



Highlights

Sanline

Standard parts with antibacterial surfaces



Standard Parts. **Ganter.**

Revolving handles



GN 798.6
Revolving handles
antibacterial plastic
Page 4

Knobs



GN 519.2
Cylindrical knobs
antibacterial plastic
Page 5



GN 676
Knurled knobs
antibacterial plastic
Page 6

Cabinet U-handles



GN 628.1
Cabinet U-handles
antibacterial plastic
Page 7



GN 565
Cabinet U-handles
Aluminum, antibacterial
Page 8



GN 426
Cabinet U-handles
Aluminum, antibacterial
Page 9

Adjustable hand levers



GN 604.1
Adjustable hand levers
antibacterial plastic,
bushing St. Steel
Page 10



GN 604.1
Adjustable hand levers
antibacterial plastic,
threaded stud St. Steel
Page 11

Three-lobe knobs /
Wing nuts



GN 5342
Tristar knobs
antibacterial plastic
Page 12



GN 634.1
Wing nuts
antibacterial plastic
Page 13

Introduction

Handles and operating elements can act as vectors for many pathogens. Upon every hand contact, bacteria and germs take hold on the surface, where they can proliferate unchecked over time, such as between two cleaning cycles. If one or more other people later touch the same part, the expanded population of pathogens has the opportunity to spread even further.

The antibacterial standard parts of the **Sanline** product family can prevent bacteria and germs from propagating on an operating element, actively reducing their spread and preventing bacterial illnesses that could otherwise result.

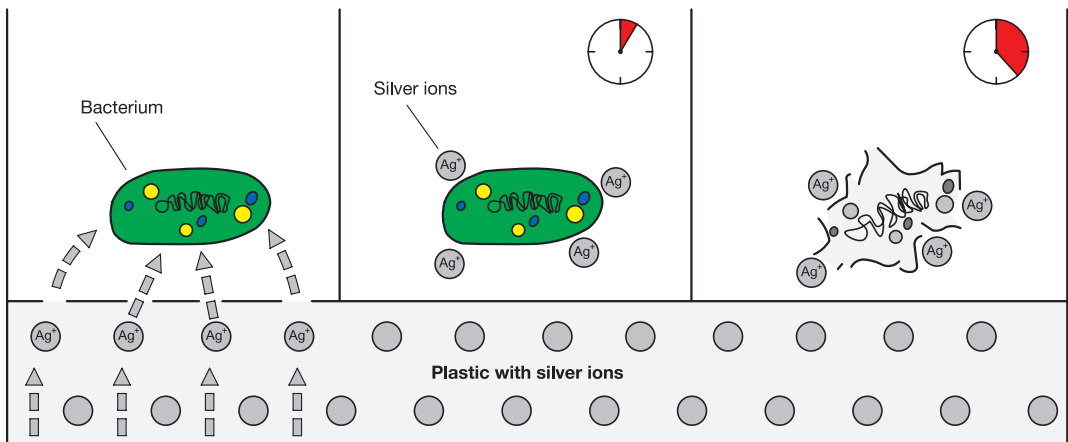
Two different active principles can be found in the **Sanline** product family: Plastic standard parts with additives based on silver ions and metal standard parts with a powder coating based on zinc molybdate. Both principles destroy the cell walls of the microorganisms, causing them to die. The antibacterial effectiveness is retained for a long time, even after frequent cleaning cycles, and is absolutely safe for the user.

With their antibacterial properties, the **Sanline** operating elements are predestined for areas with elevated hygiene requirements. These include doctors' offices, hospitals, rehabilitation and care facilities as well as cafeterias, food-processing plants and agricultural operations with livestock. Sanline products also reduce the risk of infection in locations where many different people come into contact with handles and operating elements, such as in stadiums and concert halls, parks and wellness facilities as well as on public transport.

Functioning principle - Plastic with silver ions

Plastics manufactured with silver ions inhibit the establishment and proliferation of bacteria and germs on the surface. The effect is based on a natural principle and remains continuously effective for a long time.

Silver ions (Ag^+) diffuse from the plastic surface and attach to the cell walls of the microbe. After a short time, the silver ions break through the cell wall of the microbe and destroy the enzyme activity within the cell. The genetic material of the microbe is attacked, preventing further cell division and eventually killing off the germ.



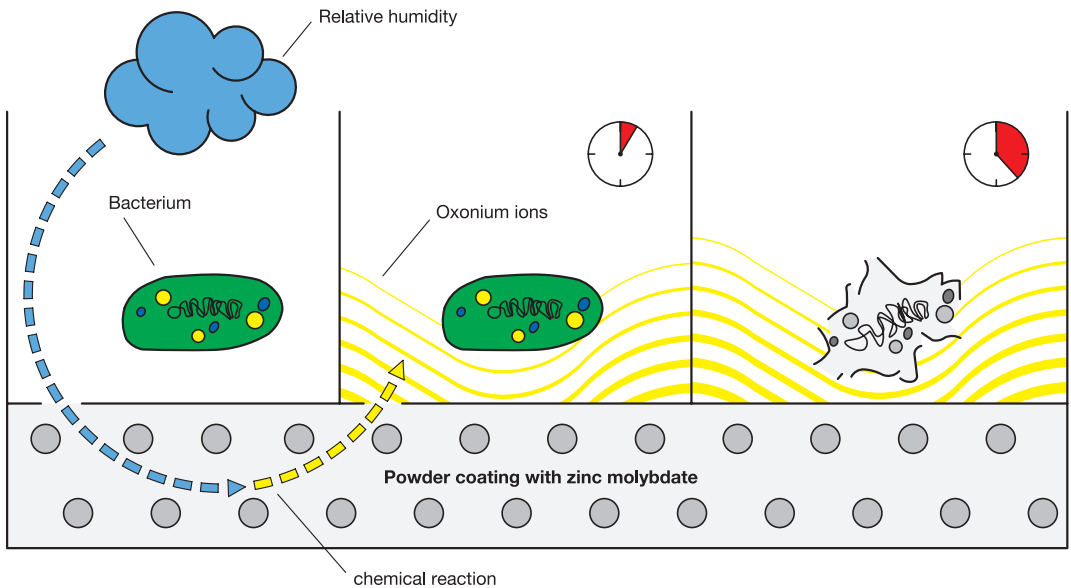
The antibacterial effect of the additive is not reduced by repeated cleaning with soap or solvent. Even at sterilization temperatures of up to 130 °C, the effect is not lost.

Functioning principle - Powder coating with zinc molybdate

Powder coatings with an additive based on zinc molybdate have a powerful antibacterial effect. The coating mimics the natural acidic protective sheath of human skin. Glands in the skin produce acids that lower the pH and form an acidic protective sheath for the body, rendering pathogens on the skin harmless.

With zinc molybdate, this principle can be recreated by technical means: On the surface of the coating, oxide particles chemically react with moisture in the air to form an acid group, lowering the pH. The resulting oxonium ions (H_3O^+) destroy the cell walls of the bacteria via protolysis.

This process ensures a constant reduction in microorganisms, preventing their growth and disrupting their ability to establish themselves on the surfaces.



Laboratory tests

Sanline standard parts have been tested successfully according to ISO 22196:2011-08 "Measurement of antibacterial activity on plastics and other non-porous surfaces."

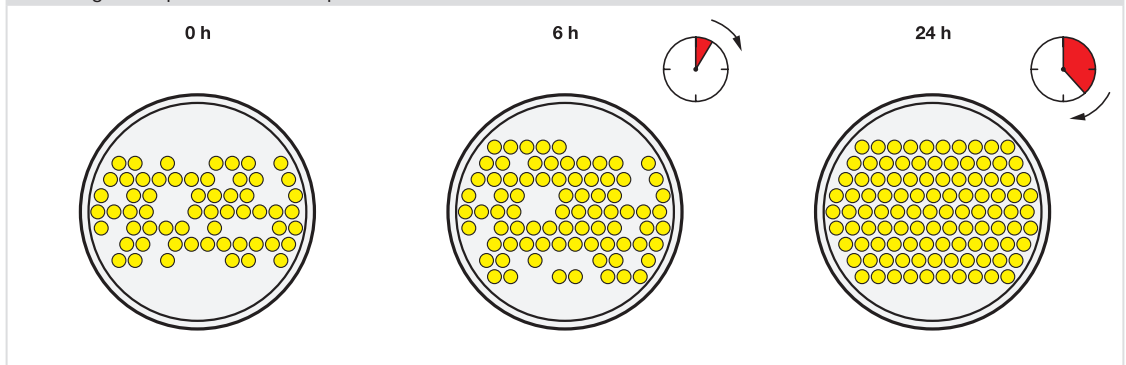
The antibacterial effect was demonstrated on the following test microbes:

Silver ions	Zinc molybdate
Bacteria: - Staphylococcus aureus ATCC® 25923™ - Escherichia coli ATCC® 25922™ - Klebsiella pneumoniae ATCC® 13883™ - Pseudomonas aeruginosa ATCC® 27853™ Fungus: - Candida albicans ATCC® 10231™	Bacteria: - Staphylococcus aureus ATCC 6538P - Escherichia coli ATCC 8739
The testing and confirmation were performed by the accredited testing laboratory CSI S.p.A.	The testing and confirmation were performed by the accredited testing laboratory Institut Hohenstein.

The principle of action demonstrably reduces the growth of bacteria within 24 hours so that contaminated surfaces ultimately have less than 0.2% of the original number of microbes.

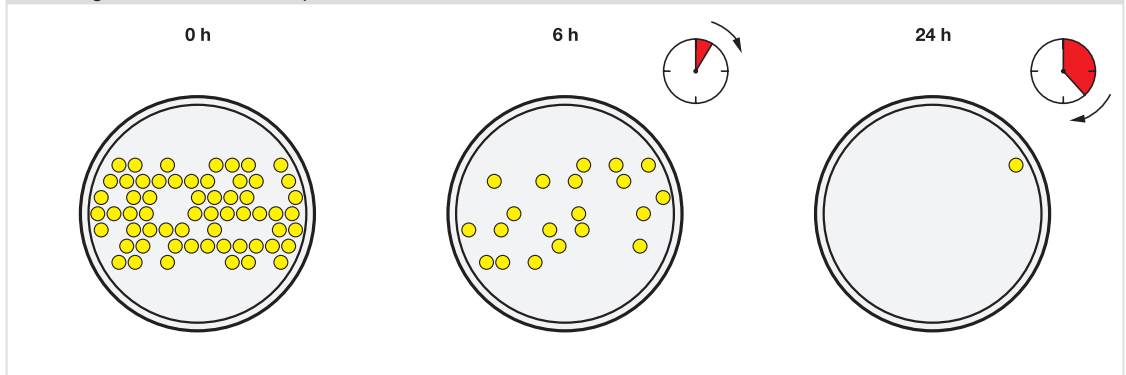
Typical standard part

Microorganism proliferation in a period of 24 h



Sanline standard part

Microorganism reduction in a period of 24 h



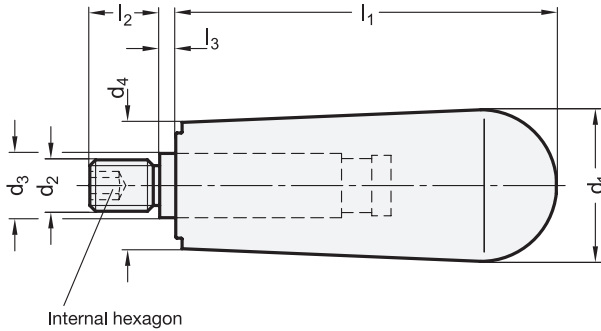


elesa

ELESA Original design I.644-SAN



Inox
Stainless
Steel



² d ₁	³ d ₂	d ₃	d ₄	l ₁	l ₂	l ₃ ≈
36	M 8	14	30	90	16	1,5

Specification

- Plastic **KT**
Technopolymer (Polyamide PA)
- glass fiber reinforced
- temperature resistant up to 130 °C
- black-gray, RAL 7021, matte ● **SGA**
- white, RAL 9016, matte ○ **WSA**
- Spindle
Stainless Steel AISI 304
- *Plastic characteristics*
→ Main Catalogue Page 1483
- *Stainless Steel characteristics*
→ Main Catalogue Page 1489
- RoHS

Information

Revolving handles GN 798.6 are manufactured from an antibacterial plastic.

Adding a silver-based substance has created a natural active agent that helps to prevent the growth of bacteria. Even after repeated cleaning with soap or solvent, the antibacterial effect of this additive will not diminish. Sterilising at temperatures below 130 °C will also have no effect on the antibacterial property.

With these properties, the handles are the perfect choice for use in medical engineering, in the food and the pharmaceutical industry, and in general wherever hygiene is of great importance.

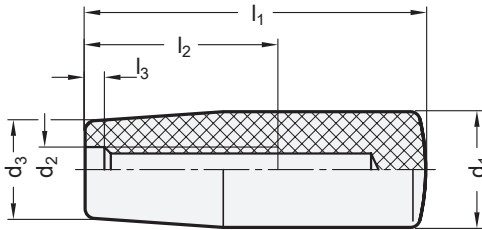
see also...

- Retractable handles GN 598.3 (with hold in both positions)
→ Main Catalogue Page 43

How to order	1 Material
¹	2 d ₁
²	3 d ₂
³	4 Finish
GN 798.6-KT-36-M8-SGA	



ELESA Original design I.780-SAN



1 $d_1 +0,5$	2 d_2	d_3	l_1	l_2 min.	l_3
26	M 8	21	80	40	7

Specification

- Plastic
Technopolymer (Polyamide PA)
 - glass fiber reinforced
 - temperature resistant up to 110 °C
 - black-gray, RAL 7021, matte
 - white, RAL 9016, matte
- Plastic characteristics
→ Main Catalogue Page 1483
- RoHS



Information

Cylindrical knobs GN 519.2 are manufactured from an antibacterial plastic.

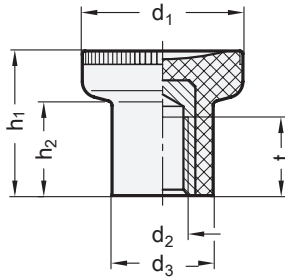
Adding a silver-based substance has created a natural active agent that helps to prevent the growth of bacteria. Even after repeated cleaning with soap or solvent, the antibacterial effect of this additive will not diminish.

With these properties, the handles are the perfect choice for use in medical engineering, in the food and the pharmaceutical industry, and in general wherever hygiene is of great importance.

see also...

- Cylindrical knobs GN 519 (Duroplast) → Main Catalogue Page 52
- Softline-Cylindrical knobs GN 519.6 → Main Catalogue Page 54

How to order	1 d_1
GN 519.2-26-M8-SGA	2 d_2
	3 Finish



ELESA Original design EKK-SST-SAN



1

2

d ₁	d ₂	d ₃	h ₁	h ₂	t min.
21	M 5	12,5	18	10,5	10
31	M 8	18,5	27	17	15

Specification

3

- Plastic
Technopolymer (Polyamide PA)
 - glass fiber reinforced
 - temperature resistant up to 130 °C
 - black-gray, RAL 7021, matte
 - white, RAL 9016, matte
- Threaded bushing
Stainless Steel AISI 303
- Plastic characteristics
→ Main Catalogue Page 1483
- Stainless Steel characteristics
→ Main Catalogue Page 1489
- RoHS



Information

Knurled knobs GN 676 are manufactured from an antibacterial plastic.

Adding a silver-based substance has created a natural active agent that helps to prevent the growth of bacteria. Even after repeated cleaning with soap or solvent, the antibacterial effect of this additive will not diminish. Sterilising at temperatures below 130 °C will also have no effect on the antibacterial property.

With these properties, the handles are the perfect choice for use in medical engineering, in the food and the pharmaceutical industry, and in general wherever hygiene is of great importance.

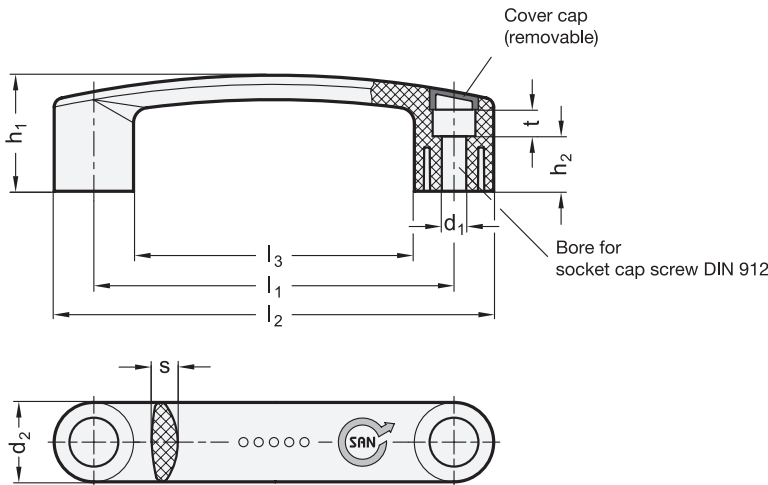
see also...

- Knurled knobs GN 676 (Plastic) → Main Catalogue Page 62
- Knobs GN 676.1 (Steel, blackened) → Main Catalogue Page 64
- Mushroom type knobs GN 76 → Main Catalogue Page 58
- Stainless Steel-Knobs GN 676.5 → Main Catalogue Page 64

How to order

GN 676-31-M8-SGA

1	d ₁
2	d ₂
3	Finish



ELESA Original design EBP.SAN



3 Type

B Mounting from the operators side

1

2

l_1	d_1	d_2	h_1	h_2	l_2	l_3 min.	s	t
117 ±0,5	8,5	26	39	18	143	91	8,5	8,5
179 ±1	8,5	29	51	19	208	150	9,5	16

Specification

- Plastic Technopolymer (Polyamide PA)
 - glass fiber reinforced
 - temperature resistant up to 130 °C
 - black-gray, RAL 7021, matte
 - white, RAL 9016, matte

- SGA
- WSA

- Cover cap Plastic
 - black-gray for SGA
 - white for WSA

Plastic characteristics → Main Catalogue Page 1483

- RoHS

4

Information

Cabinet U-handles GN 628.1 are manufactured from an antibacterial plastic.

Adding a silver-based substance has created a natural active agent that helps to prevent the growth of bacteria. Even after repeated cleaning with soap or solvent, the antibacterial effect of this additive will not diminish. Sterilising at temperatures below 130 °C will also have no effect on the antibacterial property.

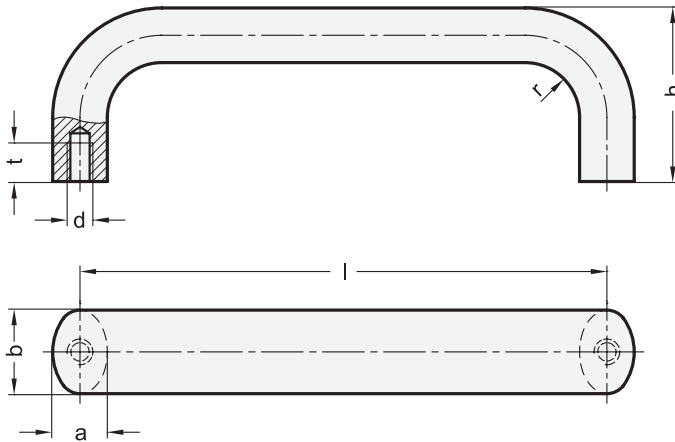
With these properties, the handles are the perfect choice for use in medical engineering, in the food and the pharmaceutical industry, and in general wherever hygiene is of great importance.

see also...

- Cabinet U-handles GN 628 (Mounting from the operator's side or back) → Main Catalogue Page 96

How to order	
1	l_1
2	d_1
3	Type
4	Finish

GN628.1-117-8,5-B-SGA



1

2

b	Length l ±0,25			a	d	h	r	t min.
	100	112	-					
20	100	112	-	13	M 6	49	13	10
20	128	160	-	13	M 6	51	13	10
26	128	-	-	17	M 8	55	17	12
26	160	192	300	17	M 8	57	17	12

Specification

3

- Aluminum
 - plastic coated
 - black, RAL 9005, antibacterial SMA
 - white, RAL 9016, antibacterial WSA
- Load rating information
→ Main Catalogue Page 1455
- RoHS

Information

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

The cabinet U-handle has a powder coating based on zinc molybdate, which gives it antibacterial properties. The principle of action, which is activated by the presence of moisture, demonstrably reduces the growth of bacteria within 24 hours, so that contaminated surfaces ultimately have less than 0.2% of the original number of microbes.

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

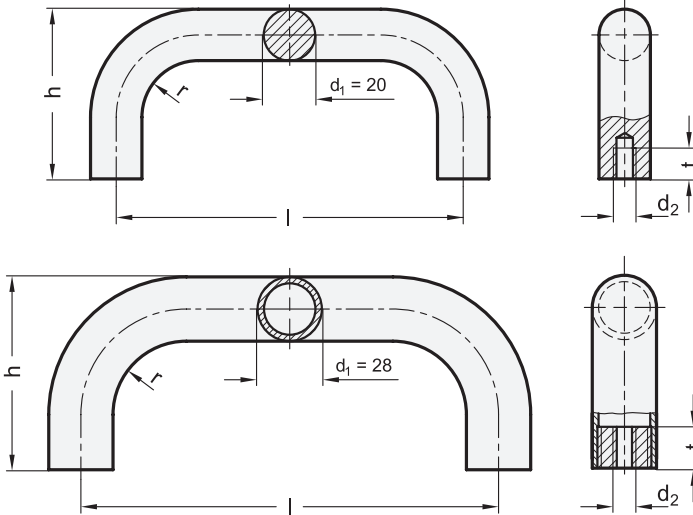
see also...

- Inclined Cabinet U-handles GN 565.2 (Aluminum, mounting from the back or the operator's side) → Main Catalogue Page 86
- Stainless Steel-Cabinet U-handles GN 565.5 (Mounting from the back or the operator's side) → Main Catalogue Page 82

How to order

GN 565-20-100-WSA

1	b
2	Length l
3	Finish



² d ₁	³ Length l ±0,25	d ₂	h	r	t min.
20	200	M 8	68	22	15
20	250	M 8	68	22	15
20	300	M 8	68	22	15
28	250	M 10	78	32	15
28	300	M 10	78	32	15
28	400	M 10	78	32	15

Specification

- Aluminum ¹ **AL**
- d₁ = 20: Solid material
- d₁ = 28: Tube-Ø 28 x 4
- plastic coated
- black, RAL 9005, antibacterial ● **SMA**
- white, RAL 9016, antibacterial ○ **WSA**
- Threaded bushing
- Aluminum
- Load rating information → Main Catalogue Page 1454
- RoHS

Information

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

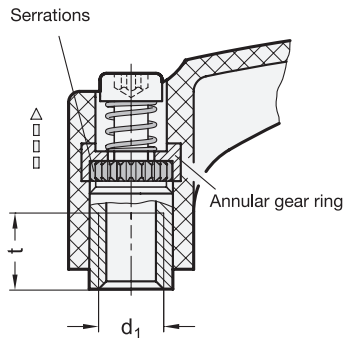
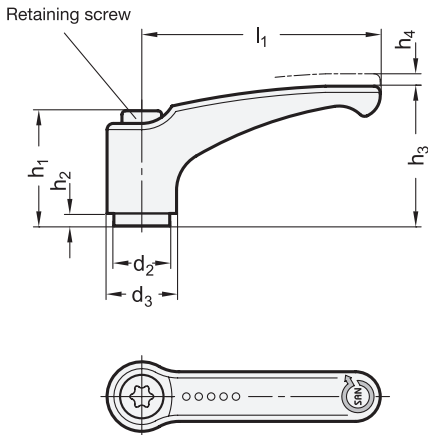
The cabinet U-handle has a powder coating based on zinc molybdate, which gives it antibacterial properties. The principle of action, which is activated by the presence of moisture, demonstrably reduces the growth of bacteria within 24 hours, so that contaminated surfaces ultimately have less than 0.2% of the original number of microbes.

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

see also...

- Cabinet U-handles GN 428 (Aluminum) → Main Catalogue Page 117

How to order	¹ Material
	² d₁
GN 426-AL-28-300-SMA	³ Length l
	⁴ Finish



ELESA Original design ERZ.SST-SAN



¹ l ₁	² d ₁			d ₂	d ₃	h ₁	h ₂	h ₃	h ₄ Stroke	t min.
63	M 6	M 8	-	13,5	19	31	3,5	38,5	4	10
78	M 8	M 10	M 12	16	23	36	3,5	46,5	4	14

Specification

- Handle
Plastic
Technopolymer (Polyamide PA)
- glass fiber reinforced
- temperature resistant up to 130 °C
- black-gray, RAL 7021, matte **● SGA**
- white, RAL 9016, matte **○ WSA**
- Annular gear ring
Zinc die casting
- Threaded bushing and retaining screw
Stainless Steel AISI 303
- Plastic characteristics
→ Main Catalogue Page 1483
- Stainless Steel characteristics
→ Main Catalogue Page 1489
- RoHS



Information

Adjustable hand levers GN 604.1 are manufactured from an antibacterial plastic.

Adding a silver-based substance has created a natural active agent that helps to prevent the growth of bacteria. Even after repeated cleaning with soap or solvent, the antibacterial effect of this additive will not diminish. Sterilising at temperatures below 130 °C will also have no effect on the antibacterial property.

With these properties, the handles are the perfect choice for use in medical engineering, in the food and the pharmaceutical industry, and in general wherever hygiene is of great importance.

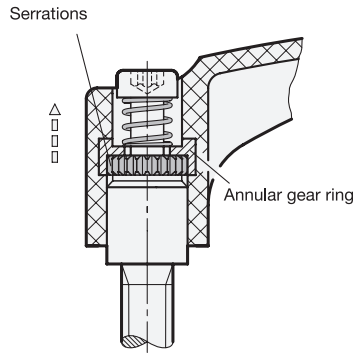
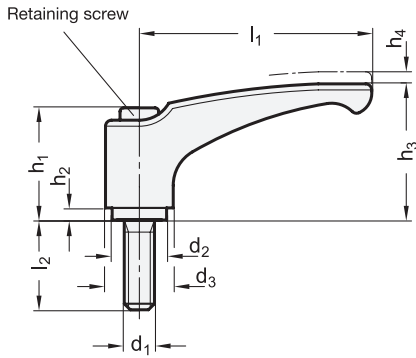
see also...

- Adjustable hand levers GN 604.1 (Plastic, bushing Stainless Steel)
→ Main Catalogue Page 340
- Adjustable hand levers GN 604 (Plastic, bushing steel)
→ Main Catalogue Page 338

How to order

GN604.1-78-M8-SGA

¹	l ₁
²	d ₁
³	Finish



ELESA Original design



1				2				3								
l ₁		d ₁		l ₂				d ₂	d ₃	h ₁	h ₂	h ₃	h ₄ Stroke			
63	M 6	M 8	-	16	20	25	32	40	50	63	13,5	19	31	3,5	38,5	4
78	M 8	M 10	M 12	20	25	32	40	50	63	80	16	23	36	3,5	46,5	4

Specification

- Handle
Plastic
Technopolymer (Polyamide PA)
- glass fiber reinforced
- temperature resistant up to 130 °C
- black-gray, RAL 7021, matte ● **SGA**
- white, RAL 9016, matte ○ **WSA**
- Annular gear ring
Zinc die casting
- Threaded stud and retaining screw
Stainless Steel AISI 303
- Plastic characteristics
→ Main Catalogue Page 1483
- Stainless Steel characteristics
→ Main Catalogue Page 1489
- RoHS



Information

Adjustable hand levers GN 604.1 are manufactured from an antibacterial plastic.

Adding a silver-based substance has created a natural active agent that helps to prevent the growth of bacteria. Even after repeated cleaning with soap or solvent, the antibacterial effect of this additive will not diminish. Sterilising at temperatures below 130 °C will also have no effect on the antibacterial property.

With these properties, the handles are the perfect choice for use in medical engineering, in the food and the pharmaceutical industry, and in general wherever hygiene is of great importance.

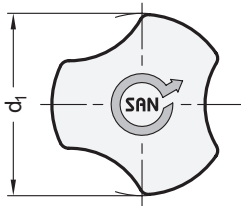
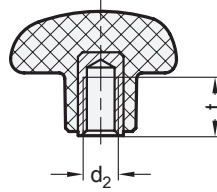
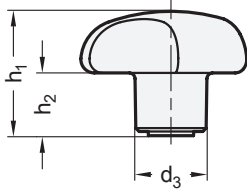
see also...

- Adjustable hand levers GN 604.1 (Plastic, threaded stud Stainless Steel)
→ Main Catalogue Page 341
- Adjustable hand levers GN 604 (Plastic, threaded stud steel)
→ Main Catalogue Page 339

How to order

GN604.1-78-M10-25-SGA

1	l ₁
2	d ₁
3	l ₂
4	Finish



ELESA Original design VTT-SST-SAN



¹ d ₁	² d ₂	d ₃	h ₁	h ₂	t min.
40	M 8	16	27	13,5	13
50	M 10	19	30	15	17

Specification

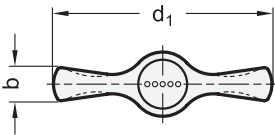
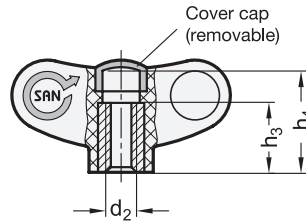
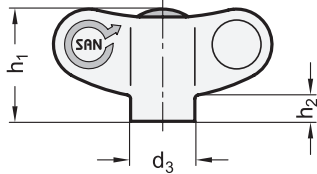
- Plastic Technopolymer (Polyamide PA)
 - glass fiber reinforced
 - temperature resistant up to 130 °C
 - black-gray, RAL 7021, matte **● SGA**
 - white, RAL 9016, matte **○ WSA**
- Threaded bushing Stainless Steel AISI 304
- *Plastic characteristics* → Main Catalogue Page 1483
- *Stainless Steel characteristics* → Main Catalogue Page 1489
- RoHS

Information

Tristar knobs GN 5342 are manufactured from an antibacterial plastic. Adding a silver-based substance has created a natural active agent that helps to prevent the growth of bacteria. Even after repeated cleaning with soap or solvent, the antibacterial effect of this additive will not diminish. Sterilising at temperatures below 130 °C will also have no effect on the antibacterial property.

With these properties, the handles are the perfect choice for use in medical engineering, in the food and the pharmaceutical industry, and in general wherever hygiene is of great importance.

How to order	¹	d ₁
	²	d ₂
	³	Finish
GN 5342-40-M8-WSA		



ELESA Original design EWN.SST-SAN

**3** Type**E** with threaded blind bore**1****2**

d ₁	d ₂	d ₃	b	h ₁	h ₂	h ₃	h ₄
40	M 6	13,5	6	20	4	12	18
55	M 8	16	8	28	6,5	18	25

Specification

4

- Plastic
Technopolymer (Polyamide PA)
 - glass fiber reinforced
 - temperature resistant up to 130 °C
 - black-gray, RAL 7021, matte
 - white, RAL 9016, matte
- Threaded bushing
Stainless Steel AISI 303
- Cover cap
Plastic
 - black-gray for SGA
 - white for WSA
- Plastic characteristics
→ Main Catalogue Page 1483
- Stainless Steel characteristics
→ Main Catalogue Page 1489
- RoHS

● SGA
○ WSA

Information

Wing nuts GN 604.1 are manufactured from an antibacterial plastic.

Adding a silver-based substance has created a natural active agent that helps to prevent the growth of bacteria. Even after repeated cleaning with soap or solvent, the antibacterial effect of this additive will not diminish. Sterilising at temperatures below 130 °C will also have no effect on the antibacterial property.

With these properties, the handles are the perfect choice for use in medical engineering, in the food and the pharmaceutical industry, and in general wherever hygiene is of great importance.

How to order

GN 634.1-55-M8-E-SGA

1 d₁
2 d₂
3 Type
4 Finish

Otto Ganter GmbH & Co. KG

Triberger Straße 3
78120 Furtwangen
Germany

Tel. +49 7723 6507-0

Mail info@ganternorm.com

www.ganternorm.com