



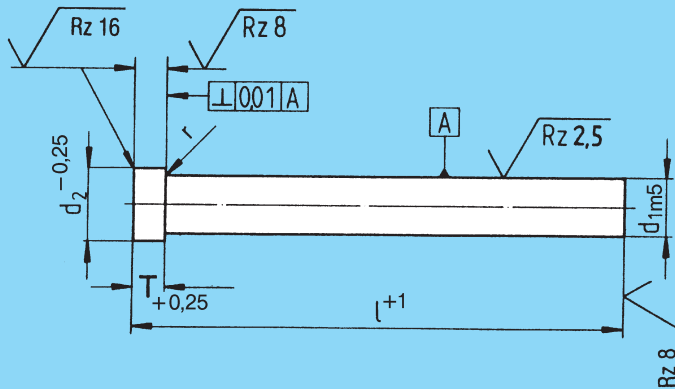
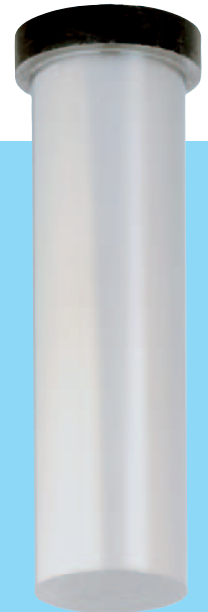
# Round Piercing Punches

**ISO 8020**

**Type A**

**Precision finish**

- with continuous shaft
- with cylindrical Head
- plunge cut ground



**Range of application**

For press tools used mainly for piercing/cutting perforations into sheet steel.

**Size/head size**

See table - all dimensions are in mm

**Fit/tolerances**

Nominal diameter  $d_1$  (shaft)

	3 Ø	4 + 5 + 6 Ø	8 + 10 Ø	13 + 16 Ø	20 + 25 Ø	32 Ø
m5	+ 0,006	+ 0,009	+ 0,012	+ 0,015	+ 0,017	+ 0,020
	+ 0,002	+ 0,004	+ 0,006	+ 0,007	+ 0,008	+ 0,009

Length: total  $l^{+1}$

All other tolerances: see illustration and table respectively for non-specified tolerances in accordance with ISO 2768-m

**Material**

HWS: High alloy cold working steel (approx. 12 % Chrome)

HSS: High speed steel

**Material properties**

HWS: For working higher strength materials  
High wear resistance - long life

HSS: For working high strength or difficult to work materials. Very abrasion proof high tensile strength and high heat resistance.

**Hardness**

		HWS	HSS
Shaft:	HRC	60 - 64	62 - 66
Head:	HRC	45 - 55	45 - 55

**Finish**

Hardened, annealed, cylinder head hot formed, subsequently the shaft is plunge cut ground over the whole length including the underneath part of the head. Head surface ground.

**Please note**

HSS piercing punches can be produced with special surface coating on request (pages 42/43).

Piercing punches made from tungsten carbide are also available (pages 42/43)

# Table of dimensions

## Piercing Punches Type A

Shaft-Ø $d_1$ m5	Total length l <sup>+1</sup>					Head		Head height T + 0,25
	63	71	80	90	100	Ø d <sub>2</sub> <sup>-0,25</sup>	r <sup>±0,1</sup>	
3						5	0,25	3
4						6		
5						8		
6						9		
8						11		
10						13		
13						16	0,4	5
16						19		
20						24		
25						29		
32						36		

The filled-in Spaces indicate standard dimensions.