



# HEATING ELEMENT ACCESSORIES

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The suitable accessories for your electric heating elements made of molybdenum disilicide ( $\text{MoSi}_2$ )



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# 1 Overview

The product range includes a wide range of accessories for connecting electric heating elements made of molybdenum disilicide ( $\text{MoSi}_2$ ). These include element holders (single-shank and two-shank holders), contact straps, air nozzles and passage bricks. We also manufacture a dense, fixed anchor system, consisting also of a passage brick and a sealing plate.

For the heating element sizes 3/6 mm and 4/9 mm, you will receive single-holders made of stainless steel and ceramic double-holders. For the element size 4/9 mm, we also offer double-holders with ceramic brackets in a profile sheet, which can be flexibly adapted to the heating element. For an element size of 6/12 mm we also supply stainless steel single holders as well as double holders with ceramic brackets. We generally recommend using of ceramic double holders, as these holders are characterized by easy handling during installation and enable uniform contact pressure in comparison to single holders.

Our contact straps are made of aluminium mesh. The special contact ends allow a uniform and durable pressure on the aluminization of the heating element, even under temperature stress. Depending on the size of the element, we offer contact straps in various lengths from 100 mm to 300 mm Power to Power, Element to Element and Power to Element types.

When using refractory passage bricks, the anchor systems facilitate the installation and removal of heating elements, thereby minimizing the risk of breakage. We offer two systems in which passage bricks are manufactured individually according to your specifications. They are suitable for application temperatures up to 1600 °C (2912 °F).

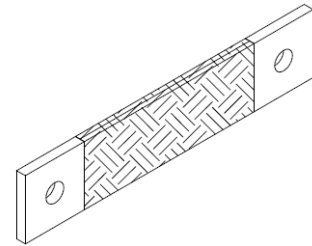
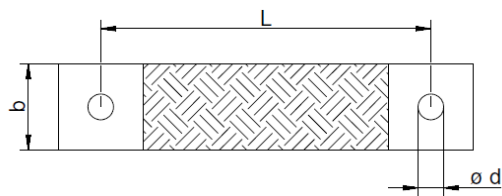
## Your benefits:

- ✓ Simple and flexible handling of the two-shank holders
- ✓ Different lengths and sizes of contact straps
- ✓ Uniform contact pressure of the contact straps prevents voltage peaks
- ✓ Individual production of the passage bricks according to your specifications

## 2 Accessories

### 2.1 Contact straps

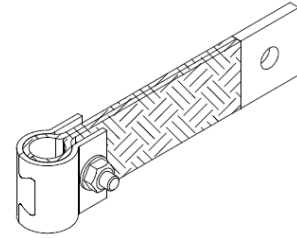
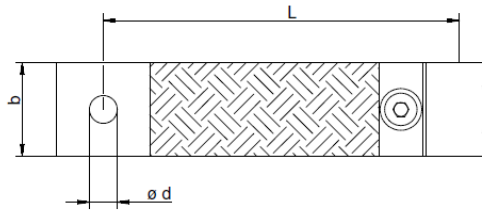
#### Contact strap: Power to Power



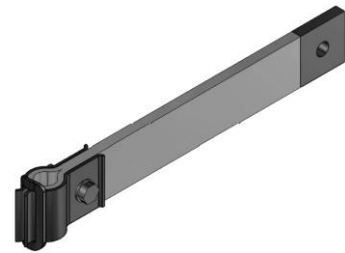
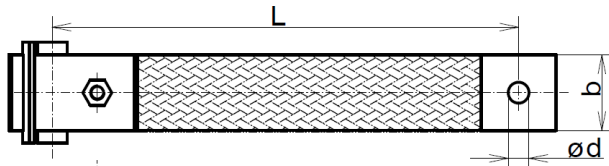
Element size [mm]	L [mm]	Ø d [mm]	b [mm]
3/6	100, 150, 200	6.5	18
4/9	100, 150, 200	6.5	18
6/12	100, 150, 200, 250, 300	8.3	30
9/18	150, 200, 250, 300	8.3	30
12/24	150, 200, 250, 300	8.3	40

Special lengths available on request.

### Contact strap: Power to Element



Contact strap Power to Element for 3/6 mm and 4/9 mm.

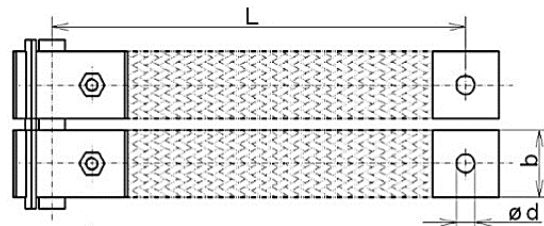


Contact strap Power to Element for 6/12 mm.

Element size [mm]	L [mm]	Ø d [mm]	b [mm]
3/6	100, 150, 200, 250, 300	6.5	18
4/9	100, 150, 200, 250	6.5	18
6/12	100, 150, 200, 250, 300	8.3	30

Special lengths available on request.

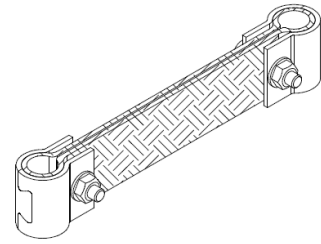
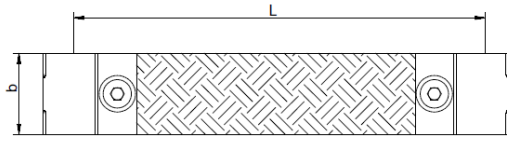
### Double contact strap: Power to Element for big elements



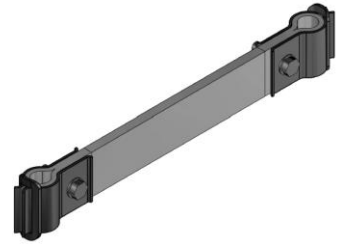
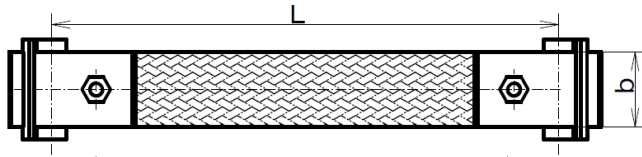
Element size [mm]	L [mm]	Ø d [mm]	b [mm]
9/18	100, 150, 200, 250, 300	8.3	30
12/24	150, 200, 250, 300	8.3	40

Special lengths available on request.

### Contact strap: Element to Element



Contact strap Element to Element for 3/6 mm and 4/9 mm.



Contact strap Element to Element for 6/12 mm.

Element size [mm]	L [mm]	b [mm]
3/6	100, 150, 200, 250, 300	18
4/9	100, 150, 200, 250	18
6/12	100, 150, 200, 250, 300	30

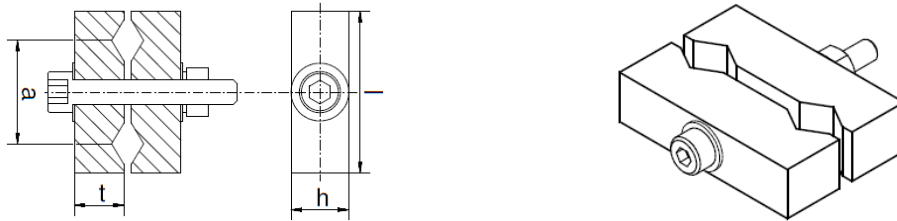
Special lengths available on request.

## 2.2 Single-shank holders

Single-shank holder made of stainless steel			
Element size [mm]	Ø d [mm]	Ø D [mm]	B [mm]
3/6	6.5	14	10.5
4/9	9.5	22	13
6/12	13.5	32	13.2
9/18	19.5	42	14
12/24	26	48	14

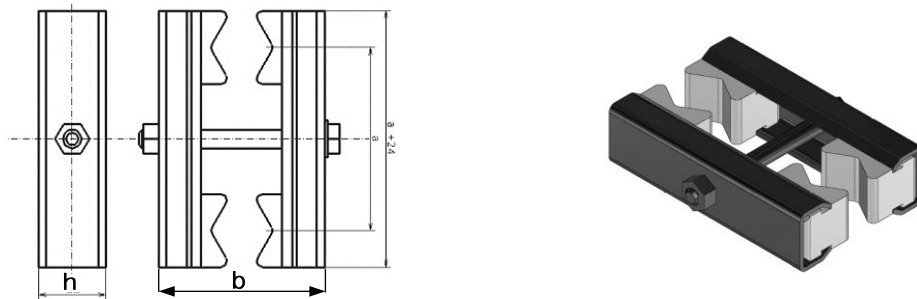
## 2.3 Two-shank holders

### Two-shank holder made of ceramic



Element size [mm]	a [mm]	h [mm]	t [mm]
3/6	25	10	12
4/9	25	10	12

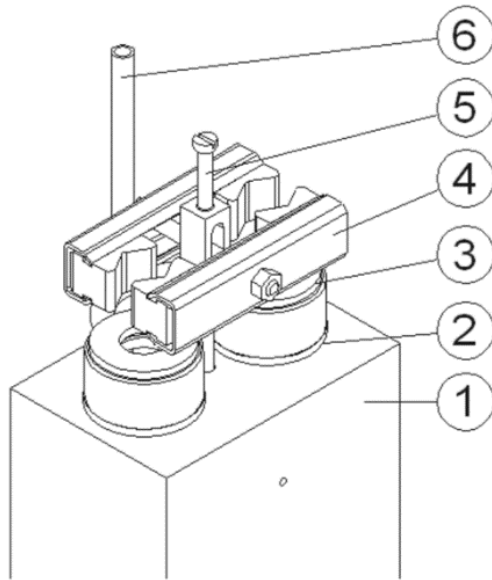
### Two-shank holder with ceramic brackets



Element size [mm]	a [mm]	h [mm]	b [mm]
3/6	25, 30, 35	14	25
4/9	25, 30, 35	14	25
6/12	40, 50, 60	22	45
9/18	40, 50, 60	22	52
12/24	60, 80, 100	22	60

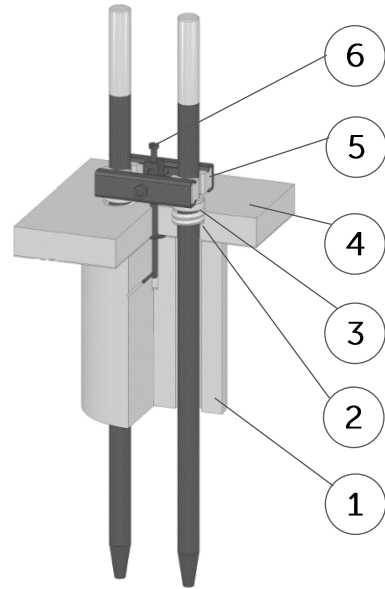
## 2.4 Anchor systems

### Anchor systems with passage bricks



#### System 1 made of:

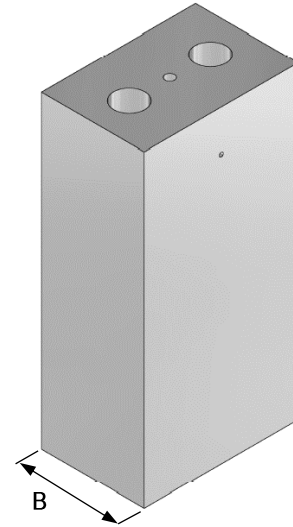
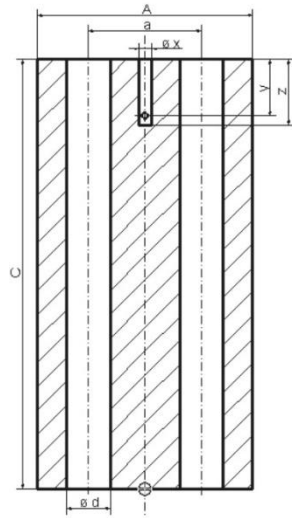
- 1) Passage brick
- 2) Lower gasket for air nozzle
- 3) Upper gasket for air nozzle
- 4) Two-shank holder with ceramic brackets
- 5) Anchoring
- 6) Air nozzle



#### System 2 made of:

- 1) Passage brick
- 2) Sealing cord
- 3) Sealing ring made of ceramic
- 4) Calcium silicate plate and gasket
- 5) Two-shank holder with ceramic brackets
- 6) Anchoring

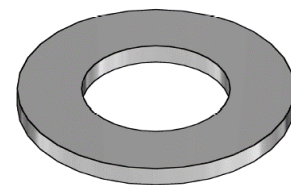
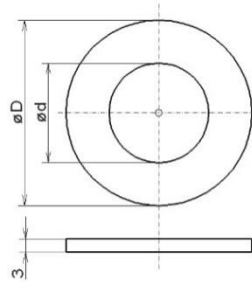
## Passage bricks



Element size [mm]	A [mm]	B [mm]	C [mm]	a [mm]	Ø d [mm]
6/12	115	64	229	50	15
9/18	115	64	229	50	23
	115	76	229	60	23

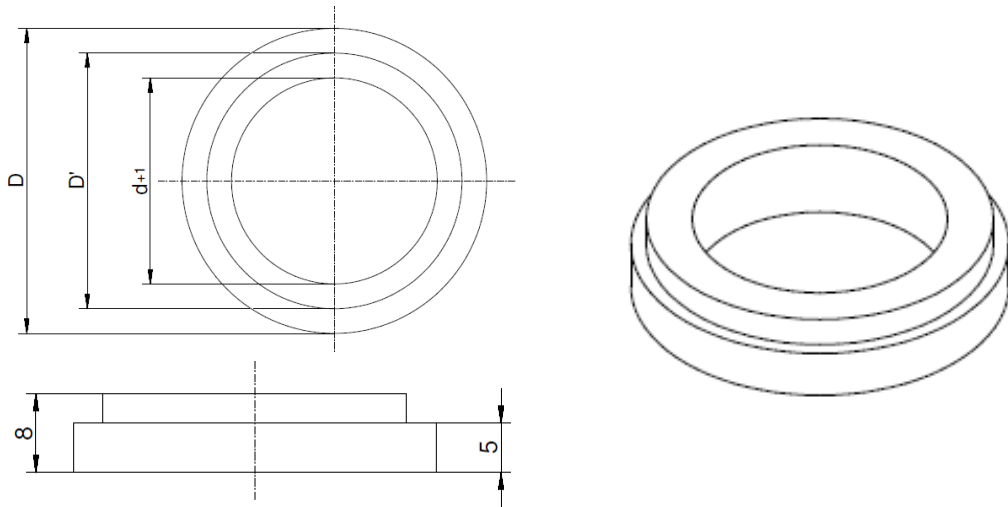
Other shapes and sizes available on request.

## Gaskets for air nozzles



Element size [9/18 mm]	Ø d [mm]	Ø D [mm]
Upper gasket	17	38
Lower gasket	22	42

## Sealing ring made of steatite ceramic



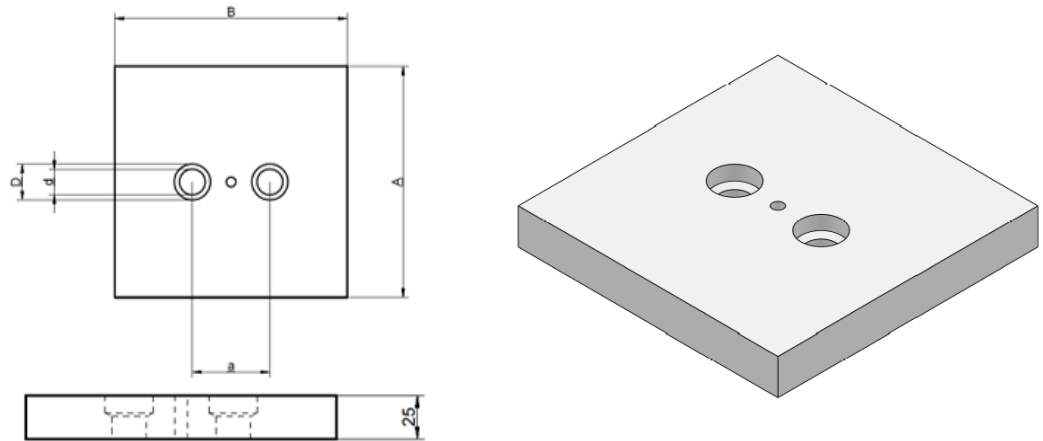
Element size [mm]	$\varnothing D$ [mm]	$\varnothing D'$ [mm]	$\varnothing d+1$ [mm]
6/12	20	17	13
9/18	27	23	19
12/24	32	29	25

## Sealing cord



Element size [mm]	Length of sealing cord [mm]
6/12	2 x 180
9/18	2 x 230
12/24	2 x 360

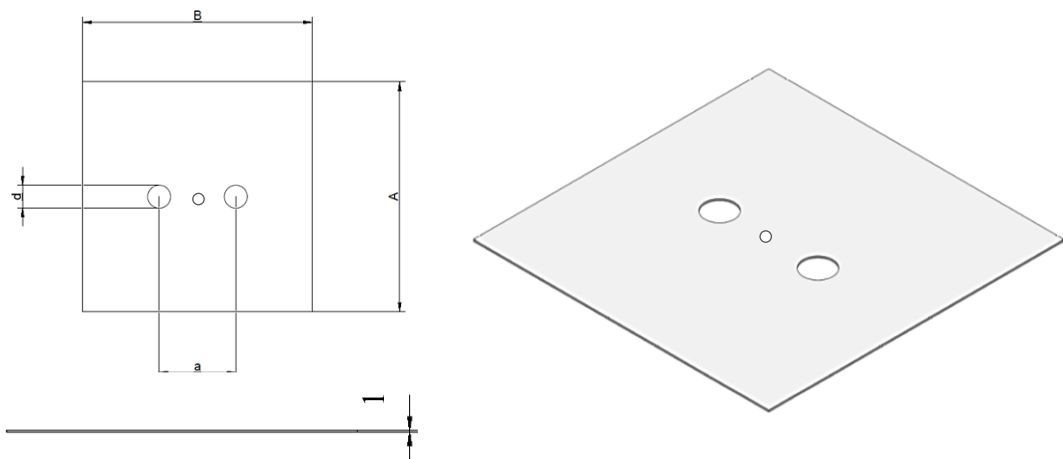
### Calcium silicate plate



Element size [mm]	A [mm]	B [mm]	a [mm]	Ø d [mm]	Ø D [mm]
6/12	150	150	50	13	21
9/18	180	180	60	20	28
12/24	180	180	80	26	32

Special dimensions available on request.

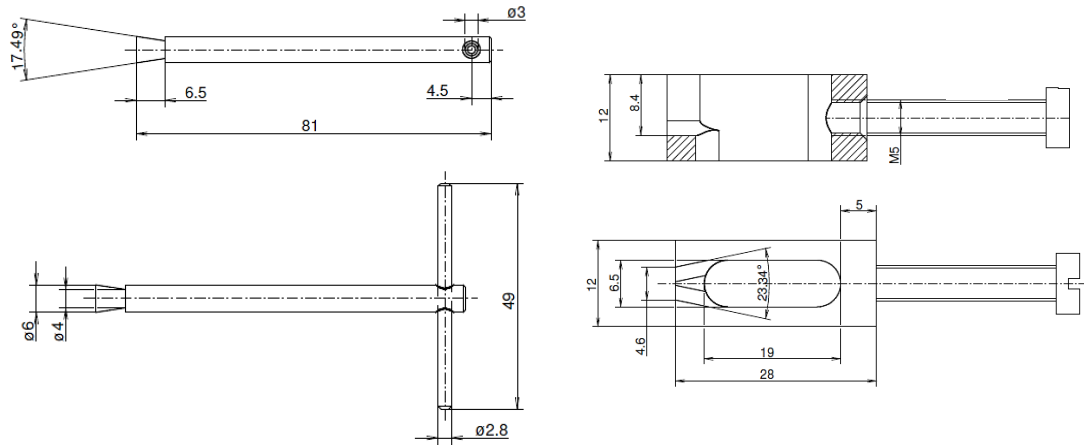
### Gasket for calcium silicate plate



Element size [mm]	A [mm]	B [mm]	a [mm]	Ø d [mm]
6/12	150	150	50	12
9/18	180	180	60	18
12/24	180	180	80	24

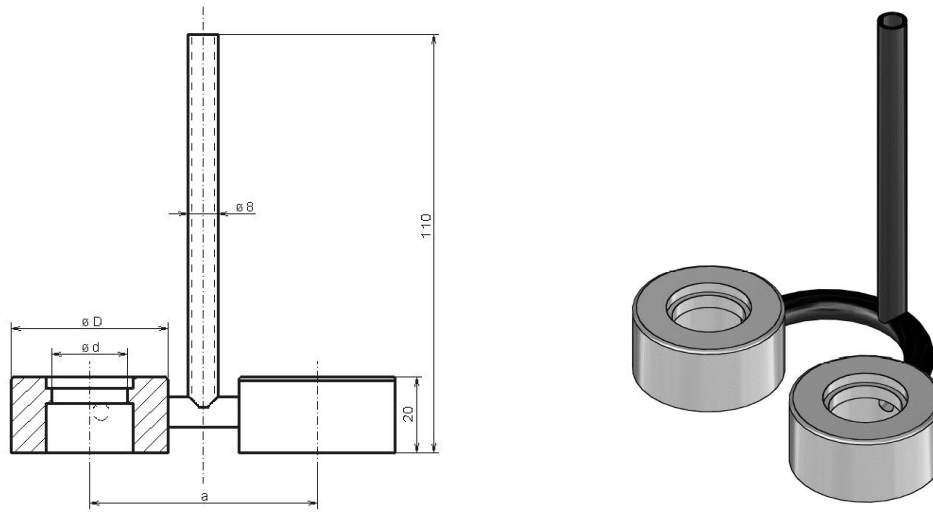
Special dimensions available on request.

Anchoring



- Consisting of:
- Anchor pin
  - Fastening yoke
  - Locking pin

Air nozzle



Element size [mm]	a [mm]	Ø D [mm]	Ø d [mm]
9/18	60	42	19.5