

Product Information

**02/2011**

Flexible connectors - Solderless terminals - Contact systems

# druseidt

## Elektrotechnik



High current contact systems  
and cleaning devices  
type series up to 5000 A



## Measurable advantages and savings when working with druseidt high current contact-saddles

- **Contact of bus-bars or product-carriers with different thickness**

Druseidt high current contact-saddles enable to contact bus-bars or product-carriers with a thickness difference of 10-15 mm without any changing or rebuilding of contact parts. So you get no problem, also when working with damaged or bended bus-bars or product carriers with different thickness.

- **Self cleaning effect**

All standardized contact-saddles are mounted in a way that the contact surfaces are rubbed clean when the bars are inserted.

- **Safely contact also when working with light bus-bars or light product-carriers**

When working with light bus-bars or light product-carriers we are able to reduce the initial load of the contacts or eliminate it completely when working with pneumatically activated contacts. So it is possible to work with lighter bus-bars too also into fully automatically driven plants.

- **Optionally with or without pneumatically support**

Standardized and tested series in a cheap price level. Optionally deliverable with or without pneumatically support.

- **Reduction of chemical deposits**

Compact design in a construction which enables that chemical components can flow away also when cleaning the contacts by spilling with water.

- **Reduction of the number of contacts**

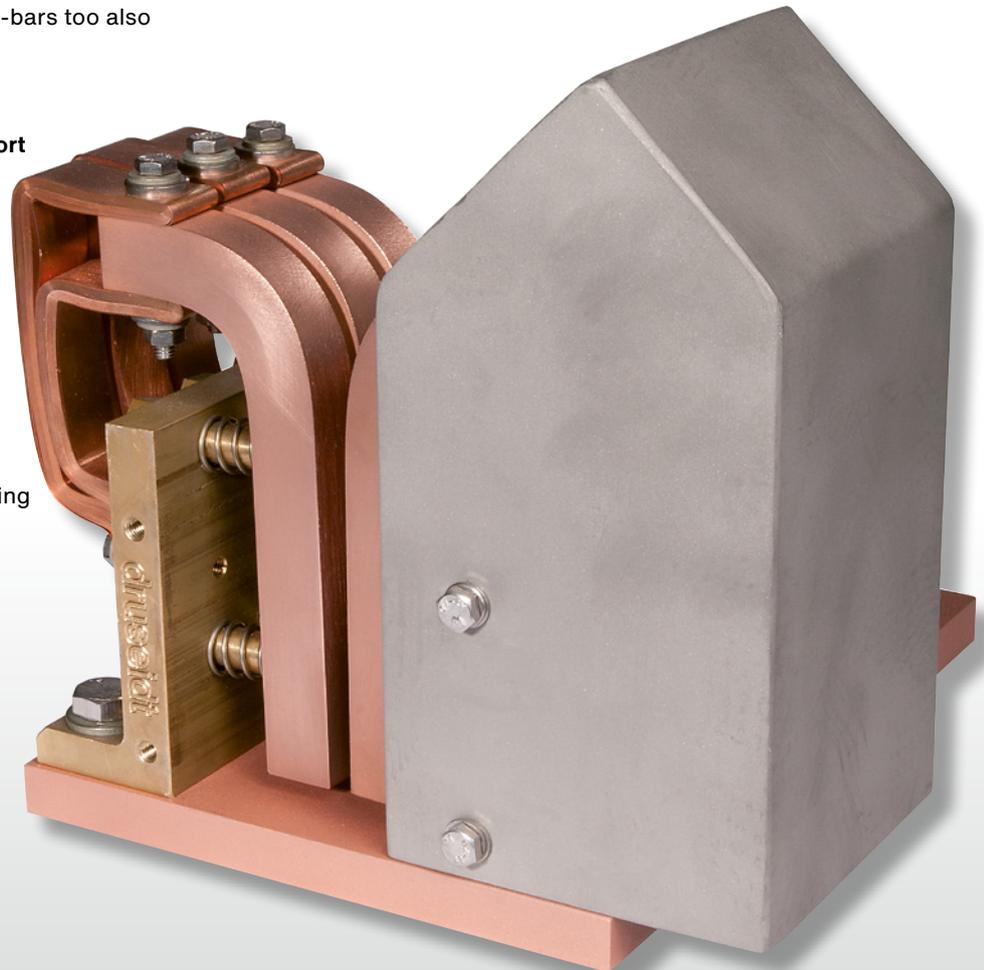
We reduced the number of contacts on to 5/6 designs for a power range 500 A up to 5000 A. That is only 1/3 part of the number of contacts compared with our present systems.

- **Reduction of the costs**

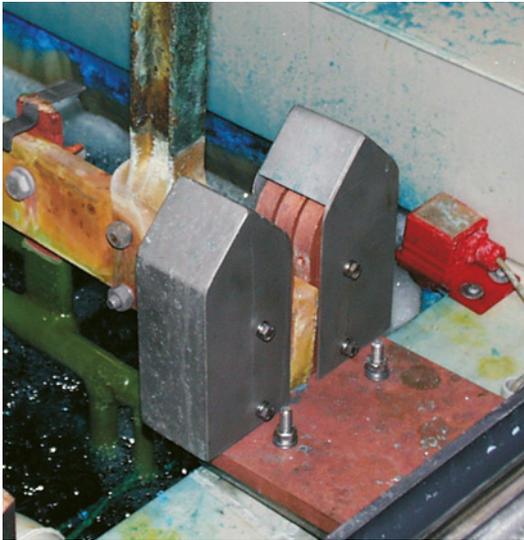
The standardization and reduction of the components enable a reducing of the costs. This effect is supported by a favorably and cheaper assembly compared with our present systems. All this facts put us in a position to offer high quality contacts for various kinds of application to a very interesting price level.

- **Reduction of cleaning operations**

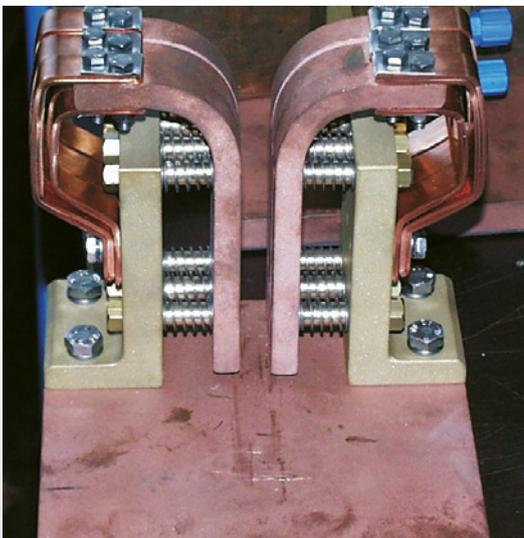
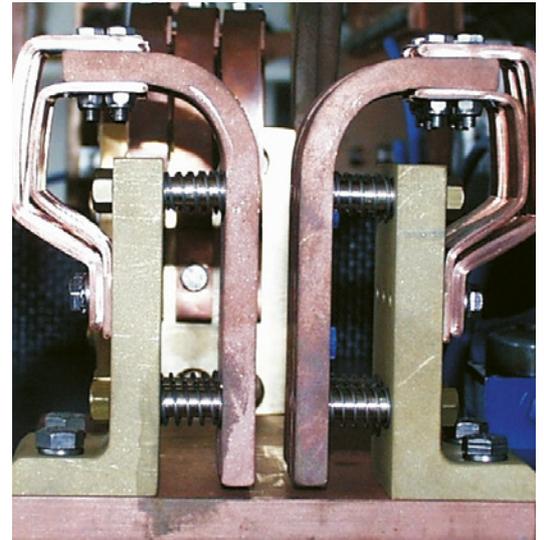
Combined with our cleaning systems and devices we offer further economic savings as well as an upgraded system operation.



Economically advantages, which pay for oneself:



- Long life quality “Made in Germany”
- Space-, energy- and cost saving systems
- Contact series up to 5000 A
- Optionally with or without pneumatically support
- Modular constructed system in a very interesting price level
- Optimal adaptation into many kinds of application

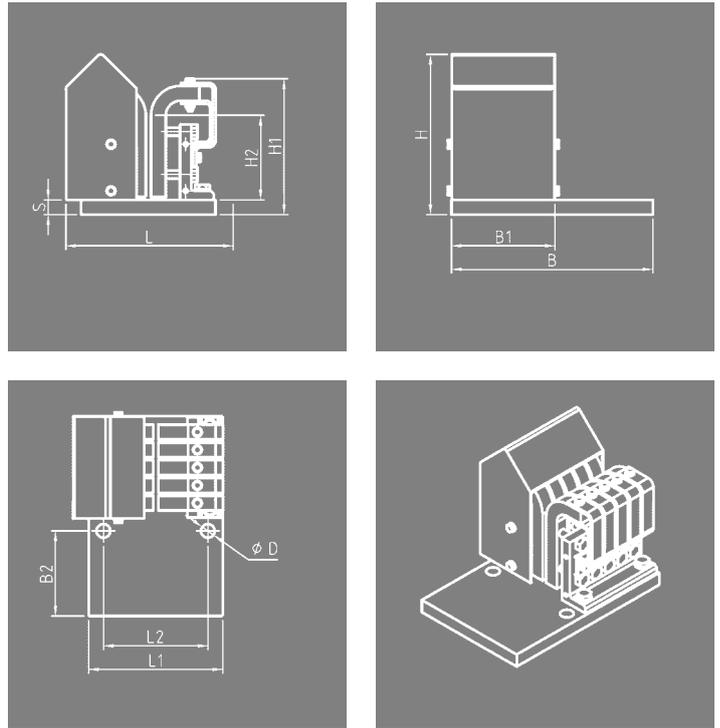


Practical examples for working with druseid high current contact-saddles

### High current contact saddles

#### 500 A - 5000 A

Deliverable with or without protective covers made out of A4 stainless steel



#### WITHOUT PROTECTIVE COVERS

Part-No.		Technical data														Part-No.
contact saddle mounted on an E-copper-plate	1 set pre-fabricated replacement contact elements	max. load	suitable bus-bar height x thickness		dimensions mm (acc. to the drawings)											insulated inserts as accessories
					L	L1	L2	B	B1	B2	H	H1	H2	S	D	
17009	17022	500 A	10-20	50- 80	-	160	121	125	38	72	-	130	80	15	16,5	53455
17010	17023	500 A	10-20	60-120	-	160	121	125	38	72	-	150	97	15	16,5	53455
17011	17024	1500 A	10-20	60-120	-	160	125	170	55	100	-	160	101	15	16,5	53455
17012	17025	2000 A	10-25	60-120	-	165	129	180	55	110	-	160	101	15	16,5	53455
17013	17026	3500 A	10-25	80-160	-	180	140	240	100	120	-	180	114	15	18,5	53460
17014	17027	5000 A	10-25	80-160	-	180	140	270	135	115	-	185	114	20	18,5	53460

#### WITH PROTECTIVE COVERS

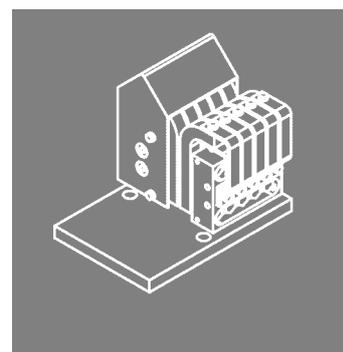
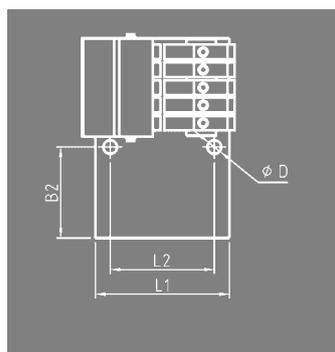
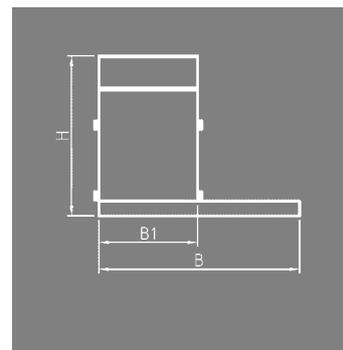
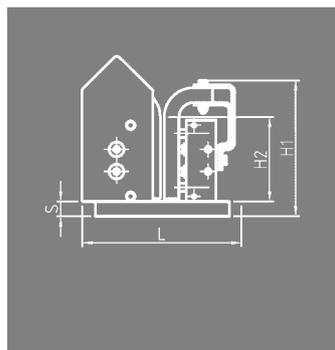
Part-No.		Technical data														Part-No.
contact saddle mounted on an E-copper-plate	1 set pre-fabricated replacement contact elements	max. load	suitable bus-bar height x thickness		dimensions mm (acc. to the drawings)											insulated inserts as accessories
					L	L1	L2	B	B1	B2	H	H1	H2	S	D	
17016	17022	500 A	10-20	50- 80	170	160	121	125	41	72	158	-	80	15	16,5	53455
17017	17023	500 A	10-20	60-120	170	160	121	125	41	72	182	-	97	15	16,5	53455
17018	17024	1500 A	10-20	60-120	182	160	125	170	58	100	183	-	101	15	16,5	53455
17019	17025	2000 A	10-25	60-120	185	165	129	180	58	110	185	-	101	15	16,5	53455
17020	17026	3500 A	10-25	80-160	241	180	140	240	103	120	221	-	114	15	18,5	53460
17021	17027	5000 A	10-25	80-160	241	180	140	270	138	115	226	-	114	20	18,5	53460

**Note:** The thickness of the bus-bars in the tables refers by delivering standardized mounted contacts with a distance of circa 7 mm between the contact fingers = basic adjustment. If you need contacts for other bus-bar ranges as in our table please indicate this fact in your order. Than we'll deliver contacts adjusted according to your wishes.

If the height of your bus-bar is lower than the values in our tables it is necessary to deliver the contacts with an additional mounted copper part to regulate the difference of the height. For lighter bus-bars (weight less than 50 kg) please contact us, because the contacts must be set up accordingly. As accessories we offer insulated inserts made of Epoxy Glass Hard Resin part-no. 53455 for screws M10 and 53460 for screws M12. They are used for insulating the fastening bolts from the tank when working with metal tanks.

## Pneumatically activated high current contacts 500 A - 5000 A

Deliverable with or without protective covers made out of A4 stainless steel



### WITHOUT PROTECTIVE COVERS

Part-No.		Technical data														Part-No.
contact saddle mounted on an E-copper-plate	1 set pre-fabricated replacement contact elements	max. load	suitable bus-bar height x thickness	dimensions mm (acc. to the drawings)												insulated inserts as accessories
				L	L1	L2	B	B1	B2	H	H1	H2	S	D		
25000	25005	500 A	10-20 60-120	-	160	121	125	50	59	-	150	97	15	16,5	53455	
25001	25006	1500 A	10-20 60-120	-	160	125	170	70	84	-	158	101	15	16,5	53455	
25002	25007	2000 A	10-20 60-120	-	165	129	180	70	94	-	160	101	15	16,5	53455	
25003	25008	3500 A	10-20 80-160	-	180	140	190	80	93	-	180	114	15	18,5	53460	
25004	25009	5000 A	10-20 80-160	-	180	140	270	130	123	-	185	114	20	18,5	53460	

### WITH PROTECTIVE COVERS

Part-No.		Technical data														Part-No.
contact saddle mounted on an E-copper-plate	1 set pre-fabricated replacement contact elements	max. load	suitable bus-bar height x thickness	dimensions mm (acc. to the drawings)												insulated inserts as accessories
				L	L1	L2	B	B1	B2	H	H1	H2	S	D		
25010	25005	500 A	10-20 60-120	198	160	121	125	54	59	190	-	97	15	16,5	53455	
25011	25006	1500 A	10-20 60-120	198	160	125	170	74	84	190	-	101	15	16,5	53455	
25012	25007	2000 A	10-20 60-120	206	165	129	180	74	94	190	-	101	15	16,5	53455	
25013	25008	3500 A	10-20 80-160	236	180	140	190	84	93	225	-	114	15	18,5	53460	
25014	25009	5000 A	10-20 80-160	236	180	140	270	135	123	230	-	114	20	18,5	53460	

**Note:** The thickness of the bus-bars in the tables refers by delivering standardized mounted contacts with a distance of circa 7 mm between the contact fingers = basic adjustment. If you need contacts for other bus-bar ranges as in our table please indicate this fact in your order. Than we'll deliver contacts adjusted according to your wishes.

If the height of your bus-bar is lower than the values in our tables it is necessary to deliver the contacts with an additional mounted copper part to regulate the difference of the height. For lighter bus-bars (weight less than 50 kg) please contact us, because the contacts must be set up accordingly. As accessories we offer insulated inserts made of Epoxy Glass Hard Resin part-no. 53455 for screws M10 and 53460 for screws M12. They are used for insulating the fastening bolts from the tank when working with metal tanks.

## Control modules for pneumatically resp. hydro-pneumatically activated contact-saddles

These new developed control modules switch the needed air-pressure on or off automatically when working with hydro-pneumatically or pneumatically activated contact-saddles. The switching operation will be realized in the same moment when the current of the tank is switched on or off.

With the new druseidt control modules you are able to use hydro-pneumatically or normal pneumatically driven contact-saddles on every place in your plant, without doing any intervention in your existing tank-control-system. Even when working with the control module type II = Part-No. 36101 an installation of an external air-pressure-system is unnecessary.

A normal power outlet is sufficient. So it is possible to substitute e.g. spring activated contact-saddles, when they are actually overloaded, through hydro-pneumatically or pneumatically activated contact systems without problem. Or you can test hydro-pneumatically or pneumatically driven systems on one or more tanks without doing a costly rebuilding of the plant or the tank-control-system.

### Druseidt control-modules enable

- a maximum of flexibility
- an optimizing of your contact systems to your demands
- a working without an external air-pressure-system (module Part-No. 36101)
- an easy but extremely effective handling without problems

### Deliverable design

#### Part-No. 36100

design I:  
without integrated air pressure  
(an existing air-pressure-supply is necessary)



#### Part-No. 36101

supply design II:  
with integrated air-pressure supply  
(do not need any external air-pressure-supply)



## druseidt cleaning systems

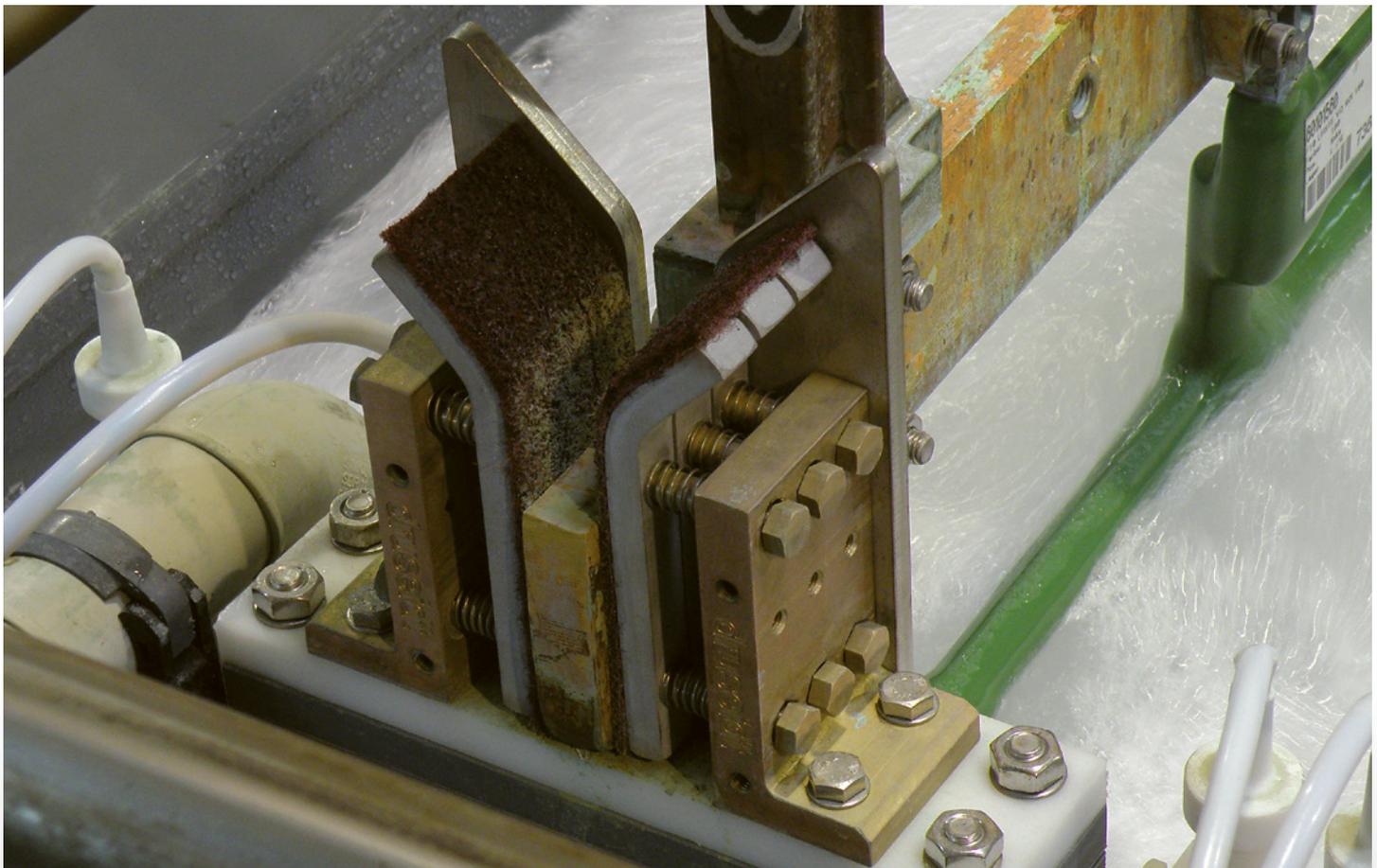
an optimized completion when working with our high current contact-saddles

druseidt cleaning systems and devices enable an extremely reduction of power losses and are destined to minimize the costs of repair and maintenance in order to optimize the process cycle. So we deliver in standard design:

- druseidt-hand-cleaning-slider for the fast cleaning of druseidt contact-saddles, also applicable in running processes
- druseidt-cleaning-carriers for automated cleaning of contact-saddles, integrable in automatized production processes
- druseidt-cleaning-saddles for automated cleaning of contact surfaces on product-carriers, integrable i. e. instead of non-powered support blocks at the non-conducting tanks

**Soiled contact-saddles and contact surfaces lead to:**

- **higher contact resistance**
- **higher power losses**
- **higher heating**
- **higher maintenance and repair costs**



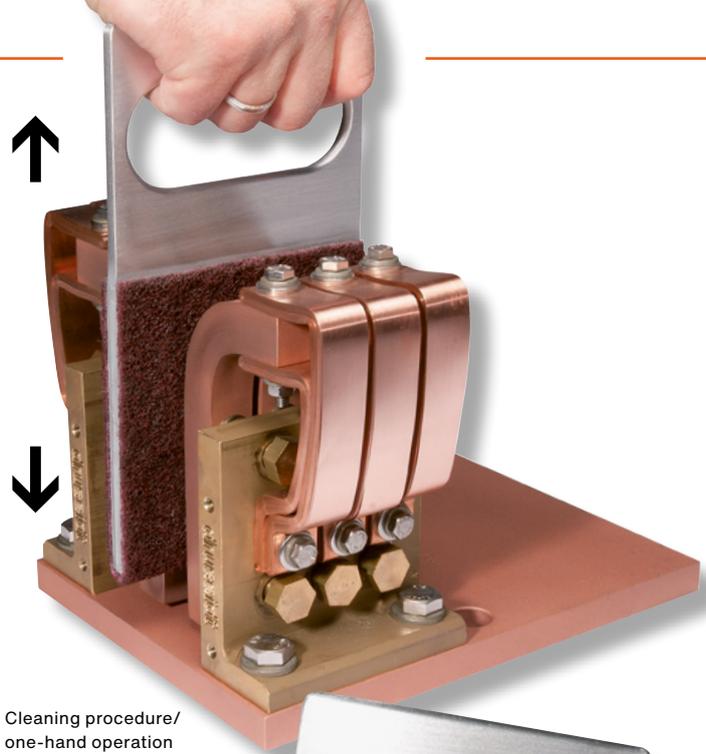
Example of use for cleaning-saddles

## Cleaning of high current contact-saddles

### Hand-cleaning-slider

druseidt hand-cleaning-slider allows a cost effective and efficient cleaning of the contact surfaces of our standard contacts described in this product information.

**Part-No. 36015** is constructed for one hand operation.  
**Part-No. 36020** is constructed for two hand operation.



Cleaning procedure/  
one-hand operation



**Part-No. 36020**  
Cleaning-slider  
for two hand operation

**Part-No. 36015**  
Cleaning-slider  
for one hand operation

### Cleaning slider for standard contacts according to druseidt catalogue 3 and similar products

The above mentioned cleaning slider Part-No. 36015/36020 is dimensional constructed according to the systems described in this product information.

When working with our contact systems according to our catalogue no. 3, which are adjusted to a predefined bus-bar thickness, it is necessary to order cleaning slider coordinated with the bus-bar thickness. The different order data are contained in the following table.

Cleaning slider for one hand operation	Cleaning slider for two hand operation	for bus-bar thickness
Part-No.	Part-No.	
<b>36030-10</b>	<b>36040-10</b>	10 mm
<b>36030-12</b>	<b>36040-12</b>	12 mm
<b>36030-15</b>	<b>36040-15</b>	15 mm
<b>36030-20</b>	<b>36040-20</b>	20 mm
<b>36030-25</b>	<b>36040-25</b>	25 mm

Cleaning-slider for other bus-bar thickness as in the table on request.

## Cleaning of high current contact-saddles

### Cleaning carrier

In order to integrate the cleaning procedure of our contact-saddles in the automated process of your plant, we offer the production of individual designed cleaning-carriers according to your special requirements.

Cleaning-carriers have an exchangeable mounted cleaning-part at the end of the carrier. The cleaning parts are coated with our special fleece and dimensional coordinated to your contact-saddles. In such way it is possible to integrate a cleaning cycle automatically in your process once a day, once per shift or any other interval.

The surfaces of the contact-saddles will be cleaned by running-in and out of the cleaning-carrier for several times. So an optimized current transfer is guaranteed also in plants with higher material pollution. We are pleased to support you in rebuilding your existing plants as well as in the constructing of new plants.



Cleaning-carrier

### Cleaning of bus-bars and bigger contact surfaces

#### Cleaning slider Part-No. 36110

Cost effective and efficient device for simply cleaning of bus-bars and bigger contact surfaces.



Cleaning procedure of a bigger contact surface

## Cleaning-saddles for bus-bars and product-carriers

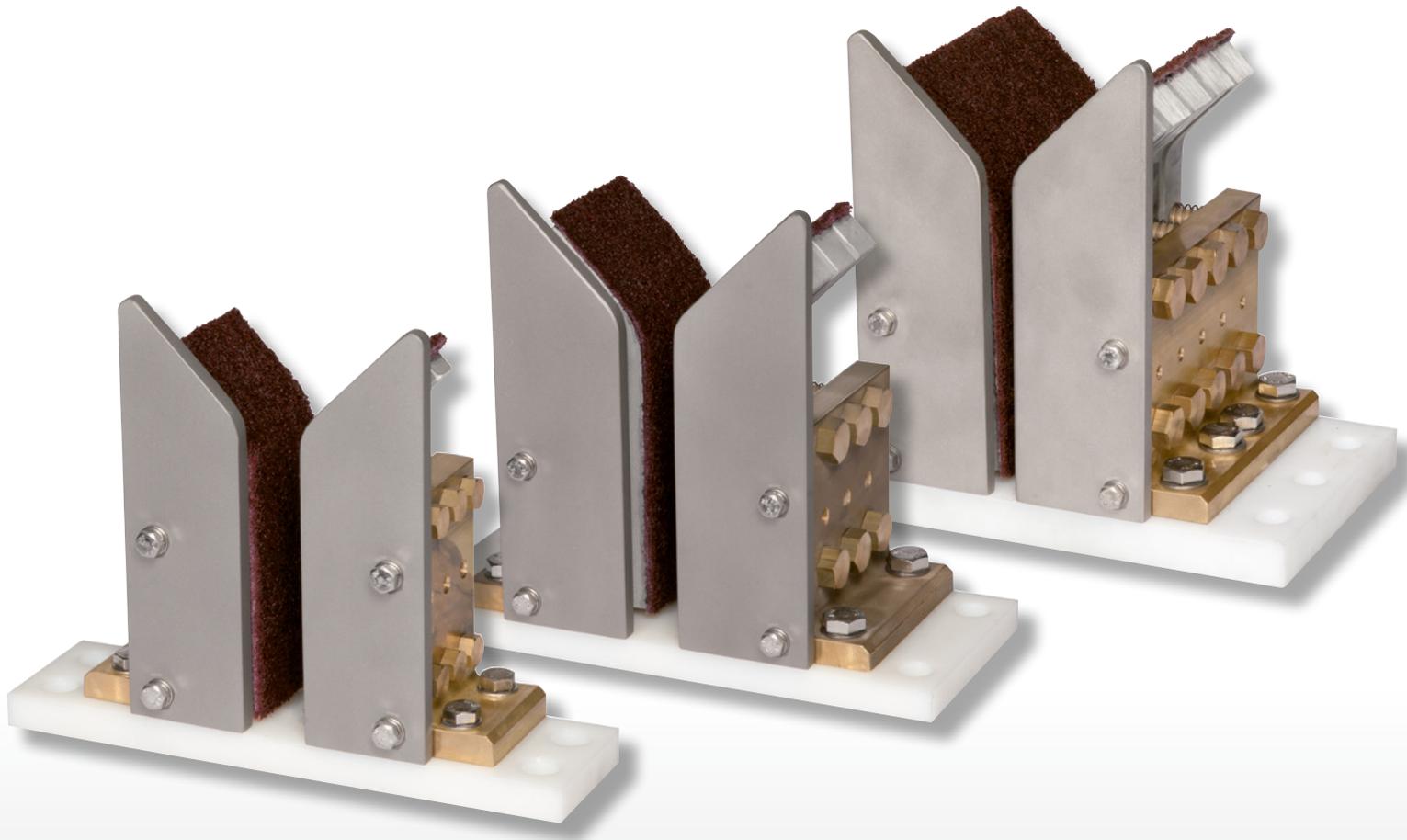
### System description

druseidt-cleaning-saddles based on the principle of our spring-activated contact-saddles. The cleaning surfaces are coated with our special cleaning-fleece. This special material cleans the contact surfaces of the product-carriers by running-in and out.

The fleece has a high chemical resistance and could be cleaned by using a compressed air pistol. Tests in laboratories and practice application show a long lifetime and good results of the cleaning process. In case of abrasion it is possible to change the saddle-halves easily.

The models in standard design are coordinated to the dimensions of the contact-saddles according to this product information. Additionally we manufacture cleaning-saddles coordinated with the dimensions of other contact systems as well as different contact length of product-carriers.

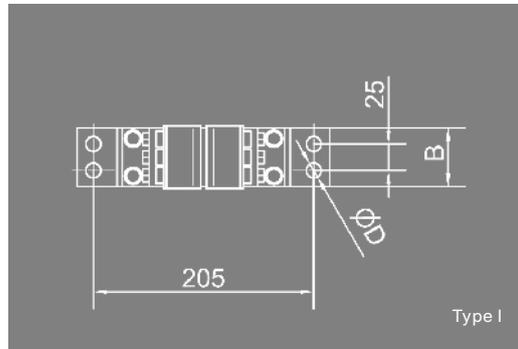
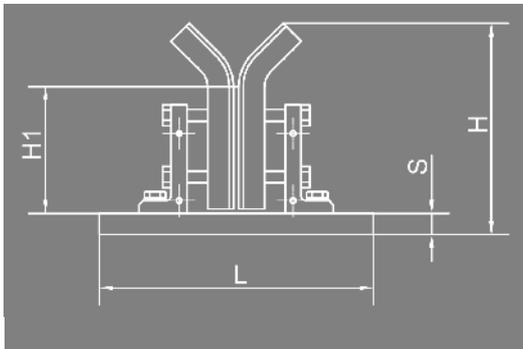
In order to guarantee an optimized cleaning effect we deliver all cleaning-saddles adjusted to the thickness of the bus-bars or product-carriers. Cleaning-saddles can be mounted instead of non-powered support blocks at the non conducting tanks. So they are integrated in the automated process-cycles of the plants.



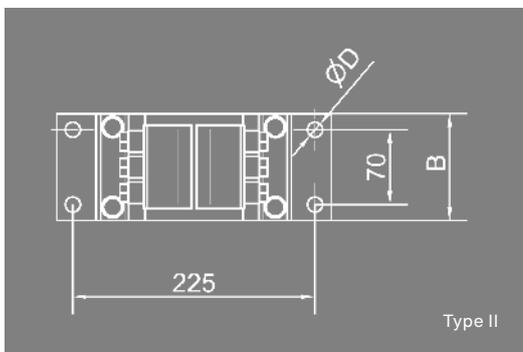
druseidt-cleaning-saddles are characterized by an efficient cleaning effect and a good lifetime. They reduce power losses between contact-saddles and product carriers.

In an on-road-test it was proven, that druseidt-cleaning-systems have a very long lifetime and are easily to clean in order to reuse without losing its cleaning function.

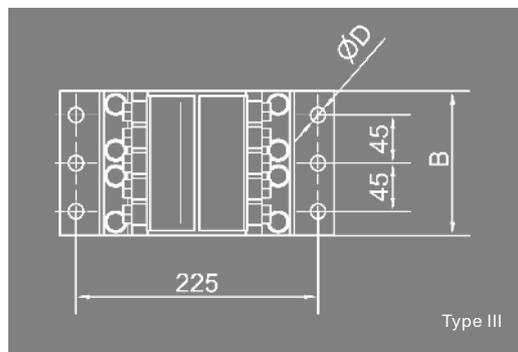
## Cleaning-saddles for bus-bars and product-carriers



Type I



Type II



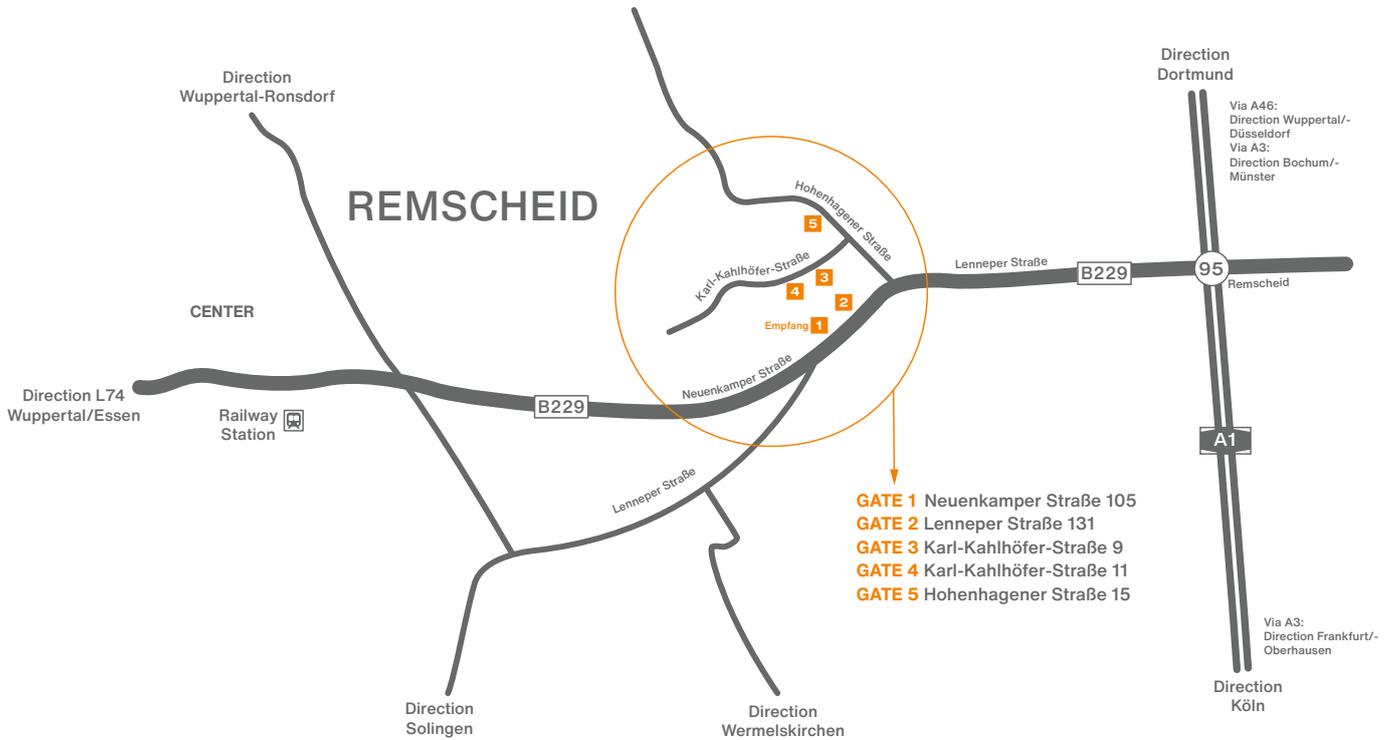
Type III

Part-No.		Technical data								
cleaning-saddle, complete	spare-part saddle-half, complete	for bus-bar			dimensions mm					
		Type	thick-ness	height	L	B	H	H1	S	D
36000-10	36000-A	I	10	100	235	55	165	106	15	14
36000-15			15							
36000-20			20							
36005-10	36005-A	II	10	120	255	100	195	119	15	14
36005-15			15							
36005-20			20							
36010-10	36010-A	III	10	120	255	135	200	119	20	14
36010-15			15							
36010-20			20							

**Note:** The described models in standard design are coordinated with the contact dimensions of the contact saddles according to this product information. Type I for contacts 500-2000 A, type II for contacts 3000 A and type III for contacts 5000 A.

### General advice

The measurements and technical information written in this catalogue have been determined with greatest care and are updated continuously in our documentation. We reserve us the right to make technical as well as changes of measurements, colours or formats after print. **Our information, especially the values for possible current-loads are not binding, they are only approximate values under optimized conditions. The relation between conductor cross-section and current-load fixed in national or international regulations are not cancelled through our information.** Only the values in our written order confirmations are binding for us.



## Paul Druseidt

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Monday - Thursday:  
7:30 a.m. - 4:00 p.m  
 Friday:  
7:30 a.m. - 12:00 p.m



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- „druseidt-Titan“ High current contact systems and cleaning devices (01/11)
- High current contact systems and cleaning devices type series up to 5000 A (02/11)
- Water cooled high current cables up to a cross-section range of 2000 mm<sup>2</sup> and high current pipe-systems (01/14)
- Water cooled high current cables preferably for electric arc- and ladle furnaces (02/14)
- Pneumatically actuated high current bolt contacts and switching units (01/18)
- Flexible power- and grounding connectors with welded contact areas (02/2018)
- Highly flexible silicone insulated cold- and heat resistant cables, ready assembled connectors (03/18)



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