



Hygienic Design



DESIGNED
FOR ENGINEERING

Standard Parts in Hygienic Design

Seals, design

HYGIENIC DESIGN

Maximum hygiene is a fundamental requirement, not only where food is produced. Hygiene also plays an increasing role in other industrial areas, from the pharmaceutical industry to the manufacture of paints and dyes. Nowadays a major issue is the manufacture of products without added preservatives or with as few added preservatives as possible – while still achieving a long shelf life. However, this can only be achieved in a production environment in which all risks of contamination with microorganisms or dirt are excluded. For plant construction, this means that all components, elements, as well as surfaces, must be designed accordingly. Contaminants must not accumulate and must be easy to remove.

ELESA+GANTER HAS SOLUTIONS

Since even the smallest weak spots can contaminate entire production lines, Elessa+Ganter decided to develop a special series of Standard Parts that meet the high requirements of the EHEDG, DGUV and the 3-A Sanitary Standards, Inc.

THE HYGIENIC DESIGN PRODUCT FAMILY

All Standard Parts of the "Hygienic Design" product family are labeled with the HD icon. They combine high surface quality, freedom from dead spaces, non-scooped outer surfaces, and sealed bolting areas. A sealing concept based on FEM calculations ensures reliable contact pressure after installation. Hygienic Design also means that the time and material needed for regular cleaning is significantly reduced - which also noticeably lowers operating costs.



WHY HYGIENIC DESIGN?

In the food industry, medical technology and the pharmaceutical industry, product safety and consumer protection are becoming increasingly important. Due to their specific properties, standard parts in hygienic design can support the production process in these sensitive areas and facilitate the manufacture of products with a long shelf life, reducing the need for preservative agents.

ADVANTAGES OF HYGIENIC DESIGN

Less and shorter cleaning work (this can be up to 25% of the production time), therefore

- more time available for production
- less fresh water consumption
- lower energy consumption
- less cleaning agent required
- less production of waste water
- lower total costs and saving of resources

LEGAL BASIS OF HYGIENIC DESIGN

EN 1672-2:2009 „Food machinery“

Machines must be able to be cleaned, i.e. they must be designed and constructed so that dirt can be removed with the recommended cleaning methods.

Machinery directive „2006/42/EC“

Machines must be designed so that

- materials can be easily and fully cleaned before each use and
- no risk of infections or illness is created.

DIN EN ISO 14519:2008-07

Hygiene requirements for the design of machines

DIN EN 1672-2:2021-05

Food machinery – General design principles – Part 2

Principles

Requirements, design principles

DESIGN REQUIREMENTS FOR HYGIENIC DESIGN

Material

- Non-rusting stainless steels
- FDA and EU compliant plastics and elastomers

Surfaces

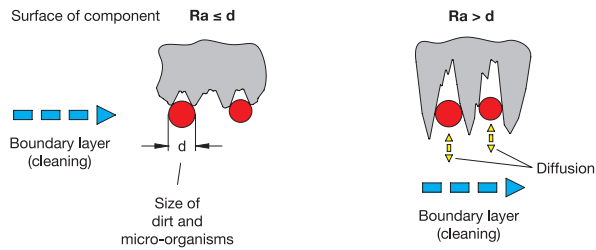
- Surfaces must be able to be cleaned
- Steps due to appliance configurations which are not aligned must be avoided
- Seals must be designed so that no gaps occur
- O-ring grooves must be hygienically designed
- Contact with the product to be manufactured must be ruled out
- Corners should preferably have a radius of 6 mm or more

Design / Geometry

The interior and exterior areas of all appliances, components or piping must be self-draining or be able to be drained and easy to clean.

Surface properties and roughness

Easy to clean with $Ra < 0.8 \mu\text{m}$



DESIGN PRINCIPLES FOR HYGIENIC DESIGN

EHEDG (European Hygienic Engineering & Design Group)

- Non-profit European consortium of machine and food manufacturers as well their suppliers, research institutes, universities and government health agencies
- Approximately 45 guidelines
- Examination of products and issue of certificates

3-A Sanitary Standards, Inc.

- Non profit and independent association in the USA
- Three interest groups: public and governmental health agencies, machine and food manufacturers
- Over 70 Sanitary Standards
- Examination of designs and processes, issue of certificates

BGN (Berufsgenossenschaft Nahrungsmittel und Gastgewerbe) [Food and Hospitality Trade Association]

- Active participation in national, European and international standardization efforts. Prevention of work accidents, occupational illnesses and work-related health risks
- European Machinery Directive (98/37/EC), plus the German Appliance and Product Safety Act (GPSG)
- Testing of parts and machines, issuing of certificates

Principles

Seals, design

SEALS

For the standard parts which are listed in Hygienic Design, seals have the central function of protecting dead spaces, gaps and cracks from the penetration of cleaning fluids or product residues.

For this, a defined pre-tension or pressing of the seals and wipers is necessary for a reliable and permanent seal in the installed condition. Within the Hygienic Design product family, seal installation spaces and seal cross sections are calculated and designed with simulation software, so that the necessary surface compression is achieved on installation and the seal material is not subjected to excess pressure.

A fundamental differentiation can be made between static and moving seals:

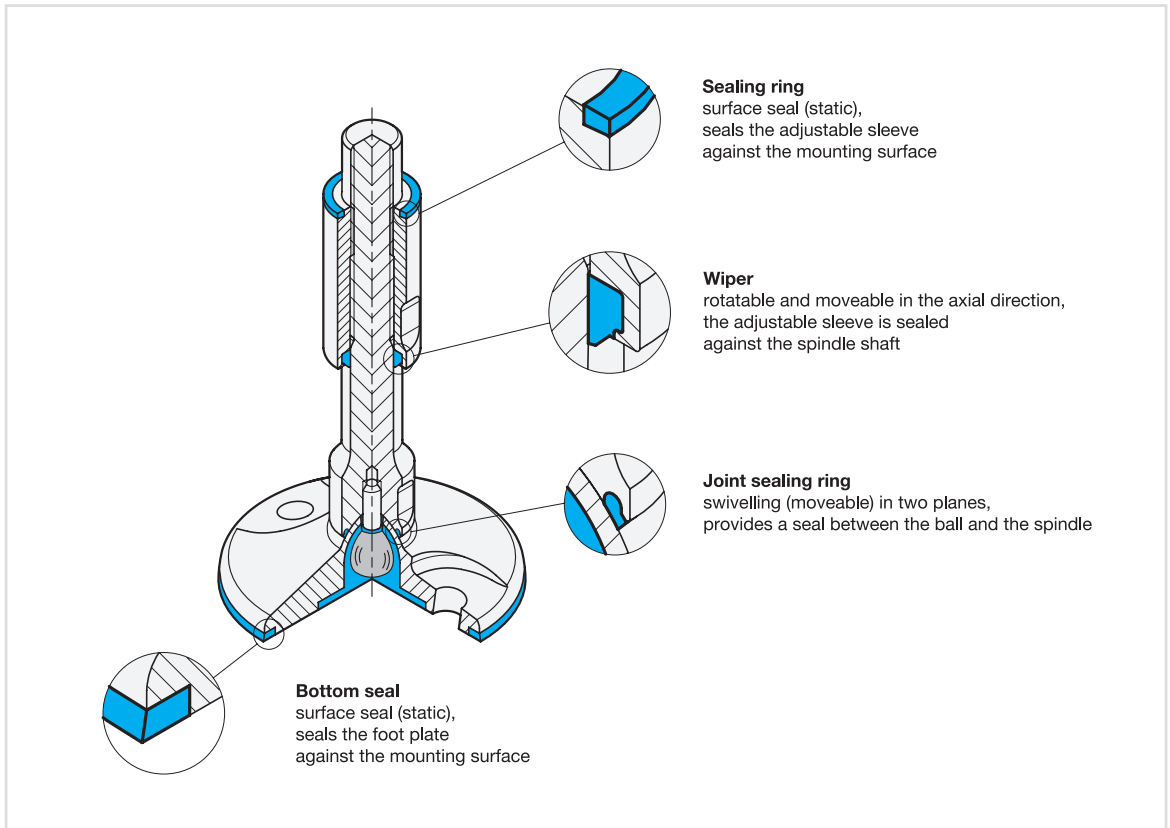
During assembly, the **static seals** in the design example shown below are tightened to the mounting surface at the top (**sealing ring**) and to the contact surface at the bottom (**bottom seal**). It should be ensured that all surfaces which make contact with the seal have a surface finish of at least Ra 0.8 µm.

The **moving seals** on the adjustable sleeve (**wiper**) and the ball joint (**joint sealing ring**) of the foot are designed so that they allow adjustment in both height and angle. With these too, the installation space together with the cross section of the seal ensures a gap-free, pre-tensioned seal.

Depending on the version and the type of use, it may be the case that seals may need to be replaced in case of damage or for preventative maintenance. For this, Elesä and Gantner supplies the relevant seals as spare parts or offers these under **GN 7600** (see page 38) and **GN 7607** (see page 40) as standard parts.

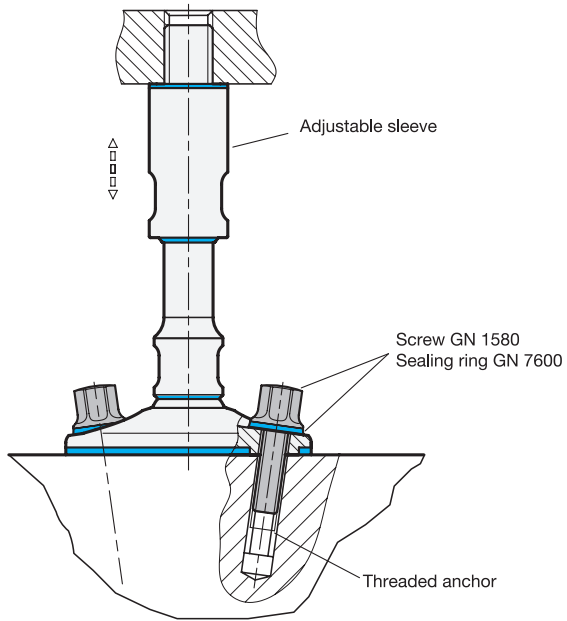
APPLICATION EXAMPLE

The illustrated design of the GN 20 Hygienic Design levelling feet shows how the various seal configurations are arranged.



Principles

Mounting example, certification



NV 22041

Star Knobs

Stainless Steel, Hygienic Design

SPECIFICATION

Stainless steel AISI 316L

- Matte finish (Ra < 0,8 µm) **MT**
- Polished finish (Ra < 0,8 µm) **PL**

Sealing ring

- H-NBR **H**
Temperature resistant -25 °C to +150 °C
- EPDM **E**
Temperature resistant -40 °C to +120 °C
- Blue
- Hardness 85±5 Shore A
- FDA compliant

INFORMATION

Star knobs GN 5435 are intended for use in hygienic areas. The sealed mounting surface enables fastening without dead spaces. The high quality finish and the large corner radii prevent adherence of dirt and facilitate cleaning.

ACCESSORY

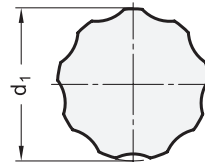
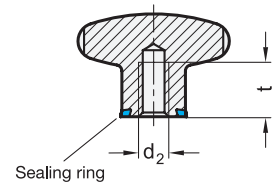
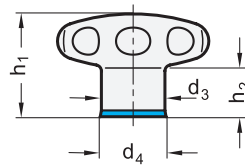
- Sealing Rings GN 7600 (see page 38)

ON REQUEST

- with FKM sealing ring (Fluorine rubber) **F**

TECHNICAL INFORMATION

- Plastic Characteristics (see catalogue page A2)
- Stainless Steel Characteristics (see catalogue page A26)



GN 5435-H

STAINLESS STEEL

Description	d1	d2	d3	d4	h1	h2	t min.	Δ
GN 5435-40-M6-MT-H	40	M 6	18	18.8	30.5	15	12	136
GN 5435-40-M6-PL-H	40	M 6	18	18.8	30.5	15	12	136
GN 5435-40-M8-MT-H	40	M 8	18	18.8	30.5	15	15	132
GN 5435-40-M8-PL-H	40	M 8	18	18.8	30.5	15	15	132
GN 5435-50-M8-MT-H	50	M 8	21	21.8	34	17	15	231
GN 5435-50-M8-PL-H	50	M 8	21	21.8	34	17	15	231
GN 5435-50-M10-MT-H	50	M 10	21	21.8	34	17	18	226
GN 5435-50-M10-PL-H	50	M 10	21	21.8	34	17	18	226

GN 5435-E

STAINLESS STEEL

Description	d1	d2	d3	d4	h1	h2	t min.	Δ
GN 5435-40-M6-MT-E	40	M 6	18	18.8	30.5	15	12	136
GN 5435-40-M6-PL-E	40	M 6	18	18.8	30.5	15	12	136
GN 5435-40-M8-MT-E	40	M 8	18	18.8	30.5	15	15	132
GN 5435-40-M8-PL-E	40	M 8	18	18.8	30.5	15	15	132
GN 5435-50-M8-MT-E	50	M 8	21	21.8	34	17	15	231
GN 5435-50-M8-PL-E	50	M 8	21	21.8	34	17	15	231
GN 5435-50-M10-MT-E	50	M 10	21	21.8	34	17	18	226
GN 5435-50-M10-PL-E	50	M 10	21	21.8	34	17	18	226

Three-Lobed Knobs

Stainless Steel, Hygienic Design

SPECIFICATION

Stainless steel AISI 316L

- Matte finish (Ra < 0.8 µm) **MT**
- Polished finish (Ra < 0.8 µm) **PL**

Sealing ring

- H-NBR **H**
Temperature resistant -25 °C to +150 °C
- EPDM **E**
Temperature resistant -40 °C to +120 °C
- Blue
- Hardness 85±5 Shore A
- FDA compliant

INFORMATION

Three-lobed knobs GN 5445 are intended for use in hygienic areas. The sealed mounting surface enables fastening without dead spaces. The high quality finish as well as the large corner radii and closed surfaces prevent adherence of dirt and facilitate cleaning.

ACCESSORY

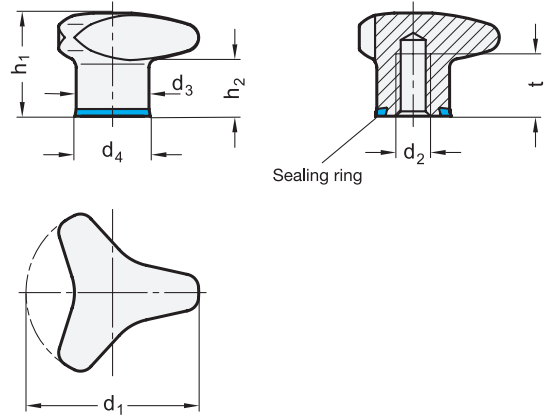
- Sealing Rings GN 7600 (see page 38)

ON REQUEST

- with FKM sealing ring (Fluorine rubber) **F**

TECHNICAL INFORMATION

- Plastic Characteristics (see catalogue page A2)
- Stainless Steel Characteristics (see catalogue page A26)



GN 5445-H

STAINLESS STEEL

Description	d1	d2	d3	d4	h1	h2	t min.	ΔΔ
GN 5445-40-M6-MT-H	40	M 6	18	18.8	26	15	12	75
GN 5445-40-M6-PL-H	40	M 6	18	18.8	26	15	12	75
GN 5445-40-M8-MT-H	40	M 8	18	18.8	26	15	15	71
GN 5445-40-M8-PL-H	40	M 8	18	18.8	26	15	15	71
GN 5445-50-M8-MT-H	50	M 8	21	21.8	30	17	15	121
GN 5445-50-M8-PL-H	50	M 8	21	21.8	30	17	15	121
GN 5445-50-M10-MT-H	50	M 10	21	21.8	30	17	18	117
GN 5445-50-M10-PL-H	50	M 10	21	21.8	30	17	18	117

GN 5445-E

STAINLESS STEEL

Description	d1	d2	d3	d4	h1	h2	t min.	ΔΔ
GN 5445-40-M6-MT-E	40	M 6	18	18.8	26	15	12	75
GN 5445-40-M6-PL-E	40	M 6	18	18.8	26	15	12	75
GN 5445-40-M8-MT-E	40	M 8	18	18.8	26	15	15	71
GN 5445-40-M8-PL-E	40	M 8	18	18.8	26	15	15	71
GN 5445-50-M8-MT-E	50	M 8	21	21.8	30	17	15	121
GN 5445-50-M8-PL-E	50	M 8	21	21.8	30	17	15	121
GN 5445-50-M10-MT-E	50	M 10	21	21.8	30	17	18	117
GN 5445-50-M10-PL-E	50	M 10	21	21.8	30	17	18	117

Wing Nuts

Stainless Steel, Hygienic Design

SPECIFICATION

Stainless steel precision casting AISI 316

- Matte finish (Ra < 0.8 µm) **MT**
- Polished finish (Ra < 0.8 µm) **PL**

Sealing ring

- H-NBR **H**
Temperature resistant -25 °C to +150 °C
- EPDM **E**
Temperature resistant -40 °C to +120 °C
- Blue
- Hardness 85 ±5 Shore A
- FDA compliant

INFORMATION

Wing nuts GN 8341 comply with the DGUV testing principles and are intended for use in hygienic areas. The version with PL finish is additionally certified according to the guidelines of the EHEDG. The sealed mounting surface enables mounting without dead spaces; the impervious geometry in combination with the high quality finish prevents the accumulation of dirt and facilitates cleaning. Wing nuts clamp and fasten parts easily without tools. The ergonomic shape allows for high tightening forces. The wing nuts can also be used in particularly aggressive environments thanks to the material used.

ACCESSORY

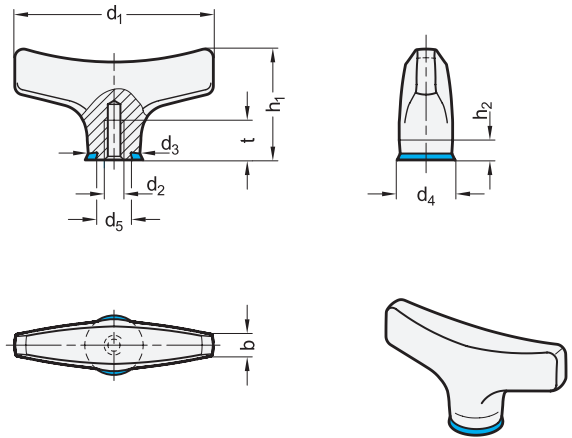
- Sealing Rings GN 7600 (see page 38)

ON REQUEST

- with FKM sealing ring (Fluorine rubber) **F**

TECHNICAL INFORMATION

- Plastic Characteristics (see catalogue page A2)
- Stainless Steel Characteristics (see catalogue page A26)



* Complete with surface index of the Wing Nuts (MT or PL)

MT Matte finish **PL** Polished finish

GN 8341-H

STAINLESS STEEL

Description	d ₁	d ₂	b	d ₃	d ₄	d ₅	h ₁	h ₂ ≈	t min.	⚖
GN 8341-40-M4-*-H	40	M 4	4	11	11.8	7	22	4	8	29
GN 8341-50-M5-*-H	50	M 5	5	13	13.8	9	28	5	10	54
GN 8341-63-M6-*-H	63	M 6	7	16	16.8	12	35	6	12	100

Weight type MT

GN 8341-E

STAINLESS STEEL

Description	d ₁	d ₂	b	d ₃	d ₄	d ₅	h ₁	h ₂ ≈	t min.	⚖
GN 8341-40-M4-*-E	40	M 4	4	11	11.8	7	22	4	8	29
GN 8341-50-M5-*-E	50	M 5	5	13	13.8	9	28	5	10	54
GN 8341-63-M6-*-E	63	M 6	7	16	16.8	12	35	6	12	100

Weight type MT

Wing Screws

Stainless Steel, Hygienic Design

SPECIFICATION

Stainless steel precision casting AISI 316

- Matte finish ($R_a < 0.8 \mu\text{m}$) **MT**
- Polished finish ($R_a < 0.8 \mu\text{m}$) **PL**

Sealing ring

- H-NBR **H**
Temperature resistant $-25 \text{ }^\circ\text{C}$ to $+150 \text{ }^\circ\text{C}$
- EPDM **E**
Temperature resistant $-40 \text{ }^\circ\text{C}$ to $+120 \text{ }^\circ\text{C}$
- Blue
- Hardness 85 ± 5 Shore A
- FDA compliant

INFORMATION

Wing screws GN 8351 comply with the DGUV testing principles and are intended for use in hygienic areas. The version with PL finish is additionally certified according to the guidelines of the EHEDG. The sealed mounting surface enables mounting without dead spaces; the impervious geometry in combination with the high quality finish prevents the accumulation of dirt and facilitates cleaning. Wing screws clamp and fasten parts easily without tools. The ergonomic shape allows for high tightening forces. The wing screws can also be used in particularly aggressive environments thanks to the material used.

ACCESSORY

- Sealing Rings GN 7600 (see page 38)

ON REQUEST

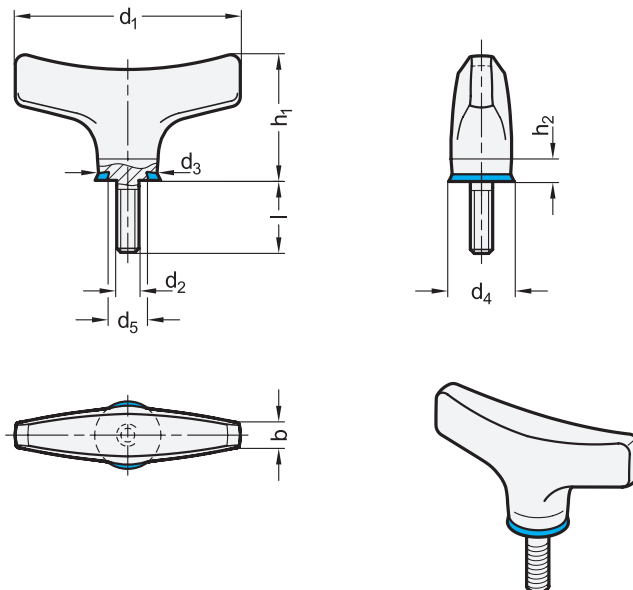
- with FKM sealing ring (Fluorine rubber) **F**

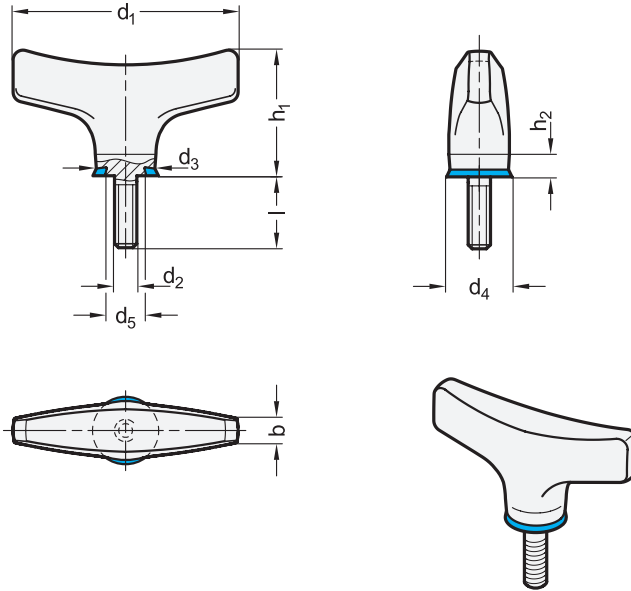
TECHNICAL INFORMATION

- Plastic Characteristics (see page A2)
- Stainless Steel Characteristics (see page A26)



NV 23193





* Complete with

MT
Matte finish

PL
Polished finish

GN 8351-H

STAINLESS STEEL

Description	d ₁	d ₂	l	b	d ₃	d ₄	d ₅	h ₁	h ₂ ≈	⚖
GN 8351-40-M4-8-* -H	40	M 4	8	4	11	11.8	7	22	4	30
GN 8351-40-M4-12-* -H	40	M 4	12	4	11	11.8	7	22	4	31
GN 8351-40-M4-16-* -H	40	M 4	16	4	11	11.8	7	22	4	32
GN 8351-50-M5-12-* -H	50	M 5	12	5	13	13.8	9	28	5	57
GN 8351-50-M5-16-* -H	50	M 5	16	5	13	13.8	9	28	5	59
GN 8351-50-M5-20-* -H	50	M 5	20	5	13	13.8	9	28	5	61
GN 8351-63-M6-16-* -H	63	M 6	16	7	16	16.8	12	35	6	106
GN 8351-63-M6-20-* -H	63	M 6	20	7	16	16.8	12	35	6	109
GN 8351-63-M6-25-* -H	63	M 6	25	7	16	16.8	12	35	6	112

Weight type MT

GN 8351-E

STAINLESS STEEL

Description	d ₁	d ₂	l	b	d ₃	d ₄	d ₅	h ₁	h ₂ ≈	⚖
GN 8351-40-M4-8-* -E	40	M 4	8	4	11	11.8	7	22	4	30
GN 8351-40-M4-12-* -E	40	M 4	12	4	11	11.8	7	22	4	31
GN 8351-40-M4-16-* -E	40	M 4	16	4	11	11.8	7	22	4	32
GN 8351-50-M5-12-* -E	50	M 5	12	5	13	13.8	9	28	5	57
GN 8351-50-M5-16-* -E	50	M 5	16	5	13	13.8	9	28	5	59
GN 8351-50-M5-20-* -E	50	M 5	20	5	13	13.8	9	28	5	61
GN 8351-63-M6-16-* -E	63	M 6	16	7	16	16.8	12	35	6	106
GN 8351-63-M6-20-* -E	63	M 6	20	7	16	16.8	12	35	6	109
GN 8351-63-M6-25-* -E	63	M 6	25	7	16	16.8	12	35	6	112

Weight type MT

Adjustable Hand Levers

Stainless Steel, DGUV-certified, Hygienic Design



NV 20025

SPECIFICATION

Handle
Stainless steel precision casting

- AISI 316
- Polished (Ra < 0.8 μm) **PL**

Version: Threaded bushing

Stainless steel AISI 304

Version: Threaded stud

Stainless steel AISI 304

Sealing ring / Wiper

- H-NBR **H**
Temperature resistant -25 °C to +150 °C
- EPDM **E**
Temperature resistant -40 °C to +120 °C
- Blue
- Hardness 85±5 Shore A
- FDA compliant



INFORMATION

Adjustable hand levers GN 305 with solid stainless steel handle comply with the DGUV testing principles, making them suitable for use in hygienic areas.

The sealed mounting surface enables fastening without dead spaces. The high quality finish as well as the impervious exterior surfaces prevent adherence of dirt and facilitate cleaning.

Adjustable hand levers are ideal whenever parts have to be clamped in a confined space or in a particular lever position.

The threaded insert is moveably attached to the handle with serrations. When pulling the handle, the serration frees itself and can be re-located into any required position. Engagement is achieved by releasing the lever.

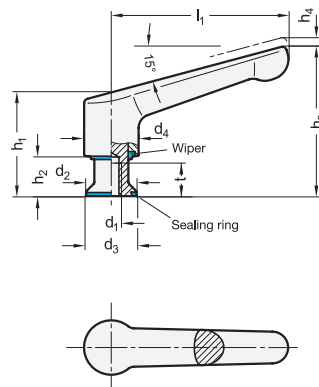
- Operating instruction GN 305

ACCESSORY

- Sealing Rings GN 7600 (see page 38)

TECHNICAL INFORMATION

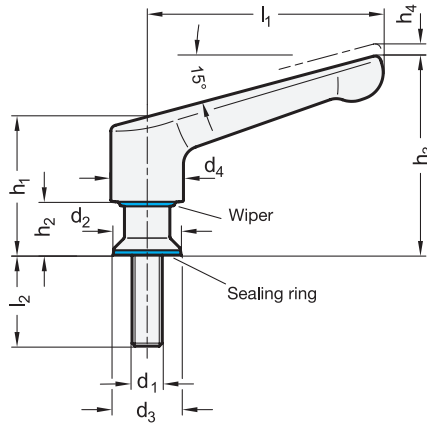
- Plastic Characteristics (see catalogue page A32)
- Stainless Steel Characteristics (see catalogue page A26)



GN 305-Threaded bushing

STAINLESS STEEL

Description	l1	d1	d2	d3	d4	h1	h2	h3	h4 Stroke	t min.	⚖
GN 305-63-M6-PL-H	63	M 6	14	14.8	19	43.8	16.3	60.1	2.5	10	104
GN 305-63-M8-PL-H	63	M 8	18	18.8	19	45.8	18.3	62.1	2.5	12	108
GN 305-78-M8-PL-H	78	M 8	18	18.8	24	49.3	16.5	69.3	3	12	194
GN 305-78-M10-PL-H	78	M 10	22	22.8	24	51.3	18.5	71.3	3	15	189
GN 305-63-M6-PL-E	63	M 6	14	14.8	19	43.8	16.3	60.1	2.5	10	105
GN 305-63-M8-PL-E	63	M 8	18	18.8	19	45.8	18.3	62.1	2.5	12	107
GN 305-78-M8-PL-E	78	M 8	18	18.8	24	49.3	16.5	69.3	3	12	189
GN 305-78-M10-PL-E	78	M 10	22	22.8	24	51.3	18.5	71.3	3	15	191



GN 305-Threaded Stud

STAINLESS STEEL

Description	l_1	d_1	l_2	d_2	d_3	d_4	h_1	h_2	h_3	h_4 Stroke	⚖
GN 305-63-M6-12-PL-H	63	M 6	12	14	14.8	19	43.8	16.3	60.1	2.5	106
GN 305-63-M6-16-PL-H	63	M 6	16	14	14.8	19	43.8	16.3	60.1	2.5	107
GN 305-63-M6-20-PL-H	63	M 6	20	14	14.8	19	43.8	16.3	60.1	2.5	108
GN 305-63-M6-25-PL-H	63	M 6	25	14	14.8	19	43.8	16.3	60.1	2.5	110
GN 305-63-M6-32-PL-H	63	M 6	32	14	14.8	19	43.8	16.3	60.1	2.5	113
GN 305-63-M8-12-PL-H	63	M 8	12	18	18.8	19	45.8	18.3	62.1	2.5	111
GN 305-63-M8-16-PL-H	63	M 8	16	18	18.8	19	45.8	18.3	62.1	2.5	112
GN 305-63-M8-20-PL-H	63	M 8	20	18	18.8	19	45.8	18.3	62.1	2.5	115
GN 305-63-M8-25-PL-H	63	M 8	25	18	18.8	19	45.8	18.3	62.1	2.5	118
GN 305-63-M8-32-PL-H	63	M 8	32	18	18.8	19	45.8	18.3	62.1	2.5	120
GN 305-78-M8-12-PL-H	78	M 8	12	18	18.8	24	49.3	16.5	69.3	3	193
GN 305-78-M8-16-PL-H	78	M 8	16	18	18.8	24	49.3	16.5	69.3	3	195
GN 305-78-M8-20-PL-H	78	M 8	20	18	18.8	24	49.3	16.5	69.3	3	198
GN 305-78-M8-25-PL-H	78	M 8	25	18	18.8	24	49.3	16.5	69.3	3	205
GN 305-78-M8-32-PL-H	78	M 8	32	18	18.8	24	49.3	16.5	69.3	3	207
GN 305-78-M10-16-PL-H	78	M 10	16	22	22.8	24	51.3	18.5	71.3	3	206
GN 305-78-M10-20-PL-H	78	M 10	20	22	22.8	24	51.3	18.5	71.3	3	209
GN 305-78-M10-25-PL-H	78	M 10	25	22	22.8	24	51.3	18.5	71.3	3	212
GN 305-78-M10-32-PL-H	78	M 10	32	22	22.8	24	51.3	18.5	71.3	3	215
GN 305-63-M6-12-PL-E	63	M 6	12	14	14.8	19	43.8	16.3	60.1	2.5	110
GN 305-63-M6-16-PL-E	63	M 6	16	14	14.8	19	43.8	16.3	60.1	2.5	113
GN 305-63-M6-20-PL-E	63	M 6	20	14	14.8	19	43.8	16.3	60.1	2.5	115
GN 305-63-M6-25-PL-E	63	M 6	25	14	14.8	19	43.8	16.3	60.1	2.5	117
GN 305-63-M6-32-PL-E	63	M 6	32	14	14.8	19	43.8	16.3	60.1	2.5	118
GN 305-63-M8-12-PL-E	63	M 8	12	18	18.8	19	45.8	18.3	62.1	2.5	119
GN 305-63-M8-16-PL-E	63	M 8	16	18	18.8	19	45.8	18.3	62.1	2.5	121
GN 305-63-M8-20-PL-E	63	M 8	20	18	18.8	19	45.8	18.3	62.1	2.5	124
GN 305-63-M8-25-PL-E	63	M 8	25	18	18.8	19	45.8	18.3	62.1	2.5	128
GN 305-63-M8-32-PL-E	63	M 8	32	18	18.8	19	45.8	18.3	62.1	2.5	131
GN 305-78-M8-12-PL-E	78	M 8	12	18	18.8	24	49.3	16.5	69.3	3	110
GN 305-78-M8-16-PL-E	78	M 8	16	18	18.8	24	49.3	16.5	69.3	3	113
GN 305-78-M8-20-PL-E	78	M 8	20	18	18.8	24	49.3	16.5	69.3	3	115
GN 305-78-M8-25-PL-E	78	M 8	25	18	18.8	24	49.3	16.5	69.3	3	117
GN 305-78-M8-32-PL-E	78	M 8	32	18	18.8	24	49.3	16.5	69.3	3	119
GN 305-78-M10-16-PL-E	78	M 10	16	22	22.8	24	51.3	18.5	71.3	3	212
GN 305-78-M10-20-PL-E	78	M 10	20	22	22.8	24	51.3	18.5	71.3	3	215
GN 305-78-M10-25-PL-E	78	M 10	25	22	22.8	24	51.3	18.5	71.3	3	217
GN 305-78-M10-32-PL-E	78	M 10	32	22	22.8	24	51.3	18.5	71.3	3	219

Cabinet U-Handles

Stainless Steel, Hygienic Design



NV 20031

SPECIFICATION

Stainless steel AISI 316L **A4**

- Matte finish (Ra < 0.8 μm) **MT**
- Polished finish (Ra < 0.8 μm) **PL**

Sealing ring

- H-NBR **H**
Temperature resistant -25 °C to +150 °C
- EPDM **E**
Temperature resistant -40 °C to +120 °C
- Blue
- Hardness 85±5 Shore A
- FDA compliant



INFORMATION

Cabinet U-handles GN 429 are intended for use in hygienic areas. The version with PL finish comply also with the DGVU testing principles.

The sealed mounting surfaces enable fastening without dead spaces. The high quality finish prevents adherence of dirt and facilitates cleaning.

- Operating instruction GN 429

ACCESSORY

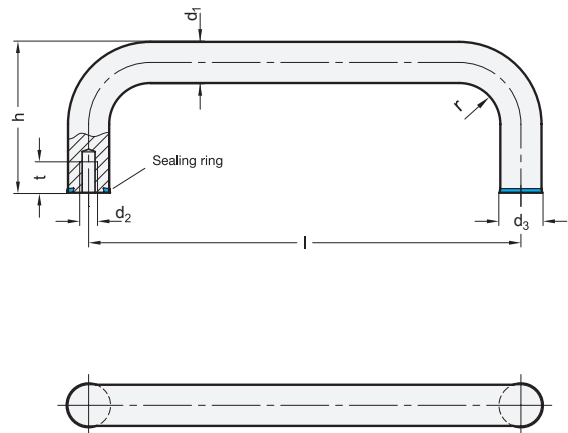
- Sealing Rings GN 7600 (see page 38)

ON REQUEST

- with FKM sealing ring (Fluorine rubber) **F**

TECHNICAL INFORMATION

- Load Rating Information (see catalogue page A35)
- Plastic Characteristics (see catalogue page A2)
- Stainless Steel Characteristics (see catalogue page A26)



GN 429-H

STAINLESS STEEL

Description	d1	l ±0.5	d2	d3	h	r	t min.	Δ
GN 429-A4-12-125-MT-H	12	125	M 5	12.8	51	14	12	170
GN 429-A4-12-125-PL-H	12	125	M 5	12.8	51	14	12	170
GN 429-A4-12-160-MT-H	12	160	M 5	12.8	51	14	12	202
GN 429-A4-12-160-PL-H	12	160	M 5	12.8	51	14	12	202
GN 429-A4-12-200-MT-H	12	200	M 5	12.8	51	14	12	210
GN 429-A4-12-200-PL-H	12	200	M 5	12.8	51	14	12	210
GN 429-A4-16-160-MT-H	16	160	M 6	16.8	59	18	12	373
GN 429-A4-16-160-PL-H	16	160	M 6	16.8	59	18	12	373
GN 429-A4-16-200-MT-H	16	200	M 6	16.8	59	18	12	436
GN 429-A4-16-200-PL-H	16	200	M 6	16.8	59	18	12	437
GN 429-A4-16-250-MT-H	16	250	M 6	16.8	59	18	12	520
GN 429-A4-16-250-PL-H	16	250	M 6	16.8	59	18	12	520
GN 429-A4-20-200-MT-H	20	200	M 8	20.8	85	22	15	695
GN 429-A4-20-200-PL-H	20	200	M 8	20.8	85	22	15	695
GN 429-A4-20-250-MT-H	20	250	M 8	20.8	85	22	15	830
GN 429-A4-20-250-PL-H	20	250	M 8	20.8	85	22	15	830
GN 429-A4-20-300-MT-H	20	300	M 8	20.8	85	22	15	950
GN 429-A4-20-300-PL-H	20	300	M 8	20.8	85	22	15	950

GN 429-E

STAINLESS STEEL

Description	d1	l ±0.5	d2	d3	h	r	t min.	Δ
GN 429-A4-12-125-MT-E	12	125	M 5	12.8	51	14	12	170
GN 429-A4-12-125-PL-E	12	125	M 5	12.8	51	14	12	170
GN 429-A4-12-160-MT-E	12	160	M 5	12.8	51	14	12	202
GN 429-A4-12-160-PL-E	12	160	M 5	12.8	51	14	12	202
GN 429-A4-12-200-MT-E	12	200	M 5	12.8	51	14	12	240
GN 429-A4-12-200-PL-E	12	200	M 5	12.8	51	14	12	240
GN 429-A4-16-160-MT-E	16	160	M 6	16.8	59	18	12	373
GN 429-A4-16-160-PL-E	16	160	M 6	16.8	59	18	12	373
GN 429-A4-16-200-MT-E	16	200	M 6	16.8	59	18	12	436
GN 429-A4-16-200-PL-E	16	200	M 6	16.8	59	18	12	436
GN 429-A4-16-250-MT-E	16	250	M 6	16.8	59	18	12	520
GN 429-A4-16-250-PL-E	16	250	M 6	16.8	59	18	12	520
GN 429-A4-20-200-MT-E	20	200	M 8	20.8	85	22	15	695
GN 429-A4-20-200-PL-E	20	200	M 8	20.8	85	22	15	695
GN 429-A4-20-250-MT-E	20	250	M 8	20.8	85	22	15	830
GN 429-A4-20-250-PL-E	20	250	M 8	20.8	85	22	15	830
GN 429-A4-20-300-MT-E	20	300	M 8	20.8	85	22	15	950
GN 429-A4-20-300-PL-E	20	300	M 8	20.8	85	22	15	950

Tubular Handles

Stainless Steel, with Movable Handle Legs, Hygienic Design

SPECIFICATION

Handle tube
Stainless steel AISI 304 **NI**
Ground, matte finish ($R_a < 0.8 \mu\text{m}$) **MT**

Handle legs
Stainless steel AISI 304
Matte finish ($R_a < 0.8 \mu\text{m}$)

Sealing ring and wiper
TPU **T**

- Blue
- Temperature resistant -20°C to $+110^\circ\text{C}$
- Hardness 95 ± 5 Shore A
- FDA compliant

Clamping wedge
Brass

Grub screw
Stainless steel



INFORMATION

Tubular handles GN 3330 are designed for use in hygienic areas. The sealed mounting surface enables fastening without dead spaces. The high quality finish as well as the non-concave geometry prevent adherence of dirt and facilitate cleaning. The handle legs are loosely enclosed for fastening to the handle tube using the integrated clamping wedge during installation. The position of the handle legs can be adjusted as required, but must not be less than the minimum distance a , as the tubes may be undersized in the edge area.

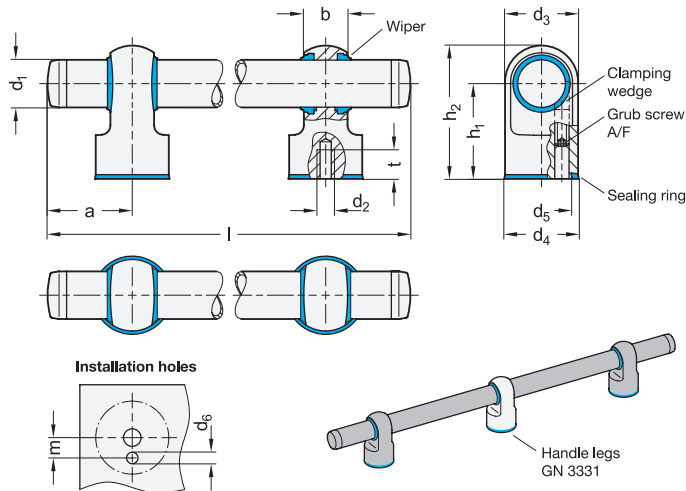
For large lengths or loads, additional handle legs can be added. These are available under standard part number GN 3331 (see page 15).

ACCESSORY

- Screws GN 1580 (see page 20)
- Screws GN 1581 (see page 23)
- Handle Legs GN 3331 (see page 15)

TECHNICAL INFORMATION

- Plastic Characteristics (see catalogue page A2)
- Stainless Steel Characteristics (see catalogue page A26)



GN 3330

STAINLESS STEEL

Description	d1	Length l	a min.	b	d2	d3	d4	d5	d6	h1	h2	m	A/F	t min.	Δ
GN 3330-NI-30-300-MT-T	30	300	70	27.5	M10	46	46.6	42	8	60	84	13.5	5	20	1687
GN 3330-NI-30-400-MT-T	30	400	70	27.5	M10	46	46.6	42	8	60	84	13.5	5	20	1793
GN 3330-NI-30-500-MT-T	30	500	70	27.5	M10	46	46.6	42	8	60	84	13.5	5	20	1900
GN 3330-NI-30-600-MT-T	30	600	70	27.5	M10	46	46.6	42	8	60	84	13.5	5	20	2005
GN 3330-NI-40-400-MT-T	40	400	70	30	M12	56	56.8	50	8	70	99	18.5	5	25	2803
GN 3330-NI-40-600-MT-T	40	600	70	30	M12	56	56.8	50	8	70	99	18.5	5	25	3090
GN 3330-NI-40-800-MT-T	40	800	70	30	M12	56	56.8	50	8	70	99	18.5	5	25	3376
GN 3330-NI-40-1000-MT-T	40	1000	70	30	M12	56	56.8	50	8	70	99	18.5	5	25	3663

Handle Legs

for Tubular Handles GN 3330, Stainless Steel,
Hygienic Design

SPECIFICATION

Stainless steel AISI 304 **NI**
Matte finish ($R_a < 0.8 \mu\text{m}$) **MT**

Sealing ring and wiper
TPU **T**

- Blue
- Temperature resistant $-20 \text{ }^\circ\text{C}$ to $+110 \text{ }^\circ\text{C}$
- Hardness 95 ± 5 Shore A
- FDA compliant

Clamping wedge

Brass

Grub screw

Stainless steel



INFORMATION

Handle legs GN 3331 are intended for use in hygienic areas. The sealed mounting surface enables fastening without dead spaces. The high quality finish as well as the non-concave geometry prevent adherence of dirt and facilitate cleaning.

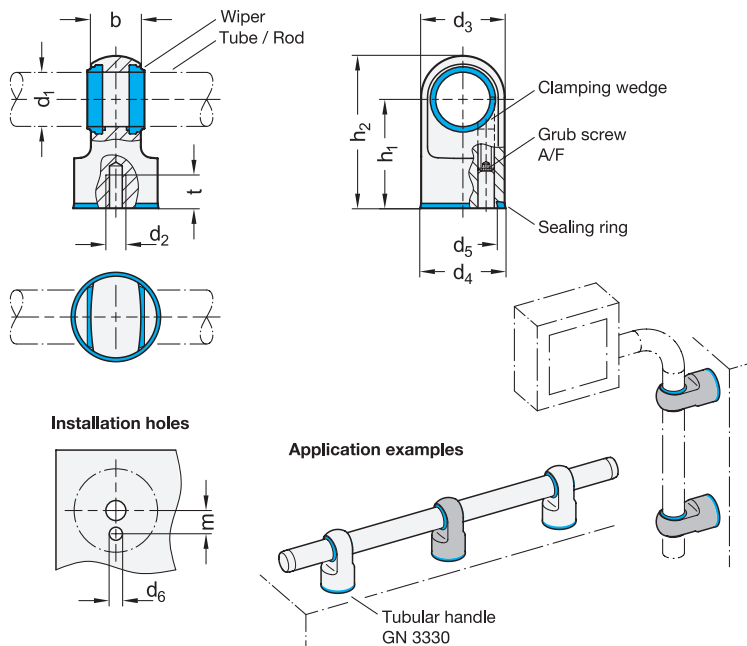
The handle legs are designed for use with tubular handles GN 3330 (see page 14) to reduce large distances between mounting points or excessive loads on the handle legs. Regardless of the handle application, supports can be used to fix rods and tubes with the corresponding diameter d_1 . The tube or rod is fastened during installation using the integrated clamping wedge.

ACCESSORY

- Screws GN 1580 (see page 20)
- Screws GN 1581 (see page 23)

TECHNICAL INFORMATION

- Plastic Characteristics (see catalogue page A2)
- Stainless Steel Characteristics (see catalogue page A26)



GN 3331

STAINLESS STEEL

Description	d_1 For rod / tube	h_1	b	d_2	d_3	d_4	d_5	d_6	h_2	A/F	m	$t \text{ min.}$	
GN 3331-NI-30-60-MT-T	$30 +0.1 / -0.25$	60	27.5	M10	46	46.6	42	8	84	5	13.5	20	616
GN 3331-NI-40-70-MT-T	$40 +0.15 / -0.3$	70	30	M12	56	56.8	50	8	99	5	18.5	25	990

T-Handles

Stainless Steel, Hygienic Design

SPECIFICATION

Stainless steel precision casting AISI 316

- Matte finish (Ra < 0.8 µm) **MT**
- Polished finish (Ra < 0.8 µm) **PL**

Sealing ring

- H-NBR **H**
Temperature resistant -25 °C to +150 °C
- EPDM **E**
Temperature resistant -40 °C to +120 °C
- Blue
- Hardness 85 ±5 Shore A
- FDA compliant

INFORMATION

T-handles GN 5064 comply with the DGVU testing principles and are intended for use in hygienic areas. The version with PL finish is additionally certified according to the guidelines of the EHEDG. The sealed mounting surface enables mounting without dead spaces; the impervious geometry in combination with the high quality finish prevents the accumulation of dirt and facilitates cleaning.

T-handles are great for lifting, moving and operating parts or for clamping purposes by means of threads. The ergonomic shape allows for high operating forces.

The T-handles can also be used in particularly aggressive environments thanks to the material used.

ACCESSORY

- Sealing Rings GN 7600 (see page 38)

ON REQUEST

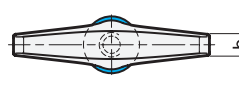
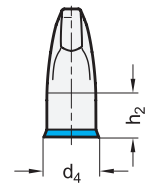
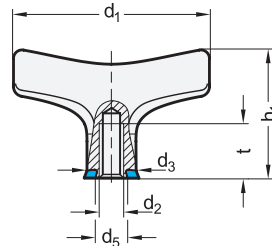
- with FKM sealing ring (Fluorine rubber) **F**

TECHNICAL INFORMATION

- Plastic Characteristics (see catalogue page A2)
- Stainless Steel Characteristics (see catalogue page A26)



NV 23193



* Complete with

MT
Matte finish

PL
Polished finish

GN 5064-H

STAINLESS STEEL

Description	d1	d2	b	d3	d4	d5	h1	h2 ≈	t min.	⚖
GN 5064-63-M6-*-H	63	M 6	7	16	16.8	12	41	12	12	110
GN 5064-80-M8-*-H	80	M 8	9	21	21.8	17	52	15	16	223
GN 5064-100-M10-*-H	100	M 10	11	25	25.8	21	65	19	20	429

Weight type MT

GN 5064-E

STAINLESS STEEL

Description	d1	d2	b	d3	d4	d5	h1	h2 ≈	t min.	⚖
GN 5064-63-M6-*-E	63	M 6	7	16	16.8	12	41	12	12	110
GN 5064-80-M8-*-E	80	M 8	9	21	21.8	17	52	15	16	223
GN 5064-100-M10-*-E	100	M 10	11	25	25.8	21	65	19	20	429

Weight type MT

Stainless Steel Indexing Plungers

Hygienic Design, Knob Side (Front Hygiene) /
Knob and Pin Side (Full Hygiene)

SPECIFICATION

Types

- Type **B**: Without rest position
- Type **C**: With rest position

Coding

- **FH**: Knob side in Hygienic Design (front hygiene)
- **VH**: Knob and pin side in Hygienic Design (full hygiene)

Stainless steel AISI 316

Plunger pin case hardened

Pressure spring

Stainless steel AISI 316Ti

Seals, blue, FDA compliant

Temperature resistant -25 °C to +110 °C

- Sealing ring
H-NBR, hardness 85±5 Shore A **H**
- Wiper
TPU, hardness 95 ±5 Shore A

All moving parts lubricated with FDA-compliant special grease

INFORMATION

Both Identifications **FH** and **VH**: Indexing plungers with a rest position are used for such applications where the plunger has to stay in its retracted position. In that case, the knob is retracted and afterwards turned by 90°. A notch keeps the plunger in this position.

Identification **FH**: Knob side Hygienic Design (front hygiene): Stainless steel indexing plungers GN 8170 are intended for use in hygienic areas and meet hygiene requirements on the knob side (front hygiene). Wipers between the knob and the guide as well as the sealing ring between the guide and the housing keep the locking mechanism on the knob side leak-tight. At the same time, the high surface quality and dead-space-free mounting prevent dirt from adhering and facilitate cleaning.

Mounting holes and through-holes in the housing must be at a right angle, free of burrs and without a chamfer. This ensures that the sealing rings will function properly.

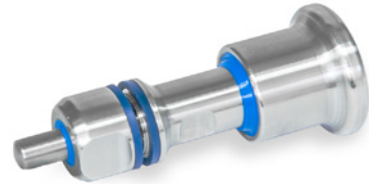
Identification **VH**: Knob and pin side Hygienic Design (full hygiene): Stainless steel indexing plungers GN 8170 are intended for use in hygienic areas, and with their additional sealing nuts, they meet hygiene requirements on the knob and pin sides (complete hygiene). Wipers between knob and guide and between guide and pin as well as sealing rings on the guide and sealing nut keep the locking mechanism leak-tight. At the same time, the high surface quality and dead-space-free mounting prevent dirt from adhering and facilitate cleaning.

Through-holes in the housing must be at a right angle, free of burrs and without a chamfer. This ensures that the sealing rings will function properly.

The stainless steel indexing plungers GN 8170 are certified according to DGVU Test.

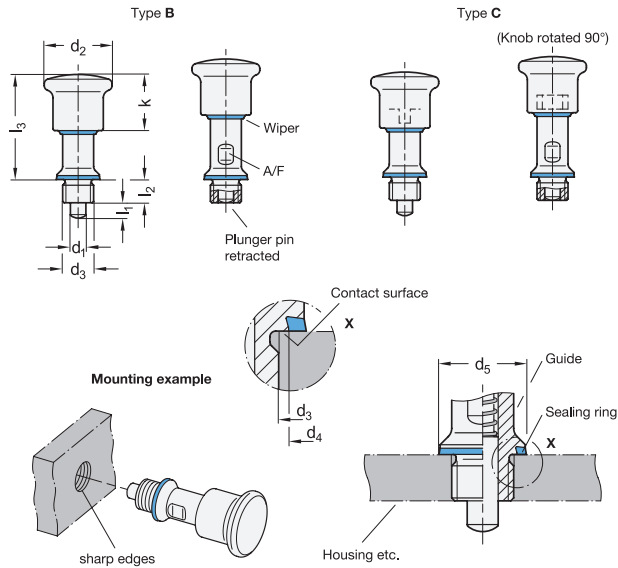


NV 20099



TECHNICAL INFORMATION

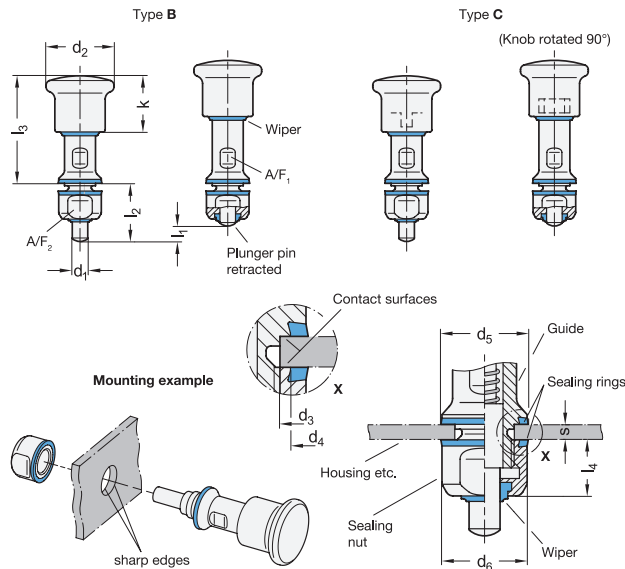
- Load Rating Information (see catalogue page A35)
- ISO-Fundamental Tolerances (see catalogue page A21)
- Elastomer Characteristics (see catalogue page A32)
- Stainless Steel Characteristics (see catalogue page A26)



GN 8170-FH

STAINLESS STEEL

Description	d1 Plunger f8 Bore H8	d2	d3	d4	d5	l1	l2	l3	k	A/F	Spring load in N ≈ initial	Spring load in N ≈ end	⚖
GN 8170-6-B-FH-H	6	35	M 12 x 1.5	18	22.8	6	12	49.8	29	14	20	36	178
GN 8170-6-C-FH-H	6	35	M 12 x 1.5	18	22.8	6	12	49.8	29	14	20	36	169
GN 8170-8-B-FH-H	8	35	M 16 x 1.5	18	22.8	8	12	54.3	29	14	22	32	195
GN 8170-8-C-FH-H	8	35	M 16 x 1.5	18	22.8	8	12	54.3	29	14	22	32	190



GN 8170-VH

STAINLESS STEEL

Description	d1 Plunger f8 Bore H8	d2	d3 -0.1	d4	d5	d6	l1	l2	l3	l4	k	s min.	s max.	A/F 1	A/F 2	Spring load in N ≈ initial	Spring load in N ≈ end	⚖
GN 8170-6-B-VH-H	6	35	16	18	22.8	22	6	27.5	50.5	14.5	29	1.5	4	14	18	20	36	208
GN 8170-6-C-VH-H	6	35	16	18	22.8	22	6	27.5	50.5	14.5	29	1.5	4	14	18	20	36	199
GN 8170-8-B-VH-H	8	35	16	18	22.8	22	8	29.5	55.5	14.5	29	1.5	4	14	18	22	32	217
GN 8170-8-C-VH-H	8	35	16	18	22.8	22	8	29.5	55.5	14.5	29	1.5	4	14	18	22	32	212

Nuts / Screws

Stainless Steel, Hygienic Design

SPECIFICATION

Stainless steel AISI 316L

- Matte finish (Ra < 0.8 µm) **MT**
- Polished finish (Ra < 0.8 µm) **PL**

Sealing ring

- H-NBR **H**
Temperature resistant -25 °C to +150 °C
- EPDM **E**
Temperature resistant -40 °C to +120 °C
- Blue
- Hardness 85±5 Shore A
- FDA compliant

INFORMATION

Nuts / Screws GN 1580 are certified according to EHEDG guidelines and are therefore ideal for use in hygienic areas. The sealed mounting surface enables components to be mounted without dead spaces. The high quality finish as well as the large corner radii and closed surfaces prevent adherence of dirt and facilitate cleaning.

ACCESSORY

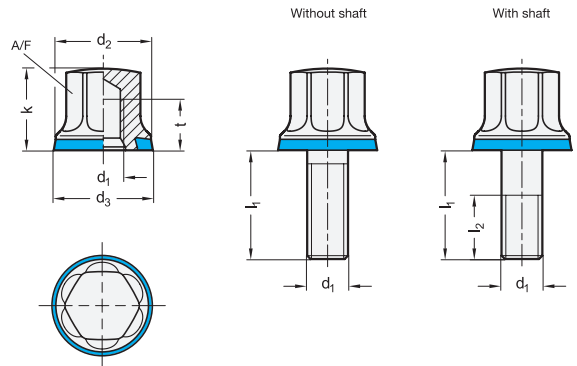
- Sealing Rings GN 7600 (see page 38)

ON REQUEST

- with FKM sealing ring (Fluorine rubber) **F**

TECHNICAL INFORMATION

- Plastic Characteristics (see catalogue page A2)
- Stainless Steel Characteristics (see catalogue page A26)



GN 1580-Nuts

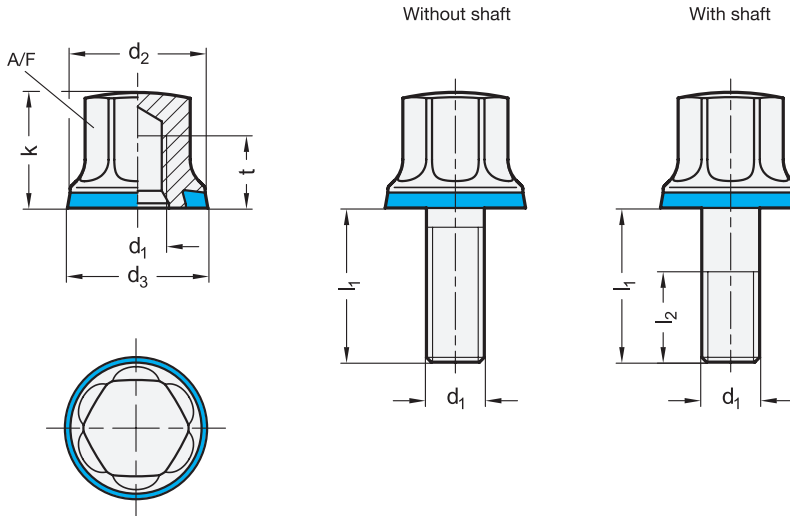
STAINLESS STEEL

Description	d1	d2	d3	k	t min.	A/F	⚖
GN 1580-M4-MT-H	M 4	11	11.8	9.5	6	7	3
GN 1580-M4-PL-H	M 4	11	11.8	9.5	6	7	3
GN 1580-M5-MT-H	M 5	12	12.8	10	6	8	8
GN 1580-M5-PL-H	M 5	12	12.8	10	6	8	8
GN 1580-M6-MT-H	M 6	14	14.8	12	7.5	10	10
GN 1580-M6-PL-H	M 6	14	14.8	12	7.5	10	10
GN 1580-M8-MT-H	M 8	18	18.8	14.5	9.5	13	17
GN 1580-M8-PL-H	M 8	18	18.8	14.5	9.5	13	17
GN 1580-M10-MT-H	M 10	21	21.8	18	12	16	19
GN 1580-M10-PL-H	M 10	21	21.8	18	12	16	19
GN 1580-M12-MT-H	M 12	25	25.8	21	14.5	18	45
GN 1580-M12-PL-H	M 12	25	25.8	21	14.5	18	45
GN 1580-M16-MT-H	M 16	32	32.8	26	17	24	84
GN 1580-M16-PL-H	M 16	32	32.8	26	17	24	84
GN 1580-M20-MT-H	M 20	40	40.8	32	22	30	150
GN 1580-M20-PL-H	M 20	40	40.8	32	22	30	150

GN 1580-Nuts

STAINLESS STEEL

Description	d1	d2	d3	k	t min.	A/F	⚖
GN 1580-M4-MT-E	M 4	11	11.8	9.5	6	7	3
GN 1580-M4-PL-E	M 4	11	11.8	9.5	6	7	3
GN 1580-M5-MT-E	M 5	12	12.8	10	6	8	4
GN 1580-M5-PL-E	M 5	12	12.8	10	6	8	8
GN 1580-M6-MT-E	M 6	14	14.8	12	7.5	10	10
GN 1580-M6-PL-E	M 6	14	14.8	12	7.5	10	10
GN 1580-M8-MT-E	M 8	18	18.8	14.5	9.5	13	17
GN 1580-M8-PL-E	M 8	18	18.8	14.5	9.5	13	17
GN 1580-M10-MT-E	M 10	21	21.8	18	12	16	19
GN 1580-M10-PL-E	M 10	21	21.8	18	12	16	19
GN 1580-M12-MT-E	M 12	25	25.8	21	14.5	18	45
GN 1580-M12-PL-E	M 12	25	25.8	21	14.5	18	45
GN 1580-M16-MT-E	M 16	32	32.8	26	17	24	84
GN 1580-M16-PL-E	M 16	32	32.8	26	17	24	84
GN 1580-M20-MT-E	M 20	40	40.8	32	22	30	150
GN 1580-M20-PL-E	M 20	40	40.8	32	22	30	150



GN 1580-Screws

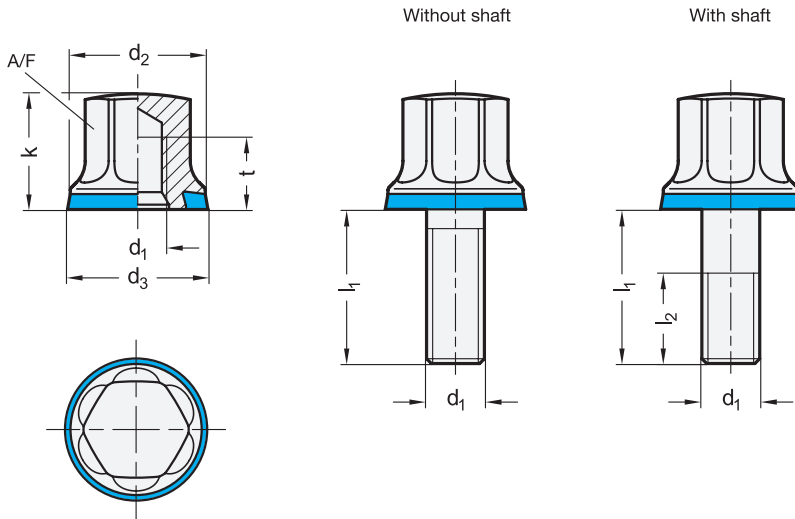
STAINLESS STEEL

Description	d1	l1 without shaft	l1 with shaft	d2	d3	k	l2	A/F	⚖
GN 1580-M4-8-MT-H	M 4	8	-	11	11.8	9.5	-	7	4
GN 1580-M4-8-PL-H	M 4	8	-	11	11.8	9.5	-	7	5
GN 1580-M4-10-MT-H	M 4	10	-	11	11.8	9.5	14	7	5
GN 1580-M4-10-PL-H	M 4	10	-	11	11.8	9.5	14	7	5
GN 1580-M4-12-MT-H	M 4	12	-	11	11.8	9.5	-	7	5
GN 1580-M4-12-PL-H	M 4	12	-	11	11.8	9.5	-	7	4
GN 1580-M4-16-MT-H	M 4	-	16	11	11.8	-	14	7	5
GN 1580-M4-16-PL-H	M 4	-	16	11	11.8	-	14	7	5
GN 1580-M5-10-MT-H	M 5	10	-	12	12.8	10	-	8	13
GN 1580-M5-10-PL-H	M 5	10	-	12	12.8	10	-	8	13
GN 1580-M5-16-MT-H	M 5	16	-	12	12.8	10	-	8	10
GN 1580-M5-16-PL-H	M 5	16	-	12	12.8	10	-	8	10
GN 1580-M5-20-MT-H	M 5	20	-	12	12.8	10	-	8	11
GN 1580-M5-20-PL-H	M 5	20	-	12	12.8	10	-	8	11
GN 1580-M6-12-MT-H	M 6	12	-	14	14.8	12	-	10	14
GN 1580-M6-12-PL-H	M 6	12	-	14	14.8	12	-	10	14
GN 1580-M6-16-MT-H	M 6	16	-	14	14.8	12	-	10	15
GN 1580-M6-16-PL-H	M 6	16	-	14	14.8	12	-	10	15
GN 1580-M6-20-MT-H	M 6	20	-	14	14.8	12	-	10	13
GN 1580-M6-20-PL-H	M 6	20	-	14	14.8	12	-	10	13
GN 1580-M6-25-MT-H	M 6	25	-	14	14.8	12	-	10	13
GN 1580-M6-25-PL-H	M 6	25	-	14	14.8	12	-	10	13
GN 1580-M6-30-MT-H	M 6	30	-	14	14.8	12	-	10	17
GN 1580-M6-30-PL-H	M 6	30	-	14	14.8	12	-	10	17
GN 1580-M8-16-MT-H	M 8	16	-	18	18.8	14.5	-	13	24
GN 1580-M8-16-PL-H	M 8	16	-	18	18.8	14.5	-	13	24
GN 1580-M8-20-MT-H	M 8	20	-	18	18.8	14.5	-	13	28
GN 1580-M8-20-PL-H	M 8	20	-	18	18.8	14.5	-	13	28
GN 1580-M8-25-MT-H	M 8	25	-	18	18.8	14.5	-	13	28
GN 1580-M8-25-PL-H	M 8	25	-	18	18.8	14.5	-	13	28
GN 1580-M8-30-MT-H	M 8	30	-	18	18.8	14.5	-	13	30
GN 1580-M8-30-PL-H	M 8	30	-	18	18.8	14.5	-	13	30
GN 1580-M8-40-MT-H	M 8	-	40	18	18.8	-	22	13	33
GN 1580-M8-40-PL-H	M 8	-	40	18	18.8	-	22	13	33

GN 1580-Screws

STAINLESS STEEL

Description	d1	l1 without shaft	l1 with shaft	d2	d3	k	l2	A/F	⚖
GN 1580-M10-20-MT-H	M 10	20	-	21	21.8	18	-	16	49
GN 1580-M10-20-PL-H	M 10	20	-	21	21.8	18	-	16	49
GN 1580-M10-25-MT-H	M 10	25	-	21	21.8	18	-	16	51
GN 1580-M10-25-PL-H	M 10	25	-	21	21.8	18	-	16	51
GN 1580-M10-30-MT-H	M 10	30	-	21	21.8	18	-	16	54
GN 1580-M10-30-PL-H	M 10	30	-	21	21.8	18	-	16	54
GN 1580-M10-40-MT-H	M 10	-	40	21	21.8	-	26	16	59
GN 1580-M10-40-PL-H	M 10	-	40	21	21.8	-	26	16	59
GN 1580-M10-50-MT-H	M 10	-	50	21	21.8	-	26	16	64
GN 1580-M10-50-PL-H	M 10	-	50	21	21.8	-	26	16	64
GN 1580-M12-25-PL-H	M 12	25	-	25	25.8	21	-	18	79
GN 1580-M12-25-MT-H	M 12	25	-	25	25.8	21	-	18	79
GN 1580-M12-30-PL-H	M 12	30	-	25	25.8	21	-	18	84
GN 1580-M12-30-MT-H	M 12	30	-	25	25.8	21	-	18	70
GN 1580-M12-40-PL-H	M 12	-	40	25	25.8	-	30	18	93
GN 1580-M12-40-MT-H	M 12	-	40	25	25.8	-	30	18	77
GN 1580-M12-50-PL-H	M 12	-	50	25	25.8	-	30	18	102
GN 1580-M12-50-MT-H	M 12	-	50	25	25.8	-	30	18	102
GN 1580-M12-60-PL-H	M 12	-	60	25	25.8	-	30	18	111
GN 1580-M12-60-MT-H	M 12	-	60	25	25.8	-	30	18	111
GN 1580-M16-30-PL-H	M 16	30	-	32	32.8	26	38	24	157
GN 1580-M16-30-MT-H	M 16	30	-	32	32.8	26	38	24	157
GN 1580-M16-40-PL-H	M 16	40	-	32	32.8	26	38	24	173
GN 1580-M16-40-MT-H	M 16	40	-	32	32.8	26	38	24	173
GN 1580-M16-50-PL-H	M 16	-	50	32	32.8	26	38	24	189
GN 1580-M16-50-MT-H	M 16	-	50	32	32.8	26	38	24	189
GN 1580-M16-60-PL-H	M 16	-	60	32	32.8	26	38	24	205
GN 1580-M16-60-MT-H	M 16	-	60	32	32.8	26	38	24	187
GN 1580-M16-70-PL-H	M 16	-	70	32	32.8	26	38	24	221
GN 1580-M16-70-MT-H	M 16	-	70	32	32.8	26	38	24	203
GN 1580-M20-40-MT-H	M 20	40	-	40	40.8	32	46	30	296
GN 1580-M20-40-PL-H	M 20	40	-	40	40.8	32	46	30	296
GN 1580-M20-60-MT-H	M 20	-	60	40	40.8	32	46	30	346
GN 1580-M20-60-PL-H	M 20	-	60	40	40.8	32	46	30	346



GN 1580-Screws

STAINLESS STEEL

Description	d1	l1 without shaft	l1 with shaft	d2	d3	k	l2	A/F	△
GN 1580-M4-8-MT-E	M 4	8	-	11	11.8	9.5	-	7	4
GN 1580-M4-8-PL-E	M 4	8	-	11	11.8	9.5	-	7	5
GN 1580-M4-10-MT-E	M 4	10	-	11	11.8	9.5	14	7	5
GN 1580-M4-10-PL-E	M 4	10	-	11	11.8	9.5	14	7	5
GN 1580-M4-12-MT-E	M 4	12	-	11	11.8	9.5	-	7	5
GN 1580-M4-12-PL-E	M 4	12	-	11	11.8	9.5	-	7	4
GN 1580-M4-16-MT-E	M 4	-	16	11	11.8	-	14	7	13
GN 1580-M4-16-PL-E	M 4	-	16	11	11.8	-	14	7	5
GN 1580-M5-10-MT-E	M 5	10	-	12	12.8	10	-	8	13
GN 1580-M5-10-PL-E	M 5	10	-	12	12.8	10	-	8	13
GN 1580-M5-16-MT-E	M 5	16	-	12	12.8	10	-	8	10
GN 1580-M5-16-PL-E	M 5	16	-	12	12.8	10	-	8	10
GN 1580-M5-20-MT-E	M 5	20	-	12	12.8	10	-	8	11
GN 1580-M5-20-PL-E	M 5	20	-	12	12.8	10	-	8	11
GN 1580-M6-12-MT-E	M 6	12	-	14	14.8	12	-	10	14
GN 1580-M6-12-PL-E	M 6	12	-	14	14.8	12	-	10	14
GN 1580-M6-16-MT-E	M 6	16	-	14	14.8	12	-	10	15
GN 1580-M6-16-PL-E	M 6	16	-	14	14.8	12	-	10	12
GN 1580-M6-20-MT-E	M 6	20	-	14	14.8	12	-	10	13
GN 1580-M6-20-PL-E	M 6	20	-	14	14.8	12	-	10	13
GN 1580-M6-25-MT-E	M 6	25	-	14	14.8	12	-	10	13
GN 1580-M6-25-PL-E	M 6	25	-	14	14.8	12	-	10	13
GN 1580-M6-30-MT-E	M 6	30	-	14	14.8	12	-	10	17
GN 1580-M6-30-PL-E	M 6	30	-	14	14.8	12	-	10	17
GN 1580-M8-16-MT-E	M 8	16	-	18	18.8	14.5	-	13	24
GN 1580-M8-16-PL-E	M 8	16	-	18	18.8	14.5	-	13	24
GN 1580-M8-20-MT-E	M 8	20	-	18	18.8	14.5	-	13	28
GN 1580-M8-20-PL-E	M 8	20	-	18	18.8	14.5	-	13	28
GN 1580-M8-25-MT-E	M 8	25	-	18	18.8	14.5	-	13	28
GN 1580-M8-25-PL-E	M 8	25	-	18	18.8	14.5	-	13	28
GN 1580-M8-30-MT-E	M 8	30	-	18	18.8	14.5	-	13	30
GN 1580-M8-30-PL-E	M 8	30	-	18	18.8	14.5	-	13	30
GN 1580-M8-40-MT-E	M 8	-	40	18	18.8	-	22	13	33
GN 1580-M8-40-PL-E	M 8	-	40	18	18.8	-	22	13	33

GN 1580-Screws

STAINLESS STEEL

Description	d1	l1 without shaft	l1 with shaft	d2	d3	k	l2	A/F	△
GN 1580-M10-20-MT-E	M 10	20	-	21	21.8	18	-	16	49
GN 1580-M10-20-PL-E	M 10	20	-	21	21.8	18	-	16	49
GN 1580-M10-25-MT-E	M 10	25	-	21	21.8	18	-	16	51
GN 1580-M10-25-PL-E	M 10	25	-	21	21.8	18	-	16	51
GN 1580-M10-30-MT-E	M 10	30	-	21	21.8	18	-	16	54
GN 1580-M10-30-PL-E	M 10	30	-	21	21.8	18	-	16	54
GN 1580-M10-40-MT-E	M 10	-	40	21	21.8	-	26	16	59
GN 1580-M10-40-PL-E	M 10	-	40	21	21.8	-	26	16	59
GN 1580-M10-50-MT-E	M 10	-	50	21	21.8	-	26	16	64
GN 1580-M10-50-PL-E	M 10	-	50	21	21.8	-	26	16	64
GN 1580-M12-25-PL-E	M 12	25	-	25	25.8	21	-	18	79
GN 1580-M12-25-MT-E	M 12	25	-	25	25.8	21	-	18	79
GN 1580-M12-30-PL-E	M 12	30	-	25	25.8	21	-	18	84
GN 1580-M12-30-MT-E	M 12	30	-	25	25.8	21	-	18	70
GN 1580-M12-40-PL-E	M 12	-	40	25	25.8	-	30	18	93
GN 1580-M12-40-MT-E	M 12	-	40	25	25.8	-	30	18	77
GN 1580-M12-50-PL-E	M 12	-	50	25	25.8	-	30	18	102
GN 1580-M12-50-MT-E	M 12	-	50	25	25.8	-	30	18	102
GN 1580-M12-60-PL-E	M 12	-	60	25	25.8	-	30	18	111
GN 1580-M12-60-MT-E	M 12	-	60	25	25.8	-	30	18	111
GN 1580-M16-30-PL-E	M 16	30	-	32	32.8	26	38	24	157
GN 1580-M16-30-MT-E	M 16	30	-	32	32.8	26	38	24	157
GN 1580-M16-40-PL-E	M 16	40	-	32	32.8	26	38	24	173
GN 1580-M16-40-MT-E	M 16	40	-	32	32.8	26	38	24	173
GN 1580-M16-50-PL-E	M 16	-	50	32	32.8	26	38	24	189
GN 1580-M16-50-MT-E	M 16	-	50	32	32.8	26	38	24	189
GN 1580-M16-60-PL-E	M 16	-	60	32	32.8	26	38	24	205
GN 1580-M16-60-MT-E	M 16	-	60	32	32.8	26	38	24	187
GN 1580-M16-70-PL-E	M 16	-	70	32	32.8	26	38	24	221
GN 1580-M16-70-MT-E	M 16	-	70	32	32.8	26	38	24	221
GN 1580-M20-40-MT-E	M 20	40	-	40	40.8	32	46	30	296
GN 1580-M20-40-PL-E	M 20	40	-	40	40.8	32	46	30	296
GN 1580-M20-60-MT-E	M 20	-	60	40	40.8	32	46	30	346
GN 1580-M20-60-PL-E	M 20	-	60	40	40.8	32	46	30	346

Screws

Stainless Steel, Hygienic Design

SPECIFICATION

Stainless steel AISI 316L

- Matte finish ($Ra < 0.8 \mu m$) **MT**
- Polished finish ($Ra < 0.8 \mu m$) **PL**

Sealing ring

- H-NBR **H**
Temperature resistant -25 °C to +150 °C
- EPDM **E**
Temperature resistant -40 °C to +120 °C
- Blue
- Hardness 85±5 Shore A
- FDA compliant

INFORMATION

Screws GN 1581 with low-profile head are certified according to EHEDG guidelines and are therefore ideal for use in hygienic areas. The sealed mounting surface enables components to be mounted without dead spaces. The high quality finish as well as the large corner radii and closed surfaces prevent adherence of dirt and facilitate cleaning.

ACCESSORY

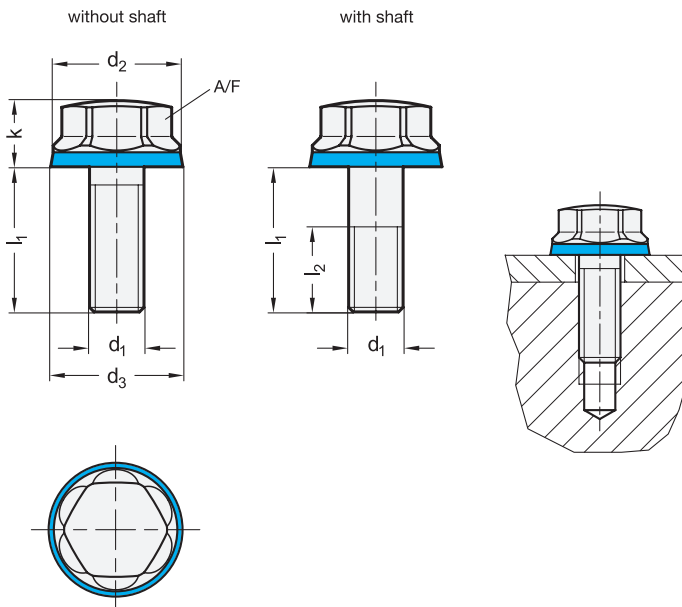
- Sealing Rings GN 7600 (see page 38)

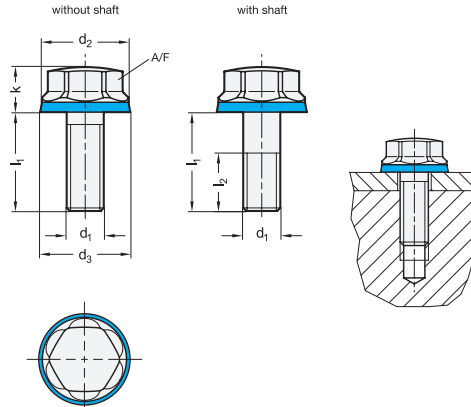
ON REQUEST

- with FKM sealing ring (Fluorine rubber) **F**

TECHNICAL INFORMATION

- Plastic Characteristics (see catalogue page A2)
- Stainless Steel Characteristics (see catalogue page A26)





GN 1581-H

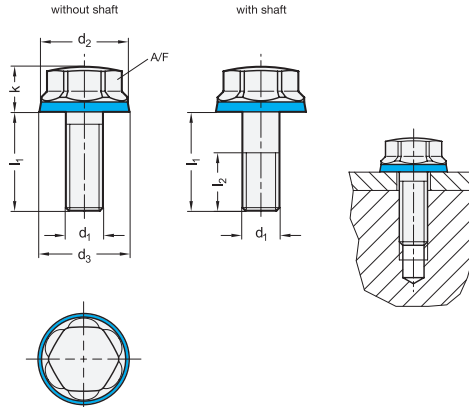
STAINLESS STEEL

Description	d1	l1 without shaft	l1 with shaft	d2	d3	k	l2	A/F	△
GN 1581-M4-8-MT-H	M4	8	-	10	10.8	6.5	-	7	3
GN 1581-M4-8-PL-H	M4	8	-	10	10.8	6.5	-	7	3
GN 1581-M4-10-MT-H	M4	10	-	10	10.8	6.5	-	7	3
GN 1581-M4-10-PL-H	M4	10	-	10	10.8	6.5	-	7	3
GN 1581-M4-12-MT-H	M4	12	-	10	10.8	6.5	-	7	3
GN 1581-M4-12-PL-H	M4	12	-	10	10.8	6.5	-	7	3
GN 1581-M4-16-MT-H	M4	-	16	10	10.8	6.5	-	7	4
GN 1581-M4-16-PL-H	M4	-	16	10	10.8	6.5	-	7	4
GN 1581-M4-20-MT-H	M4	-	20	10	10.8	6.5	14	7	4
GN 1581-M4-20-PL-H	M4	-	20	10	10.8	6.5	14	7	4
GN 1581-M4-25-MT-H	M4	-	25	10	10.8	6.5	-	7	5
GN 1581-M4-25-PL-H	M4	-	25	10	10.8	6.5	-	7	5
GN 1581-M4-30-MT-H	M4	-	30	10	10.8	6.5	14	7	5
GN 1581-M4-30-PL-H	M4	-	30	10	10.8	6.5	14	7	5
GN 1581-M5-10-MT-H	M5	10	-	11	11.8	7	-	8	6
GN 1581-M5-10-PL-H	M5	10	-	11	11.8	7	-	8	6
GN 1581-M5-16-MT-H	M5	16	-	11	11.8	7	-	8	6
GN 1581-M5-16-PL-H	M5	16	-	11	11.8	7	-	8	6
GN 1581-M5-20-MT-H	M5	-	20	11	11.8	7	16	8	6
GN 1581-M5-20-PL-H	M5	-	20	11	11.8	7	16	8	6
GN 1581-M5-25-MT-H	M5	-	25	11	11.8	7	-	8	7
GN 1581-M5-25-PL-H	M5	-	25	11	11.8	7	-	8	7
GN 1581-M5-30-MT-H	M5	-	30	11	11.8	7	16	8	10
GN 1581-M5-30-PL-H	M5	-	30	11	11.8	7	16	8	10
GN 1581-M5-35-MT-H	M5	-	35	11	11.8	7	-	8	8
GN 1581-M5-35-PL-H	M5	-	35	11	11.8	7	-	8	8
GN 1581-M5-40-MT-H	M5	-	40	11	11.8	7	16	8	9
GN 1581-M5-40-PL-H	M5	-	40	11	11.8	7	16	8	9
GN 1581-M6-12-MT-H	M6	12	-	13	13.8	7.5	-	10	8
GN 1581-M6-12-PL-H	M6	12	-	13	13.8	7.5	-	10	8
GN 1581-M6-16-MT-H	M6	16	-	13	13.8	7.5	-	10	9
GN 1581-M6-16-PL-H	M6	16	-	13	13.8	7.5	-	10	9
GN 1581-M6-20-MT-H	M6	20	-	13	13.8	7.5	-	10	10
GN 1581-M6-20-PL-H	M6	20	-	13	13.8	7.5	-	10	10
GN 1581-M6-25-MT-H	M6	25	-	13	13.8	7.5	-	10	11
GN 1581-M6-25-PL-H	M6	25	-	13	13.8	7.5	-	10	11
GN 1581-M6-30-MT-H	M6	-	30	13	13.8	7.5	18	10	12
GN 1581-M6-30-PL-H	M6	-	30	13	13.8	7.5	18	10	12
GN 1581-M6-35-MT-H	M6	-	35	13	13.8	7.5	-	10	12
GN 1581-M6-35-PL-H	M6	-	35	13	13.8	7.5	-	10	12
GN 1581-M6-40-MT-H	M6	-	40	13	13.8	7.5	18	10	14
GN 1581-M6-40-PL-H	M6	-	40	13	13.8	7.5	18	10	14
GN 1581-M6-50-MT-H	M6	-	50	13	13.8	7.5	18	10	16
GN 1581-M6-50-PL-H	M6	-	50	13	13.8	7.5	18	10	16
GN 1581-M8-16-MT-H	M8	16	-	16	16.8	8.5	-	13	16
GN 1581-M8-16-PL-H	M8	16	-	16	16.8	8.5	-	13	16
GN 1581-M8-20-MT-H	M8	20	-	16	16.8	8.5	-	13	17

GN 1581-H

STAINLESS STEEL

Description	d1	l1 without shaft	l1 with shaft	d2	d3	k	l2	A/F	△
GN 1581-M8-20-PL-H	M8	20	-	16	16.8	8.5	-	13	17
GN 1581-M8-25-MT-H	M8	25	-	16	16.8	8.5	-	13	19
GN 1581-M8-25-PL-H	M8	25	-	16	16.8	8.5	-	13	19
GN 1581-M8-30-MT-H	M8	30	-	16	16.8	8.5	-	13	21
GN 1581-M8-30-PL-H	M8	30	-	16	16.8	8.5	-	13	21
GN 1581-M8-40-MT-H	M8	-	40	16	16.8	8.5	22	13	25
GN 1581-M8-40-PL-H	M8	-	40	16	16.8	8.5	22	13	25
GN 1581-M8-50-MT-H	M8	-	50	16	16.8	8.5	22	13	29
GN 1581-M8-50-PL-H	M8	-	50	16	16.8	8.5	22	13	29
GN 1581-M8-60-MT-H	M8	-	60	16	16.8	8.5	22	13	33
GN 1581-M8-60-PL-H	M8	-	60	16	16.8	8.5	22	13	33
GN 1581-M10-20-MT-H	M10	20	-	19	19.8	9.5	-	16	28
GN 1581-M10-20-PL-H	M10	20	-	19	19.8	9.5	-	16	28
GN 1581-M10-25-MT-H	M10	25	-	19	19.8	9.5	-	16	31
GN 1581-M10-25-PL-H	M10	25	-	19	19.8	9.5	-	16	31
GN 1581-M10-30-MT-H	M10	30	-	19	19.8	9.5	-	16	34
GN 1581-M10-30-PL-H	M10	30	-	19	19.8	9.5	-	16	34
GN 1581-M10-40-MT-H	M10	-	40	19	19.8	9.5	26	16	40
GN 1581-M10-40-PL-H	M10	-	40	19	19.8	9.5	26	16	40
GN 1581-M10-50-MT-H	M10	-	50	19	19.8	9.5	26	16	46
GN 1581-M10-50-PL-H	M10	-	50	19	19.8	9.5	26	16	46
GN 1581-M10-60-MT-H	M10	-	60	19	19.8	9.5	26	16	52
GN 1581-M10-60-PL-H	M10	-	60	19	19.8	9.5	26	16	52
GN 1581-M12-25-MT-H	M12	25	-	22	22.8	11	-	18	46
GN 1581-M12-25-PL-H	M12	25	-	22	22.8	11	-	18	46
GN 1581-M12-30-MT-H	M12	30	-	22	22.8	11	-	18	50
GN 1581-M12-30-PL-H	M12	30	-	22	22.8	11	-	18	50
GN 1581-M12-40-MT-H	M12	-	40	22	22.8	11	30	18	59
GN 1581-M12-40-PL-H	M12	-	40	22	22.8	11	30	18	59
GN 1581-M12-50-MT-H	M12	-	50	22	22.8	11	30	18	68
GN 1581-M12-50-PL-H	M12	-	50	22	22.8	11	30	18	68
GN 1581-M12-60-MT-H	M12	-	60	22	22.8	11	30	18	76
GN 1581-M12-60-PL-H	M12	-	60	22	22.8	11	30	18	76
GN 1581-M16-30-MT-H	M16	30	-	28	28.8	13	-	22	90
GN 1581-M16-30-PL-H	M16	30	-	28	28.8	13	-	22	90
GN 1581-M16-40-MT-H	M16	40	-	28	28.8	13	-	22	106
GN 1581-M16-40-PL-H	M16	40	-	28	28.8	13	-	22	106
GN 1581-M16-50-MT-H	M16	-	50	28	28.8	13	38	22	122
GN 1581-M16-50-PL-H	M16	-	50	28	28.8	13	38	22	122
GN 1581-M16-60-MT-H	M16	-	60	28	28.8	13	38	22	137
GN 1581-M16-60-PL-H	M16	-	60	28	28.8	13	38	22	137
GN 1581-M16-70-MT-H	M16	-	70	28	28.8	13	38	22	153
GN 1581-M16-70-PL-H	M16	-	70	28	28.8	13	38	22	153
GN 1581-M20-40-MT-H	M20	40	-	34	34.8	15	-	27	172
GN 1581-M20-40-PL-H	M20	40	-	34	34.8	15	-	27	172
GN 1581-M20-60-MT-H	M20	-	60	34	34.8	15	46	27	221
GN 1581-M20-60-PL-H	M20	-	60	34	34.8	15	46	27	221



GN 1581-E

STAINLESS STEEL

Description	d1	l1 without shaft	l1 with shaft	d2	d3	k	l2	A/F	Δ
GN 1581-M4-8-MT-E	M4	8	-	10	10.8	6.5	-	7	3
GN 1581-M4-8-PL-E	M4	8	-	10	10.8	6.5	-	7	3
GN 1581-M4-10-MT-E	M4	10	-	10	10.8	6.5	-	7	3
GN 1581-M4-10-PL-E	M4	10	-	10	10.8	6.5	-	7	3
GN 1581-M4-12-MT-E	M4	12	-	10	10.8	6.5	-	7	3
GN 1581-M4-12-PL-E	M4	12	-	10	10.8	6.5	-	7	3
GN 1581-M4-16-MT-E	M4	-	16	10	10.8	6.5	-	7	4
GN 1581-M4-16-PL-E	M4	-	16	10	10.8	6.5	-	7	4
GN 1581-M4-20-MT-E	M4	-	20	10	10.8	6.5	14	7	4
GN 1581-M4-20-PL-E	M4	-	20	10	10.8	6.5	14	7	4
GN 1581-M4-25-MT-E	M4	-	25	10	10.8	6.5	-	7	5
GN 1581-M4-25-PL-E	M4	-	25	10	10.8	6.5	-	7	5
GN 1581-M4-30-MT-E	M4	-	30	10	10.8	6.5	14	7	5
GN 1581-M4-30-PL-E	M4	-	30	10	10.8	6.5	14	7	5
GN 1581-M5-10-MT-E	M5	10	-	11	11.8	7	-	8	6
GN 1581-M5-10-PL-E	M5	10	-	11	11.8	7	-	8	6
GN 1581-M5-16-MT-E	M5	16	-	11	11.8	7	-	8	5
GN 1581-M5-16-PL-E	M5	16	-	11	11.8	7	-	8	6
GN 1581-M5-20-MT-E	M5	-	20	11	11.8	7	16	8	6
GN 1581-M5-20-PL-E	M5	-	20	11	11.8	7	16	8	6
GN 1581-M5-25-MT-E	M5	-	25	11	11.8	7	-	8	7
GN 1581-M5-25-PL-E	M5	-	25	11	11.8	7	-	8	7
GN 1581-M5-30-MT-E	M5	-	30	11	11.8	7	16	8	10
GN 1581-M5-30-PL-E	M5	-	30	11	11.8	7	16	8	10
GN 1581-M5-35-MT-E	M5	-	35	11	11.8	7	-	8	8
GN 1581-M5-35-PL-E	M5	-	35	11	11.8	7	-	8	8
GN 1581-M5-40-MT-E	M5	-	40	11	11.8	7	16	8	9
GN 1581-M5-40-PL-E	M5	-	40	11	11.8	7	16	8	9
GN 1581-M6-12-MT-E	M6	12	-	13	13.8	7.5	-	10	8
GN 1581-M6-12-PL-E	M6	12	-	13	13.8	7.5	-	10	8
GN 1581-M6-16-MT-E	M6	16	-	13	13.8	7.5	-	10	9
GN 1581-M6-16-PL-E	M6	16	-	13	13.8	7.5	-	10	9
GN 1581-M6-20-MT-E	M6	20	-	13	13.8	7.5	-	10	10
GN 1581-M6-20-PL-E	M6	20	-	13	13.8	7.5	-	10	10
GN 1581-M6-25-MT-E	M6	25	-	13	13.8	7.5	-	10	11
GN 1581-M6-25-PL-E	M6	25	-	13	13.8	7.5	-	10	11
GN 1581-M6-30-MT-E	M6	-	30	13	13.8	7.5	18	10	12
GN 1581-M6-30-PL-E	M6	-	30	13	13.8	7.5	18	10	12
GN 1581-M6-35-MT-E	M6	-	35	13	13.8	7.5	-	10	12
GN 1581-M6-35-PL-E	M6	-	35	13	13.8	7.5	-	10	12
GN 1581-M6-40-MT-E	M6	-	40	13	13.8	7.5	18	10	14
GN 1581-M6-40-PL-E	M6	-	40	13	13.8	7.5	18	10	14
GN 1581-M6-50-MT-E	M6	-	50	13	13.8	7.5	18	10	16
GN 1581-M6-50-PL-E	M6	-	50	13	13.8	7.5	18	10	16
GN 1581-M8-16-MT-E	M8	16	-	16	16.8	8.5	-	13	16
GN 1581-M8-16-PL-E	M8	16	-	16	16.8	8.5	-	13	16
GN 1581-M8-20-MT-E	M8	20	-	16	16.8	8.5	-	13	17

GN 1581-E

STAINLESS STEEL

Description	d1	l1 without shaft	l1 with shaft	d2	d3	k	l2	A/F	Δ
GN 1581-M8-20-PL-E	M8	20	-	16	16.8	8.5	-	13	17
GN 1581-M8-25-MT-E	M8	25	-	16	16.8	8.5	-	13	19
GN 1581-M8-25-PL-E	M8	25	-	16	16.8	8.5	-	13	19
GN 1581-M8-30-MT-E	M8	30	-	16	16.8	8.5	-	13	21
GN 1581-M8-30-PL-E	M8	30	-	16	16.8	8.5	-	13	21
GN 1581-M8-40-MT-E	M8	-	40	16	16.8	8.5	22	13	25
GN 1581-M8-40-PL-E	M8	-	40	16	16.8	8.5	22	13	25
GN 1581-M8-50-MT-E	M8	-	50	16	16.8	8.5	22	13	29
GN 1581-M8-50-PL-E	M8	-	50	16	16.8	8.5	22	13	29
GN 1581-M8-60-MT-E	M8	-	60	16	16.8	8.5	22	13	33
GN 1581-M8-60-PL-E	M8	-	60	16	16.8	8.5	22	13	33
GN 1581-M10-20-MT-E	M10	20	-	19	19.8	9.5	-	16	28
GN 1581-M10-20-PL-E	M10	20	-	19	19.8	9.5	-	16	28
GN 1581-M10-25-MT-E	M10	25	-	19	19.8	9.5	-	16	31
GN 1581-M10-25-PL-E	M10	25	-	19	19.8	9.5	-	16	31
GN 1581-M10-30-MT-E	M10	30	-	19	19.8	9.5	-	16	34
GN 1581-M10-30-PL-E	M10	30	-	19	19.8	9.5	-	16	34
GN 1581-M10-40-MT-E	M10	-	40	19	19.8	9.5	26	16	40
GN 1581-M10-40-PL-E	M10	-	40	19	19.8	9.5	26	16	40
GN 1581-M10-50-MT-E	M10	-	50	19	19.8	9.5	26	16	46
GN 1581-M10-50-PL-E	M10	-	50	19	19.8	9.5	26	16	46
GN 1581-M10-60-MT-E	M10	-	60	19	19.8	9.5	26	16	52
GN 1581-M10-60-PL-E	M10	-	60	19	19.8	9.5	26	16	52
GN 1581-M12-25-MT-E	M12	25	-	22	22.8	11	-	18	46
GN 1581-M12-25-PL-E	M12	25	-	22	22.8	11	-	18	46
GN 1581-M12-30-MT-E	M12	30	-	22	22.8	11	-	18	50
GN 1581-M12-30-PL-E	M12	30	-	22	22.8	11	-	18	50
GN 1581-M12-40-MT-E	M12	-	40	22	22.8	11	30	18	59
GN 1581-M12-40-PL-E	M12	-	40	22	22.8	11	30	18	59
GN 1581-M12-50-MT-E	M12	-	50	22	22.8	11	30	18	68
GN 1581-M12-50-PL-E	M12	-	50	22	22.8	11	30	18	68
GN 1581-M12-60-MT-E	M12	-	60	22	22.8	11	30	18	76
GN 1581-M12-60-PL-E	M12	-	60	22	22.8	11	30	18	76
GN 1581-M16-30-MT-E	M16	30	-	28	28.8	13	-	22	90
GN 1581-M16-30-PL-E	M16	30	-	28	28.8	13	-	22	90
GN 1581-M16-40-MT-E	M16	40	-	28	28.8	13	-	22	106
GN 1581-M16-40-PL-E	M16	40	-	28	28.8	13	-	22	106
GN 1581-M16-50-MT-E	M16	-	50	28	28.8	13	38	22	122
GN 1581-M16-50-PL-E	M16	-	50	28	28.8	13	38	22	122
GN 1581-M16-60-MT-E	M16	-	60	28	28.8	13	38	22	137
GN 1581-M16-60-PL-E	M16	-	60	28	28.8	13	38	22	137
GN 1581-M16-70-MT-E	M16	-	70	28	28.8	13	38	22	153
GN 1581-M16-70-PL-E	M16	-	70	28	28.8	13	38	22	153
GN 1581-M20-40-MT-E	M20	40	-	34	34.8	15	-	27	172
GN 1581-M20-40-PL-E	M20	40	-	34	34.8	15	-	27	172
GN 1581-M20-60-MT-E	M20	-	60	34	34.8	15	46	27	221
GN 1581-M20-60-PL-E	M20	-	60	34	34.8	15	46	27	221

Screws

Stainless Steel, with Recessed Stud for Loss Protection, Hygienic Design

SPECIFICATION

Identification no.

No. **1**: Without additional lock washer

Stainless steel AISI 316L

- Matte finish (Ra < 0.8 µm) **MT**
- Polished finish (Ra < 0.8 µm) **PL**

Sealing ring

- H-NBR **H**
Temperature resistant -25 °C to +150 °C
- EPDM **E**
Temperature resistant -40 °C to +120 °C
- Blue
- Hardness 85±5 Shore A
- FDA compliant

INFORMATION

Screws GN 1582 with low-profile head are certified according to EHEDG guidelines and therefore ideal for use in hygienic areas. Due to the d₄ recessed stud, they are easily secured against loss, such as in a cover. Thus the „captivity of the mounting element“ according to the Machinery Directive 2006 / 42 / EG is given.

When using, instead of a typical tapped and bore hole, it is necessary to provide tapped bores with a thread d₁ on each of the two elements to be assembled. Additionally, a clearance bore of d₅ on one or both sides must be cut. Depending on the design and required clamping length a₁ ... a₃ of the component being attached, there are a number of assembly options as shown above. Alternatively, securing can also be achieved by an additional lock washer mounted on the thin shank d₄.

ACCESSORY

- Sealing Rings GN 7600 (see page 38)

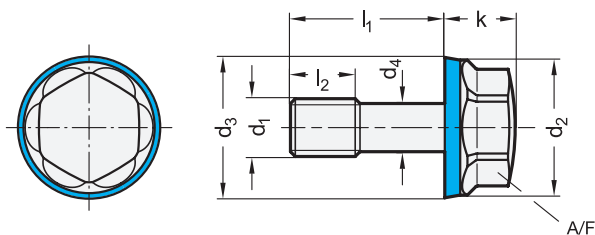
ON REQUEST

- with FKM sealing ring (Fluorine rubber) **F**

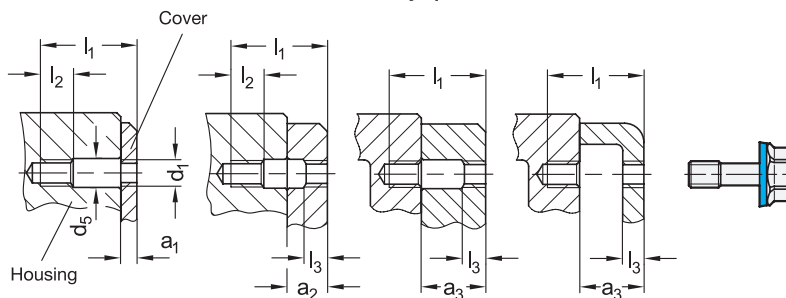
TECHNICAL INFORMATION

- Plastic Characteristics (see catalogue page A2)
- Stainless Steel Characteristics (see catalogue page A26)





Assembly options



* Complete with type index of the Stainless Steel Screws

MT Matte PL Polished

GN 1582-H

STAINLESS STEEL

Description	d1	l1	a1	a2	a3	d2	d3	d4	d5	k	l2	l3	A/F	
GN 1582-M5-20-*-H-1	M 5	20	2.5-6	6-10.5	10.5-14	11	11.8	4	5.5	7	6	2.5	8	5
GN 1582-M5-25-*-H-1	M 5	25	6-11	11-14	14-19	11	11.8	4	5.5	7	6	2.5	8	6
GN 1582-M6-25-*-H-1	M 6	25	3-7	7-13	13-17	13	13.8	4.8	6.5	7.5	8	3	10	9
GN 1582-M6-30-*-H-1	M 6	30	7-12	12-17	17-22	13	13.8	4.8	6.5	7.5	8	3	10	10
GN 1582-M8-30-*-H-1	M 8	30	4-8	8-16	16-20	16	16.8	6.5	8.5	8.5	10	4	13	18
GN 1582-M8-40-*-H-1	M 8	40	8-18	18-25	25-30	16	16.8	6.5	8.5	8.5	10	4	13	21
GN 1582-M10-40-*-H-1	M 10	40	5-14	14-19	19-28	19	19.8	8.2	10.5	9.5	12	5	16	34
GN 1582-M10-50-*-H-1	M 10	50	14-24	24-28	28-38	19	19.8	8.2	10.5	9.5	12	5	16	39

GN 1582-E

STAINLESS STEEL

Description	d1	l1	a1	a2	a3	d2	d3	d4	d5	k	l2	l3	A/F	
GN 1582-M5-20-*-E-1	M 5	20	2.5-6	6-10.5	10.5-14	11	11.8	4	5.5	7	6	2.5	8	5
GN 1582-M5-25-*-E-1	M 5	25	6-11	11-14	14-19	11	11.8	4	5.5	7	6	2.5	8	6
GN 1582-M6-25-*-E-1	M 6	25	3-7	7-13	13-17	13	13.8	4.8	6.5	7.5	8	3	10	9
GN 1582-M6-30-*-E-1	M 6	30	7-12	12-17	17-22	13	13.8	4.8	6.5	7.5	8	3	10	10
GN 1582-M8-30-*-E-1	M 8	30	4-8	8-16	16-20	16	16.8	6.5	8.5	8.5	10	4	13	18
GN 1582-M8-40-*-E-1	M 8	40	8-18	18-25	25-30	16	16.8	6.5	8.5	8.5	10	4	13	21
GN 1582-M10-40-*-E-1	M 10	40	5-14	14-19	19-28	19	19.8	8.2	10.5	9.5	12	5	16	34
GN 1582-M10-50-*-E-1	M 10	50	14-24	24-28	28-38	19	19.8	8.2	10.5	9.5	12	5	16	39

Weight type MT

Stainless Steel Spacers

Hygienic Design

SPECIFICATION

Types

- Type **A1**: Through-hole
- Type **A2**: Through-hole with continuous thread
- Type **A3**: Through-hole with thread on both sides

Stainless steel AISI 316L

Matte finish ($R_a < 0.8 \mu\text{m}$) **MT**

Sealing ring

- H-NBR **H**
Temperature resistant -25 °C to +150 °C
- EPDM **E**
Temperature resistant -40 °C to +120 °C
- Blue
- Hardness 85 ±5 Shore A
- FDA compliant

INFORMATION

Stainless steel spacers GN 6226 are certified according to DGUV Test guidelines and are intended for use in hygiene areas. The sealed mounting surfaces enable fastening without dead spaces. The high quality finish prevents adherence of dirt and facilitates cleaning.

Spacers are used to fasten parts at an offset parallel to their plane of installation. This avoids doubling up on surfaces and leaves space for cleaning. The internal thread can alternatively be used as a through hole by a screw with a smaller thread.

ACCESSORY

- Sealing Rings GN 7600 (see page 38)

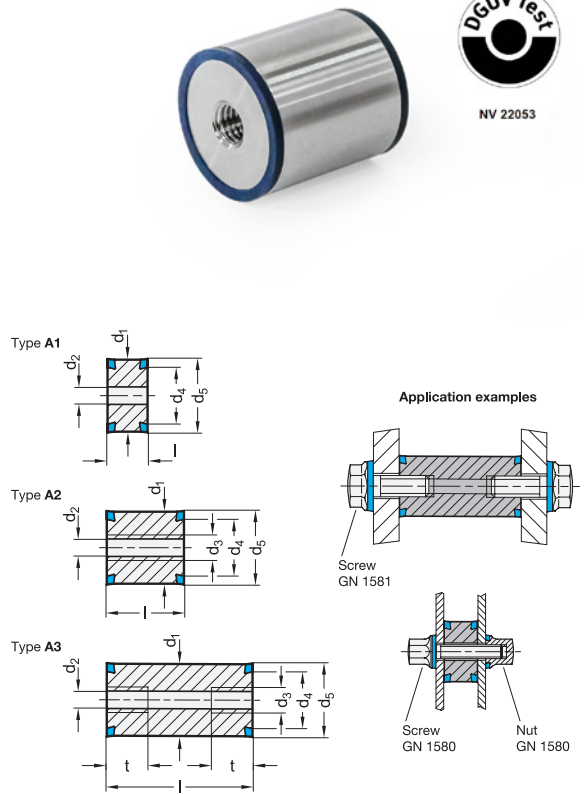
TECHNICAL INFORMATION

- Elastomer Characteristics (see catalogue page A32)
- Stainless Steel Characteristics (see catalogue page A26)

GN 6226-A1

STAINLESS STEEL

Description	d1	l ±0.1	d2 Through-hole for screw	d4	d5	⚖
GN 6226-22-10-A1-MT-H	22	10	M 5	18	22.8	26
GN 6226-22-10-A1-MT-E	22	10	M 5	18	22.8	26
GN 6226-22-12-A1-MT-H	22	12	M 5	18	22.8	32
GN 6226-22-12-A1-MT-E	22	12	M 5	18	22.8	32
GN 6226-22-16-A1-MT-H	22	16	M 5	18	22.8	43
GN 6226-22-16-A1-MT-E	22	16	M 5	18	22.8	43
GN 6226-28-12-A1-MT-H	28	12	M 6	24	28.8	52
GN 6226-28-12-A1-MT-E	28	12	M 6	24	28.8	52
GN 6226-28-16-A1-MT-H	28	16	M 6	24	28.8	70
GN 6226-28-16-A1-MT-E	28	16	M 6	24	28.8	70
GN 6226-28-20-A1-MT-H	28	20	M 6	24	28.8	89
GN 6226-28-20-A1-MT-E	28	20	M 6	24	28.8	89
GN 6226-34-12-A1-MT-H	34	12	M 8	30	34.8	77
GN 6226-34-12-A1-MT-E	34	12	M 8	30	34.8	77
GN 6226-34-16-A1-MT-H	34	16	M 8	30	34.8	104
GN 6226-34-16-A1-MT-E	34	16	M 8	30	34.8	104
GN 6226-34-20-A1-MT-H	34	20	M 8	30	34.8	131
GN 6226-34-20-A1-MT-E	34	20	M 8	30	34.8	131



GN 6226-A2

STAINLESS STEEL

Description	d1	l ±0.1	d2 Through-hole for screw	d3	d4	d5	⚖
GN 6226-22-20-A2-MT-H	22	20	M 5	M 6	18	22.8	55
GN 6226-22-20-A2-MT-E	22	20	M 5	M 6	18	22.8	55
GN 6226-28-30-A2-MT-H	28	30	M 6	M 8	24	28.8	135
GN 6226-28-30-A2-MT-E	28	30	M 6	M 8	24	28.8	135
GN 6226-34-30-A2-MT-H	34	30	M 8	M 10	30	34.8	199
GN 6226-34-30-A2-MT-E	34	30	M 8	M 10	30	34.8	199

GN 6226-A3

STAINLESS STEEL

Description	d1	l ±0.2	d2 Through-hole for screw	d3	d4	d5	t min.	⚖
GN 6226-22-30-A3-MT-H	22	30	M 5	M 6	18	22.8	12	83
GN 6226-22-30-A3-MT-E	22	30	M 5	M 6	18	22.8	12	83
GN 6226-22-50-A3-MT-H	22	50	M 5	M 6	18	22.8	12	141
GN 6226-22-50-A3-MT-E	22	50	M 5	M 6	18	22.8	12	141
GN 6226-28-50-A3-MT-H	28	50	M 6	M 8	24	28.8	16	228
GN 6226-28-50-A3-MT-E	28	50	M 6	M 8	24	28.8	16	228
GN 6226-28-75-A3-MT-H	28	75	M 6	M 8	24	28.8	16	344
GN 6226-28-75-A3-MT-E	28	75	M 6	M 8	24	28.8	16	344
GN 6226-34-50-A3-MT-H	34	50	M 8	M 10	30	34.8	20	335
GN 6226-34-50-A3-MT-E	34	50	M 8	M 10	30	34.8	20	335
GN 6226-34-100-A3-MT-H	34	100	M 8	M 10	30	34.8	20	676
GN 6226-34-100-A3-MT-E	34	100	M 8	M 10	30	34.8	20	676

Leveling Feet

Stainless Steel, 3-A and DGVU certified, Hygienic Design

SPECIFICATION

Type

- Type **A**: Without mounting holes

Spindle, adjustable sleeve

- Stainless steel AISI 304
- Turned

Foot plate

Stainless steel sheet metal
AISI 316L

Seals, blue, FDA compliant

- Sealing ring
H-NBR, hardness 70 ±5 Shore A
- Wiper
TPU, hardness 95 ±5 Shore A
- Joint sealing ring
H-NBR, hardness 85 ±5 Shore A

Elastomer pad, blue, FDA compliant

- Silicone, hardness 85 ±5 Shore A
- Vulcanised



88-01



NV 22041

INFORMATION

Leveling feet GN 19 comply with the 3-A sanitary standard 88-01 and the DGVU testing principles, making them suitable for use in hygienic areas.

The elastomer pad seals the space below the foot plate against dirt. This is achieved by the weight of the machine on the plate. The sealing ring above the adjustment sleeve enables fastening without dead space. Due to the wiper and the joint sealing ring, the moving components are sealed against the environment.

The high quality finish prevents adherence of dirt and facilitates cleaning.

The values listed in the table for static load capacity refer to a purely vertical load in relation to the leveling foot. Under normal operating conditions bending loads or angular loads are not uncommon and result in a reduction of load capacity, which must be taken into consideration.

- Operating instruction GN 19 / GN 20

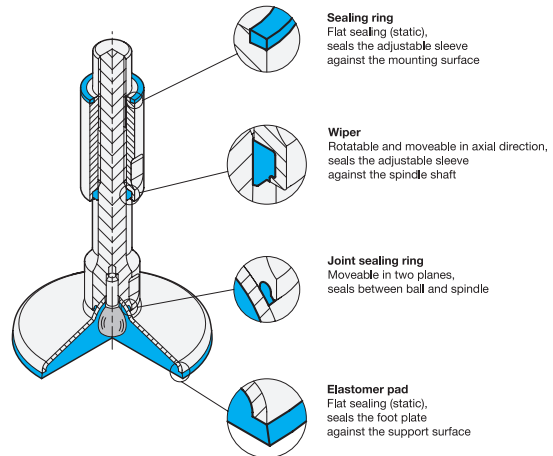
ACCESSORY

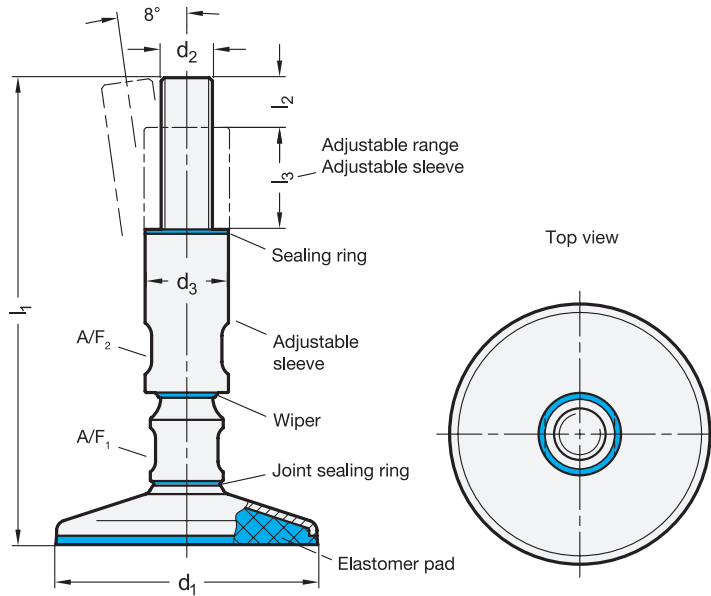
- Cover Sleeves GN 20.1 (see page 33) Hygienic Design

TECHNICAL INFORMATION

- Plastic Characteristics (see catalogue page A2)
- Stainless Steel Characteristics (see catalogue page A26)

SEALING CONCEPT





GN 19

STAINLESS STEEL

Description	d1	d2	l1	d3	l2	l3	A/F1	A/F2	Static load in kN	⚖
GN 19-60-M12-175-A	60	M 12	175	25	14	35	17	19	9	477
GN 19-60-M12-225-A	60	M 12	225	25	14	35	17	19	9	521
GN 19-60-M16-175-A	60	M 16	175	28	19	35	18	22	9	538
GN 19-60-M16-225-A	60	M 16	225	28	19	35	18	22	9	619
GN 19-80-M12-175-A	80	M 12	175	25	14	35	17	19	15	540
GN 19-80-M12-225-A	80	M 12	225	25	14	35	17	19	15	584
GN 19-80-M16-175-A	80	M 16	175	28	19	35	18	22	15	601
GN 19-80-M16-225-A	80	M 16	225	28	19	35	18	22	15	681
GN 19-80-M20-185-A	80	M 20	185	32	24	35	24	27	15	814
GN 19-80-M20-235-A	80	M 20	235	32	24	35	24	27	15	1127
GN 19-80-M24-185-A	80	M 24	185	36	29	35	24	30	15	978
GN 19-80-M24-235-A	80	M 24	235	36	29	35	24	30	15	1157
GN 19-100-M16-175-A	100	M 16	175	28	19	35	18	22	22	683
GN 19-100-M16-225-A	100	M 16	225	28	19	35	18	22	22	763
GN 19-100-M20-185-A	100	M 20	185	32	24	35	24	27	22	896
GN 19-100-M20-235-A	100	M 20	235	32	24	35	24	27	22	1209
GN 19-100-M24-185-A	100	M 24	185	36	29	35	24	30	22	1060
GN 19-100-M24-235-A	100	M 24	235	36	29	35	24	30	22	1239
GN 19-120-M16-175-A	120	M 16	175	28	19	35	18	22	30	780
GN 19-120-M16-225-A	120	M 16	225	28	19	35	18	22	30	860
GN 19-120-M20-185-A	120	M 20	185	32	24	35	24	27	30	993
GN 19-120-M20-235-A	120	M 20	235	32	24	35	24	27	30	1306
GN 19-120-M24-185-A	120	M 24	185	36	29	35	24	30	30	1157
GN 19-120-M24-235-A	120	M 24	235	36	29	35	24	30	30	1336

Stainless Steel Leveling feet

Hygienic Design, with and without Mounting Holes

SPECIFICATION

Types

- Type **A**: Without mounting holes
 - Type **B**: With mounting holes
- Spindle, adjustable sleeve, foot plate

- Stainless steel AISI 304
- Turned

Seals, blue, FDA compliant

- Sealing ring
NBR, hardness 70 ±5 Shore A
- Wiper
TPU, hardness 95 ±5 Shore A
- Joint sealing ring
H-NBR, hardness 85 ±5 Shore A
- Bottom seal
Silicone, hardness 85 ±5 Shore A

INFORMATION

Stainless steel leveling feet GN 20 without mounting holes are certified according to 3-A Sanitary Standards, Inc. and DGUV Test guidelines and are intended for use in hygienic areas. Stainless steel leveling feet GN 20 with mounting holes are certified according to EHEDG, 3-A Sanitary Standards, Inc. and DGUV Test guidelines and are therefore ideal for use in hygienic areas.

The bottom seal (Type A) protects the area beneath the foot plate from dirt. For this, the foot must be pressed down by the weight of the machine. The bottom seal (Type B) protects the area beneath the foot plate from dirt. For this, the foot must be screwed on using the fixing holes and compressed accordingly. Hygienic fastenings, e.g. GN 1580 screws and nuts, and the correct position of the mounting holes are essential. The sealing ring above the adjustment sleeve enables fastening without dead space. Due to the wiper or the ball seal, the moving components are sealed against the environment. The high quality finish prevents adherence of dirt and facilitates cleaning.

The values listed in the table for static load capacity refer to a purely vertical load in relation to the leveling foot. Under normal operating conditions bending loads or angular loads are not uncommon and result in a reduction of load capacity, which must be taken into consideration.

- Operating instruction GN 20A
- Operating instruction GN 20B

ACCESSORY

- Stainless Steel Cover Sleeves GN 20.1 (see page 33)
- Stainless Steel Screws (for Type B) GN 1580 (see page 20)
- Stainless Steel Screws (for Type B) GN 1581 (see page 22)

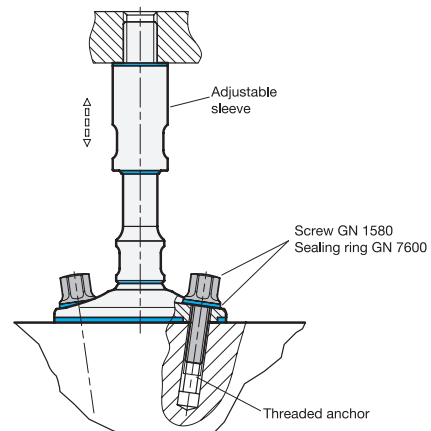
TECHNICAL INFORMATION

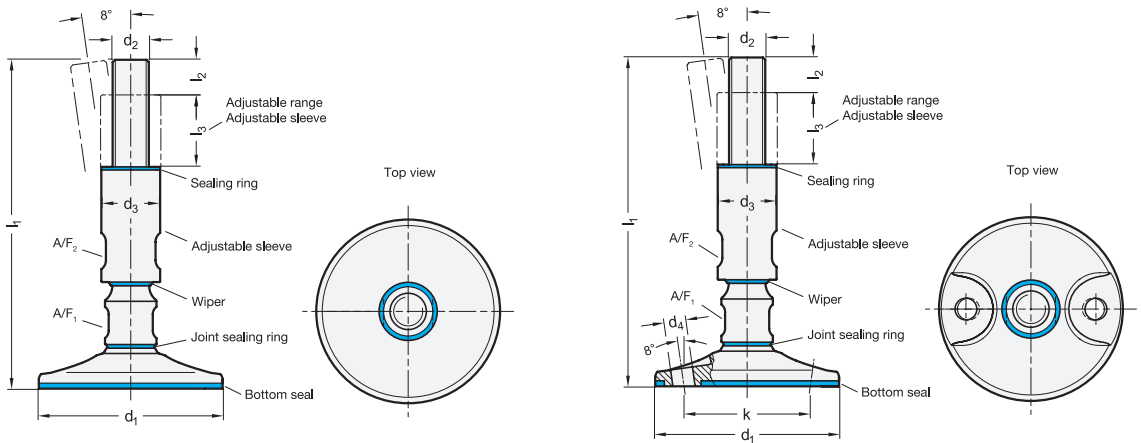
- Elastomer Characteristics (see catalogue page A32)
- Stainless Steel Characteristics (see catalogue page A26)



MOUNTING EXAMPLE TYPE B

Mounting example





GN 20-A

STAINLESS STEEL

Description	d1	d2	l1	d3	l2	l3	A/F 1	A/F 2	Static load in kN	
GN 20-60-M12-175-A	60	M 12	175	25	14	35	17	19	16	896
GN 20-60-M12-225-A	60	M 12	225	25	14	35	17	19	16	940
GN 20-60-M16-175-A	60	M 16	175	28	19	35	18	22	30	955
GN 20-60-M16-225-A	60	M 16	225	28	19	35	18	22	30	1036
GN 20-80-M12-175-A	80	M 12	175	25	14	35	17	19	16	906
GN 20-80-M12-225-A	80	M 12	225	25	14	35	17	19	16	950
GN 20-80-M16-175-A	80	M 16	175	28	19	35	18	22	30	978
GN 20-80-M16-225-A	80	M 16	225	28	19	35	18	22	30	1045
GN 20-80-M20-185-A	80	M 20	185	32	24	35	24	27	47	1176
GN 20-80-M20-235-A	80	M 20	235	32	24	35	24	27	47	1489
GN 20-80-M24-185-A	80	M 24	185	36	29	35	24	30	67	1341
GN 20-80-M24-235-A	80	M 24	235	36	29	35	24	30	67	1520
GN 20-100-M16-175-A	100	M 16	175	28	19	35	18	22	30	1141
GN 20-100-M16-225-A	100	M 16	225	28	19	35	18	22	30	1222
GN 20-100-M20-185-A	100	M 20	185	32	24	35	24	27	47	1352
GN 20-100-M20-235-A	100	M 20	235	32	24	35	24	27	47	1665
GN 20-100-M24-185-A	100	M 24	185	36	29	35	24	30	67	1518
GN 20-100-M24-235-A	100	M 24	235	36	29	35	24	30	67	1697
GN 20-120-M16-175-A	120	M 16	175	28	19	35	18	22	30	1451
GN 20-120-M16-225-A	120	M 16	225	28	19	35	18	22	30	1532
GN 20-120-M20-185-A	120	M 20	185	32	24	35	24	27	47	1662
GN 20-120-M20-235-A	120	M 20	235	32	24	35	24	27	47	1975
GN 20-120-M24-185-A	120	M 24	185	36	29	35	24	30	67	1828
GN 20-120-M24-235-A	120	M 24	235	36	29	35	24	30	67	2007

GN 20-B

STAINLESS STEEL

Description	d1	d2	l1	d3	d4	l2	l3	k	A/F 1	A/F 2	Static load in kN	
GN 20-80-M12-175-B	80	M 12	175	25	9.5	14	35	55.5	17	19	16	1110
GN 20-80-M12-225-B	80	M 12	225	25	9.5	14	35	55.5	17	19	16	1154
GN 20-80-M16-175-B	80	M 16	175	28	9.5	19	35	55.5	18	22	30	1170
GN 20-80-M16-225-B	80	M 16	225	28	9.5	19	35	55.5	18	22	30	1250
GN 20-80-M20-185-B	80	M 20	185	32	9.5	24	35	55.5	24	27	47	1383
GN 20-80-M20-235-B	80	M 20	235	32	9.5	24	35	55.5	24	27	47	1460
GN 20-80-M24-185-B	80	M 24	185	36	9.5	29	35	55.5	24	30	67	1547
GN 20-80-M24-235-B	80	M 24	235	36	9.5	29	35	55.5	24	30	67	1725
GN 20-100-M16-175-B	100	M 16	175	28	12	19	35	69	18	22	30	1095
GN 20-100-M16-225-B	100	M 16	225	28	12	19	35	69	18	22	30	1176
GN 20-100-M20-185-B	100	M 20	185	32	12	24	35	69	24	27	47	1306
GN 20-100-M20-235-B	100	M 20	235	32	12	24	35	69	24	27	47	1619
GN 20-100-M24-185-B	100	M 24	185	36	12	29	35	69	24	30	67	1472
GN 20-100-M24-235-B	100	M 24	235	36	12	29	35	69	24	30	67	1651
GN 20-120-M16-175-B	120	M 16	175	28	12	19	35	89	18	22	30	1405
GN 20-120-M16-225-B	120	M 16	225	28	12	19	35	89	18	22	30	1486
GN 20-120-M20-185-B	120	M 20	185	32	12	24	35	89	24	27	47	1616
GN 20-120-M20-235-B	120	M 20	235	32	12	24	35	89	24	27	47	1929
GN 20-120-M24-185-B	120	M 24	185	36	12	29	35	89	24	30	67	1782
GN 20-120-M24-235-B	120	M 24	235	36	12	29	35	89	24	30	67	1961

Stainless Steel Cover Sleeves

Hygienic Design

SPECIFICATION

Stainless Steel AISI 304

Sealing ring

- H-NBR **H**
Temperature resistant -25 °C to +150 °C
- EPDM **E**
Temperature resistant -40 °C to +120 °C
- Blue
- Hardness 85±5 Shore A
- FDA compliant

INFORMATION

Stainless steel cover sleeves GN 20.1 are certified according to EHEDG, 3-A Sanitary Standards, Inc. and DGUV Test guidelines and are therefore ideal for use in hygienic areas.

These cover protruding male threads while also substituting for lock nuts. The sealed mounting surfaces enable fastening without dead spaces. The high quality finish prevents adherence of dirt and facilitates cleaning.

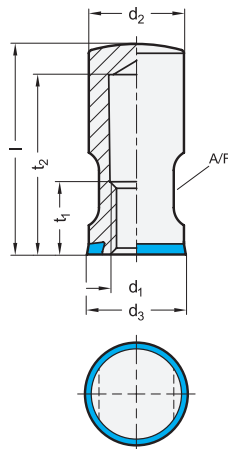
ACCESSORY

- Sealing Rings GN 7600 (see page 38)

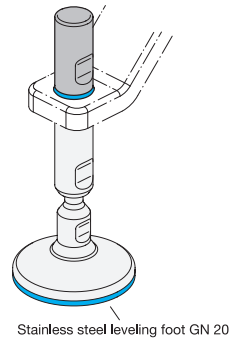


TECHNICAL INFORMATION

- Elastomer Characteristics (see catalogue page A32)
- Stainless Steel Characteristics (see catalogue page A26)



Application example



GN 20.1-H

STAINLESS STEEL

Description	d1	l	d2	d3	A/F	t1	t2	⚖️
GN 20.1-M12-56-H	M 12	56	25	25.8	19	15.5	50	159
GN 20.1-M16-62-H	M 16	62	28	28.8	22	20.5	55	200
GN 20.1-M20-68-H	M 20	68	32	32.8	27	25.5	60	272
GN 20.1-M24-74-H	M 24	74	36	36.8	30	30.5	65	352

GN 20.1-E

STAINLESS STEEL

Description	d1	l	d2	d3	A/F	t1	t2	⚖️
GN 20.1-M12-56-E	M 12	56	25	25.8	19	15.5	50	159
GN 20.1-M16-62-E	M 16	62	28	28.8	22	20.5	55	200
GN 20.1-M20-68-E	M 20	68	32	32.8	27	25.5	60	272
GN 20.1-M24-74-E	M 24	74	36	36.8	30	30.5	65	352

Stainless Steel Latches

**Operating Side in Hygienic Design (Front Hygiene) /
Operating and Latch Arm Side in Hygienic Design
(Full Hygiene)**

SPECIFICATION

Type

- Type **SW**: With two spanner flats

Coding

- Version **FH**: Operating side in Hygienic Design (front hygiene)
- Version **VH**: Operating and latch arm side in Hygienic Design (full hygiene)

Lock housing

Stainless steel AISI 316L

Latch arm

Stainless steel

- AISI 304 for $d_1 = 22$ (front hygiene)
- AISI 316L for $d_1 = 30$ (front hygiene)
- AISI 316 (full hygiene)

Seals (full hygiene)

Blue, FDA compliant

Temperature resistant -40 °C to $+110\text{ °C}$

Sealing ring / O-ring

EPDM **E**

- Blue, FDA compliant (front hygiene)
- Temperature resistant -40 °C to $+120\text{ °C}$
- Hardness 85 ± 5 Shore A (Sealing ring)
- Hardness 70 ± 5 Shore A (O-ring)
- Other Seals / Wiper (full hygiene) TPU, Hardness 95 ± 5 Shore A

Other parts

Stainless steel AISI 316L

All moving parts lubricated with FDA compliant special grease

Protection class IP 66



INFORMATION

Stainless steel latches GN 1150 are intended for use in hygienic areas and meet hygiene requirements on the operating side (front hygiene) and on the operating and latch arm side (full hygiene) due to the special mounting nuts as well as the optimized latch arm and hexagon head screw. The locking mechanism is protected by two seals (front hygiene) and multiple seals (full hygiene). At the same time, the high surface quality ($R_a < 0.8\text{ }\mu\text{m}$) and dead-space-free mounting prevent dirt from adhering and facilitate cleaning.

The latches create a secure closure by rotating a maximum of 90° , which positions the latch arm in the locked position behind the frame. Slanted surfaces on the latch arm ensure smooth positioning. Latch arms are available with different bend angles to cover a latch arm distance A from 6 to 28 mm (front hygiene) and 22 to 44 mm (full hygiene).

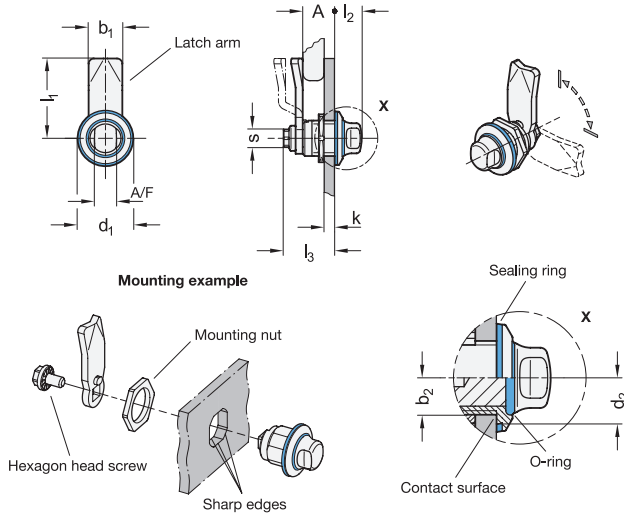
The mounting holes in the housing must be at a right angle, free of burrs and without a chamfer. This ensures that the sealing rings will function properly. Stainless steel latches GN 1150 (front hygiene) are supplied with loosely enclosed latch arm.

ACCESSORY

- Sealing Rings GN 7600 (see page 38)

TECHNICAL INFORMATION

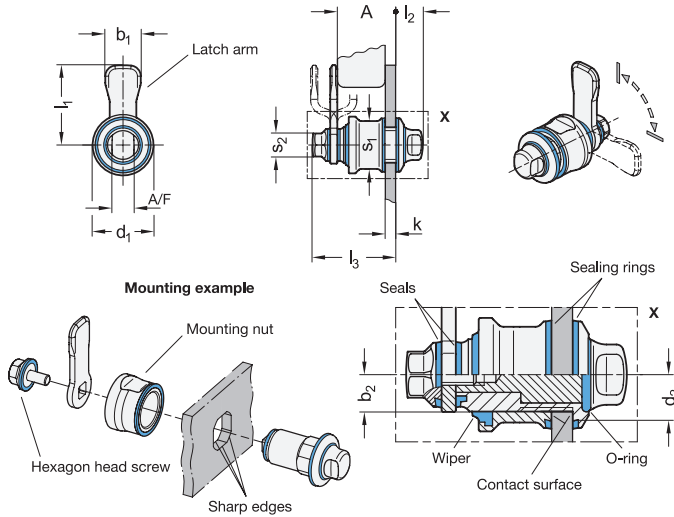
- IP Protection Classes (see catalogue page A23)
- Elastomer Characteristics (see catalogue page A32)
- Stainless Steel Characteristics (see catalogue page A26)



GN 1150-FH

STAINLESS STEEL

Description	d1	Latch arm distance A	b1	b2	d2	k Min.	k Max.	l1 ±1	l2	l3 ≈	s	A/F	⚖
GN 1150-22-SW-7.5-FH-E	22	7.5	12	7	9	1.5	5	24	12.6	21	8	9	44
GN 1150-22-SW-13.5-FH-E	22	13.5	12	7	9	1.5	5	24	12.6	21	8	9	44
GN 1150-22-SW-19.5-FH-E	22	19.5	12	7	9	1.5	5	24	12.6	21	8	9	44
GN 1150-30-SW-6-FH-E	30	6	19	10	13	1.5	6	45	15.3	29	10	13	125
GN 1150-30-SW-10-FH-E	30	10	19	10	13	1.5	6	45	15.3	29	10	13	125
GN 1150-30-SW-14-FH-E	30	14	19	10	13	1.5	6	45	15.3	29	10	13	125
GN 1150-30-SW-18-FH-E	30	18	19	10	13	1.5	6	45	15.3	29	10	13	125
GN 1150-30-SW-20-FH-E	30	20	19	10	13	1.5	6	45	15.3	29	10	13	125
GN 1150-30-SW-22-FH-E	30	22	19	10	13	1.5	6	45	15.3	29	10	13	125
GN 1150-30-SW-24-FH-E	30	24	19	10	13	1.5	6	45	15.3	29	10	13	125
GN 1150-30-SW-26-FH-E	30	26	19	10	13	1.5	6	45	15.3	29	10	13	125
GN 1150-30-SW-28-FH-E	30	28	19	10	13	1.5	6	45	15.3	29	10	13	125



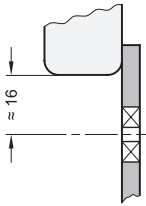
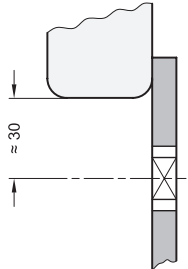
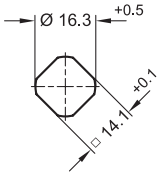
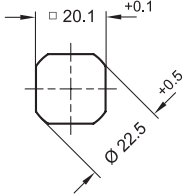
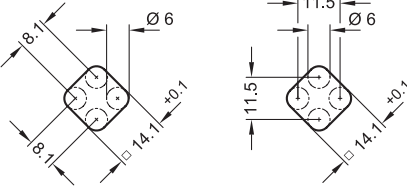
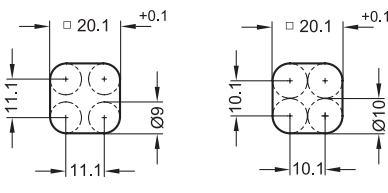
GN 1150-VH

STAINLESS STEEL

Description	d1	Latch arm distance A	b1	b2	d2	k Min.	k Max.	l1 ±1	l2	l3	s1	s2	A/F	⚖
GN 1150-30-SW-22-VH-E	30	22	20	10	13	1.5	6	45	15.3	47	27	13	13	211
GN 1150-30-SW-33-VH-E	30	33	20	10	13	1.5	6	45	15.3	47	27	13	13	211
GN 1150-30-SW-44-VH-E	30	44	20	10	13	1.5	6	45	15.3	47	27	13	13	211

Technical and assembly instructions

For installation, set a bore diameter in the door, cover or hatch as shown in the outline drawing opposite. The latch housing is inserted into the installation bore from the front and secured from the back with the mounting nut. Then the latch arm is secured with the hexagon head screw. In series production, the required installation bore in the door leaf is usually created by punching or laser cutting. The installation bore diameter can also be created by drilling or milling as shown in the outline drawings. The sheet metal punch GN 123 (see catalogue page 1493) is also available for small series production and sheet steel with a thickness < 2 mm.

Construction note for $d_i = 22$	Construction note for $d_i = 30$
Bore distance	
	
Installation bore for punching or lasering	
	
Installation bore for drilling or milling	
	

Socket Keys

for Latches GN 115-IP and GN 1150,
Plastic, Hygienic Design

SPECIFICATION

Types

- Type **SW9**: With two wrench flats A/F9
- Type **SW13**: With two wrench flats A/F13

Plastic
Technopolymer (Polyamide PA) **PA**

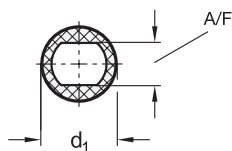
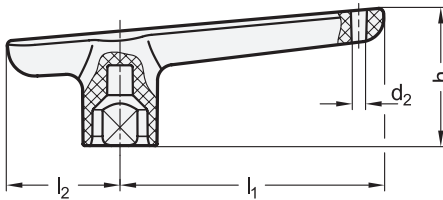
- Glass fiber reinforced
- Blue **BL**

INFORMATION

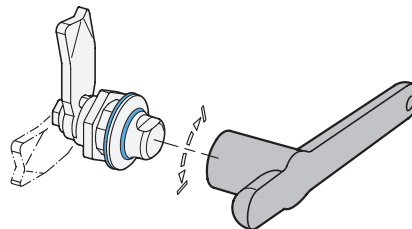
Socket keys GN 1151 can be used to operate latches in hygienic areas. The material used protects the drive surface from damage. The bore d_2 serves for storing the socket key near the place of use, for example, or can be used to attach a key ring or retaining cable to prevent loss.

TECHNICAL INFORMATION

- Plastic Characteristics (see catalogue page A2)



Application example



GN 1151

Description	l_1	d_1	d_2	h	l_2	A/F	For latches	Δ
GN 1151-82-SW9-PA-BL	82	23	5	42.7	35	9	GN 1150	34
GN 1151-82-SW13-PA-BL	82	23	5	42.7	35	13	GN 1150 / GN 115-AZ13	34

Sealing Rings

Elastomer, Hygienic Design

SPECIFICATION

Version in HNBR

Hydrogenated acrylonitrile butadiene rubber **HNBR**

- Blue, FDA compliant
- Temperature resistant -25 °C to +150 °C
- Hardness 85 ±5 Shore A **85**

Version in EPDM

Ethylene propylene diene rubber **EPDM**

- Blue, FDA compliant
- Temperature resistant -40 °C to +120 °C
- Hardness 85 ±5 Shore A **85**

Version in FKM

Fluorine rubber **FKM**

- Blue, FDA compliant
- Temperature resistant -5 °C to +200 °C
- Hardness 85 ±5 Shore A **85**



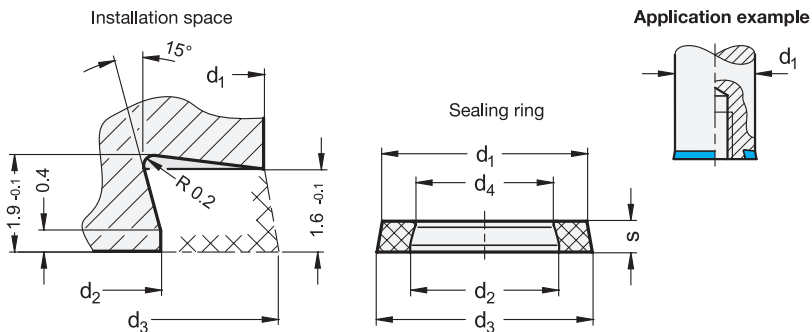
INFORMATION

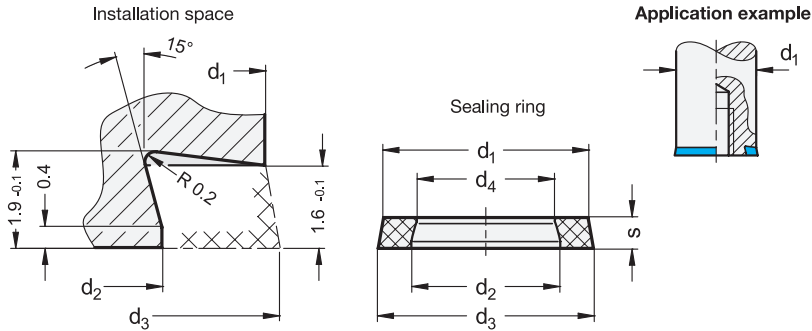
Components with cylindrical mounting surfaces which are installed in hygienic areas can be sealed and mounted without dead spaces using GN 7600 sealing rings. All standard parts equipped and delivered with sealing rings GN 7600 are listed in the table. For replacement, the corresponding sealing rings can be ordered individually.

As delivered, or unassembled, the sealing rings have the "actual dimensions" as stated in the table. To ensure a firm seating and reliable sealing, a corresponding installation space must be provided in the component. This ensures that when the sealing ring is installed, it will be subject to the necessary pressure without excess load. All surfaces which are in contact with the sealing ring should have a minimum surface quality of Ra 0,8 µm.

TECHNICAL INFORMATION

- Plastic Characteristics (see catalogue page A2)





* Complete with material index of the sealing rings

HNBR EPDM FKM

GN 7600

Description	d1 Nominal dim.- Installation space	d2 Nominal dim.- Installation space	d3 Nominal dim.- Installation space	d1 Actual dim.- Sealing rings unassembled	d2 Actual dim.- Sealing rings unassembled	d3 Actual dim.- Sealing rings unassembled	d4 Actual dim.- Sealing rings unassembled	s	Suitable for	⚖
GN 7600-10-6-2-*-85	10	6	10.8	9.5	6.1	10.2	5.4	2	GN 1581	1
GN 7600-11-7-2-*-85	11	7	11.8	10.2	6.8	10.9	6.1	2	GN 1580 GN 1581 GN 1582 GN 8341 GN 8351	1
GN 7600-12-8-2-*-85	12	8	12.8	11.2	7.8	11.9	7.1	2	GN 429 GN 1580	1
GN 7600-13-9-2-*-85	13	9	13.8	12.2	8.8	12.9	8.1	2	GN 1581 GN 1582 GN 8341 GN 8351	1
GN 7600-14-10-2-*-85	14	10	14.8	13.2	9.8	13.9	9.1	2	GN 75.6 GN 305 GN 1580	1
GN 7600-16-12-2-*-85	16	12	16.8	15.1	11.7	15.8	11	2	GN 75.6 GN 429 GN 1581 GN 1582 GN 5064 GN 8341 GN 8351	1
GN 7600-18-14-2-*-85	18	14	18.8	17	13.6	17.7	12.9	2	GN 75.6 GN 305 GN 1580 GN 5435 GN 5445	1
GN 7600-19-15-2-*-85	19	15	19.8	17.9	14.5	18.6	13.8	2	GN 1581 GN 1582	1
GN 7600-20-16-2-*-85	20	16	20.8	18.9	15.5	19.6	14.8	2	GN 429	1
GN 7600-21-17-2-*-85	21	17	21.8	19.9	16.4	20.5	15.7	2	GN 1580 GN 5064 GN 5435 GN 5445	1
GN 7600-22-18-2-*-85	22	18	22.8	20.8	17.4	21.4	16.7	2	GN 305 GN 1150 GN 1581 GN 8170 GN 6226	1
GN 7600-25-21-2-*-85	25	21	25.8	23.6	20.2	24.3	19.5	2	GN 20 GN 20.1 GN 1580 GN 5064	1
GN 7600-28-24-2-*-85	28	24	28.8	26.5	23.1	27.2	22.4	2	GN 20 GN 20.1 GN 1581 GN 5080 GN 5090 GN 6226	1
GN 7600-30-26-2-*-85	30	26	30.8	28.5	25.1	29.2	24.4	2	GN 1150	1
GN 7600-32-28-2-*-85	32	28	32.8	30.4	27	31.1	26.3	2	GN 20 GN 20.1 GN 1580	1
GN 7600-34-30-2-*-85	34	30	34.8	32.3	28.9	34	28.2	2	GN 6226	1
GN 7600-36-32-2-*-85	36	32	36.8	34.2	30.8	34.8	30.1	2	GN 20 GN 20.1	1
GN 7600-40-36-2-*-85	40	36	40.8	38.1	34.7	38.8	34	2	GN 1580	1
GN 7600-42-38-2-*-85	42	38	42.8	39.9	36.5	40.6	35.8	2	GN 5080 GN 5090	1

Weight Material HNBR

Wipers

Hygienic Design

SPECIFICATION

Thermoplastic polyurethane **TPU**

- Blue
- Temperature resistant -20 °C to +110 °C
- FDA compliant
- Hardness 95 ±5 Shore **A 95**

INFORMATION

When used in hygienic areas, wipers GN 7607 can be used to seal axially or radially moving components with a cylindrical cross-section against their bearing position. With their specially shaped sealing lip, the wipers prevent the formation of dead spaces where dust can accumulate. Commercially available wipers are not suitable for this purpose due to a 45° chamfer on the inner edge of the sealing lip.

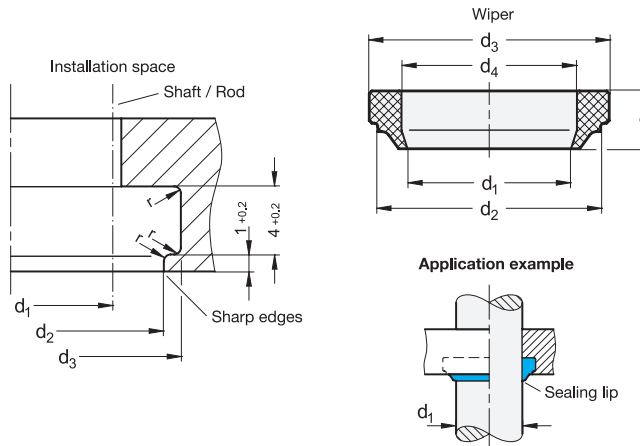
All standard parts equipped and delivered with wipers GN 7607 are listed in the table. For replacement, the corresponding wipers can be ordered individually.

As delivered, or unassembled, the wipers have the "actual dimensions" as stated in the table. To guarantee a secure fit and a reliable seal, the specified installation space must be provided at the bearing position. This ensures that the wiper undergoes the necessary deformation during installation. All surfaces in contact with the wiper should have a minimum surface quality of Ra 0.8 µm.



TECHNICAL INFORMATION

- ISO-Fundamental Tolerances (see catalogue page A21)
- Elastomer Characteristics (see catalogue page A32)



GN 7607

Description	d1 h9 Nominal dimensions - Installation space	d2 h9 Nominal dimensions - Installation space	d3 h9 Nominal dimensions - Installation space	r max.	d1 Actual dimensions - Wipers, unassembled	d2 Actual dimensions - Wipers, unassembled	d3 Actual dimensions - Wipers, unassembled	d4 Actual dimensions - Wipers, unassembled	s	Suitable for	⚖
GN 7607-12-TPU-95	12	18	20	0.4	11.2	18.2	20.2	12.6	6.8	GN 20	1
GN 7607-14-TPU-95	14	20	22	0.4	13.2	20.2	22.2	14.6	6.8	GN 1150	1
GN 7607-16-TPU-95	16	22	24	0.4	15.2	22.2	24.2	16.6	6.8	GN 20 GN 8170	1
GN 7607-20-TPU-95	20	26	28	0.4	19.3	26.3	28.3	20.7	6.8	GN 20 GN 1150	2
GN 7607-24-TPU-95	24	30	32	0.4	23.3	30.3	32.3	24.7	6.8	GN 20	2

Retaining Magnets

NdFeB, Housing Stainless Steel, with Threaded Stud, Hygienic Design

SPECIFICATION

Polarity

- **N**: North
- **S**: South

Type

- Type **A**: Flat magnetic surface

Magnet material

NdFeB

Neodymium iron boron

Temperature resistant up to 180 °C

Housing

Stainless steel AISI 316L

Matte finish (Ra < 0.8 µm) **MT**

Sealing ring

- H-NBR **H**

Temperature resistant -25 °C to +150 °C

- EPDM **E**

Temperature resistant -40 °C to +120 °C

- Blue

- Hardness 85 ±5 Shore A

- FDA compliant



INFORMATION

Retaining magnets GN 5080 are designed for use in hygienic areas. The sealed screw-on surface enables mounting without dead spaces; the impervious geometry in combination with the high quality finish prevents dirt from accumulating and facilitates cleaning.

Since non-magnetic stainless steels are generally used in hygienic areas, a holding force is only achieved in combination with holding disks GN 7080 (see page 47) or GN 7090 (see page 49). If an increased holding force is required, a second magnet with opposite polarity serves as a counterpart.

Thanks to the material used and the enclosed design, the retaining magnets can also be used in particularly aggressive environments.

ACCESSORY

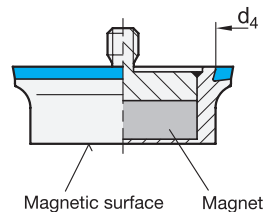
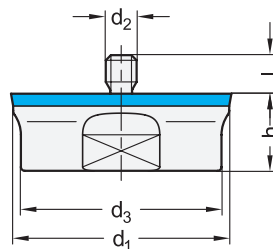
- Sealing Rings GN 7600 (see page 38)
- Holding Disks GN 7080 (see page 47)
- Holding Disks GN 7090 (see page 49)
- Nuts GN 1580 (see page 20)

ON REQUEST

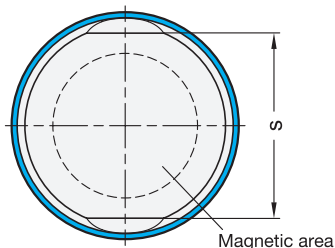
- With FKM sealing ring (fluoro-elastomer) **F**

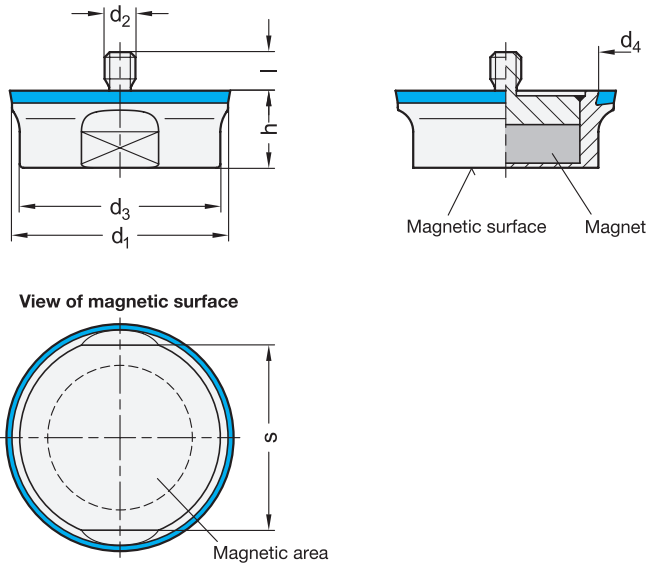
TECHNICAL INFORMATION

- Plastic Characteristics (see catalogue page A2)
- Stainless Steel Characteristics (see catalogue page A26)



View of magnetic surface





GN 5080-N

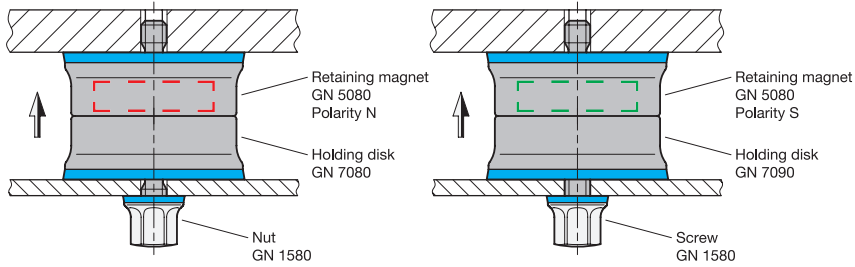
Description	d1	d2	d3	d4	h	Length	l	s	Nominal magnetic forces in N Combination with holding disk	Nominal magnetic forces in N Combination of magnet polarity N with polarity S	⚖
GN 5080-28-M4-N-A-MT-H	28	M 4	26	24	10	5	24		45	60	40
GN 5080-28-M4-N-A-MT-E	28	M 4	26	24	10	5	24		45	60	40
GN 5080-42-M5-N-A-MT-H	42	M 5	40	38	11	5	38		80	105	105
GN 5080-42-M5-N-A-MT-E	42	M 5	40	38	11	5	38		80	105	105

GN 5080-S

Description	d1	d2	d3	d4	h	Length	l	s	Nominal magnetic forces in N Combination with holding disk	Nominal magnetic forces in N Combination of magnet polarity N with polarity S	⚖
GN 5080-28-M4-S-A-MT-H	28	M 4	26	24	10	5	24		45	60	40
GN 5080-28-M4-S-A-MT-E	28	M 4	26	24	10	5	24		45	60	40
GN 5080-42-M5-S-A-MT-H	42	M 5	40	38	11	5	38		80	105	105
GN 5080-42-M5-S-A-MT-E	42	M 5	40	38	11	5	38		80	105	105

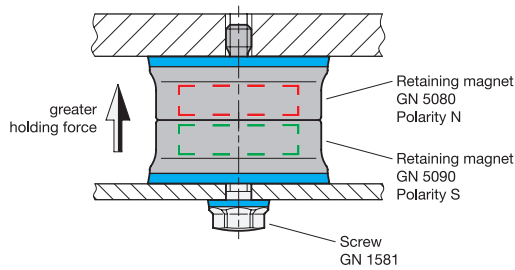
Assembly Instructions GN 5080 / GN 5090 / GN 7080 / GN 7090

Retaining magnet with holding disks



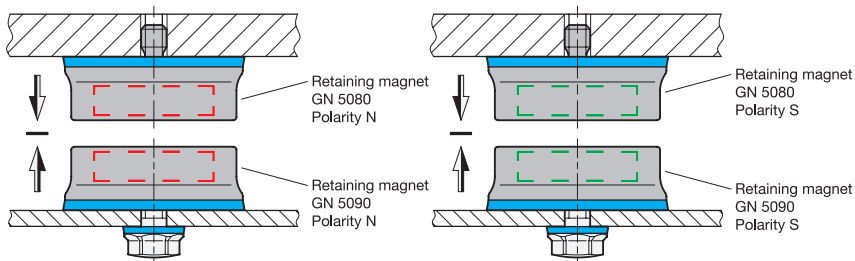
A normal holding force is achieved by combining retaining magnets with holding disks. Retaining magnets with north or south poles on the holding surface can be used equally.

Two retaining magnets with opposite polarity



If two retaining magnets with opposite polarity are combined, an increased holding force is achieved.

Two retaining magnets with the same polarity



Combining two retaining magnets with the same polarity creates a repelling force.

Retaining Magnets

NdFeB, Housing Stainless Steel, with Internal Thread, Hygienic Design

SPECIFICATION

Polarity

- **N**: North
- **S**: South

Type

- Type **A**: Flat magnetic surface

Magnet material

NdFeB

Neodymium iron boron

Temperature resistant up to 180 °C

Housing

Stainless steel AISI 316L

Matte finish (Ra < 0,8 µm) **MT**

Sealing ring

- H-NBR **H**

Temperature resistant -25 °C to +150 °C

- EPDM **E**

Temperature resistant -40 °C to +120 °C

- Blue

- Hardness 85 ±5 Shore A

- FDA compliant



INFORMATION

Retaining magnets GN 5090 are designed for use in hygienic areas. The sealed screw-on surface enables mounting without dead spaces; the impervious geometry in combination with the high quality finish prevents dirt from accumulating and facilitates cleaning.

Since non-magnetic stainless steels are generally used in hygienic areas, a holding force is only achieved in combination with holding disks GN 7080 (see page 47) or GN 7090 (see page 49). If an increased holding force is required, a second magnet with opposite polarity serves as a counterpart.

To prevent the magnetic properties from being impaired, the mounting screw should also be made of non-magnetic stainless steel.

Thanks to the material used and the enclosed design, the retaining magnets can also be used in particularly aggressive environments.

ACCESSORY

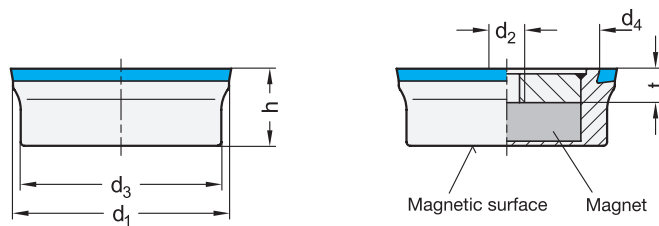
- Sealing Rings GN 7600 (see page 38)
- Holding Disks GN 7080 (see page 47)
- Holding Disks GN 7090 (see page 49)
- Screws GN 1581 (see page 37)

ON REQUEST

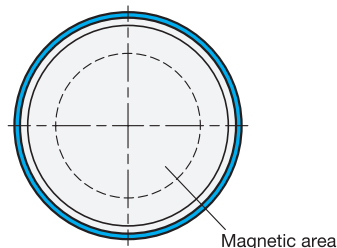
- With FKM sealing ring (fluoro-elastomer) **F**

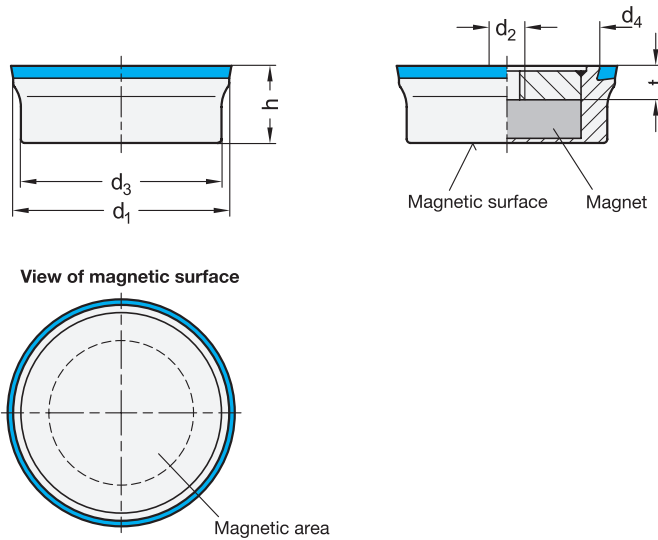
TECHNICAL INFORMATION

- Plastic Characteristics (see catalogue page A2)
- Stainless Steel Characteristics (see catalogue page A26)



View of magnetic surface





GN 5090-N

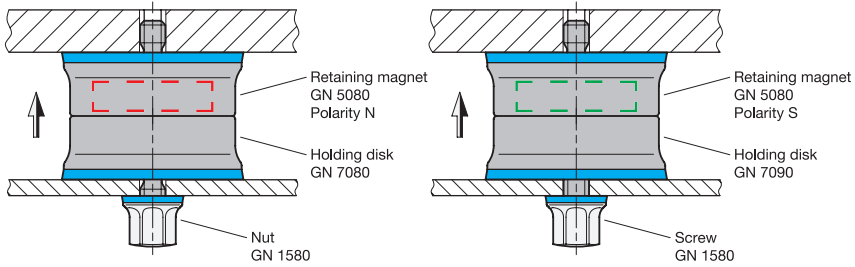
Description	d ₁	d ₂	d ₃	d ₄	h	t	Nominal magnetic forces in N Combination with holding disk	Nominal magnetic forces in N Combination of magnet polarity N with polarity S	⚖️
GN 5090-28-M4-N-A-MT-H	28	M 4	26	24	10	4	45	60	40
GN 5090-28-M4-N-A-MT-E	28	M 4	26	24	10	4	45	60	40
GN 5090-42-M5-N-A-MT-H	42	M 5	40	38	11	5	80	105	104
GN 5090-42-M5-N-A-MT-E	42	M 5	40	38	11	5	80	105	104

GN 5090-S

Description	d ₁	d ₂	d ₃	d ₄	h	t	Nominal magnetic forces in N Combination with holding disk	Nominal magnetic forces in N Combination of magnet polarity N with polarity S	⚖️
GN 5090-28-M4-S-A-MT-H	28	M 4	26	24	10	4	45	60	40
GN 5090-28-M4-S-A-MT-E	28	M 4	26	24	10	4	45	60	40
GN 5090-42-M5-S-A-MT-H	42	M 5	40	38	11	5	80	105	104
GN 5090-42-M5-S-A-MT-E	42	M 5	40	38	11	5	80	105	104

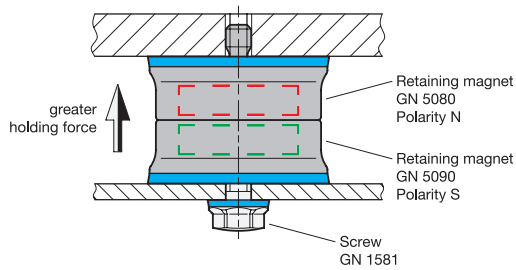
Assembly Instructions GN 5080 / GN 5090 / GN 7080 / GN 7090

Retaining magnet with holding disks



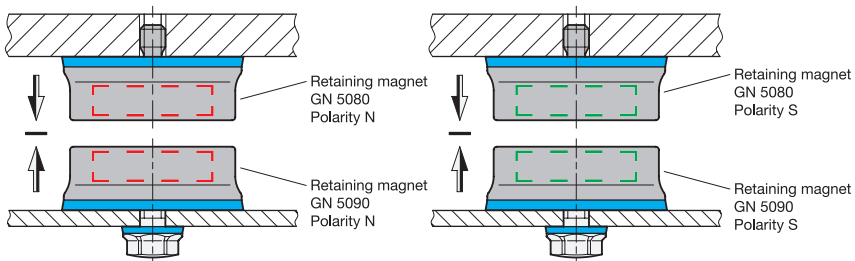
A normal holding force is achieved by combining retaining magnets with holding disks. Retaining magnets with north or south poles on the holding surface can be used equally.

Two retaining magnets with opposite polarity



If two retaining magnets with opposite polarity are combined, an increased holding force is achieved.

Two retaining magnets with the same polarity



Combining two retaining magnets with the same polarity creates a repelling force.

Holding Disks

Stainless Steel, with Threaded Stud, Hygienic Design

SPECIFICATION

Type

- Type **A**: Flat locating surface

Stainless steel AISI 318LN

Matte finish (Ra < 0.8 μm) **MT**

Sealing ring

- H-NBR **H**

Temperature resistant -25 °C to +150 °C

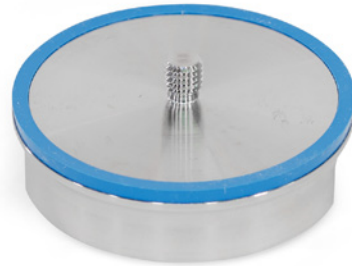
- EPDM **E**

Temperature resistant -40 °C to +120 °C

- Blue

- Hardness 85 ±5 Shore A

- FDA compliant



INFORMATION

Holding disks GN 7080 are used as counterparts for retaining magnets when these are used in combination with non-magnetic materials or when the holding force needs to be increased due to thin material.

They are intended for use in hygiene areas. The sealed screw-on surface enables mounting without dead spaces; the impervious geometry in combination with the high quality finish prevents dirt from accumulating and facilitates cleaning.

The holding disks can also be used in particularly aggressive environments thanks to the material used.)

ACCESSORY

- Sealing Rings GN 7600 (see page 38)

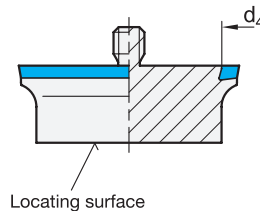
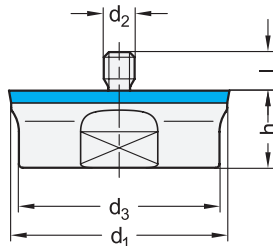
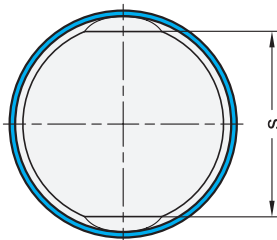
- Nuts GN 1580 (see page 20)

ON REQUEST

- With FKM sealing ring (fluoro-elastomer) **F**

TECHNICAL INFORMATION

- Plastic Characteristics (see catalogue page A2)



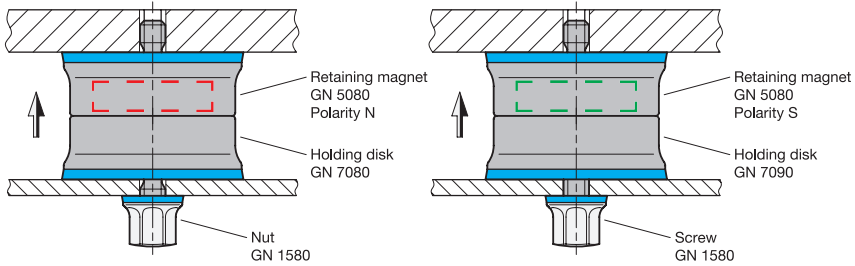
GN 7080

STAINLESS STEEL

Description	d ₁	d ₂	d ₃	d ₄	h	Length l	s	⚖
GN 7080-28-M4-A-MT-H	28	M 4	26	24	10	5	24	41
GN 7080-28-M4-A-MT-E	28	M 4	26	24	10	5	24	41
GN 7080-42-M5-A-MT-H	42	M 5	40	38	11	5	38	108
GN 7080-42-M5-A-MT-E	42	M 5	40	38	11	5	38	108

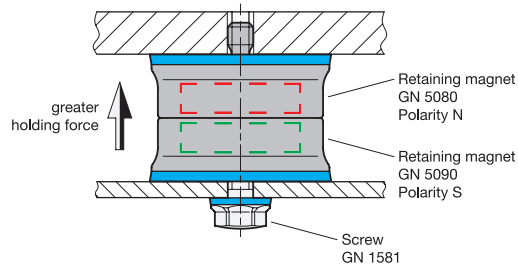
Assembly Instructions GN 5080 / GN 5090 / GN 7080 / GN 7090

Retaining magnet with holding disks



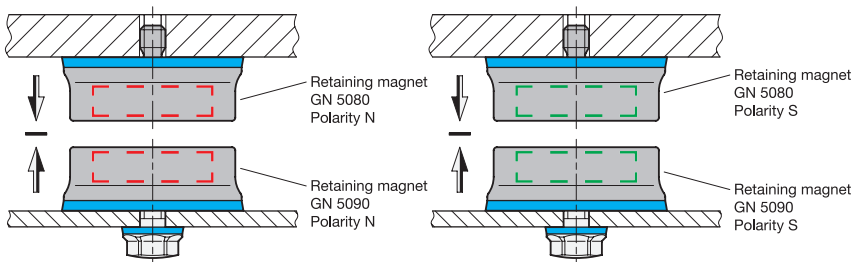
A normal holding force is achieved by combining retaining magnets with holding disks. Retaining magnets with north or south poles on the holding surface can be used equally.

Two retaining magnets with opposite polarity



If two retaining magnets with opposite polarity are combined, an increased holding force is achieved.

Two retaining magnets with the same polarity



Combining two retaining magnets with the same polarity creates a repelling force.

Holding Disks

Stainless Steel, with Internal Thread, Hygienic Design

SPECIFICATION

Type

- Type **A**: Flat locating surface

Stainless steel AISI 316LN

Matte finish (Ra < 0.8 µm) **MT**

Sealing ring

- H-NBR **H**

Temperature resistant -25 °C to +150 °C

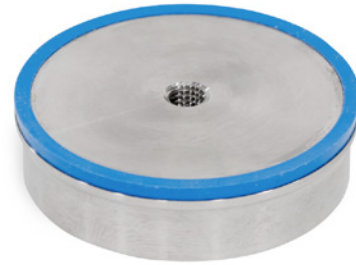
- EPDM **E**

Temperature resistant -40 °C to +120 °C

- Blue

- Hardness 85 ±5 Shore A

- FDA compliant



INFORMATION

Holding disks GN 7090 are used as counterparts for retaining magnets when these are used in connection with non-magnetic materials or when the holding force needs to be increased due to thin material.

They are intended for use in hygiene areas. The sealed screw-on surface enables mounting without dead spaces; the impervious geometry in combination with the high quality finish prevents dirt from accumulating and facilitates cleaning.

The holding disks can also be used in particularly aggressive environments thanks to the material used.

ACCESSORY

- Sealing Rings GN 7600 (see page 38)

- Screws GN 1580 (see page 20)

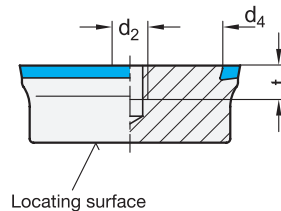
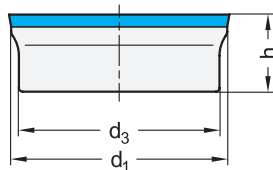
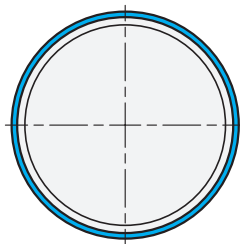
- Screws GN 1581 (see page 23)

ON REQUEST

- With FKM sealing ring (fluoro-elastomer) **F**

TECHNICAL INFORMATION

- Plastic Characteristics (see catalogue page A2)



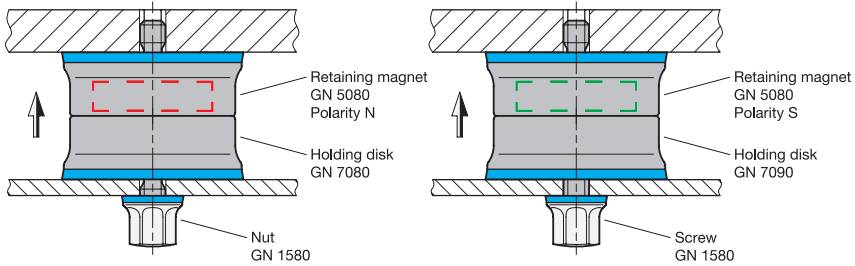
GN 7090

STAINLESS STEEL

Description	d ₁	d ₂	d ₃	d ₄	h	t	⚖
GN 7090-28-M4-A-MT-H	28	M 4	26	24	10	5	41
GN 7090-28-M4-A-MT-E	28	M 4	26	24	10	5	41
GN 7090-42-M5-A-MT-H	42	M 5	40	38	11	6	107
GN 7090-42-M5-A-MT-E	42	M 5	40	38	11	6	107

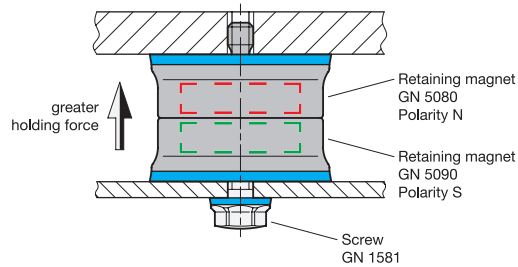
Assembly Instructions GN 5080 / GN 5090 / GN 7080 / GN 7090

Retaining magnet with holding disks



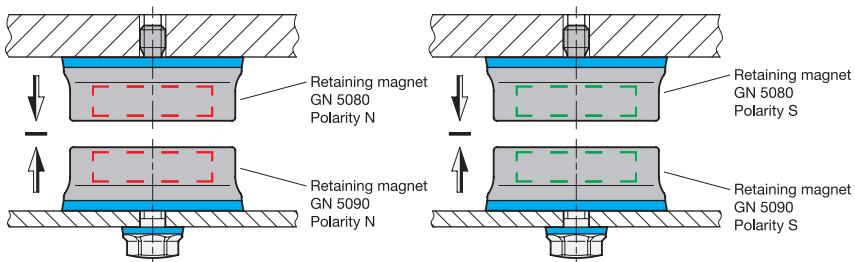
A normal holding force is achieved by combining retaining magnets with holding disks. Retaining magnets with north or south poles on the holding surface can be used equally.

Two retaining magnets with opposite polarity



If two retaining magnets with opposite polarity are combined, an increased holding force is achieved.

Two retaining magnets with the same polarity



Combining two retaining magnets with the same polarity creates a repelling force.

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