



Cabinet "U" handles

Aluminium

SPECIFICATION

Aluminium

plastic coated

black, RAL 9005, textured finish **SW**

black, RAL 9005, UV-resistant, textured finish **SWU**

red, RAL 3000, textured finish **RS**

silver, RAL 9006, textured finish **SR**

white, RAL 9016, antimicrobial **WSA**

anodized, natural colour **EL**

blank, tumbled **BL**

INFORMATION

GN 565 cabinet „U“ handles are made from a bent aluminum profile and have excellent stability and ergonomic design. Due to the production process, special designs can be supplied even in relatively small quantities.

In addition to the standard surfaces, these cabinet „U“ handles are also available with a functional coating.

The **SWU** version is coated with a highly weather-resistant and UV-protective powder coating system, making this version excellent for outdoor use.

The **WSA** version has a powder coating based on zinc molybdate, which gives it antimicrobial properties. The principle of action, which is activated by the presence of moisture, demonstrably reduces the growth of viruses, bacteria, and fungi within 24 hours, so that contaminated surfaces ultimately have less than 0.2% of the original number of microbes.

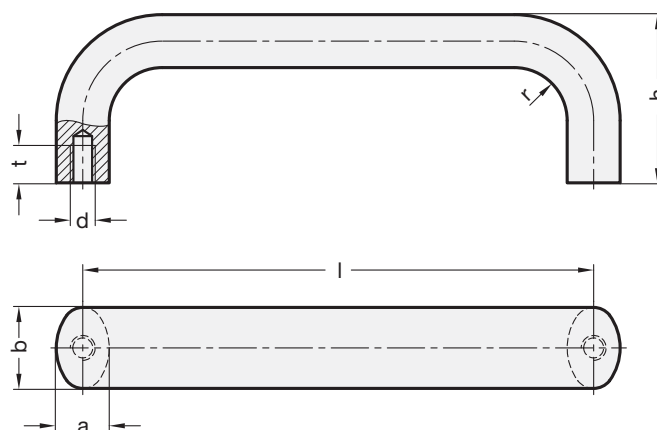
Standard elements with antimicrobial plastic coating are primarily used in the health care sector and in public buildings, such as airports, train stations, stadiums, etc.

TECHNICAL INFORMATION

- Load rating information (see page A35)

* Complete with colour index of the Cabinet "U" handles (SW, SWU, RS, SR, WSA, EL or BL)

SW **SWU** **RS** **SR** **WSA** **EL** **BL**
RAL9005 RAL9005 RAL3000 RAL 9006 RAL9016 anodized blank



GN 565

Description	b	l ±0.25	a	d	h	r	t min.	Δ
GN 565-20-100-*	20	100	13	M 6	49	13	10	87
GN 565-20-112-*	20	112	13	M 6	49	13	10	93
GN 565-20-117-*	20	117	13	M 6	49	13	10	100
GN 565-20-120-*	20	120**	13	M 6	49	13	10	102
GN 565-20-128-*	20	128	13	M 6	51	13	10	103
GN 565-20-160-*	20	160	13	M 6	51	13	10	121
GN 565-20-180-*	20	180**	13	M 6	51	13	10	139
GN 565-20-200-*	20	200	13	M 6	51	13	10	150
GN 565-20-235-*	20	235**	13	M 6	51	13	10	155
GN 565-26-112-*	26	112	17	M 8	55	17	12	161
GN 565-26-117-*	26	117	17	M 8	55	17	12	166
GN 565-26-120-*	26	120**	17	M 8	55	17	12	171
GN 565-26-125-*	26	125	17	M 8	55	17	12	180
GN 565-26-128-*	26	128	17	M 8	55	17	12	180
GN 565-26-160-*	26	160	17	M 8	57	17	12	210
GN 565-26-179-*	26	179	17	M 8	57	17	12	234
GN 565-26-192-*	26	192	17	M 8	57	17	12	240
GN 565-26-300-*	26	300	17	M 8	57	17	12	345
GN 565-26-400-*	26	400	17	M 8	57	17	12	440
GN 565-26-500-*	26	500	17	M 8	57	17	12	538

** suitable for 19" rack and enclosure layout

Stainless Steel-Cabinet "U" handles

SPECIFICATION

Types

- Type **A**: Mounting from the back (threaded blind bore)
- Type **B**: Mounting from the operator's side

Stainless Steel

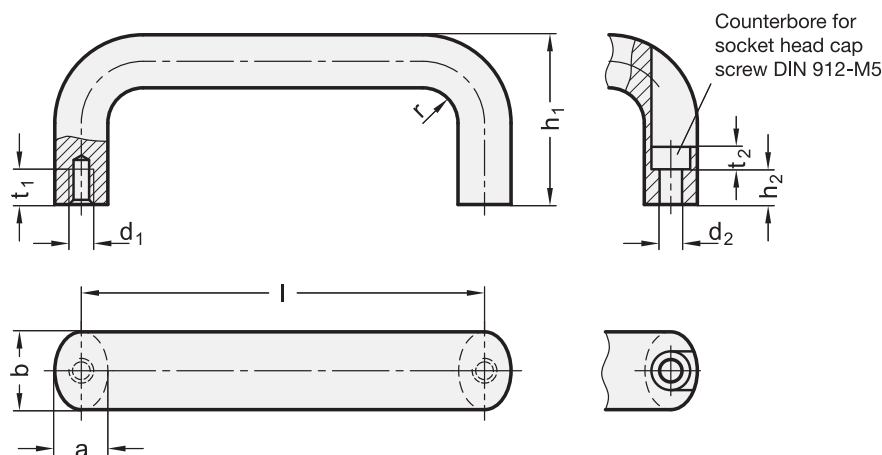
- Type A: AISI 304
- Type B: Fine die casting, AISI CF-8
- matt shot-blasted **GS**
- slip polished, shiny metallic **GP** (only Type A)

INFORMATION

The special features of Stainless Steel-Cabinet „U“ handles GN 565.5 are their rigidity and ergonomical shaping. Stainless Steel-Cabinet „U“ handles (Type A) are produced from profiled extrusions. The manufacturing process (bending) allows the production of **special lengths** in relatively small quantities.

TECHNICAL INFORMATION

- Stainless Steel characteristics (see page A26)
- Load rating information (see page A35)



GN 565.5

STAINLESS STEEL

Description	b	l ±0.25	a	d1	d2	h1	h2	r	t1 min.	t2	⚖
GN 565.5-20-112-A-GS	20	112	13	M 6	-	49	-	13	10	-	280
GN 565.5-20-128-A-GS	20	128	13	M 6	-	51	-	13	10	-	300
GN 565.5-20-160-A-GS	20	160	13	M 6	-	51	-	13	10	-	360
GN 565.5-20-200-A-GS	20	200	13	M 6	-	51	-	13	10	-	440
GN 565.5-20-250-A-GS	20	250	13	M 6	-	51	-	13	10	-	517
GN 565.5-20-300-A-GS	20	300	13	M 6	-	51	-	13	10	-	580
GN 565.5-20-350-A-GS	20	350	13	M 6	-	51	-	13	10	-	660
GN 565.5-20-400-A-GS	20	400	13	M 6	-	51	-	13	10	-	737
GN 565.5-20-112-A-GP	20	112	13	M 6	-	49	-	13	10	-	293
GN 565.5-20-128-A-GP	20	128	13	M 6	-	51	-	13	10	-	300
GN 565.5-20-160-A-GP	20	160	13	M 6	-	51	-	13	10	-	360
GN 565.5-20-200-A-GP	20	200	13	M 6	-	51	-	13	10	-	440
GN 565.5-20-112-B-GS	20	112	13	-	5.4	-	13.5	13	-	5.5	240
GN 565.5-20-128-B-GS	20	128	13	-	5.4	-	13.5	13	-	5.5	280
GN 565.5-20-160-B-GS	20	160	13	-	5.4	-	13.5	13	-	5.5	340



Cabinet "U" handles

Aluminium

SPECIFICATION

Aluminium

plastic coated

black, RAL 9005, textured finish **SW**

black, RAL 9005, textured finish, UV-resistant **SWU**

red, RAL 3000, textured finish **RS**

silver, RAL 9006, textured finish **SR**

anodized, natural colour **EL**

blank, tumbled **BL**

INFORMATION

GN 565.1 cabinet „U“ handles are made from a bent aluminum profile and have excellent stability and ergonomic design. Due to the production process, special designs can be supplied even in relatively small quantities.

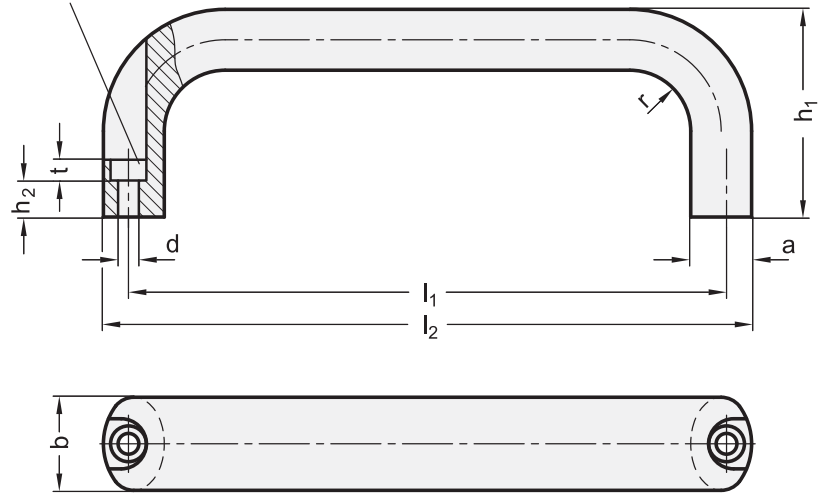
In addition to the standard surfaces, these cabinet „U“ handles are also available with a functional coating.

The **SWU** version is coated with a highly weather-resistant and UV-protective powder coating system, making this version excellent for outdoor use.

TECHNICAL INFORMATION

- Load rating information (see page A35)

Counterbored
for cap screw
DIN 912-M5 / M6



* Complete with colour index of the Cabinet "U" handles (SW, SWU, RS, SR, WSA, EL or BL)

SW RAL9005 **SWU** RAL9005 **RS** RAL3000 **SR** RAL 9006 **EL** anodized **BL** blank

GN 565.1

Description	b	l1 ±0.25	a	d	h1	h2	l2	r	t	⚖
GN 565.1-20-100-*	20	100	13	5.4	49	13.5	112	13	5.5	80
GN 565.1-20-112-*	20	112	13	5.4	49	13.5	124	13	5.5	87
GN 565.1-20-120-*	20	120	13	5.4	49	13.5	124	13	5.5	90
GN 565.1-20-128-*	20	128	13	5.4	51	13.5	140	13	5.5	100
GN 565.1-20-160-*	20	160	13	5.4	51	13.5	172	13	5.5	120
GN 565.1-26-116-*	26	116	17	6.4	55	11	130	17	6	145
GN 565.1-26-120-*	26	120	17	6.4	55	11	134	17	6	149
GN 565.1-26-132-*	26	132	17	6.4	55	11	146	17	6	160
GN 565.1-26-164-*	26	164	17	6.4	57	11	178	17	6	200
GN 565.1-26-179-*	26	179	17	6.4	57	11	193	17	6	220
GN 565.1-26-196-*	26	196	17	6.4	57	11	210	17	6	226

Inclined cabinet "U" handles

Aluminium

SPECIFICATION

Types

- Type **A**: Mounting from the back (threaded blind bore)
- Type **B**: Mounting from the operator's side

Aluminium

plastic coated

black, RAL 9005, textured finish **SW**

silver, RAL 9006, textured finish **SR**

anodized, natural colour **EL**

blank, tumbled **BL**

INFORMATION

Inclined cabinet "U" handles GN 565.2 are produced from profiled aluminum extrusions. Produced from profiled aluminium extrusions their special features are their rigidity and ergonomical shaping.

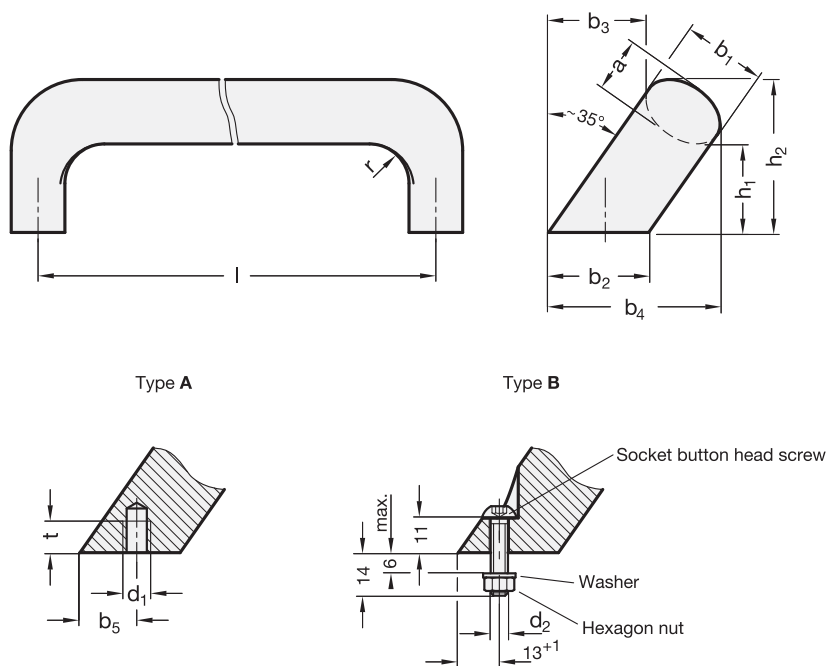
The angled contact surface allows improved access even in tight spaces such as corners.

The manufacturing process (bending) allows the production of **special lengths** in relatively small quantities.

In type B lens screws, hexagon nuts and washers are included parts of the order.

TECHNICAL INFORMATION

- Load rating information (see page A35)



* Complete with colour index of the Cabinet "U" handles (SW, SR, EL or BL)

SW **SR** **EL** **BL**
RAL9005 RAL9006 anodized blank

GN 565.2

Description	b1	l ±0.25	a	b2	b3	b4	b5 +1	d1	d2	h1	h2	r	t min.	⚖
GN 565.2-20-112-A-*	20	112	13	24	32	50	13.5	M 6	-	32	48	13	10	105
GN 565.2-20-128-A-*	20	128	13	24	32	50	13.5	M 6	-	32	48	13	10	1129
GN 565.2-26-128-A-*	26	128	17	32	34	57	18	M 8	-	34	54	17	12	190
GN 565.2-26-160-A-*	26	160	17	32	34	57	18	M 8	-	34	54	17	12	222
GN 565.2-26-128-B-*	26	128	17	32	34	57	18	-	M 6	34	54	17	-	207
GN 565.2-26-160-B-*	26	160	17	32	34	57	18	-	M 6	34	54	17	-	240

GN 565.7

Inclined Stainless Steel-Cabinet "U" handles

SPECIFICATION

Type

- Type **A**: Mounting from the back (threaded blind bore)

Stainless Steel

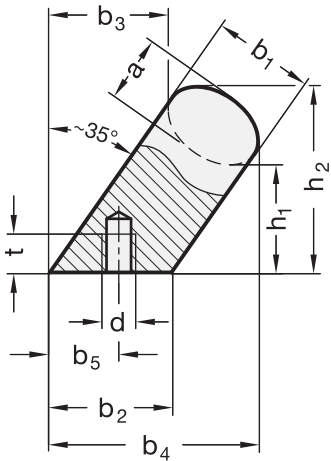
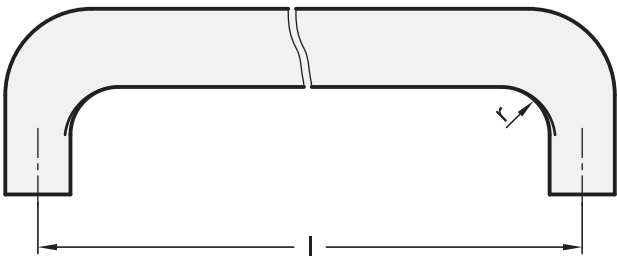
- AISI 304
- matt shot-blasted **MT**

INFORMATION

Inclined Stainless Steel-Cabinet "U" handles GN 565.7 are produced from profiled Stainless Steel extrusions. Their special features are their rigidity and ergonomic shaping. The angled contact surface allows improved access even in tight spaces such as corners. The manufacturing process (bending) allows the production of **special lengths** in relatively small quantities.

TECHNICAL INFORMATION

- Stainless Steel characteristics (see page A26)
- Load rating information (see page A35)



GN 565.7

STAINLESS STEEL

Description	b1	l ±0.25	a	b2	b3	b4	b5 +1	d	h1	h2	r	t min.	⚖
GN 565.7-20-112-A-MT	20	112	13	24	32	50	13.5	M6	32	48	13	10	308
GN 565.7-20-128-A-MT	20	128	13	24	32	50	13.5	M6	32	48	13	10	320

Cabinet "U" handles

Polyurethane foam rubber

SPECIFICATION

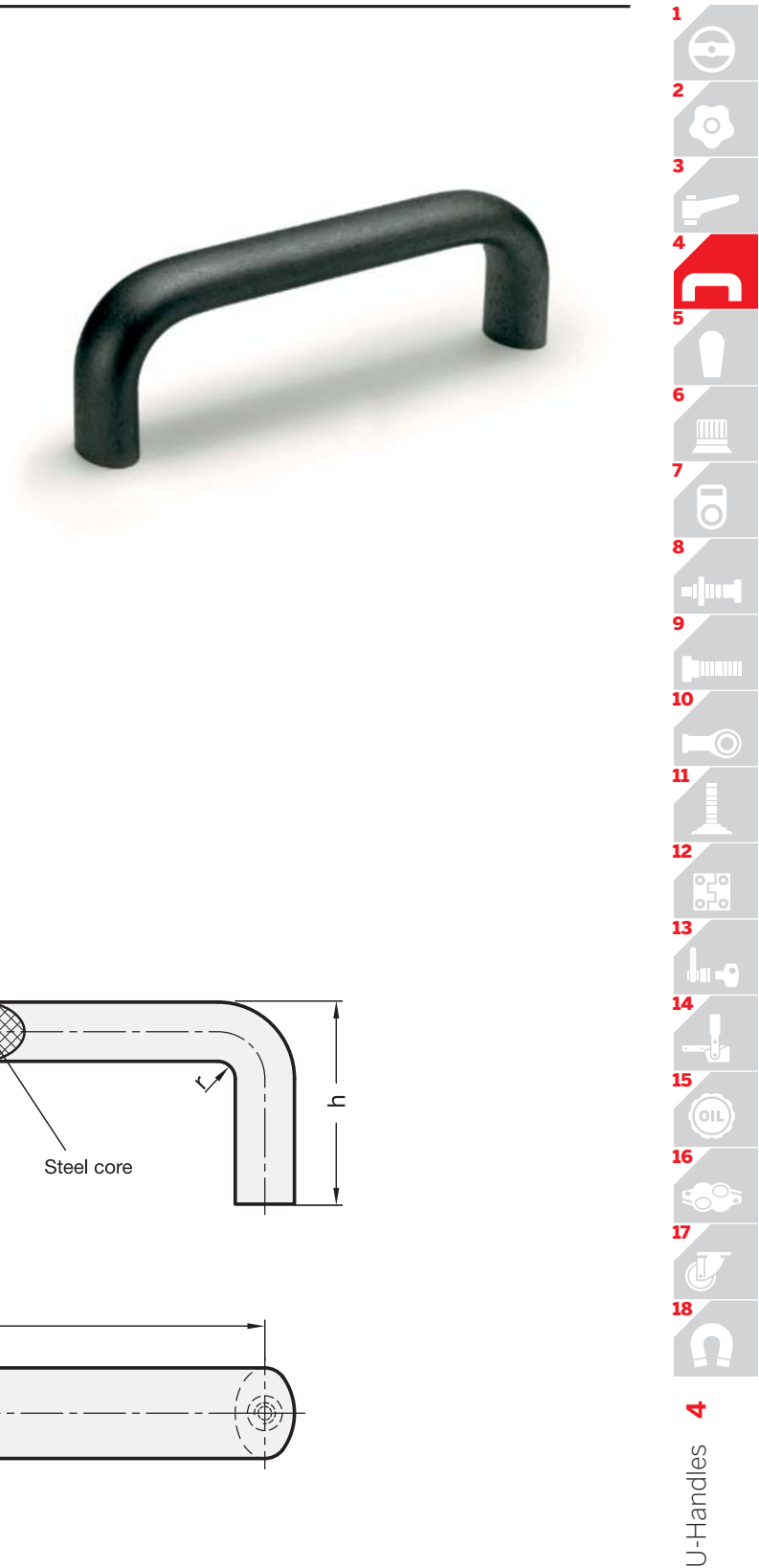
- Sheating
Thermoplastic polyurethane (TPU)
- black, matt textured finish
 - elastic, 65 ±5 shore A
 - temperature resistant up to 70 °C
 - abrasion-resistant
 - insulating
 - weather-proof

INFORMATION

The shock absorbing casing of the GN 564 "U" handles made of Thermoplastic polyurethane (TPU) offers protection from injuries, while its elliptical shape give it a nice hold.
The steel core guarantees high durability.

TECHNICAL INFORMATION

- Elastomer characteristics (see page A32)
- Load rating information (see page A35)



GN 564

Description	b	l ±0.25	a	d1	d2	h	r	t min.	⚖
GN 564-25-112	25	112	16	M 6	10	50	5	10	136
GN 564-25-128	25	128	16	M 6	10	54	7	10	150
GN 564-25-160	25	160	16	M 6	10	54	9	10	173

Bridge handles

Technopolymer

MATERIAL

High-resilience polyamide based (PA) technopolymer.

STANDARD EXECUTIONS

- **M.843:** in six standard colours: black, orange, grey, yellow, light-blue, red, glossy finish, brass bosses, threaded holes.
- **M.843-CLEAN:** white colour similar to RAL 9002, glossy finish, AISI 303 stainless steel bosses, threaded holes.

FEATURES

This handle is particularly suitable to be produced in light colours: the glossy finish guarantees perfect cleaning. In particular, M. 843 CLEAN handle, thanks to its white colour and glossy finish, is suitable for applications on medical and hospital equipment and on food processing machines whose parts, for hygienic reasons, must be frequently cleaned. Its solid shape without cavities prevents unhealthy residues from depositing.

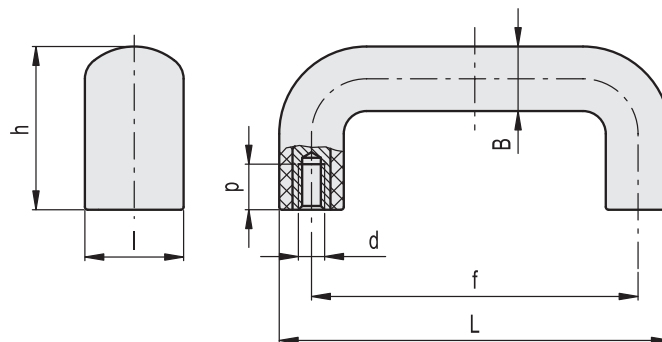
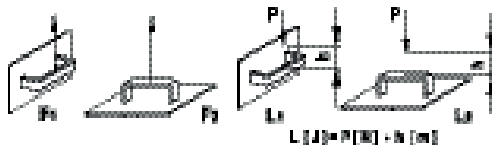
TECHNICAL DATA

Tensile stress and impact strength: the values F1, F2, L1 and L2 indicated in the table were obtained during breaking tests carried out with the appropriate dynamometric equipment under the test conditions shown in the figure with ambient temperature.

The tests have revealed that the special technopolymer used can absorb very strong shocks, with no damages, thanks to its high-resilience.



ELESA Original design



* Complete with colour index, example: M.843/100 B-M6-C2

C9 C2 C3 C4 C5 C6
RAL9005 RAL2004 RAL7035 RAL1021 RAL5024 RAL3000

M.843

Code C9	Code C2	Code C3	Code C4	Code C5	Code C6	Description	L	f	d6H	h	B	l	p	F1 [N]	F2 [N]	L1 [J]	L2 [J]	
138101	138102	138103	138104	138105	138106	M.843/100 B-M6-*	103	86±0.5	M6	46.5	17	26	12	4000	7000	50	120	52
138121	138122	138123	138124	138125	138126	M.843/140 B-M8-*	138	117±0.5	M8	54	20	30	13	4000	5000	50	120	80
138141	138142	138143	138144	138145	138146	M.843/200 B-M8-*	200	179±1	M8	62	20	30	13	3000	3500	27	80	105
138161	138162	138163	138164	138165	138166	M.843/320 B-M8-*	322	300±1	M8	64	22	32	13	2000	3000	25	75	157

M.843-CLEAN

STAINLESS STEEL

Code	Description	L	f	d6H	h	B	l	p	F1 [N]	F2 [N]	L1 [J]	L2 [J]	
151406	M.843/100-SST-M6 CLEAN	103	86±0.5	M6	46.5	17	26	12	4000	7000	50	120	52
151412	M.843/140-SST-M8 CLEAN	138	117±0.5	M8	54	20	30	13	4500	5000	50	120	80
151416	M.843/200-SST-M8 CLEAN	200	179±1	M8	62	20	30	13	2000	2400	27	80	105
151419	M.843/320-SST-M8 CLEAN	322	300±1	M8	64	22	32	13	2000	3000	25	75	157

Bridge handles

Duroplast

MATERIAL

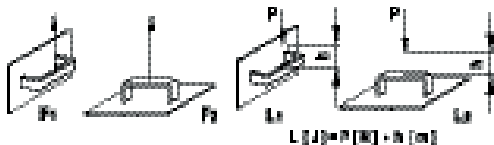
Phenolic based (PF) Duroplast, black colour, glossy finish.

STANDARD EXECUTION

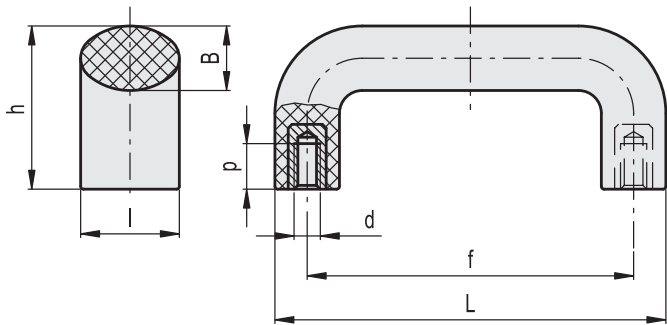
Brass bosses, threaded blind holes.

TECHNICAL DATA

Tensile stress and impact strength: the values F1, F2, L1 and L2 indicated in the table were obtained during breaking tests carried out with the appropriate dynamometric equipment under the test conditions shown in the figure with ambient temperature.



ELESA Original design



M.243

Code	Description	L	f	d6H	h	B	l	p	F1 [N]	F2 [N]	L1 [J]	L2 [J]	⚖
36501	M.243/100	103	86±0.5	M6	43	17	26	12	2500	2500	5	6	85
36601	M.243/140	138	117±0.5	M8	54	20	30	13	4000	5000	6	10	138
36701	M.243/200	198	179±1	M8	62	20	30	13	3000	2000	7	8	185

Bridge handles

Technopolymer

STANDARD EXECUTIONS

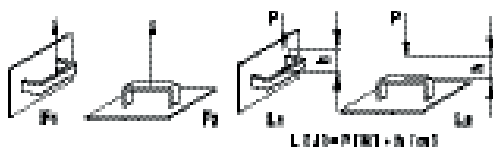
Brass bosses, threaded blind holes.

- **M.643**: high-resilience polypropylene based (PP) technopolymer, black colour, matte finish.
- **M.643R** (reduced version h=45): glass-fibre reinforced polyamide based (PA) technopolymer, black colour, matte finish.
- **M.643-FM**: high-resilience polypropylene based (PP) technopolymer, black colour, matte finish.

Brass bosses, pass-through holes for cylindrical-head screws with hexagon socket.

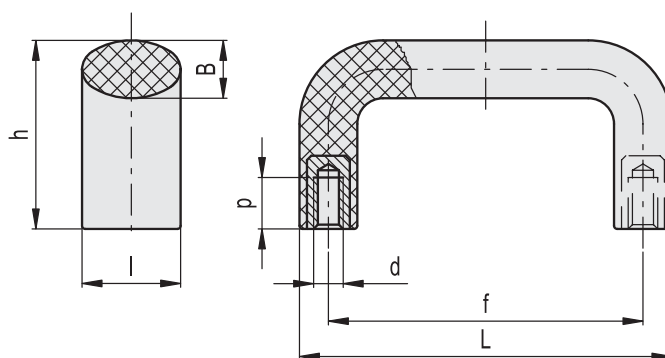
TECHNICAL DATA

Tensile stress and impact strength: F1, F2, L1 and L2 values reported in the table are the result of breaking tests carried out with the appropriate dynamometric equipment under the test conditions shown in the figure with ambient temperature.



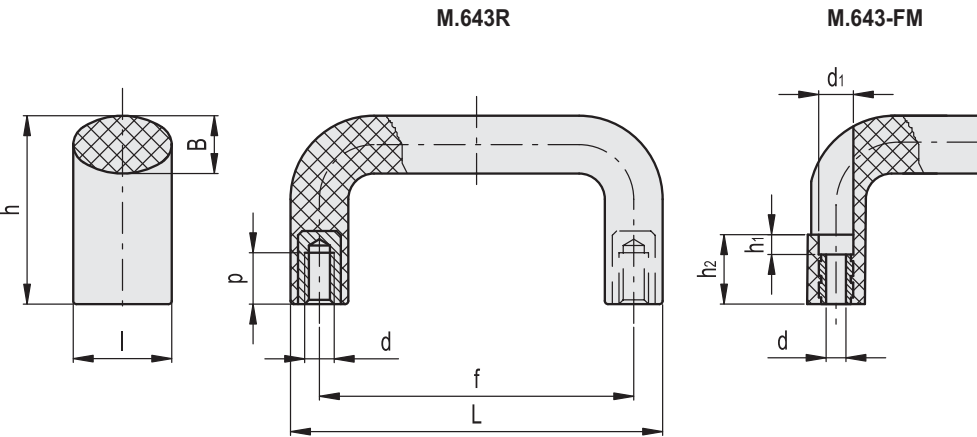
ELESA Original design

M.643



M.643

Code	Description	L	f	d6H	h	B	l	p	F1 [N]	F2 [N]	L1 [J]	L2 [J]	⚖
37300	M.643/100 B-M5	100	86±0.5	M5	44	14	23	10	2400	2400	12	6	46
37301	M.643/100 B-M6	100	86±0.5	M6	44	14	23	12	2400	2400	12	6	45
37305	M.643/110 B-M5	108	94±0.5	M5	48	14	24	10	2300	2300	10	8	60
37306	M.643/110 B-M6	108	94±0.5	M6	48	14	24	12	2300	2300	10	8	59
37308	M.643/140-117 B-M4	134	117±0.5	M4	49	15	25	10	2250	2650	8	12	63
37309	M.643/140-117 B-M5	134	117±0.5	M5	49	15	25	10	2250	2650	8	12	64
37310	M.643/140-117 B-M6	134	117±0.5	M6	49	15	25	12	2250	2650	8	12	65
37311	M.643/140-117 B-M8	134	117±0.5	M8	49	15	25	13	2250	2650	8	12	67
37314	M.643/140-120 B-M5	134	120±0.5	M5	49	15	25	10	2250	2650	8	12	68
37315	M.643/140-120 B-M6	134	120±0.5	M6	49	15	25	12	2250	2650	8	12	69
37316	M.643/140-120 B-M8	134	120±0.5	M8	49	15	25	13	2250	2650	8	12	70
37320	M.643/150 B-M5	148	132±0.5	M5	53	16	26	10	2200	2450	8	12	71
37321	M.643/150 B-M6	148	132±0.5	M6	53	16	26	12	2200	2450	8	12	72
37322	M.643/150 B-M8	148	132±0.5	M8	53	16	26	13	2200	2450	8	12	73
37331	M.643/180 B-M6	166	150±1	M6	56	16	27	12	2000	2550	8	13	81
37332	M.643/180 B-M8	166	150±1	M8	56	16	27	13	2000	2550	8	13	82
37333	M.643/180 B-M10	166	150±1	M10	56	16	27	17	2000	2550	8	13	83
37351	M.643/200 B-M8	196	179±1	M8	57	16	27	13	1900	2000	11	13	130
37352	M.643/200 B-M10	196	179±1	M10	57	16	27	17	1900	2000	11	13	132
37361	M.643/260 B-M8	253	235±1	M8	61	18.5	29	13	1900	2000	13	12	173
37362	M.643/260 B-M10	253	235±1	M10	61	18.5	29	17	1900	2000	13	12	171
37371	M.643/320 B-M10	322	300±1	M10	64	22	32	17	2000	2000	18	11	205



M.643R

Code	Description	L	f	d6H	h	B	I	P	F1 [N]	F2 [N]	L1 [J]	L2 [J]	⚖
37353	M.643R/200 B-M8	196	179±1	M8	45	15	27	13	4000	3500	25	25	118

M.643-FM

Code	Description	L	f	d	d1	h	h1	h2	B	I	F1 [N]	F2 [N]	L1 [J]	L2 [J]	⚖
137301	M.643 FM/100 B-5	100	86±0.5	5.4	8.5	44	5.5	20.5	14	23	3000	2200	11	9	45
137311	M.643 FM/140 B-6	134	117±0.5	6.4	10.5	49	6	21	15	25	2000	2800	11	9	64
137331	M.643 FM/150 B-6	148	132±0.5	6.4	10.5	53	8.5	23.5	16	26	1900	1900	11	9	70
137351	M.643 FM/200 B-6	196	179±1	6.4	10.5	57	6	21	16	27	1900	1900	11	13	89



Bridge handles

Technopolymer with high thermic resistance

MATERIAL

Glass-fibre reinforced polyamide based (PA) technopolymer, resistant to high temperatures, grey-black colour, matte finish.

STANDARD EXECUTION

Brass bosses, threaded blind holes.

MAXIMUM WORKING TEMPERATURE

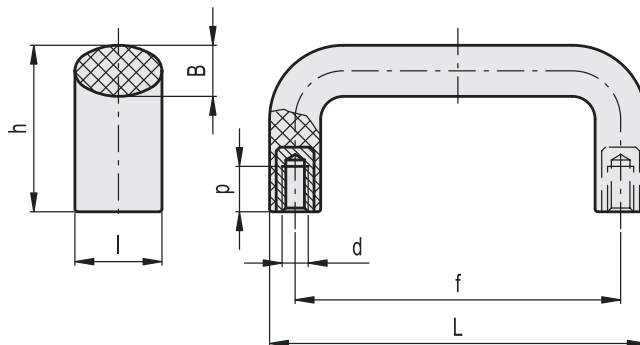
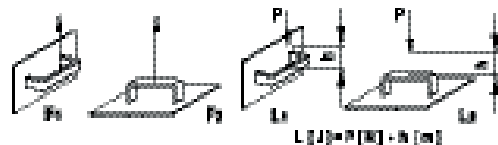
200°C.

TECHNICAL DATA

Tensile stress and impact strength: F1, F2, L1 and L2 values reported in the table are the result of breaking tests carried out with the appropriate dynamometric equipment under the test conditions shown in the figure with ambient temperature.



ELESA Original design



Code	Description	L	f	d6H	h	B	l	p	F1 [N]	F2 [N]	L1 [J]	L2 [J]	⚖
37502	M.643/100 B-M6 HT	100	86±0.5	M6	44	14	23	12	2400	2400	12	6	59
37510	M.643/140 B-M6 HT	134	117±0.5	M6	49	15	25	12	2500	3400	8	12	85
37511	M.643/140 B-M8 HT	134	117±0.5	M8	49	15	25	13	2500	3400	8	12	87
37551	M.643/200 B-M8 HT	196	179±1	M8	57	16	27	13	1900	2600	11	17	132

Adapters for assembly on tubes of M.643-FM handles

Technopolymer

MATERIAL

Glass-fibre reinforced polyamide based (PA) technopolymer, black colour, matte finish.

FEATURES AND APPLICATIONS

The adapters allow assembling M.643-FM handles on round tubes with a diameter between 28.6 mm and 32 mm.

MOUNTING

- Plain hole passing completely through the tube with a nut on the outside (Fig.1).
- Threaded hole in the tube wall for tubes with thickness > 2mm (Fig.2).

TECHNICAL DATA

Tensile stress and impact strength: F1, F2, L1 and L2 values reported in the table are the result of breaking tests carried out with the appropriate dynamometric equipment under the test conditions shown in the figure with ambient temperature.

Code	Description	Handle adapter	
		Code	Description
260051	ADT-M.643-FM/100	137301	M.643 FM/100 B-5
260053	ADT-M.643-FM/140	137311	M.643 FM/140 B-6

Fig.1

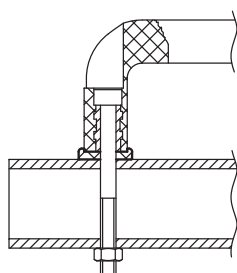
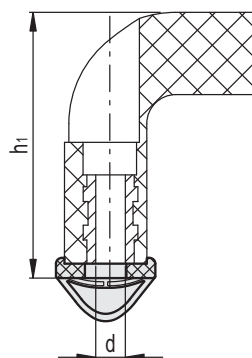
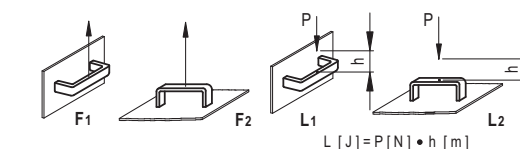
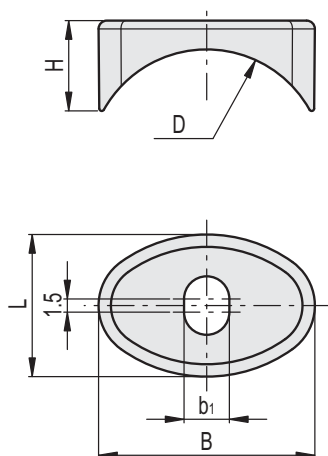
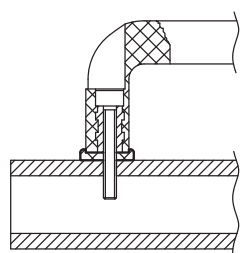


Fig.2



Code	Description	L	d	D	H	h1	B	b1	D Tube	F1 [N]	F2 [N]	L1 [J]	L2 [J]	C# [Nm]	
260051	ADT-M.643-FM/100	17	5	28.6	11	45	26	5.5	28.6÷32	1600	2500	9	7	5	3
260053	ADT-M.643-FM/140	19	6	28.6	13	51	28.5	6.5	28.6÷32	1700	2900	9	7	6	4

Maximum tightening torque.

Handles for heat insulation

Steel and technopolymer

METAL STRUCTURE

Steel round cross section bar with fine ground matte chrome-plated surface.
Threaded blind holes.

END BUSHES

Steel, chrome-plated matte surface.

HEAT INSULATION ELEMENT

Glass-fibre reinforced polyamide based (PA) technopolymer, black colour, matte finish.

FEATURES AND APPLICATIONS

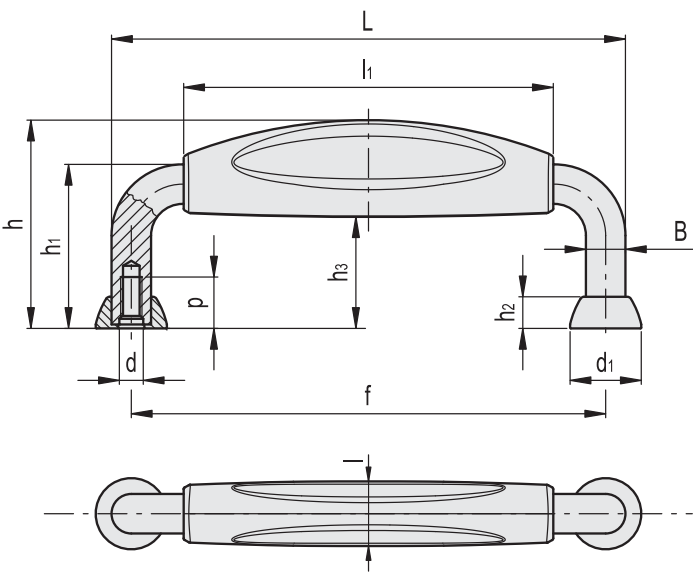
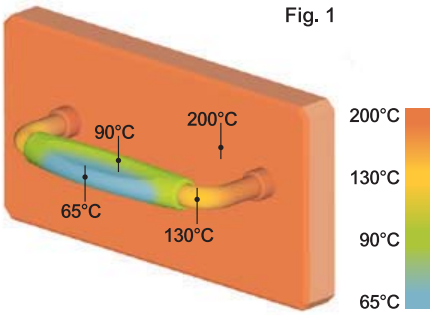
The MMT. handle is particularly suitable for applications on surfaces subject to high temperatures. The internal aeration canals of the technopolymer heat insulation element minimize the heat transfer. Its particular shape offers a comfortable grip and puts the operator's fingers away from the heat source.

TECHNICAL DATA

Figure 1 shows the different temperatures reached in various points of the handle assembled to a plate stabilized at 200°C during laboratory tests.



ELESA Original design



Code	Description	L	f	d	d1	h	h1	h2	h3	B	l	l1	p	⚖
41051	MMT.130 M5	130	120±0.5	M5	18	53	43	8	28	10	16	94	13	132
41061	MMT.190 M5	190	180±0.5	M5	18	56	43	8	29.5	10	16	140	13	195

Cabinet "U" handles

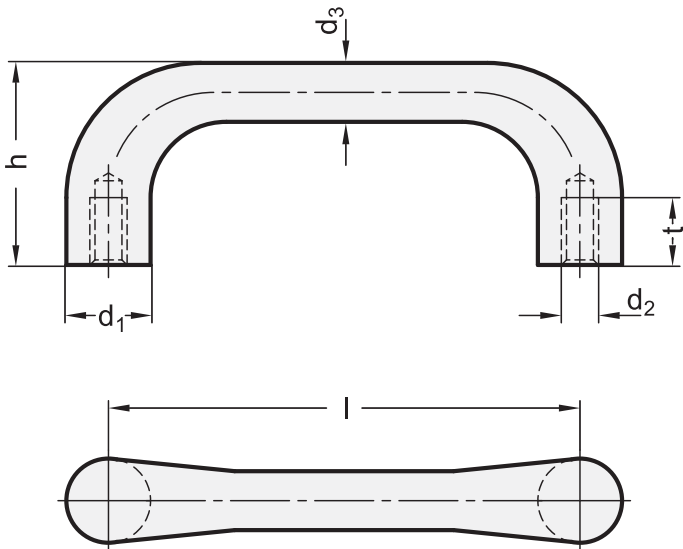
Cast iron

SPECIFICATION

Cast iron (GS45)
plastic coated
black, RAL 9005, textured finish **SW**
blank **BL**
unfinished casting, fettled
Contact surface machined

INFORMATION

Cabinet "U" handles GN 225 are simple, very rugged handles.



GN 225

Description	d1	d2	d3	h	l ±0.25	t min.	⚖
GN 225-18-BL	18	M 6	12	42	100	12	190
GN 225-18-SW	18	M 6	12	42	100	12	200
GN 225-20-BL	20	M 8	14	47	112	15	250
GN 225-20-SW	20	M 8	14	47	112	15	260
GN 225-22-BL	22	M 10	16	53	125	18	370
GN 225-22-SW	22	M 10	16	53	125	18	380
GN 225-25-BL	25	M 12	18	59	140	20	520
GN 225-25-SW	25	M 12	18	59	140	20	530



Bridge handles

Technopolymer

MATERIAL

Glass-fibre reinforced polyamide based (PA) technopolymer, grey-black colour, matte finish.

SCREW-COVERS

Technopolymer in Ergostyle colours, matte finish; supplied with the handle, press-fit assembly, removable by a screwdriver.

Available also as accessories sold separately (see table ECA.).

Code	Description	Caps for
29830-*	ECA.B0-*	EBP.110
29831-*	ECA.B1-*	EBP.140 EBP.150 EBP.180 EBP.200

* Complete with colour index (C1, ..., C6).

STANDARD EXECUTIONS

- **EBP**: pass-through holes for front or rear mounting by means of cylindrical-head screws with hexagon socket, hexagonal-head screws or standard nuts.
- **EBP-B**: brass bosses, threaded blind holes for back mounting.

FEATURES AND APPLICATIONS

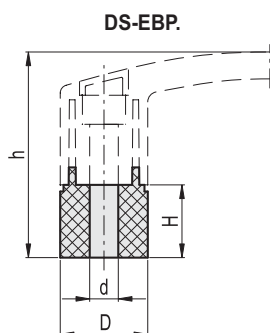
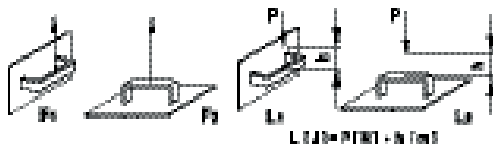
EBP. handles with front mounting can be assembled in pairs opposed to EBP.B handles with back mounting (Fig. 1).

TECHNICAL DATA

Tensile stress and impact strength: F1, F2, L1 and L2 values reported in the table are the result of breaking tests carried out with the appropriate dynamometric equipment under the test conditions shown in the figure with ambient temperature.

ACCESSORIES ON REQUEST

Spacer sleeves DS-EBP in polyamide based (PA) technopolymer to increase the distance between the handle and the fitting surface.



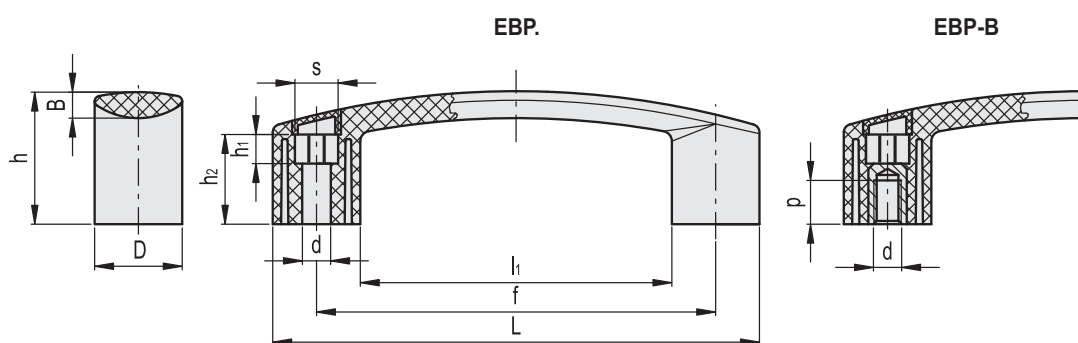
DS-EBP.

Code	Description	d	D	H	h	F1 [N]	F2 [N]	L1 [J]	L2 [J]	
260001	DS-EBP.110	6.5	22.5	18	53	1600	1500	8	3	7
260003	DS-EBP.140	8.5	26.5	19.5	58.5	2200	1800	10	4	9
260005	DS-EBP.180	9	29	20.5	64.5	2200	1500	12	5	11
260005	DS-EBP.200	9	29	20.5	70.5	2200	1500	12	5	11



Fig.1





* Complete with colour index, example: 260111-C2 EBP.110-6-C2

C1 RAL7021
 C2 RAL2004
 C3 RAL7035
 C4 RAL1021
 C5 RAL5024
 C6 RAL3000

EBP.

Code	Description	L	f	d	s	D	h	h1	h2	B	l1	F1 [N]	F2 [N]	L1 [J]	L2 [J]	⚖
260111-*	EBP.110-6-*	116	93.5±0.5	6.5	10	22	35	6.5	23.5	7.5	72	2000	1500	8	3	35
260210-*	EBP.140-6-*	144	117±0.5	6.5	11	26	39	19.5	26.5	8.5	92	2700	1800	10	4	57
260211-*	EBP.140-8-*	144	117±0.5	8.5	13	26	39	8.5	26.5	8.5	92	2700	1800	10	4	55
260251-*	EBP.150-8-*	159	132±0.5	8.5	13	27	42	10.5	28	9.5	105	2700	1800	11	4	65
260311-*	EBP.180-8-*	178	150±1	8.5	13	28	45	14	32	9.5	122	2700	1500	12	5	78
260411-*	EBP.200-8-*	208.5	179±1	8.5	13	28.5	51	16	35	9.5	150.5	2200	1500	16	9	95

EBP-B

Code	Description	L	f	d6H	D	h	B	l1	p	F1 [N]	F2 [N]	L1 [J]	L2 [J]	⚖
260120-*	EBP.110-B M5-*	116	93.5±0.5	M5	22	35	7.5	72	10	2000	1500	8	3	46
260121-*	EBP.110 B-M6-*	116	93.5±0.5	M6	22	35	7.5	72	12	2000	1500	8	3	45
260220-*	EBP.140 B-M6-*	144	117±0.5	M6	26	39	8.5	92	12	2700	1800	10	4	70
260221-*	EBP.140 B-M8-*	144	117±0.5	M8	26	39	8.5	92	13	2700	1800	10	4	65
260255-*	EBP.150-B M6-*	159	132±0.5	M6	27	42	9.5	105	13	2700	1800	10	4	84
260256-*	EBP.150 B-M8-*	159	132±0.5	M8	27	42	9.5	105	13	2700	1800	11	4	82
260321-*	EBP.180 B-M8-*	178	150±1	M8	28	45	9.5	122	13	2700	1500	12	5	98
260421-*	EBP.200 B-M8-*	208.5	179±1	M8	28.5	51	9.5	150.5	13	2200	1500	16	9	108
260422-*	EBP.200-B M10-*	208.5	179±1	M10	28.5	51	9.5	150.5	13	2200	1500	16	9	106



Bridge handle

Technopolymer with antimicrobial protection

MATERIAL

Glass-fibre reinforced polyamide based (PA) technopolymer with silver ions on an inorganic ceramic base, black colour, matte finish.

SCREW-COVERS

Technopolymer, black colour, matte finish. Supplied with the handle, press-fit assembly, removable by a screwdriver.

STANDARD EXECUTION

Pass-through holes for cylindrical-head screws with hexagon socket.

FEATURES

The antimicrobial material EBP.SAN handle is made out of, stops any deposit of bacteria, mildew and fungi, offering a sanitized effect on the surface.

Tests carried out on material samples confirmed the absolute stability of the antimicrobial action after several cleaning cycles at high temperatures with soap and solvents.

The great resistance to high temperatures of the antimicrobial additive allows this handle to reach sterilisation temperatures (130°C).

Samples of this material have undergone laboratory tests in compliance with JIS Z 2801. The microbes used to carry out these tests are the ones which present the greatest resistance to antimicrobial products:

- Klebsiella pneumoniae ATCC 4352;
- Escherichia coli ATCC 8739;
- Staphylococcus aureus ATCC 6538P;
- Pseudomonas aeruginosa ATCC 12055.

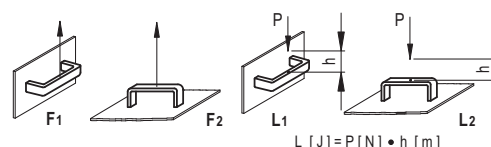
APPLICATIONS

EBP.SAN handle is suitable for applications where hygienic and sanitary elements are required:

- medical and hospital equipment
- disability aids
- machines for food processing and pharmaceutical industry
- equipment for catering service
- urban and public fittings.



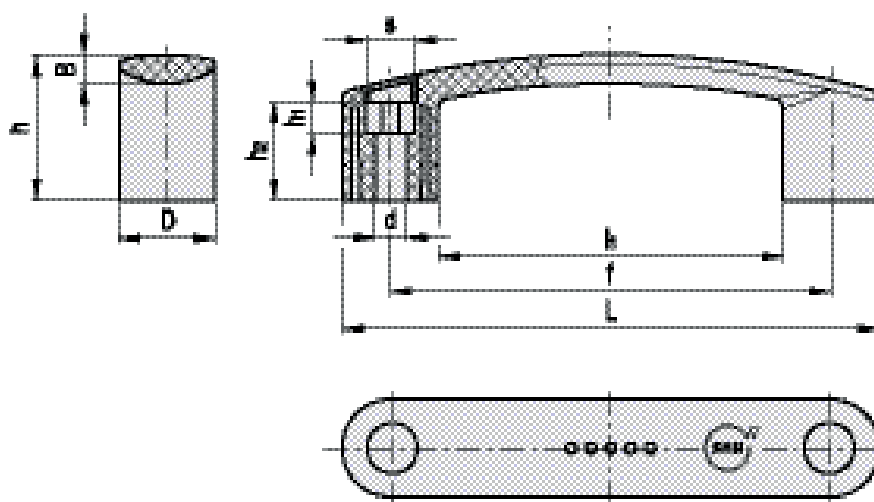
ERGOSTYLE®



$$L [J] = P [N] \cdot h [m]$$

TECHNICAL DATA

Tensile stress and impact strength: the values F1, F2, L1 and L2 indicated in the table were obtained during breaking tests carried out with the appropriate dynamometric equipment under the test conditions shown in the figure with ambient temperature.



Code	Description	L	f	d	d1	D	h	h1	h2	B	l1	F1 [N]	F2 [N]	L1 [J]	L2 [J]	Δ
153211-C1	EBP.140-8-SAN-C1	144	117±0.5	8.5	13.5	26	39	8.5	26.5	8.5	92	2700	1800	10	4	55

Flexible bridge handles

Technopolymer with elastomer

MATERIAL

Polypropylene based (PP) technopolymer with elastomer (TPE), greyblack colour, matte finish.

SCREW-COVERS

Technopolymer in Ergostyle colours, matte finish; supplied with the handle, press-fit assembly, removable by a screwdriver. Available also as accessories sold separately (see table ECA.).

Code	Description	Caps for
29831-*	ECA.B1-*	EBP.140-FLX / EBP.180-FLX

* Complete with colour index (C1, ..., C6)

STANDARD EXECUTION

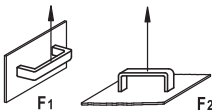
Brass bosses with pass-through holes for cylindrical-head screws with hexagon socket.

FEATURES AND APPLICATIONS

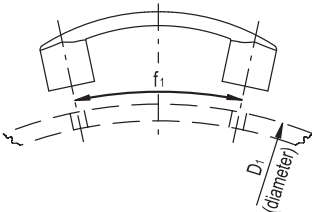
EBP.FLX flexible handle (elastomer) can be assembled on curved surfaces with diameters between 300 and 800 mm. For diameters exceeding 800 mm, EBP. standard handle can be used.

TECHNICAL DATA

Tensile stress: F1 and F2 values reported in the table represent the maximum limit value under which EBP.FLX handle can perform elastic deformation. Impact strength does not apply in this case due to the high elastic features of the product.

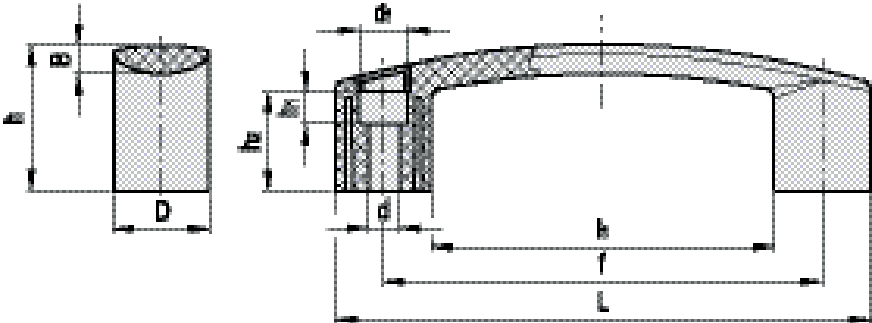
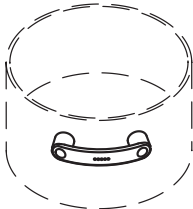


Application EBP.FLX



Calculation of (curved) centers distance f1

EBP.140	$f_1 = 0.044 \times D_1 + 81.5$
EBP.180	$f_1 = 0.056 \times D_1 + 102.8$



* Complete with colour index, example: 260262-C2 EBP.140-8-FLX-C2

C1	C2	C3	C4	C5	C6
RAL7021	RAL2004	RAL7035	RAL1021	RAL5024	RAL3000

Code	Description	L	f	d	d1	D	h	h1	h2	B	l1	F1 [N]	F2 [N]	⚖
260262-*	EBP.140-8-FLX-*	144	117	8.5	13.5	26	39	8.5	26.5	8.5	92	1000	1000	56
260361-*	EBP.180-8-FLX-*	178	150	8.5	13.5	28	45	14	32	9.5	122	1000	1000	67

Handle with microswitch

Technopolymer

MATERIAL

Glass-fibre reinforced polyamide based (PA) technopolymer, grey-black colour, matte finish.

MICROSWITCH WITH BUTTON

The device is made up of a normally open contact (NO) and a normally closed contact (NC). Switching takes place by pressing the button (monostable contact).

LED

A red light and a green light indicate the microswitch status. Tension feed 24Vdc.

SCREW-COVERS

Technopolymer, grey-black colour, matte finish. Supplied assembled, removable by a screwdriver.

STANDARD EXECUTIONS

- Pass-through holes for cylindrical head screws with hexagon socket.
- **EBR-SW-B-C:** zinc-plated connector with 8 poles, back axial output.
 - **EBR-SW-B-F2.5:** 8 pole cable, length 2.5 metres, back output.
 - **EBR-SW-B-F5:** 8 pole cable, length 5 metres, back output.
 - **EBR-SW-D-C:** zinc-plated steel connector with 8 poles, side axial output.
 - **EBR-SW-D-F2.5:** 8 pole cable, length 2.5 metres, side output.
 - **EBR-SW-D-F5:** 8 pole cable, length 5 metres, side output.

FEATURES AND APPLICATIONS

These handles are typically assembled on machine doors or protections. With the correct electrical connection and the machine working, the red light is turned on and the green light is off. By pressing the button, the operator, via external contact, requests access to the protected area: in this case the green light will turn on, while the red one will be off.

The EBR-SW handle is an ideal combination: ergonomic, functional and compact.

TECHNICAL DATA

Tensile stress and impact strength: the values F1, F2, L1 and L2 indicated in the table were obtained during breaking tests carried out with the appropriate dynamometric equipment under the test conditions shown in the figure with ambient temperature.

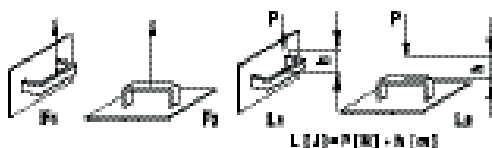
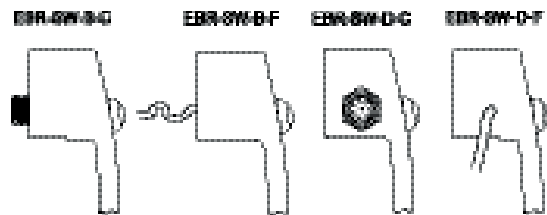
ACCESSORIES ON REQUEST

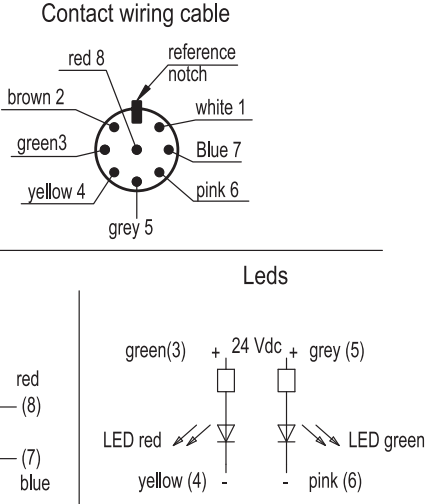
FC-M12x1: extensions with 8 pole M12 female axial connector, sheath in PVC black colour type UL/CSA STYLE 2587 8 X AWG 22.

- Code **426503:** CABLE WITH CONNECTOR M12-8 FEMALE CONTACTS 2.5m (length 2.5 m).
- Code **426506:** CABLE WITH CONNECTOR M12-8 FEMALE CONTACTS 5m (length 5 m).
- Code **426511:** CABLE WITH CONNECTOR M12-8 FEMALE CONTACTS 10m (length 10 m).

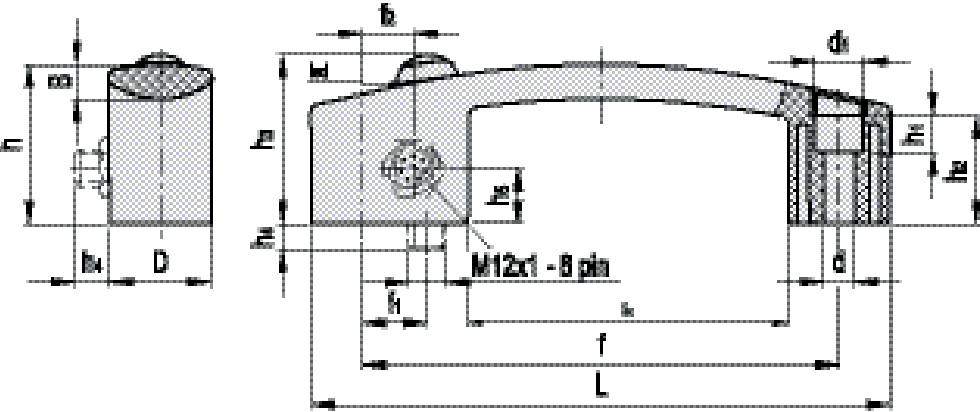


ERGOSTYLE®





Technical features	
Protection class	IP65
Mechanical life-span	cicli 1 x 10 ⁶
Led light voltage	24 Vdc ± 15%
Maximum commutable voltage	max 28 Vdc / 30 Vac / max 1 A



Code	Description	L	f	d	d1	f1	f2	D	h	h1	h2	h3	h4	h5	B	l1	F1 [N]	F2 [N]	L1 [J]	L2 [J]	Δ
260541-C1	EBR.150-SW-B-C	160	132±0.5	8.5	13.5	16	-	28	44	10	30	47	10	-	8.5	89	2800	2900	35	8	85
260542-C1	EBR.150-SW-B-F5	160	132±0.5	8.5	13.5	16	-	28	44	10	30	47	-	-	8.5	89	2800	2900	35	8	95
260546-C1	EBR.150-SW-B-F2.5	160	132±0.5	8.5	13.5	16	-	28	44	10	30	47	-	-	8.5	89	2800	2900	35	8	90
260551-C1	EBR.150-SW-D-C	160	132±0.5	8.5	13.5	-	14.5	28	44	10	30	47	13.5	13	8.5	89	2800	2900	35	8	85
260552-C1	EBR.150-SW-D-F5	160	132±0.5	8.5	13.5	-	14.5	28	44	10	30	47	-	13	8.5	89	2800	2900	35	8	95
260556-C1	EBR.150-SW-D-F2.5	160	132±0.5	8.5	13.5	-	14.5	28	44	10	30	47	-	13	8.5	89	2800	2900	35	8	90



Handle with pneumatic valve

Technopolymer

MATERIAL

Glass-fibre reinforced polyamide based (PA) technopolymer, grey-black colour, matte finish.

PUSH BUTTON

Light-blue technopolymer, glossy finish.

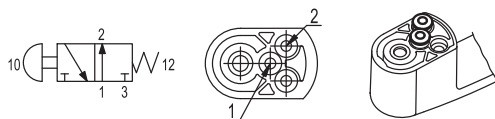
SCREW-COVERS

Technopolymer, grey-black colour, matte finish. Supplied assembled, removable by a screwdriver.

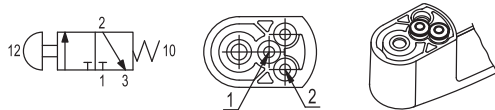
STANDARD EXECUTIONS

Brass bosses, threaded blind hole.

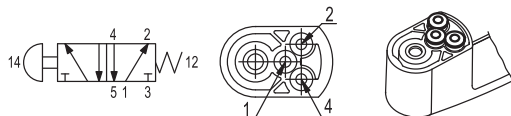
- **EBR-PN-3/2-NO**: the pneumatic valve is normally open. The actuation of the button stops the air passage.



- **EBR-PN-3/2-NC**: the pneumatic valve is normally closed. The actuation of the button opens the air passage.



- **EBR-PN-5/2**: the actuation of the button switches the output channel of the air, between the two available.



FUNCTIONING

The handle is supplied with quick couplings for direct fitting of a tube Ø 4 mm for pneumatics.

The handle allows the direct drive of a single-acting pneumatic actuator (execution 3.2) or double acting (execution 5.2). The force to be applied to the button for the actuation of the drive is independent from the operating pressure.

The handle is already set up with discharge function of the pressure chamber.

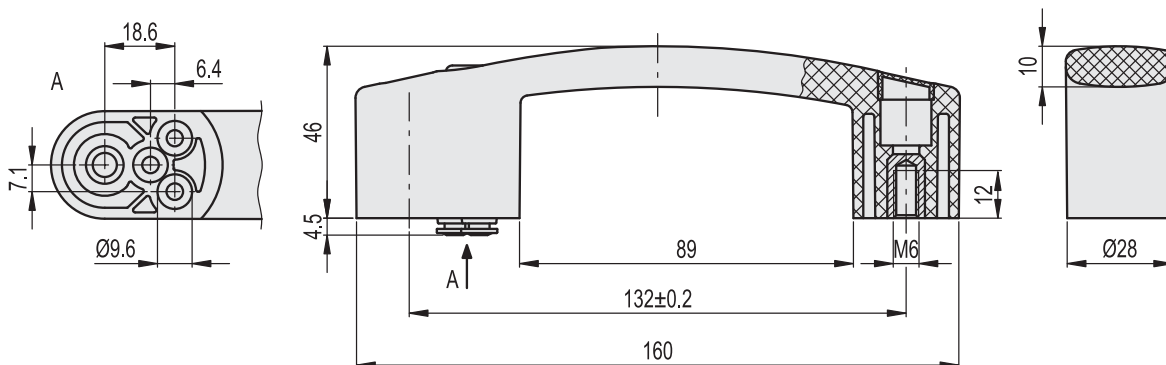


ERGOSTYLE®

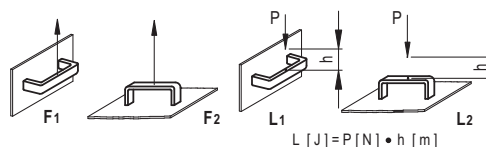
TECHNICAL DATA

Tensile stress and impact strength: the values F1, F2, L1 and L2 indicated in the table were obtained during breaking tests carried out with the appropriate dynamometric equipment under the test conditions shown in the figure with ambient temperature.

Technical features	
Operating medium	Filtered air
Operating pressure	2 ÷ 10 bar
Operating temperature	-20° ÷ +80°C: dry air 0° ÷ +80°C: lubricated air
Normal rated flow	130 NI/min (6 bar, free exhaust)
Actuation force	22 N (independent from the operating pressure)
Nominal diameter air passage	Ø 2.5 mm



Code	Description	F1 [N]	F2 [N]	L1 [J]	L2 [J]	⚖️
260601-C1	EBR.150-PN-3/2-NO	4000	4400	31	13	107
260603-C1	EBR.150-PN-3/2-NC	4000	4400	31	13	107
260611-C1	EBR.150-PN-5/2	4000	4400	31	13	110



Bridge handles

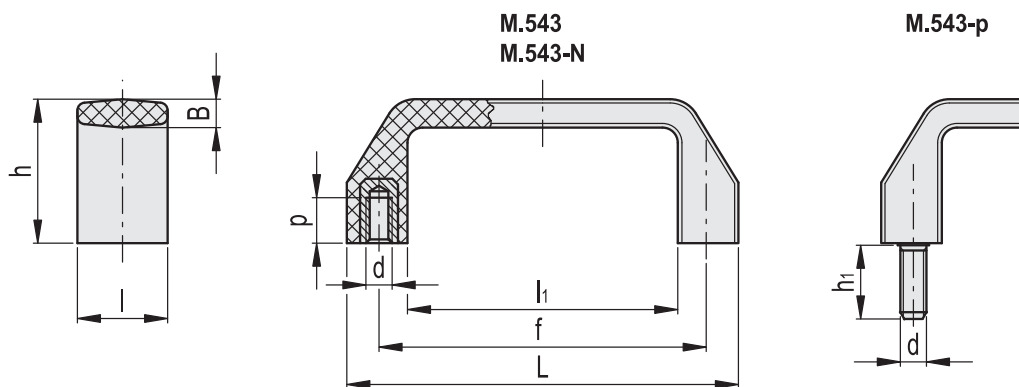
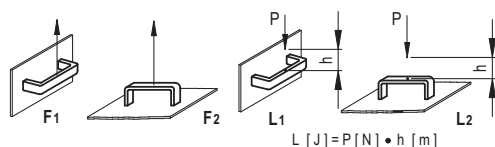
Technopolymer

STANDARD EXECUTIONS

- **M.543**: glass-fibre reinforced polyamide based (PA) technopolymer, black or orange colour, matte finish. Brass boss, threaded blind hole.
- **M.543-N**: glass-fibre reinforced polypropylene based (PP) technopolymer, black colour, matte finish. Brass boss, threaded blind hole.
- **M.543-p**: glass-fibre reinforced polyamide based (PA) technopolymer, black or orange colour, matte finish. Zinc-plated steel threaded stud, chamfered flat end according to UNI 947: ISO 4753 (see Technical Data on page A11).

TECHNICAL DATA

Tensile stress and impact strength: F1, F2, L1 and L2 values reported in the table are the result of breaking tests carried out with the appropriate dynamometric equipment under the test conditions shown in the figure with ambient temperature.



* Complete with colour index, example: 37284 M.543/110 B-M6-C2

C9
RAL9005

C2
RAL2004

M.543

Code C9	Code C2	Description	L	f	d6H	h	B	I	l1	p	F1 [N]	F2 [N]	L1 [J]	L2 [J]	⚖
37283	37284	M.543/110 B-M6-*	107	93.5±0.5	M6	36	6	21	79	10	2000	1800	10	6	36
37287	37289	M.543/120 B-M5-*	120	105±0.5	M5	37	7	23	90	10	2000	1800	10	7	40
37288	37290	M.543/120 B-M6-*	120	105±0.5	M6	37	7	23	90	10	2000	1800	10	7	38
37285	37286	M.543/140 B-M6-*	134	117±0.5	M6	38	7.5	25	102	12	3000	1600	12	9	56
37291	37292	M.543/140 B-M8-*	134	117±0.5	M8	38	7.5	25	102	13	3000	1600	12	9	52
37296	37297	M.543/150 B-M8-*	150	132±0.5	M8	45	7.5	26	116	13	2000	1800	18	16	59
37381	37382	M.543/200 B-M8-*	200	179±1	M8	51	9	28	160	13	3000	2300	24	30	93
37383	37384	M.543/200 B-M10-*	200	179±1	M10	51	9	28	160	13	3200	2500	24	30	88

M.543-N

Code	Description	L	f	d6H	h	B	I	l1	p	F1 [N]	F2 [N]	L1 [J]	L2 [J]	⚖
37280	M.543/140 N-B-M6	134	117±0.5	M6	38	7.5	25	102	12	1900	950	9	4	47

M.543-p

Code C9	Code C2	Description	L	f	d6g	h	h1	B	I	l1	F1 [N]	F2 [N]	L1 [J]	L2 [J]	⚖
37293	37294	M.543/140 p-M6x16-*	134	117±0.5	M6	38	16	7.5	25	102	2200	1400	11	9	56
37387	37388	M.543/200 p-M8x16-*	200	179±1	M8	51	16	9	28	160	3400	2600	24	30	109

Bridge handles

Technopolymer

STANDARD EXECUTIONS

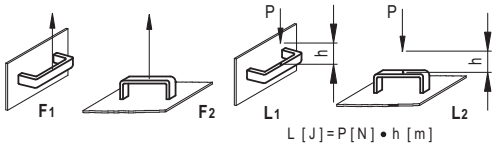
- **M.443-CH:** glass-fibre reinforced polyamide based (PA) technopolymer, black, orange, grey and red colours, matte finish. Pass-through holes for cylindrical-head screws with hexagon socket.
- **M.443-N-CH:** glass-fibre reinforced polypropylene based (PP) technopolymer, black colour. Pass-through holes for cylindrical-head screws with hexagon socket.
- **M.443-SH:** glass-fibre reinforced polyamide based (PA) technopolymer, black colour. Pass-through holes for countersunk head screws.
- **M.443-EH:** glass-fibre reinforced polyamide based (PA) technopolymer, black colour. Pass-through holes for cylindrical-head screws with hexagon socket, hexagonal-head screws or standard lock nuts.

TECHNICAL DATA

Tensile stress and impact strength: F1, F2, L1 and L2 values reported in the table are the result of breaking tests carried out with the appropriate dynamometric equipment under the test conditions shown in the figure with ambient temperature.

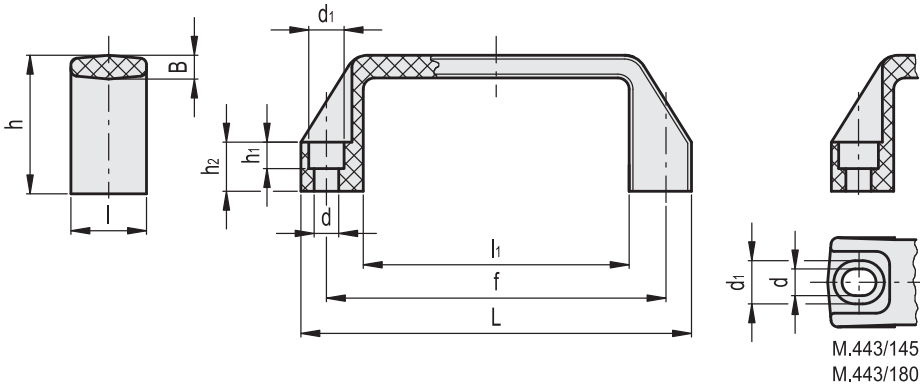


ELESA Original design



$L [J] = P [N] \cdot h [m]$

M.443-CH

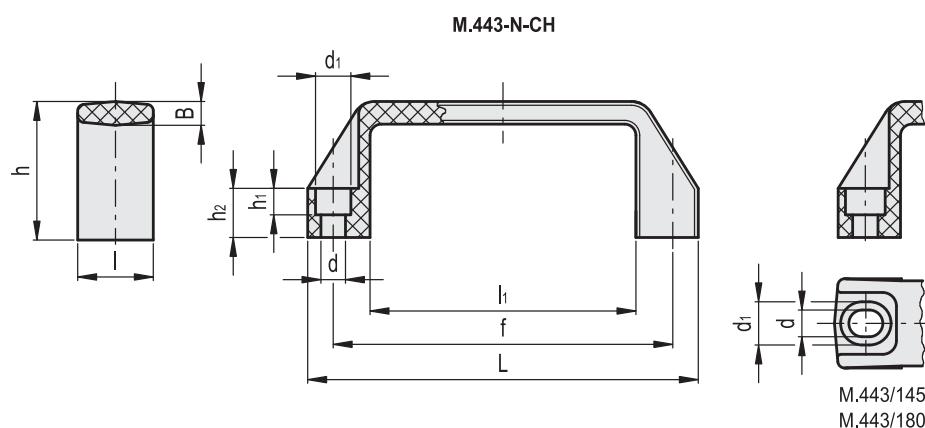


* Complete with colour index, example: 37002 M.443/110-CH-C2

C9	C2	C31	C6
RAL9005	RAL2004	RAL7031	RAL3000

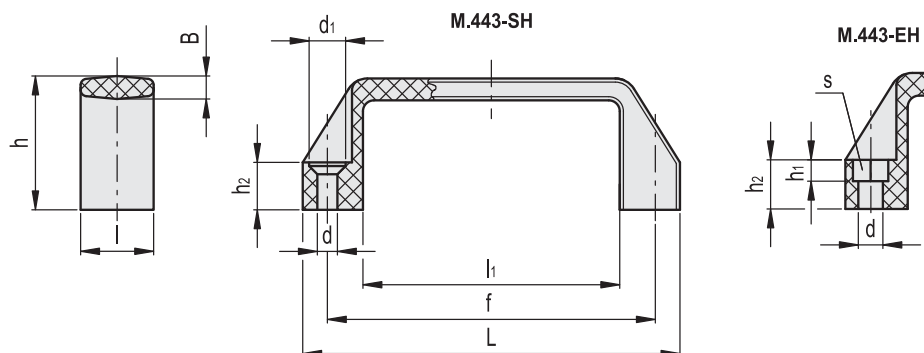
M.443-CH

Code C9	Code C2	Code C31	Code C6	Description	L	f	d	d1	h	h1	h2	B	l	li	F1 [N]	F2 [N]	L1 [J]	L2 [J]	⚙
37001	37002	37004	37005	M.443/110-CH-*	109	93.5±0.5	6.5	10.5	38	7	13	6	21	74	3500	2500	15	8	26
37111	-	-	-	M.443/140-6-CH-*	137	117±1	6.5	10.5	41	7	15	7	26	93	4500	2500	20	13	44
37101	37102	37104	37105	M.443/140-8-CH-*	137	117±1	8.5	13.5	41	8.5	15	7	26	93	4500	2500	20	13	42
37145	-	-	-	M.443/145-CH-*	142	120÷122±1	8.5	13.5	41	8.5	15	7	26	100	3700	2500	25	14	44
37151	37152	37154	37155	M.443/150-CH-*	150	132±1	8.5	13.5	45	8.5	16	7	27	108	3500	2500	27	14	47
37183	37184	37185	-	M.443/170-CH-*	160	140±1	8.5	13.5	46	8.5	16	7	27	113	3400	2600	27	20	50
37191	37192	37193	-	M.443/180-CH-*	172	149÷152±1	8.5	13.5	47	8.5	17	7	27	125	3000	2700	27	20	53
37241	37242	37244	-	M.443/190-CH-*	179	160±1	8.5	13.5	50	8.5	17	7.5	28	132	3300	2700	29	20	60
37201	37202	37204	37205	M.443/200-CH-*	196	179±1	8.5	13.5	50	8.5	17	7.5	28	151	2800	2700	33	20	70
37251	37252	37254	-	M.443/260-CH-*	260	235±1	10.5	16.5	54	10.5	20	8.5	30	201	3200	3500	40	34	118



M.443-N-CH

Code	Description	L	f	d	d1	h	h1	h2	B	l	l1	F1 [N]	F2 [N]	L1 [J]	L2 [J]	⚖
37031	M.443/110 N-CH	109	93.5±0.5	6.5	10.5	38	7	13	6	21	74	1700	1300	8	3	21
37132	M.443/140 6-N-CH	137	117±1	6.5	10.5	41	7	15	7	26	93	2000	1500	10	4	36
37131	M.443/140 8-N-CH	137	117±1	8.5	13.5	41	8.5	15	7	26	93	2000	1500	10	4	34
37143	M.443/145-6-N-CH	142	120÷122±1	6.5	13.5	41	8.5	15	7	26	100	1600	1500	12	5	37
37144	M.443/145 N-CH	142	120÷122±1	8.5	13.5	41	8.5	15	7	26	100	1600	1500	12	5	36
37181	M.443/150 N-CH	150	132±1	8.5	13.5	45	8.5	16	7	27	108	2000	1300	12	5	40
37186	M.443/170 N-CH	160	140±1	8.5	13.5	46	8.5	16	7	27	113	1800	1300	13	6	44
37196	M.443/180 N-CH	172	149÷152±1	8.5	13.5	47	8.5	17	7	27	125	1800	1300	14	7	46
37246	M.443/190 N-CH	179	160±1	8.5	13.5	50	8.5	17	7.5	28	132	1800	1300	15	7	54
37231	M.443/200 N-CH	196	179±1	8.5	13.5	50	8.5	17	7.5	28	151	1800	1300	16	8	62
37281	M.443/260 N-CH	260	235±1	10.5	16.5	54	10.5	20	8.5	30	201	1700	1700	17	11	92



M.443-SH

Code	Description	L	f	d	d1	h	h1	h2	B	l	l1	F1 [N]	F2 [N]	L1 [J]	L2 [J]	⚖
37036	M.443/110-SH	109	93.5±0.5	5.5	10	38	13	13	6	21	74	3500	2500	16	6	24
37136	M.443/140-SH	137	117±1	6.5	12	41	15	15	7	26	93	4500	2500	17	7	44
37146	M.443/145-SH	142	122±1	6.5	12	41	15	15	7	26	100	3700	2500	25	14	45
37187	M.443/170-SH	160	140±1	6.5	12	46	16	16	7	27	113	3400	2600	27	20	64
37199	M.443/180-SH	172	150±1	6.5	12	47	17	17	7	27	125	3000	2600	27	15	54
37247	M.443/190-SH	179	160±1	6.5	12	50	17	17	7	28	132	3300	2700	29	20	70
37236	M.443/200-SH	196	179±1	6.5	12	50	17	17	7.5	28	151	3500	2700	22	15	72

M.443-EH

Code	Description	L	f	d	s	h	h1	h2	B	l	l1	F1 [N]	F2 [N]	L1 [J]	L2 [J]	⚖
37037	M.443/110-EH-5	109	93.5±0.5	5.5	8	38	6	13	6	21	74	3500	2500	15	8	27
37137	M.443/140-EH-6	137	117±1	6.5	10	41	6	15	7	26	93	4500	2500	20	13	44
37141	M.443/145-EH-6	142	122±1	6.5	10	41	6.5	15	7	26	100	3700	2500	25	14	45
37189	M.443/170-EH-6	160	140±1	6.5	10	46	6.5	16	7	27	113	3400	2600	27	20	51
37198	M.443/180-EH-6	172	150±1	6.5	10	47	6.5	17	7	27	125	3000	2600	27	15	54
37249	M.443/190-EH-6	179	160±1	6.5	10	50	6.5	17	7	28	132	3300	2700	29	20	57



Bridge handles

Self-extinguish technopolymer

MATERIAL

Glass-fibre reinforced polyamide based (PA) technopolymer certified self-extinguish UL-94 V0, black colour, matte finish.

STANDARD EXECUTION

Pass-through holes for cylindrical-head screws with hexagon socket.

TECHNICAL DATA

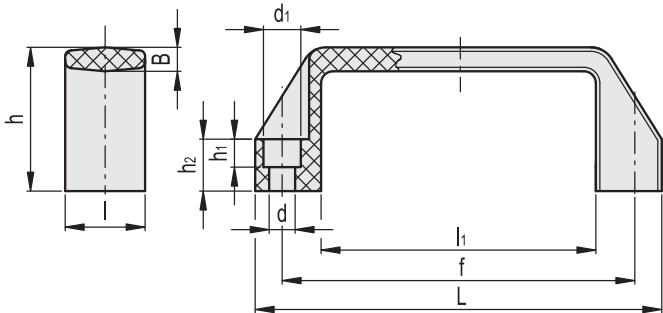
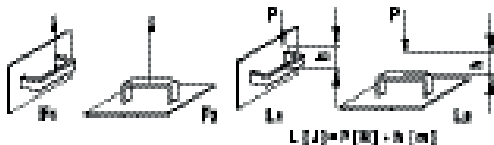
In long-term thermal ageing tests, with a maximum decrease in critical mechanical properties by 50%, the relative temperature index UL 746 B (RTI) was equal to 65.

The "V0" certification in accordance with UL-94 V (Underwriters Laboratories) (see Technical Data on page A5) indicates that on a plastic test sample with specific shape and dimensions, in the vertical position, the flame is extinguished within 10 seconds, without generating any incandescent drops.

Tensile stress and impact strength: F1, F2, L1 and L2 values reported in the table are the result of breaking tests carried out with the appropriate dynamometric equipment under the test conditions shown in the figure with ambient temperature.



ELESA Original design



Code	Description	L	f	d	d1	h	h1	h2	B	l	l1	F1 [N]	F2 [N]	L1 [J]	L2 [J]	Δ
150001	M.443/110 AE-V0	109	93.5±0.5	6.5	10.5	38	7	13	6	21	74	1750	1700	9	5	28
150012	M.443/140-6 AE-V0	137	117±1	6.5	10.5	41	7	15	7	26	93	3500	2200	10	8	51
150011	M.443/140 AE-V0	137	117±1	8.5	13.5	41	8.5	15	7	26	93	3500	2200	10	8	50
150021	M.443/150 AE-V0	150	132±1	8.5	13.5	45	8.5	16	7	27	108	3000	1800	12	8	55
150031	M.443/200 AE-V0	196	179±1	8.5	13.5	50	8.5	17	7.5	28	151	1400	2100	20	13	80

Bridge handles

ESD conductive technopolymer

MATERIAL

Glass-fibre reinforced polyamide based (PA) special conductive technopolymer, black colour, matte finish. 10³ Ω surface resistivity (ASTM D257 trial method), 10³ Ωcm volume resistivity (ASTM D257 trial method).

STANDARD EXECUTION

Pass-through holes for cylindrical-head screws with hexagon socket.

FEATURES AND APPLICATIONS

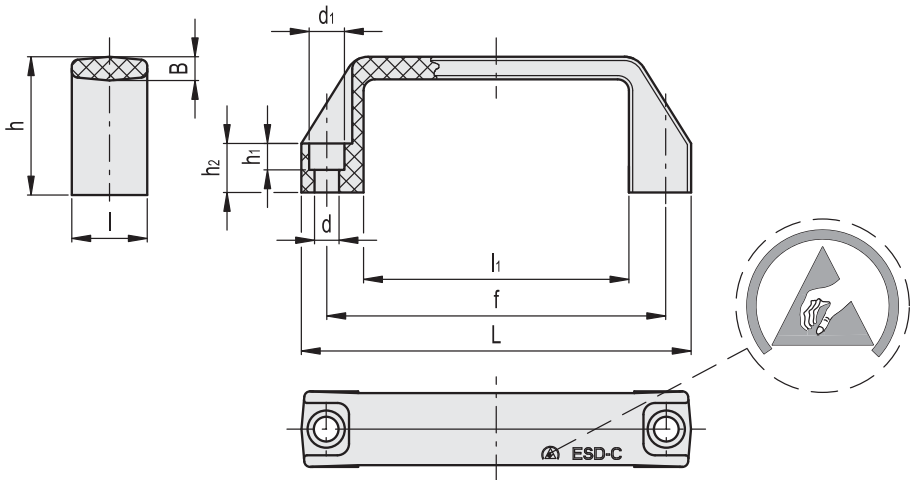
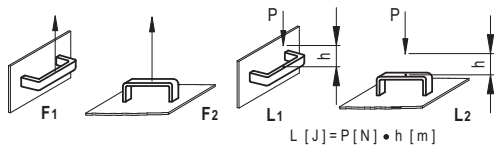
The special conductive technopolymer (ESD-C Electrostatic Discharge Conductive) prevents the accumulation of electrostatic charge. M.443-ESD handles are suitable for ESD PROTECTED AREA (EPA) where components which are susceptible to electrostatic discharges are to be handled with the minimum risk of damage. The indelibly printed mark (ESD-C) on the surface of the handle identifies the particular conductivity feature according to EN 100015/1 and IEC 61340-5-1.

TECHNICAL DATA

Tensile stress and impact strength: F1, F2, L1 and L2 values reported in the table are the result of breaking tests carried out with the appropriate dynamometric equipment under the test conditions shown in the figure with ambient temperature.



ELESA Original design



Code	Description	L	f	d	d1	h	h1	h2	B	l	l1	F1 [N]	F2 [N]	L1 [J]	L2 [J]	⚖
154601	M.443/110-CH-ESD-C	109	93.5±0.5	6.5	10.5	38	7	13	6	21	74	3500	2500	15	8	21
154611	M.443/140-8-CH-ESD-C	137	117±1	8.5	13.5	41	8.5	15	7	26	93	4500	2500	20	13	34

Flat cabinet "U" handles

Aluminium

SPECIFICATION

Types

- Type **A**: Mounting from the back (threaded blind bore)
- Type **B**: Mounting from the operator's side

Aluminium

plastic coated

black, RAL 9005, textured finish **SW**

blank, tumbled **BL**

Handle base

Plastic

Technopolymer (Polyamide PA)

black, matt



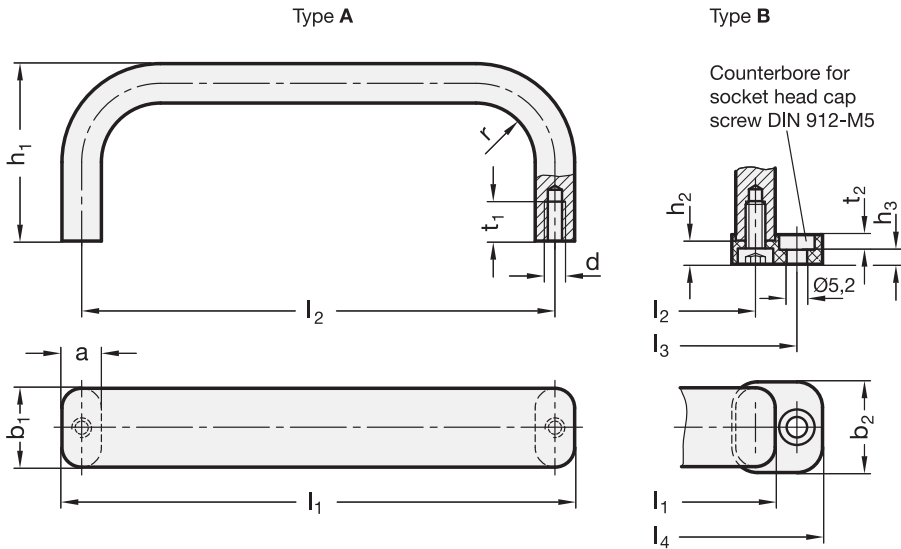
INFORMATION

Cabinet handles GN 668 are produced from aluminium extrusions. They can be mounted either from the back (type A) or by means of the handle base from the operator's side (type B).

The manufacturing process (bending) allows the production of **special lengths** in relatively small quantities.

TECHNICAL INFORMATION

- Load rating information (see page A35)



* Complete with colour index of the Cabinet "U" handles (SW or BL)

SW **BL**
RAL9005 blank

GN 668

Description	b1	l1 ±0.25	a	b2	d	h1	h2	h3	l2	l3	l4	r	t1 min.	t2	⚖
GN 668-20-130-A-*	20	130	10	-	M 5	45	-	-	120	-	-	15	10	-	89
GN 668-20-170-A-*	20	170	10	-	M 5	45	-	-	160	-	-	15	10	-	111
GN 668-20-190-A-*	20	190	10	-	M 5	45	-	-	180	-	-	15	10	-	120
GN 668-20-210-A-*	20	210	10	-	M 5	45	-	-	200	-	-	15	10	-	125
GN 668-30-262-A-*	30	262	12	-	M 6	50	-	-	250	-	-	15	12	-	289
GN 668-30-312-A-*	30	312	12	-	M 6	50	-	-	300	-	-	15	12	-	334
GN 668-30-362-A-*	30	362	12	-	M 6	50	-	-	350	-	-	15	12	-	380
GN 668-30-412-A-*	30	412	12	-	M 6	50	-	-	400	-	-	15	12	-	425
GN 668-20-130-B-*	20	130	10	23	M 5	45	6.5	2	120	141	153	15	-	5.5	100
GN 668-20-170-B-*	20	170	10	23	M 5	45	6.5	2	160	181	193	15	-	5.5	120
GN 668-20-190-B-*	20	190	10	23	M 5	45	6.5	2	180	201	213	15	-	5.5	130
GN 668-20-210-B-*	20	210	10	23	M 5	45	6.5	2	200	221	233	15	-	5.5	136

Cabinet "U" handles

Aluminium

SPECIFICATION

Types

- Type **A**: Mounting from the back (threaded blind bore)
- Type **B**: Mounting from the operator's side

Aluminium pressure die casting

plastic coated

black, RAL 9005, textured finish **SW**

silver, RAL 9006, textured finish **SR**

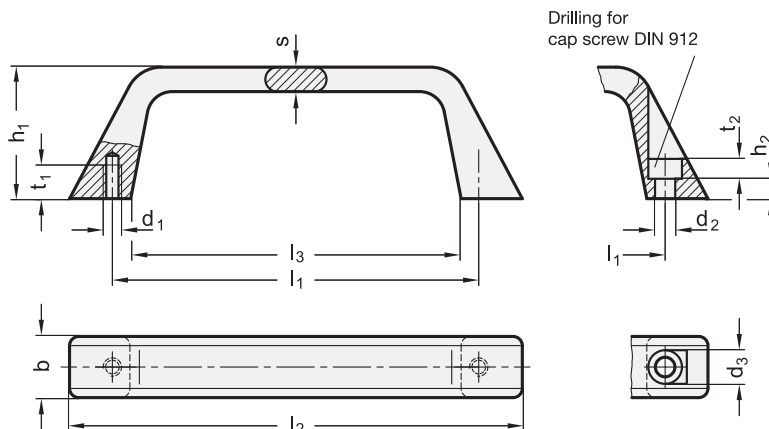
blank, tumbled **BL**

INFORMATION

The installation of cabinet "U" handles GN 728 can be carried out from the back (Type A) as well as from the operator's side (Type B). The hole centers dimension is identical on all variants. As a result they can be mounted in pairs opposite each other.

TECHNICAL INFORMATION

- Load rating information (see page A35)



* Complete with colour index of the Cabinet "U" handles (SW, SR or BL)

SW **SR** **BL**
RAL9005 RAL9006 blank

GN 728

Description	l ₁ ±0.25	b	d ₁	d ₂	d ₃	h ₁	h ₂	l ₂	l ₃	s	t ₁ min.	t ₂	⚖
GN 728-120-A-*	120	22.5	M 6	-	11	42.5	-	147	108	8	10	-	90
GN 728-180-A-*	180	27	M 8	-	13.5	47.5	-	214	165	10	12	-	180
GN 728-120-B-*	120	22.5	-	6.4	11	42.5	6.5	147	108	8	-	6.5	80
GN 728-180-B-*	180	27	-	8.4	13.5	47.5	7.5	214	165	10	-	8.5	172

Stainless Steel-Cabinet "U" handles

SPECIFICATION

Types

- Type **A**: Mounting from the back (threaded blind bore)
- Type **B**: Mounting from the operator's side

Stainless Steel AISI CF-8

- Precision casting
- matt shot-blasted

INFORMATION

The installation of cabinet "U" handles GN 728.5 can be carried out from the back (Type A) as well as from the operator's side (Type B). The hole centers dimension is identical on all variants. As a result they can be mounted in pairs opposite each other.

TECHNICAL INFORMATION

- Stainless Steel characteristics (see page A26)
- Load rating information (see page A35)



4
U-Handles

GN 728.5

STAINLESS STEEL

Description	l ₁ ±0.25	b	d ₁	d ₂	d ₃	h ₁	h ₂	l ₂	l ₃	s	t ₁ min.	t ₂	⚖
GN 728.5-120-A	120	22.5	M 6	-	11	42.5	-	147	108	8	10	-	300
GN 728.5-120-B	120	22.5	-	6.4	11	42.5	6.5	147	108	8	-	8.5	252

Rack handles

Technopolymer

MATERIAL

Glass-fibre reinforced polyamide based (PA) technopolymer, black colour, matte finish.

STANDARD EXECUTIONS

- **M.943-B:** brass bosses, threaded blind holes.
- **M.943-AF:** blind holes for self-tapping screws Ø 4.8 (UNI ISO 7049). Maximum torque recommended 5 Nm.

FEATURES AND APPLICATIONS

Suitable for applications on a 19" rack and instruments in general. In the column HE of the table below the height units of the front panel are contained: 1 HE = 44.45 mm (1 6/8") to enable you to choose the correct handles.

TECHNICAL DATA

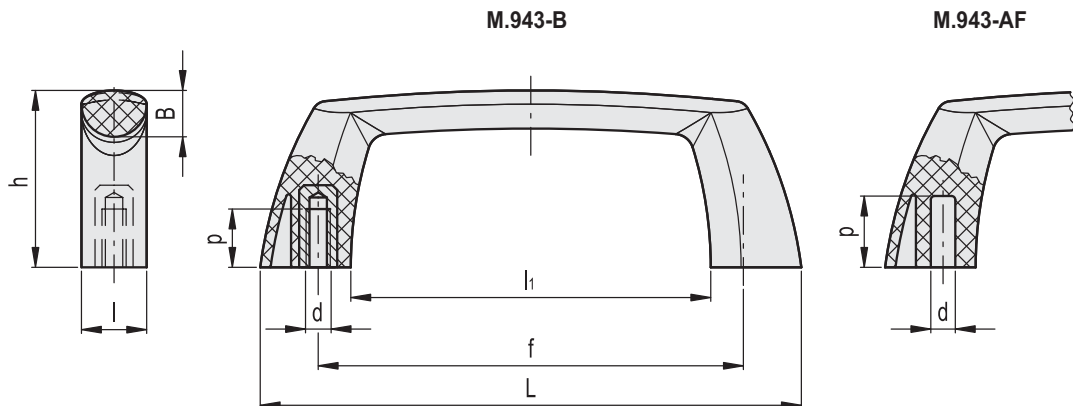
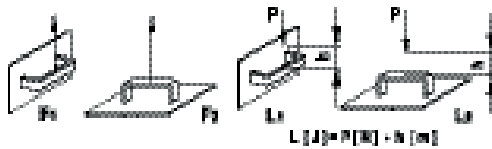
Tensile stress and impact strength: F1, F2, L1 and L2 values reported in the table are the result of breaking tests carried out with the appropriate dynamometric equipment under the test conditions shown in the figure with ambient temperature.

SPECIAL EXECUTIONS ON REQUEST

- RAL 7031 grey colour handle, matte finish.
- Chrome-plated handle, matte finish.



ELESA Original design



Code	Description	L	f	d	h	B	l	l1	p	HE	F1 [N]	F2 [N]	L1 [J]	L2 [J]	Δ
137901	M.943-112-B-M5	112	88±0.5	M5	36.5	9	13.5	74.5	10	3	2000	2200	11	9	26
137921	M.943-144-B-M5	144	120±0.5	M5	42	11	15	105	10	4	2000	2200	11	9	34
137906	M.943-112-AF-4.8	112	88±0.5	4.5	36.5	9	13.5	74.5	14	3	2000	2200	11	9	21
137926	M.943-144-AF-4.8	144	120±0.5	4.5	42	11	15	105	14	4	2000	2200	11	9	29

Cabinet "U" handles

Aluminium

SPECIFICATION

Types

- Type **A**: Mounting from the back (threaded blind bore)
- Type **B**: Mounting from the operator's side

Aluminium

plastic coated

black, RAL 9005, textured finish **SW**

silver, RAL 9006, textured finish **SR**

anodized, natural colour **EL**

blank, tumbled **BL**



INFORMATION

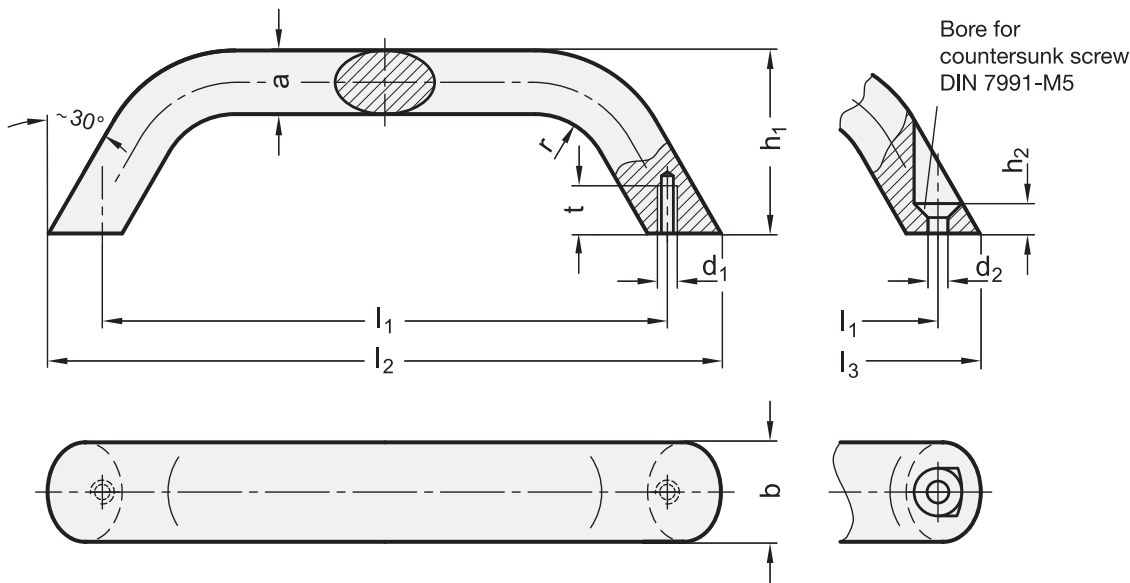
Cabinet "U" handles GN 565.3 are suitable for applications where lower „lifting forces are required such as on lids or protective machine covers.

The countersunk holes of type B allow fixing with self tapping screws or countersunk rivets.

The manufacturing process (bending) allows the production of **special lengths** in relatively small quantities.

TECHNICAL INFORMATION

- Load rating information (see page A35)



*Complete with colour index of the Cabinet "U" handles (SW, SR, EL or BL)

SW **SR** **EL** **BL**
RAL9005 RAL9006 anodized blank

GN 565.3

Description	b	l1 ±0.25	l2	l3 ≈	a	d1	d2	h1	h2	r	t min.	⚖
GN 565.3-20-120-A-*	20	120	142	-	13	M 5	-	41	-	13	10	86
GN 565.3-20-160-A-*	20	160	182	-	13	M 5	-	45	-	13	10	115
GN 565.3-20-120-B-*	20	120	-	137	13	-	5.3	41	5	13	10	82
GN 565.3-20-160-B-*	20	160	-	177	13	-	5.3	45	5	13	10	101

Rack Handles

SPECIFICATION

Types

- Type **A**: Mounting from the back (Self-tapping screws)
- Type **B**: Mounting from the operators side

Handle bar

Aluminium

Handle shanks

Plastic (Polyamide PA)

- glas fibre reinforced

- temperature resistant up to 130 °C

Handle bar **ELS**

anodized, natural colour

Handle shanks

black, matt

Handle bar **ESS**

anodized, black

Handle shanks

black, matt

Handle bar **ELG**

anodized, natural colour

Handle shanks

light grey, matt

Cylinder head screws DIN 912-M5-45

Steel, zinc plated, black

Flange nuts DIN 1661-M5

Steel, zinc plated, blue passivated

Self-tapping screws ISO 7049

Steel zinc plated ST 4.8-19

INFORMATION

The dimensions of the Rack Handles GN 423 have been designed to match a 19" rack and enclosure layout.

Handle bar and handle shanks are interconnected via a plug-type connection, with the effect that special lengths are easily realised.

Thanks to the fixing screws included in the set, the Rack Handles are easily and economically mounted.

* Complete with Finish of the Rack handles (ELS, ESS or ELG)

ELS

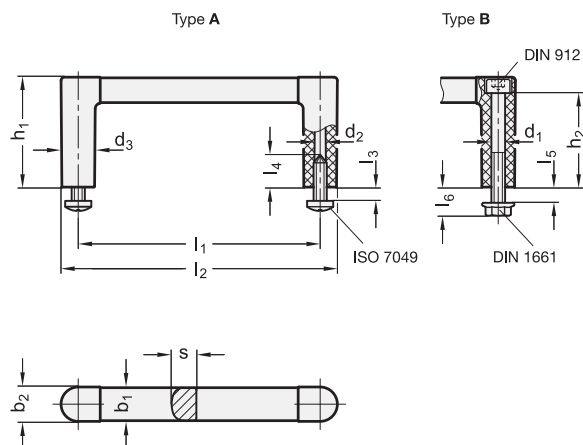
anodized, black

ESS

completely black

ELG

anodized, light grey



GN 423

Description	b1	l1 ±0.25	b2	d1	d2	d3	h1	h2	l2	l3 max.	l4 min.	l5 max.	l6	s	HE	
GN 423-12-55-A-*	12	55	12.5	M 5	-	12.5	40	34.5	67.5	5	-	5	10.5	9	2	25
GN 423-12-88-A-*	12	88	12.5	M 5	-	12.5	40	34.5	100.5	5	-	5	10.5	9	3	31
GN 423-12-100-A-*	12	100	12.5	M 5	-	12.5	40	34.5	112.5	5	-	5	10.5	9	3	34
GN 423-12-120-A-*	12	120	12.5	M 5	-	12.5	40	34.5	132.5	5	-	5	10.5	9	4	37
GN 423-12-180-A-*	12	180	12.5	M 5	-	12.5	40	34.5	192.5	5	-	5	10.5	9	5	50
GN 423-12-235-A-*	12	235	12.5	M 5	-	12.5	40	34.5	247.5	5	-	5	10.5	9	6	59
GN 423-12-55-B-*	12	55	12.5	-	4.3	12.5	40	34.5	67.5	5	14	5	10.5	9	2	37
GN 423-12-88-B-*	12	88	12.5	-	4.3	12.5	40	34.5	100.5	5	14	5	10.5	9	3	42
GN 423-12-100-B-*	12	100	12.5	-	4.3	12.5	40	34.5	112.5	5	14	5	10.5	9	3	45
GN 423-12-120-B-*	12	120	12.5	-	4.3	12.5	40	34.5	132.5	5	14	5	10.5	9	4	48
GN 423-12-180-B-*	12	180	12.5	-	4.3	12.5	40	34.5	192.5	5	14	5	10.5	9	5	59
GN 423-12-235-B-*	12	235	12.5	-	4.3	12.5	40	34.5	247.5	5	14	5	10.5	9	6	66

Cabinet "U" handles

Aluminium

SPECIFICATION

Types

- Type **A**: Mounting from the back (threaded blind bore)
- Type **B**: Mounting from the operator's side

Aluminium **AL**

- plastic coated, black RAL 9005, textured finish **SW**
- anodized, natural colour **EL**

Type B

- Lens screws ISO 7380
- Hexagon nuts ISO 4032
- Washers DIN 125

Stainless Steel AISI 304

INFORMATION

Cabinet "U" handles GN 428 are produced from profiled aluminum extrusions.

The manufacturing process (bending) allows the production of **special lengths** in relatively small quantities.

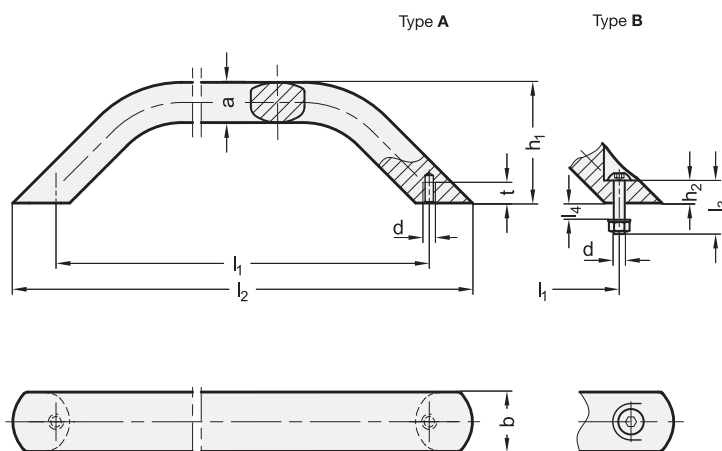
In type B lens screws, hexagon nuts and washers are included parts of the order.

ON REQUEST

- other finishes

TECHNICAL INFORMATION

- Stainless Steel characteristics (see page A26)



* Complete with colour index of the Cabinet "U" handles (SW or EL)

SW **EL**
RAL9005 anodized

GN 428

Description	b	l1	a	d	h1	h2	l2	l3	l4	t	△
GN 428-AL-28-250-A-*	28	250	18	M 8	63	-	290	-	-	10	340
GN 428-AL-28-300-A-*	28	300	18	M 8	63	-	340	-	-	10	391
GN 428-AL-28-400-A-*	28	400	18	M 8	63	-	440	-	-	10	505
GN 428-AL-36-300-A-*	36	300	26	M 10	71	-	355	-	-	14	740
GN 428-AL-36-400-A-*	36	400	26	M 10	71	-	455	-	-	14	948
GN 428-AL-36-500-A-*	36	500	26	M 10	71	-	555	-	-	14	1160
GN 428-AL-36-600-A-*	36	600	26	M 10	71	-	655	-	-	14	1300
GN 428-AL-36-800-A-*	36	800	26	M 10	71	-	855	-	-	14	1882
GN 428-AL-28-250-B-*	28	250	18	M 8	63	11.8	290	30	10	-	369
GN 428-AL-28-300-B-*	28	300	18	M 8	63	11.8	340	30	10	-	425
GN 428-AL-28-400-B-*	28	400	18	M 8	63	11.8	440	30	10	-	535
GN 428-AL-36-300-B-*	36	300	26	M 10	71	16.6	355	40	13	-	774
GN 428-AL-36-400-B-*	36	400	26	M 10	71	16.6	455	40	13	-	1000
GN 428-AL-36-500-B-*	36	500	26	M 10	71	16.6	555	40	13	-	1250
GN 428-AL-36-600-B-*	36	600	26	M 10	71	16.6	655	40	13	-	1500
GN 428-AL-36-800-B-*	36	800	26	M 10	71	16.6	855	40	13	-	1820



Bridge handle

Technopolymer

MATERIAL

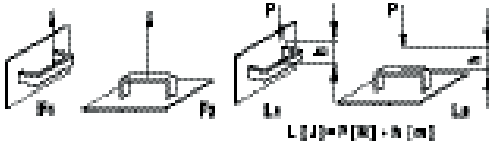
Glass-fibre reinforced polyamide based (PA) technopolymer, black colour, glossy finish.

STANDARD EXECUTION

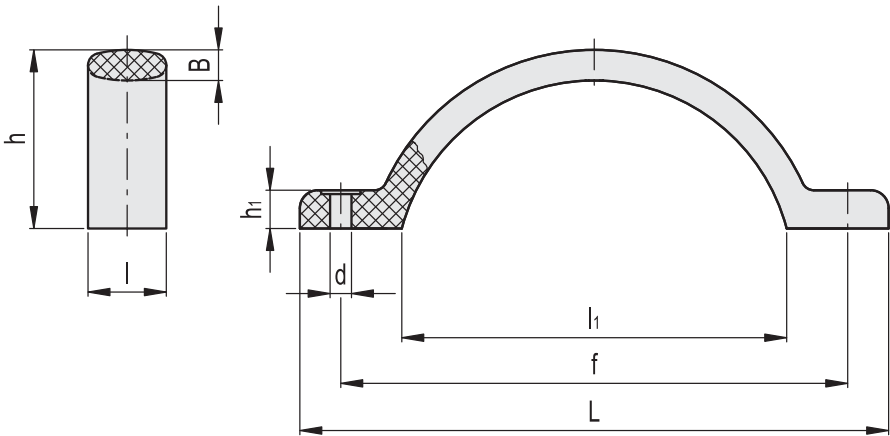
Pass-through holes for screws or rivets.

TECHNICAL DATA

Tensile stress and impact strength: the values F1, F2, L1 and L2 indicated in the table were obtained during breaking tests carried out with the appropriate dynamometric equipment under the test conditions shown in the figure with ambient temperature.



ELESA Original design



Code	Description	L	f	d	h	h1	B	l	l1	F1 [N]	F2 [N]	L1 [J]	L2 [J]	⚖
37451	M.478/150-6	173	150±0.5	6	52.5	9	9	23	113	1800	4500	18	8	46

Bridge handle

Technopolymer

MATERIAL

Glass-fibre reinforced polyamide based (PA) technopolymer, black colour, glossy finish.

SCREW-COVERS

Technopolymer in six standard colours, matte finish. Supplied with the handle, removable by a screwdriver.
Available also as accessories sold separately (see table ECA.).

Code	Description	Cap for
29831-*	ECA.B1-*	M.479/150

* Complete with colour index (C1, ..., C6).

STANDARD EXECUTIONS

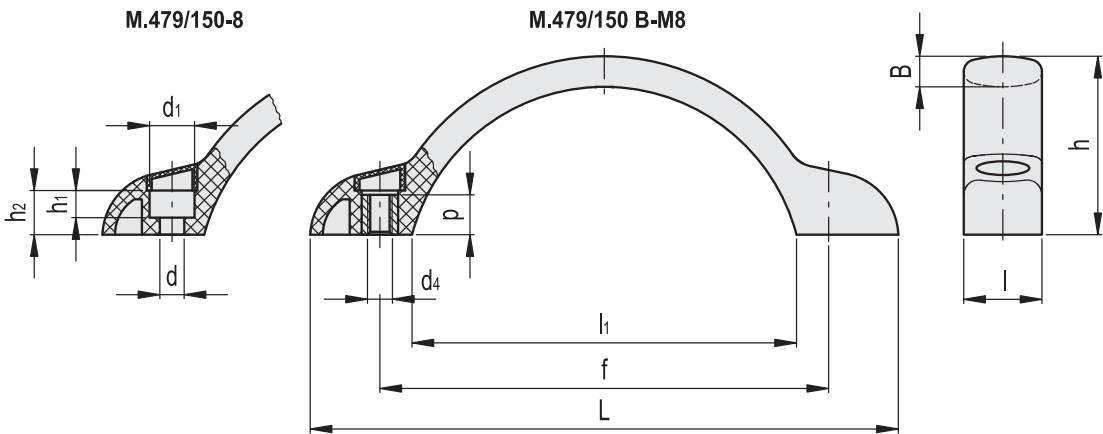
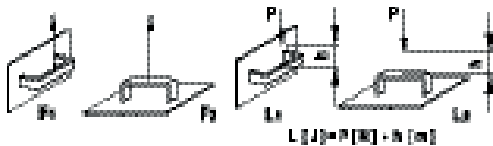
- **M.479/150-8:** pass-through holes for cylindrical-head screws with hexagon socket.
- Screw covers to be press-fit assembled.
- **M.479/150 B-M8:** brass bosses, threaded holes.
- Screw covers supplied assembled.

TECHNICAL DATA

Tensile stress and impact strength: F1, F2, L1 and L2 values reported in the table are the result of breaking tests carried out with the appropriate dynamometric equipment under the test conditions shown in the figure with ambient temperature.



ELESA Original design



* Complete with colour index, example: 37461-C2 M.479/150-8-C2

C1	C2	C3	C4	C5	C6
RAL7021	RAL2004	RAL7035	RAL1021	RAL5024	RAL3000

Code	Description	L	f	d4	d	d1	h	h1	h2	B	l	l1	p	F1 [N]	F2 [N]	L1 [J]	L2 [J]	⚖
37461-*	M.479/150-8-*	173	132±0.5	-	8.5	13.5	52.5	8.5	13	9	23	113	-	2100	2600	15	7	49
37466-*	M.479/150 B-M8-*	173	132±0.5	M8	-	-	52.5	-	-	9	23	113	12	2100	2600	15	7	57



U-Handles

Cabinet "U" handles

Aluminum

SPECIFICATION

Types

- Type **A**: closed type
- Type **B**: open ended type, mounting from the back (threaded blind bore)
- Type **C**: open ended type, mounting from the operator's side

Aluminium

plastic coated

black, RAL 9005, textured finish **SW**

silver, RAL 9006, textured finish **SR**

Cap (type C)

Plastic

black for SW

light grey for SR

INFORMATION

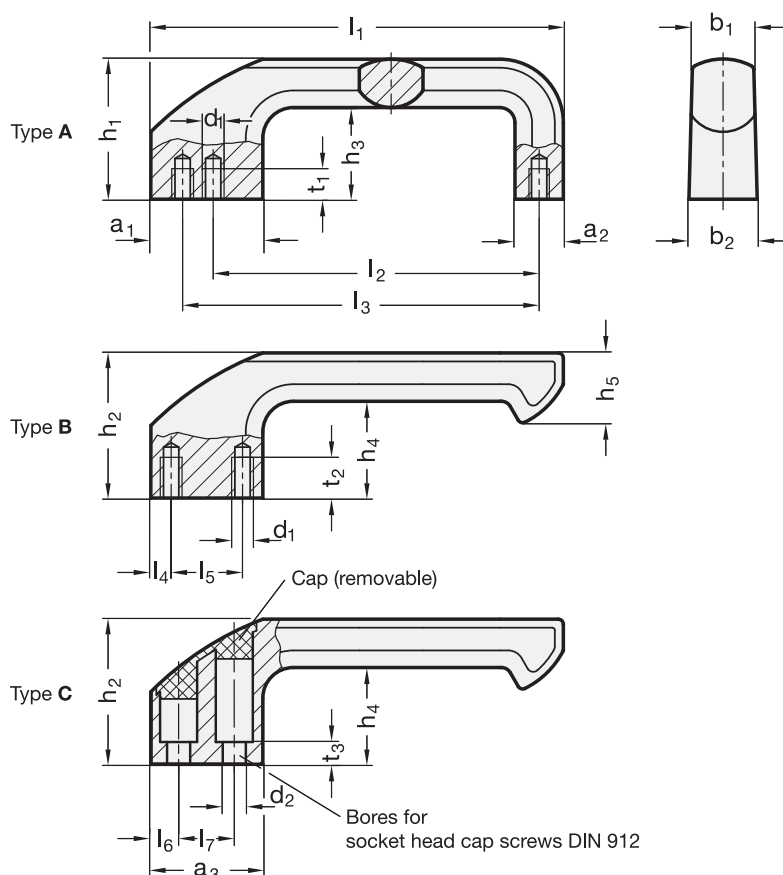
A special characteristic of the Handle GN 559 is the thumb rest pad on the front of the leg.

At the same time the extended leg offers an open ended version with wide access.

Handles GN 559 are known for their high stability. They are fixed by two M8 screws whereby type A offers two alternative hole centers (l2 or l3).

TECHNICAL INFORMATION

- Load rating information (see page A35)



* Complete with colour index of the Cabinet "U" handles (SW or SR)

SW **SR**
RAL9005 RAL9006

GN 559

Description	l1 ±0.25	a1	a2	a3	b1	b2	d1	d2	h1	h2	h3	h4	h5	l2	l3 ±0.2	l4	l5	l6	l7	t1 min.	t2 min.	t3	Δ
GN 559-162-A-*	162	38	19	-	25	28	M 8	-	55	-	36	-	-	128	140	-	-	-	-	12	-	-	254
GN 559-162-B-*	162	-	-	40	25	28	M 8	-	-	57	-	38	28	-	-	8	22	-	-	-	16	-	237
GN 559-162-C-*	162	-	-	40	25	28	-	8.3	-	57	-	38	28	-	-	-	-	10	20	-	-	8	223

Arch handles

Steel

SPECIFICATION

Steel

plastic coated

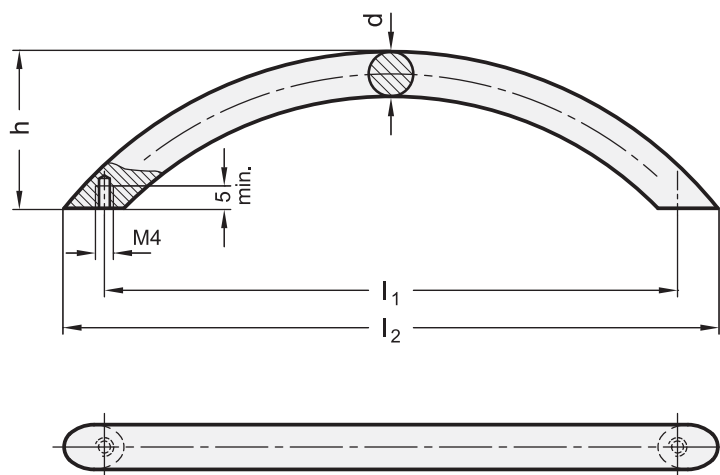
black, RAL 9005, textured finish **SW**

silver, RAL 9006, textured finish **SR**

chrome-plated **CR**

TECHNICAL INFORMATION

- Load rating information (see page A35)



* Complete with colour index of the Arch handles (SW, SR or CR)

SW
 SR
 CR
 RAL 9005 RAL 9006 chrome-plated

GN 424.1

Description	d	l1	l2 ≈	h ≈	⚖
GN 424.1-10-64-*	10	64 ±0.25	75	35	59
GN 424.1-10-96-*	10	96 ±0.25	111	35	72
GN 424.1-10-128-*	10	128 ±0.25	146	35	85
GN 424.1-10-160-*	10	160 ±0.25	181	35	100
GN 424.1-10-192-*	10	192 ±0.35	219	35	132

GN 424.5

STAINLESS STEEL

Description	d	l1	l2 ≈	h ≈	⚖
GN 424.5-10-64	10	64 ±0.25	75	35	58
GN 424.5-10-96	10	96 ±0.25	111	35	73
GN 424.5-10-128	10	128 ±0.25	146	35	89
GN 424.5-10-160	10	160 ±0.25	181	35	109
GN 424.5-10-192	10	192 ±0.35	219	35	127

Arch handles

Aluminium

SPECIFICATION

Types

- Type **A**: Mounting from the back (threaded blind bore)
- Type **B**: Mounting from operator's side

Aluminium

plastic coated

black, RAL 9005, textured finish **SW**

red, RAL 3000, textured finish **RS**

silver, RAL 9006, textured finish **SR**

anodized, natural colour **EL**

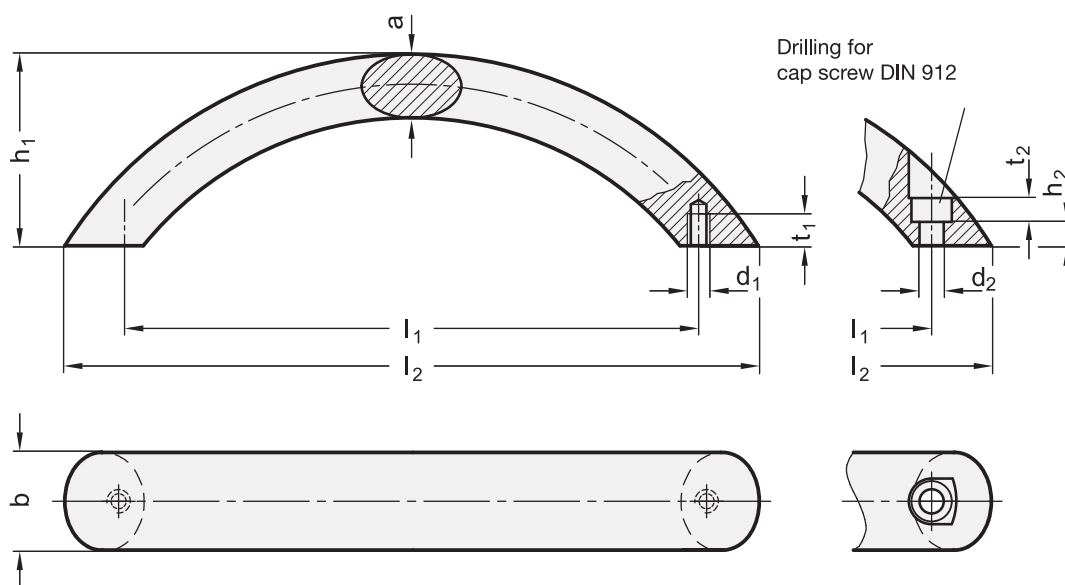
blank, tumbled **BL**

INFORMATION

The manufacturing process (bending) allows the production of **special lengths** in relatively small quantities.

TECHNICAL INFORMATION

- Load rating information (see page A35)



* Complete with colour index of the Arch handles (SW, RS, SR, EL or BL)

SW RAL 9005 **RS** RAL 3000 **SR** RAL 9006 **EL** anodized **BL** blank

GN 565.4

Description	b	l1 ±0.25	l2 ≈	a	d1	d2	h1	h2	t1	t2	⚖
GN 565.4-20-160-A-*	20	160	185	13	M 6	-	50	-	8	-	106
GN 565.4-20-192-A-*	20	192	221	13	M 6	-	50	-	8	-	123
GN 565.4-26-160-A-*	26	160	190	17	M 8	-	57	-	11	-	188
GN 565.4-26-192-A-*	26	192	227	17	M 8	-	57	-	11	-	220
GN 565.4-20-160-B-*	20	160	185	13	-	5.3	50	5	-	5	108
GN 565.4-20-192-B-*	20	192	221	13	-	5.3	50	5	-	5	117
GN 565.4-26-160-B-*	26	160	190	17	-	6.4	57	6	-	6	190
GN 565.4-26-192-B-*	26	192	227	17	-	6.4	57	6	-	6	209

Arch handles

Aluminium

SPECIFICATION

Arch handle
Aluminium
plastic coated
black, RAL 9005, textured finish **SW**
silver, RAL 9006, textured finish **SR**

End pieces (for SW and SR)
Zinc die casting
plastic coated
silver, RAL 9006, textured finish

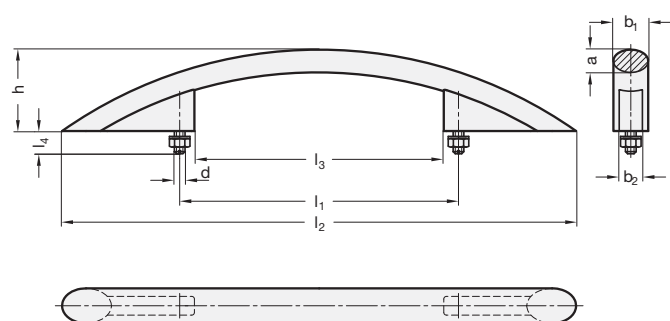
Grub screw
Steel, tensile strength class 5.8 (500 N/mm²)
zinc plated, blue passivated

Hexagon nuts ISO 4032-M8
Steel, zinc plated

Washers DIN 125
Steel, zinc plated

TECHNICAL INFORMATION

- Load rating information (see page A35)



Stainless Steel-Arch handles

SPECIFICATION

Types

- Type **A**: Mounting from the back (threaded blind bore)
- Type **B**: Mounting from the operator's side

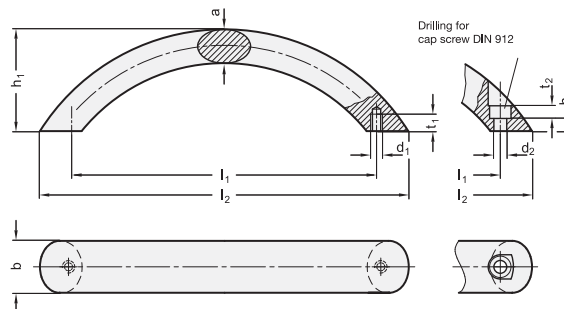
Stainless Steel AISI 304
matt shot-blasted **MT**

INFORMATION

The manufacturing process (bending) allows the production of **special lengths** in relatively small quantities.

TECHNICAL INFORMATION

- Stainless Steel characteristics (see page A26)
- Load rating information (see page A35)



GN 665

Description	b1	l1 ±0.25	a	b2	d	h-1	l2 ≈	l3	l4 ≈	⚖
GN 665-26-350-SW	26	350	17	14	M 8	69	526	328	17	621
GN 665-26-450-SW	26	450	17	14	M 8	69	632	428	20	699
GN 665-26-350-SR	26	350	17	14	M 8	69	526	328	17	621
GN 665-26-450-SR	26	450	17	14	M 8	69	632	428	20	699

GN 565.9

STAINLESS STEEL

Description	b	l1 ±0.25	l2 ≈	a	d1	d2	h1	h2	t1 min.	t2	⚖
GN 565.9-20-160-A-MT	20	160	185	13	M 6	-	50	-	8	-	318
GN 565.9-20-192-A-MT	20	192	221	13	M 6	-	50	-	8	-	366
GN 565.9-20-160-B-MT	20	160	185	13	-	5.3	50	5	-	5	306
GN 565.9-20-192-B-MT	20	192	221	13	-	5.3	50	5	-	5	350

Finger handles

Technopolymer

MATERIAL

Polyamide based (PA) technopolymer.

STANDARD EXECUTIONS

Blind holes for fitting by means of no. 2 self-tapping screws for plastic materials Ø3.5 (UNI ISO 7049), not included in the supply.

Maximum tightening torque of the self-tapping screws 1,2 [Nm].

- **MFH-AF**: in 4 standard colours: black, orange, grey, red, matte finish.

- **MFH-AF-CLEAN**: white colour similar to RAL 9002, matte finish.

- **MFH-CR**: chrome-plated, matte finish.

CHEMICAL AGENTS RESISTANCE (FOR MFH-CR)

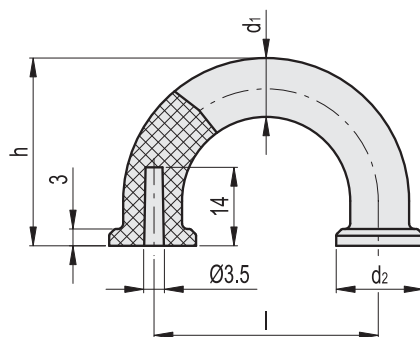
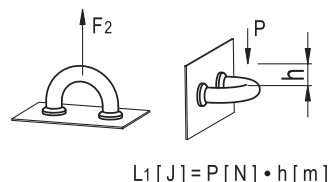
The chrome-plating makes the surface finish semi-glossy and homogeneous to facilitate cleaning operations.

The chrome-plated surface is resistant to wear, scrapes and shocks.

Laboratory tests carried out at ambient temperature (23°C) proved the resistance of the surface to: detergents, acetone, ethyl alcohol, formic acid, chlorine solutions.

TECHNICAL DATA

Tensile stress and impact strength: the values F2 and L1 indicated in the table were obtained during breaking tests carried out with the appropriate dynamometric equipment under the test conditions shown in the figure with ambient temperature.



* Complete with colour index, example: 138201-C2 MFH-30-AF 3.5-C2

C9	C2	C3	C6
RAL9005	RAL2004	RAL7035	RAL3000

MFH-AF

Code	Description	l	d1	d2	h	F2 [N]	L1 [J]	⚖
138201-*	MFH-30-AF 3,5-*	29.5	9	12	27	2300	6	6
138221-*	MFH-40-AF 3,5-*	39.5	10	15	33.5	2300	10	9

MFH-AF-CLEAN

Code	Description	l	d1	d2	h	F2 [N]	L1 [J]	⚖
151456	MFH-30-AF 3,5 CLEAN	29.5	9	12	27	2300	6	6
151458	MFH-40-AF 3,5 CLEAN	39.5	10	15	33.5	2300	10	9

MFH-CR

Code	Description	l	d1	d2	h	F2 [N]	L1 [J]	⚖
152501	MFH-30-AF 3,5-CR	29.5	9	12	27	2300	6	6
152511	MFH-40-AF 3,5-CR	39.5	10	15	33.5	2300	10	9

Finger handles

Steel

SPECIFICATION

Steel
chrome-plated **CR**
Location discs
Zinc die casting, nickel-plated

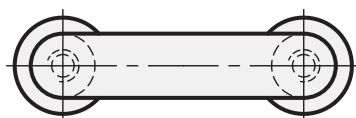
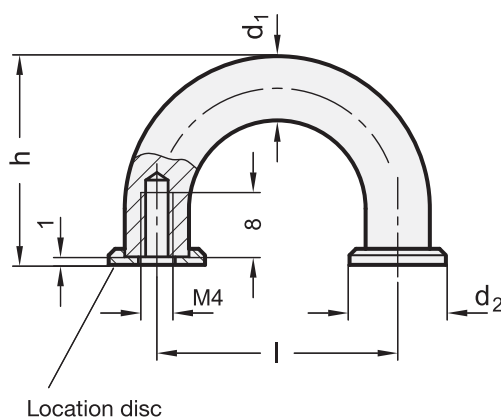
Stainless Steel-Finger handles

SPECIFICATION

Stainless Steel AISI 304
matt shot-blasted
Location discs
Stainless Steel AISI 303

TECHNICAL INFORMATION

- Stainless Steel characteristics (see page A26)



GN 224.1

Description	d1	l ±0.25	d2	h	⚖
GN 224.1-8-30-CR	8	30	12	26	23
GN 224.1-10-40-CR	10	40	15	31	40

GN 224.5

STAINLESS STEEL

Description	d1	l ±0.25	d2	h	⚖
GN 224.5-8-30	8	30	12	26	20
GN 224.5-10-40	10	40	15	31	50

Cabinet "U" handles

Steel / Aluminium / Stainless Steel

SPECIFICATION

Version in Steel

Steel

plastic coated
black, RAL 9005, textured finish **SW**

chrome-plated **CR**
blackened **BT**

Location discs
Zinc die casting, nickel plated

Version in Aluminium

Aluminium **AL**

plastic coated
black, RAL 9005, textured finish **SW**
silver, RAL 9006, textured finish **SR**
red, RAL 3000, textured finish **RS**

Location discs
Stainless Steel AISI 303

anodized, natural colour **EL**

Version in Stainless Steel

- AISI 303 / AISI 304 (A2) **NI**
- matt shot-blasted **GS**
- electropolished **EP**

Stainless Steel AISI 316L **A4**
matte shot-blasted **GS**

Location discs
Stainless Steel AISI 303 / AISI 316L

INFORMATION

Cabinet "U" handles GN 425 Ø 8 and Ø 10 are supplied with two location discs. They guarantee a perfect location even with large holes in the cabinet. The discs are loosely enclosed.

The chrome-plated design is only conditionally suitable for outdoor use. The stainless steel design version should be given preference.

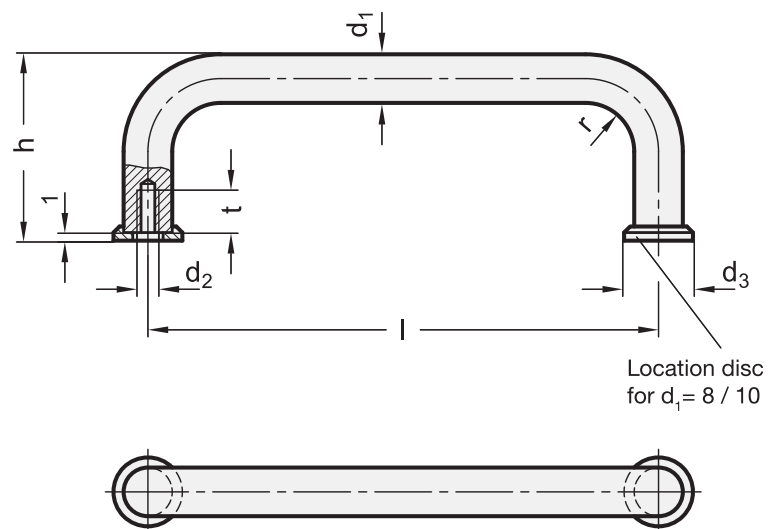
The manufacturing process (bending) allows the production of **special lengths** in relatively small quantities.

ON REQUEST

- Stainless Steel version A4 electropolished

TECHNICAL INFORMATION

- Load rating information (see page A35)



* Complete with colour index of the Cabinet "U" handles (SW, CR or BT)

SW **CR** **BT**
RAL9005 chrome-plated blackened

GN 425

Description	d1	l ±0.5	d2	d3	h	r	t min.	⚖
GN 425-8-55-*	8	55**	M 4	12	35	10	8	40
GN 425-8-64-*	8	64	M 4	12	35	10	8	43
GN 425-8-88-*	8	88**	M 4	12	35	10	8	50
GN 425-8-96-*	8	96	M 4	12	35	10	8	56
GN 425-8-100-*	8	100	M 4	12	35	10	8	58
GN 425-8-120-*	8	120**	M 4	12	35	10	8	66
GN 425-8-128-*	8	128	M 4	12	35	10	8	69
GN 425-10-88-*	10	88**	M 5	15	43	12	12	88
GN 425-10-100-*	10	100	M 5	15	43	12	12	98
GN 425-10-120-*	10	120**	M 5	15	43	12	12	108
GN 425-10-180-*	10	180**	M 5	15	43	12	12	147
GN 425-10-200-*	10	200	M 5	15	43	12	12	160
GN 425-10-235-*	10	235**	M 5	15	43	12	12	183
GN 425-12-125-*	12	125	M 6	-	51	14	12	165
GN 425-12-160-*	12	160	M 6	-	51	14	12	196
GN 425-12-200-*	12	200	M 6	-	51	14	12	230
GN 425-12-250-*	12	250	M 6	-	51	14	12	274
GN 425-16-160-*	16	160	M 6	-	59	18	12	371
GN 425-16-200-*	16	200	M 6	-	59	18	12	430
GN 425-16-250-*	16	250	M 6	-	59	18	12	503
GN 425-16-300-*	16	300	M 6	-	59	18	12	581

* Complete with colour index of the Cabinet "U" handles (SW, SR, RS or EL)

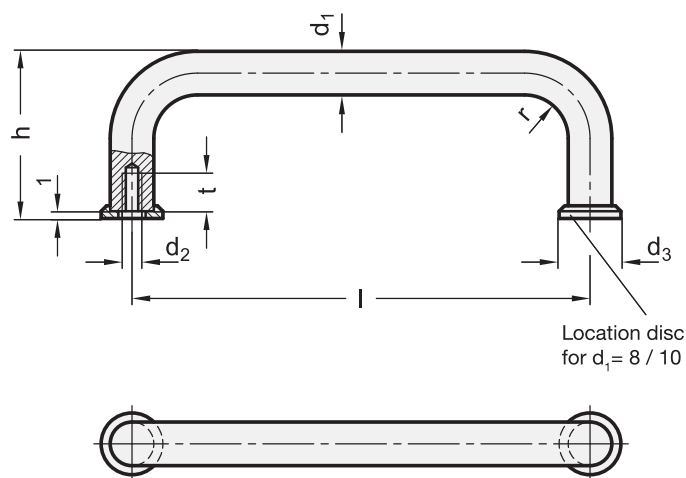
SW **SR** **RS** **EL**
RAL 9005 RAL 9006 RAL 3000 anodized

GN 425-AL

Description	d1	l ±0.5	d2	d3	h	r	t min.	⚖
GN 425-AL-8-55-*	8	55**	M 4	12	35	10	8	15
GN 425-AL-8-64-*	8	64	M 4	12	35	10	8	18
GN 425-AL-8-88-*	8	88**	M 4	12	35	10	8	20
GN 425-AL-8-96-*	8	96	M 4	12	35	10	8	22
GN 425-AL-8-100-*	8	100	M 4	12	35	10	8	24
GN 425-AL-8-120-*	8	120**	M 4	12	35	10	8	27
GN 425-AL-8-128-*	8	128	M 4	12	35	10	8	30
GN 425-AL-10-88-*	10	88**	M 5	15	43	12	12	34
GN 425-AL-10-100-*	10	100	M 5	15	43	12	12	37
GN 425-AL-10-120-*	10	120**	M 5	15	43	12	12	40
GN 425-AL-10-180-*	10	180**	M 5	15	43	12	12	60
GN 425-AL-10-200-*	10	200	M 5	15	43	12	12	80
GN 425-AL-10-235-*	10	235**	M 5	15	43	12	12	86
GN 425-AL-12-125-*	12	125	M 6	-	51	14	12	59
GN 425-AL-12-160-*	12	160	M 6	-	51	14	12	71
GN 425-AL-12-200-*	12	200	M 6	-	51	14	12	83
GN 425-AL-12-250-*	12	250	M 6	-	51	14	12	114
GN 425-AL-16-160-*	16	160	M 6	-	59	18	12	129
GN 425-AL-16-200-*	16	200	M 6	-	59	18	12	150
GN 425-AL-16-250-*	16	250	M 6	-	59	18	12	179
GN 425-AL-16-300-*	16	300	M 6	-	59	18	12	206

** suitable for 19" rack and enclosure layout





* Complete with material of the Cabinet "U" handles (GS or EP)

GS matt shot-blasted **EP** electropolished

GN 425-NI

STAINLESS STEEL

Description	d1	Material	l ±0.5	d2	d3	h	r	t min.	△△
GN 425-NI-8-55-*	8	AISI 303	55**	M 4	12	35	10	8	39
GN 425-NI-8-64-*	8	AISI 303	64	M 4	12	35	10	8	43
GN 425-NI-8-88-*	8	AISI 303	88**	M 4	12	35	10	8	53
GN 425-NI-8-96-*	8	AISI 303	96	M 4	12	35	10	8	57
GN 425-NI-8-100-*	8	AISI 303	100	M 4	12	35	10	8	60
GN 425-NI-8-120-*	8	AISI 303	120**	M 4	12	35	10	8	66
GN 425-NI-8-128-*	8	AISI 303	128	M 4	12	35	10	8	70
GN 425-NI-10-88-*	10	AISI 303	88**	M 5	15	43	12	12	91
GN 425-NI-10-100-*	10	AISI 303	100	M 5	15	43	12	12	95
GN 425-NI-10-120-*	10	AISI 303	120**	M 5	15	43	12	12	100
GN 425-NI-10-180-*	10	AISI 303	180**	M 5	15	43	12	12	146
GN 425-NI-10-200-*	10	AISI 303	200	M 5	15	43	12	12	161
GN 425-NI-10-235-*	10	AISI 303	235**	M 5	15	43	12	12	181
GN 425-NI-12-125-*	12	AISI 304	125	M 6	-	51	14	12	169
GN 425-NI-12-160-*	12	AISI 304	160	M 6	-	51	14	12	200
GN 425-NI-12-200-*	12	AISI 304	200	M 6	-	51	14	12	236
GN 425-NI-12-250-*	12	AISI 304	250	M 6	-	51	14	12	283
GN 425-NI-16-160-*	16	AISI 304	160	M 6	-	59	18	12	373
GN 425-NI-16-200-*	16	AISI 304	200	M 6	-	59	18	12	437
GN 425-NI-16-250-*	16	AISI 304	250	M 6	-	59	18	12	521
GN 425-NI-16-300-*	16	AISI 304	300	M 6	-	59	18	12	600

GN 425-A4

STAINLESS STEEL

Description	d1	Material	l ±0.5	d2	d3	h	r	t min.	△△
GN 425-A4-10-88-GS	10	AISI 316L	88**	M 5	15	43	12	12	92
GN 425-A4-10-100-GS	10	AISI 316L	100	M 5	15	43	12	12	99
GN 425-A4-10-120-GS	10	AISI 316L	120**	M 5	15	43	12	12	111
GN 425-A4-10-180-GS	10	AISI 316L	180**	M 5	15	43	12	12	151
GN 425-A4-10-200-GS	10	AISI 316L	200	M 5	15	43	12	12	163
GN 425-A4-10-235-GS	10	AISI 316L	235**	M 5	15	43	12	12	185

** suitable for 19" rack and enclosure layout

Cabinet "U" handles

Steel / Stainless Steel, without thread, for welding

SPECIFICATION

Version in Steel

Steel **ST**
matt, shot-blasted

Version in Stainless Steel

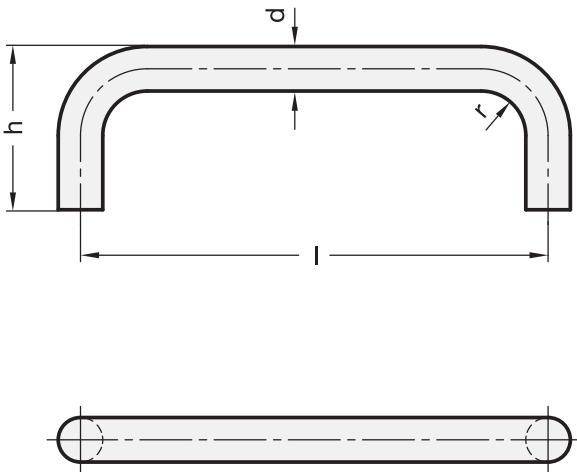
Stainless Steel AISI 304 **NI**
matt, shot-blasted

INFORMATION

The manufacturing process (bending) of the cabinet "U" handles GN 425.3 allows the production of **special lengths** in relatively small quantities.

TECHNICAL INFORMATION

- Stainless Steel characteristics (see page A26)



* Complete with material of the Cabinet "U" handles (ST or NI)

ST	NI
Steel	Stainless Steel

GN 425.3

Description	d	l ±0.5	h	r	⚖
GN 425.3-8-64-*	8	64	35	10	45
GN 425.3-8-88-*	8	88	35	10	55
GN 425.3-8-100-*	8	100	35	10	59
GN 425.3-10-100-*	10	100	43	12	113
GN 425.3-10-125-*	10	125	43	12	117
GN 425.3-10-160-*	10	160	43	12	138
GN 425.3-12-125-*	12	125	51	14	170
GN 425.3-12-160-*	12	160	51	14	210
GN 425.3-12-200-*	12	200	51	14	245
GN 425.3-16-125-*	16	125	59	18	321
GN 425.3-16-160-*	16	160	59	18	377
GN 425.3-16-200-*	16	200	59	18	440
GN 425.3-20-200-*	20	200	68	22	707
GN 425.3-20-250-*	20	250	68	22	831

Weight material ST



Cabinet "U" handles

Steel / Aluminium / Stainless Steel

SPECIFICATION

Version in Steel

Steel

plastic coated

black, RAL 9005, textured finish **SW**

chrome-plated **CR**

blackened **BT**

Location discs

Zinc die casting, nickel plated

Version in Aluminium

Aluminium **AL**

plastic coated

black, RAL 9005, textured finish **SW**

silver, RAL 9006, textured finish **SR**

red, RAL 3000, textured finish **RS**

anodized, natural colour **EL**

Version in Stainless Steel

- AISI 303 / AISI 304 (A2) **NI**

- matt shot-blasted **GS**

- electropolished **EP**

Stainless Steel AISI 316L **A4**

matte shot-blasted **GS**

Location discs

Stainless Steel AISI 303 / AISI 316L

INFORMATION

Cabinet "U" handles GN 425.1 Ø 8 and Ø 10 are supplied with two location discs. They guarantee a perfect location even with large holes in the cabinet. The discs are loosely enclosed.

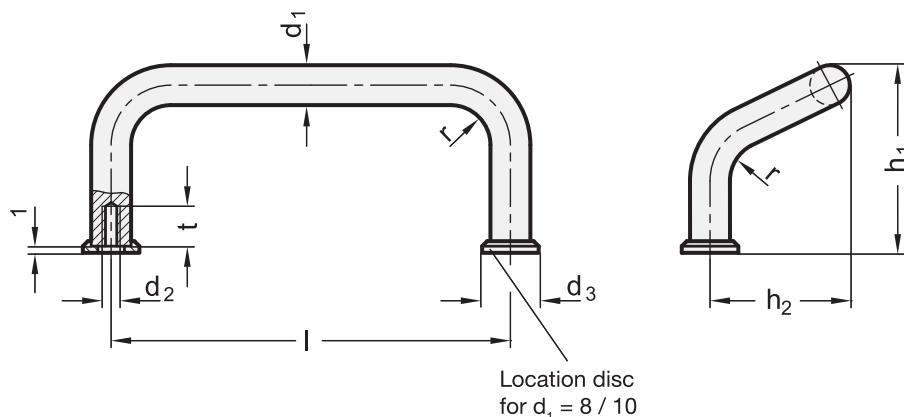
The chrome-plated design is only conditionally suitable for outdoor use. The stainless steel design version should be given preference.

The manufacturing process (bending) allows the production of **special lengths** in relatively small quantities.

TECHNICAL INFORMATION

- Stainless Steel characteristics (see page A26)

- Load rating information (see page A35)



GN 425.1-A4

STAINLESS STEEL

Description	d1	l ±0.25	d2	d3	h1	h2	r	t min.	⚖
GN 425.1-A4-10-88-GS	10	88	M 5	15	47	35	11	12	92
GN 425.1-A4-10-100-GS	10	100	M 5	15	47	35	11	12	99
GN 425.1-A4-10-120-GS	10	120	M 5	15	47	35	11	12	111
GN 425.1-A4-10-180-GS	10	180**	M 5	15	47	35	11	12	159
GN 425.1-A4-10-200-GS	10	200	M 5	15	47	35	11	12	163

* Complete with colour index of the Cabinet "U" handles (SW, CR or BT)

SW **CR** **BT**
RAL9005 chrome-plated blackened

GN 425.1

Description	d1	l ±0.25	d2	d3	h1	h2	r	t min.	⚖
GN 425.1-8-55-*	8	55**	M 4	12	40	30	9	8	40
GN 425.1-8-64-*	8	64	M 4	12	40	30	9	8	43
GN 425.1-8-96-*	8	96	M 4	12	40	30	9	8	56
GN 425.1-8-100-*	8	100	M 4	12	40	30	9	8	58
GN 425.1-10-88-*	10	88**	M 5	15	47	35	11	12	88
GN 425.1-10-100-*	10	100	M 5	15	47	35	11	12	98
GN 425.1-10-120-*	10	120**	M 5	15	47	35	11	12	108
GN 425.1-10-180-*	10	180**	M 5	15	47	35	11	12	147
GN 425.1-10-200-*	10	200	M 5	15	47	35	11	12	160
GN 425.1-12-125-*	12	125	M 6	-	60	44	12	12	165
GN 425.1-12-160-*	12	160	M 6	-	60	44	12	12	196
GN 425.1-12-200-*	12	200	M 6	-	60	44	12	12	230
GN 425.1-12-250-*	12	250	M 6	-	60	44	12	12	274

* Complete with colour index of the Cabinet "U" handles (SW, SR, RS or EL)

SW **SR** **RS** **EL**
RAL 9005 RAL 9006 RAL 3000 anodized

GN 425.1-AL

Description	d1	l ±0.25	d2	d3	h1	h2	r	t min.	⚖
GN 425.1-AL-8-55-*	8	55**	M 4	12	40	30	9	8	15
GN 425.1-AL-8-64-*	8	64	M 4	12	40	30	9	8	18
GN 425.1-AL-8-88-*	8	88**	M 4	12	40	30	9	8	20
GN 425.1-AL-8-96-*	8	96	M 4	12	40	30	9	8	22
GN 425.1-AL-8-100-*	8	100	M 4	12	40	30	9	8	23
GN 425.1-AL-10-88-*	10	88**	M 5	15	47	35	11	12	34
GN 425.1-AL-10-100-*	10	100	M 5	15	47	35	11	12	40
GN 425.1-AL-10-120-*	10	120**	M 5	15	47	35	11	12	50
GN 425.1-AL-10-180-*	10	180**	M 5	15	47	35	11	12	60
GN 425.1-AL-10-200-*	10	200	M 5	15	47	35	11	12	68
GN 425.1-AL-12-125-*	12	125	M 6	-	60	44	12	12	59
GN 425.1-AL-12-160-*	12	160	M 6	-	60	44	12	12	71
GN 425.1-AL-12-200-*	12	200	M 6	-	60	44	12	12	83
GN 425.1-AL-12-250-*	12	250	M 6	-	60	44	12	12	114

* Complete with material of the Cabinet "U" handles (GS or EP)

GS **EP**
matt shot-blasted electropolished

GN 425.1-NI

STAINLESS STEEL

Description	d1	l ±0.25	d2	d3	h1	h2	r	t min.	⚖
GN 425.1-NI-8-55-*	8	55**	M 4	12	40	30	9	8	37
GN 425.1-NI-8-64-*	8	64	M 4	12	40	30	9	8	40
GN 425.1-NI-8-88-*	8	88	M 4	12	40	30	9	8	53
GN 425.1-NI-8-96-*	8	96	M 4	12	40	30	9	8	57
GN 425.1-NI-8-100-*	8	100	M 4	12	40	30	9	8	58
GN 425.1-NI-10-88-*	10	88	M 5	15	47	35	11	12	91
GN 425.1-NI-10-100-*	10	100	M 5	15	47	35	11	12	95
GN 425.1-NI-10-120-*	10	120	M 5	15	47	35	11	12	105
GN 425.1-NI-10-180-*	10	180**	M 5	15	47	35	11	12	146
GN 425.1-NI-10-200-*	10	200	M 5	15	47	35	11	12	161
GN 425.1-NI-12-125-*	12	125	M 6	-	60	44	12	12	169
GN 425.1-NI-12-160-*	12	160	M 6	-	60	44	12	12	200
GN 425.1-NI-12-200-*	12	200	M 6	-	60	44	12	12	236
GN 425.1-NI-12-250-*	12	250	M 6	-	60	44	12	12	283

** suitable for 19" rack and enclosure layout



GN 426.3

Cabinet "U" handles

for welding, made of seamless steel tubing

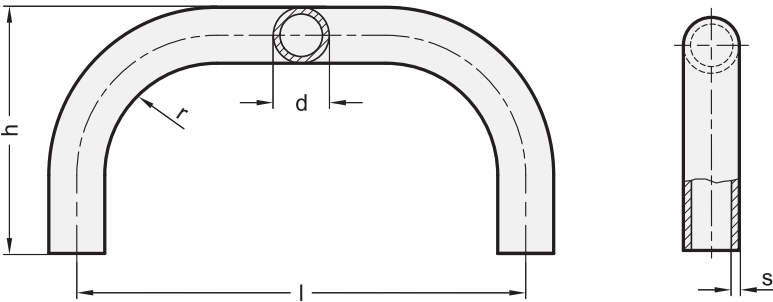
SPECIFICATION

Type
- Type **A**: simply curved, 90°

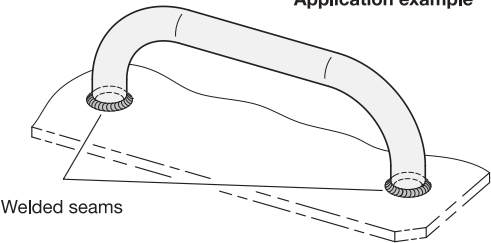
Steel ST
blank, oiled

INFORMATION

GN 426.3 cabinet "U" handles are produced through bending. This allows **special lengths** or **special geometries** with the same **r** and **s** dimensions to be delivered even in comparatively small unit quantities.



Application example



GN 426.3

Description	d	l1 ±1.5	h ±1.5	r	s	⚖
GN 426.3-ST-20-150-A	20	150	90	40	3	288
GN 426.3-ST-20-200-A	20	200	90	40	3	340
GN 426.3-ST-20-250-A	20	250	90	40	3	400
GN 426.3-ST-20-300-A	20	300	90	40	3	455
GN 426.3-ST-20-400-A	20	400	90	40	3	560
GN 426.3-ST-25-200-A	25	200	110	50	3	565
GN 426.3-ST-25-250-A	25	250	110	50	3	640
GN 426.3-ST-25-300-A	25	300	110	50	3	720
GN 426.3-ST-25-400-A	25	400	110	50	3	890
GN 426.3-ST-25-500-A	25	500	110	50	3	1050
GN 426.3-ST-30-300-A	30	300	130	60	3	835
GN 426.3-ST-30-350-A	30	350	130	60	3	1040
GN 426.3-ST-30-400-A	30	400	130	60	3	1140
GN 426.3-ST-30-500-A	30	500	130	60	3	1340
GN 426.3-ST-30-600-A	30	600	130	60	3	1555

Cabinet "U" handles

Aluminium

SPECIFICATION

Aluminium

plastic coated

black, RAL 9005, textured finish **SW**

silver, RAL 9006, textured finish **SR**

anodized, natural colour **EL**

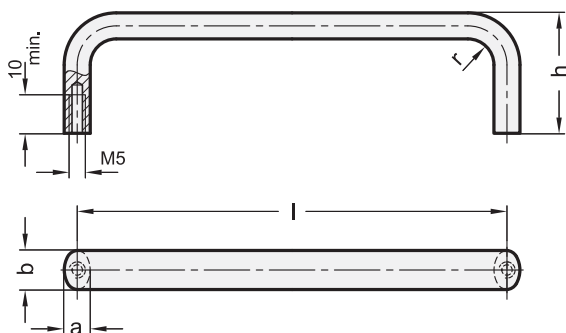
INFORMATION

Cabinet "U" handles GN 427 are produced from profiled aluminum extrusions.

The manufacturing process (bending) allows the production of **special lengths** in relatively small quantities.

TECHNICAL INFORMATION

- Load rating information (see page A35)



* Complete with colour index of the Cabinet "U" handles (SW, SR or EL)

SW RAL9005 **SR** RAL9006 **EL** anodized

GN 427

Description	b	l ±0.25	a	h	r	⚖
GN 427-12-55-*	12	55**	8	40	8	23
GN 427-12-88-*	12	88**	8	40	8	30
GN 427-12-100-*	12	100	8	40	8	33
GN 427-12-120-*	12	120**	8	40	8	37
GN 427-12-180-*	12	180**	8	40	8	51
GN 427-12-200-*	12	200	8	40	8	56
GN 427-12-235-*	12	235**	8	40	8	60

** suitable for 19" rack and enclosure layout

Stainless Steel- Cabinet "U" handles

SPECIFICATION

Stainless Steel AISI 304

matt shot-blasted

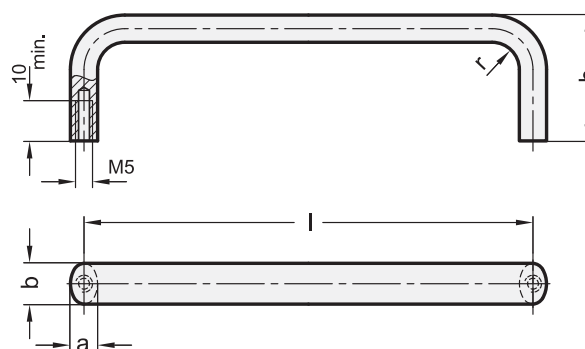
INFORMATION

Cabinet "U" handles GN 427.5 are produced from profiled extrusions. The manufacturing process (bending) allows the production of **special lengths** in relatively small quantities.

TECHNICAL INFORMATION

- Stainless Steel characteristics (see page A26)

- Load rating information (see page A35)



GN 427.5

STAINLESS STEEL

Description	b	l ±0.25	a	h	r	⚖
GN 427.5-12-55	12	55**	8	40	8	60
GN 427.5-12-88	12	88**	8	40	8	85
GN 427.5-12-100	12	100	8	40	8	90
GN 427.5-12-120	12	120**	8	40	8	105
GN 427.5-12-180	12	180**	8	40	8	145
GN 427.5-12-200	12	200	8	40	8	150
GN 427.5-12-235	12	235**	8	40	8	180

** suitable for 19" rack and enclosure layout

Cabinet "U" handles

Aluminium

SPECIFICATION

Aluminium **AL**

d₁ = 20: Solid material

d₁ = 28: Tube-Ø 28 x 4

plastic coated

black, RAL 9005, textured finish **SW**

silver, RAL 9006, textured finish **SR**

white, RAL 9016, antimicrobial **WSA**

blank, tumbled **BL**

Threaded bushings

Aluminium

INFORMATION

GN 426 cabinet „U“ handles are made from a bent aluminum profile and have excellent stability and ergonomic design. Due to the production process, special designs can be supplied even in relatively small quantities.

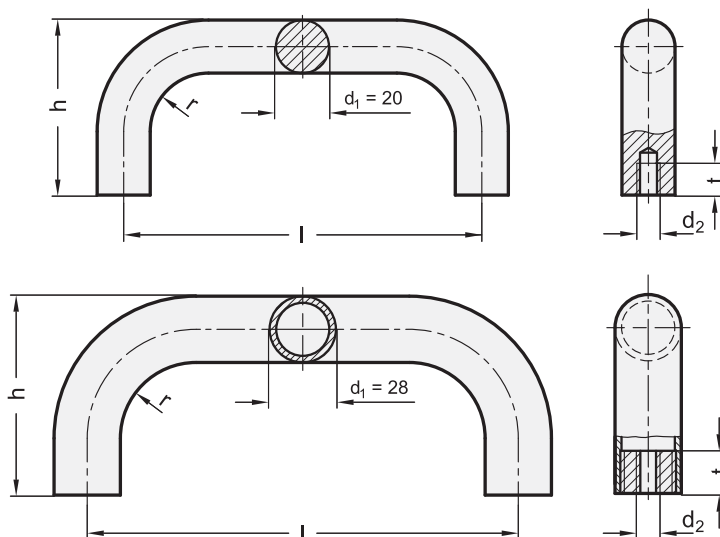
In addition to the standard surfaces, these cabinet „U“ handles are also available with a functional coating.

The **WSA** version has a powder coating based on zinc molybdate, which gives it antimicrobial properties. The principle of action, which is activated by the presence of moisture, demonstrably reduces the growth of viruses, bacteria, and fungi within 24 hours, so that contaminated surfaces ultimately have less than 0.2% of the original number of microbes.

Standard elements with antimicrobial plastic coating are primarily used in the health care sector and in public buildings, such as airports, train stations, stadiums, etc.

TECHNICAL INFORMATION

- Load rating information (see page A35)



* Complete with colour index of the Cabinet "U" handles (SW, SR, WSA or BL)

 **SW**
 **SR**
 **WSA**
 **BL**
 RAL9005 RAL9006 RAL9016 blank

GN 426

Description	d ₁	l ±0.25	d ₂	h	r	t min.	⚖
GN 426-AL-20-200-*	20	200	M 8	68	22	15	231
GN 426-AL-20-250-*	20	250	M 8	68	22	15	285
GN 426-AL-20-300-*	20	300	M 8	68	22	15	330
GN 426-AL-20-350-*	20	350	M 8	68	22	15	375
GN 426-AL-28-250-*	28	250	M 10	78	32	15	290
GN 426-AL-28-300-*	28	300	M 10	78	32	15	330
GN 426-AL-28-350-*	28	350	M 10	78	32	15	375
GN 426-AL-28-400-*	28	400	M 10	78	32	15	415

Stainless Steel-Cabinet "U" handles

SPECIFICATION

Types

- Type **A**: Mounting from the back (threaded blind bore)
- Type **B**: Mounting from the operator's side

Stainless Steel

d₁ = 20: Solid material

d₁ = 28: Tube-Ø 28 x 2

- AISI 304

- matt shot-blasted

Threaded bush / Mounting stud

Stainless Steel AISI 303

Grub screw (Type B)

d₁ = 20: DIN 914-M5-6-NI

d₁ = 28: DIN 914-M6-8-NI

INFORMATION

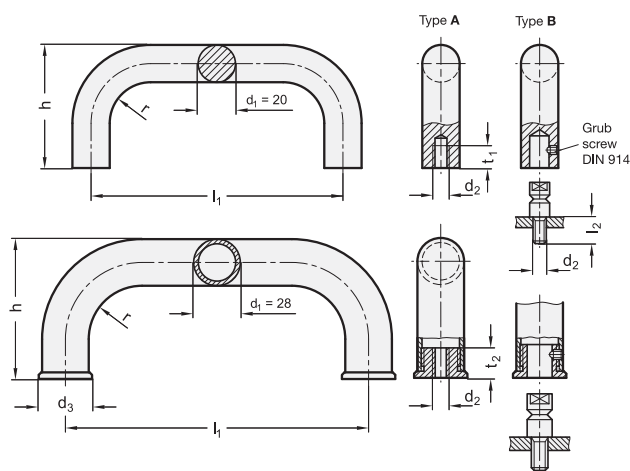
Stainless Steel-Cabinet "U" handles GN 426.5 can be mounted from the back (type A) as well as from the operator's side (type B). In this case the stud is first screwed in from the machine side and then the handle is pushed on and secured with the grub screw.

Both mounting methods allow the mounting of a pair of handles in opposite position. This method could be used e.g. on doors (double handle). In general, a mounting stud with special length l₂ might be required.

The manufacturing process (bending) allows the production of **special lengths** in relatively small quantities.

TECHNICAL INFORMATION

- Stainless Steel characteristics (see page A26)
- Load rating information (see page A35)



GN 426.5

STAINLESS STEEL

Description	d1	l1 ±0.5	l1 ±0.3	d2	d3	h	l2	r ≈	t1	t2	△
GN 426.5-20-200-A	20	200	-	M 8	-	68	20	22	15	-	700
GN 426.5-20-250-A	20	250	-	M 8	-	68	20	22	15	-	696
GN 426.5-20-300-A	20	300	-	M 8	-	68	20	22	15	-	900
GN 426.5-20-350-A	20	350	-	M 8	-	68	20	22	15	-	1080
GN 426.5-20-200-B	20	-	200	M 8	-	68	20	22	-	-	706
GN 426.5-20-250-B	20	-	250	M 8	-	68	20	22	-	-	829
GN 426.5-20-300-B	20	-	300	M 8	-	68	20	22	-	-	957
GN 426.5-20-350-B	20	-	350	M 8	-	68	20	22	-	-	1086
GN 426.5-28-250-A	28	250	-	M 10	32	90	20	32	-	17	550
GN 426.5-28-300-A	28	300	-	M 10	32	90	20	32	-	17	625
GN 426.5-28-350-A	28	350	-	M 10	32	90	20	32	-	17	680
GN 426.5-28-400-A	28	400	-	M 10	32	90	20	32	-	17	729
GN 426.5-28-250-B	28	-	250	M 10	32	90	20	32	-	-	625
GN 426.5-28-300-B	28	-	300	M 10	32	90	20	32	-	-	690
GN 426.5-28-350-B	28	-	350	M 10	32	90	20	32	-	-	720
GN 426.5-28-400-B	28	-	400	M 10	32	90	20	32	-	-	820

Cabinet "U" handles

Aluminium

SPECIFICATION

Aluminium **AL**

d₁ = 20: Solid material

d₁ = 28: Tube-Ø 28 x 4

plastic coated

black, RAL 9005, textured finish **SW**

silver, RAL 9006, textured finish **SR**

blank, tumbled **BL**

Threaded bushings

Aluminium

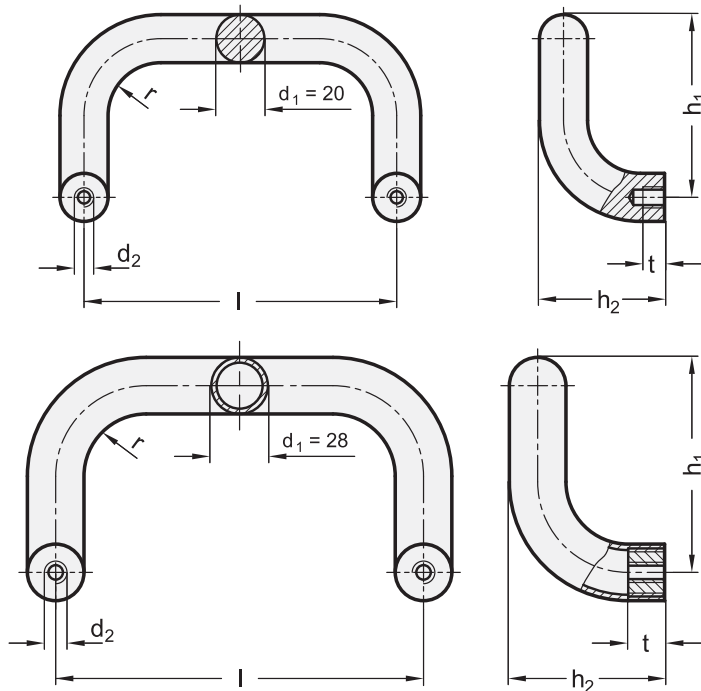
INFORMATION

Cabinet "U" handles GN 426.1 are produced from profiled aluminium extrusions.

The manufacturing process (bending) allows the production of **special lengths** in relatively small quantities.

TECHNICAL INFORMATION

- Load rating information (see page A35)



* Complete with colour index of the Cabinet "U" handles (SW, SR or BL)

SW **SR** **BL**
RAL9005 RAL9006 blank

GN 426.1

Description	d ₁	l ±0.25	d ₂	h ₁	h ₂	r	t min.	⚖
GN 426.1-AL-20-200-*	20	200	M 8	105	68	22	15	380
GN 426.1-AL-20-300-*	20	300	M 8	105	68	22	15	475
GN 426.1-AL-28-250-*	28	250	M 10	125	78	32	15	470
GN 426.1-AL-28-350-*	28	350	M 10	125	78	32	15	505
GN 426.1-AL-28-500-*	28	500	M 10	125	78	32	15	620

Stainless Steel-Cabinet "U" handles

SPECIFICATION

Types

- Type **A**: Mounting from the back (threaded blind bore)
- Type **B**: Mounting from the operator's side

Stainless Steel

d₁ = 20: Solid material

d₁ = 28: Tube-Ø 28 x 2

- AISI 304

- matt shot-blasted

Threaded bush / Mounting stud

Stainless Steel AISI 303

Grub screws (Type B)

d₁ = 20: DIN 914-M5-6-NI

d₁ = 28: DIN 914-M6-8-NI



INFORMATION

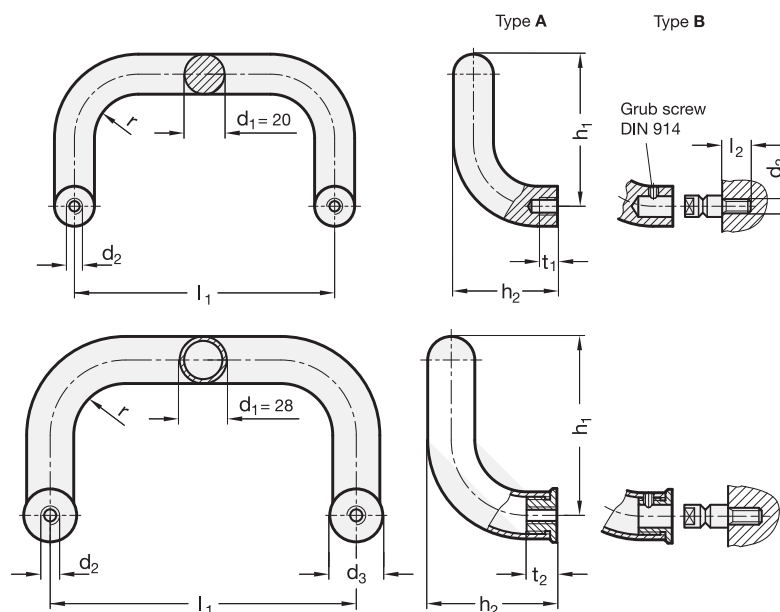
Stainless Steel-Cabinet "U" handles GN 426.6 can be mounted from the back (type A) as well as from the operator's side (type B). In this case the stud is first screwed in from the machine side and then the handle is pushed on and secured with the grub screw.

Both mounting methods allow the mounting of a pair of handles in opposite position. This method could be used e.g. on doors (double handle). In general, a mounting stud with special length l₂ might be required.

The manufacturing process (bending) allows the production of **special lengths** in relatively small quantities.

TECHNICAL INFORMATION

- Stainless Steel characteristics (see page A26)
- Load rating information (see page A35)



* Complete with types of the Cabinet "U" handles (A or B)

A Mounting from the back
B Mounting from the operator's side

GN 426.6

STAINLESS STEEL

Description	d ₁	l ₁ ±0.5	l ₁ ±0.3	d ₂	d ₃	h ₁	h ₂	l ₂	r ≈	t ₁	t ₂	⚖
GN 426.6-20-200-*	20	200	200	M 8	-	105	68	20	22	15	-	1094
GN 426.6-20-300-*	20	300	300	M 8	-	105	68	20	22	15	-	1357
GN 426.6-28-250-*	28	250	250	M 10	32	128	90	20	32	-	17	820
GN 426.6-28-350-*	28	350	350	M 10	32	128	90	20	32	-	17	950
GN 426.6-28-500-*	28	500	500	M 10	32	128	90	20	32	-	17	1160

Weight type A

Folding handles

Steel / Stainless Steel, in both end positions retained

SPECIFICATION

Hexagon nuts ISO 8675-M10x1
Stainless Steel AISI 304

Washers DIN 125
Stainless Steel AISI 304

Version in Steel

Steel
chrome-plated **CR**

Version in Stainless Steel

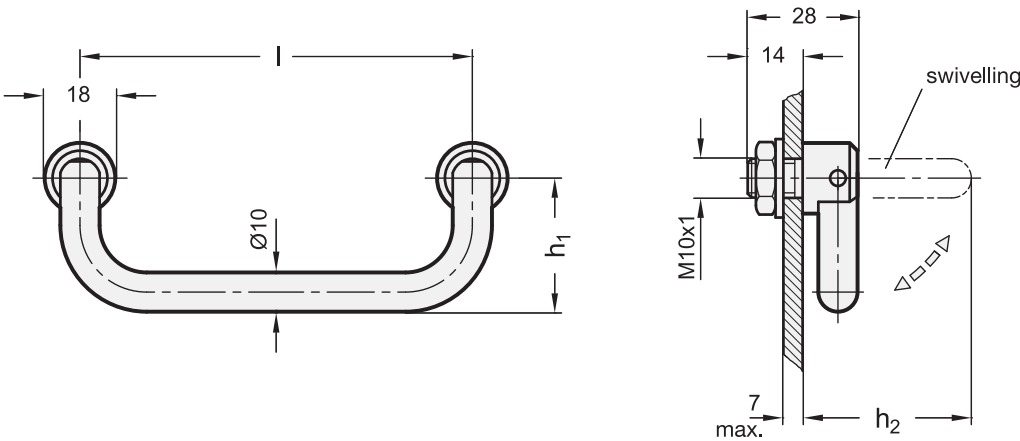
Stainless Steel AISI 303 **NI**
matt shot-blasted

INFORMATION

Folding handles GN 425.2 are used in such applications where minimal protrusion is required.
In both positions the handle is retained by a spring loaded detent.

TECHNICAL INFORMATION

- Stainless Steel characteristics (see page A26)
- Load rating information (see page A35)



GN 425.2

Description	l ±0.25	h1	h2	△
GN 425.2-100-CR	100	34	43	149
GN 425.2-120-CR	120	34	43	161
GN 425.2-180-CR	180	34	43	201

GN 425.2-NI

STAINLESS STEEL

Description	l ±0.25	h1	h2	△
GN 425.2-100-NI	100	34	43	150
GN 425.2-120-NI	120	34	43	162
GN 425.2-180-NI	180	34	43	200

Folding handles

Steel / Stainless Steel, in both end positions retained

SPECIFICATION

Handle

Steel, chrome-plated **CR**

Stainless Steel AISI 303 **NI**

matt shot-blasted

Attachement part

Plastic

Technopolymer (Polyamide PA)

- temperature resistant up to 100 °C

- black, matt

Cover

Plastic

Technopolymer (Polyamide PA)

- temperature resistant up to 100 °C

- black-grey, matt



INFORMATION

Folding handles GN 425.5 are used in places where the handle must not protrude or protrude only a short distance.

The handle is locked in place in the resting position by means of a spring-loaded (cup springs) thrust bolt.

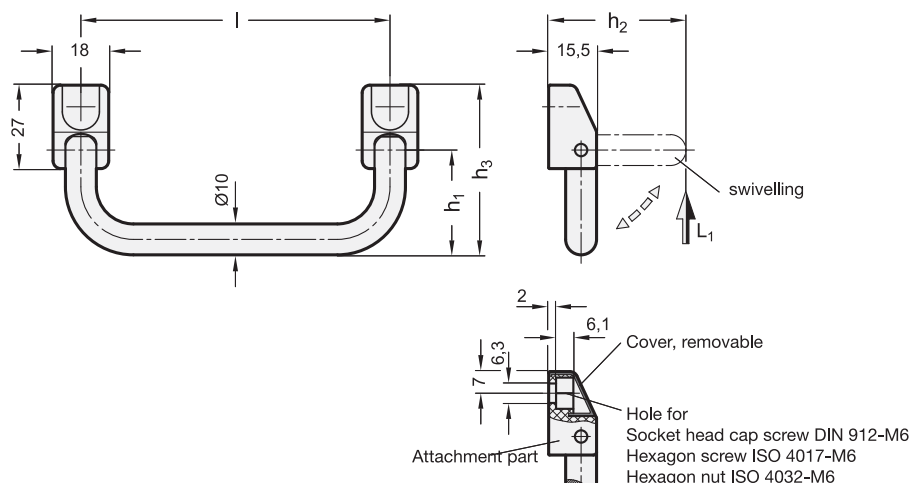
The static load capacity value given in the table is an approximate value which, if exceeded, may result in permanent deformation or fracture of the plastic attachment part. The folding handle GN 425.2 (see page 466) may be used as an alternative.

TECHNICAL INFORMATION

- Stainless Steel characteristics (see page A26)

- Plastic characteristics (see page A2)

- Load rating information (see page A35)



GN 425.5

Description	l ±0.25	h1	h2	h3	L1 Static load in N swivelling	⚖
GN 425.5-100-CR	100	34	44.5	55	500	111
GN 425.5-120-CR	120	34	44.5	55	500	123
GN 425.5-180-CR	180	34	44.5	55	500	163

GN 425.5-NI

STAINLESS STEEL

Description	l ±0.25	h1	h2	h3	L1 Static load in N swivelling	⚖
GN 425.5-100-NI	100	34	44.5	55	500	111
GN 425.5-120-NI	120	34	44.5	55	500	123
GN 425.5-180-NI	180	34	44.5	55	500	162

Folding handles with recessed tray

SPECIFICATION

Types

- Type **A**: with handle locking in the folded up or folded down position
- Type **B**: with spring return of the handle in the folded down position

Tray

Zinc die casting
plastic coated
black, RAL 9005, textured finish **SW**
silver, RAL 9006, textured finish **SR**

Folding handle

Version in Steel

chrome plated **CR**

Version in Stainless Steel AISI 303

matt shot-blasted **NI**

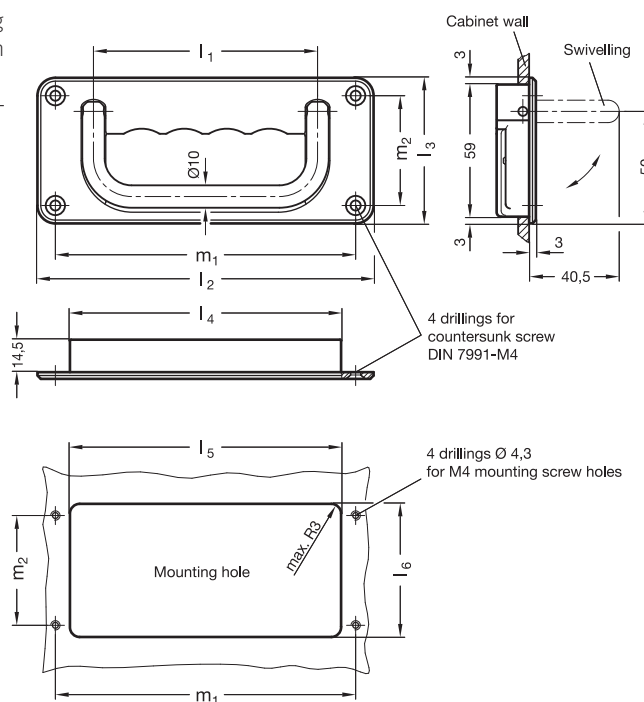


INFORMATION

The folding handles with recessed tray GN 425.8 are used if the handle is to protrude by a maximum of 3 mm when folded down. In type A, the folding handle is held in both end positions by spring-loaded thrust pieces. In type B, the folding handle always spring-returns to the starting position after being released, preventing it from protruding with potentially interfering effect.

TECHNICAL INFORMATION

- Stainless Steel characteristics (see page A26)



* Complete with types of the Folding handles (A or B)

A with handle locking
B with spring return

GN 425.8-CR

Description	l1	l2	l3	l4	l5	l6	m1	m2	⚖
GN 425.8-100-CR-SW-*	100	150	65	121	122	60	134	49	339
GN 425.8-100-CR-SR-*	100	150	65	121	122	60	134	49	339
GN 425.8-120-CR-SW-*	120	170	65	141	142	60	154	49	376
GN 425.8-120-CR-SR-*	120	170	65	141	142	60	154	49	376

GN 425.8-NI

STAINLESS STEEL

Description	l1	l2	l3	l4	l5	l6	m1	m2	⚖
GN 425.8-100-NI-SW-*	100	150	65	121	122	60	134	49	339
GN 425.8-100-NI-SR-*	100	150	65	121	122	60	134	49	339
GN 425.8-120-NI-SW-*	120	170	65	141	142	60	154	49	376
GN 425.8-120-NI-SR-*	120	170	65	141	142	60	154	49	376

Weight type A

Folding handles with recessed tray

with return springs, technopolymer

MATERIAL
Glass-fibre reinforced polyamide based (PA) technopolymer.

STANDARD EXECUTIONS
Pass-through holes for M4 countersunk-head screws (not supplied).
- **MPR**: RAL 9005 black colour or RAL 7040 (C33) grey colour, matte finish.
- **MPR-CLEAN**: white colour similar to RAL 9002, matte finish.

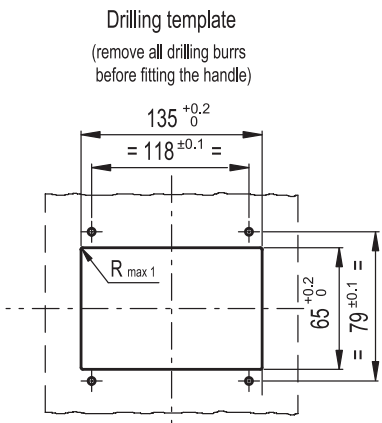
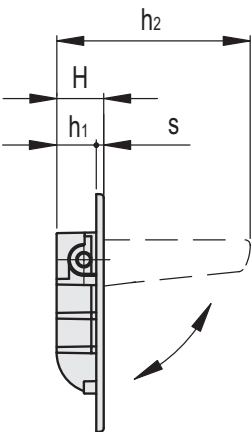
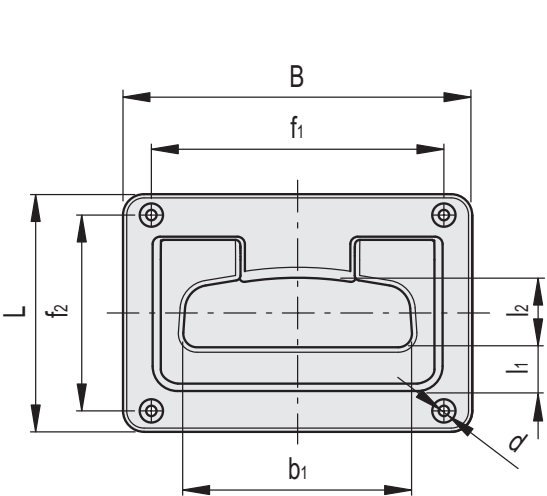
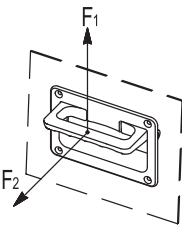
ROTATION PIN AND RETURN SPRINGS
AISI 303 stainless steel pin, AISI 302 stainless steel springs.

TECHNICAL DATA
The lifting resistance (F1) and tensile strength (F2) values reported in the table are the result of permanent deformation by means of the appropriate dynamometric equipment under the test conditions shown in the figure with ambient temperature.

ASSEMBLY INSTRUCTIONS
Drill the handle housing according to the template dimensions.



ELESA Original design



Code	Description	B	f1	f2	L	H	h1	h2	b1	l1	l2	s	d	F1 [N]	F2 [N]	⚖️
43851	MPR.141	141	118	79	96	19	16	63	90	16.5	29	3	4.2	1650	2400	146
43851-C33	MPR.141-C33	141	118	79	96	19	16	63	90	16.5	29	3	4.2	1650	2400	146
151061	MPR.141-CLEAN	141	118	79	96	19	16	63	90	16.5	29	3	4.2	1650	2400	146



Folding handles
with return springs, technopolymer

MATERIAL
Glass-fibre reinforced polyamide based (PA) technopolymer.

STANDARD EXECUTIONS
Pass-through holes for countersunk-head screws with cross mark ISO-7046-1-M6 (not included in the supply).
- **MPE**: RAL 9005 black colour or RAL 7040 (C33) grey colour, matte finish.
- **MPE-CLEAN**: white colour similar to RAL 9002, matte finish.

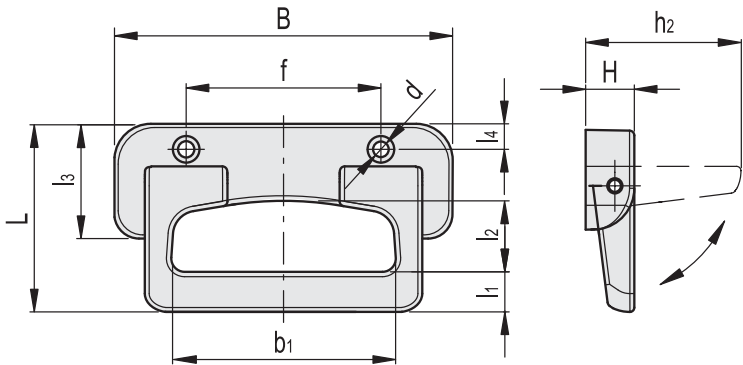
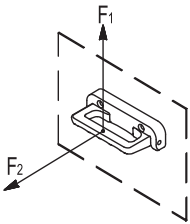
ROTATION PIN AND RETURN SPRINGS
AISI 303 stainless steel pin, AISI 302 stainless steel springs.

TECHNICAL DATA
The lifting resistance (F1) and tensile strength (F2) values reported in the table are the result of permanent deformation by means of the appropriate dynamometric equipment under the test conditions shown in the figure with ambient temperature.

ASSEMBLY INSTRUCTIONS
Drill holes with centre distance 80 +0.1/-0.1 in the sheet.



ELESA Original design



Code	Description	B	f	L	H	h2	b1	l1	l2	l3	l4	d	F1 [N]	F2 [N]	Δ
43801	MPE.135	135	80	74	20	63	90	16.5	29	41	8	6.3	1700	2500	127
43801-C33	MPE.135-C33	135	80	74	20	63	90	16.5	29	41	8	6.3	1700	2500	127
151051	MPE.135-CLEAN	135	80	74	20	63	90	16.5	29	41	8	6.3	1700	2500	127

Ledge handles

Aluminium

SPECIFICATION

Aluminium

plastic coated

black, RAL 9005, textured finish **SW**

silver, RAL 9006, textured finish **SR**

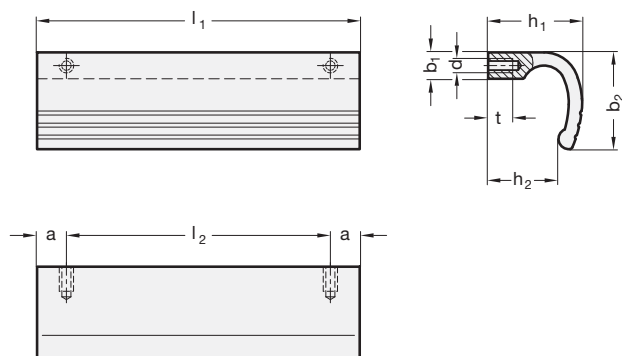
anodized, natural colour **EL**

blank, tumbled **BL**

INFORMATION

A typical field of application is on hinged protective doors on machinery and installations.

Manufactured from aluminum extrusion allows **special lengths** and material sold by the meter to be realised easily.



Stainless Steel-Ledge handle

SPECIFICATION

Stainless Steel precision casting **A4**

- AISI 316

- matte shot-blasted **GS**

INFORMATION

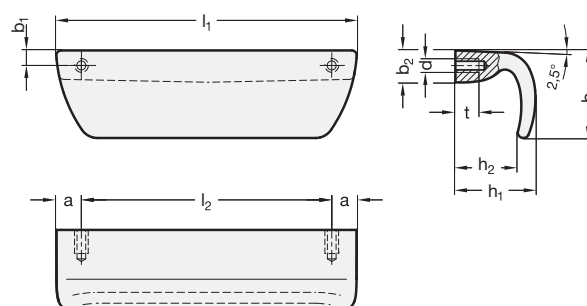
The GN 730.5 Stainless Steel-Ledge handle is used on doors, guards and hatches on machines, as well as on drawers and pull-out units. Due to the A4 material used, the handle is intended especially for use in corrosive environments with aggressive media.

The ledge handle is made in a way that does not allow pooling of fluids, which makes cleaning easier and prevents build up of residue and bacteria.

It can be attached from the back side via the mounting thread. Alternatively, the handles can be welded from the front.

ON REQUEST

- polished or plastic coated



GN 730

Description	l1 ±0.25	d	a	b1	b2	h1	h2	l2 ±0.2 min.	t	⚖
GN 730-110-BL	110	M 6	10	9.5	33	32	24	90	9	94
GN 730-110-EL	110	M 6	10	9.5	33	32	24	90	9	98
GN 730-110-SR	110	M 6	10	9.5	33	32	24	90	9	100
GN 730-110-SW	110	M 6	10	9.5	33	32	24	90	9	100
GN 730-125-BL	125	M 6	10	9.5	33	32	24	105	9	105
GN 730-125-EL	125	M 6	10	9.5	33	32	24	105	9	108
GN 730-125-SR	125	M 6	10	9.5	33	32	24	105	9	110
GN 730-125-SW	125	M 6	10	9.5	33	32	24	105	9	110
GN 730-140-BL	140	M 6	10	9.5	33	32	24	120	9	120
GN 730-140-EL	140	M 6	10	9.5	33	32	24	120	9	120
GN 730-140-SR	140	M 6	10	9.5	33	32	24	120	9	125
GN 730-140-SW	140	M 6	10	9.5	33	32	24	120	9	125

GN 730.5

STAINLESS STEEL

Description	l1	d	a	b1	b2	b3	h1	h2	l2	t min.	⚖
GN 730.5-A4-120-GS	120	M 6	10	6	12.5	35	32	25	100	9	347



Ledge handles

SPECIFICATION

Aluminium

plastic coated

black, RAL 9005, textured finish **SW**

anodized, natural colour **EL**

End caps

Plastic

Technopolymer (Polyamide PA)

black-grey

INFORMATION

Typical applications for ledge handles GN 430 include swivel or sliding doors on protective doors and equipment. They are also suitable for use as drawer handles.

The screw channel for screw sizes M6 (extruded aluminium) allows an optional number of fixing screws in any position within the dimension l_2 .

Special lengths can be manufactured from relatively small quantities upwards.

ON REQUEST

- Special lengths

TECHNICAL INFORMATION

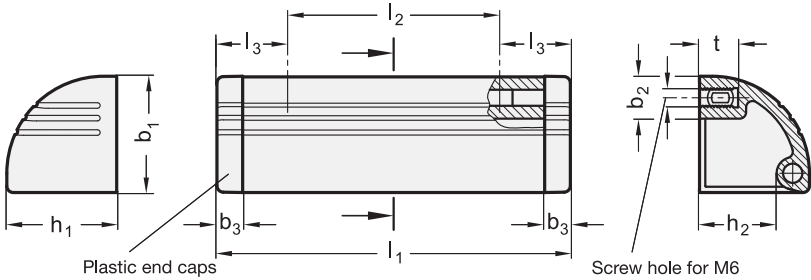
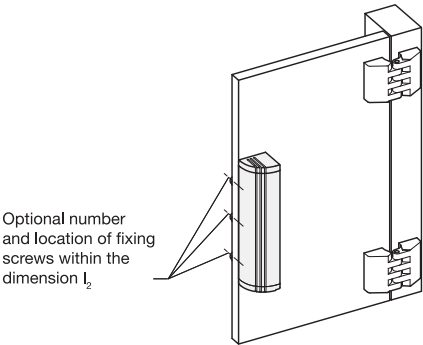
- Plastic characteristics (see page A2)

MOUNTING INFORMATION

- Minimum screw-in-depth: 10 mm
- Max. load (screw): 400 N
- Max. tightening torque: 4 Nm



EXAMPLE OF APPLICATION



* Complete with colour index of the Ledge handles (SW or EL)

SW **EL**
RAL9005 anodized

GN 430

Description	l_1	b_1	b_2	b_3	h_1	h_2	l_2	l_3	t	
GN 430-110-*	110	36	13	8	34	24	66	22	12	86
GN 430-130-*	130	36	13	8	34	24	86	22	12	101
GN 430-150-*	150	36	13	8	34	24	106	22	12	117
GN 430-200-*	200	36	13	8	34	24	156	22	12	159
GN 430-250-*	250	36	13	8	34	24	206	22	12	196
GN 430-300-*	300	36	13	8	34	24	256	22	12	233
GN 430-400-*	400	36	13	8	34	24	356	22	12	314
GN 430-500-*	500	36	13	8	34	24	456	22	12	388

Ledge handles

with lettering block

SPECIFICATION

Aluminium

plastic coated

black, RAL 9005, textured finish **SW**

anodized, natural colour **EL**

Ends

plastic

Technopolymer (Polyamide PA)

black-grey

Lettering block

Insert groove supplied with:

paper strip 200 g/m², width 19.5 mm

bright white, age-resistant

PVC hard film

transparent



INFORMATION

Typical applications for ledge handles with lettering block GN 430.1 include swivel or sliding doors on protective doors and equipment. They are also suitable for use as drawer handles.

The screw channel for screw sizes M6 (extruded aluminium) allows an optional number of fixing screws in any position within the dimension l_2 .

Special lengths can be manufactured from relatively small quantities upwards.

In the design with lettering block, the end cap when delivered is mounted on one side such that the paper / film strip supplied can be lettered and pushed into the groove provided.

The paper strip can also be used as substrate for common lettering tape in widths below 18 mm.

ON REQUEST

- Special lengths
- single paper strips / film strips

TECHNICAL INFORMATION

- Plastic characteristics (see page A2)

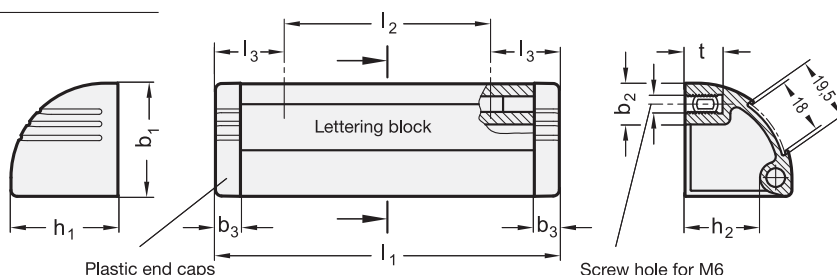
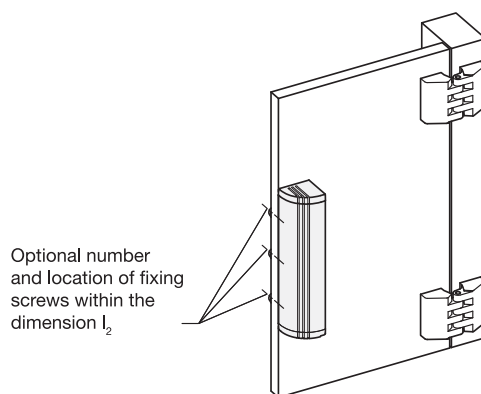
MOUNTING INFORMATION

- Minimum screw-in-depth: 10 mm
- Max. load (screw): 400 N
- Max. tightening torque: 4 Nm

* Complete with colour index of the Ledge handles (SW or EL)

SW **EL**
RAL9005 anodized

EXAMPLE OF APPLICATION



GN 430.1

Description	l1	b1	b2	b3	h1	h2	l2	l3	t	⚖
GN 430.1-110-*	110	36	13	8	34	24	66	22	12	87
GN 430.1-130-*	130	36	13	8	34	24	86	22	12	101
GN 430.1-150-*	150	36	13	8	34	24	106	22	12	140
GN 430.1-200-*	200	36	13	8	34	24	156	22	12	154
GN 430.1-250-*	250	36	13	8	34	24	206	22	12	195
GN 430.1-300-*	300	36	13	8	34	24	256	22	12	234
GN 430.1-400-*	400	36	13	8	34	24	356	22	12	320
GN 430.1-500-*	500	36	13	8	34	24	456	22	12	400

Guard safety handles

Technopolymer

MATERIAL

Polyamide based (PA) technopolymer, black colour, matte finish.

SCREW COVER

Technopolymer in standard colours: black, orange, grey, yellow, light-blue, red, matte finish, snap-in assembly, removable by a screwdriver.

STANDARD EXECUTION

Pass-through holes for cylindrical-head screws with hexagon socket, hexagonal-head screws or standard lock nuts.

FEATURES AND APPLICATIONS

M.990 handles have been especially designed to fit machine guards or automation systems with double-leaf door. The special closed design of the handle represents a safety element for the operator's fingers. Moreover, the coloured cover improves the visibility of the handle and offers the possibility of product customisation.

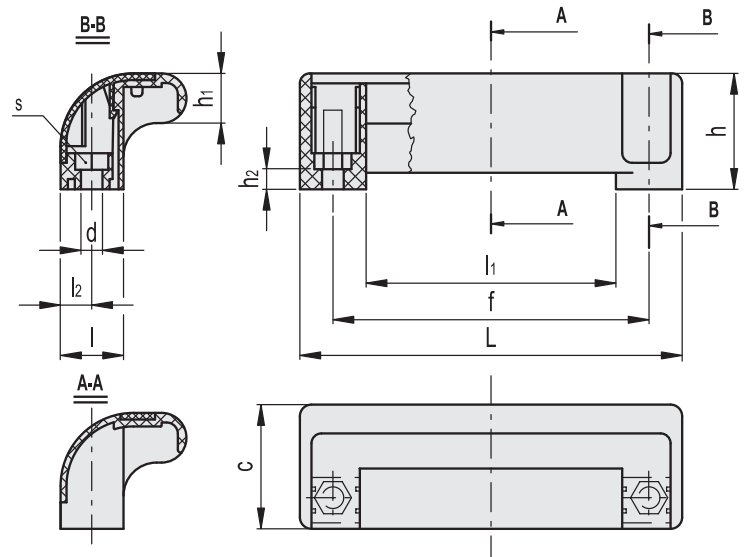
TECHNICAL DATA

Tensile stress: F1 value reported in the table is the result of breaking tests carried out with an appropriate dynamometric equipment under the test conditions shown in the figure with ambient temperature.

Maximum tightening torque for screw assembly 3 Nm.



FM design



C9 RAL9005
 C2 RAL2004
 C3 RAL7035
 C4 RAL1021
 C5 RAL5024
 C6 RAL3000

M.990

Code	Description	L	f±0.5	d	s	h	h1	h2	c	l	l1	l2	F1 [N]	⚖
138511	M.990/115 EH-6-C9	115	93.5	6.5	10	35	15	6	37.5	19	75.5	9.5	900	33
138512	M.990/115 EH-6-C2	115	93.5	6.5	10	35	15	6	37.5	19	75.5	9.5	900	33
138513	M.990/115 EH-6-C3	115	93.5	6.5	10	35	15	6	37.5	19	75.5	9.5	900	33
138514	M.990/115 EH-6-C4	115	93.5	6.5	10	35	15	6	37.5	19	75.5	9.5	900	33
138515	M.990/115 EH-6-C5	115	93.5	6.5	10	35	15	6	37.5	19	75.5	9.5	900	33
138516	M.990/115 EH-6-C6	115	93.5	6.5	10	35	15	6	37.5	19	75.5	9.5	900	33

Guard safety handles

Technopolymer

MATERIAL

Glass-fibre reinforced polyamide based (PA) technopolymer, black colour, matte finish.

STANDARD EXECUTION

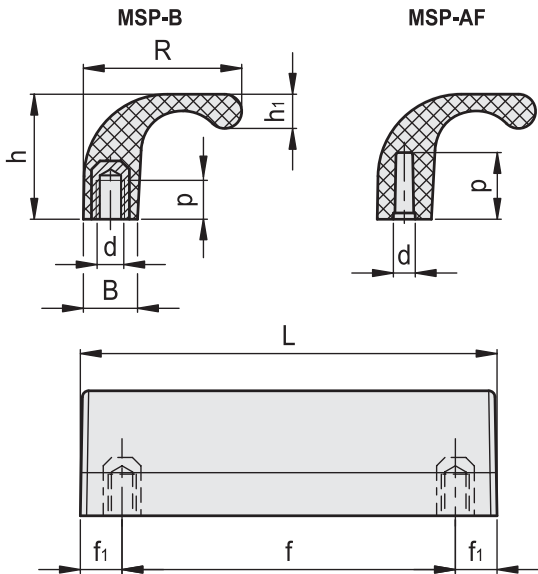
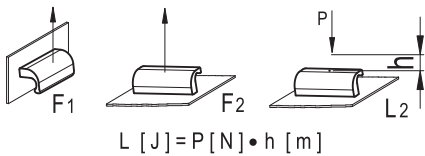
- **MSP-B**: brass boss, threaded blind hole. Fitting by means of no. 2 M6 screws, not included in the supply.
- **MSP-AF**: blind holes for fitting by means of no. 2 self-tapping screws for plastic materials Ø5 (UNI ISO 7049), not included in the supply.

TECHNICAL DATA

Tensile stress and impact strength: F1, F2 and L2 values reported in the table are the result of breaking tests, carried out with the appropriate dynamometric equipment, under the test conditions shown in the figure with ambient temperature.



ELESA Original design



Code	Description	L	f±0.5	d	f1	h	h1	B	R	p	F1 [N]	F2 [N]	L2 [J]	⚖
43961	MSP.100-B M6	100	80	M6	10	30	8.7	13	38	12	3000	1900	10	54
43965	MSP.100-AF 4.8	100	80	4.5	10	30	8.7	13	38	14	700	900	7	47

Guard safety handles

Technopolymer

MATERIAL

Glass-fibre reinforced polyamide based (PA) technopolymer, grey-black colour, matte finish.

SCREW COVER

Technopolymer in Ergostyle colours, glossy finish. Supplied with the handle, press-fit assembly, removable by a screwdriver.

Available also as accessories sold separately (see table ECO.).

Code	Description
29864-*	ECO.S4-*

* Complete with colour index (C1, ..., C6).

STANDARD EXECUTIONS

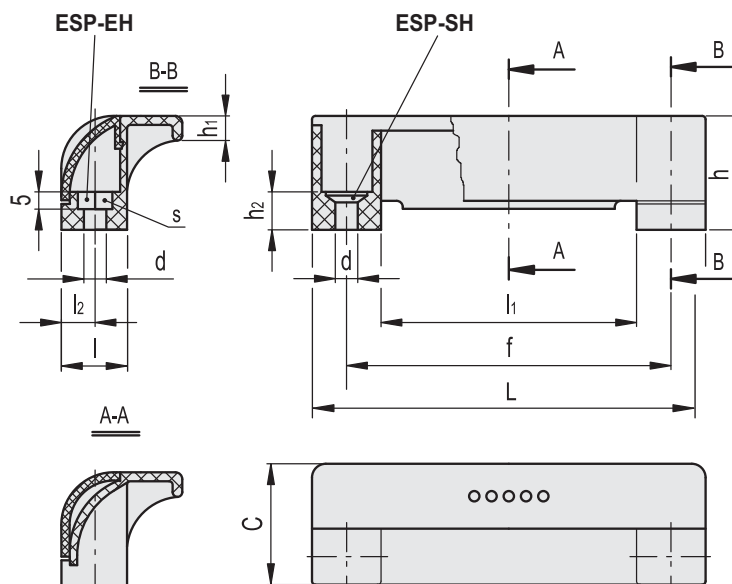
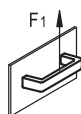
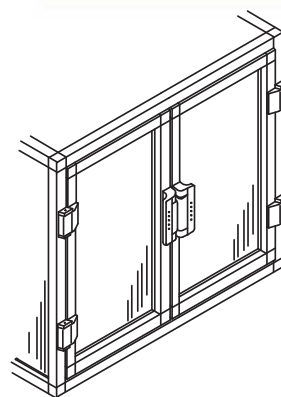
- **ESP-EH:** pass-through holes for cylindrical-head screws with hexagon socket, hexagonal-head screws or standard lock nuts.
- **ESP-SH:** pass-through holes for countersunk head screws.

FEATURES AND APPLICATIONS

ESP handles have been especially designed to fit machine guards or automation systems with double-leaf door. The special closed design of the handle represents a safety element for the operator's fingers. Moreover, the coloured cover improves the visibility of the handle and offers the possibility of product customisation.

TECHNICAL DATA

Tensile stress: F1 value reported in the table is the result of breaking tests carried out with an appropriate dynamometric equipment under the test conditions shown in the figure with ambient temperature.



* Complete with colour index, example: 265111-C1 ESP.110-EH-C1

C1	C2	C3	C4	C5	C6
RAL7021	RAL2004	RAL7035	RAL1021	RAL5024	RAL3000

Code	Description	L	f±0.5	d	s	h	h1	h2	C	I	l1	l2	F1 [N]	Δ
265111-*	ESP.110-EH-*	114	93.5	6.5	10	33	7	11	35	19	74	9.5	900	33
265151-*	ESP.110-SH-*	114	93.5	6.5	-	33	7	11	35	19	74	9.5	900	33

Guard wing handles

Technopolymer

MATERIAL

Glass-fibre reinforced polyamide based (PA) technopolymer, grey-black colour, matte finish.

SCREW-COVERS

Technopolymer in Ergostyle colours, glossy finish. Supplied with the handle, press-fit assembly, removable by a screwdriver. Available also as accessories sold separately (see table ECA.).

Code	Description
29865-*	ECA.P5-*

* Complete with colour index (C1, ..., C6).

STANDARD EXECUTIONS

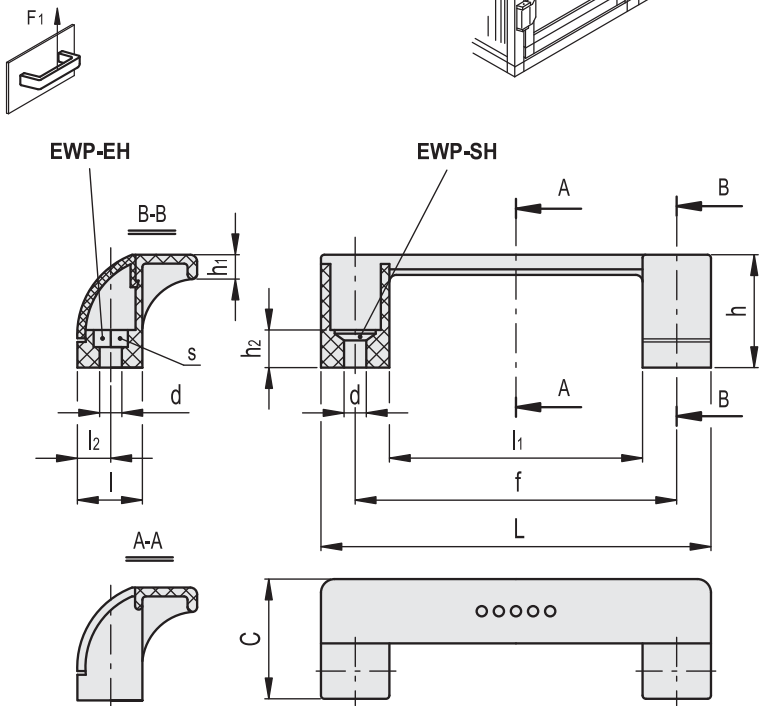
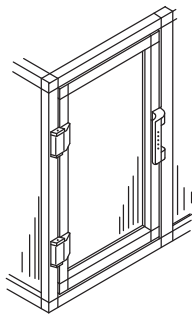
- **EWP-EH:** pass-through holes for cylindrical-head screws with hexagon socket, hexagonal-head screws or standard lock nuts.
- **EWP-SH:** pass-through holes for countersunk head screws.

FEATURES AND APPLICATIONS

EWP. handles have been especially designed to fit machine guards or automation systems with single-leaf door. The coloured caps improve the visibility of the handle and offer the possibility of product customisation.

TECHNICAL DATA

Tensile stress: F1 value reported in the table is the result of breaking tests carried out with an appropriate dynamometric equipment under the test conditions shown in the figure with ambient temperature.



* Complete with colour index, example: 265211-C2 EWP.110-EH-C2

C1	C2	C3	C4	C5	C6
RAL7021	RAL2004	RAL7035	RAL1021	RAL5024	RAL3000

Code	Description	L	f±0.5	d	s	h	h1	h2	C	l	l1	l2	F1 [N]	⚖
265211-*	EWP.110-EH-*	114	93.5	6.5	10	33	7	11	35	19	74	9.5	900	26
265251-*	EWP.110-SH-*	114	93.5	6.5	-	33	7	11	35	19	74	9.5	900	26

Flush pull handles

for snap-in assembly, technopolymer

STANDARD EXECUTIONS

Snap-in assembly (see Assembly Instructions).

- PR-PF:** glass-fibre reinforced polyamide based (PA) technopolymer, grey-black, orange and light grey colours, matte finish.
- PR-PF-CLEAN:** glass-fibre reinforced polyamide based (PA) technopolymer white colour similar to RAL 9002, matte finish.

ERGONOMY AND DESIGN

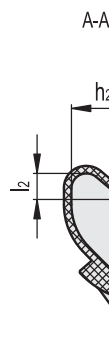
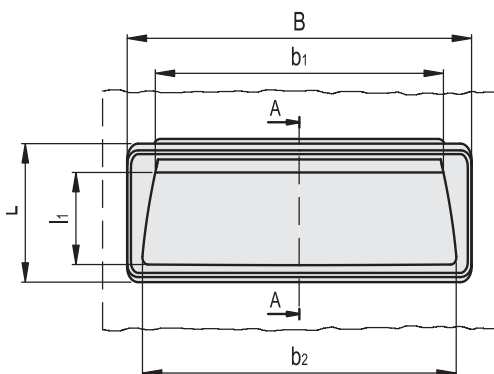
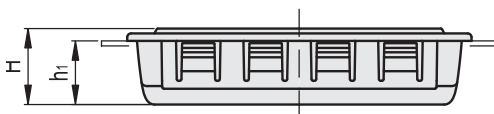
A modern design thanks to the compact shape. The internal profile of the cavity offers a safe, comfortable and ergonomic grip. PR-PF-CLEAN in white colour is particularly suitable for applications on medical and hospital equipment and for food processing machines.

TECHNICAL DATA

The lifting (F1) and pull out (F2) resistance values reported in the table are the result of the tests carried out in laboratory with handles assembled on strengthened metal sheet panels with thickness = 1.5 mm (strengthened for test purposes).

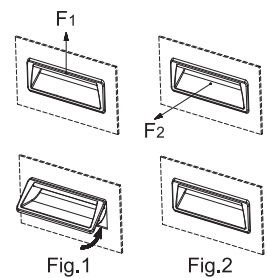
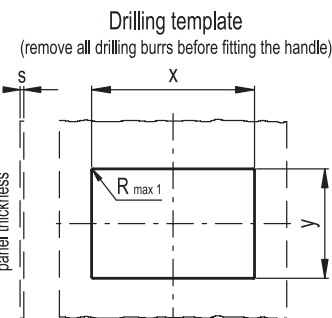
ASSEMBLY INSTRUCTIONS

- Drill the handle housing according to the template dimensions reported in the table.
- Remove all drilling burrs before fitting the handle.
- Fit the upper part of the handle into the housing (Fig. 1).
- Press onto the lower part until the handle is completely snapped in (Fig. 2).



	PR92-PF		PR137-PF	
	B	L	B	L
0.7+1	87.5 ^{+0.2}	30.5 ^{+0.1}	132 ^{+0.2}	30.5 ^{+0.1}
1+1.5	87.5 ^{+0.2}	30.7 ^{+0.1}	132 ^{+0.2}	30.7 ^{+0.1}
1.5+2	87.5 ^{+0.2}	31.7 ^{+0.1}	132 ^{+0.2}	31.7 ^{+0.1}
2+2.2	87.5 ^{+0.2}	31.7 ^{+0.1}	132 ^{+0.2}	31.7 ^{+0.1}

ELESA Original design



C1 RAL7021 C2 RAL2004 C3 RAL7035

PR-PF

Code	Description	B	L	H	h1	h2	b1	b2	l1	l2	F1 [N]	F2 [N]	⚖
51955-C1	PR.92-PF-C1	92	37	19	17	17	76	83	25	7	1800	500	19
51955-C2	PR.92-PF-C2	92	37	19	17	17	76	83	25	7	1800	500	19
51955-C3	PR.92-PF-C3	92	37	19	17	17	76	83	25	7	1800	500	19
51958-C1	PR.137-PF-C1	137	37	19	17	17	122	128	25	7	1800	500	28
51958-C2	PR.137-PF-C2	137	37	19	17	17	122	128	25	7	1800	500	28
51958-C3	PR.137-PF-C3	137	37	19	17	17	122	128	25	7	1800	500	28

PR-PF-CLEAN

Code	Description	B	L	H	h1	h2	b1	b2	l1	l2	F1 [N]	F2 [N]	⚖
151081	PR.92-PF-CLEAN	92	37	19	17	17	76	83	25	7	1800	500	19
151086	PR.137-PF-CLEAN	137	37	19	17	17	122	128	25	7	1800	500	28

Flush pull handles

for snap-in assembly, technopolymer certified

self-extinguishing

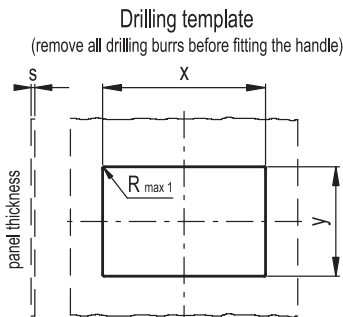
MATERIAL
Glass-fibre reinforced polyamide based (PA) technopolymer certified self-extinguishing UL-94 V0, grey-black colour, matte finish.

STANDARD EXECUTION
Snap-in assembly (see Assembly Instructions).

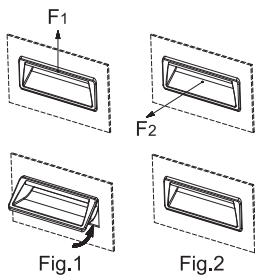
ERGONOMY AND DESIGN
A modern design thanks to the compact shape. The internal profile of the cavity offers a safe, comfortable and ergonomic grip.

TECHNICAL DATA
The "V0" certification in accordance with UL-94 V (Underwriters Laboratories) (see Technical Data on page A5) indicates that on a plastic test sample with specific shape and dimensions, in the vertical position, the flame is extinguished within 10 seconds, without generating any incandescent drops.
The lifting (F1) and pull out (F2) resistance values reported in the table are the result of the tests carried out in laboratory with handles assembled on strengthened metal sheet panels with thickness = 1.5 mm (strengthened for test purposes).

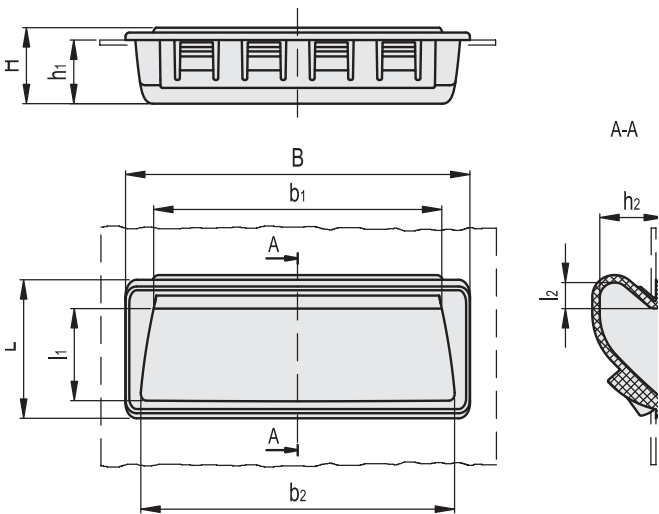
- ASSEMBLY INSTRUCTIONS**
1. Drill the handle housing according to the template dimensions reported in the table.
 2. Remove all drilling burrs before fitting the handle.
 3. Fit the upper part of the handle into the housing (Fig. 1).
 4. Press onto the lower part until the handle is completely snapped in (Fig. 2).



	PR.92-PF-AE-V0		PR.137-PF-AE-V0	
Ø	X	Y	X	Y
Ø 7+1	87.5 +0.8	30.7 +0.1	132 +0.8	30.8 +0.1
1+1.5	87.8 +0.8	30.9 +0.1	132 +0.8	30.8 +0.1
1.5+2	87.5 +0.8	31.9 +0.1	132 +0.8	31.8 +0.1
2+2.2	87.5 +0.8	31.9 +0.1	132 +0.8	31.8 +0.1



ELESA Original design



Code	Description	B	L	H	h1	h2	b1	b2	l1	l2	F1 [N]	F2 [N]	Δ
150701-C1	PR.92-PF-AE-V0-C1	92	37	19	17	17	76	83	25	7	1800	500	19
150711-C1	PR.137-PF-AE-V0-C1	137	37	19	17	17	122	128	25	7	1800	500	28

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

4

U-Handles

Flush pull handles

for snap-in assembly, technopolymer

STANDARD EXECUTIONS

Snap-in assembly (see Assembly Instructions).

- **EPR-PF:** glass-fibre reinforced polyamide based (PA) technopolymer, grey-black colour, matte finish.
- **EPR-PF-CLEAN:** glass-fibre reinforced polyamide based (PA) technopolymer, white colour similar to RAL 9002, matte finish.

ERGONOMY AND DESIGN

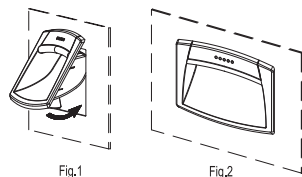
A modern design thanks to the compact shape. The internal profile of the cavity offers a safe, comfortable and ergonomic grip. EPR-PF CLEAN in white colour is particularly suitable for application medical and hospital equipment and for food processing machines.

TECHNICAL DATA

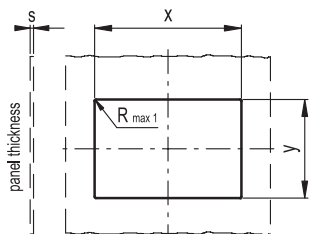
The lifting (F1) and pull out (F2) resistance values reported in the table are the result of the tests carried out in laboratory with handles assembled on strengthened metal sheet panels with thickness = 1.5 mm (strengthened for test purposes).

ASSEMBLY INSTRUCTIONS

1. Drill the handle housing according to the template dimensions reported in the table.
2. Remove all drilling burrs before fitting the handle.
3. Fit the upper part of the handle into the housing (Fig. 1).
4. Press onto the lower part until the handle is completely snapped in (Fig. 2).



Drilling template
(remove all drilling burrs before fitting the handle)



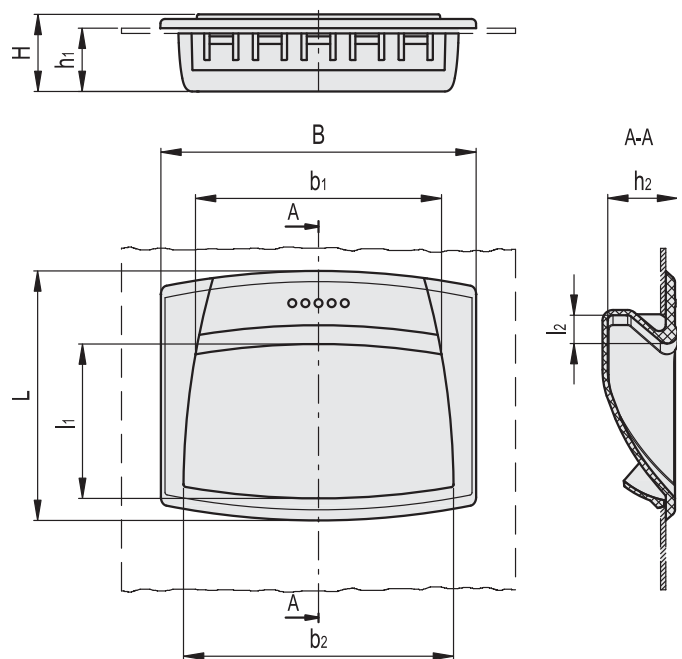
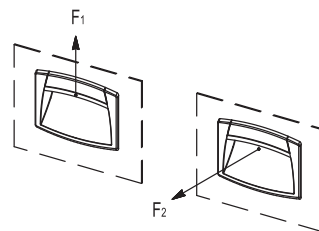
S	EPR.90-PF		EPR.110-PF		EPR.120-PF	
	X	y	X	y	X	y
0.7	85 ^{+0.2}	34.9 ^{±0.1}	100 ^{±0.2}	49.7 ^{±0.1}	107.5 ^{+0.2}	70.5 ^{±0.1}
1	85 ^{+0.2}	35.1 ^{±0.1}	100 ^{±0.2}	50 ^{±0.1}	107.5 ^{+0.2}	70.8 ^{±0.1}
1.5	85 ^{+0.2}	36.1 ^{±0.1}	100 ^{±0.2}	50.4 ^{±0.1}	107.5 ^{+0.2}	71.2 ^{±0.1}
2	85 ^{+0.2}	36.1 ^{±0.1}	100 ^{±0.2}	50.7 ^{±0.1}	107.5 ^{+0.2}	71.5 ^{±0.1}
2.2	85 ^{+0.2}	36.1 ^{±0.1}	100 ^{±0.2}	50.7 ^{±0.1}	107.5 ^{+0.2}	71.5 ^{±0.1}

EPR-PF

Code	Description	B	L	H	h1	h2	b1	b2	l1	l2	F1 [N]	F2 [N]	⚖
261051-C1	EPR.90-PF-C1	90	50	19	17	17.5	76	79	28	7	1800	500	20
261081-C1	EPR.110-PF-C1	109	73	24	20	21.5	91	96	42	9	1300	400	45
261111-C1	EPR.120-PF-C1	120	95	28.5	24	26.5	94	103	58	11	1000	250	58

EPR-PF-CLEAN

Code	Description	B	L	H	h1	h2	b1	b2	l1	l2	F1 [N]	F2 [N]	⚖
151001	EPR.90-PF-CLEAN	90	50	19	17	17.5	76	79	28	7	1800	500	20
151005	EPR.110-PF-CLEAN	109	73	24	20	21.5	91	96	42	9	1300	400	45
151011	EPR.120-PF-CLEAN	120	95	28.5	24	26.5	94	103	58	11	1000	250	58



Flush pull handles

for snap-in assembly,

technopolymer certified self-extinguishing

MATERIAL

Glass-fibre reinforced polyamide based (PA) technopolymer certified self-extinguishing UL-94 V0, grey-black colour, matte finish.

STANDARD EXECUTION

Snap-in assembly (see Assembly Instructions).

ERGONOMY AND DESIGN

A modern design thanks to the compact shape. The internal profile of the cavity offers a safe, comfortable and ergonomic grip.

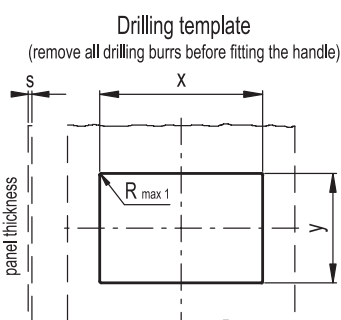
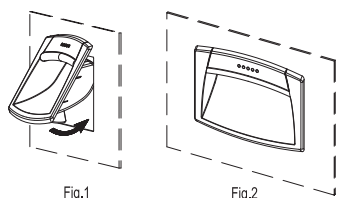
TECHNICAL DATA

The "V0" certification in accordance with UL-94 V (Underwriters Laboratories) (see Technical Data on page A5) indicates that on a plastic test sample with specific shape and dimensions, in the vertical position, the flame is extinguished within 10 seconds, without generating any incandescent drops.

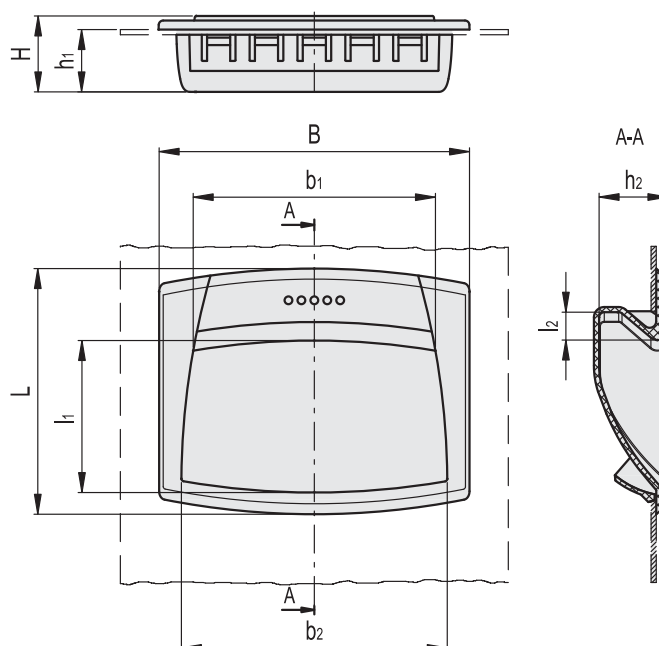
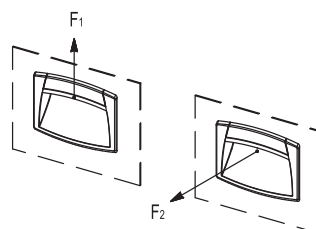
The lifting (F1) and pull out (F2) resistance values reported in the table are the result of the tests carried out in laboratory with handles assembled on strengthened metal sheet panels with thickness = 1.5 mm (strengthened for test purposes).

ASSEMBLY INSTRUCTIONS

1. Drill the handle housing according to the template dimensions reported in the table.
2. Remove all drilling burrs before fitting the handle.
3. Fit the upper part of the handle into the housing (Fig. 1).
4. Press onto the lower part until the handle is completely snapped in (Fig. 2).



s	EPR.90-PF AE-V0		EPR.110-PF AE-V0		EPR.120-PF AE-V0	
	X	y	X	y	X	y
0.7	85 ^{+0.2}	35.2 ^{±0.1}	100.5 ^{+0.2} ₀	50.1 ^{±0.1}	107.5 ^{+0.2}	70.6 ^{±0.1}
1	85 ^{+0.2}	35.3 ^{±0.1}	100.5 ^{+0.2} ₀	50.4 ^{±0.1}	107.5 ^{+0.2}	70.9 ^{±0.1}
1.5	85 ^{+0.2}	36.3 ^{±0.1}	100.5 ^{+0.2} ₀	50.8 ^{±0.1}	107.5 ^{+0.2}	71.3 ^{±0.1}
2	85 ^{+0.2}	36.3 ^{±0.1}	100.5 ^{+0.2} ₀	51.1 ^{±0.1}	107.5 ^{+0.2}	71.6 ^{±0.1}
2.2	85 ^{+0.2}	36.3 ^{±0.1}	100.5 ^{+0.2} ₀	51.1 ^{±0.1}	107.5 ^{+0.2}	71.6 ^{±0.1}



Code	Description	B	L	H	h1	h2	b1	b2	l1	l2	F1 [N]	F2 [N]	Δ
150611-C1	EPR.90-PF-AE-V0-C1	90	50	19	17	17.5	76	79	28	7	1800	500	20
150631-C1	EPR.110-PF-AE-V0-C1	109	73	24	20	21.5	91	96	42	9	1300	400	45
150651-C1	EPR.120-PF-AE-V0-C1	120	95	28.5	24	26.5	94	103	58	11	1000	250	58

Flush pull handles

for screw mounting, technopolymer

MATERIAL

Glass-fibre reinforced polyamide based (PA) technopolymer, grey-black colour, matte finish.

COVER

Technopolymer in Ergostyle colours, glossy finish, removable by a screwdriver by playing upon the central part (see drawing). Available also as accessory sold separately (see table ECO.).

Code	Description	Cover for
29851-*	ECO.R1-*	EPR.110
29852-*	ECO.R2-*	EPR.120

* Complete with colour index (C1, ..., C6).

STANDARD EXECUTIONS

Pass-through holes for AISI 304 stainless steel self-tapping screws according to ISO 7050 Ø 2.9x9.5 mm, supplied (see Assembly instructions).

- **EPR-SH:** open cavity handle without flap.
- **EPR-F-SH:** handle with grey-black technopolymer flap, matte finish, stainless steel return spring.

ERGONOMY AND DESIGN

A modern design thanks to the compact shape. The internal profile of the cavity offers a safe, comfortable and ergonomic grip. The coloured screw cover improves the visibility of the handle and offers the possibility of product customization.

The flap is a unique feature for closing completely the recess and opens by simply putting the hand into.

TECHNICAL DATA

The lifting (F1) and pull out (F2) resistance values reported in the table are the result of the tests carried out in laboratory with handles assembled on strengthened metal sheet panels with thickness = 1.5 mm (strengthened for test purposes).

DRILLING TEMPLATE

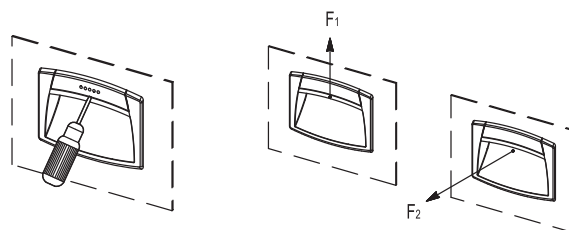
On panels with thickness (s) exceeding 2.5 mm, we recommend you to fit the handle following one of the here-under reported ways:

- by two self-tapping screws in the bores "d";
- by two countersunk head screws M3x6 after tapping the bores in the panel;
- by two countersunk head screws M3x10 with nuts, after drilling blind holes Ø 3.2 mm.

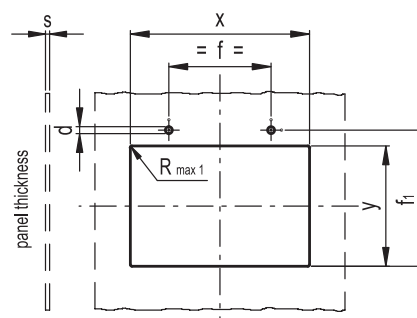


ERGOSTYLE®

product design award 2007



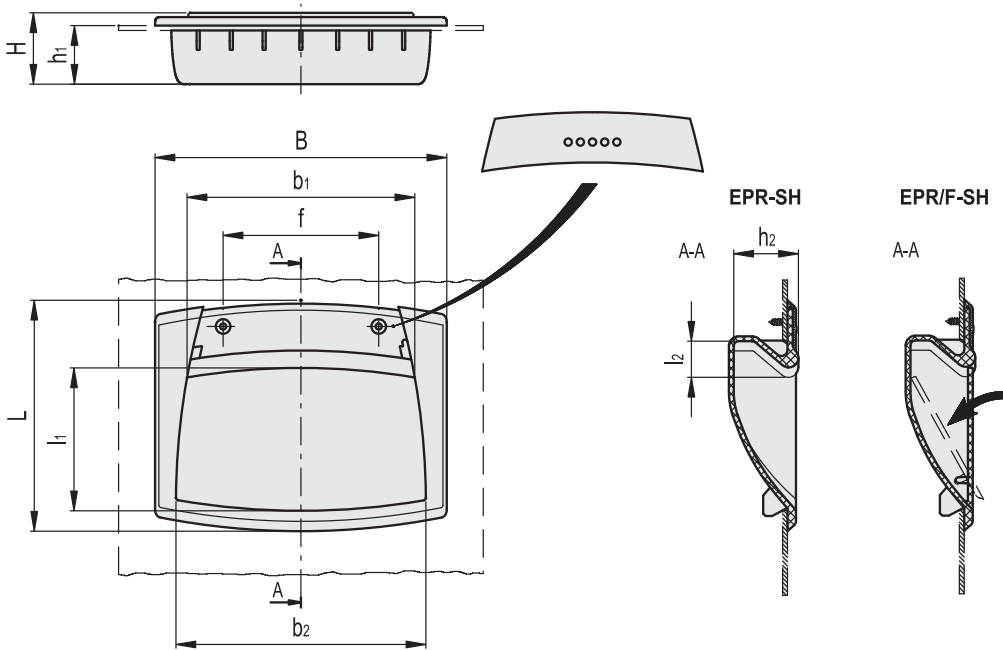
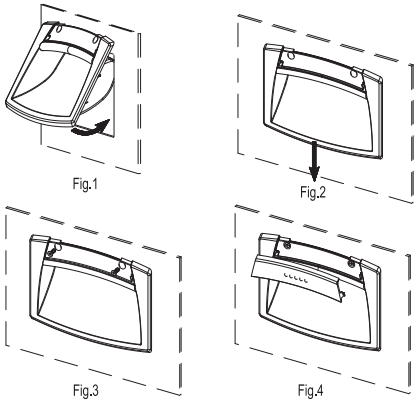
Drilling template
(remove all drilling burrs before fitting the handle)



EPR.110-SH					EPR.120-SH				
s	x	y	f	f1	x	y	f	f1	d
1÷1.2	100 ^{+0.2}	52 ^{+0.5}	64 ^{±0.1}	55.5 ^{±0.1}	107.5 ^{+0.2}	73 ^{+0.5}	64 ^{±0.1}	76.8 ^{±0.1}	2.5 ^{±0.02}
>1.2÷1.5	100 ^{+0.2}	52.2 ^{+0.5}	64 ^{±0.1}	55.7 ^{±0.1}	107.5 ^{+0.2}	73 ^{+0.5}	64 ^{±0.1}	77 ^{±0.1}	2.55 ^{±0.02}
>1.5÷2	100 ^{+0.2}	52.5 ^{+0.5}	64 ^{±0.1}	56 ^{±0.1}	107.5 ^{+0.2}	73 ^{+0.5}	64 ^{±0.1}	77.2 ^{±0.1}	2.6 ^{±0.02}
>2÷2.5	100 ^{+0.2}	52.7 ^{+0.5}	64 ^{±0.1}	56.2 ^{±0.1}	107.5 ^{+0.2}	74 ^{+0.5}	64 ^{±0.1}	77.5 ^{±0.1}	2.65 ^{±0.02}
>2.5÷3	100 ^{+0.2}	53 ^{+0.5}	64 ^{±0.1}	56.5 ^{±0.1}	107.5 ^{+0.2}	74 ^{+0.5}	64 ^{±0.1}	77.8 ^{±0.1}	2.65 ^{±0.02}
>3÷3.5	100 ^{+0.2}	53.2 ^{+0.5}	64 ^{±0.1}	56.7 ^{±0.1}	107.5 ^{+0.2}	74 ^{+0.5}	64 ^{±0.1}	78.1 ^{±0.1}	2.7 ^{±0.02}
>3.5÷4	100 ^{+0.2}	53.4 ^{+0.5}	64 ^{±0.1}	56.9 ^{±0.1}	107.5 ^{+0.2}	75 ^{+0.5}	64 ^{±0.1}	78.4 ^{±0.1}	2.7 ^{±0.02}
>4÷4.5	100 ^{+0.2}	53.6 ^{+0.5}	64 ^{±0.1}	57.1 ^{±0.1}	107.5 ^{+0.2}	75 ^{+0.5}	64 ^{±0.1}	78.7 ^{±0.1}	2.7 ^{±0.02}
>4.5÷5	100 ^{+0.2}	53.8 ^{+0.5}	64 ^{±0.1}	57.3 ^{±0.1}	107.5 ^{+0.2}	75 ^{+0.5}	64 ^{±0.1}	79 ^{±0.1}	2.7 ^{±0.02}

ASSEMBLY INSTRUCTIONS

1. Drill the handle housing according to the template dimensions reported in the table.
2. Remove all drilling burrs before fitting the handle.
3. Fit the upper part of the handle into the housing (Fig. 1) and press onto the lower part until firmly in place.
4. Gently push the handle downward (Fig. 2).
5. Fit the two self-tapping screws (Fig. 3).
6. Assemble the screw cover by pressing on the lateral sides first and finally on the central part (Fig. 4).



* Complete with colour index, example: 261091-C2 EPR.110-SH-C2

C1 RAL7021 C2 RAL2004 C3 RAL7035 C4 RAL1021 C5 RAL5024 C6 RAL3000

Code	Description	B	f	L	H	h1	h2	b1	b2	l1	l2	F1 [N]	F2 [N]	Δ
261091-*	EPR.110-SH-*	109	64	73	24	20	21.5	90	96	42	9	1300	500	39
261121-*	EPR.120-SH-*	120	64	95	28.5	24	26.5	94	103	58	11	1200	400	55
261131-*	EPR.120/F-SH-*	120	64	95	28.5	24	26.5	94	103	-	11	1200	400	70



Bi-directional flush pull handles

for snap-in assembly, technopolymer

STANDARD EXECUTIONS

- **ERB-PF:** glass-fibre reinforced polyamide based (PA) technopolymer grey-black colour, matte finish.
- **ERB-PF-CLEAN:** glass-fibre reinforced polyamide based (PA) technopolymer white colour similar to RAL 9002, matte finish.

FEATURES AND APPLICATIONS

ERB-PF bi-directional flush pull handles are suitable to open and close sliding doors. The ergonomics of the cavity offers a safe and comfortable grip.

ERB-CLEAN in white colour is suitable for applications on medical and hospital equipment and food processing machines.

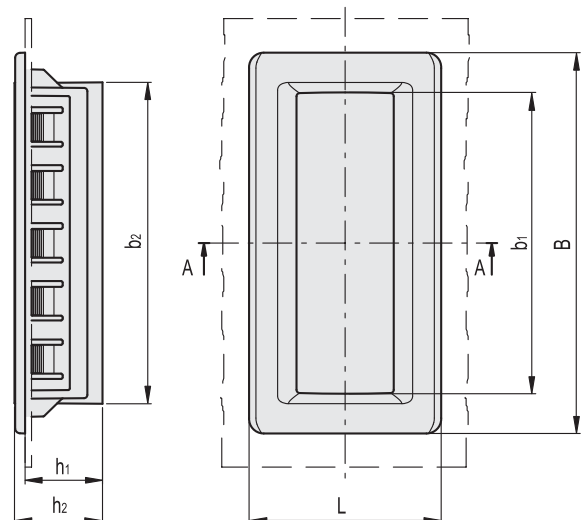
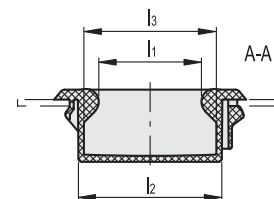
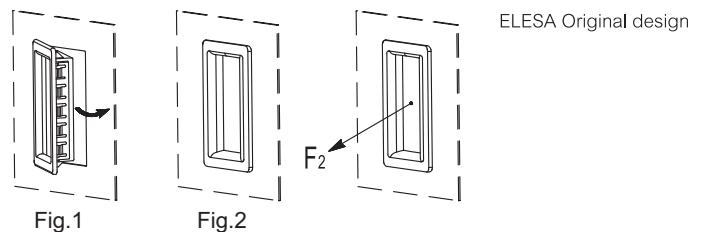
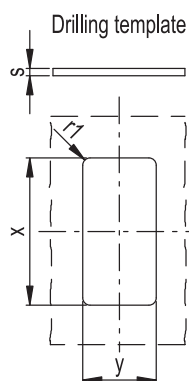
TECHNICAL DATA

The pull out resistance values (F2) reported in the table are the result of laboratory tests carried out with the handle assembled on a panel with a thickness of 1.5 mm, stiffened for testing purposes.

ASSEMBLY INSTRUCTIONS

1. Drill the handle housing according to the template dimensions reported in the table.
2. Remove all drilling burrs before fitting the handle.
3. Fit the side of the handle with fixed toothings into the housing (Fig. 1).
4. Press onto the opposite side (elastic toothings) until the handle is completely snapped in (Fig. 2).

S	ERB-PF ERB-PF-CLEAN	
	X	Y
0,7 - 1	105,3 +0,2	51,5 + 0,2
1 - 1,5	105,3 +0,2	51,7 + 0,2
1,5 - 2,2	105,3 +0,2	52,0 + 0,2



ERB-PF

Code	Description	B	L	h1	h2	b1	b2	l1	l2	l3	F2 [N]	⚖
261401-C1	ERB.115-PF-C1	115	58	19	22	91	94	31	43.5	40	600	42

ERB-PF-CLEAN

Code	Description	B	L	h1	h2	b1	b2	l1	l2	l3	F2 [N]	⚖
151301	ERB.115-PF-CLEAN	115	58	19	22	91	94	31	43.5	40	600	42

Bi-directional flush pull handles

for snap-in assembly, technopolymer certified self-extinguishing

MATERIAL

Glass-fibre reinforced polyamide based (PA) technopolymer certified self-extinguishing UL-94 V0, grey-black colour, matte finish.

FEATURES AND APPLICATIONS

ERB-PF bi-directional flush pull handles are suitable to open and close sliding doors. The ergonomics of the cavity offers a safe and comfortable grip.

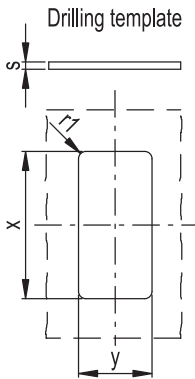
TECHNICAL DATA

The "V0" certification in accordance with UL-94 V (Underwriters Laboratories) (see Technical Data on page A5) indicates that on a plastic test sample with specific shape and dimensions, in the vertical position, the flame is extinguished within 10 seconds, without generating any incandescent drops.
The pull out resistance value (F2) reported in the table is the result of laboratory tests carried out with the handle assembled on a panel with a thickness of 1.5 mm, stiffened for testing purposes.

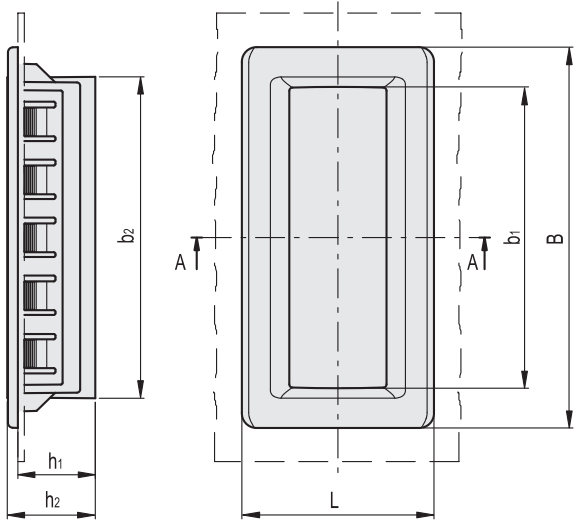
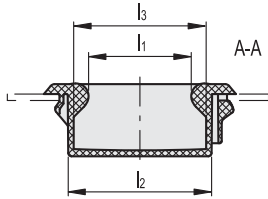
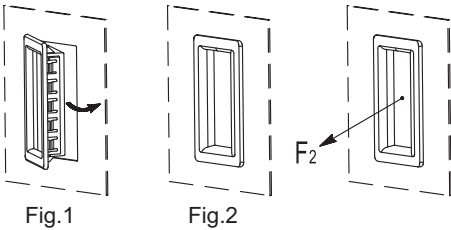
ASSEMBLY INSTRUCTIONS

- 1. Drill the handle housing according to the template dimensions reported in the table.
- 2. Remove all drilling burrs before fitting the handle.
- 3. Fit the side of the handle with fixed toothing into the housing (Fig. 1).
- 4. Press onto the opposite side (elastic toothing) until the handle is completely snapped in (Fig. 2).

ERB-PF-AE-V0		
S	X	Y
0,7 - 1	105,7 +0,2	51,7 + 0,2
1 - 1,5	105,7 +0,2	51,8 + 0,2
1,5 - 2,2	105,7 +0,2	52,2 + 0,2



ELESA Original design



Code	Description	B	L	h1	h2	b1	b2	l1	l2	l3	F2 [N]	⚖
150901-C1	ERB.115-PF-AE-V0-C1	115	58	19	22	91	94	31	43.5	40	600	42

Bi-directional flush pull handles

for screw mounting, technopolymer

MATERIAL

Glass-fibre reinforced polyamide based (PA) technopolymer.

STANDARD EXECUTIONS

Assembly by means of 4 zinc-plated steel self-tapping screws, Ø 3.5x20, supplied. Maximum tightening torque of the screws 1.2 [Nm].

- **ERB:** grey-black colour, matte finish.
- **ERB-CLEAN:** white colour similar to RAL 9002, matte finish.

FEATURES AND APPLICATIONS

ERB. bi-directional flush pull handles are suitable to open and close sliding doors.

ERB-CLEAN in white colour is suitable for applications on medical and hospital equipment and food processing machines.

The ergonomics of the cavity offers a safe and secure, comfortable and ergonomic grip. Rounded and compact lines.

TECHNICAL DATA

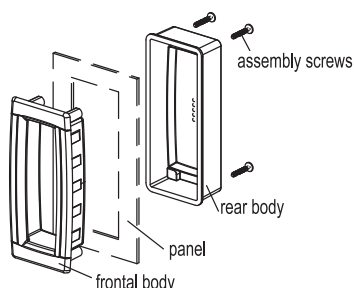
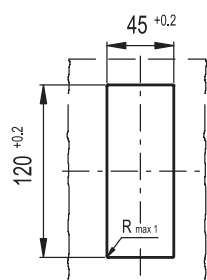
The lifting (F1) and pull out (F2) resistance values reported in the table are the result of the tests carried out in laboratory with handles assembled on strengthened metal sheet panels with thickness = 1.5 mm (strengthened for test purposes).

ASSEMBLY INSTRUCTIONS

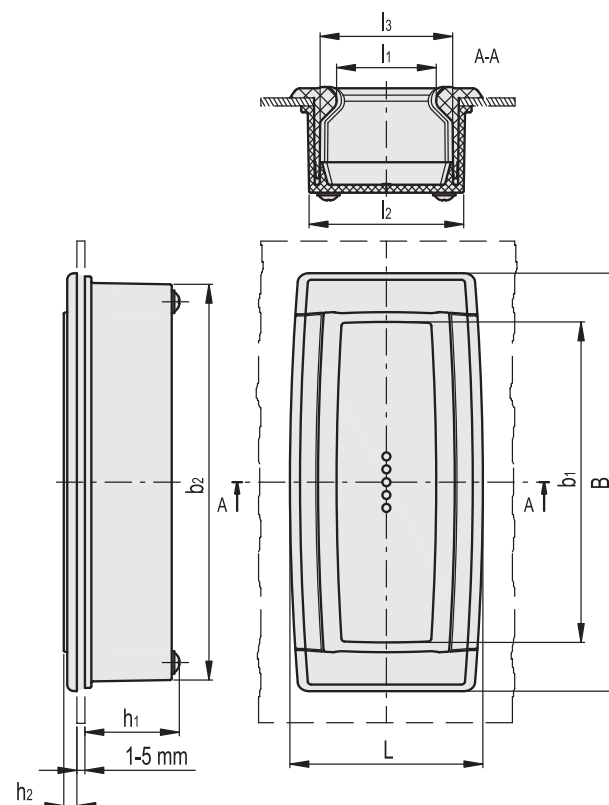
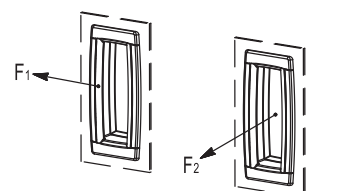
1. Drill the handle housing according to the template dimensions reported in the table.
2. Remove all drilling burrs before fitting the handle.
3. Fit the frontal body of the handle into the housing of the panel.
4. Fit the rear body of the handle onto the rear panel and press until the complete fitting with the frontal handle part.
5. Fit the two bodies with self-tapping screws.

Drilling template

(remove all drilling burrs before fitting the handle)



ERGOSTYLE®



Code	Description	B	L	h1	h2	b1	b2	l1	l2	l3	F1 [N]	F2 [N]	⚖
261511-C1	ERB.130-C1	130	60	29.5	3	101	123	31	48	41	3500	3500	95
151311	ERB.130 CLEAN	130	60	29.5	3	101	123	31	48	41	3500	3500	95

Side handles with protection

Technopolymer

MATERIAL

Glass-fibre reinforced polyamide based (PA) technopolymer, black colour, matte finish.

STANDARD EXECUTION

- **MLP-B**: brass bosses, threaded blind holes. Fitting by means of no. 2 screws M4, not included in the supply.
- **MLP-AF**: blind holes for fitting by means of no. 2 self-tapping screws for plastic materials Ø5 (UNI ISO 7049), not included in the supply.

TECHNICAL DATA

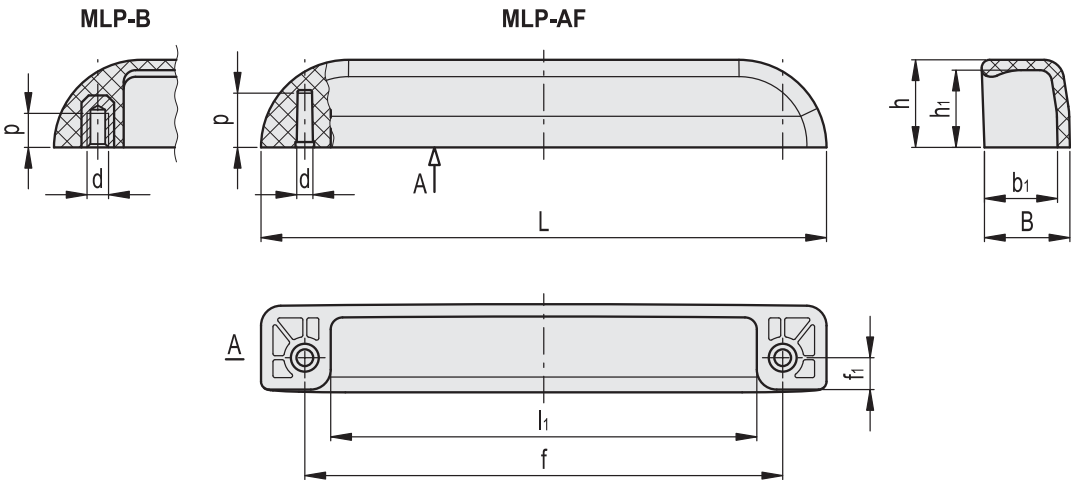
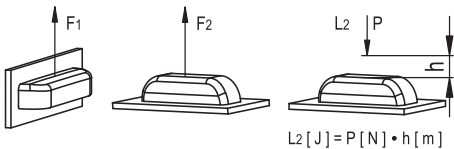
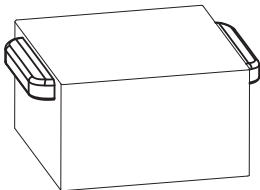
Tensile stress and impact strength: F1, F2 and L2 values reported in the table are the result of breaking tests, carried out with the appropriate dynamometric equipment, under the test conditions shown in the figure with ambient temperature.

FEATURES AND APPLICATIONS

Ergonomic and comfortable handles. If used in pairs they allow an easy lifting.



Application example



Code	Description	L	f±0.5	d	f1	h	h1	B	b1	l1	p	F1 [N]	F2 [N]	L2 [J]	⚖
43951	MLP.142-B M4	142	120	M4	8	22	19.5	21	18	107	10	3500	2800	3	36
43955	MLP.142-AF 4,8	142	120	4.5	8	22	19.5	21	18	107	13	3000	2800	3	31

Fastening sets

for cabinet "U" handles

SPECIFICATION

Zinc die casting
plastic coated
black, RAL 9005, textured finish **SW**
silver, RAL 9006, textured finish **SR**

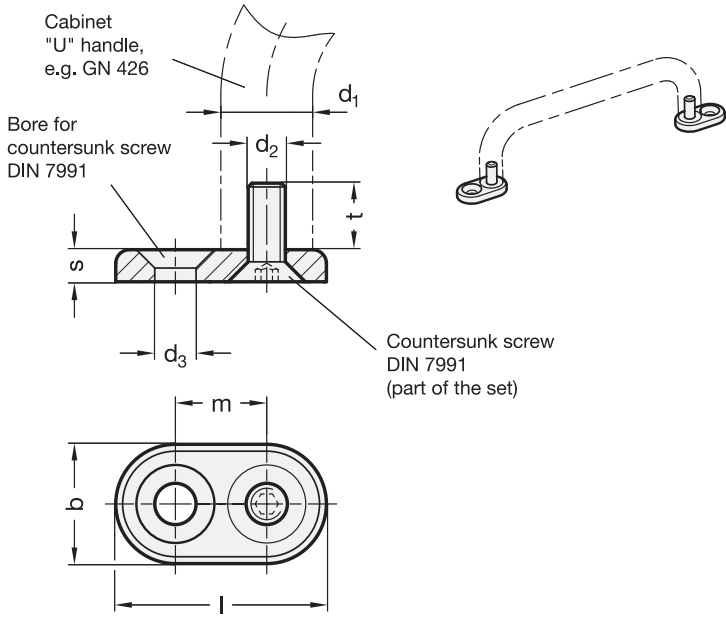
Countersunk screws
DIN 7991
Steel, zinc plated, blue passivated

INFORMATION

Fastening sets GN 181 make it possible to mount different cabinet "U" handles and tubular handles with internal thread from the operator's side.

The mounting position of the fastening plates is freely customizable, allowing a sideways offset or mounting with different drillhole spacings.

A fastening set consists of 2 fastening plates and 2 countersunk screws.



* Complete with colour index of the Fastening sets (SW or SR)

SW **SR**
RAL9005 RAL9006

GN 181

Description	d1	d2	b	d3 +0.2 / +0.5	l	m	s	t	Countersunk screw DIN 7991	For cabinet "U" handles	⚖
GN 181-ZD-8-M4-*	8	M 4	10	4	20	10	3	7	M4x10	GN 425-8-...	4
GN 181-ZD-10-M5-*	10	M 5	12	5	24	12	4	8	M5x12	GN 425-10-... / GN 425.1-10...	8
GN 181-ZD-12-M6-*	12	M 6	15	6	30	15	4.5	9.5	M6x14	GN 425-12-... / GN 425.1-12...	14
GN 181-ZD-16-M6-*	16	M 6	18	6	34	16	4.5	9.5	M6x14	GN 425-16-...	22
GN 181-ZD-20-M6-*	20	M 6	22	6	40	18	4.5	9.5	M6x14	GN 565-20-... / GN 565.5-20-...	35
GN 181-ZD-20-M8-*	20	M 8	22	8	42	20	6	12	M8x18	GN 426-20-... / GN 426.1-20-...	43
GN 181-ZD-26-M8-*	26	M 8	28	8	52	24	6	12	M8x18	GN 565-26-...	79
GN 181-ZD-28-M10-*	28	M 10	30	10	56	26	6.5	13.5	M10x20	GN 426-28-... / GN 426.1-28-...	89

Tubular handles
with movable handle shanks

SPECIFICATION

- Type
- Type **A**: Mounting from the back (threaded blind bore)
- Tube
- Aluminium (wall thickness 1.5)
- Handle shanks
- Zinc die casting
 - plastic coated
- Cover
- Plastic
- Tube / handle shanks **SW**
- plastic coated
 - black, RAL 9005, textured finish
- Cover
- black, matt
- Tube **ELS**
- anodized, natural colour
- Handle shanks
- black, RAL 9005, textured finish
- Cover
- black, matt
- Tube **ELG**
- anodized, natural colour
- Handle shanks
- silver, RAL 9006, textured finish
- Cover
- light grey, matt

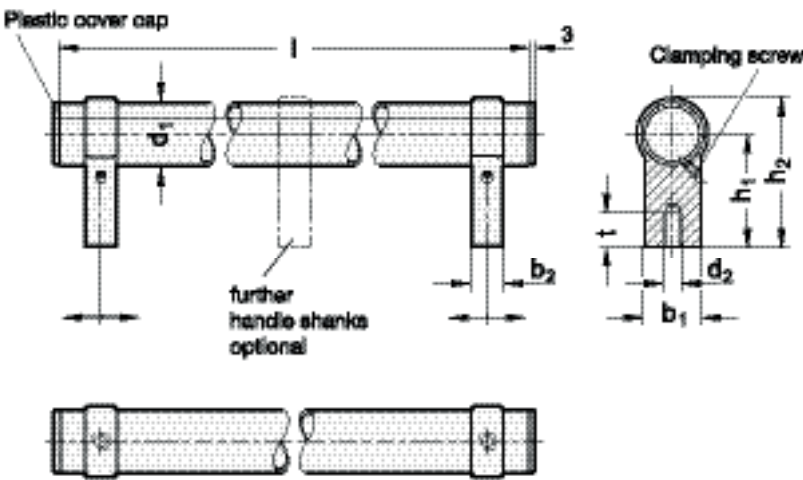


INFORMATION

The spacing of the attachment holes of the tubular handles GN 333.3 is adjustable. Further handle shanks can be added for very long tubular handles.
Tubular handles GN 333.3 are supplied unassembled.

TECHNICAL INFORMATION

- Load rating information (see page A35)



* Complete with Finish of the Tubular handles (SW, ELS or ELG)

SW	ELS	ELG
black	anodized, black	anodized, light grey

GN 333.3

Description	d1	l ±0.25	d2	b1	b2	h1	h2	t min.	⚖
GN 333.3-28-242-A-*	28	242	M 8	25	14	50	66	15	300
GN 333.3-28-292-A-*	28	292	M 8	25	14	50	66	15	340
GN 333.3-28-392-A-*	28	392	M 8	25	14	50	66	15	375
GN 333.3-28-492-A-*	28	492	M 8	25	14	50	66	15	400
GN 333.3-28-592-A-*	28	592	M 8	25	14	50	66	15	480

Tubular handles with power switching function

SPECIFICATION

Types

- Type **T0**: without button
- Type **T1**: with 1 button
- Type **T2**: with 2 buttons

Identification no.

- Version **1**: without emergency stop
- Version **2**: with emergency stop

Tube Ø 30 x 1.5

Aluminium

plastic coated

black, RAL 9005, textured finish **SW**

anodized, natural colour **EL**

Handle shanks zinc die casting

plastic coated

black, RAL 9005, textured finish

Cover caps

(for version without emergency stop)

Plastic

light grey

INFORMATION

Tubular handles GN 331 with power switching function are suitable for unlocking safety tumblers in rotating, detachable or side-sliding safety devices which must be closed in order to safeguard the required operational safety.

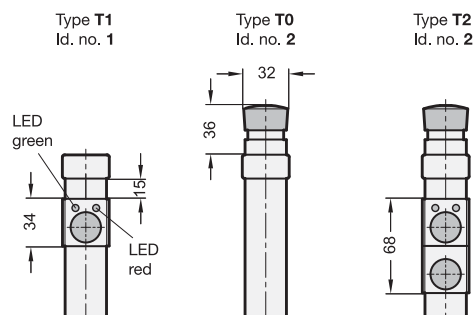
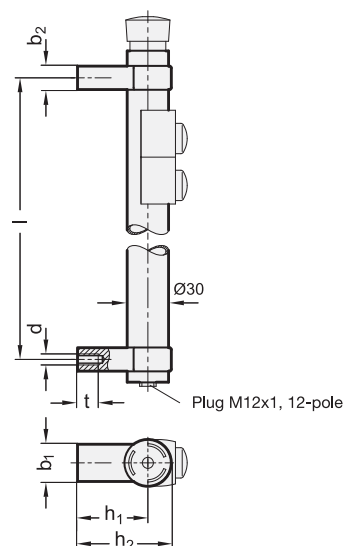
By integrating functions such as emergency stop, start, release, reset and LED status display, this tubular handle allows the machine to be monitored and operated directly at the door or gate.

ACCESSORY

- Cables with connector GN 330 (see page 1448)

TECHNICAL INFORMATION

- Load rating information (see page A35)



* Complete with colour index of the Tubular handles (SW or EL)

SW RAL9005 **EL** anodized

GN 331

Description	l ±0.25	d	b1	b2	h1	h2	t min.	△
GN 331-200-*-T0-2	200	M 8	27	17	51	68	15	360
GN 331-300-*-T0-2	300	M 8	27	17	51	68	15	647
GN 331-200-*-T1-1	200	M 8	27	17	51	68	15	449
GN 331-300-*-T1-1	300	M 8	27	17	51	68	15	636
GN 331-200-*-T1-2	200	M 8	27	17	51	68	15	500
GN 331-300-*-T1-2	300	M 8	27	17	51	68	15	675
GN 331-200-*-T2-1	200	M 8	27	17	51	68	15	466
GN 331-300-*-T2-1	300	M 8	27	17	51	68	15	660
GN 331-200-*-T2-2	200	M 8	27	17	51	68	15	501
GN 331-300-*-T2-2	300	M 8	27	17	51	68	15	686

Characteristics of the standard executions GN 331		
The tubular handles have the CE marking, low voltage guideline 06 / 95 / EG		
Emergency stop	2 channel, Breaker	
1st button with 2 LED	Changover contact	
	LED, red and green	
2nd button	Maker	
Contact termination, Pin configuration	Plug M12x1, 12-pole	
Switching voltage / Switching current	max. 30 V AC / max. 1.5 A	
Operating voltage (LEDs)	24 V DC $\pm$ 15 %	
Protection class	IP 67	
Button colour	for each button a set of caps is included, in this colours: red, green, blue	
Additional variants as special application		
Emergency stop	1 channel	
Number of buttons >2 Button special with	Maker	
	Breaker	
	Changeover contact	
Button with labelling area		



Tubular handles with power switching function

SPECIFICATION

Types

- Type **T0**: without button
- Type **T1**: with 1 button
- Type **T2**: with 2 buttons

Identification no.

- Version **1**: without emergency stop
- Version **2**: with emergency stop

Door opening

- Version **L**: left
- Version **R**: right

Tube Ø 30 x 1.5

Aluminium

plastic coated

black, RAL 9005, textured finish **SW**

anodized, natural colour **EL**

Handle shanks

Zinc die casting

plastic coated

black, RAL 9005, textured finish

Cover caps

(for version without emergency stop)

Plastic

light grey

INFORMATION

Tubular handles GN 332 with power switching function are suitable for unlocking safety tumblers in rotating, detachable or side-sliding safety devices which must be closed in order to safeguard the required operational safety.

By integrating functions such as emergency stop, start, release, reset and LED status display, this tubular handle allows the machine to be monitored and operated directly at the door or gate.

Tubular handles GN 332 save mounting and installation work, are attractively designed and optimise ergonomics: the switching and operating functions are located precisely where they are needed.

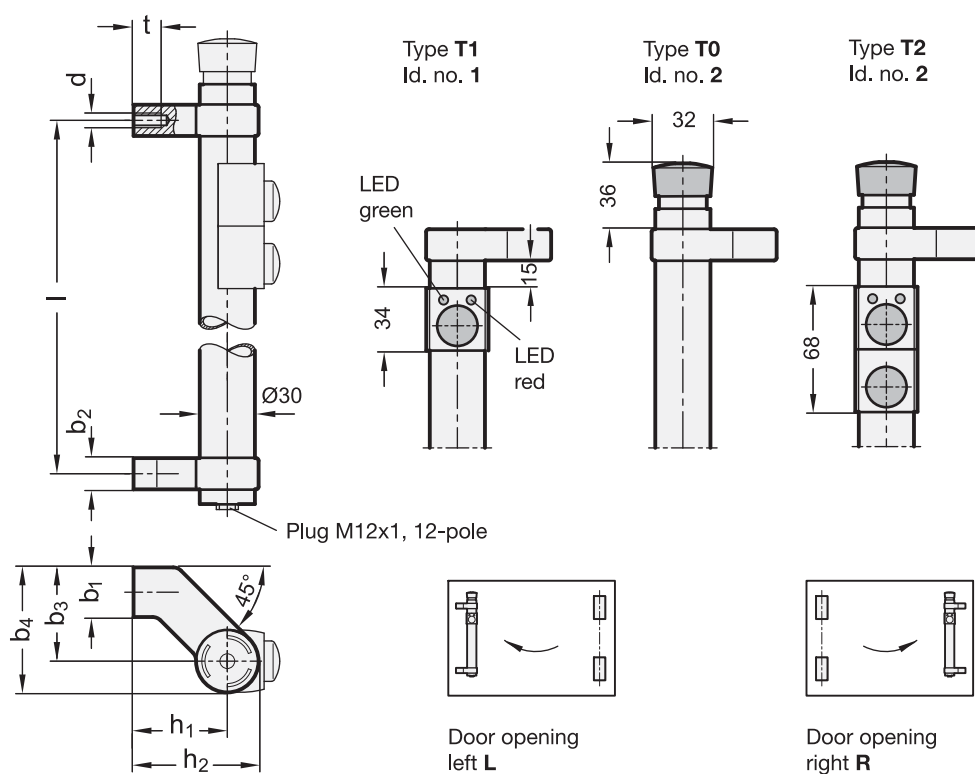
ACCESSORY

- Cables with connector GN 330 (see page 1448)

TECHNICAL INFORMATION

- Load rating information (see page A35)





* Complete with colour index of the Tubular handles (SW or EL)

SW **EL**
RAL9005 anodized

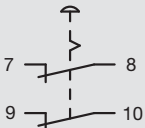
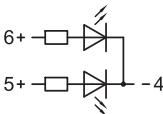
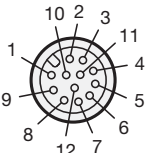
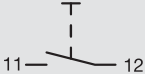
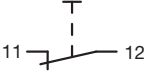
GN 332

Description	$l \pm 0.25$	d	b_1	b_2	b_3	b_4	h_1	h_2	$t \text{ min.}$	$\triangle$
GN 332-200-*-T0-2-L	200	M 8	27	17	51	68	51	68	15	550
GN 332-300-*-T0-2-L	300	M 8	27	17	51	68	51	68	15	758
GN 332-200-*-T0-2-R	200	M 8	27	17	51	68	51	68	15	574
GN 332-300-*-T0-2-R	300	M 8	27	17	51	68	51	68	15	757
GN 332-200-*-T1-1-L	200	M 8	27	17	51	68	51	68	15	570
GN 332-200-*-T1-2-L	200	M 8	27	17	51	68	51	68	15	588
GN 332-300-*-T1-1-L	300	M 8	27	17	51	68	51	68	15	756
GN 332-300-*-T1-2-L	300	M 8	27	17	51	68	51	68	15	940
GN 332-200-*-T1-1-R	200	M 8	27	17	51	68	51	68	15	558
GN 332-200-*-T1-2-R	200	M 8	27	17	51	68	51	68	15	580
GN 332-300-*-T1-1-R	300	M 8	27	17	51	68	51	68	15	745
GN 332-300-*-T1-2-R	300	M 8	27	17	51	68	51	68	15	778
GN 332-200-*-T2-1-L	200	M 8	27	17	51	68	51	68	15	500
GN 332-200-*-T2-2-L	200	M 8	27	17	51	68	51	68	15	605
GN 332-300-*-T2-1-L	300	M 8	27	17	51	68	51	68	15	752
GN 332-300-*-T2-2-L	300	M 8	27	17	51	68	51	68	15	792
GN 332-200-*-T2-1-R	200	M 8	27	17	51	68	51	68	15	598
GN 332-200-*-T2-2-R	200	M 8	27	17	51	68	51	68	15	604
GN 332-300-*-T2-1-R	300	M 8	27	17	51	68	51	68	15	753
GN 332-300-*-T2-2-R	300	M 8	27	17	51	68	51	68	15	800





Characteristics of the standard execution GN 332

The tubular handles have the CE marking, low voltage guideline 06 / 95 / EG		
Emergency stop	2 channel, Breaker	
1st button with 2 LED	Changover contact	
	LED, red and green	LED green  LED red
2nd button	Maker	
Contact termination, Pin configuration	Plug M12x1, 12-pole	
Switching voltage / Switching current	max. 30 V AC / max. 1.5 A	
Operating voltage (LEDs)	24 V DC ± 15 %	
Protection class	IP 67	
Button colour	for each button a set of caps is included, in this colours: red, green, blue	
Additional variants as special application		
Emergency stop	1 channel	
Number of buttons >2 Button special with	Maker	
	Breaker	
	Changeover contact	
Button with labelling area		



4
U-Handles

Tubular handles

SPECIFICATION

Types

- Type **A**: Mounting from the back (threaded blind bore)
- Type **B**: Mounting from the operator's side (only for $d_1 = 28$)

Handle tube
Aluminium (wall thickness 1.5)

Handle shanks
Zinc die casting

Tube **SW**
plastic coated
black, RAL 9005, textured finish
Handle shanks plastic coated
black, RAL 9005, textured finish

Tube **EL**
anodized, natural colour
Handle shanks plastic coated
black, RAL 9005, textured finish

Tube **ES**
anodized, natural colour
Handle shanks plastic coated
silver, RAL 9006, textured finish

Cover caps
Plastic, light grey

Socket head screws
ISO 7380-M6-20
Steel, black zinc plated

Hexagon nuts ISO 4032-M6
Steel, zinc plated

Washers DIN 125
Steel, zinc plated

INFORMATION

The handle tube of the GN 333.1 tubular handles can be screwed to the handle bases without further machining or processing, allowing **special lengths** to be realised easily.
For type B, lens head screws, hexagon nuts and washers are included.

TECHNICAL INFORMATION

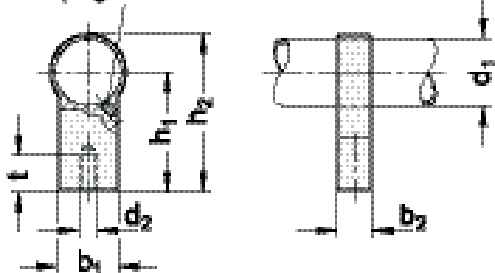
- Load rating information (see page A35)

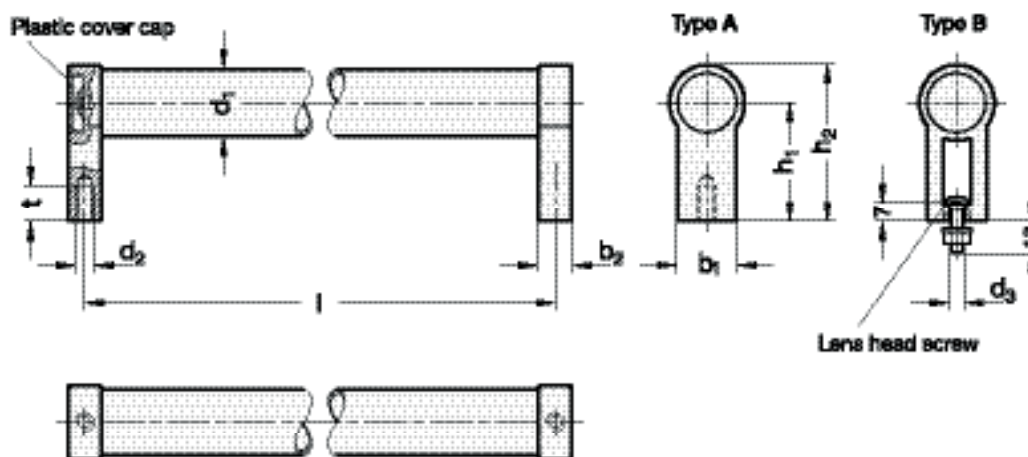
MOUNTING INFORMATION

For longer handle lengths or greater loads, the GN 333.9 shank is available for GN 333.1 tubular handles with tube diameter 28, Type A.



Clamping screw M4





* Complete with Finish of the Tubular handles (SW, EL or ES)

SW **EL** **ES**
 black anodized, black anodized, silver

GN 333.1

Description	d1	l ±0.25	d2	d3	b1	b2	h1	h2	t min.	⚖
GN 333.1-20-180-A-*	20	180	M 6	-	24	12	42	54	12	190
GN 333.1-20-200-A-*	20	200	M 6	-	24	12	42	54	12	200
GN 333.1-20-250-A-*	20	250	M 6	-	24	12	42	54	12	200
GN 333.1-20-300-A-*	20	300	M 6	-	24	12	42	54	12	230
GN 333.1-20-350-A-*	20	350	M 6	-	24	12	42	54	12	250
GN 333.1-20-400-A-*	20	400	M 6	-	24	12	42	54	12	263
GN 333.1-28-200-A-*	28	200	M 8	-	25	14	50	66	12	340
GN 333.1-28-250-A-*	28	250	M 8	-	25	14	50	66	12	360
GN 333.1-28-300-A-*	28	300	M 8	-	25	14	50	66	12	390
GN 333.1-28-350-A-*	28	350	M 8	-	25	14	50	66	14	410
GN 333.1-28-400-A-*	28	400	M 8	-	25	14	50	66	14	480
GN 333.1-28-500-A-*	28	500	M 8	-	25	14	50	66	14	400
GN 333.1-28-600-A-*	28	600	M 8	-	25	14	50	66	14	500
GN 333.1-30-200-A-*	30	200	M 8	-	27	17	51	68	14	318
GN 333.1-30-300-A-*	30	300	M 8	-	27	17	51	68	14	375
GN 333.1-30-350-A-*	30	350	M 8	-	27	17	51	68	14	405
GN 333.1-30-400-A-*	30	400	M 8	-	27	17	51	68	15	440
GN 333.1-30-500-A-*	30	500	M 8	-	27	17	51	68	15	467
GN 333.1-30-600-A-*	30	600	M 8	-	27	17	51	68	15	535
GN 333.1-30-1000-A-*	30	1000	M 8	-	27	17	51	68	15	768
GN 333.1-28-200-B-*	28	200	-	M 6	25	14	50	66	15	305
GN 333.1-28-250-B-*	28	250	-	M 6	25	14	50	66	15	320
GN 333.1-28-300-B-*	28	300	-	M 6	25	14	50	66	15	353
GN 333.1-28-350-B-*	28	350	-	M 6	25	14	50	66	15	381
GN 333.1-28-400-B-*	28	400	-	M 6	25	14	50	66	15	440
GN 333.1-28-500-B-*	28	500	-	M 6	25	14	50	66	15	470
GN 333.1-28-600-B-*	28	600	-	M 6	25	14	50	66	15	500



Tubular handles

SPECIFICATION

Types

- Type **A**: Mounting from the back (threaded blind bore)
- Type **B**: Mounting from the operator's side (only for $d_i=28$)

Handle tube
Aluminium (wall thickness 1.5)

Handle shanks
Zinc die casting

Tube, plastic coated
black, RAL 9005, textured finish **SW**
Handle shanks plastic coated
black, RAL 9005, textured finish

Tube, anodized, natural colour **EL**
Handle shanks plastic coated
black, RAL 9005, textured finish

Tube, anodized, natural colour **ES**
Handle shanks plastic coated
silver, RAL 9006, textured finish

Cover caps plastic, light grey

Cap (Type B)
Plastic (Technopolymer)
black (for SW / EL)
light grey (for ES)

INFORMATION

The handle tube of the GN 333 tubular handles can be screwed to the handle bases without further machining or processing, allowing **special lengths** to be realised easily.

A typical application area for tubular handles GN 333 are double-winged doors at machines or devices.

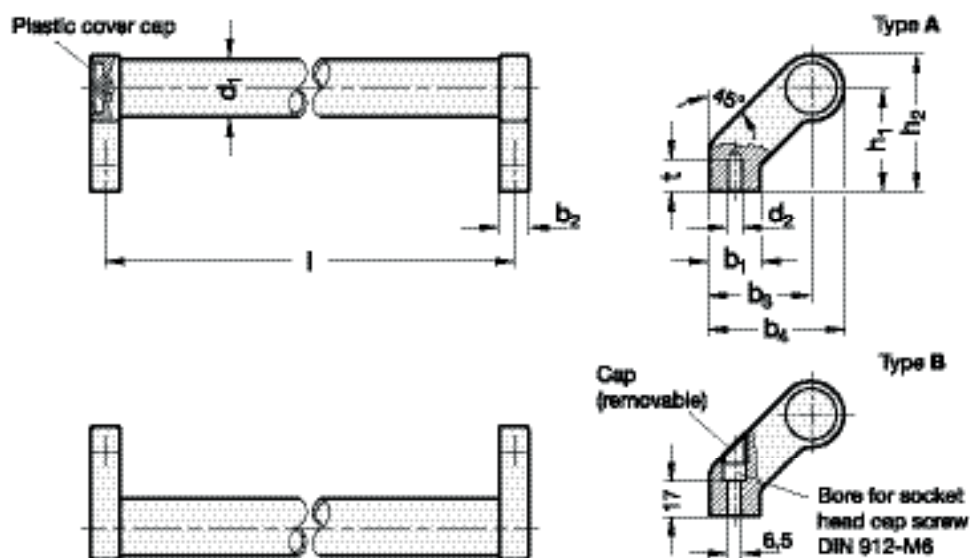
TECHNICAL INFORMATION

- Load rating information (see page A35)

ON REQUEST

- Handle shank GN 333.8 (see page 501)





* Complete with Finish of the Tubular handles (SW, EL or ES)

SW **EL** **ES**
black anodized, black anodized, silver

GN 333

Description	d1	l ±0.25	d2	b1	b2	b3	b4	h1	h2	t min.	⚖
GN 333-20-180-A-*	20	180	M 6	24	12	42	54	42	54	12	242
GN 333-20-200-A-*	20	200	M 6	24	12	42	54	42	54	12	246
GN 333-20-250-A-*	20	250	M 6	24	12	42	54	42	54	12	259
GN 333-20-300-A-*	20	300	M 6	24	12	42	54	42	54	12	277
GN 333-20-350-A-*	20	350	M 6	24	12	42	54	42	54	12	294
GN 333-20-400-A-*	20	400	M 6	24	12	42	54	42	54	12	311
GN 333-28-200-A-*	28	200	M 8	25	14	50	66	50	66	15	430
GN 333-28-250-A-*	28	250	M 8	25	14	50	66	50	66	15	420
GN 333-28-300-A-*	28	300	M 8	25	14	50	66	50	66	15	470
GN 333-28-350-A-*	28	350	M 8	25	14	50	66	50	66	15	495
GN 333-28-400-A-*	28	400	M 8	25	14	50	66	50	66	15	525
GN 333-28-500-A-*	28	500	M 8	25	14	50	66	50	66	15	550
GN 333-28-600-A-*	28	600	M 8	25	14	50	66	50	66	15	580
GN 333-30-200-A-*	30	200	M 8	27	17	51	68	51	68	15	420
GN 333-30-300-A-*	30	300	M 8	27	17	51	68	51	68	15	480
GN 333-30-350-A-*	30	350	M 8	27	17	51	68	51	68	15	511
GN 333-30-400-A-*	30	400	M 8	27	17	51	68	51	68	15	530
GN 333-30-500-A-*	30	500	M 8	27	17	51	68	51	68	15	600
GN 333-30-600-A-*	30	600	M 8	27	17	51	68	51	68	15	658
GN 333-30-1000-A-*	30	1000	M 8	27	17	51	68	51	68	15	870
GN 333-28-200-B-*	28	200	-	25	14	50	66	50	66	-	401
GN 333-28-250-B-*	28	250	-	25	14	50	66	50	66	-	420
GN 333-28-300-B-*	28	300	-	25	14	50	66	50	66	-	447
GN 333-28-350-B-*	28	350	-	25	14	50	66	50	66	-	483
GN 333-28-400-B-*	28	400	-	25	14	50	66	50	66	-	500
GN 333-28-500-B-*	28	500	-	25	14	50	66	50	66	-	540
GN 333-28-600-B-*	28	600	-	25	14	50	66	50	66	-	600



Tubular handles

with movable handle shanks

SPECIFICATION

Type

- Type **A**: Mounting from the back (threaded blind bore)

Tube

Aluminium (wall thickness 1.5)

Handle shanks

Zinc die casting
plastic coated

Cover

Plastic

Tube / handle shanks **SW**

plastic coated

black, RAL 9005, textured finish

Cover

black, matt

Tube **ELS**

anodized, natural colour

Handle shanks

black, RAL 9005 textured finish

Cover

black, matt

Tube **ELG**

anodized, natural colour

Handle shanks

silver, RAL 9006, textured finish

Cover

light grey, matt

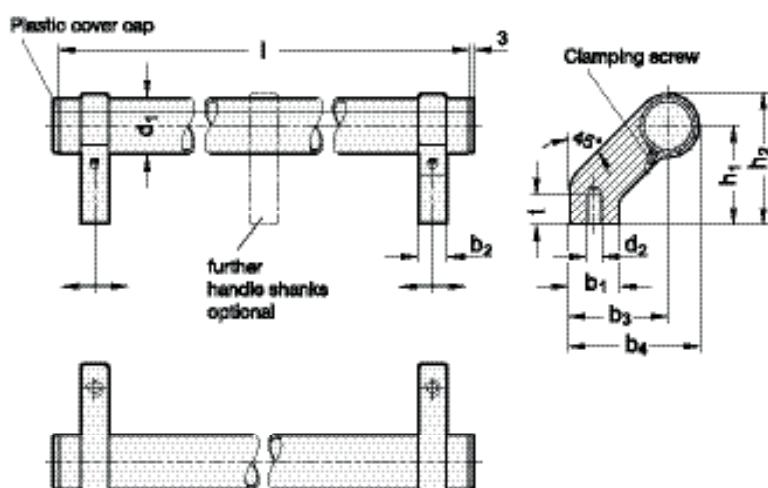
INFORMATION

The spacing of the attachment holes of the tubular handles GN 333.2 is adjustable. Further handle shanks can be added for very long tubular handles.

Tubular handles GN 333.2 are supplied unassembled.

TECHNICAL INFORMATION

- Load rating information (see page A35)



* Complete with Finish of the Tubular handles (SW, ELS or ELG)

SW	ELS	ELG
black	anodized, black	anodized, light grey

GN 333.2

Description	d1	l ±0.25	d2	b1	b2	b3	b4	h1	h2	t min.	⚖
GN 333.2-28-242-A-*	28	242	M 8	25	14	50	66	50	66	15	380
GN 333.2-28-292-A-*	28	292	M 8	25	14	50	66	50	66	15	392
GN 333.2-28-392-A-*	28	392	M 8	25	14	50	66	50	66	15	470
GN 333.2-28-492-A-*	28	492	M 8	25	14	50	66	50	66	15	520
GN 333.2-28-592-A-*	28	592	M 8	25	14	50	66	50	66	15	560

Handle shank

for tubular handles, inclined

SPECIFICATION

Type

- Type **A**: Mounting from the back (threaded blind bore)

Zinc die casting

plastic coated

black, RAL 9005, textured finish **SW**

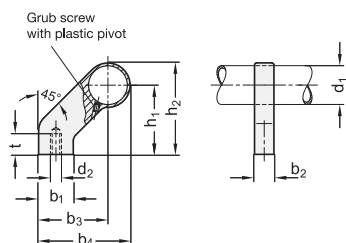
silver, RAL 9006, textured finish **SR**

Grub screw with plastic pad GN 913.3-M4-6-KU (see page 921)

INFORMATION

Handle shanks GN 333.8 can be used for longer tubes or higher loads of tubular handles.

They can be used for tube Ø 28 of the tubular handles GN 333.1 (see page 496).



Handle shanks

for tubular handles, straight

SPECIFICATION

Type

- Type **A**: Mounting from the back (threaded blind bore)

Zinc die casting

plastic coated

black, RAL 9005, textured finish **SW**

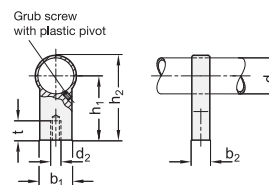
silver, RAL 9006, textured finish **SR**

Grub screw with plastic pad GN 913.3-M4-6-KU (see page 921)

INFORMATION

Handle shanks GN 333.9 can be used for longer tubes or higher loads of tubular handles.

They can be used for tube Ø 28 of the tubular handles GN 333.1 (see page 496).



GN 333.8

Description	d1	d2	b1	b2	b3	b4	h1	h2	t min.	
GN 333.8-28-A-SR	28	M 8	25	14	50	66	50	66	15	120
GN 333.8-28-A-SW	28	M 8	25	14	50	66	50	66	15	120

GN 333.9

Description	d1	d2	b1	b2	h1	h2	t min.	
GN 333.9-28-A-SR	28	M 8	25	14	50	66	15	88
GN 333.9-28-A-SW	28	M 8	25	14	50	66	15	80

Offset tubular handles

Technopolymer and aluminium

HANDLE SHANKS

Glass-fibre reinforced polyamide based (PA) technopolymer, matte finish.

To prevent tube rotation, screw up to the stop the self-tapping screw $\varnothing 3,9 \times 6,5$ arranged inside the handle shank.

CLOSING CAPS

Polyamide based (PA) technopolymer, in the colours specified in the standard executions, matte finish.

Included in the supply, push-fit assembly (Fig.1), removable by a screwdriver.

MOUNTING

Pass-through hole for front or rear mounting by means of cylindrical-head screws with hexagon socket, hexagonal-head screws or standard nuts.

STANDARD EXECUTIONS

- **M.1053-EP**: aluminium tube, epoxy resin coating, metalflake graphite colour, matte finish. Highly resistant to wear, scratches and chemical agents. Avoid continuous and prolonged contact with boiling water or steam. Handle shanks and closing caps in RAL 9005 (C9) black colour.
- **M.1053-AN-BK**: anodised aluminium tube, natural colour, handle shanks and closing caps in RAL 9005 (C9) black colour.
- **M.1053-AN-GR**: anodised aluminium tube, natural colour, handle shanks and closing caps in RAL 7031 (C31) grey colour.
- **M.1053-CLEAN**: aluminium tube, coating in white colour similar to RAL 9002, handle shanks and closing caps in white colour similar to RAL 9002 (CLEAN).

TECHNICAL DATA

Tensile stress: F values reported in the table are the result of breaking tests carried out with the appropriate dynamometric equipment under the test conditions shown in the figure with ambient temperature.

SPECIAL EXECUTIONS ON REQUEST

- Different lengths.
- Closing caps in different colours.

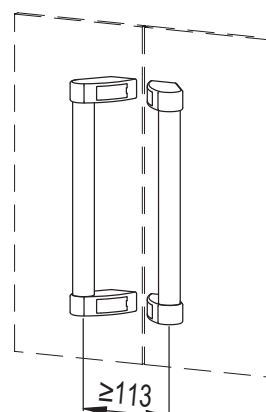
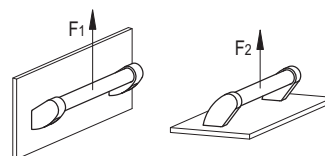
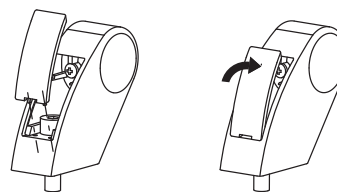
ACCESSORIES ON REQUEST

Polyamide based (PA) technopolymer closing caps, in the colours RAL 9005 (C9) black, RAL 7031 (C31) grey, RAL 9002 (CLEAN) white, (see table ECS.T).



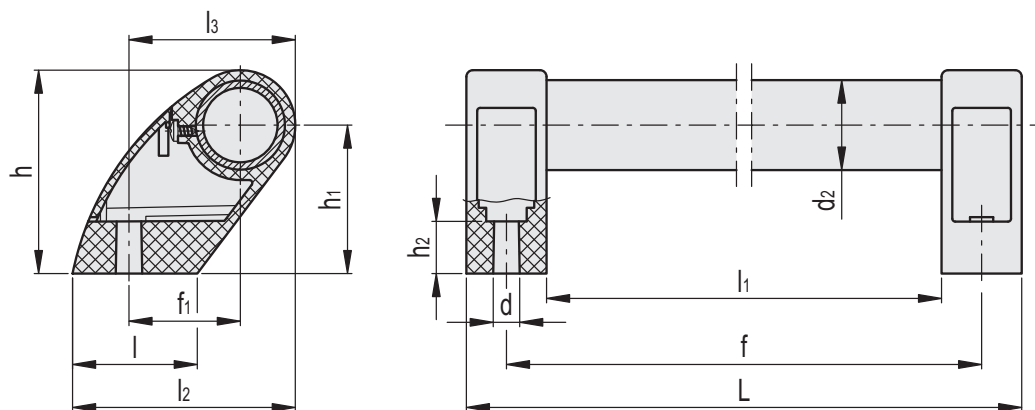
ELESA Original design

Fig.1



Code	Description
29882-C9	ECS.T2-C9
29882-C31	ECS.T2-C31
29882	ECS.T2-CLEAN

C9 **C31** **CLEAN**
 RAL9005 RAL7031 RAL9002



M.1053-EP

Code	Description	f±1	f1	L	d	h	h1	h2	l	l1	l2	l3	d2	F1 [N]*	F1 [N]#	F2 [N]*	F2 [N]#	⚖
36801	M.1053/30-300-EP	300	37.5	327	8.5	68.5	50	17.5	42	273	75	56	30	1850	3400	2500	4000	231
36811	M.1053/30-350-EP	350	37.5	377	8.5	68.5	50	17.5	42	323	75	56	30	1650	3150	2000	3300	249
36821	M.1053/30-400-EP	400	37.5	427	8.5	68.5	50	17.5	42	373	75	56	30	1450	2600	1900	3000	266
36831	M.1053/30-500-EP	500	37.5	527	8.5	68.5	50	17.5	42	473	75	56	30	1300	2000	1500	1900	301
36841	M.1053/30-600-EP	600	37.5	627	8.5	68.5	50	17.5	42	573	75	56	30	1100	1900	1200	1800	336
36851	M.1053/30-700-EP	700	37.5	727	8.5	68.5	50	17.5	42	673	75	56	30	1000	1600	1100	1500	371

M.1053-AN-BK

Code	Description	f±1	f1	L	d	h	h1	h2	l	l1	l2	l3	d2	F1 [N]*	F1 [N]#	F2 [N]*	F2 [N]#	⚖
36803	M.1053/30-300-AN-BK	300	37.5	327	8.5	68.5	50	17.5	42	273	75	56	30	1850	3400	2500	4000	231
36813	M.1053/30-350-AN-BK	350	37.5	377	8.5	68.5	50	17.5	42	323	75	56	30	1650	3150	2000	3300	249
36823	M.1053/30-400-AN-BK	400	37.5	427	8.5	68.5	50	17.5	42	373	75	56	30	1450	2600	1900	3000	266
36833	M.1053/30-500-AN-BK	500	37.5	527	8.5	68.5	50	17.5	42	473	75	56	30	1300	2000	1500	1900	301
36843	M.1053/30-600-AN-BK	600	37.5	627	8.5	68.5	50	17.5	42	573	75	56	30	1100	1900	1200	1800	336
36853	M.1053/30-700-AN-BK	700	37.5	727	8.5	68.5	50	17.5	42	673	75	56	30	1000	1600	1100	1500	371

M.1053-AN-GR

Code	Description	f±1	f1	L	d	h	h1	h2	l	l1	l2	l3	d2	F1 [N]*	F1 [N]#	F2 [N]*	F2 [N]#	⚖
36805	M.1053/30-300-AN-GR	300	37.5	327	8.5	68.5	50	17.5	42	273	75	56	30	1850	3400	2500	4000	231
36815	M.1053/30-350-AN-GR	350	37.5	377	8.5	68.5	50	17.5	42	323	75	56	30	1650	3150	2000	3300	249
36825	M.1053/30-400-AN-GR	400	37.5	427	8.5	68.5	50	17.5	42	373	75	56	30	1450	2600	1900	3000	266
36835	M.1053/30-500-AN-GR	500	37.5	527	8.5	68.5	50	17.5	42	473	75	56	30	1300	2000	1500	1900	301
36845	M.1053/30-600-AN-GR	600	37.5	627	8.5	68.5	50	17.5	42	573	75	56	30	1100	1900	1200	1800	336
36855	M.1053/30-700-AN-GR	700	37.5	727	8.5	68.5	50	17.5	42	673	75	56	30	1000	1600	1100	1500	371

M.1053-CLEAN

Code	Description	f±1	f1	L	d	h	h1	h2	l	l1	l2	l3	d2	F1 [N]*	F1 [N]#	F2 [N]*	F2 [N]#	⚖
151461	M.1053/30-300-CLEAN	300	37.5	327	8.5	68.5	50	17.5	42	273	75	56	30	1850	3400	2500	4000	231
151463	M.1053/30-350-CLEAN	350	37.5	377	8.5	68.5	50	17.5	42	323	75	56	30	1650	3150	2000	3300	249
151465	M.1053/30-400-CLEAN	400	37.5	427	8.5	68.5	50	17.5	42	373	75	56	30	1450	2600	1900	3000	266
151467	M.1053/30-500-CLEAN	500	37.5	527	8.5	68.5	50	17.5	42	473	75	56	30	1300	2000	1500	1900	301
151469	M.1053/30-600-CLEAN	600	37.5	627	8.5	68.5	50	17.5	42	573	75	56	30	1100	1900	1200	1800	336
151471	M.1053/30-700-CLEAN	700	37.5	727	8.5	68.5	50	17.5	42	673	75	56	30	1000	1600	1100	1500	371

* Maximum working load # Load at breakage



Offset tubular handles

Movable handle shanks, technopolymer and aluminium

PASS-THROUGH HANDLE SHANKS

Glass-fibre reinforced polyamide based (PA) technopolymer, matte finish.

To prevent tube rotation, screw up to the stop the self-tapping screw $\varnothing 3,9 \times 6,5$ arranged inside the handle shank.

CLOSING CAPS

Polyamide based (PA) technopolymer, in the colours specified in the standard executions, matte finish.

Included in the supply, push-fit assembly (Fig.1), removable by a screwdriver.

END CAPS

Polyamide based (PA) technopolymer, matte finish.

MOUNTING

Pass-through hole for front or rear mounting by means of cylindrical-head screws with hexagon socket, hexagonal-head screws or standard nuts.

STANDARD EXECUTIONS

- **M.1053-P-EP:** aluminium tube, epoxy resin coating, metalflake graphite colour, matte finish. Highly resistant to wear, scratches and chemical agents. Avoid continuous and prolonged contact with boiling water or steam. Handle shanks and closing caps in RAL 9005 (C9) black colour.
- **M.1053-P-AN-BK:** anodised aluminium tube, natural colour, handle shanks and closing caps in RAL 9005 (C9) black colour.
- **M.1053-P-AN-GR:** anodised aluminium tube, natural colour, handle shanks and closing caps in RAL 7031 (C31) grey colour.
- **M.1053-P-CLEAN:** aluminium tube, coating in white colour similar to RAL 9002, handle shanks and closing caps in white colour similar to RAL 9002 (CLEAN).

TECHNICAL DATA

Tubular handles are characterised by a variable handle shank, the handle shanks being adjustable on the tube by means of the set screw.

Tensile stress: F values reported in the table are the result of breaking tests carried out with the appropriate dynamometric equipment under the test conditions shown in the figure with ambient temperature.

SPECIAL EXECUTIONS ON REQUEST

- Different lengths.
- Closing caps in different colours.

ACCESSORIES ON REQUEST

Polyamide based (PA) technopolymer closing caps, in the colours RAL 9005 (C9) black, RAL 7031 (C31) grey, RAL 9002 (CLEAN) white, (see table ECS.T).

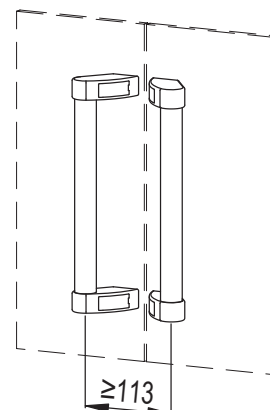
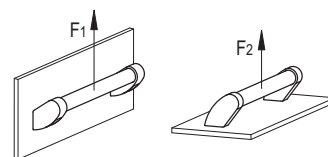
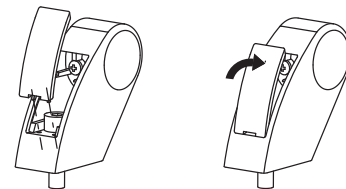
Code	Description
29882-C9	ECS.T2-C9
29882-C31	ECS.T2-C31
29882	ECS.T2-CLEAN

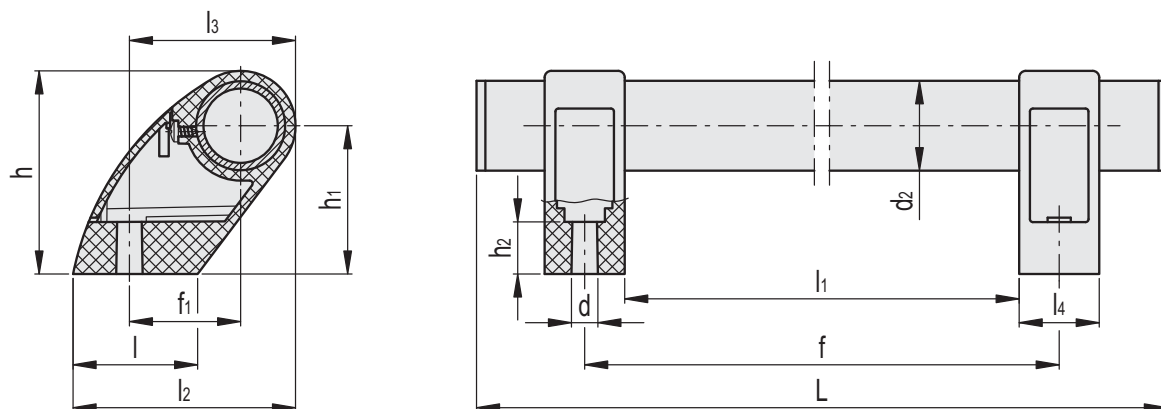
C9	C31	CLEAN
RAL9005	RAL7031	RAL9002



ELESA Original design

Fig.1





M.1053-P-EP

Code	Description	f _{max.±1}	f ₁	L	d	h	h ₁	h ₂	l	l _{1 max.}	l ₂	l ₃	l ₄	d ₂	F ₁ [N]*	F ₁ [N]#	F ₂ [N]*	F ₂ [N]#	⚖
36901	M.1053 P/30-295-EP	295	37.5	324	8.5	68.5	50	17.5	42	268	75	56	27	30	1850	3400	2500	4000	231
36911	M.1053 P/30-345-EP	345	37.5	374	8.5	68.5	50	17.5	42	318	75	56	27	30	1650	3150	2000	3300	249
36921	M.1053 P/30-395-EP	395	37.5	424	8.5	68.5	50	17.5	42	368	75	56	27	30	1450	2600	1900	3000	266
36931	M.1053 P/30-495-EP	495	37.5	524	8.5	68.5	50	17.5	42	468	75	56	27	30	1300	2000	1500	1900	301
36941	M.1053 P/30-595-EP	595	37.5	624	8.5	68.5	50	17.5	42	568	75	56	27	30	1100	1900	1200	1800	336
36951	M.1053 P/30-695-EP	695	37.5	724	8.5	68.5	50	17.5	42	668	75	56	27	30	1000	1600	1100	1500	371

M.1053-P-AN-BK

Code	Description	f _{max.±1}	f ₁	L	d	h	h ₁	h ₂	l	l _{1 max.}	l ₂	l ₃	l ₄	d ₂	F ₁ [N]*	F ₁ [N]#	F ₂ [N]*	F ₂ [N]#	⚖
36903	M.1053 P/30-295-AN-BK	295	37.5	324	8.5	68.5	50	17.5	42	268	75	56	27	30	1850	3400	2500	4000	231
36913	M.1053 P/30-345-AN-BK	345	37.5	374	8.5	68.5	50	17.5	42	318	75	56	27	30	1650	3150	2000	3300	249
36923	M.1053 P/30-395-AN-BK	395	37.5	424	8.5	68.5	50	17.5	42	368	75	56	27	30	1450	2600	1900	3000	266
36933	M.1053 P/30-495-AN-BK	495	37.5	524	8.5	68.5	50	17.5	42	468	75	56	27	30	1300	2000	1500	1900	301
36943	M.1053 P/30-595-AN-BK	595	37.5	624	8.5	68.5	50	17.5	42	568	75	56	27	30	1100	1900	1200	1800	336
36953	M.1053 P/30-695-AN-BK	695	37.5	724	8.5	68.5	50	17.5	42	668	75	56	27	30	1000	1600	1100	1500	371

M.1053-P-AN-GR

Code	Description	f _{max.±1}	f ₁	L	d	h	h ₁	h ₂	l	l _{1 max.}	l ₂	l ₃	l ₄	d ₂	F ₁ [N]*	F ₁ [N]#	F ₂ [N]*	F ₂ [N]#	⚖
36905	M.1053 P/30-295-AN-GR	295	37.5	324	8.5	68.5	50	17.5	42	268	75	56	27	30	1850	3400	2500	4000	231
36915	M.1053 P/30-345-AN-GR	345	37.5	374	8.5	68.5	50	17.5	42	318	75	56	27	30	1650	3150	2000	3300	249
36925	M.1053 P/30-395-AN-GR	395	37.5	424	8.5	68.5	50	17.5	42	368	75	56	27	30	1450	2600	1900	3000	266
36935	M.1053 P/30-495-AN-GR	495	37.5	524	8.5	68.5	50	17.5	42	468	75	56	27	30	1300	2000	1500	1900	301
36945	M.1053 P/30-595-AN-GR	595	37.5	624	8.5	68.5	50	17.5	42	568	75	56	27	30	1100	1900	1200	1800	336
36955	M.1053 P/30-695-AN-GR	695	37.5	724	8.5	68.5	50	17.5	42	668	75	56	27	30	1000	1600	1100	1500	371

M.1053-P-CLEAN

Code	Description	f _{max.±1}	f ₁	L	d	h	h ₁	h ₂	l	l _{1 max.}	l ₂	l ₃	l ₄	d ₂	F ₁ [N]*	F ₁ [N]#	F ₂ [N]*	F ₂ [N]#	⚖
151481	M.1053 P/30-295-CLEAN	295	37.5	324	8.5	68.5	50	17.5	42	268	75	56	27	30	1850	3400	2500	4000	231
151483	M.1053 P/30-345-CLEAN	345	37.5	374	8.5	68.5	50	17.5	42	318	75	56	27	30	1650	3150	2000	3300	249
151485	M.1053 P/30-395-CLEAN	395	37.5	424	8.5	68.5	50	17.5	42	368	75	56	27	30	1450	2600	1900	3000	266
151487	M.1053 P/30-495-CLEAN	495	37.5	524	8.5	68.5	50	17.5	42	468	75	56	27	30	1300	2000	1500	1900	301
151489	M.1053 P/30-595-CLEAN	595	37.5	624	8.5	68.5	50	17.5	42	568	75	56	27	30	1100	1900	1200	1800	336
151491	M.1053 P/30-695-CLEAN	695	37.5	724	8.5	68.5	50	17.5	42	668	75	56	27	30	1000	1600	1100	1500	371

* Maximum working load # Load at breakage



GN 333.5

Stainless Steel-Tubular handles

SPECIFICATION

Tube Ø 28 x 2
Stainless Steel

- AISI 304
- matt

Handle shanks
Stainless Steel-precision casting

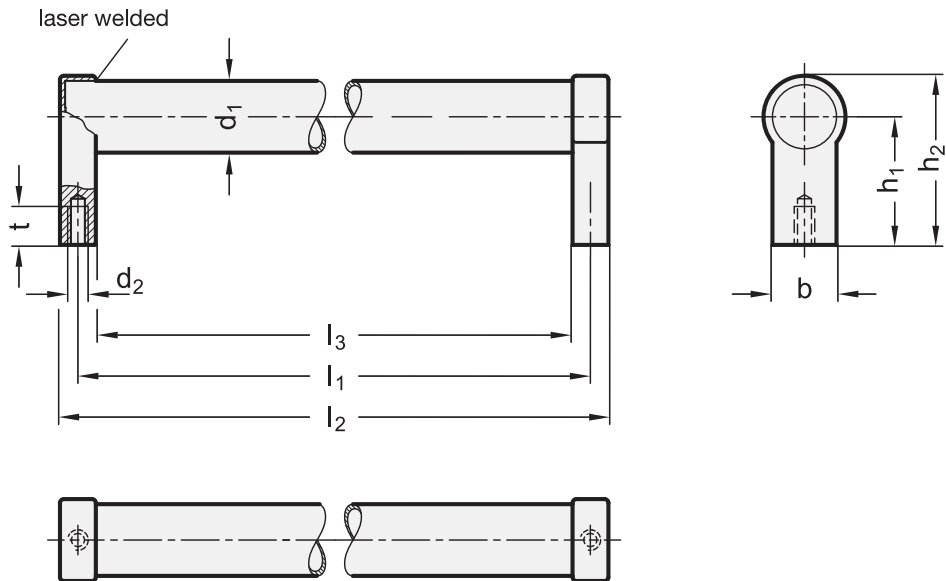
- AISI CF-8
- matt shot-blasted

INFORMATION

The tube of the Stainless Steel-Tubular handles GN 333.5 is laser welded with the shanks without gap and with tight fit, preventing dirt from entering at this point.

TECHNICAL INFORMATION

- Stainless Steel characteristics (see page A26)
- Load rating information (see page A35)



GN 333.5

STAINLESS STEEL

Description	d1	l1 ±1	b	d2	h1	h2	l2	l3	t min.	⚖
GN 333.5-28-200	28	200	25	M 8	50	66	214	186	15	500
GN 333.5-28-250	28	250	25	M 8	50	66	264	236	15	563
GN 333.5-28-300	28	300	25	M 8	50	66	314	286	15	626
GN 333.5-28-400	28	400	25	M 8	50	66	414	386	15	760
GN 333.5-28-500	28	500	25	M 8	50	66	514	486	15	861
GN 333.5-28-600	28	600	25	M 8	50	66	614	586	15	900

System handles

Aluminium

SPECIFICATION

Types

- Type **A**: Mounting from the back (threaded blind bore)
- Type **B**: Mounting from the operator's side

Tube / End pieces

Aluminium

plastic coated

black, RAL 9005, textured finish **SW**

anodized, natural colour **EL**

Cover caps

Plastic

Technopolymer (Polyamide PA)

black, matt

Socket head screws DIN 912-M8x75

Steel, zinc plated

Hexagon nuts ISO 4032-M8

Steel, zinc plated

Washers DIN 125

Steel, zinc plated

INFORMATION

System handles GN 669 offer the the advantage of high stability due to the connection of tube / handle shank.

The screws of type B (mounting from operator's side) are shrouded.

TECHNICAL INFORMATION

- Load rating information (see page A35)

MOUNTING INFORMATION

When mounting from the operator's side (Type B) the plastic end covers are supplied loose. Once the handle has been-mounted the end covers are pushed over the end of the handle tube and the foot until they snap into the end of the groove at the tube end.

Both mounting methods (Type A and B) allow the mounting of a pair of handles in opposite position. This method could be used on doors (double handle). Depending on the door thickness longer socket head screws DIN 912 might be required.

* Complete with colour index of the System handles (SW or EL)

SW **EL**
RAL9005 anodized

GN 669

Description	d1	l1 ±0.5	b	d2	h ≈	l2	l3	l4	t min.	⚖
GN 669-28-200-A-*	28	200	32	M 8	60	220	180	-	15	180
GN 669-28-250-A-*	28	250	32	M 8	60	270	230	-	15	208
GN 669-28-300-A-*	28	300	32	M 8	60	320	280	-	15	220
GN 669-28-400-A-*	28	400	32	M 8	60	420	380	-	15	260
GN 669-28-500-A-*	28	500	32	M 8	60	520	480	-	15	290
GN 669-28-600-A-*	28	600	32	M 8	60	620	580	-	15	330
GN 669-28-200-B-*	28	200	32	M 8	60	220	180	20	-	245
GN 669-28-250-B-*	28	250	32	M 8	60	270	230	20	-	260
GN 669-28-300-B-*	28	300	32	M 8	60	320	280	20	-	275
GN 669-28-400-B-*	28	400	32	M 8	60	420	380	20	-	300
GN 669-28-500-B-*	28	500	32	M 8	60	520	480	20	-	350
GN 669-28-600-B-*	28	600	32	M 8	60	620	580	20	-	400



Stainless Steel- Tubular handles

Mounting from the back

SPECIFICATION

Types

- Type **K**: with plastic cover cap
- Type **E**: with Stainless Steel cover cap

Tube Ø 30 x 1.5

Stainless Steel AISI 304
matt shiny finish, ground

Handle shanks

Stainless Steel AISI 304
matt shiny finish, ground

Grub screw DIN 914-M5

Stainless Steel AISI 304

Cover caps

- Type K: Plastic (Polyamide PA), black matt
- Type E: Stainless Steel AISI 304

INFORMATION

Type E of Stainless Steel-Tubular handles GN 666.5 is completely made of A2-Stainless Steel.

ON REQUEST

- Special lengths

TECHNICAL INFORMATION

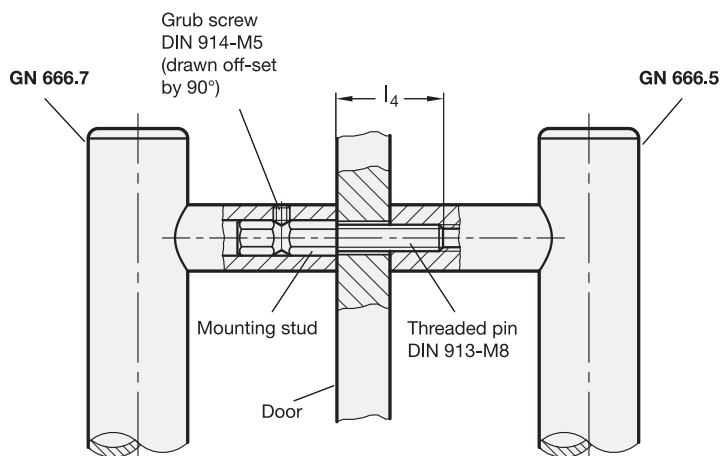
- Stainless Steel characteristics (see page A26)

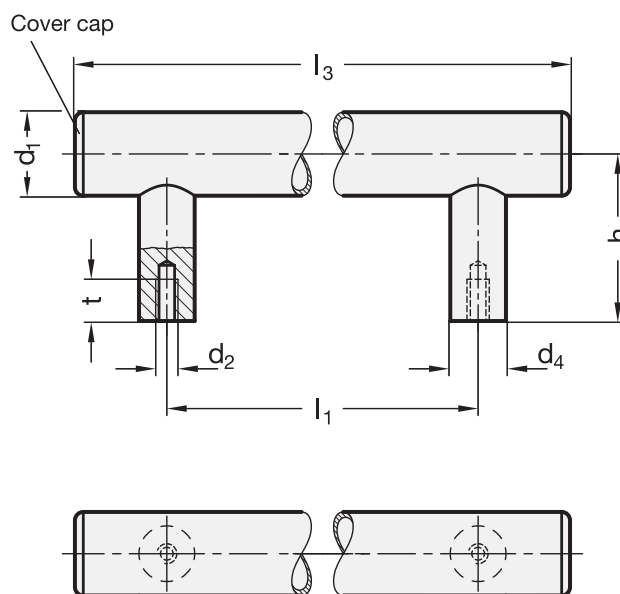
EXAMPLE OF APPLICATION

Tubular handles GN 666.5 allow the mounting of a pair of handles in opposite position. This method could be used on doors (double handle).

Generally a modification of the thread length l_4 required for this. The included threaded pin DIN 913-M8x25-A2 of mounting stud needs to be replaced by a longer threaded pin, too.

Handles with modified thread length l_4 are available on request.





GN 666.5

STAINLESS STEEL

Description	d1	d2	l1 ±0.5	d4	h	l3	l4	t min.	⚖
GN 666.5-30-M6-200-E	30	M 6	200	20	60	265	15	15	600
GN 666.5-30-M6-250-E	30	M 6	250	20	60	315	15	15	616
GN 666.5-30-M6-300-E	30	M 6	300	20	60	365	15	15	688
GN 666.5-30-M6-400-E	30	M 6	400	20	60	465	15	15	772
GN 666.5-30-M6-500-E	30	M 6	500	20	60	565	15	15	885
GN 666.5-30-M6-600-E	30	M 6	600	20	60	665	15	15	968
GN 666.5-30-M8-200-E	30	M 8	200	20	60	265	15	15	585
GN 666.5-30-M8-250-E	30	M 8	250	20	60	315	15	15	620
GN 666.5-30-M8-300-E	30	M 8	300	20	60	365	15	15	655
GN 666.5-30-M8-400-E	30	M 8	400	20	60	465	15	15	725
GN 666.5-30-M8-500-E	30	M 8	500	20	60	565	15	15	800
GN 666.5-30-M8-600-E	30	M 8	600	20	60	665	15	15	880
GN 666.5-30-M6-200-K	30	M 6	200	20	60	265	15	15	490
GN 666.5-30-M6-250-K	30	M 6	250	20	60	315	15	15	540
GN 666.5-30-M6-300-K	30	M 6	300	20	60	365	15	15	589
GN 666.5-30-M6-400-K	30	M 6	400	20	60	465	15	15	707
GN 666.5-30-M6-500-K	30	M 6	500	20	60	565	15	15	800
GN 666.5-30-M6-600-K	30	M 6	600	20	60	665	15	15	880
GN 666.5-30-M8-200-K	30	M 8	200	20	60	265	15	15	500
GN 666.5-30-M8-250-K	30	M 8	250	20	60	315	15	15	580
GN 666.5-30-M8-300-K	30	M 8	300	20	60	365	15	15	640
GN 666.5-30-M8-400-K	30	M 8	400	20	60	465	15	15	720
GN 666.5-30-M8-500-K	30	M 8	500	20	60	565	15	15	800
GN 666.5-30-M8-600-K	30	M 8	600	20	60	665	15	15	880

Stainless Steel- Tubular handles

Mounting from the operator's side

SPECIFICATION

Types

- Type **K**: with plastic cover cap
- Type **E**: with Stainless Steel cover cap

Tube Ø 30 x 1.5

Stainless Steel AISI 304
matt shiny finish, ground

Handle shanks

Stainless Steel AISI 304
matt shiny finish, ground

Mounting stud

with threaded pin DIN 913-M8
Stainless Steel AISI 304

Grub screw DIN 914-M5
Stainless Steel AISI 304

Cover caps

- Type **K**: Plastic (Polyamide PA), black matt
- Type **E**: Stainless Steel AISI 304

INFORMATION

For a mounting of Stainless Steel-Tubular handles GN 666.7 (mounting from the back) the stud is first screwed in from the machine side with the threaded pin DIN 913-M8x25 (included) and then the handle is pushed on and secured with the grub screw DIN 914-M5.

Type E of Stainless Steel-Tubular handles GN 666.7 is completely made of A2-Stainless Steel.

ON REQUEST

- Special lengths

TECHNICAL INFORMATION

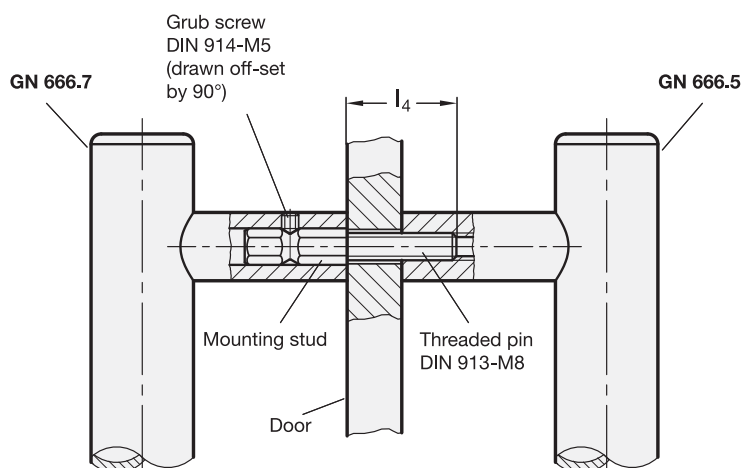
- Stainless Steel characteristics (see page A26)

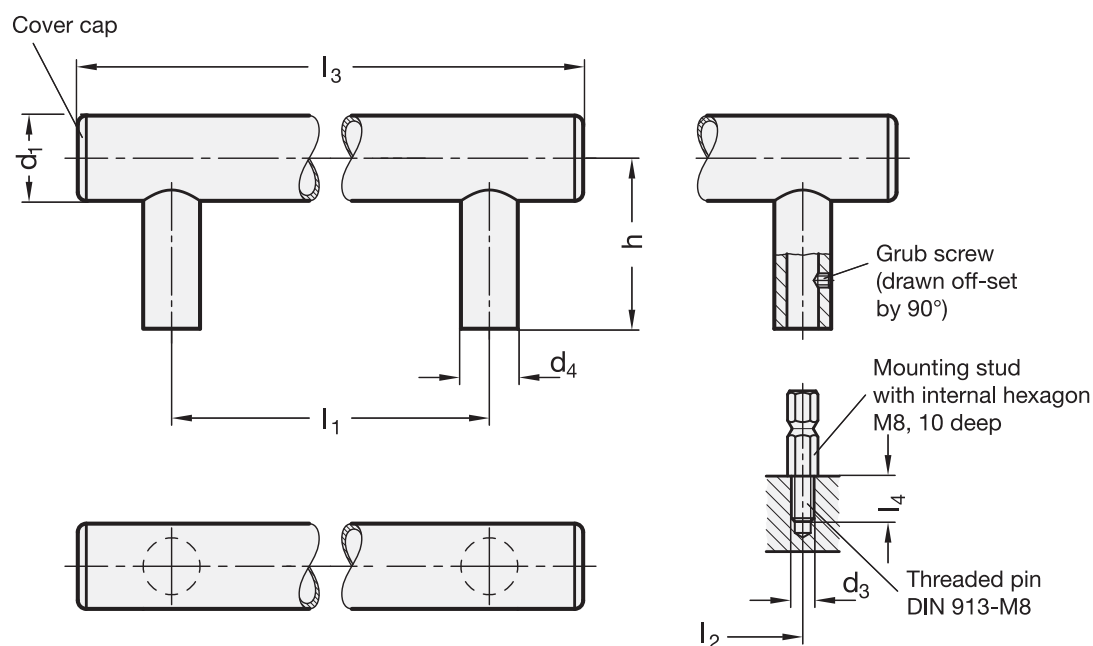
EXAMPLE OF APPLICATION

Tubular handles GN 666.7 allow the mounting of a pair of handles in opposite position. This method could be used on doors (double handle).

Generally a modification of the thread length l_4 required for this. The included threaded pin DIN 913-M8x25-A2 of mounting stud needs to be replaced by a longer threaded pin, too.

Handles with modified thread length l_4 are available on request.





GN 666.7

STAINLESS STEEL

Description	d1	d3	l1 ±0.5	l2 ±0.3	d4	h	l3	l4	⚖
GN 666.7-30-M8-200-E	30	M 8	200	200	20	60	265	15	581
GN 666.7-30-M8-250-E	30	M 8	250	250	20	60	315	15	640
GN 666.7-30-M8-300-E	30	M 8	300	300	20	60	365	15	700
GN 666.7-30-M8-400-E	30	M 8	400	400	20	60	465	15	796
GN 666.7-30-M8-500-E	30	M 8	500	500	20	60	565	15	900
GN 666.7-30-M8-600-E	30	M 8	600	600	20	60	665	15	990
GN 666.7-30-M8-200-K	30	M 8	200	200	20	60	265	15	520
GN 666.7-30-M8-250-K	30	M 8	250	250	20	60	315	15	550
GN 666.7-30-M8-300-K	30	M 8	300	300	20	60	365	15	580
GN 666.7-30-M8-400-K	30	M 8	400	400	20	60	465	15	740
GN 666.7-30-M8-500-K	30	M 8	500	500	20	60	565	15	800
GN 666.7-30-M8-600-K	30	M 8	600	600	20	60	665	15	860



Tubular handles

Tube Aluminium or Stainless Steel

SPECIFICATION

Tube Ø 30 x 1.5

Aluminium / Stainless Steel

Handle shanks / cover caps

Plastic (Polyamide PA)

- glass fibre reinforced

- temperature resistant up to 100 °C

Tube Aluminium

plastic coated

black, RAL 9005, textured finish **SW**

Handle shanks / cover caps, black, matt

Tube Aluminium

anodized, natural colour **EL**

Handle shanks / cover caps, black, matt

Tube Aluminium

anodized, natural colour **ELG**

Handle shanks / cover caps, light grey, matt

Tube Stainless Steel AISI 304

ground, matt shiny finish **NG**

Handle shanks / cover caps, black, matt

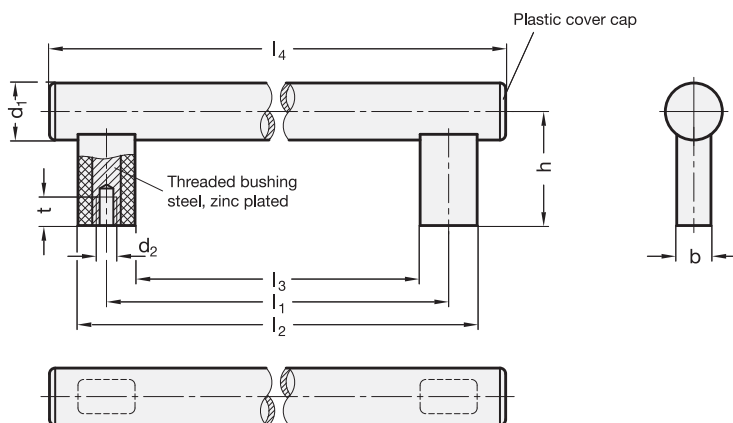


INFORMATION

Owing to their large range of variants and their classic design, GN 666 tubular handles are the perfect choice for many applications. With the modular structure, special lengths are available even in comparatively small unit quantities. Large handle can be supplied with additional centre struts.

ON REQUEST

- Cleanline version (CL)



* Complete with Finish of the Tubular handles (SW, EL, ELG or NG)

SW black **EL** anodized, black **ELG** anodized, light grey **NG** Stainless Steel, black

GN 666

Description	d1	d2	l1 ±0.5	b	h	l2	l3	l4	t min.	⚖
GN 666-30-M6-200-*	30	M 6	200	18	60	230	170	265	12	213
GN 666-30-M6-250-*	30	M 6	250	18	60	280	220	315	12	236
GN 666-30-M6-300-*	30	M 6	300	18	60	330	270	365	12	260
GN 666-30-M6-350-*	30	M 6	350	18	60	380	320	415	12	284
GN 666-30-M6-400-*	30	M 6	400	18	60	430	370	465	12	308
GN 666-30-M6-500-*	30	M 6	500	18	60	530	470	565	12	332
GN 666-30-M6-600-*	30	M 6	600	18	60	630	570	665	12	355
GN 666-30-M8-200-*	30	M 8	200	18	60	230	170	265	15	248
GN 666-30-M8-250-*	30	M 8	250	18	60	280	220	315	15	263
GN 666-30-M8-300-*	30	M 8	300	18	60	330	270	365	15	278
GN 666-30-M8-350-*	30	M 8	350	18	60	380	320	415	15	293
GN 666-30-M8-400-*	30	M 8	400	18	60	430	370	465	15	308
GN 666-30-M8-500-*	30	M 8	500	18	60	530	470	565	15	339
GN 666-30-M8-600-*	30	M 8	600	18	60	630	570	665	15	370

Tubular handles

Tube Aluminium or Stainless Steel

SPECIFICATION

Tube Ø 30 x 1.5

Aluminium / Stainless Steel

Handle shanks / cover caps

Plastic (Polyamide PA)

- glass fibre reinforced
- temperature resistant up to 100 °C

Tube Aluminium

plastic coated

black, RAL 9005, textured finish **SW**

Handle shanks / cover caps, black, matt

Tube Aluminium

anodized, natural colour **EL**

Handle shanks / cover caps, black, matt

Tube Aluminium

anodized, natural colour **ELG**

Handle shanks / cover caps, light grey, matt

Tube Stainless Steel AISI 304

ground, matt shiny finish **NG**

Handle shanks / cover caps, black, matt



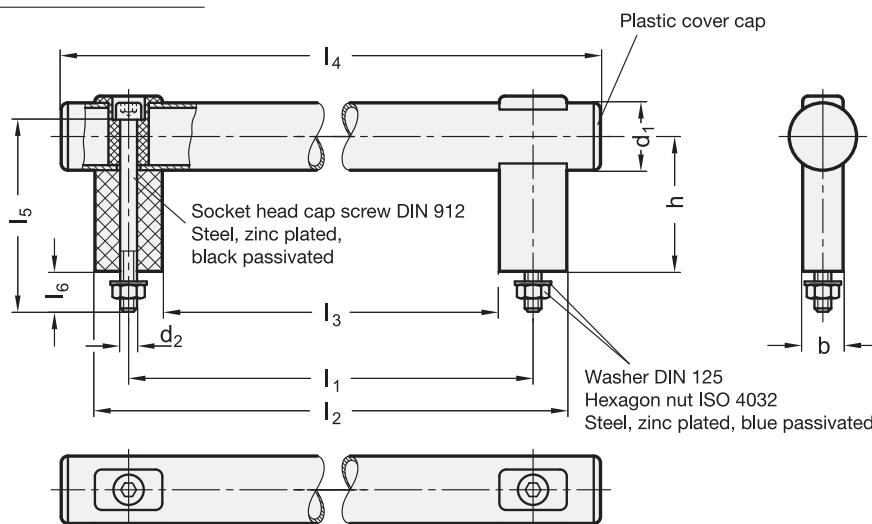
INFORMATION

Owing to their large range of variants and their classic design, GN 666.1 tubular handles are the perfect choice for many applications.

With the modular structure, special lengths are available even in comparatively small unit quantities. Large handle can be supplied with additional centre struts.

TECHNICAL INFORMATION

- Load rating information (see page A35)



* Complete with Finish of the Tubular handles (SW, EL, ELG or NG)

SW	EL	ELG	NG
black	anodized, black	anodized, light grey	Stainless Steel, black

GN 666.1

Description	d1	l1 ±0.5	b	d2	h	l2	l3	l4	l5	l6	⚖
GN 666.1-30-200-*	30	200	18	M 8	60	230	170	265	85	17	247
GN 666.1-30-250-*	30	250	18	M 8	60	280	220	315	85	17	265
GN 666.1-30-300-*	30	300	18	M 8	60	330	270	365	85	17	284
GN 666.1-30-400-*	30	400	18	M 8	60	430	370	465	85	17	321
GN 666.1-30-500-*	30	500	18	M 8	60	530	470	565	85	17	357
GN 666.1-30-600-*	30	600	18	M 8	60	630	570	665	85	17	394

Tubular handles

Technopolymer, aluminium, stainless steel

HANDLE SHANKS

Glass-fibre reinforced polyamide based (PA) technopolymer, black colour, matte finish. Supplied not assembled. The handle shank connection to the tube avoids tube rotation.

Handle shanks group can be sold separately as well (tube not included).

Code	Description
15302	GR-M.1043/20
15301	GR-M1043/30

ANTI-ROTATION TUBE END PLUGS

NBR synthetic rubber.

STANDARD EXECUTIONS

Pass-through holes for cylindrical-head screws with hexagon socket. Two reference pins (to be fitted during handle assembly) guarantee an exact positioning of the shanks.

- **M.1043-EP:** aluminium tube, epoxy resin coating, metalflake graphite colour, matte finish. Highly resistant to wear, scratches and chemical agents. Avoid continuous and prolonged contact with boiling water or steam.
- **M.1043-AN:** anodised aluminium tube, natural colour.
- **M.1043-SST:** AISI 304 stainless steel tube.

Threaded blind holes. Two reference pins (to be fitted during handle assembly) guarantee an exact positioning of the shanks.

- **M.1043-BM-EP:** aluminium tube, epoxy resin coating, metalflake graphite colour, matte finish. Highly resistant to wear, scratches and chemical agents. Avoid continuous and prolonged contact with boiling water or steam.
- **M.1043 BM-AN:** anodised aluminium tube, natural colour.
- **M.1043-BM-SST:** AISI 304 stainless steel tube.

TECHNICAL DATA

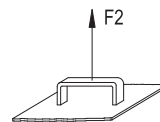
Tensile stress: F2 values reported in the table are the result of breaking tests carried out with the appropriate dynamometric equipment under the test conditions shown in the figure with ambient temperature.

ACCESSORIES ON REQUEST

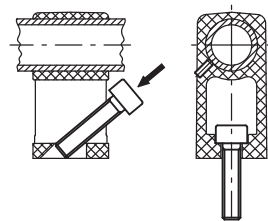
- Intermediate shank for tube diameter 20: code 15306 SCM.1043-20.
- Intermediate shank for tube diameter 30: code 15305 SCM.1043-30.
- Suggested for tube longer than 700 mm.
- Distance element for side shank with connection for tube Ø30 DS-M.1043 (see table).



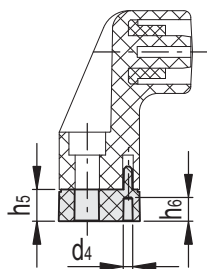
ELESA Original design



Assembly
SCM. intermediate shank

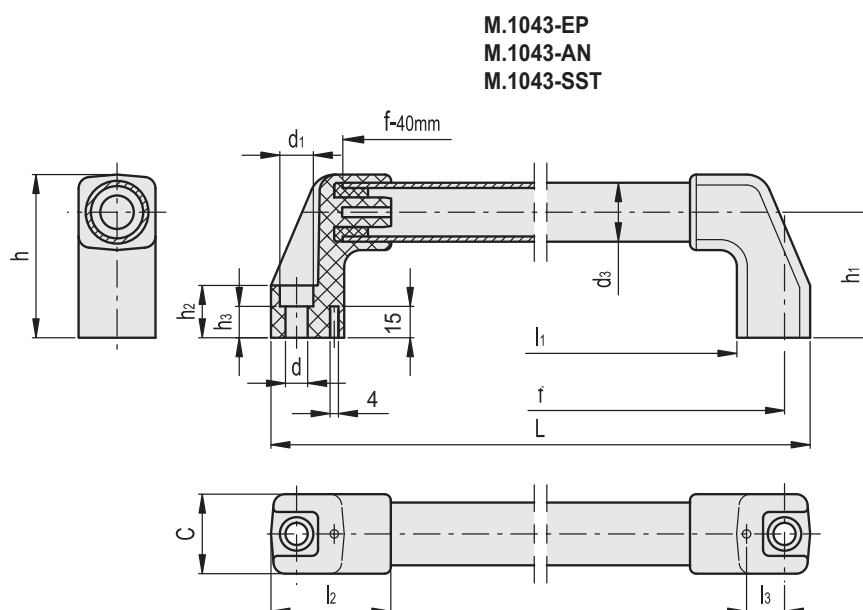


DS-M.1043



DS-M.1043

Code	Description	d4	h5	h6	For handle
15291	DS-M.1043/30-10	4	10	6	M.1043/30
15293	DS-M.1043/30-20	4	20	15	M.1043/30

**M.1043-EP****M.1043-AN**

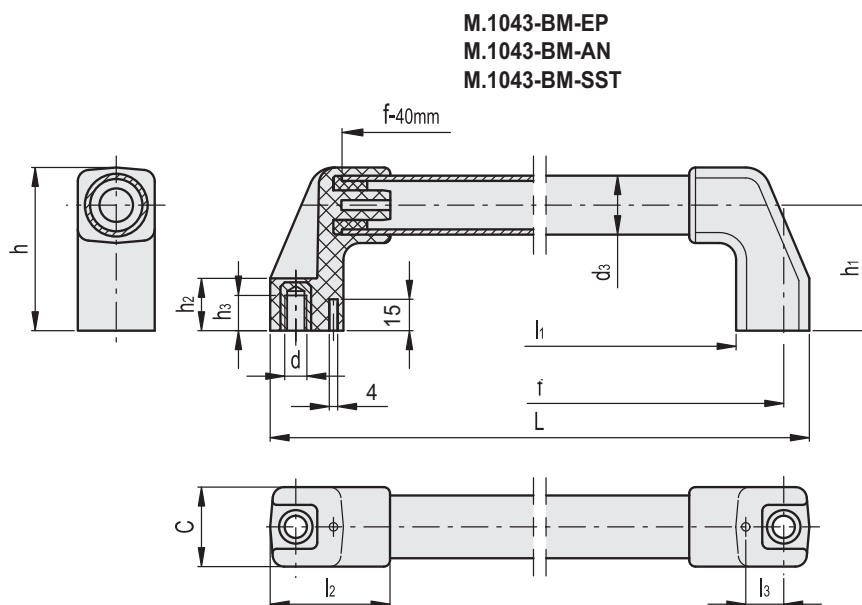
Code	Description	Code	Description	f±1	L	d	d1	h	h1	h2	h3	l1	l2	l3	d3	C	F2 [N]*	F2 [N]#	⚖
37621	M.1043/20-200-EP	37623	M.1043/20-200-AN	200	220	8.5	13.5	58	45	18	9.5	162	47	13	20	28	1500	2000	128
37631	M.1043/20-300-EP	37633	M.1043/20-300-AN	300	320	8.5	13.5	58	45	18	9.5	262	47	13	20	28	1500	2000	140
37641	M.1043/20-350-EP	37643	M.1043/20-350-AN	350	370	8.5	13.5	58	45	18	9.5	312	47	13	20	28	1400	1800	152
37651	M.1043/20-400-EP	37653	M.1043/20-400-AN	400	420	8.5	13.5	58	45	18	9.5	362	47	13	20	28	1200	1600	163
37661	M.1043/20-500-EP	37663	M.1043/20-500-AN	500	520	8.5	13.5	58	45	18	9.5	462	47	13	20	28	1000	1200	185
37671	M.1043/20-600-EP	37673	M.1043/20-600-AN	600	620	8.5	13.5	58	45	18	9.5	562	47	13	20	28	800	1000	210
37681	M.1043/20-700-EP	37683	M.1043/20-700-AN	700	720	8.5	13.5	58	45	18	9.5	662	47	13	20	28	600	900	232
37695	M.1043/30-200-EP	37697	M.1043/30-200-AN	200	224	10.5	16	78	60	25	15	154	57	18	30	38	3000	3900	233
37701	M.1043/30-300-EP	37703	M.1043/30-300-AN	300	324	10.5	16	78	60	25	15	254	57	18	30	38	3000	3900	255
37711	M.1043/30-350-EP	37713	M.1043/30-350-AN	350	374	10.5	16	78	60	25	15	304	57	18	30	38	2600	3500	277
37721	M.1043/30-400-EP	37723	M.1043/30-400-AN	400	424	10.5	16	78	60	25	15	354	57	18	30	38	2200	3300	295
37731	M.1043/30-500-EP	37733	M.1043/30-500-AN	500	524	10.5	16	78	60	25	15	454	57	18	30	38	1800	2400	337
37741	M.1043/30-600-EP	37743	M.1043/30-600-AN	600	624	10.5	16	78	60	25	15	554	57	18	30	38	1600	2000	378
37751	M.1043/30-700-EP	37753	M.1043/30-700-AN	700	724	10.5	16	78	60	25	15	654	57	18	30	38	1300	1800	417

M.1043-SST**STAINLESS STEEL**

Code	Description	f±1	L	d	d1	h	h1	h2	h3	l1	l2	l3	d3	C	F2 [N]*	F2 [N]#	⚖
37622	M.1043/20-200-SST	200	220	8.5	13.5	58	45	18	9.5	162	47	13	20	28	1500	2000	128
37632	M.1043/20-300-SST	300	320	8.5	13.5	58	45	18	9.5	262	47	13	20	28	3000	4500	142
37642	M.1043/20-350-SST	350	370	8.5	13.5	58	45	18	9.5	312	47	13	20	28	2500	4000	154
37652	M.1043/20-400-SST	400	420	8.5	13.5	58	45	18	9.5	362	47	13	20	28	2000	3500	166
37662	M.1043/20-500-SST	500	520	8.5	13.5	58	45	18	9.5	462	47	13	20	28	1600	2500	190
37672	M.1043/20-600-SST	600	620	8.5	13.5	58	45	18	9.5	562	47	13	20	28	1100	1800	215
37682	M.1043/20-700-SST	700	720	8.5	13.5	58	45	18	9.5	662	47	13	20	28	900	1400	240
37696	M.1043/30-200-SST	200	224	10.5	16	78	60	25	15	154	57	18	30	38	3000	3900	233
37702	M.1043/30-300-SST	300	324	10.5	16	78	60	25	15	254	57	18	30	38	4200	5500	258
37712	M.1043/30-350-SST	350	374	10.5	16	78	60	25	15	304	57	18	30	38	4000	5250	282
37722	M.1043/30-400-SST	400	424	10.5	16	78	60	25	15	354	57	18	30	38	3800	5000	302
37732	M.1043/30-500-SST	500	524	10.5	16	78	60	25	15	454	57	18	30	38	3500	4500	343
37742	M.1043/30-600-SST	600	624	10.5	16	78	60	25	15	554	57	18	30	38	2800	4000	385
37752	M.1043/30-700-SST	700	724	10.5	16	78	60	25	15	654	57	18	30	38	2250	3500	425

* Maximum working load # Load at breakage (permanent deformation).





M.1043-BM-EP

M.1043-BM-AN

Code	Description	Code	Description	f±1	L	d	h	h1	h2	h3	l1	l2	l3	d3	C	F2 [N]*	F2 [N]#	⚖
37560	M.1043 BM/20-200-EP	37580	M.1043 BM/20-200-AN	200	220	M8	58	45	18	9.5	162	47	13	20	28	1500	2000	128
37561	M.1043 BM/20-300-EP	37581	M.1043 BM/20-300-AN	300	320	M8	58	45	18	10	262	47	13	20	28	1500	2000	140
37562	M.1043 BM/20-350-EP	37582	M.1043 BM/20-350-AN	350	370	M8	58	45	18	10	312	47	13	20	28	1400	1800	152
37563	M.1043 BM/20-400-EP	37583	M.1043 BM/20-400-AN	400	420	M8	58	45	18	10	362	47	13	20	28	1200	1600	163
37565	M.1043 BM/20-500-EP	37585	M.1043 BM/20-500-AN	500	520	M8	58	45	18	10	462	47	13	20	28	1000	1200	185
37567	M.1043 BM/20-600-EP	37587	M.1043 BM/20-600-AN	600	620	M8	58	45	18	10	562	47	13	20	28	800	1000	210
37569	M.1043 BM/20-700-EP	37589	M.1043 BM/20-700-AN	700	720	M8	58	45	18	10	662	47	13	20	28	600	900	232
37570	M.1043 BM/30-200-EP	37590	M.1043 BM/30-200-AN	200	224	M10	78	60	25	15	154	57	18	30	38	3000	3900	233
37571	M.1043 BM/30-300-EP	37591	M.1043 BM/30-300-AN	300	324	M10	78	60	25	17	254	57	18	30	38	3000	3900	255
37572	M.1043 BM/30-350-EP	37592	M.1043 BM/30-350-AN	350	374	M10	78	60	25	17	304	57	18	30	38	2600	3500	277
37573	M.1043 BM/30-400-EP	37593	M.1043 BM/30-400-AN	400	424	M10	78	60	25	17	354	57	18	30	38	2200	3300	295
37575	M.1043 BM/30-500-EP	37595	M.1043 BM/30-500-AN	500	524	M10	78	60	25	17	454	57	18	30	38	1800	2400	337
37577	M.1043 BM/30-600-EP	37597	M.1043 BM/30-600-AN	600	624	M10	78	60	25	17	554	57	18	30	38	1600	2000	378
37579	M.1043 BM/30-700-EP	37599	M.1043 BM/30-700-AN	700	724	M10	78	60	25	17	654	57	18	30	38	1300	1800	417

M.1043-BM-SST

STAINLESS STEEL

Code	Description	f±1	L	d	h	h1	h2	h3	l1	l2	l3	d3	C	F2 [N]*	F2 [N]#	⚖
37599	M.1043 BM/20-200-SST	200	220	M8	58	45	18	9.5	162	47	13	20	28	1500	2000	128
37600	M.1043 BM/20-300-SST	300	320	M8	58	45	18	10	262	47	13	20	28	3000	4500	142
37602	M.1043 BM/20-350-SST	350	370	M8	58	45	18	10	312	47	13	20	28	2500	4000	154
37603	M.1043 BM/20-400-SST	400	420	M8	58	45	18	10	362	47	13	20	28	2000	3500	166
37605	M.1043 BM/20-500-SST	500	520	M8	58	45	18	10	462	47	13	20	28	1600	2500	190
37607	M.1043 BM/20-600-SST	600	620	M8	58	45	18	10	562	47	13	20	28	1100	1800	215
37609	M.1043 BM/20-700-SST	700	720	M8	58	45	18	10	662	47	13	20	28	900	1400	240
37610	M.1043 BM/30-200-SST	200	224	M10	78	60	25	15	154	57	18	30	38	3000	3900	233
37611	M.1043 BM/30-300-SST	300	324	M10	78	60	25	17	254	57	18	30	38	4200	5500	258
37612	M.1043 BM/30-350-SST	350	374	M10	78	60	25	17	304	57	18	30	38	4000	5250	282
37613	M.1043 BM/30-400-SST	400	424	M10	78	60	25	17	354	57	18	30	38	3800	5000	302
37615	M.1043 BM/30-500-SST	500	524	M10	78	60	25	17	454	57	18	30	38	3500	4500	343
37617	M.1043 BM/30-600-SST	600	624	M10	78	60	25	17	554	57	18	30	38	2800	4000	385
37619	M.1043 BM/30-700-SST	700	724	M10	78	60	25	17	654	57	18	30	38	2250	3500	425

* Maximum working load # Load at breakage (permanent deformation).

Tubular handles
for electrical insulation

Technopolymer and polyester

HANDLE SHANKS

Glass-fibre reinforced polyamide based (PA) technopolymer, black colour, matte finish.
Supplied assembled. The seat for housing the tube in the shank is shaped so as to prevent its rotation.

TUBE

Glass-fibre reinforced polyester, black colour with high resistivity.
High resistance to wear, scratches and agents.

MOUNTING

Rear fastening with screws M10.
Two reference pins (to be fitted during assembly) guarantee a precise positioning.

MECHANICAL AND DIELECTRIC FEATURES

Tensile stress: F2 values reported in the table are the result of breaking tests carried out with the appropriate dynamometric equipment under the test conditions shown in the figure with ambient temperature.
The following table lists the main dielectric features of the tube.

ACCESSORIES ON REQUEST

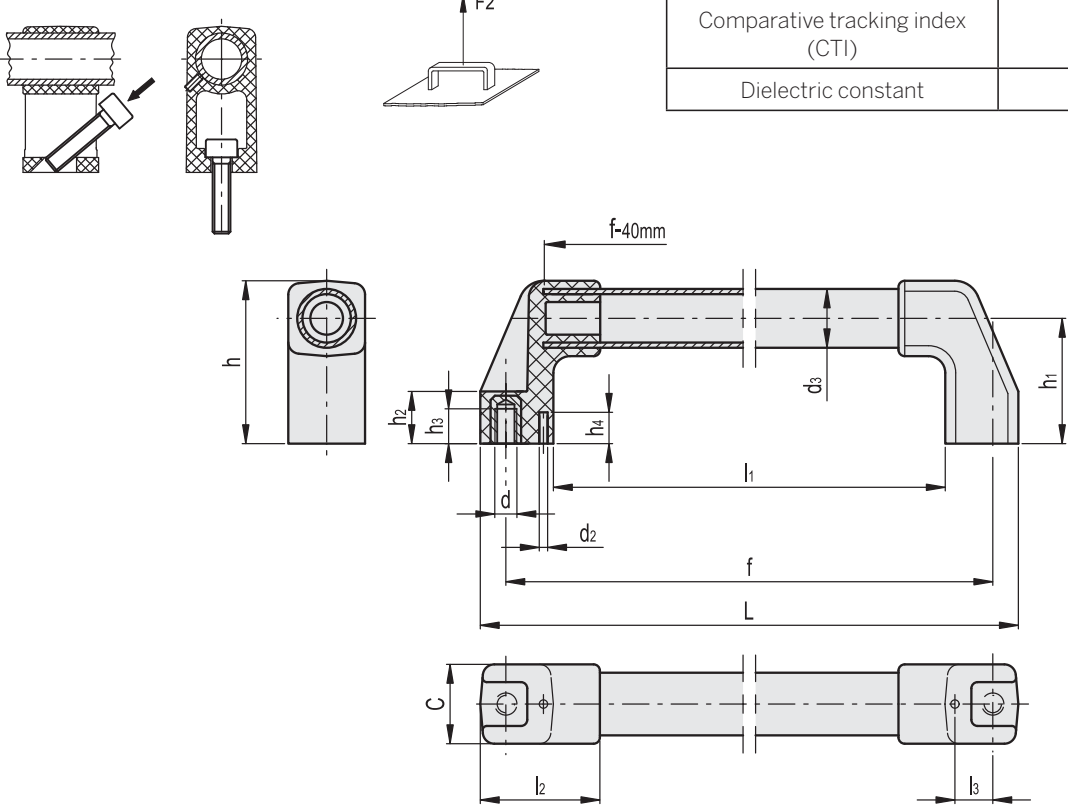
Intermediate shank for tube (recommended for lengths greater than 700 mm): code 15305 SCM.1043-30.



ELESA Original design

Dielectric features of the tube	
Volume Resistivity	10 ¹⁰ ÷ 10 ¹⁵ [Ω *cm]
Surface resistivity	10 ¹⁰ ÷ 10 ¹³ [Ω*] (according to IEC93 standard)
Dielectric resistivity	8 [KV/mm]
Comparative tracking index (CTI)	> 600 (V)
Dielectric constant	5

Assembly
SCM. intermediate shank



Code	Description	f±1	L	d	h	h1	h2	h3	h4	l1	l2	l3	d2	d3	C	F2 [N]*	F2 [N]#	⚖
37776	M.1043/30-500-HEI	500	524	M10	78	60	25	17	15	454	57	18	4	30	38	3000	4500	495
37786	M.1043/30-700-HEI	700	724	M10	78	60	25	17	15	654	57	18	4	30	38	2000	3500	630

* Maximum working load # Load at breakage



Tubular handles

Technopolymer and aluminium

HANDLE SHANKS

Glass-fibre reinforced polyamide based (PA) technopolymer, matte finish.

SIDE CAPS

Technopolymer in Ergostyle colours and white similar to RAL 9002 (CLEAN), glossy finish. Supplied with the handle, press-fit assembly, removable by a screwdriver.

Available also as accessories sold separately (see table ECA.).

Code	Description	Cover for
29871-*	ECA.T1-*	ETH.28
29872-*	ECA.T2-*	ETH.35
29871	ECA.T1-CLEAN	ETH.28-CLEAN
29872	ECA.T2-CLEAN	ETH.35-CLEAN

* Complete with colour index (C1, ..., C6).

ANTI-ROTATION TUBE ASSEMBLING SYSTEM

Special expansion-assembly system between the tube and the handle shanks to prevent rotation during operation.

STANDARD EXECUTIONS

Pass-through holes for cylindrical-head screws with hexagon socket, hexagonal-head screws or standard lock nuts.

- **ETH-EP:** aluminium tube, epoxy resin coating, metalflake graphite colour, matte finish. Highly resistant to wear, scratches and chemical agents. Avoid continuous and prolonged contact with boiling water or steam. Side shanks in grey-black colour.
- **ETH-AN:** anodised aluminium tube, natural colour. Side shanks in grey-black colour.
- **ETH-CLEAN:** aluminium tube, coating in white colour similar to RAL 9002, glossy finish. Side shanks in white colour similar to RAL 9002.

Suggested tightening torque:

- back mounting with plain holes: 8 [Nm]
- front mounting with plain or tapped holes: 15 [Nm].

ERGONOMY AND DESIGN

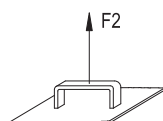
The large diameter of the tube offers a good and comfortable grip; the antirotation assembly system of the handle shanks to the tube has been developed to offer a firm and secure manoeuvrability during operations.

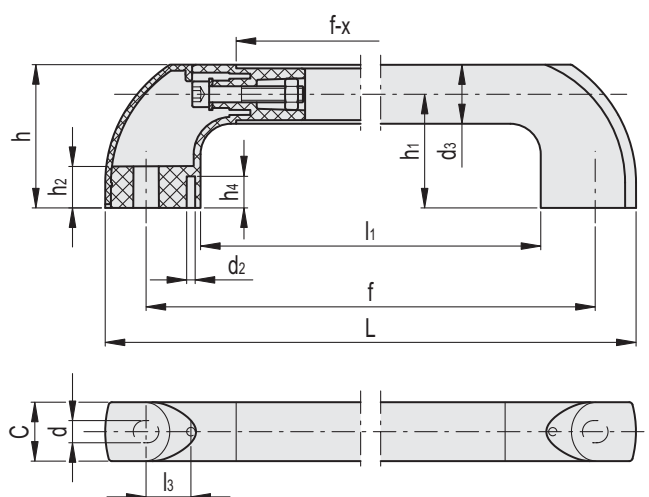
TECHNICAL DATA

Tensile stress: F2 values reported in the table are the result of breaking tests carried out with the appropriate dynamometric equipment under the test conditions shown in the figure with ambient temperature.

SPECIAL EXECUTIONS ON REQUEST

Different lengths.





* Complete with colour index, example: 262151-C5 ETH.28-300-EP-C5

C1 RAL7021 **C2** RAL2004 **C3** RAL7035 **C4** RAL1021 **C5** RAL5024 **C6** RAL3000

ETH-EP

Code	Description	f±1	L	d	h	h1	h2	h4	l1	l3	d2	d3	C	x	F2 [N]*	F2 [N]#	⚖
262151-*	ETH.28-300-EP-*	300	339	8.5	68	54	20	15	248	20.3	4	27.5	28	86	2400	2800	235
262155-*	ETH.28-400-EP-*	400	439	8.5	68	54	20	15	348	20.3	4	27.5	28	86	2000	2300	268
262161-*	ETH.28-500-EP-*	500	539	8.5	68	54	20	15	448	20.3	4	27.5	28	86	1800	2000	301
262165-*	ETH.28-600-EP-*	600	639	8.5	68	54	20	15	548	20.3	4	27.5	28	86	1200	1500	335
262171-*	ETH.28-700-EP-*	700	739	8.5	68	54	20	15	648	20.3	4	27.5	28	86	900	1200	368
262211-*	ETH.35-300-EP-*	300	357	10.5	85	67.5	28	15	251	18.5	4	34.5	35	91	3000	3100	397
262215-*	ETH.35-400-EP-*	400	457	10.5	85	67.5	28	15	351	18.5	4	34.5	35	91	2700	2800	456
262221-*	ETH.35-500-EP-*	500	557	10.5	85	67.5	28	15	451	18.5	4	34.5	35	91	2500	2600	515
262225-*	ETH.35-600-EP-*	600	657	10.5	85	67.5	28	15	551	18.5	4	34.5	35	91	1900	2100	574
262231-*	ETH.35-700-EP-*	700	757	10.5	85	67.5	28	15	651	18.5	4	34.5	35	91	1900	2100	633
262246-*	ETH.35-1000-EP-*	1000	1057	10.5	85	67.5	28	15	951	18.5	4	34.5	35	91	1200	1400	810

ETH-AN

Code	Description	f±1	L	d	h	h1	h2	h4	l1	l3	d2	d3	C	x	F2 [N]*	F2 [N]#	⚖
262153-*	ETH.28-300-AN-*	300	339	8.5	68	54	20	15	248	20.3	4	27.5	28	86	2400	2800	235
262157-*	ETH.28-400-AN-*	400	439	8.5	68	54	20	15	348	20.3	4	27.5	28	86	2000	2300	268
262163-*	ETH.28-500-AN-*	500	539	8.5	68	54	20	15	448	20.3	4	27.5	28	86	1800	2000	301
262167-*	ETH.28-600-AN-*	600	639	8.5	68	54	20	15	548	20.3	4	27.5	28	86	1200	1500	335
262173-*	ETH.28-700-AN-*	700	739	8.5	68	54	20	15	648	20.3	4	27.5	28	86	900	1200	368
262213-*	ETH.35-300-AN-*	300	357	10.5	85	67.5	28	15	251	18.5	4	34.5	35	91	3000	3100	397
262217-*	ETH.35-400-AN-*	400	457	10.5	85	67.5	28	15	351	18.5	4	34.5	35	91	2700	2800	456
262223-*	ETH.35-500-AN-*	500	557	10.5	85	67.5	28	15	451	18.5	4	34.5	35	91	2500	2600	515
262227-*	ETH.35-600-AN-*	600	657	10.5	85	67.5	28	15	551	18.5	4	34.5	35	91	1900	2100	574
262233-*	ETH.35-700-AN-*	700	757	10.5	85	67.5	28	15	651	18.5	4	34.5	35	91	1900	2100	633
262248-*	ETH.35-1000-AN-*	1000	1057	10.5	85	67.5	28	15	951	18.5	4	34.5	35	91	1200	1400	810

ETH-CLEAN

Code	Description	f±1	L	d	h	h1	h2	h4	l1	l3	d2	d3	C	x	F2 [N]*	F2 [N]#	⚖
150911	ETH.28-300-CLEAN	300	339	8.5	68	54	20	15	248	20.3	4	27.5	28	86	2400	2800	235
150913	ETH.28-400-CLEAN	400	439	8.5	68	54	20	15	348	20.3	4	27.5	28	86	2000	2300	268
150915	ETH.28-500-CLEAN	500	539	8.5	68	54	20	15	448	20.3	4	27.5	28	86	1800	2000	301
150917	ETH.28-600-CLEAN	600	639	8.5	68	54	20	15	548	20.3	4	27.5	28	86	1200	1500	335
150919	ETH.28-700-CLEAN	700	739	8.5	68	54	20	15	648	20.3	4	27.5	28	86	900	1200	368
150931	ETH.35-300-CLEAN	300	357	10.5	85	67.5	28	15	251	18.5	4	34.5	35	91	3000	3100	397
150933	ETH.35-400-CLEAN	400	457	10.5	85	67.5	28	15	351	18.5	4	34.5	35	91	2700	2800	456
150935	ETH.35-500-CLEAN	500	557	10.5	85	67.5	28	15	451	18.5	4	34.5	35	91	2500	2600	515
150937	ETH.35-600-CLEAN	600	657	10.5	85	67.5	28	15	551	18.5	4	34.5	35	91	1900	2100	574
150939	ETH.35-700-CLEAN	700	757	10.5	85	67.5	28	15	651	18.5	4	34.5	35	91	1900	2100	633
150941	ETH.35-1000-CLEAN	1000	1057	10.5	85	67.5	28	15	951	18.5	4	34.5	35	91	1200	1400	810

* Maximum working load # Load at breakage



Tubular handles

Technopolymer

TUBE

Aluminium, coating in white colour similar to RAL 9002, handle shanks and end caps in white colour similar to RAL 9002.

HANDLE SHANKS

Glass-fibre reinforced polyamide based (PA) technopolymer, matte finish.

TUBE END CAPS

Polyamide based (PA) technopolymer.

COLOUR

White similar to RAL 9002.

STANDARD EXECUTION

Special zinc-plated steel screws with threaded blind holes, fitted to the tube by means of brass nuts.

FEATURES AND APPLICATIONS

This handle, thanks to its white colour and glossy finish, is particularly suitable for applications on medical and hospital equipment and on food processing machines whose parts, for hygienic reasons, must be frequently cleaned.

Its solid shape without cavities prevents unhealthy residues from depositing.

TECHNICAL DATA

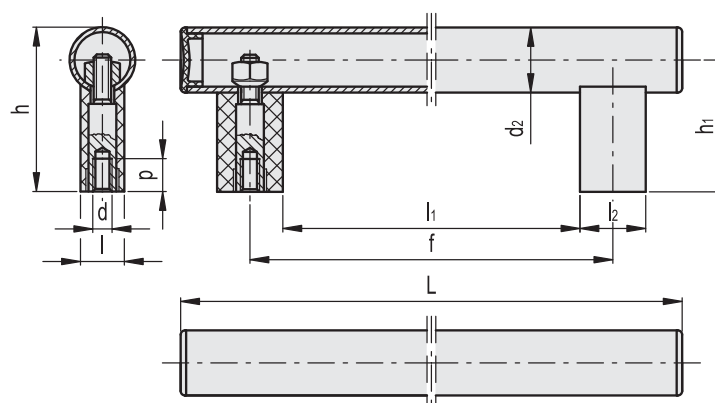
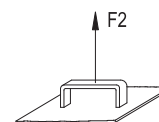
Tensile stress: F2 values reported in the table are the result of breaking tests carried out with the appropriate dynamometric equipment under the test conditions shown in the figure with ambient temperature.

SPECIAL EXECUTIONS ON REQUEST

- Stainless steel tube.
- Different lengths.



ELESA Original design



Code	Description	f±1	L	d	h	h1	l	l1	l2	d2	p	F2 [N]*	F2 [N]#	△
151501	M.1066 BM/30-200 CLEAN	200	265	M8	75	60	18	170	30	30	15	4400	6500	240
151506	M.1066 BM/30-250 CLEAN	250	315	M8	75	60	18	220	30	30	15	3500	6000	260
151511	M.1066 BM/30-300 CLEAN	300	365	M8	75	60	18	270	30	30	15	3300	5700	280
151513	M.1066 BM/30-350 CLEAN	350	415	M8	75	60	18	320	30	30	15	3300	5700	300
151516	M.1066 BM/30-400 CLEAN	400	465	M8	75	60	18	370	30	30	15	2400	4500	320
151521	M.1066 BM/30-500 CLEAN	500	565	M8	75	60	18	470	30	30	15	1500	3800	360
151526	M.1066 BM/30-600 CLEAN	600	665	M8	75	60	18	570	30	30	15	880	3200	380

* Maximum working load # Load at breakage



ERGOSTYLE®



reddot design award



4
U-Handles

Oval tubular handles

Mounting from the back side

SPECIFICATION

Handle tube
Aluminium

Handle shanks
Zinc die casting
plastic coated

Tube **SW**
plastic coated
black, RAL 9005, textured finish
Handle shanks
black, RAL 9005, textured finish

Tube **EL**
anodized, natural colour
Handle shanks
black, RAL 9005, textured finish

Tube **ES**
anodized, natural colour
Handle shanks
silver, RAL 9006, textured finish

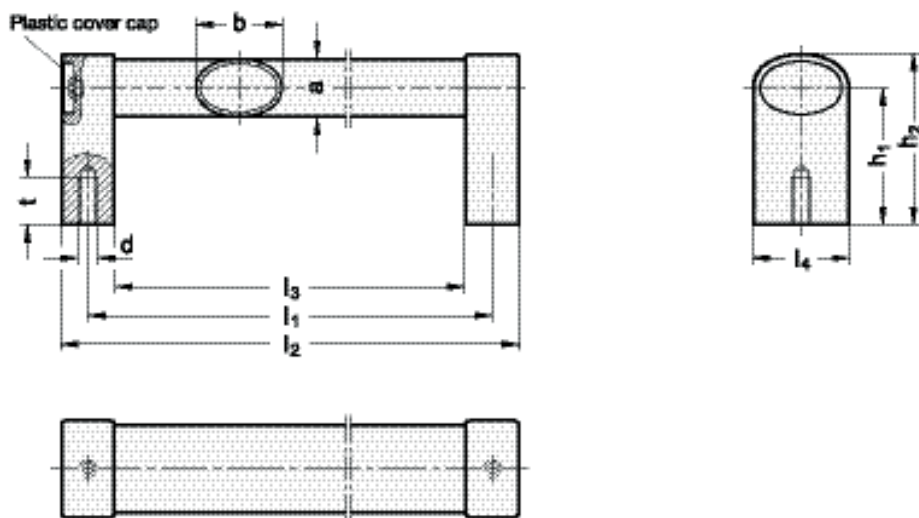
Cover caps
plastic, light grey

INFORMATION

Oval tubular handles GN 334.1 are highly stable.
The handle tube can be mounted without any further machining,
allowing **special lengths** to be realised easily.

TECHNICAL INFORMATION

- Load rating information (see page A35)



* Complete with Finish of the Oval tubular handles (SW, EL or ES)

SW	EL	ES
black	anodized, black	anodized, silver

GN 334

Description	b	l1 ±0.5	a	d	h1	h2	l2	l3	l4	t min.	⚖
GN 334-36-200-*	36	200	24	M 8	57	71	222	178	40	15	480
GN 334-36-250-*	36	250	24	M 8	57	71	272	228	40	15	522
GN 334-36-300-*	36	300	24	M 8	57	71	322	278	40	15	564
GN 334-36-350-*	36	350	24	M 8	57	71	372	328	40	15	606
GN 334-36-400-*	36	400	24	M 8	57	71	422	378	40	15	648
GN 334-36-500-*	36	500	24	M 8	57	71	522	478	40	15	732
GN 334-36-600-*	36	600	24	M 8	57	71	622	578	40	15	800
GN 334-36-800-*	36	800	24	M 8	57	71	822	778	40	15	968

Oval tubular handles

Mounting from the operator's side

SPECIFICATION

Handle tube
Aluminium

Handle shanks
Zinc die casting
plastic coated

Tube **SW**
plastic coated
black, RAL 9005, textured finish
Handle shanks
black, RAL 9005, textured finish

Tube **EL**
anodized, natural colour
Handle shanks
black, RAL 9005, textured finish

Tube **ES**
anodized, natural colour
Handle shanks
silver, RAL 9006, textured finish

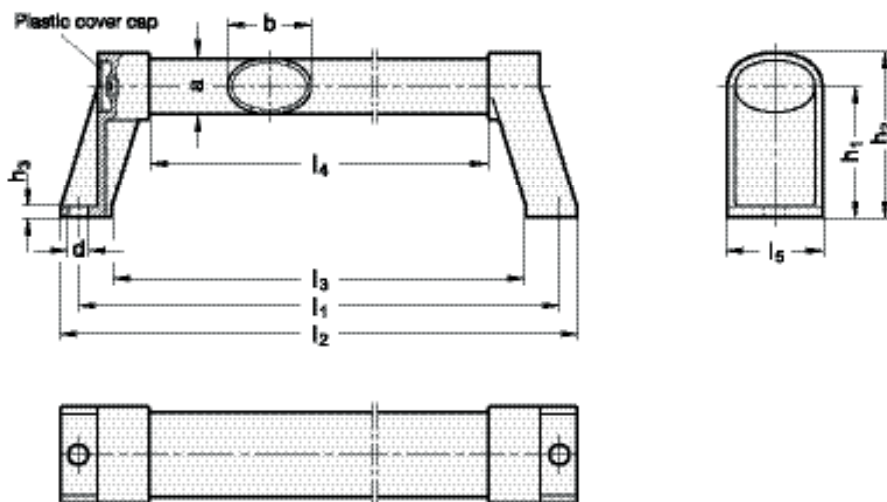
Cover caps
plastic, light grey

INFORMATION

Oval tubular handles GN 334.1 are highly stable.
The handle tube can be mounted without any further machining,
allowing **special lengths** to be realised easily.

TECHNICAL INFORMATION

- Load rating information (see page A35)



* Complete with Finish of the Oval tubular handles (SW, EL or ES)

SW	EL	ES
black	anodized, black	anodized, silver

GN 334.1

Description	b	l1 ±0.5	a	d	h1	h2	h3	l2	l3	l4	l5	⚖
GN 334.1-36-200-*	36	200	24	8.5	57	72	5	215	171	139	41	430
GN 334.1-36-250-*	36	250	24	8.5	57	72	5	265	221	189	41	475
GN 334.1-36-300-*	36	300	24	8.5	57	72	5	315	271	239	41	522
GN 334.1-36-350-*	36	350	24	8.5	57	72	5	365	321	289	41	567
GN 334.1-36-400-*	36	400	24	8.5	57	72	5	415	371	339	41	613
GN 334.1-36-500-*	36	500	24	8.5	57	72	5	515	471	439	41	705
GN 334.1-36-600-*	36	600	24	8.5	57	72	5	615	571	539	41	797
GN 334.1-36-800-*	36	800	24	8.5	57	72	5	815	771	739	41	889

Oval tubular handles

SPECIFICATION

Handle tube

Aluminium

Handle shanks / Cover cap

plastic

Technopolymer (Polyamide PA)

- glass fibre reinforced

- temperature resistant up to 100 °C

Tube **SW**

plastic coated

black, RAL 9005, textured finish

Handle shanks / Cover cap

black, matt

Tube anodized, natural colour **ELS**

Handle shanks / Cover cap

black, matt

Tube anodized, natural colour **ELG**

Handle shanks / Cover cap

light grey, matt

Bushing

Steel, zinc plated

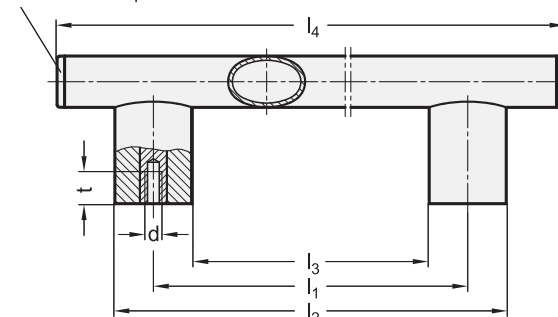
INFORMATION

Characteristic for the design of the GN 366 oval handles: Tube and handle shank are made in the same elliptical profile.

TECHNICAL INFORMATION

- Load rating information (see page A35)

Plastic cover cap



* Complete with Finish of the Oval tubular handles (SW, ELS or ELG)

SW black
ELS anodized, black
ELG anodized, light grey

GN 366

Description	b	d	l1 ±0.5	a	h	l2	l3	l4	t min.	△
GN 366-36-M6-200-*	36	M 6	200	24	57	236	164	290	15	350
GN 366-36-M8-200-*	36	M 8	200	24	57	236	164	290	15	338
GN 366-36-M6-250-*	36	M 6	250	24	57	286	214	340	15	390
GN 366-36-M8-250-*	36	M 8	250	24	57	286	214	340	15	379
GN 366-36-M6-300-*	36	M 6	300	24	57	336	264	390	15	450
GN 366-36-M8-300-*	36	M 8	300	24	57	336	264	390	15	420
GN 366-36-M6-400-*	36	M 6	400	24	57	436	364	490	15	530
GN 366-36-M8-400-*	36	M 8	400	24	57	436	364	490	15	502
GN 366-36-M6-500-*	36	M 6	500	24	57	536	464	590	15	606
GN 366-36-M8-500-*	36	M 8	500	24	57	536	464	590	15	588
GN 366-36-M6-600-*	36	M 6	600	24	57	636	564	690	15	700
GN 366-36-M8-600-*	36	M 8	600	24	57	636	564	690	15	670

Tubular arch handles

Tube Aluminium or Stainless Steel

SPECIFICATION

Handle tube Ø 30 x 1.5
Aluminium / Stainless Steel

Handle shanks
Aluminium, plastic coated

Cover caps
Plastic (Polyamide PA)

- glass fibre reinforced
- temperature resistant up to 100 °C

Tube / Handle shanks Aluminium **SW**
plastic coated
black, RAL 9005, textured finish
Cover caps, black, matt

Tube Aluminium **EL**
anodized, natural colour

Handle shanks
black, RAL 9005, textured finish
Cover caps, black, matt

Tube Aluminium **ES**
anodized, natural colour
Handle shanks
silver RAL 9006, textured finish
Cover caps, light grey, matt

Tube Stainless Steel **NG**
AISI 304
ground, matt shiny finish
Handle shanks
black, RAL 9005, textured finish
Cover caps, black, matt

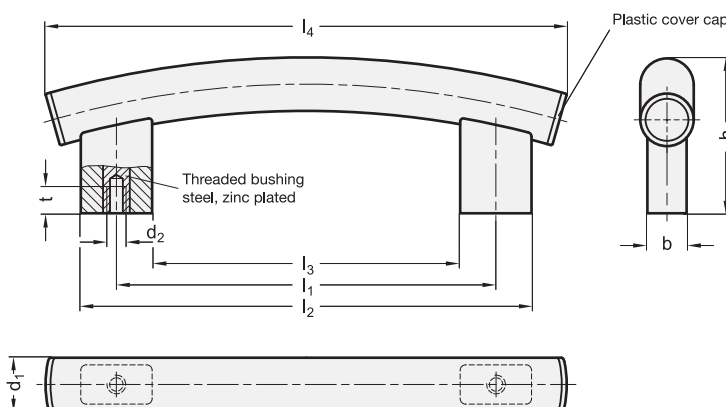
INFORMATION

With their curved type, GN 666.4 tubular arch handles highlight modern machine design.

The production method used allows special solutions to be realised, e. g. with other radii of curvature or other leg heights.

TECHNICAL INFORMATION

- Load rating information (see page A35)



* Complete with Finish of the Tubular arch handles (SW, EL, ES or NG)

SW	EL	ES	NG
black	anodized, black	anodized, light grey	ground, black

GN 666.4

Description	d1	d2	l1 ±1	b	h	l2	l3	l4	t min.	⚖
GN 666.4-30-M6-400-*	30	M 6	400	22	90	440	360	480	15	360
GN 666.4-30-M8-400-*	30	M 8	400	22	90	440	360	480	15	340
GN 666.4-30-M6-500-*	30	M 6	500	22	94	540	460	580	15	377
GN 666.4-30-M8-500-*	30	M 8	500	22	94	540	460	580	15	362
GN 666.4-30-M6-600-*	30	M 6	600	22	98	640	560	680	15	394
GN 666.4-30-M8-600-*	30	M 8	600	22	98	640	560	680	15	384

Handle tubes

with screw channel

SPECIFICATION

Aluminium

plastic coated

black, RAL 9005, textured finish **SW**
(available up to 3000 mm length)

anodized, natural colour **EL**

(available up to 2600 mm length)

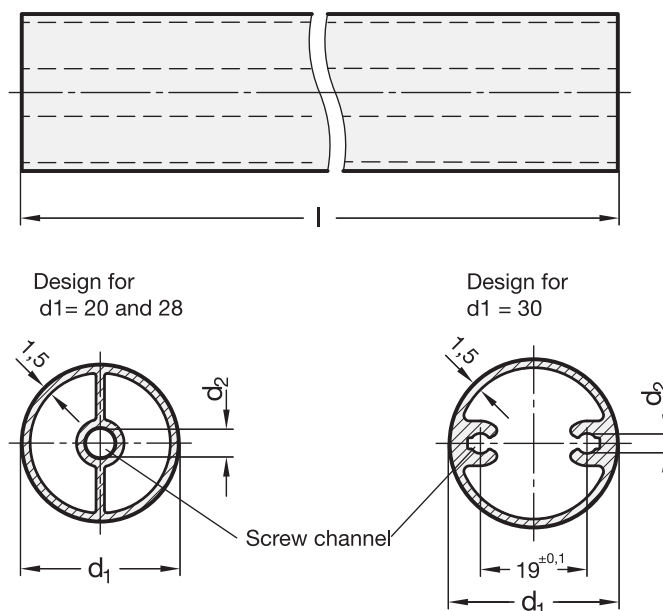
INFORMATION

Handle tubes GN 930 with screw channel are designed for use in a variety of different tube handles (e.g. GN 333, see page 498).

For applications not requiring handle bases, the screw channel provides a very economical fixing solution with thread-tapping screws. The lengths l listed in the table are ex stock lengths. Depending to the finish, any lengths until max. 3000 mm are available.

ON REQUEST

Plastic cover in black or light grey for tube $\varnothing 28$



* Complete with colour index of the Handle tubes (SW or EL)

SW **EL**
RAL9005 anodized

GN 930

Description	$d1 \pm 0.25$	$l \pm 0.25$	$d2$	For thread tapping screws DIN 7500	
GN 930-20-194-*	20	194	4.5	M 5	63
GN 930-20-244-*	20	244	4.5	M 5	80
GN 930-20-294-*	20	294	4.5	M 5	98
GN 930-20-394-*	20	394	4.5	M 5	134
GN 930-28-192-*	28	192	5.5	M 6	140
GN 930-28-242-*	28	242	5.5	M 6	160
GN 930-28-292-*	28	292	5.5	M 6	180
GN 930-28-392-*	28	392	5.5	M 6	200
GN 930-28-492-*	28	492	5.5	M 6	240
GN 930-28-592-*	28	592	5.5	M 6	280
GN 930-30-189-*	30	189	3.6	M 4	140
GN 930-30-289-*	30	289	3.6	M 4	180
GN 930-30-389-*	30	389	3.6	M 4	220
GN 930-30-489-*	30	489	3.6	M 4	260
GN 930-30-589-*	30	589	3.6	M 4	300
GN 930-30-989-*	30	989	3.6	M 4	570

Edge handles

SPECIFICATION

Tube extrusion

Aluminium

End caps

Zinc die casting

Tube extrusion / End caps

plastic coated

black, RAL 9005, textured finish **SW**

Self tapping countersunk screws

DIN 7500-1, type M with Torx®

INFORMATION

The tube extrusion for edge handles GN 481 is formed in such a way that two countersunk self tapping screws are used to cut their own counter thread in the extrusion to hold the end caps in position.

If an edge handle for a cabinet of non-standard length is required, a standard extrusion can simply be shortened to fit.

ACCESSORY

Four DIN 7500-1 countersunk screws are included.

ON REQUEST

Tube extrusion

anodized, natural colour

End caps, plastic coated

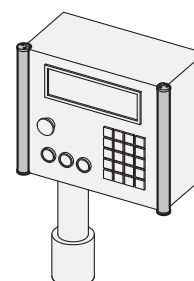
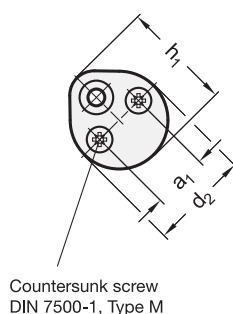
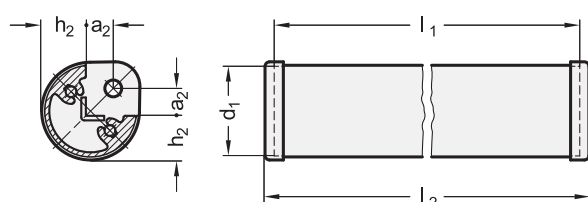
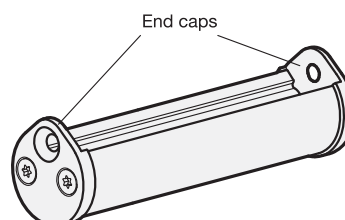
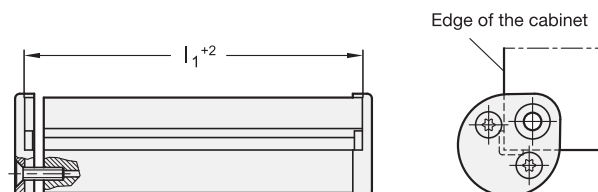
silver, textured finish

MOUNTING INFORMATION

In order to align the edge handle with the-edge of the cabinet (tolerance $l_1 + 2$ mm), the end caps should, to start with, only be loosely fitted

The mounting is carried out in two steps as follows:

- Fit the end caps firmly to the cabinet.
- Fix the extrusion axially by using the countersunk screws.



GN 481

Description	d1 -0.5	l1 +2	a1	a2	d2	h1	h2 -0.1	l2	⚖
GN 481-30-100-SW	30	100	18	9	32	34.5	14.5	106	105
GN 481-30-200-SW	30	200	18	9	32	34.5	14.5	206	150
GN 481-30-300-SW	30	300	18	9	32	34.5	14.5	306	202
GN 481-30-400-SW	30	400	18	9	32	34.5	14.5	406	250
GN 481-30-500-SW	30	500	18	9	32	34.5	14.5	506	300