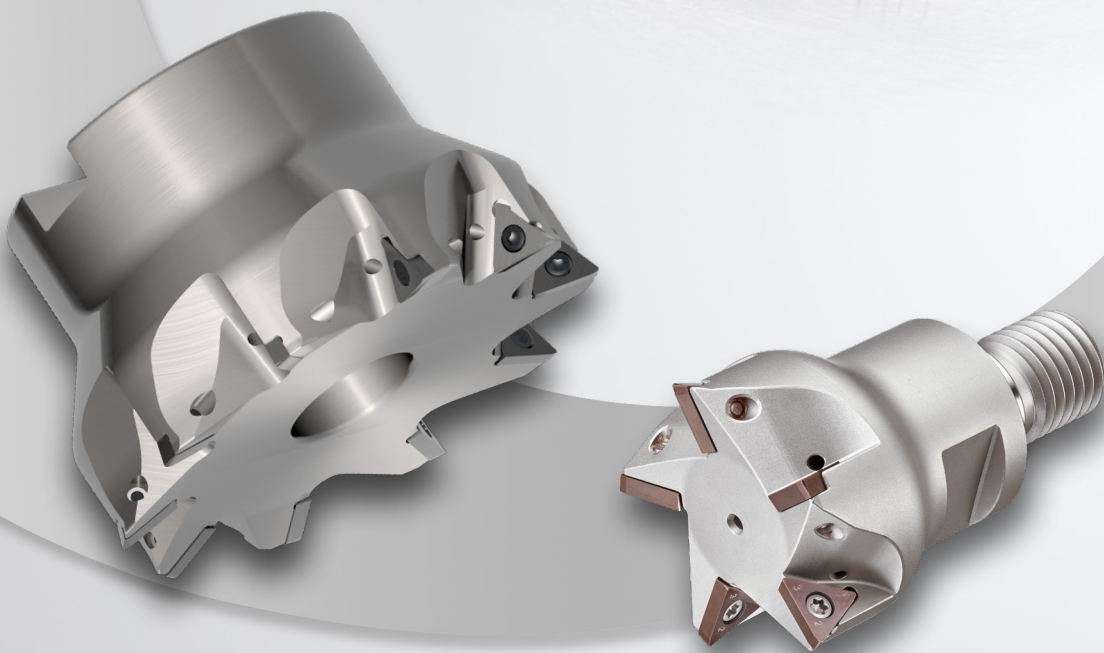


**UPDATE**

**INNOTOOL**

LOOK FORWARD



***SUPER FINISH***

**FINISH MILLS PT11E01 & PT11D10  
WITH SHORT WIPER FLAT**

- For finishing up to workpiece shoulders incl. undercuts •*
- Short wiper flat for minimized cutting forces •*
- Diameter range 30 - 125 mm •*

## **Product Overview**

When finishing we are often faced with unstable components or workpiece clampings. Therefore only with tools that generate very low axial cutting forces, the required surface qualities can be achieved here.

The only 1 mm short wiper flat of the new finish cutter is ideally suited for such conditions.

Another interesting feature is the ability to realize an undercut into shoulders with this tool resp. to produce finish surfaces very close to contours.

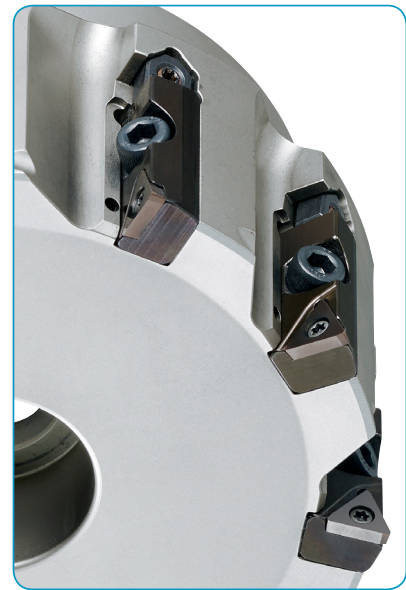
In order to be able to offer our customers a more attractive solution in terms of price, we are renouncing the cost-intensive cartridge design of **UF11D10** series and will only offer this as a special solution in the future.

The fixed insert seats have already proven their worth in screw-in type cutters, so that we now use this design also for the shell-type mills. Cutters with fixed pockets of series **PT11D10** are designed with the same number of teeth as the **UF11D10** cutters in cartridge design. Cutters of **PT11D10** series even offers a higher productivity that before due to its close pitch design.

The 3-edged insert is available in **IN4004** and also in our grade **IN2504**, which can be universally used for steel, cast iron and hard machining.

In addition, the new **IN0560** cermet grade allows excellent surfaces in steel and stainless steel at very high cutting speeds.

The finish cutters of series **PT11E01** with screw-in type adaption are available in diameter range 30 - 42 mm and those of series **PT11D10** in diameter 50 - 125 mm with adaption acc. to DIN 8030.



*Pic. 1 Axial adjustable special finish cutter UF11D10*

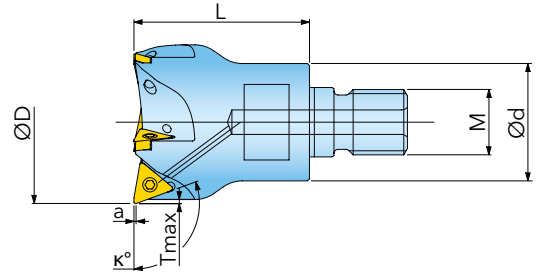
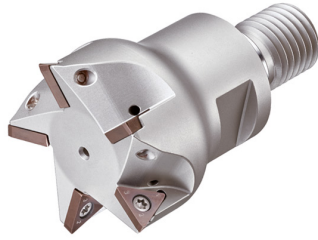
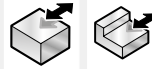
## **Advantages**

- Finishing up to workpiece shoulders incl. undercut
- Short wiper flat for low axial cutting forces
- Cutters are available in close and coarse pitch (only for PT11D10)
- With internal coolant supply
- Grade IN2504 for e.g. steel, cast iron and hard machining
- Cermet grade available



# SUPER FINISH FINISH MILL PT11E01

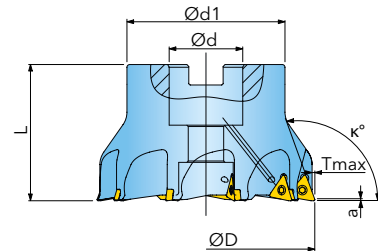
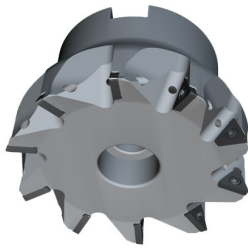
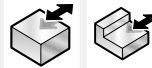
SCREW-IN TYPE ADAPTION



Designation	D	d1	L	$\kappa$	a	Tmax	M	Z		
PT.030.001	30	29	43	110	0,3	0,5	M16	4	✓	0,20
PT.035.001	35	29	43	110	0,3	0,5	M16	4	✓	0,24
PT.040.001	40	29	43	110	0,3	0,5	M16	5	✓	0,27
PT.042.001	42	29	43	110	0,3	0,5	M16	5	✓	0,28

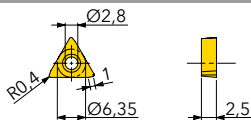
# SUPER FINISH FINISH MILL PT11D10

ADAPTION ACC. TO DIN 8030



Designation	D	d	d1	L	$\kappa$	a	Tmax	Z		
PT.050.002	50	22	45	40	110	0,3	0,5	5	✓	0,35
PT.050.001	50	22	45	40	110	0,3	0,5	7	✓	0,35
PT.063.002	63	22	45	40	110	0,3	0,5	6	✓	0,49
PT.063.001	63	22	45	40	110	0,3	0,5	9	✓	0,50
PT.080.002	80	27	58	50	110	0,3	0,5	7	✓	1,07
PT.080.001	80	27	58	50	110	0,3	0,5	10	✓	1,08
PT.100.002	100	32	85	50	110	0,3	0,5	8	✓	2,03
PT.100.001	100	32	85	50	110	0,3	0,5	12	✓	2,05
PT.125.002	125	40	100	63	110	0,3	0,5	10	✓	3,90
PT.125.001	125	40	100	63	110	0,3	0,5	14	✓	3,86

TCHW110204R-W



Designation	fz(min/max)	Design	Grade	IN0560	IN2035	IN2504	IN4004				
TCHW110204R-W	0,08/0,15	wiper finish edge R0,4									

● = P ● = M ● = K ● = N ● = S ○ = H

SPARE PARTS



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

① = Insert screw ② = Screw driver

# SUPER FINISH TCHW110204R-W

## Tips & Parameters

insert: TCHW110204R-W  
average chip thickness: **hm = 0.08 mm**  
max. cutting depth: **ap = 0.3 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	IN0560	250-500	IN4004	200-240	0.08-0.15
alloyed steel 800 N/mm <sup>2</sup>	IN2504	210-250	IN4004	160-200	0.08-0.10
alloyed steel 1100 N/mm <sup>2</sup>	IN2504	160-180	IN4004	110-130	0.08
stainless steel	IN2035	120-180	IN2035	80-130	0.08-0.15
gray cast iron	IN2504	180-250	IN4004	150-200	0.08-0.15
nodular cast iron	IN2504	140-210	IN4004	110-160	0.08-0.10
aluminum	IN2504	800-1500	IN4004	500-800	0.08-0.15
high temperature alloys	IN2504	110-125	IN4004	60-80	0.08
titanium alloys	IN2504	40-50	IN4004	30-40	0.08
hard machining < 54 HRC	IN2504	70-100	-	-	0.08
hard machining < 63 HRC	IN2504	50-80	-	-	0.08

## 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.
- Perfect surfaces are usually achieved by using the grade IN0560 (Cermet).
- Feed per revolution should not exceed  $f_u=0.8$  mm.

## General Information

insert screw: **SM25-064-00**  
torque: **1.1 Nm**  
torque wrench: **DTN011S with bit DS-T08TB**