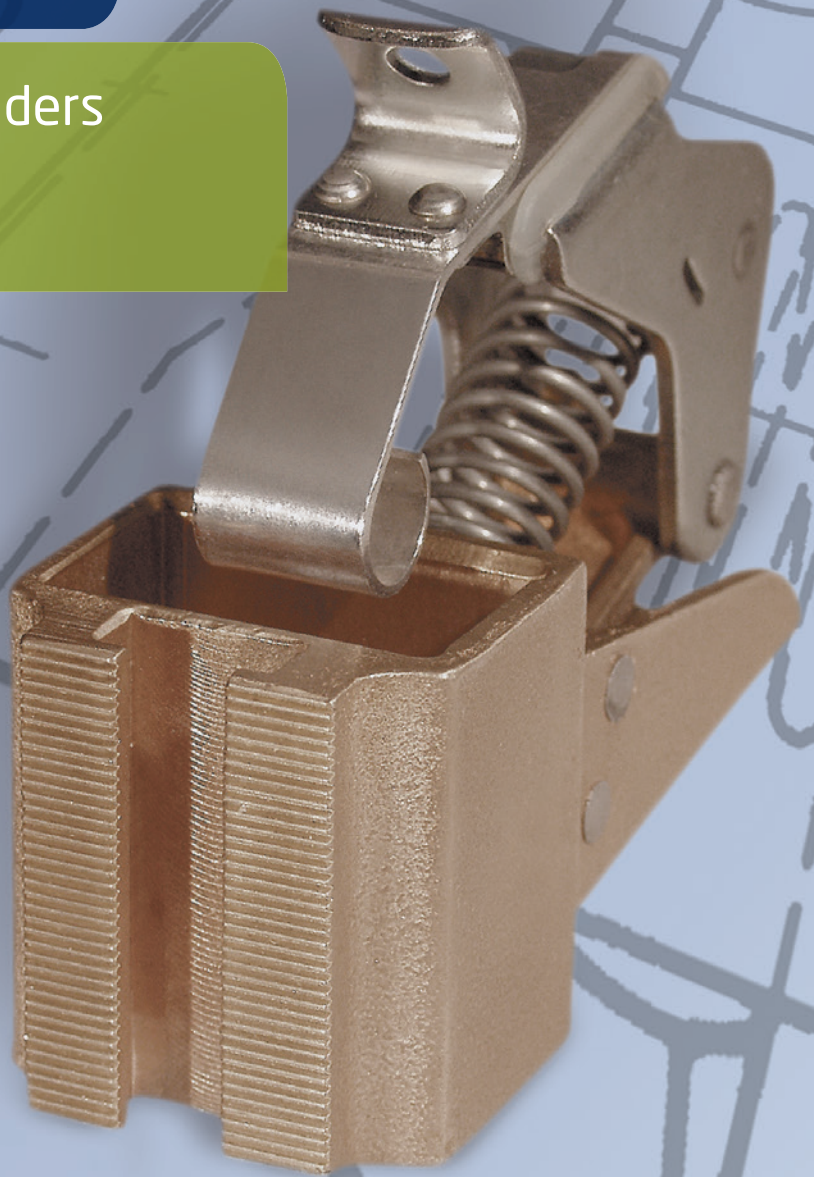


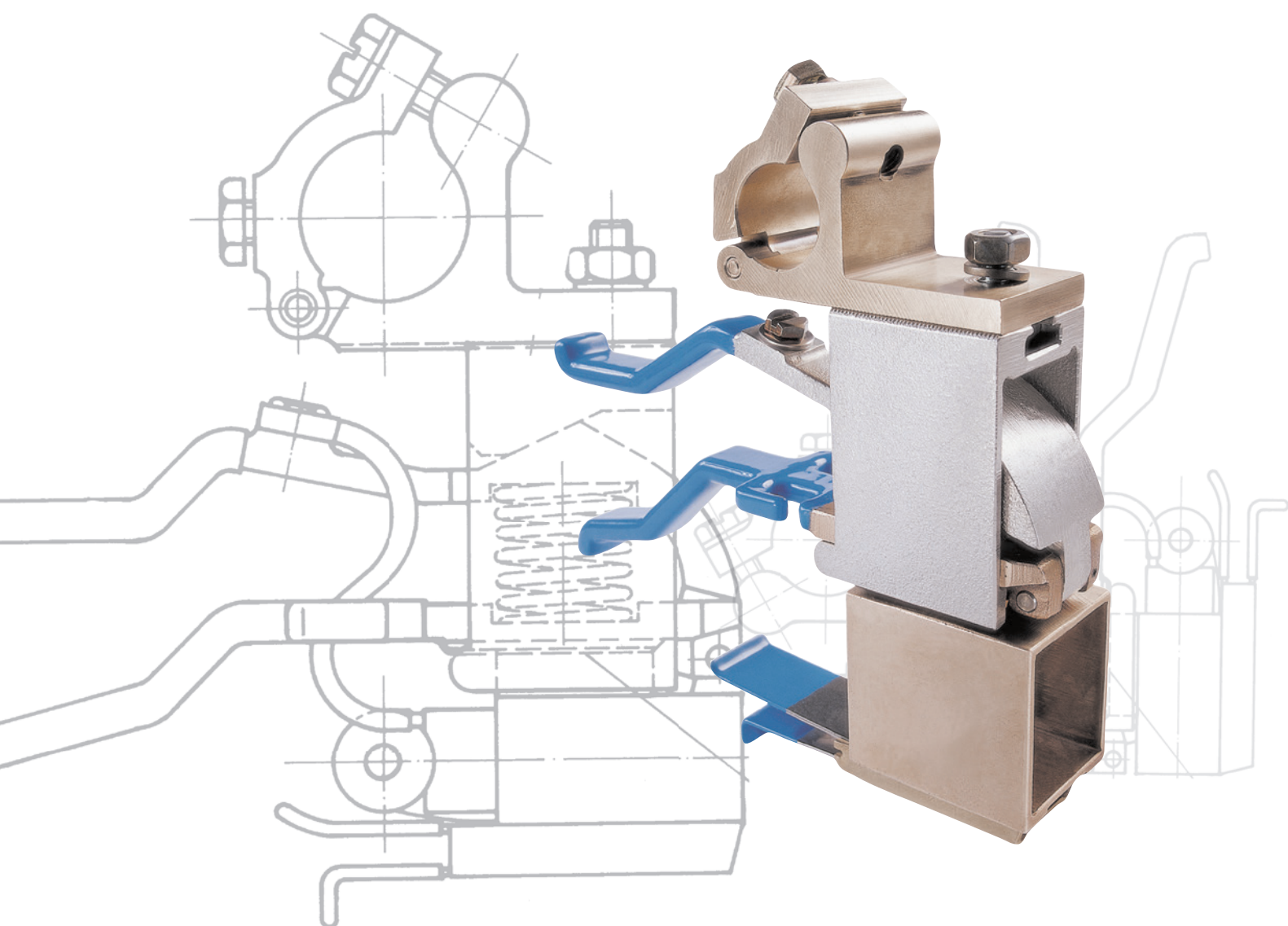


Industrial Carbon Brush Holders for Electrical Machinery Designs, Variants and Types



Contents

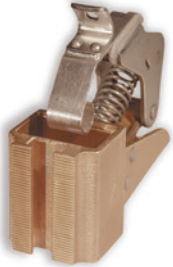
Designs and Variants	4
Single Brush Holder, Type "BRD"	6
Single Brush Holder, Type "BRS"	7
Single Brush Holder, Type "BRM"	8
Single Brush Holder, Type "BRG" and "BRH"	9
Single Brush Holder, Type "CRA"	10
Single Brush Holder, Type "CRB"	11
Double Brush Holder, Type "BRE"	12
Triple Brush Holder, Type "BRF"	13
Tandem Brush Holder, Type "TRA2"	14
Tandem Brush Holder, Type "TRB2", "TRB3" and "TRB4"	15
Tandem Brush Holder, Type "TNA" and "TNA2" (inclination 7.5°)	16
Tandem Brush Holder, Type "TNC1", "TNC2", "TNC3" and "TNC4" (inclination 8°).....	17
Tandem Brush Holder, Type "TRG2"	18
Multiple Flange Brush Holder	19
Multiple Flange Brush Holder (reinforced resin).....	21
Double Clamping Brush Holder, Type "DRD"	23
Leg Brush Holder with Fixed Brushes	26
Double Leg Brush Holder with Simply Supported Brushes	29
Tubular Brush Holder	30
Power Feeds (Ignition Plug Holder)	31
Plug-in Brush Holder and Holder Support	32
Plug-in Element and Plug-in Element Support	34
Multiple Plug-in Element and Support	35
Questionnaire on Carbon Brushes and Brush Holders	36
Contact Information.....	37



holder bodies and accessories manufactured according to the current DIN standard
 P [cN/cm²] - average specific brush pressure
 t , a , r - tolerance for brush guidance according to DIN 43 000/2 E10 (IEC 136)
Connection dimensions according to DIN 43 040
All dimensions in mm

Designs and Variants

Single Brush Holders



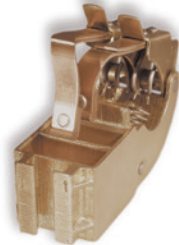
For commutator machinery;
wide variety of designs;
various pressure systems,
made of cast or sheet brass

Multiple Brush Holders



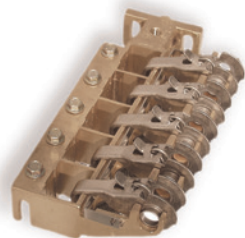
For commutator machinery;
more compact structural
form than with individual
holders

Tandem Brush Holders



For high performance
motors with heavy loads;
made by die casting or sand
casting;
every brush with inde-
pendent pressure
mechanism

Multiple Flange Brush Holders



Single/multiple design;
made of die cast or sheet
brass; various pressure
elements possible;
wear-levelling

Double Clamping Brush Holders



For slip ring machinery;
made of die cast, variably
adjustable for different slip
ring diameters;
with/without pressure
adjustment;
with/without phase
connection

Leg Brush Holders



For slip ring machinery;
designed as single or
double leg brush holders,
with one/two piece brass
clamps, legs of sheet brass

Designs and Variants

Tubular Brush Holders



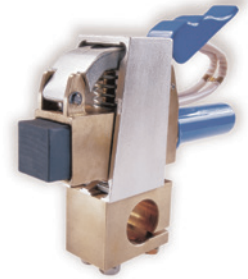
For small motors. Guides made from brass profile or sheet brass, insulation made from hard paper or reinforced resin, plug connection, solder slot or screw connection

Power Feeds



For clutch couplings; bronze brushes for dry running; fibre brushes for wet running; oil-tight mounting

Plug-in Brush Holders / Plug-in Elements



For turbo generators; safe brush change during operation; simple brush wear checking; plug-in elements for exciters, single/multiple designs

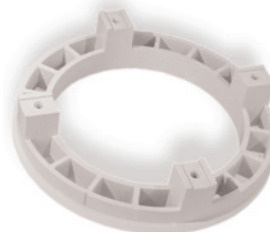
Accessories



Clamps for securing holders



Securing bolts with insulated hard paper or remoulded paper



Support rings



Stepping pieces and shims

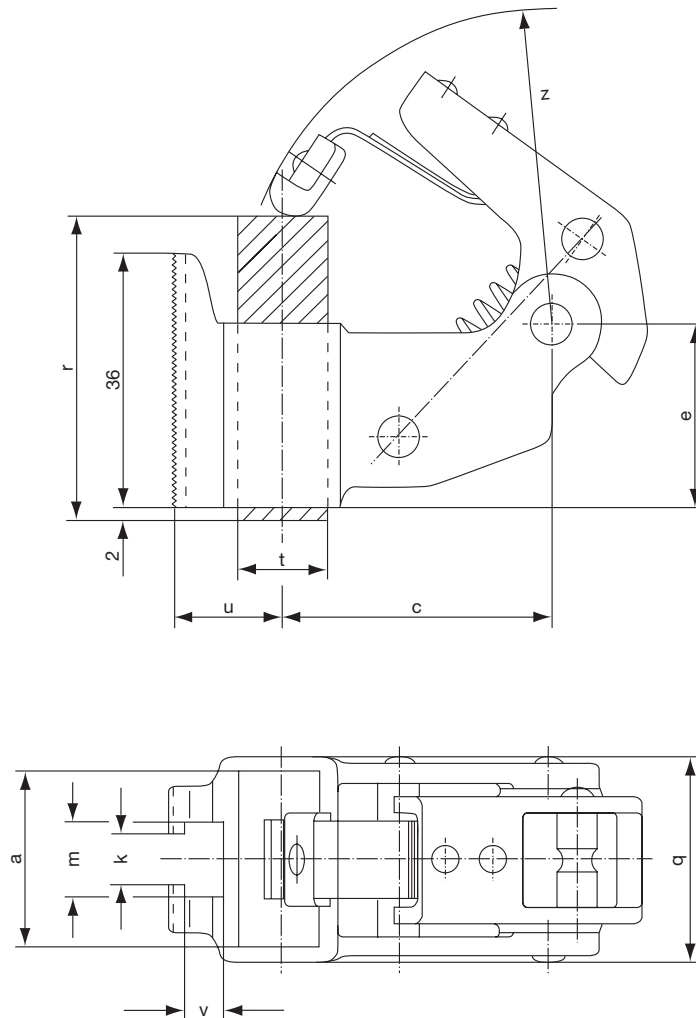
Clamps, securing bolts, support rings, stepping pieces and shims or similar on request and according to customer's wishes

As an original equipment manufacturer since the mid-1970s we continue to offer spare parts for the following OEMs:
SIEMENS, ABB, ASEA, BAUMÜLLER, LEROY SOMER

Single Brush Holder

Type "BRD"

Cast brass holder body, with extension spring, insulated pressure piece

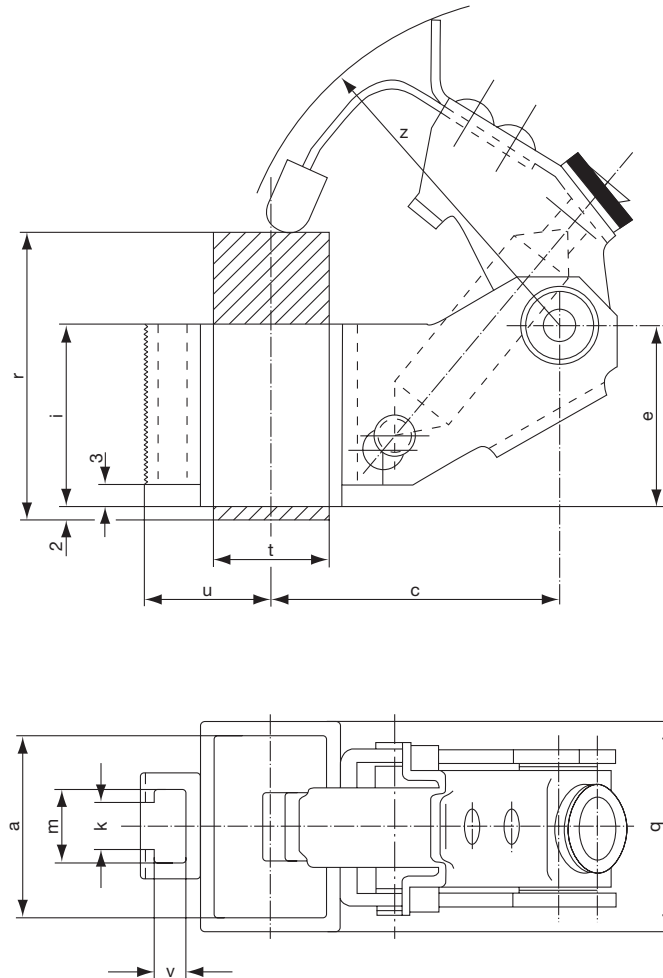


Type	Drawing No.	t	a	r	u	c	e	k	m	q	v	z	P
BRD - 1025	06.04.2108.02	10	25	40	15	37	25	6.4	10.2	29	5.5	58	200
BRD - 1225	06.04.2109.01	12.5	25	40	16.3	38	25	6.4	10.2	29	5.5	59	200
BRD - 1625	06.04.2110.00	16	25	40	18	40	25	6.4	10.2	29	5.5	61	200
BRD - 2025	06.04.2116.02	20	25	40	20	42	25	6.4	10.2	29	5.5	63	200
BRD - 1232	06.04.2112.00	12.5	32	40	16.8	38	25	6.4	10.2	36	5.5	59	200
BRD - 1632	06.04.2113.00	16	32	40	18.5	40	25	6.4	10.2	36	5.5	61	200
BRD - 2032	06.04.2114.00	20	32	40	20.5	42	25	6.4	10.2	36	5.5	63	200
BRD - 2532	06.04.2115.00	25	32	40	23	44.5	25	6.4	10.2	36	5.5	65.5	200

Single Brush Holder

Type "BRS"

Cast brass holder body, with extension spring, insulated pressure piece

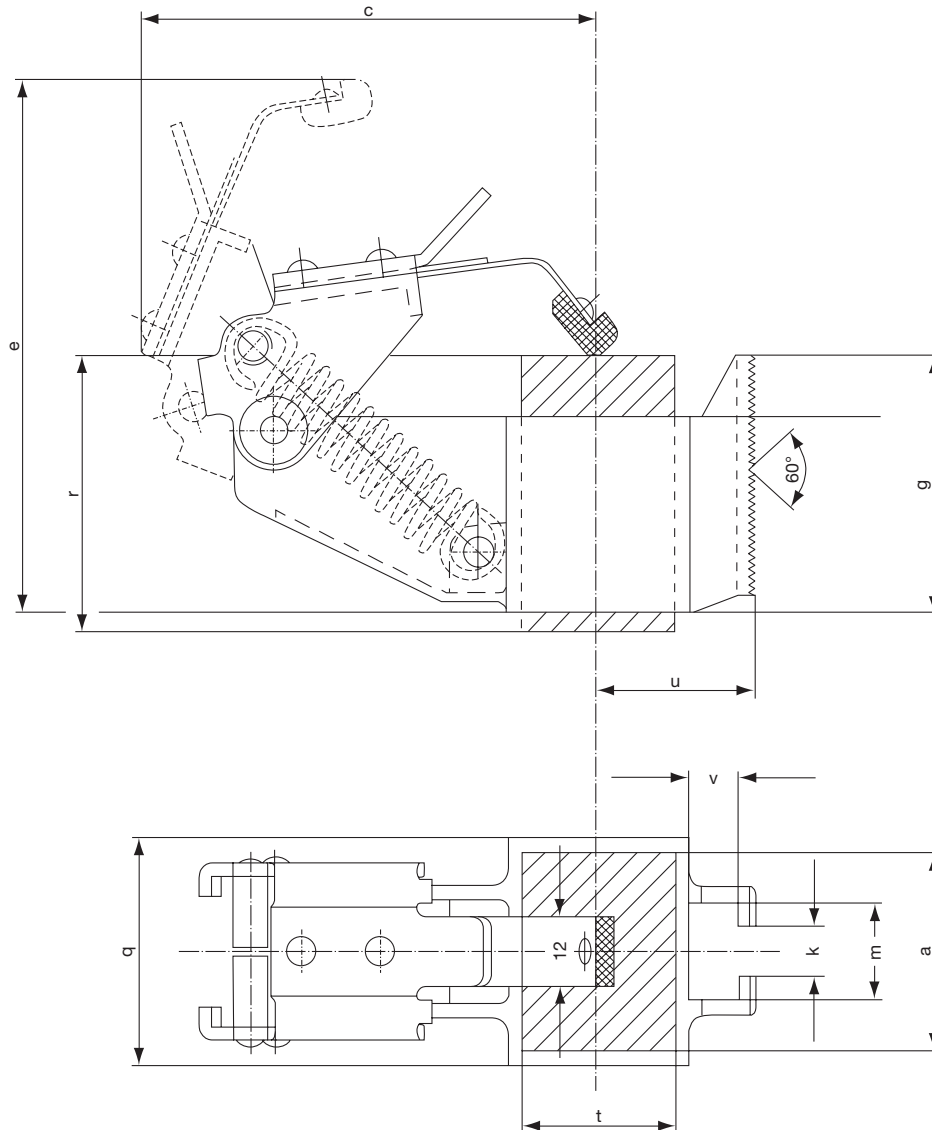


Type	Drawing No.	t	a	r	u	c	e/i	k	m	q	v	z	P
BRS - 1020	06.04.2346.01	10	20	32	15	37	25	6.4	10.2	25	4.5	46	200
BRS - 1220	06.04.2347.00	12.5	20	32	16.3	38.25	25	6.4	10.2	25	4.5	46	200
BRS - 1620	06.04.2348.00	16	20	32	18	40	25	6.4	10.2	25	4.5	46	200
BRS - 1025	06.04.2349.00	10	25	40	15	37	25	6.4	10.2	29	4.5	46	200
BRS - 1225	06.04.2350.00	12.5	25	40	16.3	38.3	25	6.4	10.2	29	4.5	46	200
BRS - 1625	06.04.2351.00	16	25	40	18	40	25	6.4	10.2	29	4.5	46	200
BRS - 2025	06.04.2352.00	20	25	40	20	42	25	6.4	10.2	29	4.5	46	200
BRS - 1032	06.04.2353.00	10	32	50	15.5	41.5	30	8.4	14.2	36	4.5	51	200
BRS - 1232	06.04.2354.00	12.5	32	50	16.8	42.8	30	8.4	14.2	36	4.5	51	200
BRS - 1632	06.04.2355.00	16	32	50	18.5	44.5	30	8.4	14.2	36	4.5	52	200
BRS - 2032	06.04.2356.00	20	32	50	20.5	46.5	30	8.4	14.2	36	4.5	54	200
BRS - 2532	06.04.2357.00	25	32	50	23	49	30	8.4	14.2	36	5.5	56	200

Single Brush Holder

Type "BRM"

Cast brass holder body, with extension spring, insulated pressure piece



Type	Drawing No.	t	a	r	u	c	e	k	m	q	v	P
BRM - 1632	06.04.2327.02	16	32	50	18.5	64	64	8.5	14.5	37	6	200
BRM - 2032	06.04.3058.00	20	32	50	28	76	88	8.5	14.5	37	12.5	200
BRM - 2032	06.04.2258.00	20	32	50	26	76	88	8.5	16.5	37	10.5	200
BRM - 2032	06.04.2258.22	20	32	50	20.5	76	88	8.5	14.5	37	6	200
BRM - 2532	06.04.2261.00	25	32	50	26	76	88	8.5	16.5	37	8	200
BRM - 2532	06.04.2261.19	25	32	50	23	76	88	8.5	14.5	37	6	200

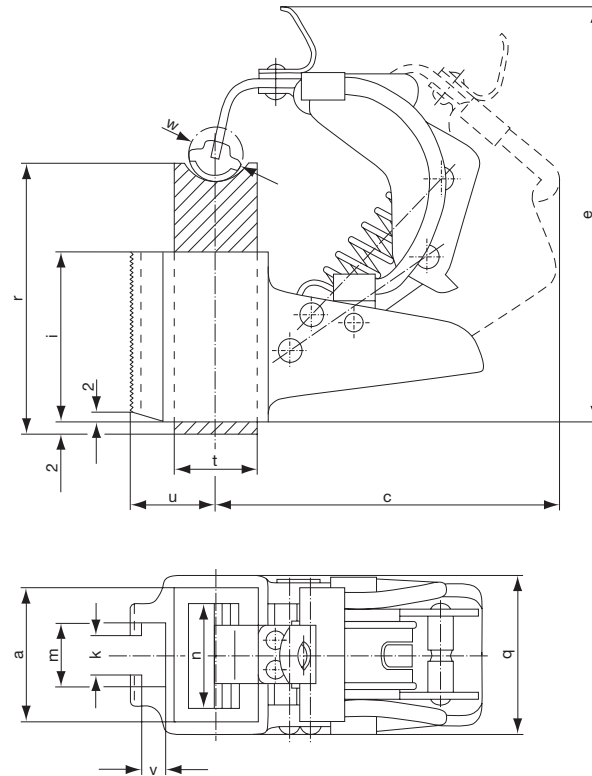
Single Brush Holder

Type "BRG" and "BRH"

Cast brass holder body, with extension spring, insulated pressure piece

BRG - with current carrying pressure system

BRH - like BRG, but without current-carrying pressure system

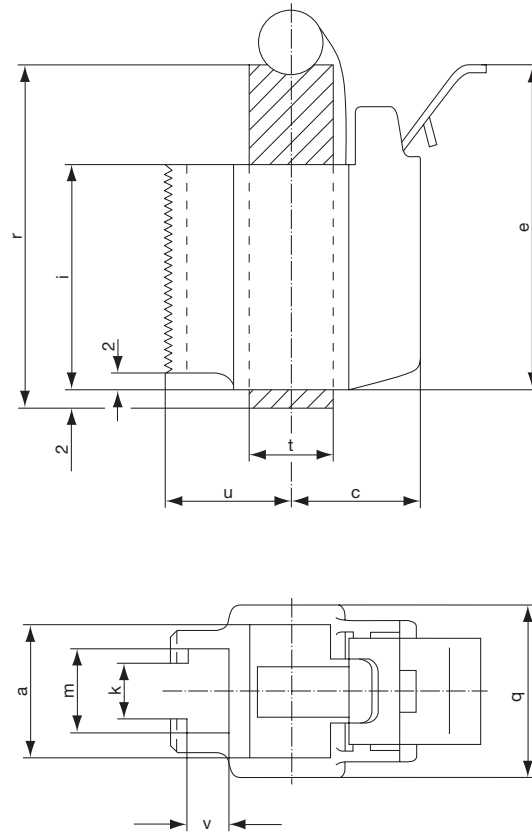


Type	Drawing No.	t	a	r	u	c	e	i	k	m	n	q	v	w	P
BRG1 - 1625	06.04.2177.00	16	25	50	18	62	84	32	6.4	10.2	20	29.5	5	9	180
BRG1 - 1032	06.04.2180.00	10	32	64	15.5	76	100	40	8.4	14.2	25	37	6	7	180
BRG1 - 1232	06.04.2181.03	12.5	32	64	16.8	76	100	40	8.4	14.2	25	37	6	7	200
BRG1 - 1632	06.04.2182.04	16	32	64	18.5	78	100	40	8.4	14.2	25	37	6	9	200
BRG1 - 2032	06.04.2184.04	20	32	64	20.5	80	100	40	8.4	14.2	25	37	6	12	200
BRG1 - 2532	06.04.2186.00	25	32	64	23	82	100	40	8.4	14.2	25	37	6	12	180
BRH1 - 1025	06.04.2201.00	10	25	50	15	59	84	32	6.4	10.2	11	29.5	5	7	180
BRH1 - 1225	06.04.2202.00	12.5	25	50	16.3	60	84	32	6.4	10.2	11	29.5	5	7	180
BRH1 - 1232	06.04.2207.02	12.5	32	64	16.8	76	100	40	8.4	14.2	14	37	6	9	200
BRH1 - 1625	06.04.2203.00	16	25	50	18	62	84	32	6.4	10.2	11	29.5	5	9	180
BRH1 - 2025	06.04.2204.01	20	25	50	20	80	100	32	6.4	10.2	11	29.5	5	12	180
BRH1 - 1232	06.04.2207.02	12.5	32	60	16.8	80	100	40	8.4	14.2	14	37	6	12	200
BRH1 - 1632	06.04.2208.00	16	32	64	18.5	80	100	40	8.4	14.2	14	37	6	12	180
BRH1 - 2032	06.04.2209.00	20	32	64	20.5	80	100	40	8.4	14.2	14	37	6	12	180
BRH1 - 2532	06.04.2211.00	25	32	64	23	82	100	40	8.4	14.2	14	37	6	12	180
BRH1 - 3232	06.04.2213.01	32	32	64	26.5	86	100	40	8.4	14.2	14	37	6	12	180

Single Brush Holder

Type "CRA"

Cast brass holder body, with constant force spring pressure system

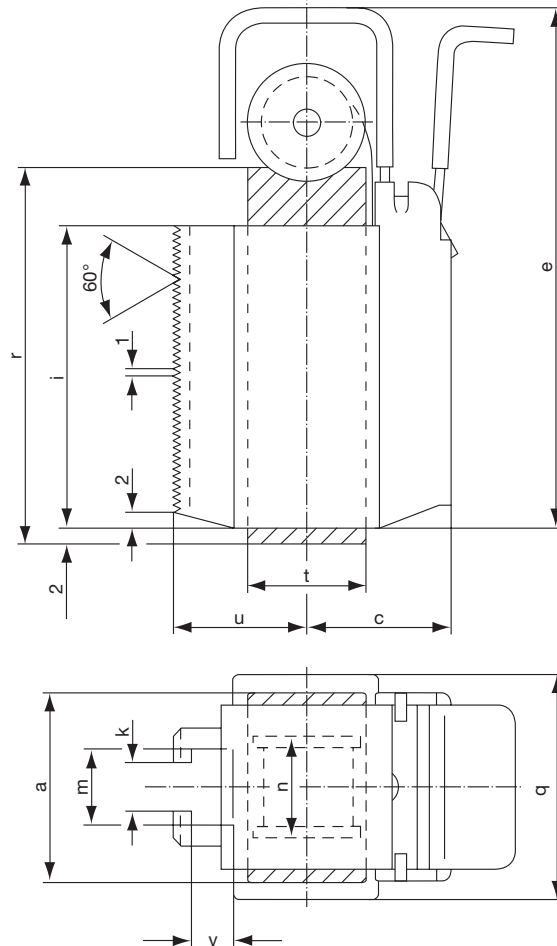


Type	Drawing No.	t	a	r	u	c	e	i	k	m	q	v	P
CRA - 0616	06.04.4030.03	6.4	16	40	14	14.5	38	26	6.4	10.2	20	5.5	250
CRA - 0816	06.04.4031.03	8	16	40	14	14.5	38	26	6.4	10.2	20	5.5	200
CRA - 1016	06.04.4032.11	10	16	40	15	15.5	38	26	6.4	10.2	20	5.5	200
CRA - 1216	06.04.4033.01	12.5	16	40	16.3	16.8	38	26	6.4	10.2	20	5.5	200
CRA - 0620	06.04.4150.01	6.4	20	40	14	14.5	38	26	6.4	10.2	24	5.5	250
CRA - 0820	06.04.4034.01	8	20	40	14	14.5	38	26	6.4	10.2	24	5.5	200
CRA - 1020	06.04.4035.05	10	20	40	15	15.5	38	26	6.4	10.2	25	5.5	250
CRA - 1220	06.04.4036.01	12.5	20	40	16.3	16.8	38	26	6.4	10.2	24	5.5	200
CRA - 1620	06.04.4037.01	16	20	40	18	18.5	38	26	6.4	10.2	24	5.5	200
CRA - 1225	06.04.4198.02	12.5	25	50	16.25	20.75	50	35	6.4	10.2	29.5	5.5	200
CRA - 1625	06.04.4181.01	16	25	50	18	22.5	50	35	6.4	10.2	29.5	5.5	200
CRA - 2025	06.04.5009.04	20	25	50	20	27	48	35	6.2	10.2	29.5	5.5	250
CRA - 1232	06.04.4163.01	12.5	32	64	16.8	23.25	60	40	8.5	14.2	36.5	6	200
CRA - 1632	06.04.4164.01	16	32	64	18.5	25	60	40	8.5	14.2	36.5	6	200
CRA - 2032	06.04.4165.01	20	32	64	20.5	27	60	40	8.5	14.2	36.5	6	200
CRA - 2532	06.04.4166.01	25	32	64	23	29.5	60	40	8.5	14.2	36.5	6	200

Single Brush Holder

Type "CRB"

Holder body of brass profile, with constant force spring pressure system

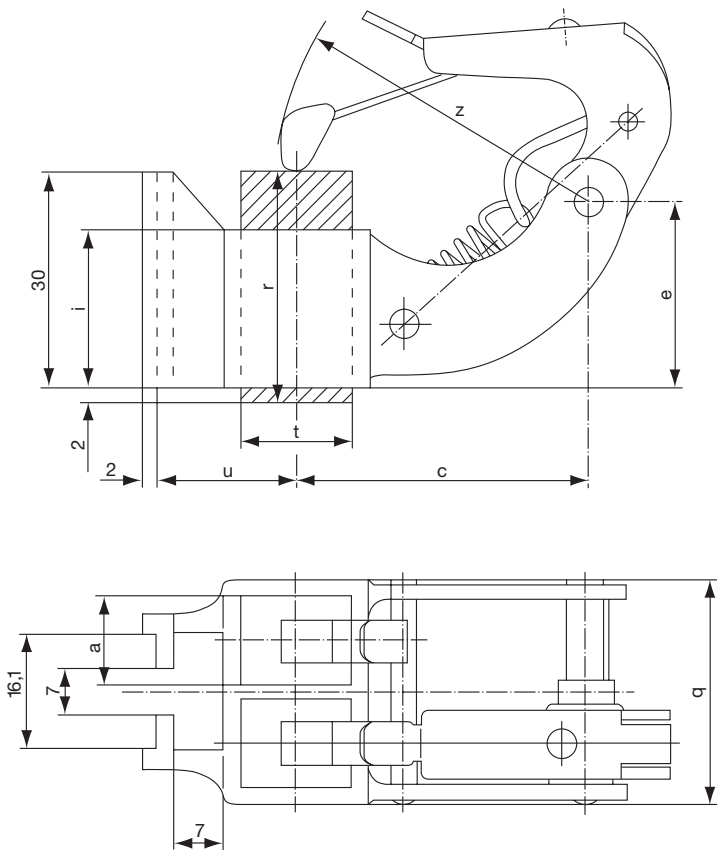


Type	Drawing No.	t	a	r	u	c	e	i	k	m	q	v	P
CRB - 1225	06.04.4089.01	12.5	25	50	16.3	18.3	63	40	6.4	10.2	29.5	5.5	250
CRB - 1625	06.04.4090.02	16	25	50	18	20	67	40	6.4	10.2	29.5	5.5	200
CRB - 2025	06.04.4091.02	20	25	50	20	22	70	40	6.4	10.2	29.5	5.5	200
CRB - 4025	06.04.4203.00	40	25	64	30.5	33.8	91	50	8.4	14.2	31	5.5	175
CRB - 1032	06.04.4092.02	10	32	64	15.5	17	77	50	6.4	10.2	36.5	6	250
CRB - 1232	06.04.4093.02	12.5	32	64	16.8	18.3	77	50	6.4	10.2	36.5	6	200
CRB - 1632	06.04.4094.03	16	32	64	18.5	20	81	50	6.4	10.2	36.5	6	250
CRB - 2032	06.04.4095.05	20	32	64	20.5	22	84	50	6.4	10.2	36.5	6	200
CRB - 2532	06.04.4096.27	25	32	64	23	14.5	88	50	6.4	10.2	36.5	6	200

Double Brush Holder

Type "BRE"

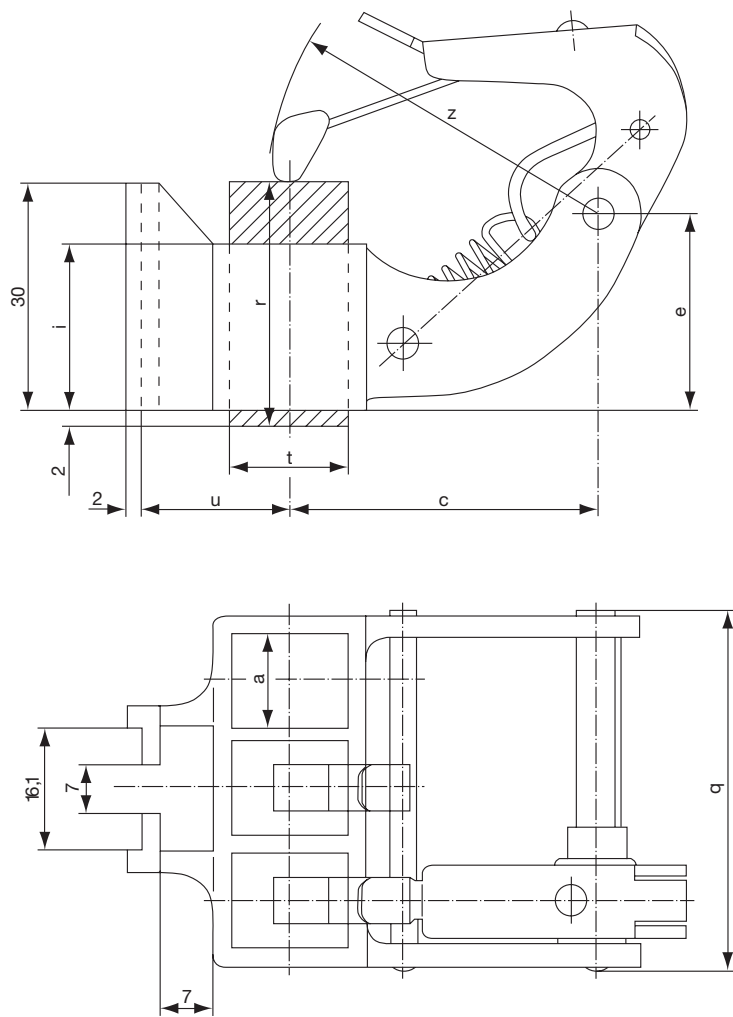
Cast brass holder body, with extension spring, insulated pressure piece



Type	Drawing No.	t	a	r	u	c	e	i	q	z	P
BRE - 1012	06.04.2244.00	10	12.5	32	17	38.5	26	22	31.5	43	200
BRE - 1612	06.04.2245.00	16	12.5	32	20	41.5	26	22	31.5	45	200
BRE - 1216	06.04.2248.00	12.5	16	32	18	45	26	23	38.5	49	200
BRE - 2016	06.04.2250.03	20	16	40	22	52	31	25	38.5	55	200
BRE - 2516	06.04.2251.10	25	16	50	24.5	55	37	30	38.5	59	200
BRE - 1620	06.04.2252.01	16	20	40	20	52	31	25	46.5	55	300

Triple Brush Holder

Type "BRF"
 Cast bronze holder body, with extension spring, insulated pressure piece



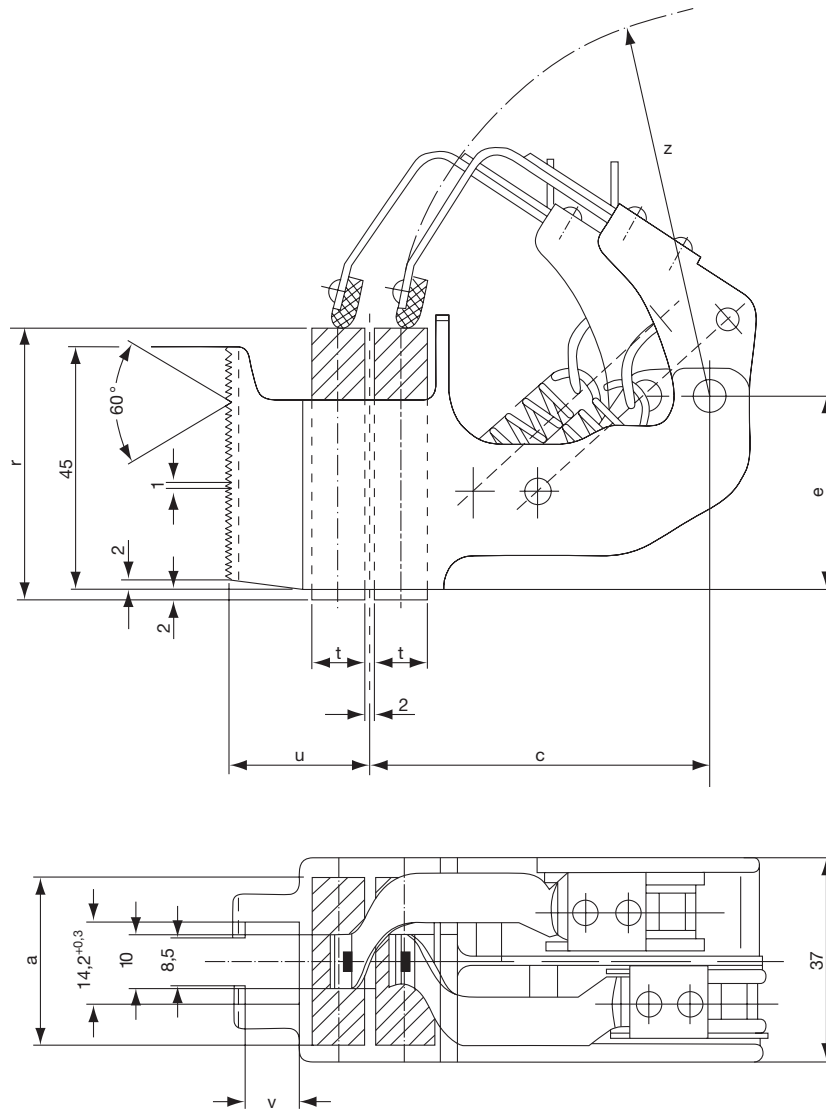
Type	Drawing No.	t	a	r	u	c	e	i	q	z	P
BRF - 1012	06.04.2254.00	10	12.5	32	17	38.5	26	22	46	43	200
BRF - 1612	06.04.2255.00	16	12.5	32	20	41.5	26	22	49	45	200
BRF - 2012	06.04.2256.00	20	12.5	32	22	43.5	26	22	46.5	45	200
BRF - 2516	06.04.2257.00	25	16	50	24.5	55	37	30	59	59	200

Tandem Brush Holder

Type "TRA2"

Cast brass holder body, with extension spring, insulated pressure piece

TRA2 - Sheet metal pressure lever



Type	Drawing No.	t	a	r	u	c	e	v	z	P
TRA2 - 1032	06.07.0098.02	10	32	50	28	65.7	33	9.5	63	200
TRA2 - 1232	06.07.0099.02	12.5	32	50	28	70.7	39.7	7	68	200
TRA2 - 1632	06.07.0100.02	16	32	50	32	89.2	42.5	7.5	86	200
TRA2 - 2032	06.07.0101.00	20	32	50	36	93.9	40	7.5	86	200

When peripheral speed > 40 m/sec. we recommend raising brush pressure to 250 cN/cm²

Tandem Brush Holder

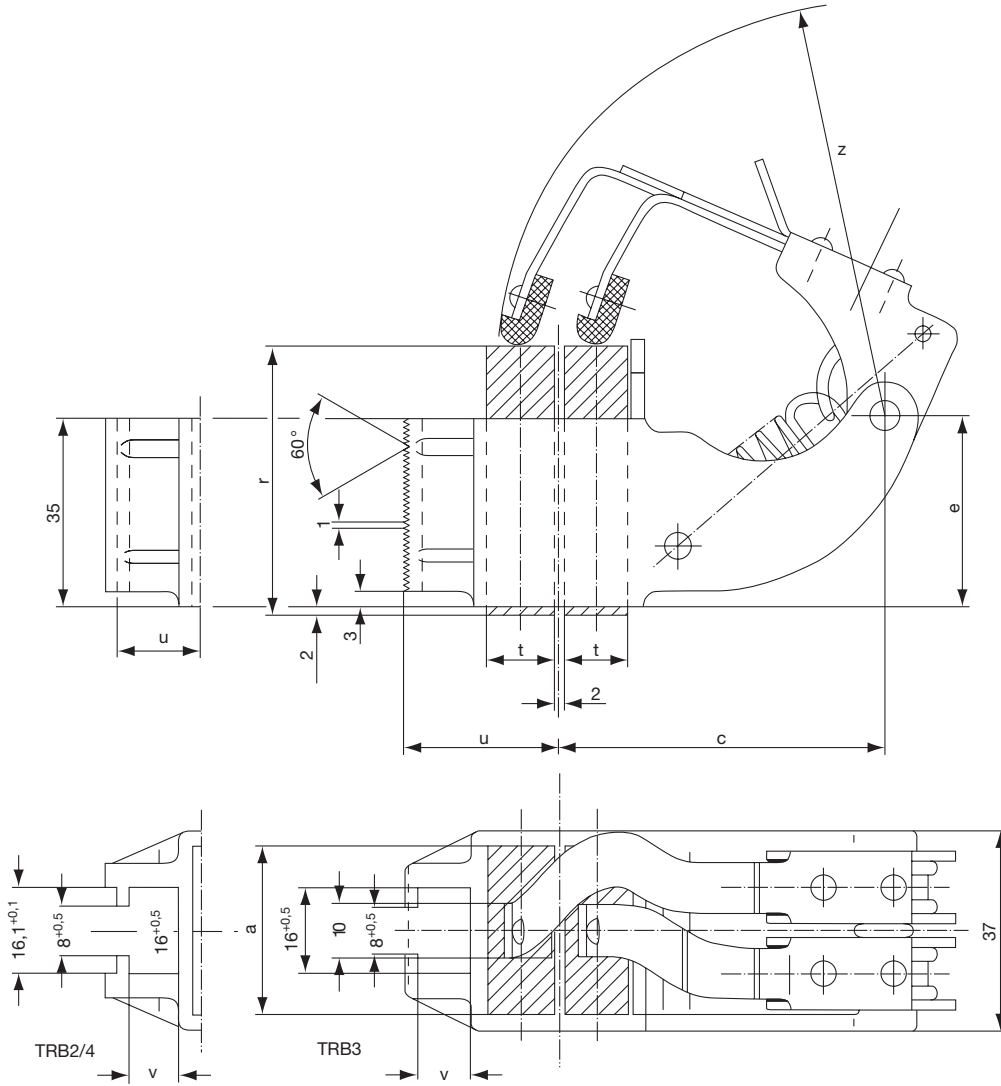
Type "TRB2", "TRB3" and "TRB4"

Cast brass holder body, with extension spring, insulated pressure piece

TRB2 - Cast pressure lever, securing groove

TRB3 - Sheet metal pressure lever, serrations

TRB4 - Sheet metal pressure lever, securing groove



Type	Drawing No.	t	a	r	u	c	e	v	z	P
TRB3 - 0832	06.07.0193.00	8	32	50	28	63.5	35	12	73	350
TRB3 - 1032	06.07.0061.03	10	32	50	28	63.5	35	12	73	200
TRB3 - 1232	06.07.0062.06	12.5	32	50	28	63.5	35	9.5	75	200
TRB3 - 1632	06.07.0063.05	16	32	50	28	63.5	35	6.5	76	200
TRB4 - 1232	06.07.0050.03	12.5	32	50	28	63.5	35	9.5	75	200
TRB4 - 1632	06.07.0051.02	16	32	50	28	63.5	35	6.5	76	200
TRB2 - 2032	06.07.0052.00	20	32	50	32	63.5	35	6.5	80	180

When peripheral speed > 40 m/sec. we recommend raising brush pressure to 250 cN/cm²

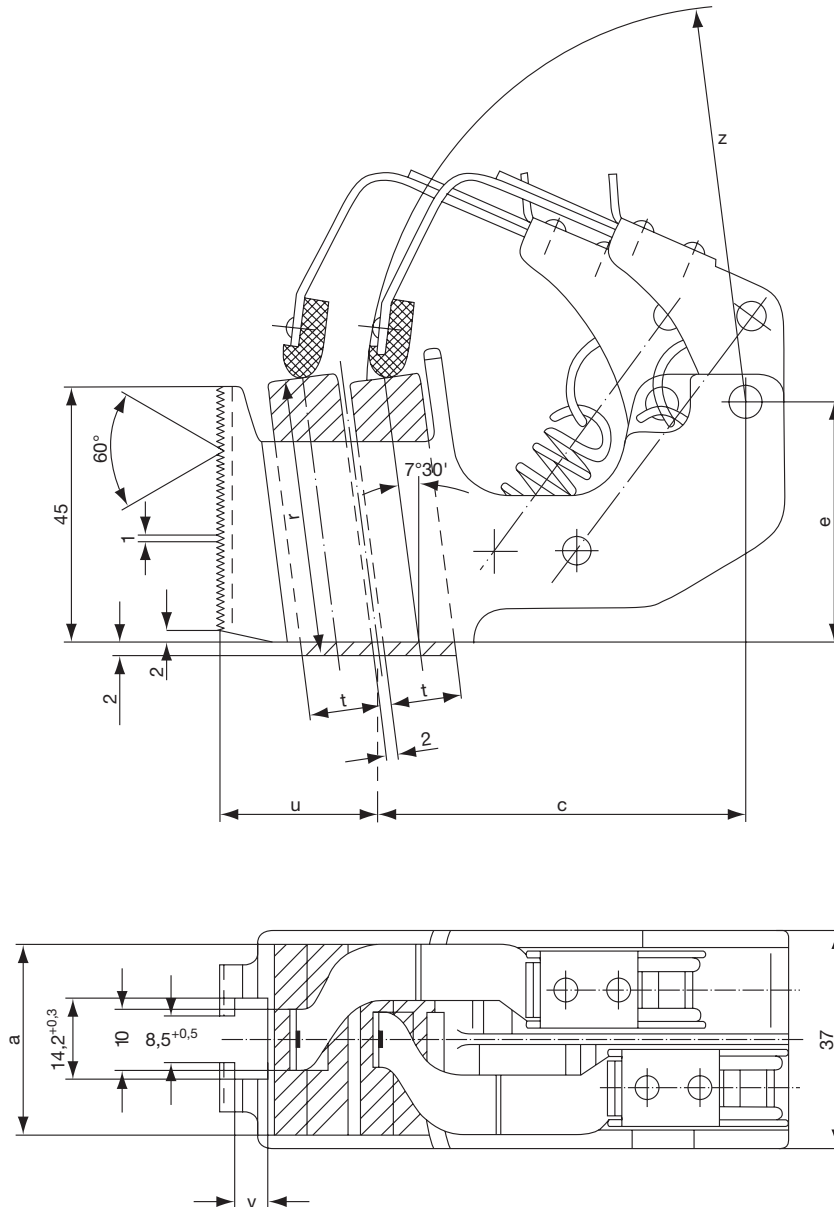
Tandem Brush Holder

Type "TNA" and "TNA2" (inclination 7.5°)

Cast brass holder body, with extension spring, insulated pressure piece

TNA - Cast brass pressure lever

TNA2 - Sheet brass pressure lever



Type	Drawing No.	t	a	r	u	c	e	v	z	P
TNA2 - 1032	06.07.0102.03	10	32	50	28	60.8	40.7	6	63	200
TNA2 - 1232	06.07.0103.05	12.5	32	50	28	66.2	42	6	68	200
TNA2 - 1632	06.07.0104.02	16	32	50	32	85.1	44.7	6	86	200
TNA - 2032	06.07.0105.00	20	32	50	36	87	44.9	6	87	200

When peripheral speed > 40 m/sec. we recommend raising brush pressure to 250 cN/cm²

Tandem Brush Holder

Type "TNC1", "TNC2", "TNC3" and "TNC4" (inclination 8°)

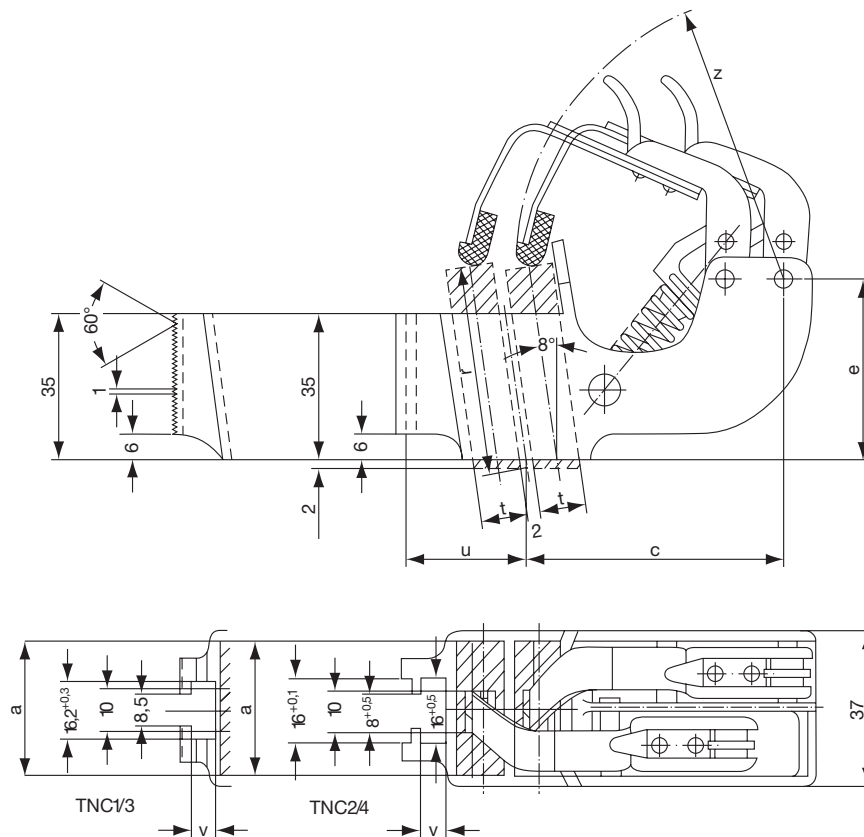
Cast brass holder body, with extension spring, insulated pressure piece

TNC1 - Cast brass pressure lever, serration

TNC2 - Cast brass pressure lever, securing groove

TNC3 - Sheet brass pressure lever, serration

TNC4 - Sheet brass pressure lever



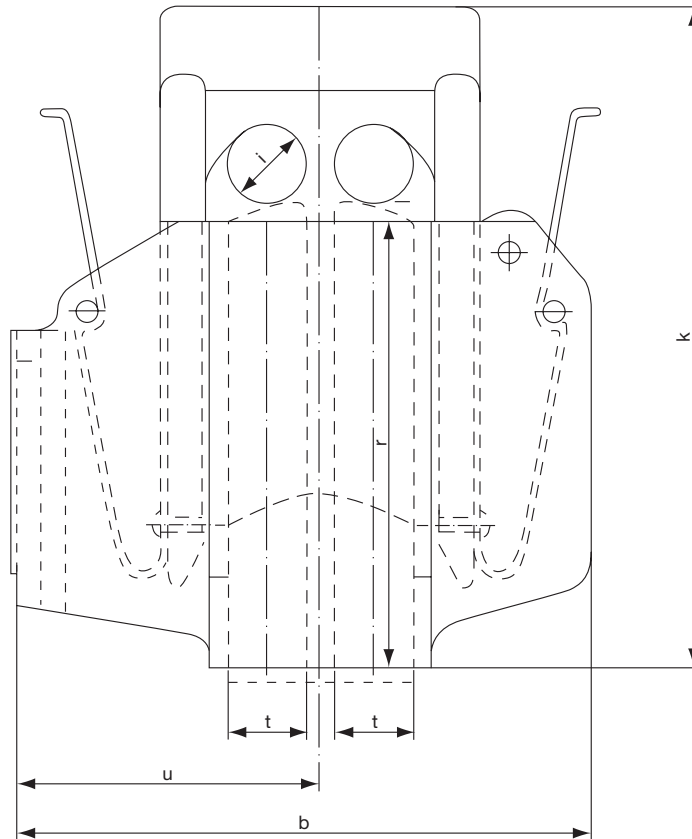
Type	Drawing No.	t	a	r	u	c	e	v	z	p
TNC3 - 1032	06.07.0094.14	10	32	50	27	60.5	41	6.5	63	200
TNC3 - 1232	06.07.0095.12	12.5	32	50	29.5	65.5	42.7	6.5	68	200
TNC3 - 1632	06.07.0096.14	16	32	50	32	84.7	45.3	6.5	86	200
TNC1 - 2032	06.07.0097.06	20	32	50	36	86.7	45.3	6.5	86	200
TNC1 - 2532	06.07.0194.04	25	32	50	42	94	42	6.5	90	260
TNC4 - 1032	06.07.0082.06	10	32	50	27	60.5	41	6.5	63	200
TNC4 - 1232	06.07.0083.06	12.5	32	50	29.5	65.8	42.7	6.5	68	200
TNC4 - 1632	06.07.0084.15	16	32	50	32.5	84.7	45.3	6.5	86	200
TNC2 - 2032	06.07.0085.06	20	32	50	36.5	86.7	45.3	6.5	86	200
TNC2 - 2532	06.07.0194.02	25	32	50	42	94	42	6.5	90	200

When peripheral speed > 40 m/sec. we recommend raising brush pressure to 250 cN/cm²

Tandem Brush Holder

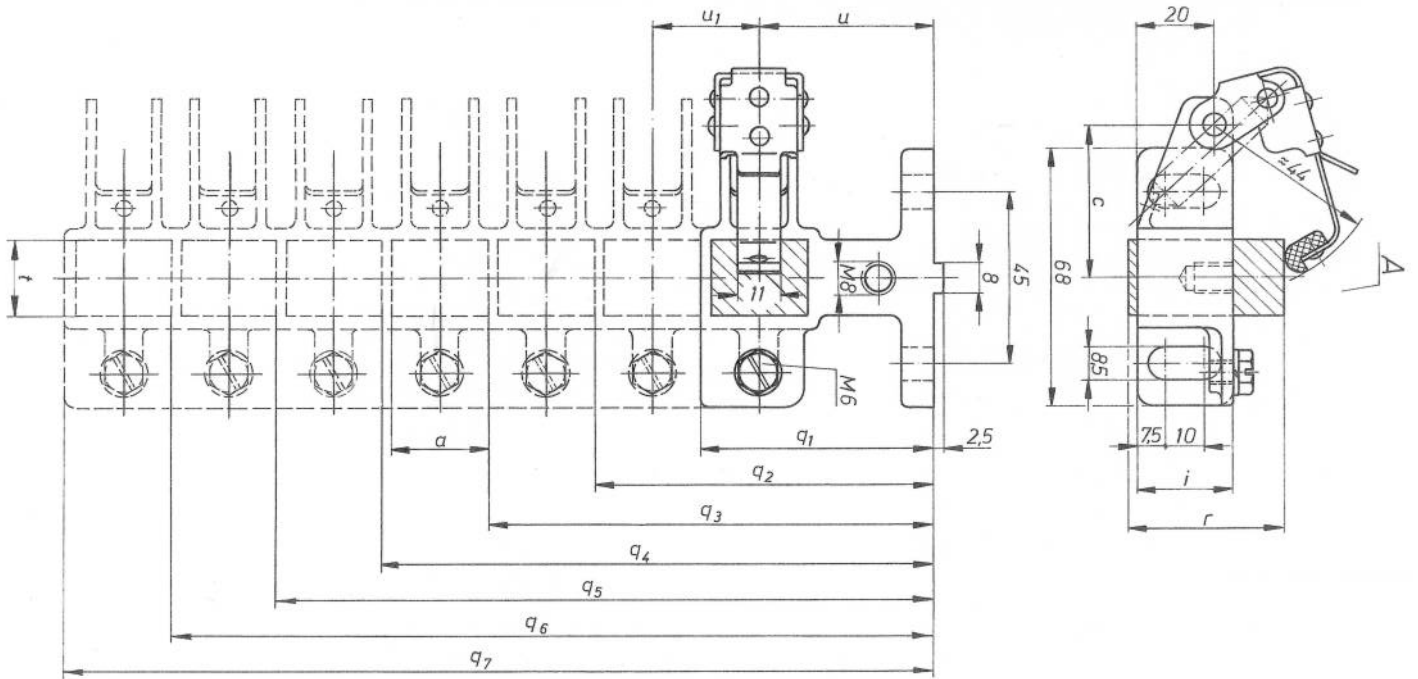
Type "TRG2"

Holder body of cast brass, with clock spring



Type	Drawing No.	t	a	r	u	k	b	i	P
TRG2 - 1032	06.07.0189.00	10	32	64	42.7	90	82	11.5	225
TRG2 - 1232	06.07.0179.01	12	32	64	42.7	90	82	11.5	225
TRG2 - 1632	06.07.0198.00	16	32	74	45.5	110	80	12.2	225
TRG2 - 1632	06.07.0198.01	16	32	74	48	110	82	12.2	225
TRG2 - 1632	06.07.0198.02	16	32	74	57	110	91	12.2	225
TRG2 - 1640	06.07.0198.03	16	40	74	43	110	78	12.2	225

Multiple Flange Brush Holder



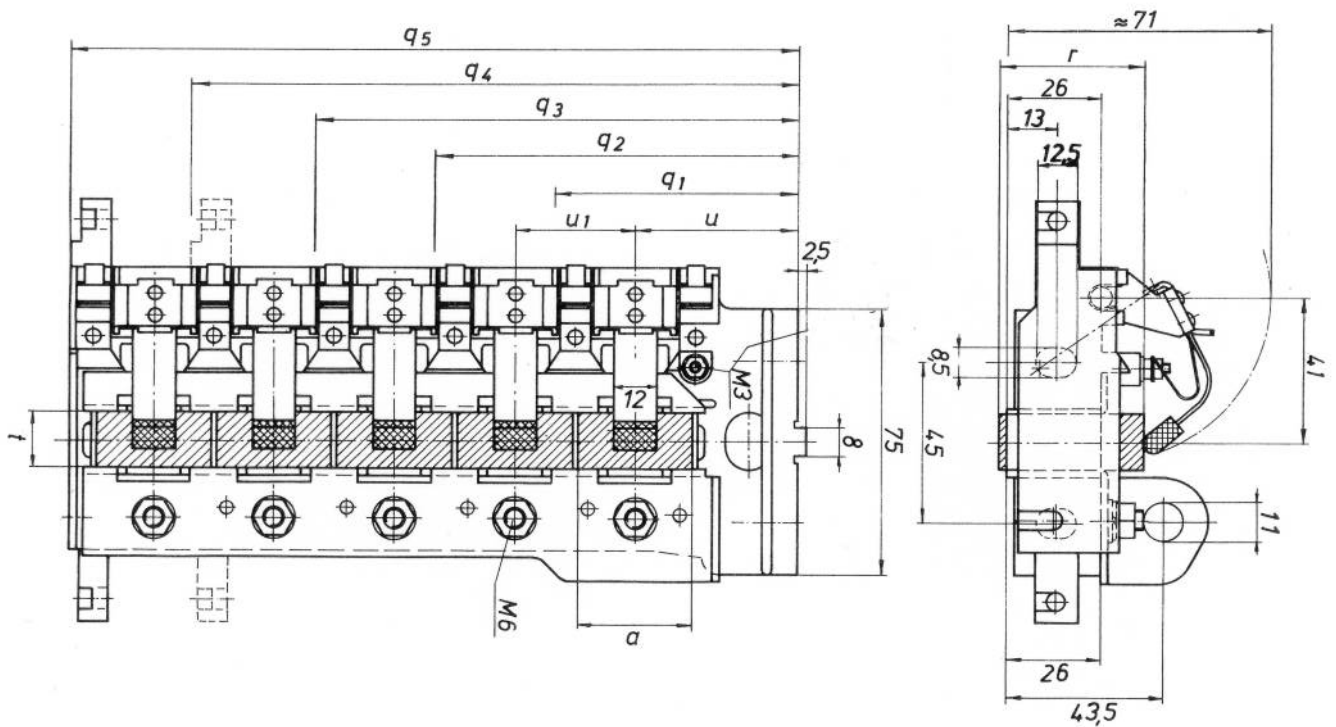
Drawing No.	Number of Brush Guides	t	a	r	u	u ₁
06.08.0428.02	4	12	32	45	45	34.5
06.08.0428.06	3	12	32	45	45	34.5
06.08.0428.07	2	12	32	45	45	34.5
06.08.0429.01	10 (9 assigned)	25	32	60	94.5	34.5
06.08.0429.04	10	25	32	60	60	34.5
06.08.0429.06	10 (6 assigned)	25	32	60	198	34.5
06.08.0430.06	7 (5 assigned)	20	32	60	129	34.5
06.08.0433.00	7	25	32	60	60	34.5
06.08.0434.02	8 (6 assigned)	20	32	60	129	34.5
06.08.0434.04	8	20	32	60	60	34.5
06.08.0434.06	8 (6 assigned)	20	32	60	129	34.5
06.08.0435.00	8	25	32	60	60	34.5
06.08.0436.06	9 (7 assigned)	20	32	60	129	34.5
06.08.0437.00	9	25	32	60	60	34.5
06.08.0437.01	9 (8 assigned)	25	32	60	94.5	34.5
06.08.0445.00	4	12	32	45	45	34.5
06.08.0447.00	3	12	32	45	45	34.5
06.08.0450.00	3	10	32	47	60	34.5
06.08.0451.00	3	16	32	47	60	34.5
06.08.0452.00	3	20	32	47	60	34.5
06.08.0453.00	4	20	32	47	60	34.5
06.08.0454.00	5	16	32	47	60	34.5
06.08.0455.00	5 (stepped)	20	32	47	60	34.5
06.08.0462.00	3	16	25	40	60	27
06.08.0462.01	4	16	25	40	60	27

Multiple Flange Brush Holder

Drawing No.	Number of Brush Guides	t	a	r	u	u ₁
06.08.0462.02	5	16	25	40	60	27
06.08.0462.03	3 (2 assigned)	16	25	40	87	27
06.08.0463.00	3	20	25	40	60	27
06.08.0463.01	4	20	25	40	60	27
06.08.0463.02	5	20	25	40	60	27
06.08.0465.00	4	16	25	40	60	27
06.08.0466.00	5	25	32	50	60	34.5
06.08.0466.01	5 (4 assigned)	25	32	50	94.5	34.5
06.08.0466.02	5 (3 assigned)	25	32	50	129	34.5
06.08.0466.05	4	25	32	50	60	34.5
06.08.0485.00	8	16	25	50	60	34.5
06.08.2178.00	3	16	32	45	45	34.5
06.08.2187.00	2	16	25	45	40	34.5
06.08.2190.00	6	20	32	50	100	34.5
06.08.2198.01	2	12	25	32	40	27
06.08.6048.01	5 (4 assigned)	16	32	50	94.5	34.5
06.08.6048.04	5	16	32	50	60	34.5
06.08.6049.00	5	20	32	50	60	34.5
06.08.6049.02	6	20	32	50	60	34.5
06.08.6049.06	5 (3 assigned)	20	32	50	129	34.5
06.08.6049.09	6	20	32	50	60	34.5
06.08.6062.00	6	16	32	50	60	34.5
06.08.6067.00	6	25	32	50	60	34.5
06.08.6067.02	5	25	32	50	60	34.5
06.08.6090.00	4	20	25	50	60	27
06.08.6093.00	4	25	32	50	60	34.5
06.08.6094.00	3	25	32	60	60	34.5
06.08.6097.00	3	10	32	45	45	34.5
06.08.6098.00	3	12	32	45	45	34.5

Optionally also available with microswitch
For illustration see Page 19

Multiple Flange Brush Holder (reinforced resin)



Drawing No.	Number of Brush Guides	t	a	r	u	u ₁
06.08.4012.01	2	16	25	40	50	26.5
06.08.4013.01	3	16	25	40	50	26.5
06.08.4013.02	3 (2 assigned)	16	25	40	76.5	26.5
06.08.4013.04	3	16	25	40	140	26.5
06.08.4014.01	4	16	25	40	50	26.5
06.08.4015.00	5	16	25	40	50	26.5
06.08.4015.03	5	16	25	40	90	26.5
06.08.4015.04	5	16	25	40	140	26.5
06.08.4017.01	2	20	25	40	50	26.5
06.08.4017.02	2 (1 assigned)	20	25	40	76.5	26.5
06.08.4018.01	3	20	25	40	50	26.5
06.08.4018.02	3 (2 assigned)	20	25	40	76.5	26.5
06.08.4018.04	3	20	25	40	140	26.5
06.08.4019.01	4	20	25	40	50	26.5
06.08.4020.03	5	20	25	40	90	26.5
06.08.4020.04	5	20	25	40	140	26.5
06.08.4400.00	4	20	32	50	70	34
06.08.4400.02	4 (3 assigned)	20	32	50	104	34
06.08.4400.04	4 (2 assigned)	20	32	50	138	34
06.08.4400.06	4	20	32	50	70	34

Multiple Flange Brush Holder (reinforced resin)

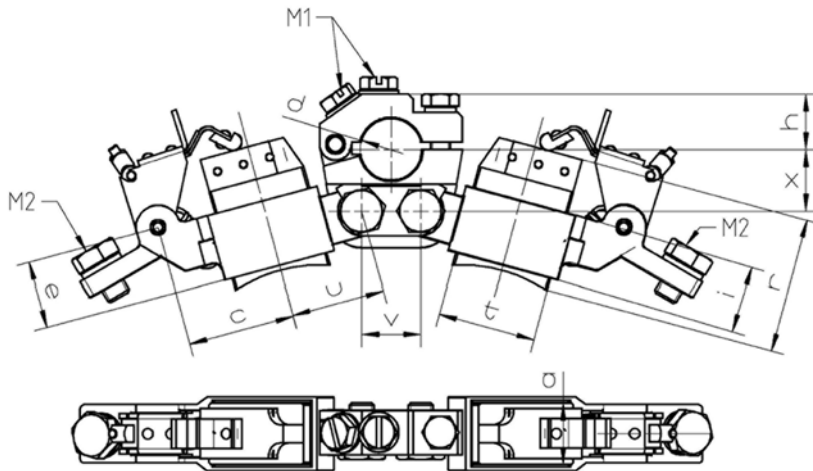
Drawing No.	Number of Brush Guides	t	a	r	u	u ₁
06.08.4400.07	4	20	32	50	70	34
06.08.4401.00	5	20	32	50	70	34
06.08.4401.01	5 (4 assigned)	20	32	50	104	34
06.08.4401.06	5	20	32	50	70	34
06.08.4402.02	6 (4 assigned)	20	32	50	138	34
06.08.4402.03	6	20	32	50	70	34
06.08.4402.05	6 (5 assigned)	20	32	50	104	34
06.08.4403.00	7	20	32	50	70	34
06.08.4403.01	7 (5 assigned)	20	32	50	138	34
06.08.4404.00	8	20	32	50	70	34
06.08.4404.03	8 (5 assigned)	20	32	50	138	34
06.08.4405.00	4	25	32	50	70	34
06.08.4406.00	5	25	32	50	70	34
06.08.4406.05	5 (4 assigned)	25	32	50	104	34
06.08.4407.00	6	25	32	50	70	34
06.08.4408.01	7	25	32	50	70	34
06.08.4409.01	8	25	32	50	70	34
06.08.4412.00	6	16	32	50	70	34

Optionally also available with microswitch
For illustration see Page 21

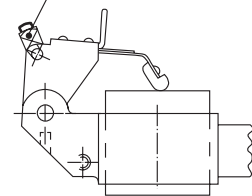
Double Clamping Brush Holder

Type "DRD"

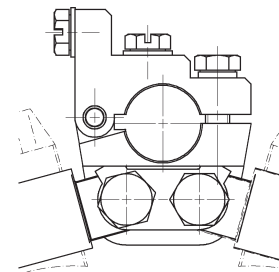
Cast brass holder body, with extension spring, insulated pressure piece



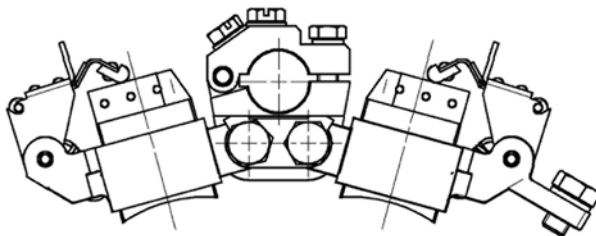
manual brush pressure adjustment



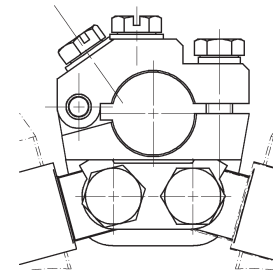
DRDF2 - With adjustable brush pressure and two phase connections



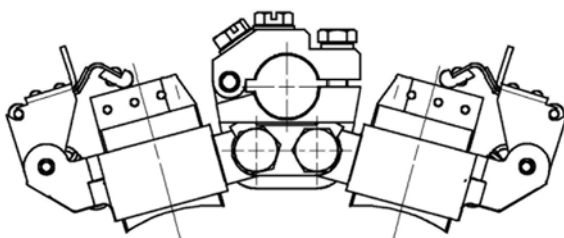
Clamping Piece Form H



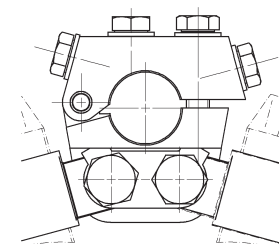
DRDS1 - Without adjustable brush pressure and with one phase connection



Clamping Piece Form A



DRDS - Without adjustable brush pressure and without phase connections



Clamping Piece Form F

Also available with microswitch on request

Double Clamping Brush Holder

Type "DRD"

Cast brass holder body, with extension spring, insulated pressure piece

DRDS - Without brush pressure adjustment

DRDF - With brush pressure adjustment

Brush Pressure 200 cN/cm ² Standard article *	t	a	r	u	c	e	h	i	P	v	w	x	M1 M2	Brush Pressure 200 cN/cm ² Adjustable brush pressure *
DRDS 06.03.3056...	25	10	32	26	35.5	20.5	18	20	200	17	8.5	19.5	6	DRDF 06.03.4056...
DRDS 06.03.3057...	25	12.5	32	26	35.5	20.5	18	20	200	17	8.5	19.5	6	DRDF 06.03.4057...
DRDS 06.03.3058...	32	12.5	40	29.5	43.5	26	18	25.5	200	17	12.5	19.5	6	DRDF 06.03.4058...
DRDS 06.03.3065...	32	16	40	32	43.5	26	22.5	25.5	200	23	12.5	25	8	DRDF 06.03.4065...
DRDS1 06.03.3103...	"	"	"	32	43.5	26	25	25.5	200	23	12.5	25	8	DRDF 1 06.03.4130...
DRDS2 06.03.3123...	"	"	"	32	43.5	26	25	25.5	200	23	12.5	25	8	DRDF2 06.03.4123...
DRDS 06.03.3066...	32	20	40	32	43.5	26	25	25.5	200	23	12.5	25	8	DRDF 06.03.4066...
DRDS1 06.03.3104...	"	"	"	32	43.5	26	25	25.5	200	23	12.5	25	8	DRDF 1 06.03.4104...
DRDS2 06.03.3124...	"	"	"	32	43.5	26	25	25.5	200	23	12.5	25	8	DRDF 2 06.03.4124...
DRDS 06.03.3069...	40	20	50	38	43.5	27.5	25	27	200	23	12.5	25	8	DRDF 06.03.4069...
DRDS1 06.03.3107...	"	"	"	38	43.5	27.5	25	27	200	23	12.5	25	8	DRDF 1 06.03.4107...
DRDS2 06.03.3127...	"	"	"	38	43.5	27.5	25	27	200	23	12.5	25	8	DRDF 2 06.03.4127...
DRDS 06.03.3070...	40	25	50	38	43.5	27.5	25	27	200	23	12.5	25	8	DRDF 06.03.4070...
DRDS1 06.03.3108...	"	"	"	38	43.5	27.5	25	27	200	23	12.5	25	8	DRDF 1 06.03.4108...
DRDS2 06.03.3128...	"	"	"	38	v	27.5	25	27	200	23	12.5	25	8	DRDF 2 06.03.4128...
DRDS 06.03.3071...	40	32	50	38	43.5	27.5	25	27	200	23	12.5	25	8	DRDF 06.03.4071...
DRDS1 06.03.3109...	"	"	"	38	43.5	27.5	25	27	200	23	12.5	25	8	DRDF 1 06.03.4109...
DRDS2 06.03.3129...	"	"	"	38	43.5	27.5	25	27	200	23	12.5	25	8	DRDF2 06.03.4129...

*Drawing No.

Article number ends on selected measurement "D"

Please specify the desired diameter when ordering

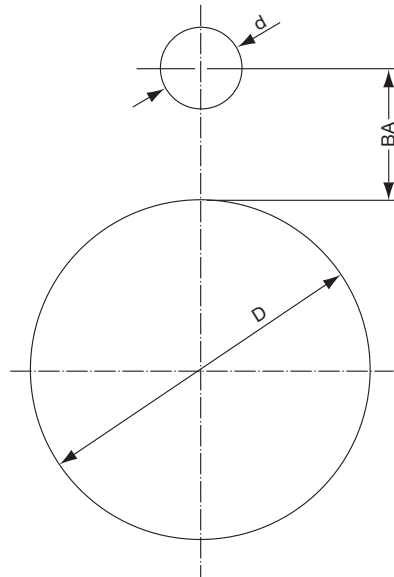
Further designs and, in certain cases, different brush pressures on request

For illustration see Page 23

Double Clamping Brush Holder

Type "DRD"

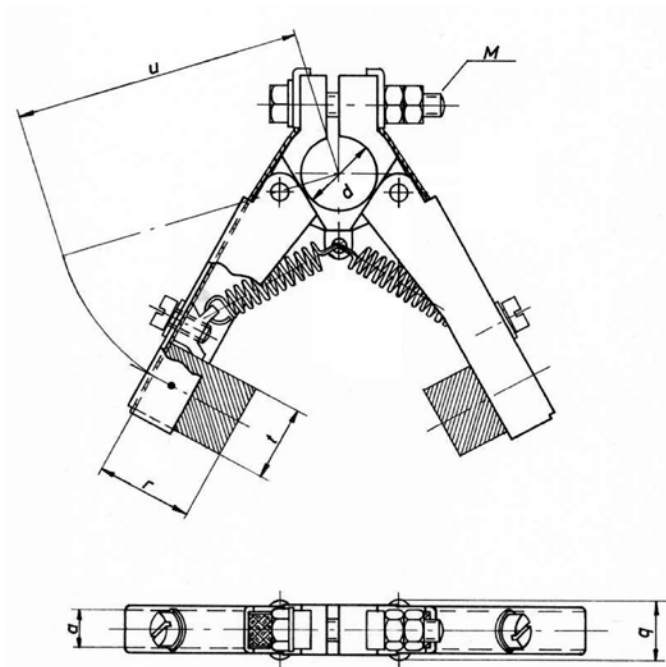
Information on bolt clearance (BC)



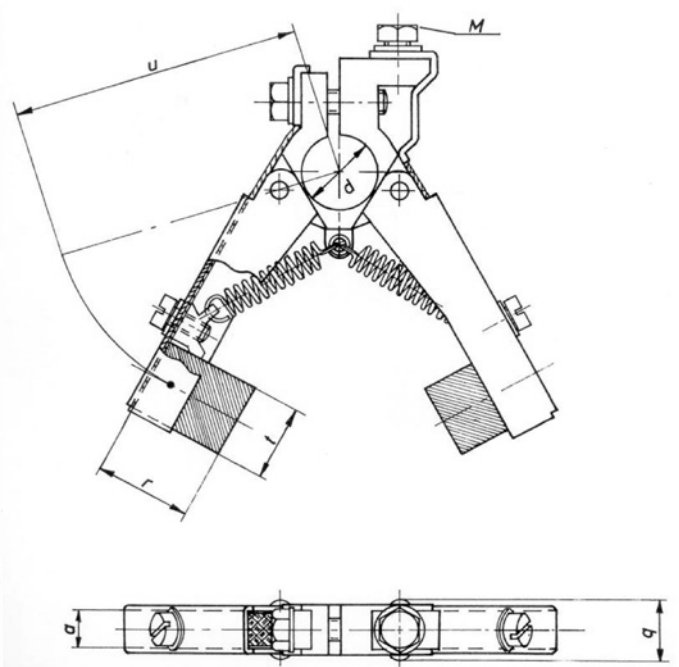
Brush Holder		Slip Ring Diameter D								
		90	100	125	160	200	250	315	400	500
DRDF	2510	-	35	34	33	32.5	32	31.5	31.5	31
DRDS	2512	-	35	34	33	32.5	32	31.5	31.5	31
	3212	-	40	39	38	37.5	36.5	36	36	35.5
	3216	-	-	44.5	43.5	43	42	41.5	41	40.5
	3220	-	-	44.5	43.5	43	45	41.5	41	40.5
	3225	-	-	44.5	43.5	43	42	41.5	41	40.5
	4020	-	-	-	49	48	47	46.5	45.5	45
	4025	-	-	-	49	48	47	46.5	45.5	45
	4032	-	-	-	49	48	47	46.5	45.5	45
DRDF1	2510	-	35	34	33	32.5	32	31.5	31.5	31
DRDF2	2512	-	35	34	33	32.5	32	31.5	31.5	31
DRDS1	3212	-	40	39	38	37.5	36.5	36	36	35.5
DRDS2	3216	-	-	44.5	43.5	43	42	41.5	41.5	40.5
	3220	-	-	44.5	43.5	43	42	41.5	41.5	40.5
	3225	-	-	44.5	43.5	43	42	41.5	41.5	40.5
	4020	-	-	-	45.5	44.5	43.5	42.5	42.5	41.5
	4025	-	-	-	45.5	44.5	43.5	42.5	42.5	41.5
	4032	-	-	-	45.5	44.5	43.5	42.5	42.5	41.5

Leg Brush Holder with Fixed Brushes

Double Leg Brush Holder

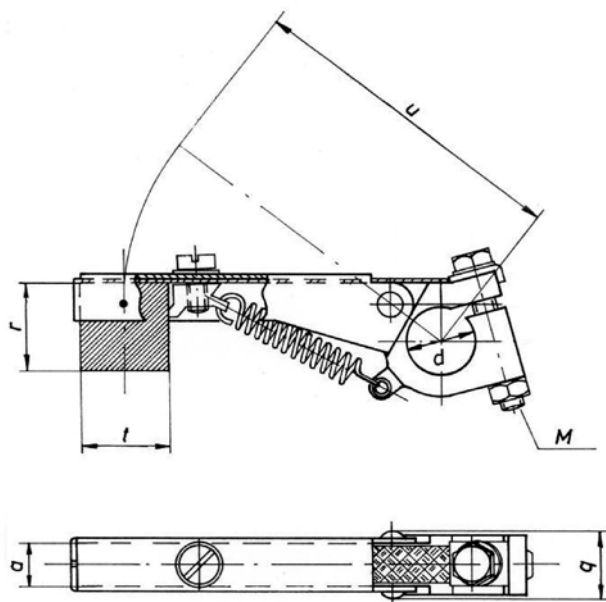


Straight Connection



Angled Connection

Single Leg Brush Holder



Straight Connection

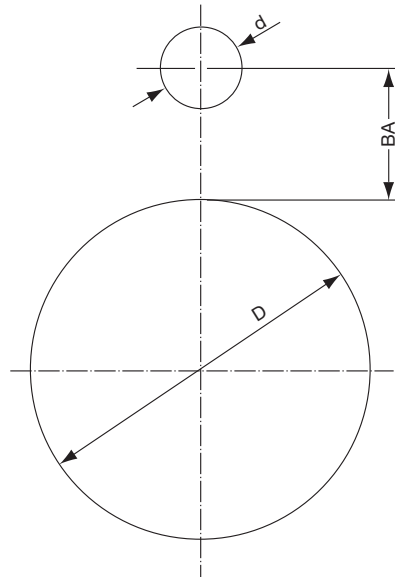
Leg Brush Holder with Fixed Brushes

Type	t	a	r	U	d	q	Thread
4 x 3	4	3	10	21	7-8	7	M2
6 x 3	6	3	15	23	7-8	7	M3
8 x 4	8	4	15	30	7-10	8	M4
	8	4	15	43	7-10	8	M4
8 x 5	8	5	15	27	7-10	9	M3
	8	5	15	32	7-10	9	M4
	8	5	15	43	7-10	9	M4
10 x 5	10	5	16	37	10	9	M4
10 x 6.4	10	6.4	16	37	10	11	M4
12.5 x 6.4	12.5	6.4	20	40	10	11	M4
12.5 x 8	12.5	8	20	47	10-13	12	M5
16 x 8	16	8	20	46	10-13	12	M5
	16	8	20	50	10-13	12	M5
	16	8	25	62	10-16	12	M5
16 x 10	16	10	25	50	10-16	14	M5
	16	10	25	62	10-16	14	M5
20 x 8	20	8	25	44	10-13	12	M5
	20	8	25	50	10-16	12	M5
	20	8	25	60	10-16	12	M5
20 x 10	20	10	25	50	10-13	14	M5
	20	10	25	56	10-16	14	M5
	20	10	25	60	10-16	14	M5
	20	10	30	70	16-20	14	M5
25 x 8	25	8	25	60	13-16	12	M5
25 x 10	25	10	25	60	13-16	14	M6
	25	10	30	70	16-20	14	M6
25 x 12.5	25	12.5	12.5	60	13-16	17	M6
	25	12.5	30	70	16-20	17	M6
	25	12.5	30	80	16-20	17	M6
	25	12.5	30	90	16-20	17	M6
25 x 16	25	16	30	85	16-20	17	M8
32 x 10	32	10	32	67	13-20	15	M6
	32	10	32	80	13-20	15	M6
32 x 12.5	32	12.5	32	70	16-20	17	M6
	32	12.5	32	80	16-20	17	M6
	32	12.5	32	90	16-20	17	M6
	32	12.5	32	100	16-20	17	M6
32 x 16	32	16	32	85	16-20	22	M8
	32	16	32	100	16-20	22	M8
40 x 12.5	40	12.5	40	95	16-20	17	M8
40 x 20	40	20	40	100	16-20	26	M10
	40	20	40	125	25	26	M10
	40	20	40	140	25	26	M10

All brush holders are available as single or double leg brush holders
Differing U, B and S measurements on request
For illustration see Page 26

Leg Brush Holder

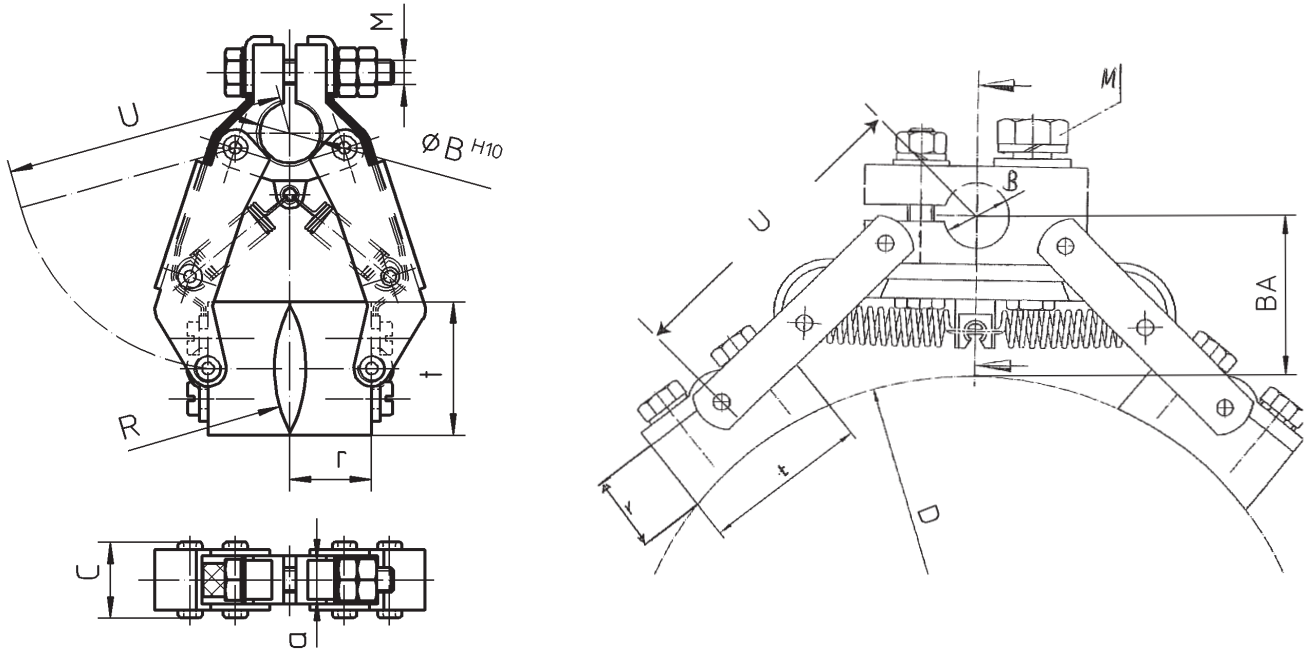
Information on bolt clearance (BC)
For holders with fixed brushes only



Type	Slip Ring Diameter D										
	u	50	75	100	150	200	250	300	350	400	500
4 x 3	21	11.5	10.5	10.5	10.0	-	-	-	-	-	-
6 x 3	23	11.5	10.5	10.5	10.0	-	-	-	-	-	-
8 x 4	30	20	19.0	18.0	17.0	16.5	16.0	15.5	-	-	-
	43	23.5	21.0	20.0	18.5	17.5	17.0	16.5	-	-	-
10 x 5	37	23.0	21.0	20.0	18.5	17.5	17.0	16.5	-	-	-
12.5 x 6.4	40	29.0	27.0	25.0	23.5	22.5	21.5	21.0	21.0	20.5	-
12.5 x 8	50	29.0	35.5	34.0	32.0	31.0	30.0	29.0	28.5	28.0	-
16 x 8	46	37.0	36.0	35.0	33.0	31.0	30.5	30.0	29.5	29.0	-
	50	35.0	35.5	34.0	32.0	31.0	30.0	29.0	28.5	28.0	-
	60	44.0	42.0	40.0	36.0	34.0	33.0	32.0	31.0	30.0	-
20 x 8	50	-	37.0	35.0	33.0	32.0	31.0	30.5	30.0	29.5	-
	60	-	42.5	40.0	36.5	34.5	33.5	32.5	31.0	30.0	-
20 x 10	50	-	37.5	35.0	32.5	31.5	30.5	30.0	29.5	29.0	-
	60	-	42.5	40.0	37.5	36.0	34.5	33.5	32.5	32.0	-
	70	-	-	50.0	46.0	44.5	42.5	41.0	40.5	40.0	-
2.5 x 8	60	-	-	37.0	35.5	33.0	32.0	31.0	30.0	29.0	-
2.5 x 10	60	-	-	40.0	37.5	36.0	34.5	33.5	32.5	32.0	-
	70	-	-	50.0	46.0	44.5	42.5	41.0	40.5	40.0	-
2.5 x 12.5	70	-	-	50.0	47.0	45.0	43.0	42.0	41.0	40.5	-
	90	-	-	53.0	50.0	48.0	44.5	41.0	40.5	39.0	-
32 x 10	80	-	-	55.0	53.0	45.5	43.5	40.0	39.5	39.0	38.5
32 x 12.5	80	-	-	55.0	51.0	48.0	46.5	45.0	44.0	43.0	41.0
32 x 16	90	-	-	55.0	55.0	51.5	48.5	46.5	45.5	44.0	42.5
40 x 20	125	-	-	-	87.0	80.5	75.0	70.5	68.0	65.0	61.0
	140	-	-	-	85.0	80.0	75.0	70.5	67.0	64.5	62.0

Double Leg Brush Holder with Simply Supported Brushes

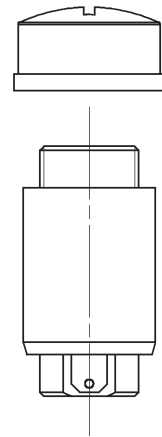
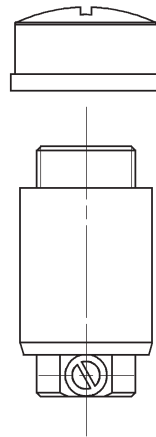
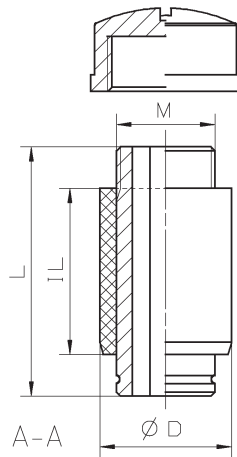
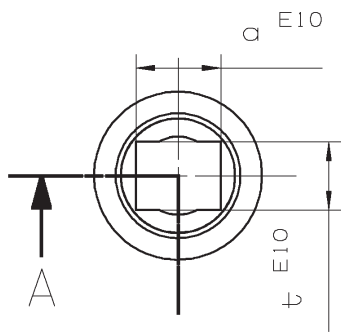
Information on BC measurements on request



Type	t	a	r	U	B	Width	Thread	Amp.
22x4	22	4	18	40	8-10	7.5	M4	25
16x6.4	16	6.4	13	40	8-10	11.5	M4	25
22x6.4	22	6.4	13	40	8-10	11.5	M4	30
25x8	25	8	20	60	12-16	13.5	M5	60
32x10	32	10	20	60	15-17	15.5	M8	150
32x16	32	16	20	65	15-17	22	M8	180
45x14	45	14	25	80	16-20	23	M10	220
45x16	45	16	25	80	16-20	27	M12	265
	45	16	25	95	16-20	27	M12	265
50x20	50	20	25	95	16-20	30	M12	350
60x25	60	25	25	105	17-20	36	M12	500

Differing U measurements or d1 measurements on request
Straight or angled connections available according to customer's wishes

Tubular Brush Holder



Solder Slot

Screw Connection

Plug Connection

Type	t	a	d
3x4	3	4	7
3x6.4	3	4	9
4x4	4	4	8
4x5	4	5	8
4x8	4	8	12
5x5	5	5	9
5x6.4	5	6.4	9
5x8	5	8	10
5x10	5	10	12
6x6	6	6	14
6x8	6	8	10
6x9	6	9	12
6x13	6	13	13
	6	13	14.6/10
6x16	6	16	21
6.4x8	6.4	8	12
6.4x10	6.4	10	14
6.4x12.5	6.4	12.5	16
	6.4	12.5	13.6/12
8x8	8	8	13
8x10	8	10	16
8x12	8	12	16
8x12.5	8	12.5	14.5/10
10x12.5	10	12.5	18

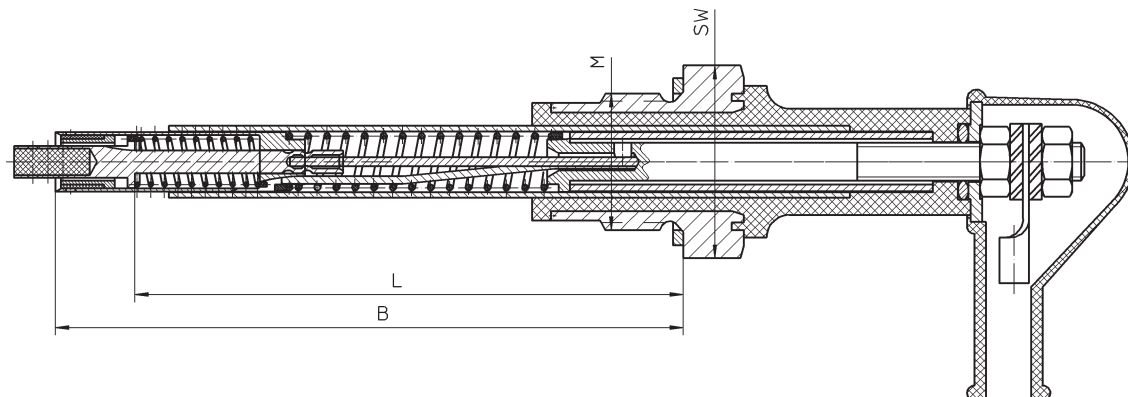
Measurements "D", "L" and "IL" according to customer's wishes

Insulation made from thermoplastic, duroplast or hard paper

Power connection with solder slot, blade terminal or screw connection

With suitable plastic or metal cap on request

Power Feeds (Ignition Plug Holder)



Drawing No.	B	Installation Length	Thread	SW
06.00.1000.00	113	100	M18x1.5	22
06.00.1000.03	48	35	M18x1.5	22
06.00.1000.04	73	60	M18x1.5	22
06.00.1000.05	43	30	M18x1.5	22
06.00.1000.06	60	47	M18x1.5	22
06.00.1000.07	53	40	M18x1.5	22
06.00.1000.08	83	70	M18x1.5	22
06.00.1000.09	93	80	M18x1.5	22
06.00.1001.00	34	-	M18x1.5	22
06.00.1002.00	34	-	M18x1.5	22
06.00.1005.00	30	-	M18x1.5	22
06.00.1008.00	30	9	M16x1.5	19
06.00.1009.00	109	100	M16x1.5	19
06.00.1009.01	84	75	M16x1.5	19
06.00.1009.03	44	35	M16x1.5	19
06.00.1009.04	46	37	M16x1.5	19
06.00.1009.05	49	40	M16x1.5	19
06.00.1009.10	39	30	M16x1.5	19
06.00.1015.03	48	35	M18x1.5	22
06.00.1016.00	23	-	M14x1.5	17
06.00.1017.00	23	-	M16x1.5	19

Optional brushes for wet or dry running

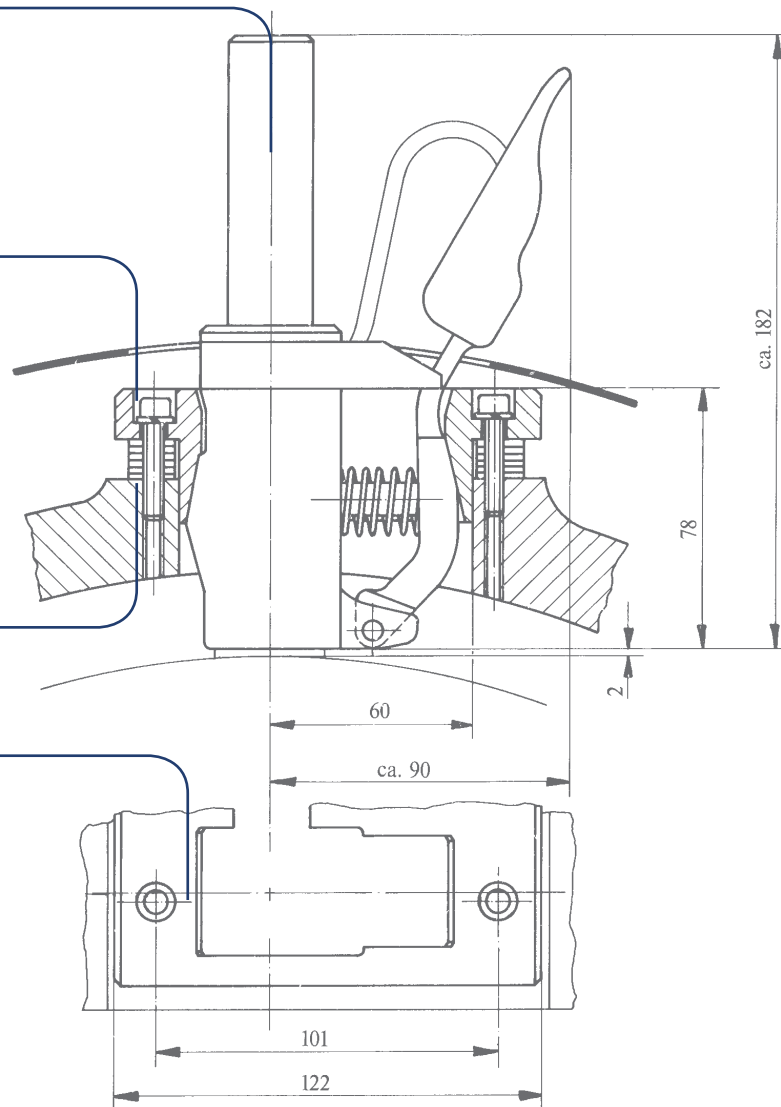
Plug-in Brush Holder and Holder Support

Plug-in Brush Holder

Holder Support

Shims

for securing screw M6

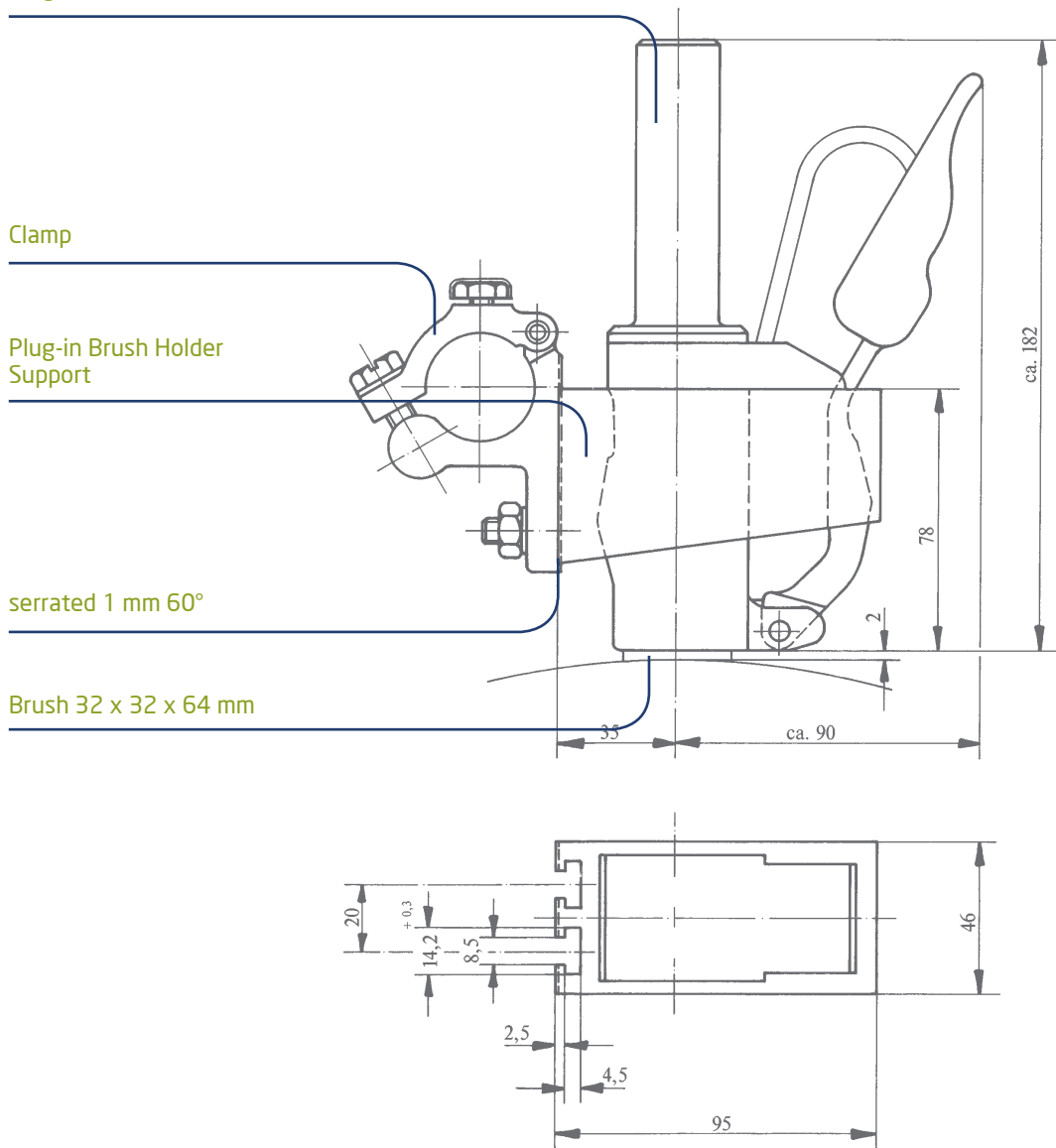


Holder supports available 1 to 4-fold. Height adjustment by means of shims.
Special designs available on request.

Designation	Drawing No.	Brush Pressure
Plug-in Brush Holder	06.08.0200.11	130 cN/cm ²
Plug-in Brush Holder	06.08.0200.12	200 cN/cm ²
Holder Support (1-fold)	51.41.1499.00	-
Holder Support (2-fold)	51.41.1499.01	-
Holder Support (3-fold)	51.41.1499.02	-
Holder Support (4-fold)	06.41.0004.00	-

Plug-in Brush Holder and Holder Support

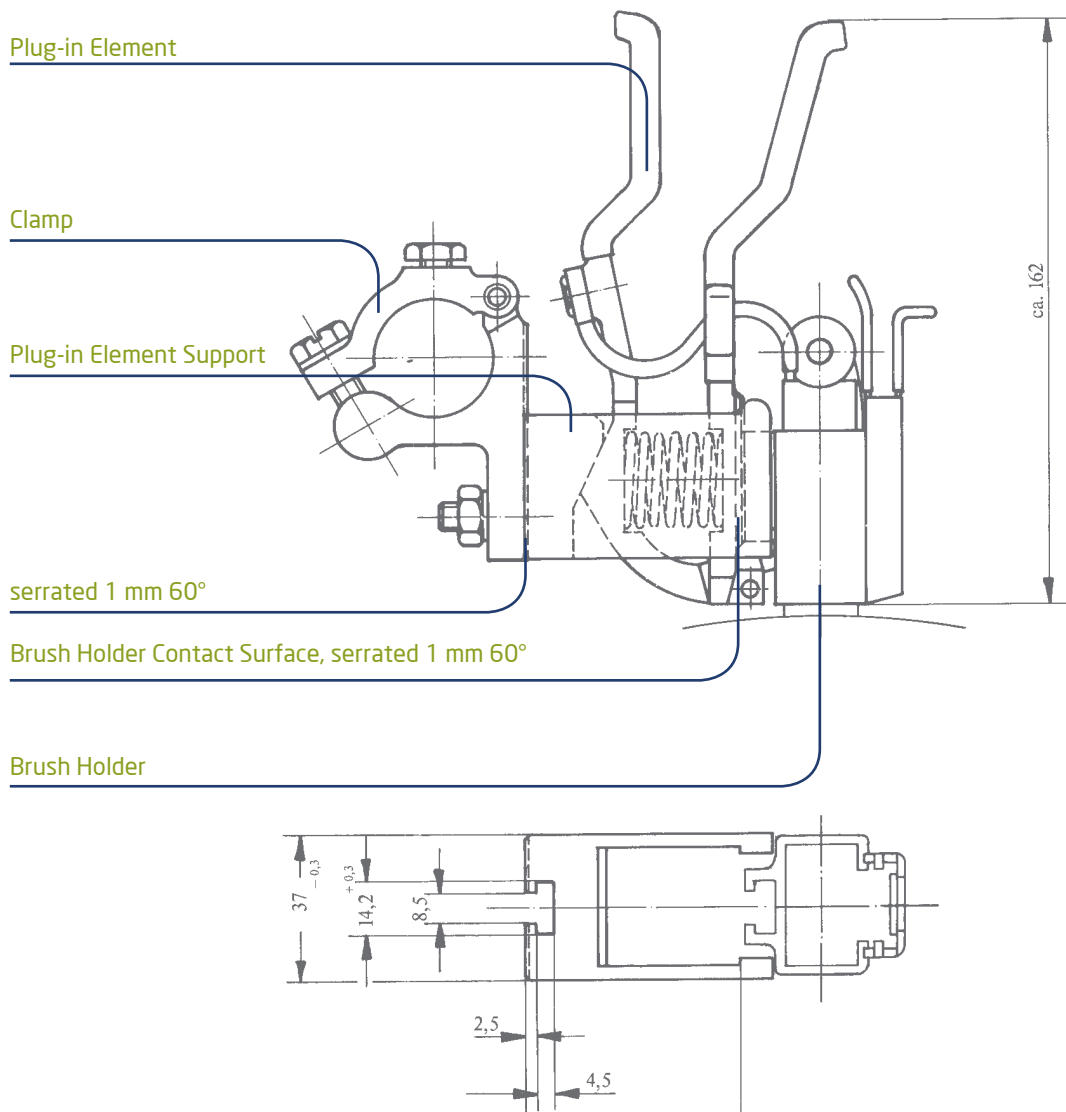
Plug-in Brush Holder



*Various clamp designs are available for adaptation to the installation situation.
Special designs on request.*

Designation	Drawing No.	Brush Pressure
Plug-in Brush Holder	06.08.0200.11	130 cN/cm ²
Plug-in Brush Holder	06.08.0200.12	200 cN/cm ²
Holder Support	06.41.0008.00	-

Plug-in Element and Plug-in Element Support



*Various clamp designs are available for adaptation to the installation situation.
Special designs on request.*

Designation	Drawing No.
Plug-in Element	06.24.0004.00
Plug-in Element Support	06.24.0005.02

Multiple Plug-in Element and Support

Plug-in Element

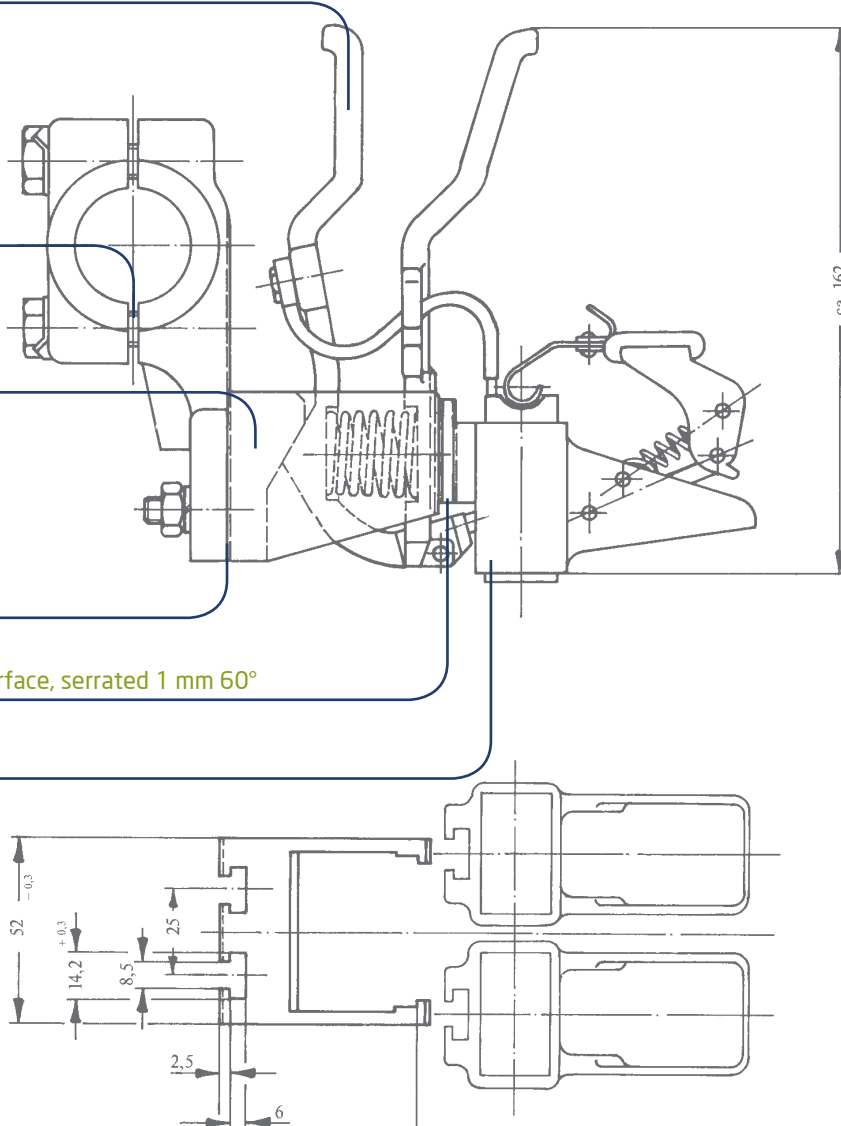
Clamp

Plug-in Element Support

serrated 1 mm 60°

Brush Holder Contact Surface, serrated 1 mm 60°

Brush Holder



Example illustration with 2 holders.

Various clamps, holder designs, brush dimensions and pressure systems are possible.

Designation	Drawing No.
Plug-in Element (2-fold)	06.24.0008.01
Plug-in Element (3-fold)	06.24.0008.16
Plug-in Element Support	51.41.0430.03

Questionnaire on Carbon Brushes and Brush Holders

Date: _____

Sheet No.: _____, Pages _____

1. Customer Information (on first page only)

Company: _____

Address: _____

Contact person: _____ Tel.: _____ Fax: _____

2. Plant Information

Manufacturer: _____

Motor type: _____ Motor number: _____

Voltage: _____ V, Current: _____ A, Power: _____ KW, RPM: _____ min-1

No. of poles: _____ No. of brushes per pole: _____

Plant: _____ Motor type: _____

3. Information on Electric Brush

Brush material / marking: _____

Dimensions (mm): T _____ A _____ R _____ ☐ - Double

Design fig. No.: _____ (see catalogue)

No. of current connectors: _____, Length R = _____ mm ☐ - Tinned ☐ - Insulated

Clamp fig. No.: _____ m = mm (see catalogue)

☐ - Sketch/drawing of brush holder is available, No.: _____

4. Information on Brush Holder:

Marking: _____ Marking of fields: _____

Type of brush holder: _____

Spring type: ☐ - Clock spring ☐ - Extension spring ☐ - Pressure spring ☐ - Coil spring ☐ - Other

Basic dimensions of brush holder (mm): Length: _____, Width: _____, Height: _____

No. of brush holders per pole: _____ Number of guides for brushes: _____

☐ - Sketch/drawing of brush holder is available, No.: _____

5. Please outline other questions separately, e.g. unsatisfactory performance of the brush apparatus, sparking, excessive brush or collector wear, etc.

Contact Information

Schunk Bahn- und Industrietechnik GmbH

Hauptstraße 97

35435 Wettenberg ▯ Germany

Tel +49 (0) 6 41 8 03-0

Fax +49 (0) 6 41 8 03-1 39

sales.sbi@schunk-group.com

www.schunk-sbi.com



15.04e/2014