# Centering Clamping Elements• with clamping balls, operation from the bottom 23340.0322



## **Product Description**

To be used for accurate centering and clamping in blind holes of workpieces with locating hole. Exact self-centering with a precision of  $\pm 0,025$  mm. The clamping balls frictionally center and hold workpieces with raw or pre-machined surfaces down to the bearing points. Large adjustment stroke and a small building height are a feature of this center clamping element. **Mounting from either top or bottom**.

#### **Material**

#### **Body**

· Tool steel, hardened, blackened

#### Spring

Stainless steel

#### Clamping balls

Stainless steel 1.4112, hardened and ground

#### **Assembly**

Assembly instruction for mounting from the top: Take-off clamping plate and screw. Fasten body by means of threaded pin via  $WS_2$ .

#### Operation

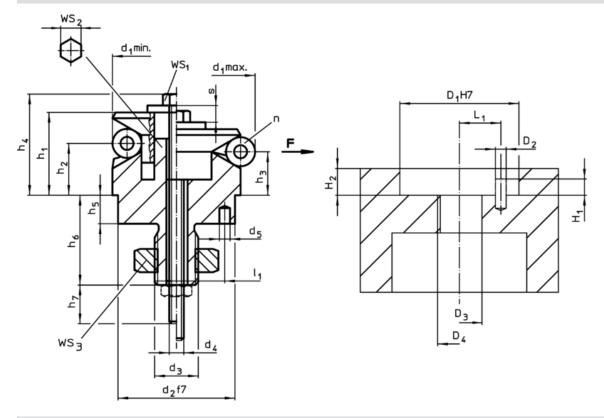
Operation from bottom manually or automatically with either pneumatic or hydraulic actuation.

#### More information

## **Further products**

 Centering Clamping Elements, with clamping segments, operation from the bottom

## **Drawing**



Erwin Halder KG

### **Order information**

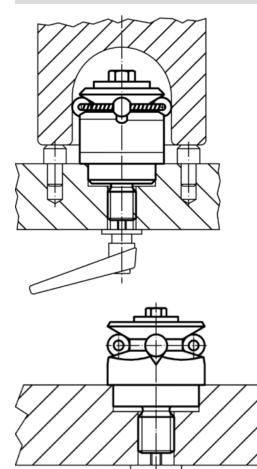
	Dimensions Numb															Stroke	ws c			ClampingTightening Location			Art. No.
	of b															s				force	torque	hole	
d <sub>1</sub>	d <sub>1</sub>	d <sub>2</sub>	d <sub>3</sub>	d <sub>4</sub>	d <sub>5</sub>	h <sub>1</sub>	h <sub>2</sub>	h <sub>3</sub>	h <sub>4</sub>	h <sub>5</sub>	h <sub>6</sub>	h <sub>7</sub>	I <sub>1</sub>	Ball	n		ws₁	WS <sub>2</sub>	WS <sub>3</sub>	F	max.	DDD D HHL	
min.	max.	f7			+0,3				-2		+1	~	±0,1	Ø						max.		H7 +⊕0	
	[mm]															[mm]		[mm]		[kN]	[Nm]	[mm] [g	
22,5	26,5	20	M10	M5	3	19,6	14,1	12,9	24,3	6	17,4	15	7	4	3	2,3	8	6	16	4,5	10	2031 <b>101</b> 130,56777	23340.0322

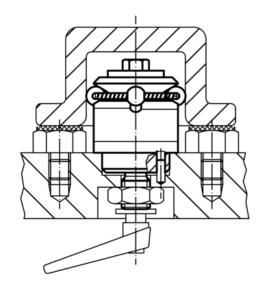


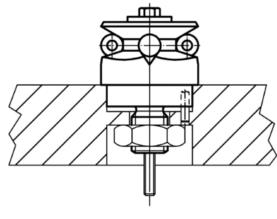
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# **Application example**







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