

**steelceram**

CERAMIC SOLUTIONS

**Solutions in advanced technical ceramics**

Portfolio for the welding industry

# Technical ceramics

Technical data sheets of our materials



## Technical characteristics:

Density 6.02 gr/cm<sup>3</sup>  
Bending resistance 1050Mpa  
Compression strength 2250 Mpa  
Impact resistance 8 Mpa.m<sup>1/2</sup>  
Hardness 1150 HV 10  
Max. temperature of use 1000°C  
Wide range of colours



## Technical characteristics:

Density 5.70 gr/cm<sup>3</sup>  
Bending resistance 1.000 Mpa  
Compression strength 2250 Mpa  
Impact resistance 15 Mpa.m<sup>1/2</sup>  
Hardness 1250 HV 10  
Max. temperature of use 1000°C  
Colour: Brown



## Technical characteristics:

Density 3.2 gr/cm<sup>3</sup>  
Bending resistance 750Mpa  
Compression strength 2500 Mpa  
Impact resistance 6.5 Mpa.m<sup>1/2</sup>  
Hardness 1600 HV 10  
Max. temperature of use 1250°C  
Colour: Black



## Technical characteristics:

Density 3.9 gr/cm<sup>3</sup>  
Bending resistance 350 Mpa  
Compression strength 3000 Mpa  
Impact resistance 4Mpa.m<sup>1/2</sup>  
Hardness 1800 HV 10  
Max. temperature of use 1450°C  
Colour: Ivory

# ***POSITIONING PINS***

Positioning of tailor-made parts

The hosting pins ensure a perfect placement of the components on the tools during the manufacturing process.

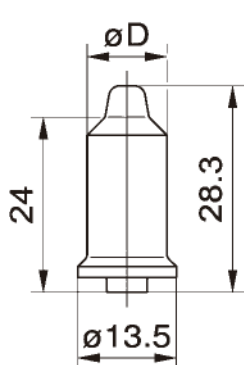


**Low-wear:** The Steelceram ceramic hosting pins guarantee a longer service life due to the high hardness of the material which does not lose tolerance overtime due to wear and tear.

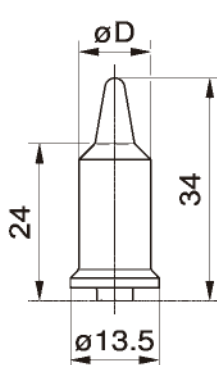
**Non-stick:** The weld spatters resulting from the welding processes do not stick to the ceramic thanks to the nature of the material and the optimal finish of our materials.

# Standard centering pins

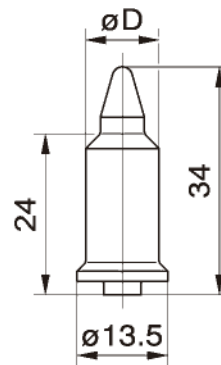
The types of feeding can be:



*Manual*



*Automatic*



*DUO*

We manufacture standard single-piece and hybrid centering pins. Hybrids are generally made up of a metal part, a ceramic sleeve and a PEEK plastic base.



**Centering Pin Zr/ Zr+**

**Hybrid Pin**  
**Inox - Zr/Zr+ - PEEK (base)**

# Standard Metrics

<b>M4</b>	<b>M5</b>	<b>M6</b>	<b>M8</b>	<b>M10</b>	<b>M12</b>
4.5	5.5	6.5	8.5	11.0	13.0
4.6	5.6	6.6	8.6	11.1	13.1
4.7	5.7	6.7	8.7	11.2	13.2
4.8	5.8	6.8	8.8	11.3	13.3
4.9	5.9	6.9	8.9	11.4	13.4
5.0	6.0	7.0	9.0	11.5	13.5
5.1	6.1	7.1	9.1	11.6	13.6
5.2	6.2	7.2	9.2	11.7	13.7
5.3	6.3	7.3	9.3	11.8	13.8
5.4	6.4	7.4	9.4	11.9	13.9
5.5	6.5	7.5	9.5	12.0	14.0
5.6	6.6	7.6	9.6	12.1	14.1
5.7	6.7	7.7	9.7	12.2	14.2
5.8	6.8	7.8	9.8	12.3	14.3
5.9	6.9	7.9	9.9	12.4	14.4
6.0	7.0	8.0	10.0	12.5	14.5
		8.1	10.1	12.6	14.6
		8.2	10.2	12.7	14.7
		8.3	10.3	12.8	14.8
		8.4	10.4	12.9	14.9
		8.5	10.5	13.0	15.0
			10.6		
			10.7		
			10.8		
			10.9		
			11.0		

Diameter Tolerance -0.05mm -0.1mm

Example of reference

**M4-Zr-AUT-D4,5**

*Metric 4 Centering Pin, Zircon, Auto Feed, Diameter 4,5*

# ***Special Pieces***

## **Tailor-made manufacturing for any type of special parts.**

We are equipped with the tools and technology to manufacture turning and milling parts, as well as the insertion of metal parts, internal and external ceramic threading, grooving and contouring.



# ***Advanced Tubes and bearings***

## **Adjusting pins for templates and ceramic bearings.**

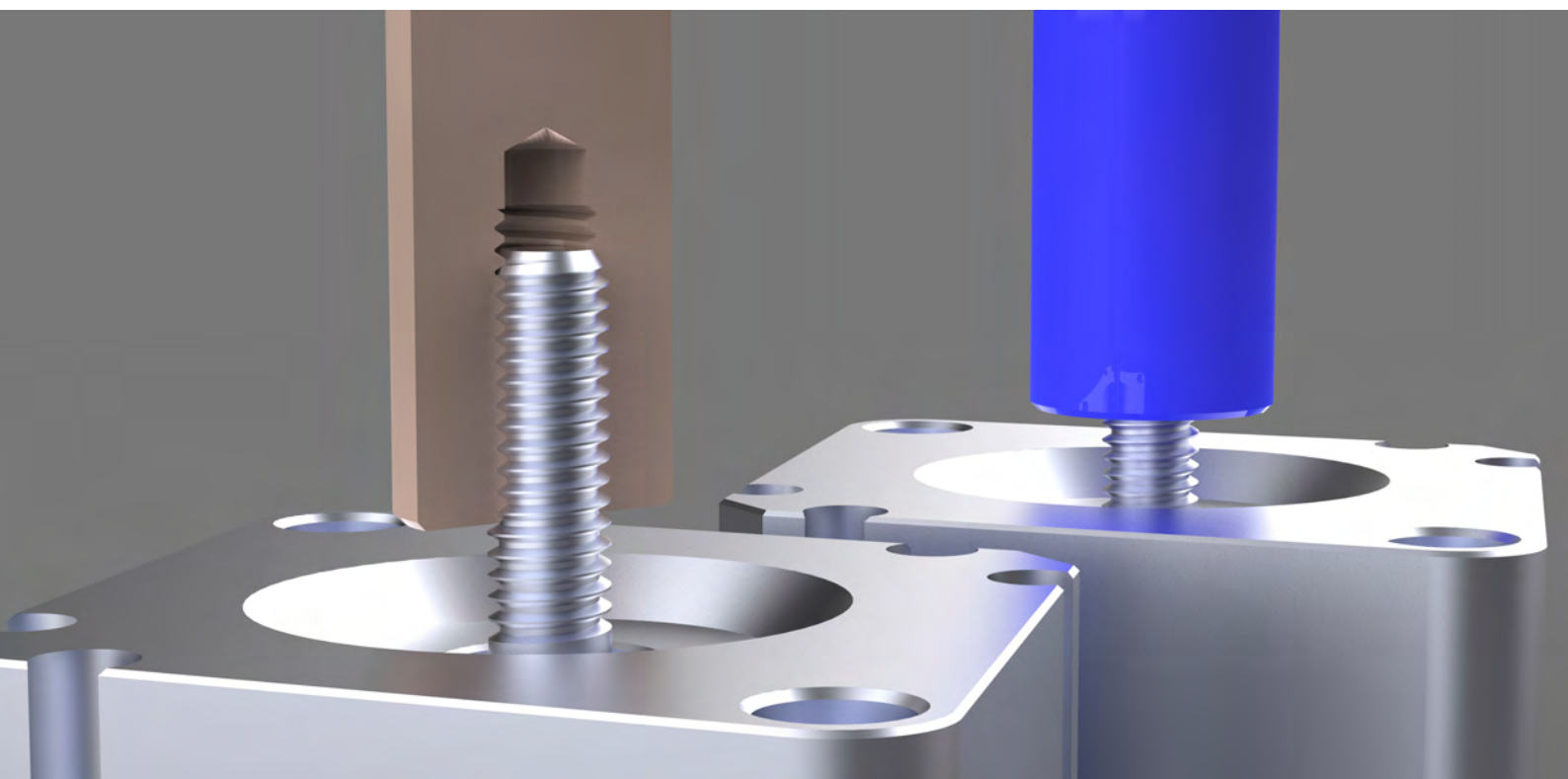
We manufacture both fixed and removable tubes for the adjustment of sheets and other applications and customised bearings with internal hole of h7 tolerance.



# ***Threaded ceramic***

## **Commercial metric ceramic thread**

At Steelceram we have the capacity to manufacture internal threads in all our products. We offer the possibility to replace metal threaded bushings with ceramic threading. This allows higher working temperatures and offers higher tensile strength.







**DO YOU NEED A SPECIAL PROTOTYPE?**  
Our technical department will help you

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