

wieland

# Precision brass rod

W5006



**W**  
**5006**

# The advantages

## Efficiency

Economic efficiency is increasingly important in the present day. This also applies to traditional materials such as machining brass which has been successfully used for decades. The closer the raw material resembles the end product, the more efficient the subsequent processing.

Wieland W5006 hexagonal precision rod meets these parameters in every respect, i. e. the outer contours are precision formed. Contrary to machined polygonal cross-sections, surfaces of drawn polygonal rods have ultra smooth, flat and dense surfaces with a continuous notch resistant microstructure. Significant material savings are an additional advantage. EN 12164 forms the basis for hexagonal rods for machining.

## Quality features

The main quality characteristics of the Wieland W5006 precision hexagonal rod are:

- specially developed chemical compositions for polygonal rods
- tight alloy tolerances guarantee stable material properties
- good machinability through homogeneous lead distribution
- uniform drawn surfaces
- eddy current tested on request in accordance with DK1 Material Test Sheet 791 (for widths across flats of up to 60 mm)
- width deviations across flats are much smaller than width tolerances across flats
- low stress+compliance with ISO 6957 can be certified on request
- straightness considerably restricted compared to EN 12164 (width across flats 10 to 30 mm)

# Mechanical properties

Mechanical properties		Temper	
		R430 (halfhard)	R500 (hard)
Width across flats	mm	> 10-35	3-10
Tensile strength $R_m$	MPa	min. 430	min. 500
yield strength $R_p 0.2$	MPa	min. 220	min. 350
Elongation		to EN 12164	

Temper "M" according to EN 12164 applies to rods with width across flats from 36 mm.

# Material

Material designation			Composition in %		
Wieland	EN	UNS	Cu	Zn	Pb
Z33	CuZn39Pb3 CW614N	C38500	58.5	Remainder	3

# Dimensions and tolerances

Size range	Tolerance
Width across flats in mm	mm
3	-0.06
> 3 to 6	-0.08
> 6 to 10	-0.09
> 10 to 18	-0.11
> 18 to 30	-0.13
> 30 to 50	-0.16
> 50 to 60	-0.19

# General

## Length tolerances

Size range	Length tolerances 3000mm +/- mm	
Width across flats in mm	Wieland	EN 12164
2 to 30	30	50
up to 32	30	
> 32	100	
30 to 80		100

## Straightness

Size range	Straightness	
Width across flats in mm	Wieland	EN 12164
10 to 30	1.0	1.5
> 30 to 50	1.0	1.5
30 to 80	1.5	

## Twist

Size range	Twist	
Width across flats in mm	Wieland	EN 12164
10 to 18	0.5	1.0
> 18 to 30	1.0	2.0
30 to 60	1.5	3.0

## End finish

Wieland W5006 precision hexagonal rod is supplied with the following standard end finish:

Size range	End finish
Width across flats in mm	
10 to 16	Point and chamfer according to EN 12164
> 16 to 32	One end chamfered according to EN 12164, one end cut
> 32	both ends cut

The chamfered end of the rod is additionally flattened. Other end finishes to be agreed on request (not available ex stock).

## Edge radii

On request sharp-edged or with radii according to EN 12164. Sharp edges are standard for widths across flats of up to 26 mm.

## Packaging

up to 5 mm width across flats	wooden box	ca. 250 kg
> 5 mm bis 10 mm	wooden box	ca. 500 kg
> 10 mm	bundles	ca. 1.000 kg

Smaller bundles up to approx. 500 kg are also possible. The bundles are repeatedly strapped with steel band over Corrugated board set.

## Stock range

A range of over 30 sizes with widths across flats from 4 to 60 mm is constantly held in stock at our Vöhringen warehouse. Please choose the required dimensions from our stock list.



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