

# Quick Catalog















STANDARD MACHINE ELEMENTS WORLDWIDE



elesa®

# ELESA

## Product range

-  **1 | OPERATING ELEMENTS**
-  **2 | CLAMPING KNOBS**
-  **3 | CLAMPING LEVERS**
-  **4 | LIFT & PULL HANDLES**
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# ELESA

## Technology and Design



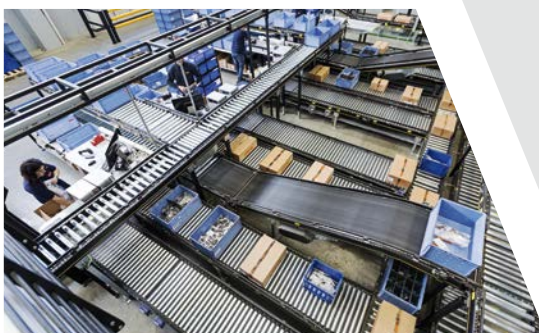
Established in 1941, ELESA is the international reference for standard components destined for the mechanical, machinery and industrial equipment sectors.

An excellent combination of **technology and design** has given rise to a **diverse production**, thanks to the constant commitment to follow developments in engineering plastics and metal technology. A corporate culture strongly committed to **product quality**, combined with an innate sensitivity for **design and ergonomic research**, led to the creation of products unique and recognizable worldwide as ELESA products.

- 200 PATENTS AND REGISTERED DESIGNS
- 43 INDUSTRIAL DESIGN AWARDS
- WORLDWIDE DISTRIBUTION
- 45,000 PRODUCT CODES AVAILABLE IN STOCK
- CUSTOMIZED SOLUTIONS
- TECHNICAL COMPETENCE AT THE CUSTOMERS' SERVICE



The Trademark "100% GREEN" guarantees that the subjects authorised to make use of it, the Users, consume electricity produced by the A2A Group from renewable sources guaranteed by certificates of origin and marketed through one of the Group's companies.



Design and production activities are concentrated at the headquarters in Monza. An area of over 70,000 square meters, where tens of millions of pieces are produced every year by utilizing the **latest automated production technologies**. In the new fully automated Logistics Center, over 45,000 products are in stock and ready to be shipped worldwide.

## Quality - Environment - Safety

- Quality Management System certified according to **ISO 9001** by **British Standards Institution (BSI)** since 1993.
- Environmental Management System certified according to **ISO 14001** since 2007.
- Occupational Health and Safety Management System certified according to **BS OHSAS 18001** since 2012.
- **Authorized Economic Operator Full** certified by the European Custom Agency since 2014: recognition of full reliability of customs procedures.



FM 23747



EMS 518430



OHS 584384



ELESA is associated with:



Italian Association  
of Machine Tool Manufacturers



Unione Costruttori Italiani Macchine Automatiche  
per il Confezionamento e l'Imballaggio

Italian Packaging Machinery  
Manufacturers Association







# ELESA

## Focused on the international market

ELESA guarantees the reliability of its products, designed and manufactured in Italy at the headquarters in Monza. An authentic “Made in Italy” which has become popular around the world and particularly appreciated by the most qualified machine manufacturers.



EleSA France S.A.



EleSA (UK) Ltd



EleSA USA Corporation



EleSA Scandinavia AB (SE)

ELESA products are sold in more than 60 countries worldwide through 12 subsidiaries and qualified distributors, ensuring an efficient and timely service. The international distribution network provides all customer services and professional technical advice.



## STANDARD MACHINE ELEMENTS WORLDWIDE



ELESA+GANTER is the commercial joint venture between two world leaders in the production of standard industrial components. A brand in over 35 countries with subsidiaries and distributors.



Elesa+Ganter Austria GmbH



Elesa-Ganter Iberica S.L.



Elesa+Ganter Polska Sp. zo.o.



Elesa+Ganter China Ltd.



Elesa+Ganter CZ s.r.o.



Elesa and Ganter India PVT LTD



Elesa+Ganter Türkiye



Drabbe  
An Elesa+Ganter Company



Elesa has been cooperating for over 45 years with Otto Ganter GmbH & Co. KG (Germany) – a qualified manufacturer of standard elements according to its own GN standards or DIN German standards, which identify the corresponding products, to offer the widest range of components for machinery and industrial equipment.





# ELESA

## The utmost competence

### Research & Development

ELESA continues to invest in R&D, and in particular, the innovation of its production technologies, with the aim of creating new products or to further improve performance and reliability of existing ones.

### Testing laboratory

An internal testing laboratory with the most advanced equipment and measuring instruments, studies the evolution of new plastic materials to develop new and improved products, satisfying the requirements of more demanding applications in the field of industrial machines.

All standard products in the ELESA range are subject to mechanical, physical, chemical and durability testing in order to provide correct and reliable technical data.

The ELESA laboratory is at the disposal of customers for carrying out tests that simulate specific or particularly heavy conditions of use.

ELESA is associated with:

**proplast**

PLASTICS INNOVATION POLE

# ELESA

## Customized solutions



In addition to the widest range of standard machine elements available on the market, ELESA offers on demand customized technical solutions to meet customers' specific needs. Production flexibility, technical know-how, R&D, constant activity and customer care allow for quick answers and competitive solutions.

### Product customization

Logos and text by tampoprinting, laser-engraving and moulding.

### Special colors

Non standard color options.

### Special materials and shapes

Special technopolymers, stainless steel and metals; special shapes, dimensions and metal inserts.

### Surface treatments

Black-oxide coating, zinc-plating, nickel plating, chrome-plating, anodizing and epoxy-resin coating.

### Machining service

Bosses with hole and keyway in compliance with DIN Standards.





# ELESA

## Customer service



2D and 3D  
CAD drawings  
with automatic  
dimensioning



### The catalog

Always attentive to the market needs, Elesa offers for the American market a catalog with INCH and Metric products, also available on [elesa.com](http://elesa.com). Each product sheet features full technical descriptions, data, drawings and dimension tables, allowing the designer to easily identify the correct product code and description when ordering.

SAVE TIME.  
SHOP ONLINE!



### [elesa.com](http://elesa.com)

From your desktop, tablet or smartphone ELESA's website is always updated, fast and easy to navigate.

**Free download** of 2D and 3D CAD drawings with automatic dimensioning for every product code in the most common formats.



**"Golden Quality Seal"** Award received from CADENAS GmbH for the high-quality smart 3D engineering data.





### 3D animations and videos

For deeper information on the technical characteristics of products and their applications.



### ELESa Newsletter

Stay up to date with the latest ELESa news: new products, exhibitions or interesting technical details.



### Customer care

Contact our customer service.  
Sales offices are constantly in communication with sales engineers in the field.



### Road-show

To optimize customers' time, ELESa brings its product range directly to customers' premises, as a way to present the latest new products. ELESa sales engineers are available to customize technical sessions to highlight specific product features.



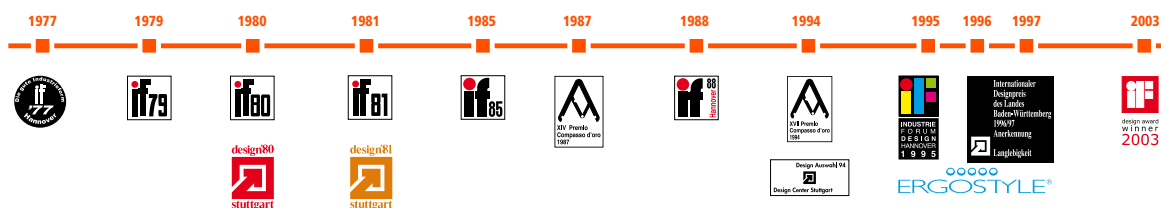
# ELESA Design

Since the 50s, ELESA has been actively involved in the cultural revision of machine tool aesthetics that were taking shape around that time, by innovating the design of accessories and components for the mechanical industry, machinery and industrial equipment. An ongoing commitment to which ELESA has always been loyal to, over the decades, as proven by the 43 industrial design awards received over the last 40 years from the most prestigious juries.

“ We design our products to offer perfect *functionality* and the best *ergonomics*, whilst keeping in mind the creation of *unique designs* recognizable over the world as ELESA products.

”

The years in which ELESA products have received Industrial Design awards:





Every single detail, be it aesthetic or functional, is essential and can significantly improve the perception of a product.



ELESA design helps enhance the value and quality of your products.





# ELESA SUPER-technopolymer



## When the advantages of engineering plastics combine favorably with metal

"SUPER-Technopolymers" - new technopolymers with high mechanical and thermal performance - represent the latest evolution of engineering polymer materials for the industrial sector. The most technologically advanced industries, such as automotive, aviation and electronics, have long understood the benefits of using these new generation engineering plastics.

The "metal replacement" - the possibility to replace metal - is a trend that increasingly involves numerous applications, but it is not limited to the use of high performance engineering plastics.

In fact, in order to have technopolymer products in applications which have been so far, a prerogative of the metal products, the design phase needs to be performed with great expertise by optimising shapes and thickness, to benefit from all the typical characteristics of polymeric materials.

ELESA has developed several components made of SUPER-technopolymer, with the following advantages:

- High mechanical performance
- Corrosion resistance
- Lightness
- Non magnetic
- Low coefficient of friction
- Maintenance free
- Thermal insulation
- Colored material throughout

# ERGOSTYLE® by ELESa

ERGOSTYLE®  
by ELESa



eLeColors®



The 7 ELECOLORS® colours



FIVE POINTS:  
a discreet trademark  
that distinguishes  
all ERGOSTYLE®  
products



## Ergonomics and Design: the service of functionality and security

Ergostyle® elements were initially conceived for a series of new market segment applications, including hospital and medical equipment, sports and leisure equipment, scientific instrumentation and office furniture. Nowadays, Ergostyle elements are also applied in more traditional industrial sectors, whose machines and equipment have undergone a profound aesthetic and design renovation over the last few decades. Elements with modern, elegant shapes with inserts in 7 ELECOLORS® allow the components to be better integrated on machinery from an aesthetical point of view contributing to enhance their value. In addition, the colored inserts can be used to differentiate machinery functions.





# High Performing Lines

High Performing Lines: standard components made of engineering plastics with innovative features, to meet the requirements of specific industries.



## **SOFT-TOUCH** SAFE, COMFORTABLE AND NON-SLIP GRIP

- Fitness, rehab and disability aids and equipment.
- High precision instruments.
- Equipment subject to unfavorable climatic conditions.



## **CHROMIUM** CHROME-PLATED TECHNOPOLYMER

- Equipment for outdoor environments subject to unfavourable climatic conditions.
- Machines and tools subject to unfavorable cleaning cycles.



## **CLEAN** WHITE COLOR WITH DIRT-PROOF SURFACES

- Medical and hospital equipment.



## **PROFILE COMPATIBLE** COMPATIBILITY WITH ASSEMBLY ON PROFILE SYSTEMS

- Components compatible for assembly on aluminium profile systems.



## **HYGIENIC DESIGN** DESIGN, MATERIALS AND SURFACE TREATMENTS AT THE SERVICE OF HYGIENE

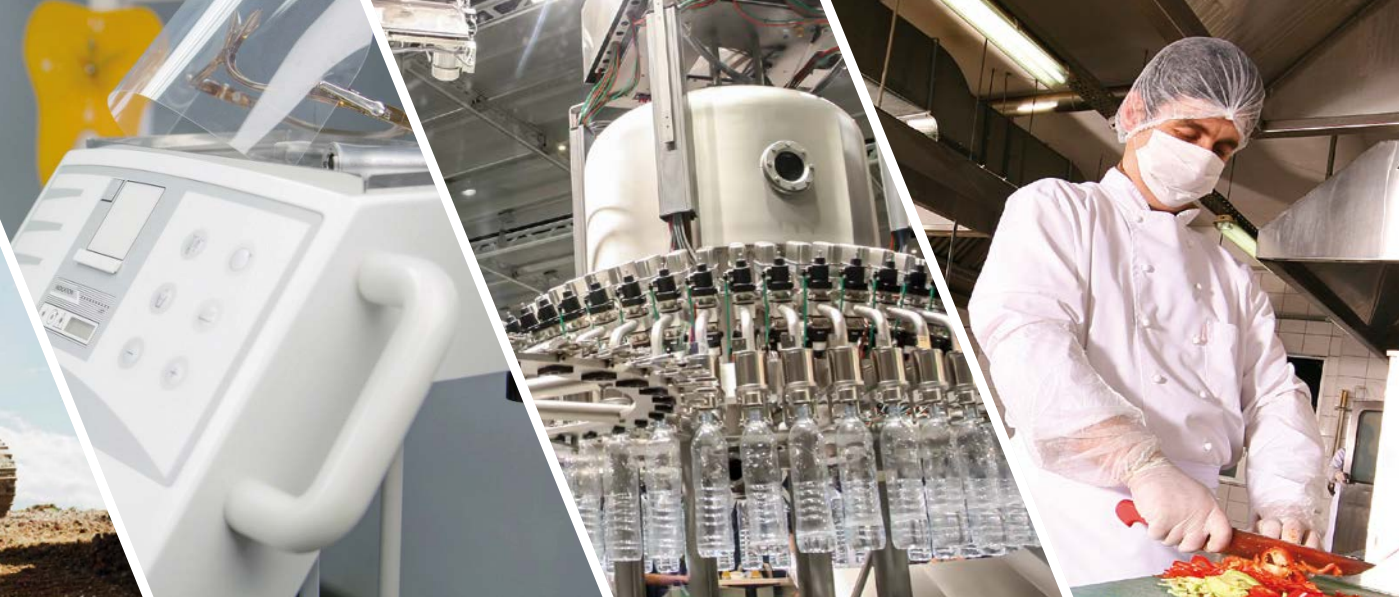
- Machines and equipment for food processing, pharmaceutical and medical sectors.



## **AE-V0** SELF-EXTINGUISHING TECHNOPOLYMER

- Urban and public fittings.
- Lighting and entertainment equipment.





**SAN**  
SANITIZATION AGAINST MICROBES,  
BACTERIA AND FUNGI

- Medical, hospital, rehab and disability aids and equipment.
- Urban and public fittings.



**VISUALLY DETECTABLE**  
DETECTABLE TECHNOPOLYMER  
RAL 5005 "SIGNAL BLUE"

- Food-processing machines.
- Pharmaceutical equipment.



**METAL DETECTABLE**  
TECHNOPOLYMER RAL 5001  
"GREEN-BLUE" WITH DETECTABLE  
ADDITIVES

- Food-processing machines.
- Pharmaceutical equipment.



**ESD**  
CONDUCTIVE TECHNOPOLYMER

- Assembly lines for electronic components.
- EPA "ESD- Protected Area".



**ATEX**  
COMPLIANT WITH ATEX  
EUROPEAN DIRECTIVE

- Equipment and machines for use in environments subject to explosion risk.



**INOX**  
CORROSION RESISTANCE

- Food processing, pharmaceutical and chemical.



A quick glimpse  
into the Elesa  
product range

# ELESA Quick Catalog



The Quick Catalog presents a significant, albeit narrow selection of the ELESa product range to quickly become familiar with the range of plastic and metal standard components entirely published on [elesa.com](http://elesa.com): where you can find technical data sheets, dimensional drawings and full size tables, always updated. Available also in the paper Catalog 080. Ask now for your free of charge copy.



**General Catalog 080**  
Always on the desk.



**elesa.com**  
Elesa catalog always updated. 2D and 3D CAD drawings with automatic dimensioning free download.



**ASK NOW FOR  
A FREE COPY!**

**080**

EDITION: **VIII** | YEAR OF CATALOG  
RELEASE: 2020

**Save time. Shop online!**



**elesa**  
Online Shop  
[elesa.com](http://elesa.com)



# elesa<sup>®</sup>



Browse the full range on [elesa.com](https://www.elesa.com)

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## OPERATING ELEMENTS

Spoked handwheels  
Solid handwheels  
Arm handwheels  
Crank handles



2

## CLAMPING KNOBS

Lobe knobs  
Grip knobs



3

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Adjustable handles  
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4

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Grub-screws, thrust pads, ring, washers  
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Transmission elements



Browse the full range on [elesa.com](http://elesa.com)



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## VIBRATION DAMPING ELEMENTS

Rubber buffers  
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11

## INDUSTRIAL MAGNETS

Flat retaining, cylindrical, unshielded, horseshoe and for profile  
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Magnet accessories



12

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Tubes and accessories  
Linear actuators and clamp connectors



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# 1

## Operating elements



Ergonomic design, wide range of materials, diameters from 80 mm to 375 mm for all maneuvering operations on machinery and equipment.

### VRTP.

#### Spoked handwheels

Technopolymer

INCH  
METRIC



Black-oxide steel boss, H7 reamed hole or with keyway, anodised aluminium or technopolymer boss cap plate in Ergostyle colours.

Diameters: 3.15 - 3.94 - 4.92 - 6.30 - 7.87 - 9.84 - 11.81 - 11.76 inch

### VRTP-P-SST

#### Spoked handwheels with solid section

Technopolymer

INCH  
METRIC



AISI 304 stainless steel boss, with AISI 304 stainless steel boss cap plate.  
Technopolymer and plate adhesive certified in compliance with FDA (U.S. Food and Drug Administration).  
Diameters: 3.15 - 3.94 - 4.92 - 6.30 - 7.87 inch

### GN 322 - GN 322.3

#### Spoked handwheels

Cast aluminium

INCH  
METRIC



H7 reamed hole.

Diameters: 4.92 - 5.51 - 6.30 - 7.87 - 9.84 inch

### GN 924 - GN 924.3 - GN 924.7

#### Spoked handwheels

Cast aluminium

METRIC



H7 reamed hole.

Diameters: 4.92 - 5.51 - 6.30 - 7.87 inch

### GN 949

#### Spoked handwheels

Cast stainless steel

METRIC



Turned rim. H8 reamed hole or with keyway.  
Diameters: 3.94 - 4.92 - 5.51 - 6.30 - 7.87 inch

### VR.FP

#### Spoked handwheels

Duroplast, not drilled hub



Black-oxide steel hub, uncovered front end.

Diameters: 3.94 - 4.92 - 5.51 - 6.30 - 7.09 - 7.87 - 9.84 - 11.81 - 14.76 inch

### GN 950.6 - DIN 950

#### Spoked handwheels

AISI 316L stainless steel or cast iron

INCH  
METRIC



H9 or H7 reamed hole.

Also available with keyway.

Diameters: 3.15 - 3.94 - 4.92 - 5.51 - 6.30 - 7.87 - 9.84 inch

### GN 228-A4

#### Spoked handwheels

AISI 316L stainless steel

METRIC



Welded hub with H9 reamed pass-through hole or with keyway, H11 square pass-through hole.  
Diameters: 4.92 - 6.30 - 7.87 - 9.84 - 12.40 - 15.75 inch

### ETW.375

#### Spoked handwheels

Technopolymer

METRIC



ERGOSTYLE®



Black-oxide steel boss, H7 reamed hole with technopolymer boss cap in Ergostyle colours.  
Diameter: 14.76 inch

**EMW.****Monospoke handwheels**  
Technopolymer

METRIC


 ERGOSTYLE®  
 ■ ■ ■ ■ ■ ■ ■ ■

 Black-oxide steel boss, H7 reamed hole with technopolymer boss cap in Ergostyle colours.  
 Diameter: 13.78 inch
**EYK.****Three-arm handwheels**  
Technopolymer

METRIC


 ERGOSTYLE®  
 ■ ■ ■ ■ ■ ■ ■ ■

 Black-oxide steel boss, H7 reamed hole with technopolymer boss cap in Ergostyle colours.  
 Diameters: 10.83 - 15.75 inch
**ETK.****Three-arm handwheels**  
Technopolymer

METRIC


 ERGOSTYLE®  
 ■ ■ ■ ■ ■ ■ ■ ■

 Black-oxide steel boss, H7 reamed hole with technopolymer boss cap in Ergostyle colours.  
 Diameter: 15.75 inch
**VDS.****Solid handwheels**  
Technopolymer

INCH

METRIC


 INOX  
 STAINLESS STEEL

 Black-oxide or stainless steel boss, H7 reamed hole or with keyway. Light-grey technopolymer boss cap, also available in Ergostyle colours.  
 Diameters: 3.15 - 3.94 - 4.92 - 5.91 - 6.89 - 7.87 - 9.84 - 11.81 inch
**VDN.FP****Solid handwheels**  
Duropplast

INCH

METRIC


 INOX  
 STAINLESS STEEL

 Black-oxide or stainless steel hub, uncovered front end, not drilled or with H7 reamed hole or with keyway.  
 Diameters: 50 - 63 - 3.15 - 3.94 - 4.92 - 5.51 - 5.91 - 6.89 - 7.87 - 8.86 - 9.84 - 11.81 - 13.78 inch
**VDT.****Solid handwheels**  
Technopolymer

INCH

METRIC


 Black-oxide steel boss, H7 reamed hole or with keyway.  
 Diameters: 3.94 - 4.92 - 6.30 - 7.87 inch
**GN 321****Solid handwheels**  
Cast aluminium

INCH

METRIC


 H7 reamed hole.  
 Diameters: 3.15 - 3.94 - 4.92 - 5.51 - 6.30 - 7.87 - 9.84 inch
**GN 923 - GN 923.3 - GN 923.7****Solid handwheels**  
Cast aluminium

METRIC


 H7 reamed hole.  
 Diameters: 3.15 - 3.94 - 4.92 - 5.51 - 6.30 - 7.87 inch
**MT.****Crank handles**  
Technopolymer

METRIC


 Black-oxide steel boss, H9 square pass-through hole; black-oxide steel hub with H9 blind hole or H7 reamed pass-through hole.  
 Dimensions: 1.97 - 2.52 - 3.15 - 3.94 - 5.12 - 6.30 - 8.27 inch
**GN 472.3****Crank handles**  
Cast aluminium

METRIC


 INOX  
 STAINLESS STEEL

 H7 reamed hole or H11 square pass-through hole.  
 Dimensions: 3.15 - 3.94 - 4.92 inch
**EKH.****Crank handles**  
Technopolymer

METRIC


 ERGOSTYLE®  
 ■ ■ ■ ■ ■ ■ ■ ■

 Technopolymer hub cap in Ergostyle colours.  
 Black-oxide steel hub, H7 reamed hole.  
 Dimensions: 3.94 - 4.92 inch
**DIN 468 - DIN 469****Crank handles**  
Cast iron

METRIC


 H7 reamed hole or H11 square pass-through hole.  
 Dimensions: 3.15 - 3.94 - 4.92 - 6.30 - 7.87 - 9.84 inch



2

## Clamping knobs



Ergonomics, design and quality of materials to offer a more secure grip and maximum comfort for all manual clamping. Colours help to identify and differentiate various functions.

### VB.639

#### Three-arm knobs Technopolymer

INCH  
METRIC



Black-oxide steel boss with plain blind hole; brass or AISI 303 stainless steel boss with threaded blind or pass-through hole; zinc-plated steel threaded stud. Diameters: 1.77 - 2.48 - 3.15 - 3.94 - 5.12 - 5.51 inch

### VB.839

#### Three-arm knobs Technopolymer

METRIC



Brass or AISI 303 stainless steel boss, threaded blind hole; zinc-plated steel threaded stud. Cap in standard colours. Diameters: 2.48 - 3.15 - 3.94 inch

### VCT.

#### Lobe knobs Technopolymer

INCH  
METRIC



Black-oxide steel boss with plain blind hole; brass, stainless steel or zinc-plated steel boss with threaded pass-through or blind hole; zinc-plated or stainless steel threaded stud. Cap in standard colours. Also available in self-extinguish technopolymer certified UL-94 V0 (VCT.AE-V0). Diameters: 0.98 - 1.26 - 1.57 - 1.97 - 2.48 - 2.91 - 3.74 inch

### VCT-LP

#### Lobe knobs with retaining chain, technopolymer

METRIC



Brass boss with threaded pass-through hole; threaded zinc-plated steel stud. Diameters: 0.98 - 1.26 - 1.57 - 1.97 - 2.48 inch

### VCT.SOFT

#### Lobe knobs Soft-touch technopolymer

INCH  
METRIC



Brass boss with threaded blind hole or zinc-plated steel threaded stud. Cap in standard colours. Diameters: 1.69 - 2.09 - 2.60 - 3.03 inch

### VCTS-Z

#### Safety lobe knobs Technopolymer, push action

INCH  
METRIC



Black-oxide steel or AISI 303 stainless steel clamping knobs with toothed element for coupling to zinc alloy insert moulded in the knob. Available with threaded hole or pin. Diameters: 1.57 - 1.97 inch

### VC.692

#### Lobe knobs with solid section

Technopolymer, easy cleaning

INCH  
METRIC



Black or white colour similar to RAL 9002 (VC.692 CLEAN). Brass or AISI 303 stainless steel boss, threaded blind hole; zinc-plated steel or AISI 303 stainless steel threaded stud with or without chamfered end with acetal resin or brass bolt (VC.692-SST-p-P). Diameters: 1.57 - 1.97 inch

### VTT

#### Solid knobs

Technopolymer, easy cleaning



Brass or AISI 304 stainless steel boss with threaded blind hole; zinc-plated steel or AISI 304 stainless steel threaded stud. Diameters: 0.98 - 1.26 - 1.57 - 1.97 inch

### VMT-SST

#### Lobe knobs with solid section

AISI 303 or AISI 316L  
stainless steel, easy cleaning

METRIC



Hub with plain blind or threaded hole. Diameters: 1.57 - 1.97 - 2.36 inch

### VC.192

#### Lobe knobs

Duroplast, easy cleaning

INCH  
METRIC



Black-oxide steel boss, AISI 303 stainless steel or brass boss with plain or threaded blind hole; zinc-plated or AISI 303 stainless steel threaded stud. Diameters: 0.98 - 1.26 - 1.57 - 1.97 - 2.36 - 2.76 - 3.35 - 3.94 inch

### VCM - VCM-SST

#### Lobe knobs

Aluminium or AISI 304  
or AISI 316L stainless steel

INCH  
METRIC



Hub with H7 reamed blind hole, threaded hole or pin. Diameters: 1.57 - 1.97 - 2.36 - 2.76 inch

### GN 5335 - GN 5335.4

#### Lobe knobs

AISI 303 or AISI 316L  
stainless steel, easy cleaning

METRIC



Hub with H7 reamed blind or threaded hole, threaded pin. Diameters: 1.57 - 1.97 - 2.36 inch

## ELK.

### Knobs with rear lobes

Technopolymer

INCH

METRIC

ERGOSTYLE®



Black-oxide steel boss with H9 reamed blind or H7 reamed pass-through hole; brass boss with threaded blind hole; zinc-plated steel threaded stud.

Cap in Ergostyle colours, ultrasonically welded to the hub body.

Diameters: 1.77 - 2.20 - 2.76 inch

## VTR.

### Knobs

Technopolymer

METRIC



Brass boss, square, threaded blind or pass-through hole; zinc-plated steel threaded stud.

Diameters: 1.26 - 1.57 - 1.97 - 2.36 inch

## VTRM-SST

### Knobs

Stainless steel,  
easy cleaning

METRIC

INOX  
STAINLESS  
STEEL



Threaded blind hole.

Diameters: 1.26 - 1.57 - 1.97 - 2.36 inch

## MDA.

### Fluted grip knobs

Technopolymer,  
assembly with screw



Grey closing cap.

Assembly by means of hexagonal-head screws or standard lock nuts (not supplied) to be press-fitted inside the knob.

Diameters: 1.18 - 1.57 - 1.97 inch

## EWN.

### Wing nuts

Technopolymer

INCH

METRIC

ERGOSTYLE®

INOX  
STAINLESS  
STEEL

SAN



Brass or AISI 303 stainless steel boss, threaded blind or pass-through hole; zinc-plated steel or AISI 303 stainless steel threaded stud with or without chamfered end with acetal resin or brass bolt (EWN.SST-p-P).

Cap in Ergostyle colours.

Diameters: 1.85 - 2.16 - 2.48 - 2.76 inch

## EWNM-SST

### Wing nuts

AISI 304 stainless steel

METRIC

INOX  
STAINLESS  
STEEL

ERGOSTYLE®



Threaded blind or pass-through hole, threaded pin.

Diameters: 1.57 - 1.90 - 2.16 inch

## ESN.

### Single wing nuts

Technopolymer

INCH

METRIC

ERGOSTYLE®



Brass boss, threaded pass-through hole.

Cap in Ergostyle colours.

Dimensions : 2.16 - 2.76 inch

## CT.476

### Wing knobs

Technopolymer

INCH

METRIC

INOX  
STAINLESS  
STEEL



Brass boss with threaded pass-through or blind hole; zinc-plated steel or AISI 303 stainless steel threaded stud.

Diameters: 0.79 - 0.98 - 1.18 - 1.57 - 1.90 - 2.20 inch

## GN 433 - GN 434

### Wing knobs

AISI CF-8 stainless steel

INCH

METRIC

INOX  
STAINLESS  
STEEL



Hub with threaded pin or threaded blind hole.

Diameters: 1.02 - 1.34 inch

## BT.

### Fluted grip knobs

Technopolymer  
or conductive technopolymer

INCH

METRIC

INOX  
STAINLESS  
STEEL

ESD



Brass or AISI 303 stainless steel boss with threaded pass-through or blind hole; zinc-plated steel or AISI 303 stainless steel threaded stud.

The conductive technopolymer prevents accumulation of electrostatic charge (BT-ESD).

Diameters: 0.63 - 0.79 - 0.98 - 1.26 - 1.57 - 1.97 inch

## B.193

### Knurled grip knobs

Duroplast

METRIC

INOX  
STAINLESS  
STEEL



Brass or AISI 303 stainless steel boss with threaded pass-through or blind hole.

Zinc-plated steel or AISI 303 stainless steel threaded stud.

Diameters: 0.59 - 0.71 - 0.87 - 0.98 - 1.18 - 1.38 - 1.57 - 1.97 inch

## BM.193-SST

### Knurled grip knobs

AISI 304 stainless steel

METRIC

INOX  
STAINLESS  
STEEL



Hub with threaded blind hole or threaded pin.

Diameters: 0.79 - 0.94 - 1.10 inch

## DIN 464

### Knurled grip knobs

Steel or stainless steel

METRIC

INOX  
STAINLESS  
STEEL



Threaded pin.

Diameters: 0.47 - 0.63 - 0.79 - 0.94 - 1.18 - 1.42 inch

## MBT.

### Diamond cut knurled knobs

Technopolymer

INCH

METRIC



Brass boss with plain or threaded blind hole; zinc-plated steel threaded stud.

Cap in standard colours.

Diameters: 1.18 - 1.57 - 1.97 - 2.36 - 2.76 inch

## MZD

### Adjustable torque limiting knobs

Technopolymer

METRIC



Black-oxide steel boss with threaded blind hole or threaded screw.

Grey closing cap.

Adjustable torques from 0.2 to 1.0 Nm

Diameter: 1.85 inch





# 3

## Clamping levers



Adjustable handles and levers in a wide range of materials for repetitive clamping operations where the lever turning angle is limited due to lack of space. Available with push buttons and levers in different colours to identify and differentiate the various functions.

### ERX. Adjustable handles Technopolymer

INCH  
METRIC



Push button in Ergostyle colours with glossy finish. Technopolymer element with brass or AISI 303 stainless steel boss, threaded blind hole; zinc-plated or AISI 303 stainless steel threaded stud. Dimensions: 1.18 - 1.73 - 2.48 - 3.07 - 3.74 - 4.25 inch

### ERX-CR Adjustable handles Technopolymer chrome-plated

METRIC



Technopolymer element with brass boss and threaded blind hole. Dimensions: 1.73 - 2.48 - 3.07 - 3.74 inch

### ERX-AV Adjustable handles Quick assembly, technopolymer

METRIC



Adjustable push button for quick screwing during assembly by means of screwdrivers. Clamping element in technopolymer with brass boss and threaded blind hole; zinc-plated steel threaded stud. Dimension: 3.07 inch

### ERS. Safety adjustable handles Push action, technopolymer

INCH  
METRIC



Technopolymer clamping element with black-oxide steel or brass boss with threaded blind hole; black-oxide threaded stud. In case of accidental shocks, the lever turns freely without affecting the clamping action. Dimensions: 1.73 - 2.48 inch

### MRX. Adjustable handles Technopolymer

INCH  
METRIC



Technopolymer clamping element with brass or AISI 303 stainless steel boss and threaded blind hole; zinc-plated or AISI 303 stainless steel threaded stud. Dimensions: 1.65 - 2.48 - 3.15 - 3.94 inch

### MRT. Adjustable handles Technopolymer

INCH  
METRIC



Technopolymer clamping element with brass or AISI 303 stainless steel boss and threaded blind hole; zinc-plated or AISI 303 stainless steel threaded stud. Technopolymer push button, glossy finish. Dimensions: 1.65 - 2.56 - 3.15 inch

### MR. Adjustable handles Technopolymer

INCH  
METRIC



Technopolymer clamping element with black-oxide or brass boss with plain or threaded blind hole; zinc-plated steel threaded stud. Dimensions: 1.65 - 2.48 - 3.15 - 3.94 inch

### ERZ. Adjustable handles Technopolymer, steel clamping element

INCH  
METRIC



Zinc alloy insert for coupling to the clamping element. Black-oxide steel or AISI 303 stainless steel clamping element, threaded hole or threaded pin. Dimensions: 1.73 - 2.48 - 3.07 - 3.74 inch

### ERM. Adjustable handles Zinc alloy, steel clamping element

INCH  
METRIC



Orange, red, grey or black colour. Black-oxide steel or AISI 303 stainless steel clamping element, threaded hole or threaded pin. Dimensions: 1.73 - 2.48 - 3.07 - 3.74 inch

### GN 300 - GN 300.1 - GN 300.5 Adjustable handles Zinc alloy or stainless steel

INCH  
METRIC



Zinc alloy or stainless steel lever. Black-oxide steel or AISI 303 stainless steel clamping element, threaded hole or threaded pin. Dimensions: 1.18 - 1.77 - 2.48 - 3.07 - 3.62 - 4.25 inch

### ERW. Adjustable handles Flat lever, technopolymer

INCH  
METRIC



Technopolymer element with brass or AISI 303 stainless steel boss, threaded blind hole; zinc-plated or AISI 303 stainless steel threaded stud. Dimensions: 1.18 - 1.73 - 2.48 - 3.07 inch

### GN 302 Adjustable handles Zinc alloy, steel clamping element

INCH  
METRIC



Black-oxide steel clamping element, threaded hole or threaded pin. Dimensions: 1.18 - 1.77 - 2.48 - 3.07 inch

### GN 300.4

**Adjustable handles**  
with torque amplifier,  
zinc alloy and steel

METRIC



Black-oxide steel clamping element,  
threaded hole or threaded pin.  
Dimensions: 2.48 - 3.07 - 3.62 - 4.25 inch

### GN 6337.3

**Adjustable handles**  
Push action, steel

METRIC



Black-oxide steel clamping element,  
threaded hole or threaded pin.  
Duroplast handle.  
Dimensions: 2.76 - 3.42 - 4.29 inch

### GN 125

**Adjustable handles**  
Steel

INCH  
METRIC



Black-oxide steel lever with straight or slightly  
inclined arm. Black-oxide steel clamping element,  
threaded hole or threaded pin.  
Duroplast handle.  
Dimensions: 3.94 - 4.72 - 5.12 - 5.71 inch

### GN 212.4

**Adjustable handles**  
Steel

METRIC



Black-oxide steel clamping element,  
threaded hole or threaded pin.  
Duroplast handle.  
Dimensions: 3.42 - 4.02 - 4.57 - 5.20 - 5.83 inch

### ERFW.

**Flat lever handles**  
Technopolymer

METRIC



ERGOSTYLE®

Brass boss with threaded blind hole, cylindrical blind  
hole and brass reinforcement with transversal  
semi-machined hole for pinning to shaft.  
Dimensions: 1.73 - 2.48 - 3.07 inch

### ERF.

**Lever handles**  
Technopolymer

METRIC



ERGOSTYLE®

Brass boss with threaded blind hole or zinc-plated  
steel threaded stud; cylindrical blind hole, brass  
reinforcement with transversal semi-machined hole for  
pinning to shaft; square blind hole,  
transversal set screw.  
Dimensions: 1.73 - 2.48 - 3.07 - 3.74 inch

### MF.

**Lever handles**  
Technopolymer

METRIC



Brass boss, threaded blind hole or zinc-plated steel  
threaded stud, cylindrical or square blind hole and  
brass reinforcement with transversal semi-machined  
hole for pinning to shaft.  
Dimensions: 1.65 - 2.48 - 3.15 - 3.94 inch

### M.180

**Lever handles**  
Duroplast

METRIC



Black-oxide steel boss with cylindrical blind hole.  
Brass boss with cylindrical blind, threaded blind or  
square hole with transversal semi-machined hole for  
pinning to shaft.  
Dimensions: 3.11 - 3.90 - 4.65 inch

### DIN 6337

**Lever handles**  
Steel

METRIC



Cylindrical or threaded pass-through hole.  
Dimensions: 2.36 - 2.99 - 3.74 - 4.68 - 5.98 inch

### DIN 99

**Lever handles**  
Steel or stainless steel

METRIC



Plain or threaded pass-through hole.  
Dimensions: 1.97 - 2.48 - 3.15 - 3.94 - 4.92 - 6.30 inch

### GN 99.7 - GN 99.8

**Clamping nuts  
with double lever**  
Steel or stainless steel

METRIC



Threaded pass-through hole.  
Dimensions: 1.97 - 2.36 - 3.15 - 3.94 - 4.72 inch

### GN 150 - GN 150.5

**Split hubs**  
Steel or stainless steel

METRIC



Cylindrical head screws with black-oxide steel or  
AISI 304 stainless steel hexagon socket.  
Dimensions: 0.94 - 1.10 - 1.26 inch

### LAC.

**Cam clamping levers**  
Technopolymer

METRIC



SUPER-technopolymer cam sliding base.  
Rotating pin with zinc-plated or AISI 303 stainless  
steel threaded hole; zinc-plated or AISI 303 stainless  
steel threaded stud. LAC.R cam lever with adjustable  
knurled ring-nut.  
Dimensions: 2.48 - 3.11 inch

### GN 927

**Cam clamping levers**  
Zinc-alloy

METRIC



Rotating pin and clamping element with  
zinc-plated steel threaded hole or stud.  
Zinc-plated steel bushing with contact insert in  
technopolymer or fully in technopolymer.  
Dimensions: 2.48 - 3.23 - 3.98 inch

### GN 927.5

**Cam clamping levers**  
Stainless steel

METRIC



Rotating pin and clamping element with AISI 303  
stainless steel threaded hole or stud. AISI 303 stainless  
steel bushing with technopolymer contact insert.  
Dimensions: 2.48 - 3.23 - 3.98 inch

# 4

## Lift & Pull handles



Wide range of shapes, types and materials.

The ergonomic design provides a comfortable and secure grip for the operator's hand.

### M.443 Bridge handles Technopolymer



Available in black, orange, grey, red and green colours.  
M.443 AE-V0 in self-extinguish technopolymer certified UL-94 V0.  
M.443-ESD in conductive technopolymer. Pass-through holes for cylindrical-head screws, for countersunk head screws, for hexagonal-head screws or nuts. Assembly centre distances: 3.70 - 4.61 - 4.72-4.80 - 5.20 - 5.51 - 5.87-5.98 - 5.91 - 6.30 - 7.05 - 9.25 inch

### M.543 Bridge handles Technopolymer

INCH  
METRIC



Available in black or orange colour.  
Brass bosses, threaded blind holes or threaded studs.  
Assembly centre distance: 3.70 - 4.13 - 4.61 - 5.20 - 7.05 inch

### EBP. Bridge handles Technopolymer

INCH  
METRIC



Boss caps in Ergostyle colours. EBP.SAN in antimicrobial technopolymer. EBP.FLX in technopolymer added with elastomer for mounting on curved surfaces. Pass-through holes for cylindrical-head screws with hexagon socket or brass bosses with threaded blind holes. Assembly centre distance: 3.66 - 4.61 - 5.20 - 5.91 - 7.05 inch

### EBR-PN Handle with pneumatic valve Technopolymer

METRIC



The handle allows the direct drive of a single-acting pneumatic actuator (execution 3/2) or double acting (execution 5/2). Supplied with quick couplings for direct fitting of a tube (Ø4 mm) for pneumatics. Brass bosses, threaded blind holes.  
Assembly centre distance: 5.20 inch

### EBR-SW Handle with microswitch Technopolymer



Microswitch with push button with NO and NC change-over contact. One red LED and one green LED indicate the microswitch status. Pass-through holes for cylindrical-head screws with hexagon socket. Suitable for mounting on machine doors or protections.  
Assembly centre distance: 5.20 inch

### RH-FG11 Tubular handles with built-in microswitch Technopolymer



Microswitch with standard or protruding push-button, with green or red built-in led. Normally open contact (NO) and normally closed contact (NC).  
By pressing the button, the operator requires access to the protected area through external logic (PLC).  
Assembly centre distance: 6.30 inch

### M.843 Bridge handles Technopolymer

INCH  
METRIC



Different colours or white colour similar to RAL 9002 (M.843 CLEAN) with glossy finish for application on medical and hospital equipment and on food processing machines. Brass or AISI 303 stainless steel bosses with threaded holes. Assembly centre distance: 3.39 - 4.61 - 7.05 - 11.81 inch

### M.643 Bridge handles Technopolymer

INCH METRIC



Brass bosses with threaded blind holes for back mounting or pass-through holes for cylindrical-head screws with hexagon socket (front mounting) (M.643-FM).  
Assembly centre distance: 86 - 94 - 117 - 120 - 132 - 150 - 179 - 235 - 300 mm 3.39 - 3.70 - 4.61 - 4.72 - 5.20 - 5.91 - 7.05 - 9.25 - 11.81 inch

### GN 565 - GN 565.1 - GN 565.5

#### Bridge handles Aluminium or stainless steel



Oval cross section, aluminium with natural, anodised finish or with epoxy resin coating, black colour. AISI 304 stainless steel (GN 565.5). Back mounting with threaded blind holes or front mounting with pass-through holes for cylindrical-head screws. Assembly centre distances: 3.94-4.41-4.61-4.72-5.04-5.20-6.30-6.46-7.05-7.56-7.72-11.81-13.78-15.75-19.68 inch

### GN 426 - GN 426.5 Tubular handles Aluminium or stainless steel



Aluminium bar or tube with epoxy resin coating, black or white colour. AISI 304 stainless steel GN 426.5.  
Threaded blind holes Ø 0.79 inch into the bar or aluminium or AISI 303 stainless steel tapped bosses into the tube with Ø ≥ 1.10 inch.  
Assembly centre distance: 7.87 - 9.84 - 11.81 - 15.75 inch

### GN 425 Bridge handles Steel, stainless steel, aluminium

METRIC



Round section in chrome-plated, black-oxide, stainless steel or aluminium with anodised finish or with epoxy resin coating.  
Steel or AISI 304 stainless GN 425.3, welded mounting.  
Assembly centre distances: 3.46 - 3.94 - 4.72 - 4.92 - 6.30 - 7.09 - 7.87 - 9.25 - 9.84 - 11.81 inch

### RH-EF Bridge handles Oval flat cross section, stainless steel

METRIC



Threaded holes for AISI 304 stainless steel screws and washers.  
Assembly centre distances: 3.94 - 4.72 - 5.91 - 7.09 - 9.84 - 13.78 inch

## RH-OA

### Handles

Oval flat cross section, aluminium

METRIC



Natural or black colour.

Threaded blind holes.

Assembly centre distances: 2.16 - 3.46 - 3.94 - 4.72 - 7.09 - 7.87 - 9.25 - 9.84 inch

## MMT.

### Handles for heat insulation

Steel and technopolymer

METRIC



Threaded blind holes with steel base bosses, chromed matte surface. MMT handles are particularly suitable for application on surfaces subjected to high temperatures.

Assembly centre distance: 4.72 - 7.09 inch

## RH-ST

### Bridge handles

Round cross section, steel

METRIC



Steel bar, chrome-plated surface. Chrome-plated brass washers.

Threaded blind holes.

Assembly centre distances: 1.26 - 1.65 - 2.16 - 2.52 - 2.99 - 3.46 inch

## RH-SS

### Bridge handles

Round cross section, steel

METRIC



Steel bar, ground and chrome-plated surface. Plastic central grip. Chrome-plated brass end supports.

Threaded blind holes.

Assembly centre distances: 2.16 - 3.46 - 3.94 - 4.72 - 7.09 - 7.87 inch

## RH-ET-CLEAN

### Bridge handles

Stainless steel



Threaded blind holes for AISI 304 stainless steel screws and washers.

Standard executions: bridge-shaped or double-curved handle.

Assembly centre distances: 3.94 - 4.72 - 5.51 - 7.87 inch

## RH-S1

### Bridge handles

Rectangular cross section, aluminium

METRIC



Natural or black colour. Threaded blind holes.

A careful machining process ensures the elimination of all sharp edges. Suitable for use on a 19" rack and instruments in general.

Assembly centre distances: 0.98 - 2.16 - 3.46 - 4.72 - 7.09 inch

## RH-UG

### Bridge handles

Rectangular cross section, technopolymer and aluminium



Technopolymer handle shanks and aluminium tube, natural or black colour. Back mounting, zinc-plated steel tapped bosses; front mounting, pass-through holes for stainless steel cylindrical-head screws and zinc-plated self-locking nuts. Suitable for use on a 19" rack and instruments in general. Assembly centre distances: 2.16 - 3.46 - 3.94 - 4.72 - 7.09 inch

## M.943

### Bridge handles

Technopolymer



Brass bosses with threaded blind holes or blind holes for self-tapping screws. Suitable for applications on a 19" rack and instruments in general.

Assembly centre distance: 3.46 - 4.72 inch

## RH-EG

### Bridge handles

Stainless steel

METRIC



Threaded blind holes.

Assembly centre distances: 5.51 - 7.09 inch

## GN 328

### Bridge handles

Aluminium



Natural aluminium or with epoxy resin coating. Back mounting with threaded blind holes or front mounting with pass-through holes for cylindrical-head screws with hexagon socket.

Assembly centre distance: 5.51 inch

## GN 565.2 - GN 565.7

### Inclined handles

Aluminium or stainless steel

METRIC



Aluminium with natural, anodised finish or with epoxy resin coating.

Back mounting with threaded blind holes or front mounting with pass-through holes for cylindrical-head screws with hexagon socket.

Assembly centre distances: 4.41 - 5.04 - 6.30 inch

## GN 426.1 - GN 426.6

### Double-curved cabinet handles

Aluminium or stainless steel



Aluminium bar or tube with epoxy resin coating, black colour or stainless steel. Threaded blind holes Ø 0.79 inch into the bar or aluminium or AISI 303 stainless steel tapped bosses into the tube with Ø ≥ 1.10 inch.

Assembly centre distance: 7.87 - 9.84 - 11.81 - 13.78 - 19.69 inch

## GN 565.9

### Arch-shaped handles

Stainless steel



Threaded blind holes, back mounting.

Assembly centre distances: 6.30 - 7.56 inch

## MFH - GN 224

### Finger handles

Technopolymer



Available in steel (GN 224.1) or stainless steel (GN 224.5). Blind holes for fitting by means of no. 2 self-tapping screws or threaded holes.

Assembly centre distances: 1.18 - 1.57 inch

## MLP

### Side handles

with protection  
Technopolymer



Brass bosses, threaded blind holes for screws M4 or blind holes for fitting by means of 2 self-tapping screws for plastic materials.

Assembly centre distance: 4.72 inch



## ESP.

### Guard safety ledge handles

Technopolymer



ERGOSTYLE®



Technopolymer covers in Ergostyle colours. Pass-through holes for cylindrical head screws with hexagon socket, hexagon head screws, countersunk head screws, or lock nuts. The complete closure of the handle represents a safety feature for the operator's fingers. Assembly centre distance: 3.70 inch

## GN 430 - GN 430.1

### Guard safety ledge handles

Aluminium

METRIC



Mounting with M6 screws. Particularly suitable for applications on revolving and sliding doors or drawers. Available with label holder. Assembly centre distance: 2.60 - 3.39 - 4.17 - 6.14 - 8.11 - 10.08 - 14.01 - 17.95 inch

## RH-LG

### Handles

Regular profile, aluminium

METRIC



Natural or black colour. Threaded blind holes or pass-through holes for M4 countersunk head screws. Assembly centre distances: 1.18 - 1.77 - 2.76 - 3.54 inch

## MFT

### Front handles

Technopolymer



Brass bosses, threaded blind holes for screws M5 or blind holes for fitting by means of 2 self-tapping screws for plastic materials. Assembly centre distance: 2.80 inch

## PR-PF

### Flush pull handles

for snap-in assembly, technopolymer



Compact shape. The internal profile of the cavity offers a safe, comfortable and ergonomic grip. PR-PF-AE-V0 in technopolymer certified self-extinguishing UL-94 V0. Dimensions: 3.62 - 5.39 - 7.44 inch

## EPR.

### Flush pull handles

for snap-in or screw assembly, technopolymer

ERGOSTYLE®



Cover in Ergostyle colours. EPR.: pass-through holes for AISI 304 stainless steel self-tapping screws. EPR-PF: snap-in assembly, grey-black colour or white colour similar to RAL 9002 (EPR-PF-CLEAN) or technopolymer certified self-extinguishing UL-94 V0 (EPR-PF-AE-V0). Dimensions: 3.54 - 4.33 - 4.72 inch

## RH-SG

### Flush pull handles

Technopolymer and aluminium



Natural or black colour. Technopolymer side covers. Back mounting by means of two rubber profiles that ensure a firm and safe assembly; front mounting by means of pass-through holes for M4 countersunk-head screws and a lower rubber profile. Suitable for use with plates having a thickness between 0.039 and 0.098 inch. Dimensions: 3.94x3.54 - 4.64x3.54 - 6.57x3.54 inch

## ERB.

### Bi-directional flush pull handles

for snap-in or screw assembly, technopolymer



ERGOSTYLE®



ERB. assembly by means of 4 zinc-plated steel self-tapping screws. ERB-PF snap-in assembly, technopolymer, grey-black colour or white colour similar to RAL 9002 (ERB-PF-CLEAN) or technopolymer certified self-extinguishing UL-94 V0, grey-black colour (ERB-PF-AE-V0). Dimensions: 4.53 - 5.12 inch

## MPE - MPR

### Folding handles

with return spring, technopolymer



AISI 303 stainless steel pin, AISI 302 stainless steel springs. Mounting with countersunk screws. Dimensions: 5.16 - 5.55 inch

## GN 425.8

### Folding handle with recessed tray

Steel or stainless steel



Die-cast zinc alloy tray with epoxy resin coating, black colour. Mounting with pass-through holes for countersunk head screws. Dimensions: 5.91 - 6.69 inch

## RH-EE

### Folding handle with recessed tray

Stainless steel



Return spring from work to rest position. Pass-through holes for M4 or M5 countersunk-head screws. This handle is generally used on devices where it is requested to save space. Dimensions: 1.97 - 2.95 - 4.72 - 5.20 inch

## GN 425.9

### Folding handles

Stainless steel



Assembly by means of plate with threaded blind holes, pass-through holes for cylindrical-head screws or by means of welding. 90° or 180° opening. With or without retaining spring. Dimension: 4.72 inch

## RH-MK

### Folding handles

Steel or stainless steel



Round cross section bar in steel with ground surface or AISI 303 stainless steel (RH-EK). Stop spring in steel or stainless steel (RH-EK) to keep the handle open or folded back. Zinc-plated or stainless steel (RH-EK) washers and nuts. Assembly centre distances: 3.94 - 4.72 - 7.09 - 9.84 inch

## RH-ER-33

### Tubular and double-curved handles

Stainless steel

METRIC



AISI 304 stainless steel tube, ground surface with a high resistance to strong impacts and scratches. AISI 303 stainless steel tapped bosses for cylindrical-head screws with hexagon socket and washers. Standard executions: double-curved, angular or U-shaped. Assembly centre distances: 11.81 - 13.78 - 19.69 inch

## ETH.

### Tubular handles

Technopolymer and aluminium



ERGOSTYLE®



Aluminium tube with epoxy resin coating, metallflake graphite colour or natural aluminium or white colour; technopolymer handle shanks; technopolymer screw covers in Ergostyle colours. Pass-through holes for cylindrical-head screws with hexagon socket, hexagonal-head screws or lock nuts. Assembly centre distance: 11.81 - 15.75 - 19.68 - 27.56 - 39.37 inch

**M.1043****Tubular handles**

Technopolymer, aluminium, stainless steel

METRIC



Aluminium tube with epoxy resin coating, metallflake graphite colour, anodised aluminium or AISI 304 stainless steel. Technopolymer handle shanks and anti-rotation tube end plugs. Pass-through holes for cylindrical-head screws with hexagon socket. Assembly centre distance: 7.87 - 11.81 - 13.78 - 15.75 - 19.68 - 23.62 - 27.56 inch

**M.1066****Tubular handles**

Technopolymer, aluminium, stainless steel

METRIC



Aluminium tube with epoxy resin coating, metallflake graphite colour, anodised aluminium or AISI 304 stainless steel; technopolymer handle shanks. Back mounting with zinc-plated steel special screws and threaded blind holes. Front mounting with cylindrical-head screws with hexagon socket. Assembly centre distance: 7.87 - 9.84 - 11.81 - 15.75 - 19.68 - 23.62 inch

**GN 333.1****Tubular handles**

Zinc alloy and aluminium

METRIC



Aluminium tube, anodised, natural or with epoxy resin coating. Technopolymer side plugs. Zinc alloy die-cast handle shanks with epoxy resin coating. Threaded blind mounting holes. Assembly centre distance: 7.87 - 11.81 - 15.75 - 19.68 inch

**M.1053****Offset tubular handles**

Technopolymer and aluminium



Pass-through holes for cylindrical-head screws with hexagon socket, hexagonal-head screws or hexagon nuts. Pass-through holes for cylindrical-head screws with hexagon socket, hexagonal-head screws or hexagon nuts. M.1053-P offset tubular handles. Assembly centre distance: 11.81 - 13.78 - 15.75 - 19.68 - 23.62 - 27.56 inch

**GN 333.3****Tubular handles with adjustable assembly centre distance**

Technopolymer and aluminium

METRIC



Aluminium tube, anodised, natural or with epoxy resin coating. Technopolymer side plugs. Zinc alloy die-cast handle shanks with epoxy resin coating. Threaded blind mounting holes. Assembly centre distance: 9.53 - 1.43 - 19.37 - 23.31 inch

**RH-A1****Tubular handles**

Oval cross section, aluminium



Aluminium handle shanks, available inclined or straight; threaded blind holes for M5 screws. Aluminium bar, ground surface. Technopolymer end caps. Suitable for use on a 19" rack and instruments in general. Assembly centre distances: 3.46 - 3.94 - 4.72 - 7.87 inch

**RH-M3****Tubular handles**

Technopolymer and aluminium



Technopolymer handle shanks. Pass-through holes for zinc-plated steel cylindrical-head screws with hexagon socket, nuts and washers. Aluminium bar, natural or black colour. Assembly centre distances: 7.87 - 11.81 - 15.75 inch

**RH-FG16****Tubular handle with built-in safety switch**

Technopolymer



Technopolymer handle shanks and PVC tube. IP 65 protection class. With a button and two leds (red and green) indicating the locked and unlocked state. By pressing the button, the operator requires access to the protected area through external logic (PLC). Assembly centre distance: 7.09 inch

**RH-HS-30****Modular tubular handles**

Aluminium



Aluminium die-cast connecting shanks, connecting joints and end shanks. Epoxy resin coating. Front mounting, threaded holes for zinc-plated and passivate steel M12x80 screws and washers. Aluminium tube, ground surface. Tube lengths: 7.87 - 11.81 - 15.75 - 19.68 - 23.62 - 27.56 inch Curve angles: 45° - 90°

**RH-AR****Handles**

Rectangular cross section, aluminium

METRIC



Aluminium handle shanks and bar. Threaded blind holes. Assembly centre distances: 11.81 - 19.68 inch

**GN 666.4****Bent tubular handles**

Aluminium



Natural aluminium or with epoxy resin coating. Back mounting with threaded blind holes. Assembly centre distances: 15.75 - 19.68 - 23.62 inch

**RH-GM.B****Bent tubular handles**

Aluminium and stainless steel

METRIC



Aluminium handle shanks, epoxy resin coating. Threaded blind holes. AISI 304 stainless steel tube, ground surface. Technopolymer end caps. Assembly centre distances: 19.68 - 23.62 inch

**RH-BG****Bent handles**

Oval cross section, aluminium

METRIC



Aluminium bar, natural or black colour. Threaded blind holes. Assembly centre distances: 15.75 - 23.62 - 31.50 inch

**GN 481****Edge handles**

Zinc alloy and aluminium



Aluminium with epoxy resin coating. Mounting with pass-through holes for countersunk head screws. Dimensions: 3.94 - 11.81 - 19.68 inch

**RH-MA****Handles**

Steel and technopolymer with elastomer

METRIC



Steel return spring. Back mounting, holes for self-tapping screws; front mounting, holes for M4 or M5 countersunk-head screws. Suitable to be assembled on instruments, suitcases and similar applications. Dimensions: 8.00 - 8.78 - 9.37 - 9.49 - 10.55 inch



# 5

## Fixed & revolving handles



For use on rods or action levers, on handwheels and crank handles for rotating or maneuvering operations. The special care in the design and ergonomics enables a secure grip and offers maximum comfort to the operator's hand.

### L.652

#### T-Handles

Technopolymer

INCH  
METRIC



Black, orange, red colour. Natural aluminium or with black colour, epoxy resin coating (L.652M).  
Brass boss, plain or threaded blind hole or zinc-plated steel threaded stud.  
Dimensions: 1.57 - 2.16 - 2.64 - 3.15 - 3.70 inch

### L.652-S

#### Safety T-Handles

Technopolymer, push action

INCH  
METRIC



Technopolymer clamping element, brass boss with threaded blind hole or zinc-plated steel threaded stud.  
In case of accidental shocks, the handle turns freely without affecting the clamping action.  
L.652-X adjustable handles with "pull" action.  
Dimensions: 2.64 - 3.15 inch

### EKK.

#### Knurled grip knobs

Technopolymer

INCH  
METRIC

ERGOSTYLE®



Available in standard colours.  
Brass boss, threaded blind hole or zinc-plated steel threaded stud.  
Diameters: 0.63 - 0.71 - 0.83 - 0.98 - 1.22 - 1.38 inch

### GN 676.5

#### Knobs

Stainless steel

METRIC



Plain or knurled rim, threaded blind hole.  
Diameters: 0.83 - 0.98 - 1.22 inch

### I.150

#### Mushroom knobs

Duroplast

METRIC



Threaded blind hole.  
Diameters: 0.98 - 1.26 inch

### GN 75.5

#### Knobs

Stainless steel

METRIC



Threaded blind hole or threaded pin.  
Diameters: 0.63 - 0.79 - 0.98 - 1.26 - 1.42 inch

### EBK.SOFT

#### Mushroom lobe handles

Soft-touch technopolymer

INCH  
METRIC



ERGOSTYLE®



Brass boss with threaded blind hole or zinc-plated steel threaded stud.  
Also available with technopolymer centre cap in Ergostyle colours or with transparent technopolymer magnifying lens and labels with marks and symbols.  
Diameters: 1.69 - 1.97 inch

### EBS+x

#### Revolving handle

Technopolymer

METRIC

ERGOSTYLE®



Zinc-plated steel shank, hexagon socket at threaded end.  
EBS+X SOFT technopolymer coated with "soft-touch" elastomer: improves the grip even in the presence of oils, greases and sweat from the hand.  
Diameters: 1.77 - 1.90 inch

### IEL.N SOFT

#### Mushroom handles

Soft-touch technopolymer

SOFT



Plain blind hole, press-fit assembly by means of the elastic coupling.  
Also available with transparent technopolymer magnifying lens and labels with marks and symbols (IEL-N-H SOFT).  
Dimension: 1.85 - 2.56 inch

### SH.N

#### Spherical knobs

Duroplast,  
with magnifying lens



Transparent technopolymer magnifying lens for the application of labels with marks and symbols.  
Technopolymer self-locking boss, plain blind hole, press-fit assembly by means of the elastic coupling.  
Diameters: 1.38 - 1.57 - 1.77 inch

### I.622

#### Tapered handles

Technopolymer

INCH  
METRIC



Seven different colours. I.622-CLEAN in white colour similar to RAL 9002. I.222 in Duroplast, black colour.  
Plain or threaded blind hole or technopolymer self-locking boss with plain blind hole, press-fit assembly by means of the elastic coupling. Dimensions: 0.98 - 1.26 - 1.65 - 2.16 - 2.68 - 3.42 inch

### PLX.

#### Spherical knobs

Duroplast

INCH  
METRIC



Threaded blind hole; brass boss with threaded blind hole; slightly cone-shaped plain blind hole, press-fit assembly by means of the elastic coupling.  
Diameters: 0.48 - 0.63 - 0.79 - 0.98 - 1.18 - 1.26 - 1.38 - 1.57 - 1.77 - 1.97 inch

## PLM

### Spherical knobs

Steel or stainless steel

METRIC



Plain or threaded blind hole.  
Diameters: 0.63 - 0.79 - 0.98 - 1.26 - 1.57 - 1.97 inch



## EGH.SOFT

### Cylindrical lobe handle

Soft-touch technopolymer

METRIC



ERGOSTYLE®

Plain blind hole, press-fit assembly by means of the elastic coupling.  
Dimension: 3.35 inch



## I.280

### Cylindrical handles

Duroplast

INCH

METRIC

Threaded blind hole; zinc-plated steel threaded stud.  
I.580 in technopolymer; blind hole for press-fit assembly by means of the elastic coupling.  
Dimensions: 1.10 - 1.57 - 1.97 - 2.56 - 3.15 - 3.54 - 4.02 - 4.53 inch



## I.680 SOFT

### Cylindrical handles

Soft-touch technopolymer

METRIC



These handles improve the grip even in the presence of oils, greases and sweat from the hand.  
Threaded blind hole.  
Dimensions: 2.56 - 3.15 - 3.54 inch



## I.780

### Cylindrical handles

Technopolymer

METRIC



Threaded blind hole.  
Dimensions: 2.56 - 3.15 - 3.54 inch



## IF - IFF

### Cylindrical handles

with protection, technopolymer

METRIC

Brass boss with threaded blind hole or zinc-plated steel threaded stud.  
Dimension: 4.41 inch



## BL.366 - BL.368

### Lever arms

Steel and Duroplast

METRIC

BL.366 - BL.368 matte chrome-plated steel arm.  
BL.666 - BL.668 zinc-plated steel arm.  
Handles in Duroplast or technopolymer, black colour.  
Dimensions: from 2.24 to 8.00 inch



## DIN 39

### Shaped handles

Steel or AISI 316L

stainless steel

METRIC



Threaded pin.  
Dimensions: 0.63 - 0.79 - 0.98 - 1.26 - 1.42 inch



## I.301+x

### Revolving handles

Duroplast

METRIC



Zinc-plated steel or 303 stainless steel shank, hexagon socket at threaded end.  
Dimensions: 1.10 - 1.57 - 1.97 - 2.56 - 3.15 - 3.54 - 4.02 - 4.57 inch



## I.601+x

### Revolving handles

Technopolymer

METRIC



Zinc-plated steel or 303 stainless steel shank, hexagon socket at threaded end.  
Dimensions: 1.57 - 1.97 - 2.56 - 3.15 - 3.54 inch



## I.621+x

### Revolving handles

Technopolymer

METRIC



Zinc-plated steel or 303 stainless steel shank, hexagon socket at threaded end.  
Dimensions: 1.38 - 1.77 - 60 - 2.56 - 73 - 3.15 - 3.54 - 3.98 inch



## I.731+x

### Revolving handles

Technopolymer

METRIC

Zinc-plated steel shank, hexagon socket at threaded end.  
Dimensions: 0.79 - 0.91 inch



## I.644

### Revolving handle

Technopolymer with antimicrobial protection

METRIC



Zinc-plated steel shank, hexagon socket at threaded end.  
This handle prevents any deposit of bacteria, mildew and fungi, offering a sanitised effect on the surface.  
Dimension: 3.54 inch



## GN 798

### Revolving handles

Aluminium

METRIC



Zinc-plated steel shank, hexagon socket at threaded end.  
This handle prevents any deposit of bacteria, mildew and fungi, offering a sanitised effect on the surface.  
Dimensions: 1.65 - 2.20 - 2.32 - 2.91 - 3.31 inch



## IRS.820

### Two volume safety fold-away handles

Technopolymer

Black-oxide or AISI 303 stainless steel shank, technopolymer base. The special return mechanism "Fold-O-matic" automatically folds the handle into the retracted position.  
Dimensions: 2.20 - 2.56 - 3.15 - 3.54 inch





# 6

## Control elements



For use on precision instruments or to perform adjustment operations.  
Available with or without flange, with indexes or graduations.

### IZP. Knurled control knobs Technopolymer

METRIC



Plain base, triangular index or precision graduation, laser-engraved.  
Anodised aluminium self-adhesive front plate.  
Plain blind hole, assembly by means of a stainless steel transversal grub screw.  
Diameters: 1.06 - 1.26 - 1.38 - 1.57 inch

### IZN.380 Knurled control knobs Technopolymer

INCH  
METRIC



Technopolymer boss cap; matte anodised aluminium flange, triangular index or precision graduation, black colour, laser-engraved. Black-oxide steel boss, H7 reamed hole. Assembly by means of keyway or transversal elastic pin or grub screw. Diameters: 1.26 - 1.46 - 1.65 - 1.90 - 2.05 - 2.28 - 2.48 - 3.15 inch

### GN 727 Knurled control knobs with adjustable spindle, aluminium

METRIC



Chrome-plated steel base; knurled or perpendicular anodised aluminium profile knob; technopolymer cap. Holes for assembly screws parallel or perpendicular to the spindle axis. Numbering with 10 or 15 marks on the chrome-plated base and 50 marks on the knob.  
Diameters: 1.06 - 1.34 inch

### GN 723.4 Knurled control knobs Aluminium

METRIC



Anodised aluminium with plain flange, triangular index or precision graduation, laser-engraved. H8 reamed hole. Assembly by means of a stainless steel transversal grub screw with hexagon socket. GN 723.4 flanges are available to optimise use of GN 723.4 knurled knobs.  
Diameters: 1.06 - 1.34 - 1.65 inch

### GN 726 - GN 726.1 Knurled control knobs Aluminium

METRIC



With or without plain base, triangular index or precision graduation; technopolymer cap, plain surface or with black index.  
H8 reamed hole. Assembly by means of a stainless steel transversal grub screw with hexagon socket.  
Diameters: 0.87 - 1.06 - 1.34 - 1.65 inch

### MBR Diamond cut knurled control knobs with revolving handle, technopolymer

METRIC



Plain, triangular index or precision graduation, laser-engraved. Technopolymer closing cap in standard colours. Brass boss, plain blind hole. Assembly by means of a black-oxide steel transversal grub screw with hexagon socket.  
Diameters: 1.18 - 1.57 - 1.97 inch

### GN 700 Locking and continuous control indexing mechanism Aluminium and steel

METRIC



Knurled knob and ring. Black-oxide steel base; ground and hardened steel locking mechanism. Steel boss, H7 reamed hole and keyway; assembly to the spindle by means of keyway or transversal pin. Suitable for adjusting control machine spindles in clockwise and anti-clockwise rotation and to keep the spindle in the preferred position. Diameter: 2.60 inch

### GN 200 Indexing mechanism with stop and positioning device Steel or stainless steel

METRIC



With or without zinc-plated steel lever arm and Duroplast handle. Boss, H7 reamed hole and keyway; assembly to the spindle by means of keyway or transversal pin. The internal mechanism allows small rotational movements (6° or multiples) and the positioning of machine parts.  
Diameters: 1.73 - 2.05 inch

### MBT+I Diamond cut knurled control knobs with revolving handle, technopolymer

METRIC



Cap available in six different colours.  
Brass boss, plain blind hole, assembly by means of a transversal grub screw.  
Diameters: 1.57 - 1.97 - 2.36 - 2.76 - 3.35 - 3.94 inch

### EGK.SOFT Grip knobs arranged for clicking operation

METRIC

ERGOSTYLE®



"Soft-touch" technopolymer.  
Technopolymer closing cap in the Ergostyle colours.  
Black-oxide steel boss, H7 reamed hole.  
Assembly by means of a keyway, a transversal pin or a set screw.  
Diameters: 1.97 - 2.48 inch

### LBR. Control levers arranged for clicking operation, technopolymer

METRIC



Technopolymer lever body; chromed-plated steel lever arm, Duroplast cylindrical handle; anodised aluminium self-adhesive front plate.  
Plain hole with flat face or black-oxide steel boss, H7 reamed hole.  
Dimensions: 3.19 - 4.25 - 5.00 - 6.69 inch

### ELC. Control levers arranged for clicking operation, technopolymer

METRIC



ERGOSTYLE®



Technopolymer boss cap in the Ergostyle colours.  
Black-oxide or stainless steel boss, H7 reamed hole.  
Dimensions: 2.64 - 3.35 - 4.33 - 5.51 inch





## Position indicators



To provide in a numerical measurement the position reached in the regulation of a wide range of variables such as strokes, flows, capacities and for the setting of speed variators, with reading accuracy and reliability.

### GA01 - GA02 - GA05

**Position indicators**  
Gravity drive

### PA01 - PA02 - PA05

**Position indicators**  
Positive drive



Zinc-plated steel case; AISI 303 stainless steel bezel; glass window; anodised natural aluminium dial; clockwise or anti-clockwise graduation. Wide range of available ratios.

### GA11 - GA12

**Position indicators**  
Gravity drive

### PA11 - PA12

**Position indicators**  
Positive drive



Technopolymer case and bezel; transparent technopolymer window ultrasonically welded to the case (IP67 for GA or IP65 for PA protection class, according to EN 60529); anodised aluminium dial; clockwise or anti-clockwise graduation. Wide range of available ratios.

### MBT-GA

**Knobs with integral indicator**  
Gravity drive

METRIC



Technopolymer knob and bezel; transparent technopolymer window ultrasonically welded to the case (IP67 protection class, according to EN 60529); anodised aluminium dial; clockwise or anti-clockwise graduation. Black-oxide steel boss, H7 reamed blind hole. Wide range of available ratios.

### GW12

**Digital-analogue position indicators**  
Gravity drive

### PW12

**Digital-analogue position indicators**  
Positive drive



Technopolymer case and bezel; transparent technopolymer window ultrasonically welded to the case (IP67 for GW or IP65 for PW protection class, according to EN 60529); anodised aluminium dial. Five-digits roller counter. Wide range of available readings.

### MBT-GW

**Knobs with digital-analogue position indicator**  
Gravity drive

METRIC



Technopolymer knob and bezel; transparent technopolymer window ultrasonically welded to the case (IP67 protection class, according to EN 60529); anodised aluminium dial. Black-oxide steel boss, H7 reamed blind hole. Wide range of available readings.

### Lobe knobs

**for position indicators**  
Technopolymer or aluminium

METRIC

INOX  
STAINLESS  
STEEL



Black-oxide or AISI 303 stainless steel boss, H7 reamed hole. Diameters: 2.36 - 2.76 - 3.15 - 3.35 - 3.94 - 4.33 - 4.72 - 6.30 - 7.87 - 9.84 inch

### DD50 - DD51 - DD52R

**Digital position indicators**  
direct drive

INCH  
METRIC

INOX  
STAINLESS  
STEEL



Technopolymer case and base; transparent window; 3, 4 or 5 digit roller counter. Black-oxide or AISI 303 stainless steel boss fitted to the shaft with a grub screw. Orange, grey or anthracite colour. DD50 - boss Ø 0.375 or 10H7, DD51 - boss Ø 0.500 or 14H7, DD52R - boss Ø 0.75 or 20H7. Wide range of available readings.

### DD51-E - DD52R-E

**Electronic position indicators**  
direct drive, 5 or 6-digit display, technopolymer

INCH METRIC

INOX  
STAINLESS  
STEEL



Orange or grey colour. LCD display with values visualization in units of measure (mm, inches or degrees). Absolute or incremental mode, reading orientation. The visualization parameters can be set by the operator. Protection class IP67 according to EN 60529. DD51-E - boss Ø 0.500 or 14H7, DD52R-E - boss Ø 0.75 or 20H7.

### MPI-R10

**Magnetic measuring system**  
Length and angle modes

Length and angle modes



Multifunction LCD with 4 function keys. Values displayed in millimeters, inches or angular degrees. Absolute / incremental mode. Storage and display of 32 target positions. Battery power. Extremely easy assembly, it allows precise alignment and positioning, reducing time and machining procedures to the minimum.

### DD52R-E-RF

**Electronic position indicators**  
Data transmission by radio frequency

INCH METRIC

INOX  
STAINLESS  
STEEL



Orange or grey colour. LCD display with values visualization in units of measure (mm, inches or degrees). Absolute or incremental mode, reading orientation. The visualization parameters can be set by the operator. Protection class IP65 or IP67 according to EN 60529. AISI 304 stainless steel boss with hole Ø 0.75 or 20H7.

### UC-RF

**Control unit for DD52R-E-RF**  
PLC connection, data transmission via radio frequency

INOX  
STAINLESS  
STEEL



Control unit with Ethernet/IP serial interface, Profinet IO or Modbus TCP. UC-RF control unit can manage up to 36 position indicators DD52R-E-RF.

### Wireless spindle positioning system

The wireless system, consisting of UC-RF control unit and up to 36 electronic position indicators DD52R-E-RF, is designed for an efficient manual spindle positioning. DD52R-E-RF position indicators (Elesa Patent) are networked to UC-RF control unit via radio frequency (RF), so that connecting cables are not required for an easy and quick installation. Current and target positions are transmitted via RF, from and to the control unit, facilitating machine set-up.



8

## Indexing and positioning elements



Standard elements to make repetitive operations easier in positioning parts on machinery and equipment. High quality and variety of production materials (black-oxide steel, zinc-plated steel, stainless steel and SUPER-technopolymer). Wide range of shapes, sizes and executions.

### PMT.100 - PMT.101

#### Indexing plungers

SUPER-technopolymer body

INCH  
METRIC



With or without rest position.  
Black-oxide hardened steel or AISI 303 stainless steel plunger.  
Technopolymer knob, black or red colour.  
Plunger Ø: 0.20 - 0.24 - 0.31 - 0.39 inch

### GN 617 - GN 617.1

#### Indexing plungers

Steel or stainless steel

INCH  
METRIC



With or without rest position. Black-oxide steel plunger with hardened or nickel-plated AISI 303 stainless steel end. With or without technopolymer or AISI 303 stainless steel knob. Standard executions: with or without knob and locking nut.  
Plunger Ø: 0.20 - 0.24 - 0.31 - 0.39 inch

### PMT.110

#### Indexing plungers

SUPER-technopolymer body

METRIC



Black-oxide hardened steel or AISI 303 stainless steel plunger.  
Technopolymer knob.  
Standard executions: with or without locking nut.  
Plunger Ø: 0.31 - 0.39 inch

### GN 514

#### Indexing plungers with locking device

Steel

METRIC



Nitrided steel plunger.  
Technopolymer control button (PUSH-PUSH locking device).  
Standard executions: with or without locking nut.  
Plunger Ø: 0.24 - 0.31 inch

### GN 414 - GN 414.1

#### Indexing plungers

with safety device, steel or stainless steel

METRIC



Black-oxide hardened steel or AISI 303 stainless steel plunger.  
Technopolymer knob with red push button for the plunger lock/unlock.  
Standard executions: with or without locking nut.  
Plunger Ø: 0.24 - 0.31 - 0.39 inch

### GN 7336.8

#### Indexing plungers with safety clamping knob

Steel

METRIC



Nitrided and black-oxide steel plunger.  
Technopolymer knob and closing cover, grey colour.  
These plungers are suitable when it is necessary to position, lock and make secure machine elements simultaneously.  
Plunger Ø: 0.24 - 0.31 inch

### GN 717 - GN 717-C

#### Indexing plungers

Steel or stainless steel

INCH  
METRIC



With or without rest position.  
AISI 303 stainless steel plunger.  
Technopolymer knob or stainless steel ring.  
Standard executions: with or without locking nut.  
Plunger Ø: 0.12 - 0.16 - 0.20 - 0.24 - 0.31 inch

### GN 413

#### Indexing plungers

Steel or stainless steel

METRIC



With or without rest position.  
AISI 303 stainless steel plunger.  
AISI 301 stainless steel ring.  
Standard executions: with or without locking nut.  
Plunger Ø: 0.20 - 0.24 - 0.31 - 0.39 inch

### GN 607 - GN 607.1

#### Indexing plungers

Steel or stainless steel

METRIC



Black-oxide steel plunger with hardened or nickel-plated AISI 303 stainless steel end; black-oxide steel or stainless steel locking nut. Technopolymer knob.  
Standard executions: with or without locking nut.  
Plunger Ø: 0.24 - 0.31 inch

### GN 822

#### Mini indexing plungers

Steel or stainless steel

METRIC



With or without rest position.  
Technopolymer knob.  
Suitable for assembly on thin sheets thanks to their very small dimensions.  
Plunger Ø: 0.16 - 0.20 - 0.24 - 0.28 inch

### GN 822.7

#### Mini indexing plungers

Stainless steel

METRIC



With or without rest position.  
Technopolymer knob.  
Suitable for assembly on thin sheets thanks to their very small dimensions.  
Plunger Ø: 0.16 - 0.20 - 0.24 - 0.28 - 0.31 - 0.39 inch

### GN 608

#### Indexing plungers with flange

Zinc-alloy



Two mounting holes; black-oxide steel plunger with hardened end. Technopolymer knob.  
Also available with rest position (GN 608.1).  
Suitable for assembly on thin sheets thanks to their very small dimensions.  
Plunger Ø: 0.24 - 0.31 inch

### GN 817.3

#### Indexing plungers with flange, steel

METRIC



Two mounting holes; ground black-oxide steel plunger with hardened end. Technopolymer knob.  
Also available with rest position (GN 817.3-C).  
Suitable for highly precise positioning.  
Plunger Ø: 0.31 - 0.39 inch

### GN 612

#### Lever indexing plungers Steel or stainless steel

METRIC



Rest position. Turned and nitrided steel or turned and nickel-plated AISI 303 stainless steel plunger.  
Black-oxide steel or stainless steel lever with or without technopolymer cover. Black-oxide steel or stainless steel locking nut. Standard executions: with or without locking nut. Plunger Ø: 0.16 - 0.20 - 0.24 - 0.31 - 0.39 inch

### PMT.200

#### Lever indexing plungers SUPER-technopolymer body

INCH

METRIC



Rest position. Black-oxide hardened steel or AISI 303 stainless steel plunger.  
Self-lubricating technopolymer lever.  
Standard executions: with or without locking nut.  
Plunger Ø: 0.24 - 0.31 inch

### GN 417

#### Indexing plungers Zinc-alloy



AISI 303 stainless steel plunger.  
Stainless steel ring.  
GN 417-C with rest position and technopolymer knob.  
Plunger Ø: 0.16 - 0.20 - 0.24 - 0.31 - 0.39 inch

### GN 113.6

#### Ball lock pins Stainless steel



Stainless steel balls; technopolymer knob, red or black colour with holes for retaining ring.  
By pressing the push button the two balls are freed and the pin can be pulled-out or inserted.  
Pin Ø: 0.20 - 0.24 - 0.31 - 0.39 - 0.47 - 0.63 inch

### GN 114.2

#### Lock pins Steel



AISI 304 stainless steel pawls; technopolymer knob, with holes for retaining ring; technopolymer push button, red colour.  
By pressing the push button the two pawls are freed and the pin can be pulled-out or inserted.  
Pin Ø: 0.24 - 0.31 - 0.39 - 12 inch

### GN 214.2 - GN 214.3

#### Lock pins

Steel or stainless steel



AISI 304 stainless steel pawls.  
AISI 301 stainless steel ring.  
Technopolymer push button, red colour.  
By pressing the push button the two pawls are freed and the pin can be pulled-out or inserted.  
Pin Ø: 0.24 - 0.31 - 0.39 - 0.47 - 0.63 inch

### GN 111

#### Ball chains

Brass and stainless steel



Mainly used together with the different types of lock pins.  
The ball chain feature is flexibility.

### GN 513

#### Threaded spring elements

Steel

METRIC



Black-oxide and case-hardened steel end.  
Standard executions: semispherical or prismatic end, with plunger or female thread.  
Threadings: M12x1.5 - M16x1.5 - M20x1.5

### GN 615

#### Ball spring plungers

Steel or stainless steel

METRIC



Hardened steel or hardened stainless steel ball.  
Threadings: M3 - M4 - M5 - M6 - M8 - M10 - M12 - M16 - M20 - M24

### GN 615.2

#### Ball spring plungers

Technopolymer

METRIC



Hardened stainless steel or technopolymer ball.  
Threadings: M6 - M8 - M10

### GN 615.7

#### Threaded ball spring plungers

with switch, steel

METRIC



Standard executions with normally closed or open contacts.  
Threadings: M6 - M8 - M10

### GN 614

#### Ball spring plungers

Technopolymer or stainless steel



Hardened stainless steel or technopolymer ball.  
Diameters: 0.12 - 0.16 - 0.20 - 0.24 - 0.31 - 0.39 - 0.47 inch

### GN 614.5

#### Ball spring plungers

Smooth body, technopolymer



Hardened stainless steel or technopolymer ball.  
Diameters: 0.16 - 0.20 - 0.24 - 0.31 - 0.39 inch

### GN 715

#### Side thrust spring pins

Aluminium and steel



Zinc-plated hardened steel oscillating pin.  
Practical and versatile elements for positioning and mounting items to be processed.  
Pin Ø: 0.12 - 0.20 - 0.24 - 0.31 - 0.39 inch



# 9

## Machine elements



A wide range of standard elements for applications on industrial equipment and machines. Quality materials and high precision in production offer high reliability.

### GN 6311.1

**Thrust pads with elastic ring**  
Steel



With or without technopolymer protection. Elastic ring: steel spring wire. These thrust pads are used to transmit clamping forces by means of black-oxide steel DIN 6332 grub screws, hexagon socket head and hardened nose. Grub screw/thrust pad coupling by means of a retaining ring. Diameters: 0.63 - 0.79 - 0.98 - 1.26 inch

### GN 632.1 - GN 632.5

**Grub screws**  
spherical end,  
steel or stainless steel

METRIC



Hexagon socket head. These grub screws can be used to realise different locking systems. Levers, knobs or handles can be fitted to the threaded end by means of pins. Threadings: M6 - M8 - M10 - M12

### GN 346

**Thrust pads**  
ball joint and threaded hole,  
steel

METRIC



These thrust pads are used to transmit clamping forces. They can be adapted on irregular or non-parallel surfaces and allow locking without transmitting the rotation to the surface to be locked. Diameters: 0.63 - 0.79 - 0.94 - 1.18 inch

### BJT.

**Rod ends**  
Technopolymer



BJT. rod ends are remarkably suitable for rotary, oscillating and linear movements even in particularly aggressive environments and when water or humidity, fine dusts, dirt, fabrics and machining residues are present. Diameters: 0.24 - 0.31 - 0.39 - 0.47 - 0.55 inch

### DIN 444 - DIN 444-NI

**Eye screws**  
Steel or stainless steel

METRIC



These screws are used mainly for coupling up moulds, connections, equipment, etc. Threadings: M5 - M6 - M8 - M10 - M12 - M16 - M20

### DIN 6319 - DIN 6319-NI

**Concave and convex washers**  
Steel, AISI 303 or  
AISI 316 stainless steel

METRIC



These washers are used mainly for locking mechanical parts on non-parallel surfaces. External diameters: 0.47 - 1.7 - 2.1 - 0.94 - 1.10 - 1.81 - 1.42 - 1.73 - 2.20 - 2.68 - 3.07 - 3.62 inch

### GN 184 - GN 184.5

**Washers for screws**  
Steel or AISI 316 LHC  
stainless steel

METRIC



These washers are used on shafts to fit handwheels with an axial keyway. Diameters: 0.63 - 0.79 - 0.87 - 0.98 - 1.10 - 1.26 - 1.42 - 1.57 - 1.77 - 2.05 inch

### GN 350.3

**Levelling washers**  
single body, steel  
or stainless steel



The washers are suitable for locking mechanical parts on non-parallel surfaces. The coupling of the spherical surfaces of the two washers allows a very high load resistance. Diameters: 0.33 - 0.51 - 0.79 - 1.14 - 1.42 - 1.73 - 2.28 inch

### GN 6322

**Machine and positioning elements**  
Steel



GN 6322 elements are generally used for positioning and fixing of workpieces. The spherical shape of the head (GN 6322-B) allows an optimal positioning in the holes facilitating their insertion. The flat design (GN 6322-C) helps to compensate for tolerances in the spacing of two holes. Diameters: 0.39 - 0.47 - 0.63 - 0.79 - 0.87 - 0.98 inch

### GN 709.3

**Locking elements with adjustable threaded pin**  
Steel or stainless steel



Clamping elements are used as mobile supports or for clamping workpieces. Diameters: 0.51 - 0.79 - 1.18 - 1.97 inch

### DIN 508

**T-Nuts**  
Steel or stainless steel

METRIC



Groove width DIN 650: 0.20 - 0.24 - 0.31 - 0.39 - 0.47 - 0.55 - 0.63 - 0.71 - 0.79 - 0.87 - 0.94 - 1.10 inch

### GN 506

**T-Nuts**  
with guide and  
no-slip device, steel

METRIC



Zinc-plated steel, stainless steel ball and spring. The device provided with a ball and spring, located inside the dowel, allows it to slide in aluminium sections avoiding accidental vertical slipping. Groove width: 0.20 - 0.24 - 0.31 inch

## GN 505.4 - GN 505.5

### T-Nuts

quick-insert, steel  
or stainless steel

METRIC



These T-Nuts are suitable for quick insert in aluminium sections. A simple rotation clockwise by 90° assures the anchoring.

Groove width: 0.31 to 0.39 inch

## GN 918 - GN 918.5-NI

### Cam locking levers

Steel or stainless steel



Duroplast handle. Nitrided and black-oxide steel or hardened and nickel-plated steel screw. Eccentric or helical with "pull" or "push" cam, in case-hardened and black-oxide steel or nickel-plated AISI 303 stainless steel (GN 918.5). The system is self-locking at any angular positioning. Cam diameter: 1.97 inch

## RDB

### Toothed clamping elements

SUPER-technopolymer



The toothed elements are used to secure coupled parts at a given angle.

With or without built-in case. ML-RDB: AISI 301 stainless steel push springs facilitating the detachment of the clamping elements.

Diameters: 1.26 to 1.57 inch

## GN 187.4 - GN 187.4-NI

### Toothed clamping elements

Steel or AISI 316 LHC  
stainless steel

METRIC



The toothed elements are used to secure coupled parts at a given angle.

Designed to be combined with GN 187.1 cases and GN 187.2 push spring.

Diameters: 0.87 - 1.06 - 1.26 - 1.57 inch

## CMC

### Torque amplifier collar

Technopolymer



CMC torque amplifier collars double the clamping force applied at equal torque due to the presence of a bearing acting to reduce friction.

Stainless steel axial bearing, zinc-plated or stainless steel washers.

Internal diameters: 0.39 - 0.47 inch

## ANPS

### Dismountable split set collars

Clamping assembly, technopolymer

METRIC



Cylindrical head screws with hexagon socket and AISI 316 stainless steel nuts.

Suitable for assembly on idle shafts as end stops, for fixing end limit switches, pulleys, supporting pins or other components.

Internal diameters: from 0.47 to 1.57 inch

## GN 707.2

### Dismountable split set collars

clamping assembly, steel,  
stainless steel or aluminium

METRIC



Phosphatised black-oxide steel or AISI 304 stainless steel grub screws; cylindrical head with hexagon socket.

These split set collars can be used not only as end stops, but also for fixing other components, such as end limit switches.

Internal diameters: from 0.24 to 1.57 inch

## DIN 580

### Lifting eyebolts

AISI 304 stainless steel  
or AISI 316

METRIC



Threadings: M8 - M10 - M12 - M16 - M20 - M24

## GN 1130

### Lifting lock pins

Steel or stainless steel



Stainless steel balls and spring.

Diameters: 0.31 - 0.39 - 0.47 - 0.63 - 0.79 inch

## DIN 172 - DIN 179

### Guide bushings

Steel

METRIC



Diameters: from 0.08 to 1.18 inch

## ZCL - ZCR

### Spur Gears and racks

Technopolymer, pressure  
angle 20°



Gears with solid hub or plain pass-through hole.

Modules 0.5, 1.0, 1.5, 2.0, 2.5, 3.0.

Square section racks with or without steel core, T-shaped

or with mounting bracket.

Modules 0.5, 1.0, 1.5, 2.0, 2.5, 3.0, 4.0.

## ELEROLL roller tracks

Technopolymer  
and polyurethane



They can be used to create sliding benches, suitable for several applications: feeding and discharging benches, in construction machinery, storage and picking systems, packaging machinery. Technopolymer roller elements with high load capacity. Antitrace thermoplastic polyurethane roller elements. Ball elements for the omnidirectional handling.

## BEL-PM

### Bull's eye levels

for mounting in  
suitable housings

METRIC



Anodised aluminium body, natural or black colour. With smooth reference surface or threaded pin. They are used to control the horizontal positioning of machines, devices, equipment and instruments.

## BEL-MF

### Bull's eye levels

with mounting flange



Anodised aluminium body, natural or black colour. Front or rear mounting flange.

They are used to control the horizontal positioning of machines, devices, equipment and instruments.

## BEL-MS

### Monodirectional

screw-on levels  
for screw mounting



Brass body with epoxy resin coating, grey or black colour. Execution with top view, top and side view, top and both side view.

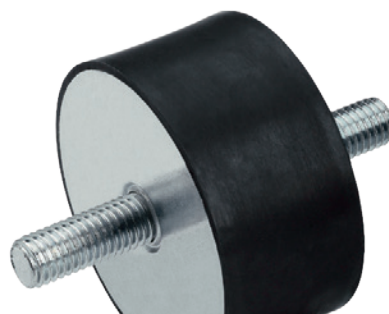
They are used to control the horizontal positioning of machines, devices, equipment and instruments.





# 10

## Vibration damping elements



A large selection of vibration damping elements made of a base plate in zinc-plated steel or stainless steel AISI 304, designed to dampen vibrations that can cause poor functionality, impact, or noise generated by moving parts or vibrations.

### DVA.1 - DVA.2 - DVA.3

**Vibration damping elements**  
Rubber and steel or  
AISI 304 stainless steel

INCH METRIC



Threaded studs or bosses with threaded blind hole in different combinations.  
Natural rubber NR vibration-damping body, hardness 40, 55, 70  $\pm 5$  Shore A.  
Diameters: 0.31 - 0.39 - 0.59 - 0.79 - 0.98 - 1.18 - 1.57 - 1.97 - 2.36 - 2.76 - 2.95 - 3.94 - 4.92 inch

### DVA.4 - DVA.5

**Vibration damping elements**  
Rubber and steel or  
AISI 304 stainless steel

INCH METRIC



Threaded studs or bosses with threaded blind hole in different combinations.  
Natural rubber NR vibration-damping body, hardness 40, 55, 70  $\pm 5$  Shore A.  
Diameters: 0.31 - 0.39 - 0.59 - 0.79 - 0.98 - 1.18 - 1.57 - 1.97 - 2.36 - 2.76 - 2.95 - 3.94 - 4.92 inch

### DVA.6 - DVA.7

**Vibration damping elements**  
Rubber and steel or  
AISI 304 stainless steel

INCH METRIC



Threaded studs or bosses with threaded blind hole in different combinations.  
Natural rubber NR vibration-damping body, hardness 40, 55, 70  $\pm 5$  Shore A.  
Diameters: 0.39 - 0.79 - 0.98 - 1.18 - 1.37 - 1.97 - 2.76 - 2.95 inch

### DVB.6 - DVB.7

**Vibration damping elements**  
Rubber and steel or  
AISI 304 stainless steel

METRIC



Threaded studs or bosses with threaded blind hole.  
Natural rubber NR vibration-damping body, hardness 40, 55, 70  $\pm 5$  Shore A.  
Diameters: 0.79 - 0.98 - 1.18 - 1.57 - 1.77 - 1.97 - 2.36 inch

### DVF.6 - DVF.7

**Vibration damping elements**  
Silicone rubber and  
AISI 304 stainless steel

METRIC



Threaded studs or bosses with threaded blind hole.  
Silicone rubber (MVQ) vibration-damping body RAL 7040 grey colour, hardness 55 $\pm 5$  Shore A.  
Diameters: 1.26 - 1.50 - 1.69 - 1.97 - 2.36 inch

### DVC.1 - DVC.2 - DVC.3

**Vibration damping elements**  
Rubber and steel or  
AISI 304 stainless steel

METRIC



Threaded studs or bosses with threaded blind hole in different combinations.  
Natural rubber NR vibration-damping body, hardness 40, 55, 70  $\pm 5$  Shore A.  
Diameters: 0.39 - 0.59 - 0.79 - 0.98 - 1.18 - 1.37 - 1.57 - 1.97 - 2.36 - 2.76 - 2.95 - 3.74 inch

### LM.SV

**Vibration-damping levelling elements**

Steel base and stem

METRIC



Ball joint with threaded hole or stem.  
PUR elastomer damping element, glued into the base housing. Zinc-plated steel nut.  
Bases  $\varnothing$ : 1.26 - 1.57 - 1.97 - 2.36 inch  
Threadings: M10 - M12 - M16

### LW.A

**Vibration-damping levelling elements**

Steel base and stem

METRIC



NR rubber damping element.  
Vibration-damping levelling elements have been designed to damp vibrations, shocks and noises produced by moving bodies or non-balanced vibrating masses of equipment and machines. Bases  $\varnothing$ : 3.15 - 4.72 - 6.30 - 7.87 inch. Threadings: M12 - M16 - M20

### DVE

**Vibration damping elements**

Rubber and steel or rubber  
and AISI 304 stainless steel

METRIC



Oval or square mounting flange.  
Boss with threaded blind hole.  
Natural rubber NR vibration-damping body, hardness 40, 60  $\pm 5$  Shore A.  
Diameters: 0.71 - 1.30 - 1.77 - 2.09 - 2.28 inch

### DVG

**Vibration damping elements**

for wall or ceiling mounting,  
rubber and steel

METRIC



Mounting flange and steel boss with threaded hole.  
Natural rubber NR vibration-damping body, hardness 40, 60  $\pm 5$  Shore A.  
Dimension: 2.95 inch

### DVI

**Vibration damping elements**

for wall mounting, rubber and steel

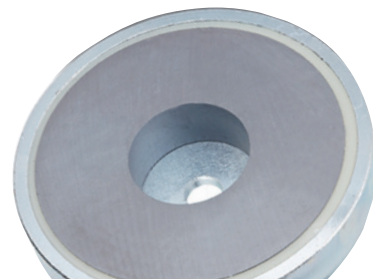
METRIC



Mounting flange and steel boss with threaded hole.  
Natural rubber NR vibration-damping body, hardness 40, 60  $\pm 5$  Shore A.  
Dimension: 2.95 inch

# 11

## Industrial magnets



A wide range of industrial magnets for use in positioning and clamping applications.

### RMA - RMB

**Flat retaining magnets**  
with or without threaded pin

METRIC



Zinc-plated steel housing.  
Magnet in hard ferrite, (SmCo) samarium cobalt, (NdFeB) neodymium-iron-boron, shielded with high performances.  
Ø D = 0.24 to 4.91 inch L = 0.18 to 1.02 inch

### RMC - RMD

**Flat retaining magnets**  
with threaded hole insert, hook-shaped or eyelet-shaped

METRIC



Zinc-plated steel or stainless steel housing.  
Magnet in hard ferrite, (SmCo) samarium cobalt, (NdFeB) neodymium-iron-boron, shielded with high performances.  
Ø D = 0.24 to 4.91 inch L = 0.18 to 1.02 inch

### RMF - RMH

**Flat retaining magnets**  
female or male thread

METRIC



Zinc-plated steel threaded insert.  
Magnet in (NdFeB) neodymium-iron-boron, shielded with high performances.  
The elastomer surface increases the friction coefficient. These magnets are suitable for use on sensitive surfaces.  
Ø D = 0.47 to 3.46 inch L = 0.24 to 0.33 inch

### RMG - RMI

**Flat retaining magnets**  
threaded or plain pass-through hole

METRIC



Zinc-plated steel threaded insert.  
Magnet in (NdFeB) neodymium-iron-boron, shielded with high performances.  
The elastomer surface increases the friction coefficient. These magnets are suitable for use on sensitive surfaces.  
Ø D = 0.87 to 3.46 inch L = 0.24 to 0.33 inch

### RMH-P

**Flat retaining magnets**  
knob or ring



Nickel-plated steel threaded insert.  
Magnet in (NdFeB) neodymium-iron-boron, shielded with high performances.  
The elastomer surface increases the friction coefficient. These magnets are suitable for use on sensitive surfaces.  
Ø D = 0.87 to 1.69 inch

### RMT-DP

**Flat retaining magnets**  
with housing made out of coloured translucent technopolymer



(NdFeB) Neodymium-iron-boron magnet. The particular shape of the housing allows its easy removal from metal surfaces.  
They can be used on both sides to block components such as pens, scissors, keys or the like.  
Ø D = 0.98 inch

### RMD-US - RMA-US - RMX-US

**Unshielded flat retaining magnets**  
with or without pass-through hole



(SmCo) Samarium cobalt, (NdFeB) neodymium-iron-boron magnet, working temperatures from +176°F to +392°F.  
Dimensions: 0.16 to 2.20 inch

### RMN - RMO

**Cylindric retaining magnets**  
with plain hole, smooth or threaded pin

METRIC



Zinc-plated steel housing.  
(AlNiCo) Aluminium-nickel-cobalt magnet or (NdFeB) neodymium-iron-boron magnet, shielded with high performances.  
Moderate overall dimensions.  
Ø D = 0.16 to 2.48 inch L = 0.39 to 2.56 inch

### RML - RMM

**Cylindric retaining magnets**



Steel or brass housing.  
(AlNiCo) Aluminium-nickel-cobalt magnet, (NdFeB) Neodymium-iron-boron magnet or (SmCo) Samarium cobalt magnet, shielded with high performances.  
Moderate overall dimensions.  
Ø D = 0.24 to 2.48 inch L = 0.39 to 2.56 inch

### RMP - RMQ

**Cylindric retaining magnets**  
with plain or threaded hole

METRIC



Lacquered steel housing.  
(AlNiCo) Aluminium-nickel-cobalt magnet or (NdFeB) neodymium-iron-boron magnet, shielded with high performances.  
Moderate overall dimensions.  
Ø D = 0.16 to 2.48 inch L = 0.78 to 2.48 inch

### RMV - RMY

**Disks for retaining magnets**  
steel, stainless steel or lacquered steel with adhesive tape



The disks are used for coupling to different types of magnets when the attraction must occur between the retaining magnet and the surfaces of non-magnetic material.  
Ø D = 0.47 to 2.52 inch

### GN 251.6 - GN 913.6

**Setting or grub screws with retaining magnet**  
zinc-plated steel

METRIC



Magnet in (NdFeB) neodymium-iron-boron, shielded with high performances.  
Threadings: M6 - M8 - M10 - M12 - M16



# 12

## Levelling elements and supports



Components for assembly on machinery, machine guards and equipment built with profile systems and for the building up of production lines. Shapes, sizes and combinations of different materials allow their application in several industrial sectors.

### LX Levelling elements

Technopolymer base, steel or  
AISI 304 stainless steel stem

METRIC



Base with adjusting hexagon or screwdriver slot.  
Bases Ø: 0.98 - 1.18 - 1.57 - 1.97 - 2.36 inch  
Threadings: M6 - M8 - M10 - M12 - M16

### LS.A Levelling elements

Technopolymer base, steel or  
AISI 304 stainless steel stem

INCH METRIC



Base with or without NBR rubber no-slip disk.  
On request zinc-plated steel or  
AISI 304 stainless steel nut.  
Bases Ø: 0.98 - 1.26 - 1.57 - 1.97 inch  
Threadings: M8 - M10 - M12 - M14 - M16

### LV.A Levelling elements

Technopolymer base, steel or  
AISI 304 stainless steel stem

INCH METRIC



Base with or without NBR rubber no-slip disk. On  
request zinc-plated steel or AISI 304 stainless steel nut.  
LV.A-ESD-C conductive technopolymer that prevents  
the accumulation of electrostatic charge. Bases Ø: 2.36  
- 2.76 - 3.15 - 3.94 - 4.92 inch Threadings: M8 - M10 -  
M12 - M14 - M16 - M20 - M24

### LV.F Levelling elements for ground mounting

Technopolymer base, steel or  
AISI 304 stainless steel stem

INCH METRIC



Base with or without NBR rubber no-slip disk.  
On request zinc-plated steel or AISI 304 stainless steel  
nut. Ground mounting by means of two holes at 180°  
supplied covered by a diaphragm.  
Bases Ø: 3.15 - 3.94 - 4.92 inch  
Threadings: M8 - M10 - M12 - M14 - M16 - M20 - M24

### SMQ-SST Stems for levelling elements

AISI 304 stainless steel

INCH METRIC



Spheric articulated stems with adjusting square.  
Threadings: M8 - M10 - M12 - M16 - M20 - M24

### LM. Levelling elements

Steel or stainless steel  
base and stem

METRIC



Ball joint with threaded hole or stem.  
LM.AC with technopolymer antistatic bearing  
protection. LM.TR with NBR rubber no-slip coating.  
Zinc-plated steel or AISI 304 stainless steel nut.  
Bases Ø: 0.98 - 1.26 - 1.57 - 1.97 - 2.36 inch  
Threadings: M8 - M10 - M12 - M16 - M20 - M24

### GN 6311.4

#### Levelling feet

Steel base and stem

METRIC



Zinc-plated steel stem, hexagon socket head and  
hardened rounded end.  
Standard executions with base without no-slip coating,  
with elastomer or technopolymer no-slip coating.  
Bases Ø: 1.97 - 2.36 inch  
Threadings: M10 - M12 - M16 - M20

### LMR.

#### Levelling elements

Steel or stainless steel  
base and stem

METRIC



Ball joint with threaded hole or stem. NBR rubber  
no-slip disk. Threaded stem with hexagon socket head  
at the upper end and spanner flats at the lower end.  
Zinc-plated steel or AISI 304 stainless steel nut.  
Bases Ø: 1.97 - 2.36 - 3.15 - 3.94 - 4.72 inch  
Threadings: M8 - M10 - M12 - M16 - M20 - M24

### LMRS.

#### Levelling elements

Stainless steel base and stem

METRIC



NBR rubber no-slip disk, vulcanised to the base.  
AISI 303 stainless steel stem and adjustable sleeve.  
Stainless steel assembly screw, glued to the stem base.  
Bases Ø: 2.36 - 3.15 - 0.39 inch  
Threadings: M16 - M20 - M24

### LMR.F Levelling elements for ground mounting

Steel or stainless steel  
base and stem

METRIC



Zinc-plated steel or AISI 304 stainless steel anchoring  
bracket. NBR rubber no-slip disk.  
Threaded stem with hexagon socket and spanner flats  
at the base.  
Bases Ø: 1.97 - 2.36 - 3.15 - 3.94 inch  
Threadings: M8 - M10 - M12 - M16 - M20 - M24

### LMY Levelling elements

Stainless steel  
base and stem

METRIC



Ball joint with threaded hole or stem. Base with or  
without NBR rubber no-slip disk. Screw with adjusting  
hexagon, hexagon socket and thread flats, hexagon  
upper end or adjustable sleeve for the protection.  
AISI 304 stainless steel nut. Bases Ø: 3.15 - 3.94 - 4.72 inch  
Threadings: M8 - M10 - M12 - M16 - M20

### LMP

#### Levelling elements

Steel or stainless steel  
base and stem

METRIC



Ball joint with threaded hole or stem.  
LMP.TR with thermoplastic elastomer (TPE) no-slip  
coating. LMP.TV with vulcanised rubber (NBR) no-slip  
coating. Zinc-plated or AISI 304 stainless steel nut.  
Bases Ø: 1.57 - 1.97 - 2.36 - 3.15 inch  
Threadings: M8 - M10 - M12 - M16 - M20 - M24

### LM-HD-SST LM-F-HD-SST Levelling elements Hygienic Design

Stainless steel base and stem



Base with or without holes for ground mounting. AISI 304 stainless steel stem and adjustable sleeve. Protective ring, blue colour, in compliance with FDA. Bases Ø: 3.15 - 3.94 - 4.72 inch. Threadings: M16 - M20 - M24

### NDX.Q - NDX.T

#### Square end-caps for tubes

Technopolymer



Brass boss, threaded pass-through hole. Also available execution for heavy loads with nickel-plated brass boss, threaded pass-through hole (ND.Q). Threadings: M8 - M10 - M12 - M14 - M16 - M20 - M24

### STC

#### Square tube connectors

Technopolymer and steel or stainless steel



Black or grey colour. Monodimensional two-way, bidimensional two, three or four-way, tridimensional three, four, five or six-way connector. With or without zinc-plated or stainless steel reinforcement. For structures composed of square profiles.

### MSX.

#### Connecting clamps

Technopolymer



Fitting by means of a stainless steel M5 cylindrical-head screw with hexagon socket and nut. The profile of the holes is designed to fit both tubes with round and square cross section; the latter prevents the elements from rotating.

### PPR

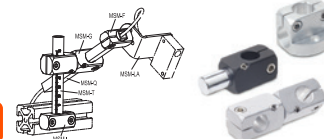
#### Support clamp for panels and electro-welded mesh mounting of the panel without drilling



Standard executions: for the mounting of panels or electro-welded mesh, with or without vibration-damping pads. For square profiles of 0.98, 1.18 or 1" inch. Safety in compliance with ISO 13857, paragraph 4.2.4.

### Connecting clamps

Aluminium



Black or natural colour. Clamping by means of cylindrical head screws with AISI 304 stainless steel hexagon socket. The profile of the holes is designed to fit both tubes with round and square cross section; the latter prevents the elements from rotating.

### MSM-T - MSM-Q

#### Connecting tubes

Round or square



MSM-T: AISI 304 stainless steel. Bar for Ø = 0.31 and 0.39 inch; tube for Ø = 0.47, 0.63 and 0.79 inch. MSM-Q: anodised aluminium square tubes, with or without precision graduations (mm). Sections: 0.39 - 0.47 - 0.63 inch

### BAS3

#### Tripod supports

Technopolymer



Zinc-plated or AISI 304 stainless steel M10 screws, nuts and washers. Assembly on series LS.A, LV.A, LV.F levelling elements. The three bearings of the base are supplied with brass bosses, threaded pass-through hole for the assembly of the stem. Tube housing holes Ø: 1.65 - 1.90 - 1.97 - 2.36 - 1.77x1.77 inch

### MPG-2 - MPG-S

#### Guide rail clamps

Technopolymer and stainless steel



With or without AISI 304 stainless steel pin. AISI 304 stainless steel washers, screws and clamping nuts. Housing for round, trapezoidal or rectangular guides. Pins Ø: 0.47 - 0.55 - 0.63 inch

### SPF.

#### Guide rail brackets for linear positioning, technopolymer



Nickel-plated AISI 431 stainless steel eye screw and AISI 304 stainless steel washer. Technopolymer clamping knob and nickel-plated brass hexagonal end for clamping by means of a key, threaded hole. Without knob, with AISI 304 stainless steel clamping nut. Guide housing holes Ø: 0.47 - 0.55 - 0.63 inch

### UCF

#### Support bearings square flanged, technopolymer



AISI 304 stainless steel bushings and washers. High quality chrome steel bearing. Technopolymer closed or drilled cover for pass-through shafts. Shaft diameters: 0.98 - 1.18 inch

### GLA - GCA - GLB

#### Side, central or articulated roller guides



Aluminium, stainless steel or technopolymer. Standard executions: with spherical, cylindrical or tapered rollers. Self-supporting structures for the side guide of products with limited vertical dimensions on conveyor belts.

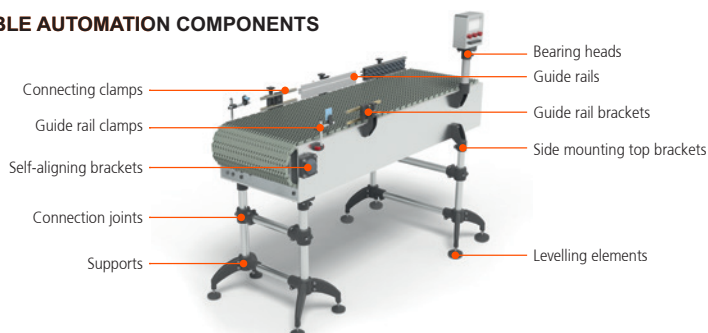
### GLC - GLP - GLR - GLS - GLT

#### Linear guide rails



Aluminium, stainless steel or technopolymer. Standard executions: with flat, shaped or round profile. Used for the side guide of products with different dimensions on conveyor belts, without leaving traces on the containers.

### FLEXIBLE AUTOMATION COMPONENTS







# 13

## Hinges and accessories



A wide range of engineering plastics and metal hinges including technopolymer, SUPER-technopolymer, aluminium and stainless steel available in various types of assembly, rotation angles, load resistance or with integrated safety switch.

### CFT. Hinges with screw-covers Technopolymer



Technopolymer rotating pin and screw-covers. Assembly by means of pass-through holes for countersunk head, cylindrical head, hexagonal head screws or nuts. Rotation angle: max 200° (-20° and +180° being 0° the condition where the two interconnected surfaces are on the same plane). Dimensions: 1.57 - 1.93 - 2.56 inch

### CFA. Hinges Technopolymer METRIC



AISI 303 stainless steel or technopolymer (CFAx.) rotating pin. Assembly by means of nickel-plated brass bosses, threaded hole; nickel-plated steel threaded studs; pass-through holes and slotted holes (CFA-SL) for cylindrical head screws. Rotation angle: max 215° (-35° and +180° being 0° the condition where the two surfaces are on the same plane). Dimensions: 1.57 - 1.93 - 2.56 - 3.82 inch

### CFL. Hinges Technopolymer



AISI 303 stainless steel rotating pin. Assembly by means of pass-through holes for cylindrical head screws. Rotation angle: max 200° (-20° and +180° being 0° the condition where the two interconnected surfaces are on the same plane). Dimension: 4.02 inch

### CFM. Hinges SUPER-technopolymer METRIC



AISI 303 stainless steel rotating pin. Nickel-plated steel threaded studs; pass-through holes for countersunk head or cylindrical head screws; pass-through slotted holes for cylindrical head screws. Rotation angle: max 270° (-90° and +180° being 0° the condition where the two surfaces are on the same plane). Dimensions: 1.18 - 1.57 - 1.97 - 2.36 inch

### CFSQ Hinges with built-in safety switch SUPER-technopolymer



Safety switch with one normally closed change-over contact (NC) and one normally open change-over contact (NO). Positive opening in compliance with IEC EN 60947-5-1. Double insulation of the internal circuits. Approved by UL:E360222. Dimension: 2.09 inch

### CFSW. Hinges with built-in safety multiple switch SUPER-technopolymer



Switch with 4 electric contacts, which can be set in production: normally open (NO) or normally closed (NC). Standard executions 2NO+2NC or 1NO+3NC. Positive opening in compliance with IEC EN 60947-5-1. Double insulation of the internal circuits. Approved by UL:E360222, IMQ:CA02.04800. Dimension: 4.33 inch

### CFMW. Hinges SUPER-technopolymer



These hinges can be assembled with CFSW, hinge with safety switch. Technopolymer rotating pin. Assembly by means of pass-through holes for countersunk-head, cylindrical head screws or hexagonal nuts. Rotation angle: max 180° (0° and +180° being 0° the condition where the two interconnected surfaces are on the same plane). Dimensions: 2.76 - 4.33 inch

### CFMR. Spring hinges for automatic return, SUPER-technopolymer



Aluminium rotating pin, technopolymer end caps. Return torques 0.35 or 0.70 Nm for door automatic opening/closing. Rotation angle: max 270° (-90° and +180° being 0° the condition where the two interconnected surfaces are on the same plane). Dimension: 2.64 inch

### CMM-SST Hinges AISI 316 stainless steel



AISI 316 stainless steel rotating pin. Rotation angle: max 270° (-90° and +180° being 0° the condition where the two interconnected surfaces are on the same plane). CMM die-cast zinc alloy. CMM-BL aluminium. Dimensions: 1.18 - 1.57 - 1.97 - 2.36 inch

### CMM-AL Hinges Aluminium



AISI 304 stainless steel rotating pin. Mounting with pass-through holes for countersunk head screws. Rotation angle: max 270° (-90° and +180° being 0° the condition where the two interconnected surfaces are on the same plane). Dimensions: 1.57 - 1.97 - 2.36 inch

### CFMY Hinges for removable doors Technopolymer



Technopolymer rotating pin. Mounting with pass-through holes for countersunk head screws. Rotation angle: max 270° (-90° and +180° being 0° the condition where the two interconnected surfaces are on the same plane). Dimensions: 1.57 - 1.97 - 2.36 inch

### CMMY Hinges for removable doors Die-cast zinc alloy



AISI 303 stainless steel rotating pin. Mounting with pass-through holes for countersunk head screws. Rotation angle: max 270° (-90° and +180° being 0° the condition where the two interconnected surfaces are on the same plane). Dimensions: 1.57 - 1.97 - 2.36 inch



**CFJ.****Tamperproof hinges***Technopolymer***METRIC**

AlSi 303 stainless steel rotating pin, totally moulded in the hinge body. Assembly by means of nickel-plated brass bosses, threaded hole; nickel-plated steel threaded studs; pass-through holes for hexagonal head screws. Rotation angle: max 275° (-95° and +180° being 0° the condition where the two surfaces are on the same plane). Dimension: 1.97 inch

**CFV.****Hinges with snap-in positions***Technopolymer*

AlSi 303 stainless steel rotating pin. Assembly by means of pass-through holes for countersunk head or hexagonal head screws. The detent device allows four different detent positions of the door: -90°, 0°, 70° and 115°. Rotation angle: max 210° (-90° and +120° being 0° the condition where the two surfaces are on the same plane). Resistant torque of about 3 Nm. Dimension: 2.56 inch

**CFP.****Hinges with snap-in positions***Screw-covers, technopolymer*

Pass-through holes for countersunk, cylindrical or hexagonal head screws. The detent device allows four different detent positions of the door: 0°, 80°, 120° and 170°. Resistant torque of about 1.1 Nm. Rotation angle: max 195° (-15° and +180° being 0° the condition where the two interconnected surfaces are on the same plane). Dimension: 1.97 inch

**CFU.****Hinges with adjustable friction***Technopolymer***CLEAN**

Technopolymer rotating pin. AlSi 304 stainless steel screw and AlSi 303 stainless steel adjusting boss. Assembly by means of pass-through holes for cylindrical head screws. Rotation angle: max 275° (-95° and +180° being 0° the condition where the two interconnected surfaces are on the same plane). Resistant torque max: 1.4 - 4 Nm. CFU-CLEAN in white similar to RAL 9002. Dimensions: 1.57 - 2.36 inch

**CMUF****Hinges with adjustable friction***Zinc-alloy*

Technopolymer conical friction elements, zinc-plated steel screw and nut. Mounting with pass-through holes for countersunk head screws. Rotation angle: max 270° (-90° and +180° being 0° the condition where the two interconnected surfaces are on the same plane). Resistant torque max: 2 - 4 - 6.5 Nm. Dimensions: 1.57 - 1.97 - 2.36 inch

**CFE.****Hinges***Technopolymer*

AlSi 303 stainless steel rotating pin. Assembly by means of nickel-plated brass bosses, threaded hole; nickel-plated steel threaded studs; pass-through holes for cylindrical head screws. Rotation angle: max 200° (-80° and +120° being 0° the condition where the two interconnected surfaces are on the same plane). Dimensions: 1.18 - 1.57 - 1.89 - 2.60 inch

**CMDX-AL****Hinges for thin doors***Aluminium***METRIC**

Bodies on the same plane or raised with opening to the right or to the left side. AlSi 304 stainless steel rotating pin. Technopolymer guide bushings for pin. Assembly by means of stainless steel self-tapping screws (included in the supply). Rotation angle: max 185° (-5° and +180° being 0° the condition where the two interconnected surfaces are on the same plane). Dimensions: 1.97 - 2.75 - 3.54 inch

**CFF.****Hinges for thin doors***Technopolymer***METRIC**

AlSi 303 stainless steel rotating pin. Assembly by means of nickel-plated brass bosses, threaded hole or nickel-plated steel threaded studs. Rotation angle: max 200° (-10° and +190° being 0° the condition where the two interconnected surfaces are on the same plane). Dimensions: 1.18 - 1.57 - 1.89 - 2.60 inch

**CFD.****Hinges for thin doors***Technopolymer***METRIC**

AlSi 303 stainless steel rotating pin. Assembly by means of nickel-plated brass bosses, threaded hole; nickel-plated steel threaded studs; pass-through holes for cylindrical head screws. Rotation angle: max 205° (-15° and +190° being 0° the condition where the two interconnected surfaces are on the same plane). Dimensions: 1.18 - 1.57 - 1.89 - 2.60 inch

**CFG.****Hinges for profiles***Technopolymer*

One or two (CFI) nickel-plated rotating pins. Technopolymer centring inserts for aluminium profiles from 6 to 12 mm. Assembly by means of pass-through holes. Rotation angle: CFG. max 280° (-100° and +180°). CFI. max 260°/275° (-95° and +165°/180°) being 0° the condition where the two interconnected surfaces are on the same plane. Dimension: 1.42 inch

**CFO.****Offset lift-off hinge***Technopolymer***METRIC**

Technopolymer adjustable pin with octagonal slot. Technopolymer covers for pin slot and screw-covers. Assembly by means of pass-through holes. Offset lift-off hinges have been designed to adjust possible misalignments between the door and the frame. Dimension: 2.52 inch

**CFN.****In line lift-off hinge***Technopolymer***METRIC**

Technopolymer hinge body and adjustable pin with octagonal slot. Assembly by means of nickel-plated brass bosses, threaded hole; nickel-plated steel threaded studs. In line lift-off hinges have been designed to adjust possible misalignments between the door and the frame. Dimension: 2.52 inch

**CMN****Hinges for removable doors***Die-cast zinc alloy***METRIC**

Black or grey colour. Assembly by means of threaded holes. Dimension: 2.48 inch

**CFC.****Thin hinge***Technopolymer*

Rotation pin and end-caps in acetal resin based (POM) technopolymer. Assembly by means of pass-through holes for self-tapping countersunk head screws diameter 4.8 mm. Rotation angle: max 325°. Depending on the type of assembly, the rotation angle of the door can be lower. Dimension: 2.17 inch

**GN 136****Thin hinges***Steel or stainless steel***INOX**

AlSi 304 stainless steel rotating pin. Assembly by means of pass-through holes for cylindrical head, countersunk head screws or without holes for welding. Rotation angle: max 280° (-100° and +180° being 0° the condition where the two interconnected surfaces are on the same plane). Dimensions: 1.57 - 1.97 - 2.36 inch



# 14

## Latches



A wide and varied range of plastic or metal locks and latches which contains latches with knob, latch clamps, hook clamps, lever latch, toggle latch, latch handles and, compression latch.

### CM. - CMT.AE-V0

#### Lever latches

*fold-away or key-type knob*

METRIC



CM.: nickel-plated zinc alloy rotor, stator and knob; brass nut; zinc-plated steel closing lever and screw. CMT.AE-V0: rotor, stator, fold-away knob, closing lever and nut in technopolymer certified self-extinguish UL-94 V0. IP 65 protection class.

Rotation 90°. Dimensions: 0.71 - 0.79 - 0.94 - 1.26 inch



### VCTK. - VCMK.

#### Cam latches

*Steel or technopolymer knob*

METRIC



VCTK: technopolymer knob; chrome-plated zinc alloy stator and rotor; zinc-plated steel latch cam, screw, spring washer and nut; aluminium distance element. VCMK: stainless steel knob, stator and rotor, latch cam, screw and washer, nut and distance element. Knob diameter: 1.97 inch



### VCK.

#### Cam latches with knob

*Duropolast knob, steel or stainless steel cam*



Zinc-plated or stainless steel plain stud; zinc-plated or stainless steel latch spring to compensate door thickness.

Standard executions: opening to the right side or left side.

Knob diameter: 1.97 - 2.36 - 2.76 inch



### BOCK

#### Cam latches with key

*Steel or stainless steel cam*

METRIC



BOCK: nickel-plated steel shank; nickel-plated brass guide bushing and locking nut; sintered and vaporised steel latch cam; zinc-plated steel latch spring; BOCK-SST: stainless steel shank, guide bushing and locking nut, latch cam and spring. Technopolymer key. Standard executions: opening to the right side or left side. Lengths: 1.81 - 2.13 - 2.52 inch



### VCML

#### Lever latches

*Stainless steel knob*

METRIC



Stainless steel stator, closing lever, screw, washer and nut.

Rotation 90° right. IP 65 protection class.

Knob diameter: 1.97 inch



### VC.308 - VC.309

#### Lever latches

*Technopolymer knob with lock*

METRIC



Zamac stator and rotor; brass nut; zinc-plated steel spring washer, positioning washer and closing lever; two nickel-plated brass keys, removable in two positions at 180° (locked or unlocked position). Standard executions: opening to the right side or left side; lock with different combinations, one combination; different combinations and master-key or without lock. Knob diameter: 1.57 inch



### MDA-LS

#### Lever latches

*Technopolymer knob*

METRIC



Technopolymer cap. MDA-LS: zinc alloy threaded body and lever, zinc-plated steel screw and locking nut. Neoprene clamping bolt. MDA-LS-SST: AISI 316 stainless steel threaded body, screw and locking nut, AISI 304 stainless steel lever. IP 65 protection class.

Rotation 90° right. Knob diameter: 2.09 inch



### CSM.

#### Lever latches

*Steel handle with lock*

METRIC



Zinc alloy stator, rotor and nut; stainless steel front plate; zinc-plated steel closing lever; two nickel-plated brass keys, removable in two positions at 180°. IP 65 protection class. Rotation 90° right.

Standard executions: lock with different combinations or one combination. Handle dimension: 3.15 inch



### CSMT-A

#### Lever latches

*Technopolymer handle with lock and anti-rotation device*

METRIC



Technopolymer stator and nut, zinc alloy rotor; stainless steel front plate; zinc-plated steel closing lever; two nickel-plated brass keys, removable in two positions at 180°. IP 65 protection class. Rotation 90° right.

Standard executions: lock with different combinations or one combination. Handle dimension: 3.15 inch



### ELCK

#### Lever latches

*Operation by means of technopolymer lever*

METRIC

ERGOSTYLE®

Zinc alloy stator and rotor, brass nut, zinc-plated steel lever, positioning washer and spring washer. Two nickel-plated brass keys removable in two positions (locked or unlocked position). Standard executions: lock with one combination, opening on the right or left side or both sides. Dimensions: 2.64 - 3.35 inch



### CS-RPR.

#### Lever latches

*with reprogrammable lock, steel*

METRIC



Chrome-plated zinc alloy stator and rotor and stainless steel front plate; brass nut; zinc-plated steel closing lever and screw. Rotation 180° with key removable in two positions. Accessories: kit of keys containing the programming key and use keys. Dimensions: 0.79 - 0.98 - 1.18 inch



### CS.

#### Lever latches

*with lock, zinc alloy*

METRIC



Zinc alloy stator and rotor, brass nut, zinc-plated steel lever, positioning washer and spring washer. Two nickel-plated brass keys removable in two positions at 180°. Standard executions: lock with different combinations or one combination. Dimensions: from 0.351 to 1.18 inch



### CQ. - CQT.AE-V0

#### Lever latches

with recessed key

METRIC



CQ.: nickel-plated zinc alloy stator and rotor, brass or zinc alloy nut, zinc-plated steel shaped closing lever and screw. CQ. SST: stainless steel stator and rotor; two-wing or triangular groove for key. CQT.AE-V0: self-extinguish technopolymer UL-94 V0; stainless steel self-tapping screw. Rotation 90°. Dimensions: 0.63 - 0.71 - 0.79 - 0.94 - 1.10 - 2.36 - 1.26 inch

### CQT.FM

#### Quick-assembly lever latches

with recessed key,  
technopolymer



CQT.FM-AE-V0: technopolymer black colour.  
CQT.FM-CR: technopolymer chrome-plated body.  
Silicone packing ring, stainless steel washer and self-tapping screw. Technopolymer key.  
Rotation 90°. IP 65 protection class.  
Dimensions: 0.71 - 0.79 - 0.87 - 0.98 - 1.18 inch

### GN 315

#### Snap locks

technopolymer and zinc alloy



Technopolymer unlocking button, light-grey colour; steel adjusting spacer, black colour; zinc alloy threaded body; zinc-plated steel locking nut.  
Adjusting distance: from 0.71 to 1.10 inch

### CLT.

#### Latches for cabinets

with handle for rod controls,  
technopolymer



Chrome-plated zinc alloy handle shank with NBR rubber OR; silicon and NBR synthetic rubber packing rings; zinc-plated steel screws. Standard executions: lock with different combinations, with one combination or for technopolymer key with zamac insert and two-wing groove, European style stator, execution with IP 65 protection class. Dimension: 6.30 inch

### CAR.

#### Rod controls

Steel



Zinc-plated rod guides, chrome-plated zinc alloy toothed wheel.  
Nickel-plated zinc alloy or technopolymer body.  
Length: 13.66 inch

### EBR-CH

#### Handle with safety locking device

Technopolymer



ERGOSTYLE®

Anti-intrusion profiled key.  
AISI 304 stainless steel pin with technopolymer push button.  
Pass-through holes for cylindrical-head screws with hexagon socket.  
Assembly centre distance: 5.20 inch

### BMS

#### Snap door lock

Technopolymer



Standard executions: snap lock and unlock (BMS), snap lock and lever for release (BMS.L), snap lock and hexagonal key for release (BMS.EH) or snap lock and two-wing key for release (BMS.A).  
Mounting with TCEI M4 screws.  
Diameter: 1.50 inch

### CMS

#### Snap locks

with handle, technopolymer



CMS integrates both functions of handle and snap lock into a single product.  
The door can be opened by pulling the handle towards the outside.  
Diameter: 2.36 inch

### GN 702

#### Stop locks with 4 indexing positions (90°)

Zinc alloy



These stop locks are suitable for clamping drawers or doors in applications subject to strong vibrations.  
Standard executions: assembly by means of base flange with two holes for countersunk head screws, body with threaded hole or with threaded nut.

### PR-CH

#### Flush pull handles with lever latch

Snap-in assembly,  
technopolymer



Two nickel-plated brass or technopolymer keys. Standard executions: lock with key removable in two positions, rotation by 90°, placed on the right or on the left. Lock with one combination, different combinations or different combinations and master-key or electrical panel lock type with triangular, square or two-wing groove. Zinc-plated or stainless steel closing lever LPR. Dimension: 4.61 inch

### CSMH

#### Latches with push handle

Technopolymer and zinc alloy



Handle in black or grey colour. Standard executions: lock with different combinations or one combination. Two nickel-plated brass keys removable in two positions at 90°. Assembly by means of 4 zinc-plated steel screws co-moulded into the base. The overturning of the handle in its seat moves the spindle axially with the lever in the direction of the swing-door until the locking position. Dimension: 5.04 inch, adjusting distance: from 0.51 to 2.95 inch

### GN 115.10

#### Flush pull handles with lever latch

Zinc alloy



Handle in black or grey colour. Standard executions: triangular, square 7x7 or two-wing groove for key, positioned to the right or to the left. Assembly by means of 5 zinc-plated steel screws. GN 115 zinc-plated steel closing lever. Dimension: 5.04 inch, adjusting distance: from 0.51 to 2.95 inch

### TLA.

#### Hook clamps

Steel or stainless steel



TLA: basic hook clamp.  
TLAL: hook clamp with padlock hole.  
TLAS: hook clamp with security stop and red technopolymer push button.  
Special executions on request: catch brackets in different shapes and finishes. Dimensions: 4.02 - 5.51 - 7.60 inch

### TLE.

#### Hook clamps

Steel or stainless steel



TLE.Z: zinc-plated or AISI 304 stainless steel basic hook clamp.  
TLEL.Z: zinc-plated steel hook clamp with padlock hole.  
Special executions on request: catch brackets in different shapes and finishes.  
Dimension: 2.05 inch

### TLF.

#### Adjustable hook clamps

Steel or stainless steel



TLF: basic hook clamp.  
TLFS: hook clamp with security stop and red technopolymer push button.  
Special executions on request: catch brackets in different shapes and finishes.  
Dimensions: 5.43 to 5.91 inch



# 15

## Toggle clamps



A wide range of toggle clamps, typically permanently fixed to the work surface using a mounting, designed to hold a workpiece or component securely on a work surface.

### MVA.

**Vertical toggle clamps**  
with folded base,  
steel or stainless steel



Ground and hardened steel support bushings; red polyurethane handle.  
MVA-SST: stainless steel.  
Dimensions: 2.64 - 3.35 - 4.35 - 5.08 - 6.46 - 8.78 inch

### MVB.L

**Vertical toggle clamps, long life series**  
with straight base, steel



Hardened, black-oxide and ground steel rotating pins and support bushings; zinc-plated steel adjusting screw and nut; red polyurethane handle. With opening clamping lever and two folded washers or solid clamping lever.  
Dimensions: 3.39 - 3.58 - 5.10 - 6.34 - 8.00 inch

### MGA.L

**Toggle-joint mechanisms**  
Steel



Hardened, black-oxide and ground steel rotating pins and support bushings; zinc-plated steel adjusting screw and nut.  
Dimensions: 2.26 - 2.30 - 4.53 inch

### MOAS.

**Horizontal toggle clamps**  
with folded base  
and anti release lever,  
steel or stainless steel



With opening clamping lever and two folded washers or solid clamping lever and retainer for welding. Ground and hardened steel support bushings; red polyurethane handle. Anti-release lever to prevent accidental opening in the presence of strong vibrations.  
Dimensions: .65 - 6.77 - 7.72 - 10.63 - 12.01 - 12.07 inch

### MFC.

**Push-pull clamps**  
Steel



Zinc-plated steel rivets and push lever; brass or pressed steel base; red polyurethane handle.  
Dimensions: 3.39 - 4.57 - 4.80 - 6.48 - 7.16 - 9.37 - 12.44 inch

### MTC.

**Latch clamps**  
Steel or stainless steel



Zinc-plated steel rivets, pulling hook, oscillating pin and nuts; red polyurethane handle.  
MTC-SST: stainless steel.  
Dimensions: 3.86 - 5.98 - 8.66 inch

### MTL.

**Latch clamps, heavy-duty series**  
with safety device, steel



Hardened and ground steel pins; red polyurethane handle. The safety device prevents accidental opening even in the presence of strong vibrations.  
Dimension: 12.52 inch

### MTB.

**Latch clamps**  
with safety stop,  
steel or stainless steel



Zinc-plated steel rivets; red polyurethane handle. With or without eyelet, T or hook tie rod.  
MTB-SST: stainless steel.  
The safety device prevents accidental opening even in the presence of strong vibrations.  
Dimensions: 4.05 - 6.02 - 8.74 inch

### MTP.

**Latch clamps, heavy-duty series**  
Steel or stainless steel



Hardened and ground steel shank; zinc-plated steel pulling hook, oscillating pin and nuts.  
MTP-SST: stainless steel.  
Dimensions: 8.90 - 11.10 inch

### MM-BL

**Pneumatic fastening clamps**  
For lateral clamping



Black-oxide steel. Maximum operating pressure 10 bar. The fastening clamps are characterized by a "double effect" pneumatic cylinder which transmits a rotary movement to the clamping arm. Supports, fixing elements and sensors on request.  
Dimensions: 0.79 - 1.26 - 1.57 - 1.97 inch

### MM-BI

**Pneumatic fastening clamps**  
For axial clamping



Black-oxide steel. Maximum operating pressure 10 bar. The fastening clamps are characterized by a "double effect" pneumatic cylinder which transmits a rotary movement to the clamping arm. Supports, fixing elements and sensors on request.  
Dimensions: 0.79 - 1.26 - 1.57 - 1.97 inch

### MM-BC

**Pneumatic fastening clamps**  
For axial clamping  
and central fixing



Black-oxide steel. Maximum operating pressure 10 bar. The fastening clamps are characterized by a "double effect" pneumatic cylinder which transmits a rotary movement to the clamping arms. Supports, fixing elements and sensors on request.  
Dimensions: 0.79 - 1.26 - 1.57 - 1.97 inch





# 16

## Accessories for hydraulic systems



Components to meet various applications on hydraulic systems. Different production materials to resist to: different liquids and oils; low or high temperatures and for use in environments subject to risk of explosion (ATEX line).

### TN. - TNR.

#### Plugs

Technopolymer

NPT  
METRIC  
BSP



TN. with NBR rubber packing ring.  
TNR. with NBR rubber O-Ring.

Max. continuous working temp.: +212°F

Metric threadings (pitch 1.5): M10 - M12 - M14 - M16 - M18 - M20 - M22 - M25 - M26 - M35 - M40

GAS threadings: 1/8 - 1/4 - 3/8 - 1/2 - 3/4 - 1 - 1 1/4 - 1 1/2

### TN-EX

#### Plugs

Technopolymer

BSP



NBR rubber packing ring.

TN-EX plugs comply with Health and Safety Requirements defined in 94/9/EC ATEX European Directive (explosive atmospheres) for equipments in Group II, category 2GD.

GAS threadings: 3/8 - 1/2 - 3/4

### TCD. - TCR.

#### Oil fill plugs

Technopolymer

NPT  
METRIC  
BSP



TCD. with NBR rubber packing ring. TCD+a with phosphatised steel dipstick. TCR. with NBR rubber O-Ring. Max. continuous working temp.: +212°F Metric threadings (pitch 1.5): M10 - M12 - M14 - M16 - M18 - M20 - M22 - M25 - M26 - M35 - M40 GAS threadings: 1/8 - 1/4 - 3/8 - 1/2 - 3/4 - 1 - 1 1/4 - 1 1/2

### TSD. - TSR.

#### Oil drain plugs

Technopolymer

NPT  
METRIC  
BSP



Graphic symbol "drain". TSD. with NBR rubber packing ring. TSR. with NBR rubber O-Ring. Max. continuous working temp.: +212°F

Metric threadings (pitch 1.5): M10 - M12 - M14 - M16 - M18 - M20 - M22 - M25 - M26 - M35 - M40

GAS threadings: 1/8 - 1/4 - 3/8 - 1/2 - 3/4 - 1 - 1 1/4 - 1 1/2

### TMB.

#### Magnetic plugs

Aluminium

METRIC  
BSP



Magnetic element with an attractive power to keep metal particles in oil. NBR rubber packing ring. Max. continuous working temp.: +356°F Metric threadings: M14 - M16 - M20 - M26 - M33 - M40 - M42

GAS threadings: 1/4 - 3/8 - 1/2 - 3/4 - 1 - 1 1/4 - 1 1/2

### TCE.

#### Plugs

with hexagon socket

NPT  
BSP



TCE. in technopolymer. GN 749 zinc-plated steel. NBR rubber packing ring. Max. continuous working temp.: +212°F GAS threadings: 1/4 - 3/8 - 1/2 - 3/4

### GN 741

#### Plugs

Aluminium

METRIC  
BSP



NBR rubber (GN 741) or FKM (GN 742) packing ring for high temperatures.

Max. continuous working temp.: +212°F (GN 741) or +356°F (GN 742).

Metric threadings (pitch 1.5): M14 - M16 - M20 - M26

GAS threadings: 1/4 - 3/8 - 1/2 - 3/4 - 1 - 1 1/4 - 1 1/2

### TPC.

#### Oil fill plugs

for push-fit, technopolymer



Graphic symbol "fill", with or without side breather hole. Two NBR rubber O-rings.

TPC+a with phosphatised steel flat dipstick.

Max. continuous working temp.: +212°F

Diameters: 0.79 - 1.02 inch

### T.440

#### Plugs

Technopolymer

BSP



With or without phosphatised steel flat dipstick. NBR rubber packing ring.

Max. continuous working temp.: +212°F

GAS threadings: 1/4 - 3/8 - 1/2 - 3/4 - 1 - 1 1/4 - 1 1/2

### SFN.

#### Breather caps

Technopolymer

NPT  
BSP



Orange technopolymer cover; black technopolymer threaded connector or zinc-plated steel sheet bayonet. With or without air filter in polyurethane foam mesh "tech-foam".

NBR rubber flat packing ring. Max. continuous working temp.: +212°F Diameters: 1.18 - 1.57 - 2.24 - 2.76 inch

GAS threadings: 1/4 - 3/8 - 1/2 - 3/4 - 1 - 1 1/4 - 1 1/2 - 2

### SFP. - SFP-EX

#### Breather caps

with splash guard, technopolymer

NPT  
METRIC  
BSP



Orange technopolymer cover; black threaded connector. Splash guard with or without "tech-foam" (SFP-EX) or "tech-fil" (SFP.) air filter. NBR rubber packing ring. Max. continuous working temp.: +212°F (SFP) - +176°F (SFP-EX). SFP-EX breather caps comply with European Directive ATEX 94/9/EC.

GAS threadings: 1/4 - 3/8 - 1/2 - 3/4 - 1 - 1 1/4 - 1 1/2 - 2

### SFP+a - SFP+a-EX

#### Breather caps

with splash guard and flat dipstick, technopolymer

NPT  
METRIC  
BSP



Technopolymer cover and or sheet bayonet; splash guard with or without air filter. NBR rubber packing ring. Phosphatised steel dipstick. Max. continuous working temp.: +212°F (SFP+a) - +176°F (SFP+a-EX).

Diameters: 1.18 - 1.57 - 2.24 - 2.76 inch Metric threadings (pitch 1.5): M16 - M18 - M20 - M22 GAS threadings: 1/4 - 3/8 - 1/2 - 3/4 - 1 - 1 1/4 - 1 1/2 - 2



## TVD.

### Breather caps with vacuum breaker valve Technopolymer

BSP



Red colour with EPDM synthetic rubber membrane gasket, green colour with FKM synthetic rubber membrane gasket. Threaded connector in black colour. EPDM (red cover) or FKM (green cover) flat packing ring. Max. continuous working temp.: +122°F GAS threading: 1 1/4

## SFV.

### Valve breather caps Technopolymer

NPT  
METRIC  
BSP



Technopolymer cover, with "valve" symbol and black threaded connector. NBR rubber packing ring. Valve: technopolymer sealing disk with NBR rubber O-Ring and stainless steel spring set at 10 mb or 100 mb. Max. continuous working temp.: +212°F Metric threadings (pitch 1.5): M16 - M18 - M20 - M22 GAS threadings: 1/4 - 3/8 - 1/2 - 3/4 - 1

## SFW.

### Pressurised breather caps with double valve, technopolymer

NPT  
BSP



Technopolymer cover, with "valve" symbol. Threaded connector or sheet bayonet; "tech-foam" ring-shaped air filter. NBR rubber packing ring. Overpressure valve set at around 0.350 bar. Suction valve set at around 0.030 bar. Max. continuous working temp.: +212°F GAS threadings: 3/4 - 1 1/4 - 2

## SMN. - SMW.

### Pressurised breather caps simple or with double valve and threaded connector, steel

NPT

BSP



Chrome-plated steel cover; zinc-plated steel flange; zinc-plated steel threaded connector. NBR rubber packing ring. SMW, with overpressure valve set at around 0.350 bar and suction valve set at around 0.030 bar. Also available with dipstick. "Tech-foam" ring-shaped air filter. GAS threadings: 1/4 - 3/4

## FRF+C

### Flange for threaded cap, technopolymer

BSP



Flange in technopolymer with threaded connector or in zinc-plated steel with bayonet (FRB+C); technopolymer basket. Cork impregnated MGS based rubber. Assembly by means of six self-tapping screws. GAS threading: 1 1/4

## PLRB+C

### Side mount for bayonet cap, technopolymer



Technopolymer mount with NBR rubber packing ring; zinc-plated steel bayonet flange or technopolymer flange with threaded connector (PLRF+C) and flat gasket in cork impregnated MGS based rubber; technopolymer basket. GAS threading for series PLRF+C: 1 1/4

## HGFT. - HGFT-EX

### Oil level indicators Technopolymer

NPT

BSP



Transparent technopolymer window. Standard executions with or without matte anodised aluminium star-shaped contrast screen. NBR rubber packing ring. HGFT-EX indicators comply with European Directive ATEX 94/9/EC. Max. continuous working temp.: +212°F at 3 bar pressure. GAS threadings: 3/8 - 1/2 - 3/4 - 1 - 1 1/4 - 2

## GN 743 - GN 743.1

### Oil level indicators Aluminium

METRIC

BSP



Natural glass or ESG safety glass window (GN 743.1). NBR rubber or FKM (GN 743.1) flat packing ring. Max. continuous working temp.: +212°F or +356°F (GN 743.1). Metric threadings (pitch 1.5): M14 - M16 - M20 - M26 - M27 - M33 - M40 - M42 GAS threadings: 3/8 - 1/2 - 3/4 - 1 1/4

## GN 743.2

### Oil level indicators Brass

METRIC

BSP



Natural glass window or ESG safety glass (GN 743.3) window. NBR or FKM (GN 743.3) rubber packing ring. Max. continuous working temp.: +212°F or +356°F (GN 743.3). Metric threadings (pitch 1.5): M16 - M20 - M26 - M27 - M33 GAS threadings: 3/8 - 1/2 - 3/4 - 1

## GN 743.6

### Oil level indicators Aluminium

METRIC

BSP



ESG safety glass window. FKM packing ring. Comply with European Directive ATEX 94/9/EC. Max. continuous working temp.: +302°F Metric threadings (pitch 1.5): M16 - M20 - M26 - M27 GAS threadings: 3/8 - 1/2 - 3/4

## HGFT-PR

### Oil level indicators with prismatic window, technopolymer

NPT

BSP



Transparent technopolymer prismatic window. NBR or FKM (HGFT-HT-PR) synthetic rubber packing ring. Max. continuous working temp.: +212°F at 3 bar pressure (HGFT-PR) or 140°C at 7 bar pressure (HGFT-HT-PR). GAS threadings: 1/2 - 3/4 - 1

## GN 744

### Oil level indicators with prismatic window, aluminium

METRIC

BSP



Transparent technopolymer prismatic window. NBR rubber packing ring. Max. continuous working temp.: +212°F Metric threadings (pitch 1.5): M20 - M26 - M27 - M33 GAS threadings: 1/2 - 3/4 - 1

## HRT.

### Oil level indicators push-fit, technopolymer



Transparent technopolymer window. White lacquered aluminium contrast screen. HRT-T: with bimetallic thermometer and graduated scale up to +212°F. NBR rubber O-Ring. Max. continuous working temp.: +212°F. Diameters: 1.10 - 1.42 - 1.65 - 2.52 inch

## HE.

### Oil level indicators push-fit, polycarbonate



White lacquered aluminium contrast screen with red level line. NBR rubber O-Ring. Max. continuous working temp.: +212°F These indicators are suitable for assembly on reservoirs with limited pressures. Diameters: 0.71 - 0.83 - 1.10 - 1.26 - 1.50 - 1.69 - 1.85 inch

## HFTX. - HFTX-EX

### Oil level indicators Technopolymer

SAE

METRIC

BSP



Matte anodised aluminium star-shaped contrast screen. NBR rubber packing ring. HFTX- EX indicators comply with European Directive ATEX 2014/34/EU. Max. continuous working temp.: +212°F. Metric threadings (pitch 1.5): M16 - M20 - M25 - M26 - M27 - M30 - M35 - M40 GAS threadings: 1/4 - 3/8 - 1/2 - 3/4 - 1 - 1 1/4

## HFTX-PR

### Oil level indicators

with prismatic window, technopolymer

BSP



A continuous series of prisms provide a clear and immediate reading of the oil level due to refraction effect. NBR rubber packing ring.

Max. continuous working temp.: +212°F

GAS threadings: 1/4 - 3/8 - 1/2 - 3/4 - 1 - 1 1/4

## HCFE-EX

### Oil circulation sights

Technopolymer

BSP



NBR rubber packing ring.

HCFE-EX comply with Health and Safety Requirements defined in 94/9/EC ATEX European Directive (explosive atmospheres) for equipments in Group II, category 2GD.

GAS threadings: 3/8 - 1/2 - 3/4

## HVF. - HVF-E

### Visual flow indicators

With or without flow-meter sensor  
Technopolymer ends

BSP



Glass tubular window; stainless steel tie rods; technopolymer axis and rotor propeller; NBR rubber packing rings; brass bosses with cylindrical gas threading according to UNI ISO 228/1. Max. continuous working temp.: +212°F. Functioning with two-way flow. GAS threadings: 1/4 - 3/8 - 1/2 - 3/4 - 1

## HCZ.

### Column level indicators

with or without protection frame, technopolymer

INCH

METRIC



Zinc-plated steel screws and nuts. Step-shaped packing rings for the seal on the reservoir walls and NBR rubber O-Ring screw underneath.

White lacquered aluminium contrast screen.

With or without thermometer; with or without SUPER-technopolymer protection frame.

Max. continuous working temp.: +194°F

Assembly centre distances: 2.99 - 5.00 - 10.00 inch

## HGX. - HCX-PT

### Column level indicators

with or without protection frame, technopolymer

METRIC



HGX., HCX-AR, HCX-PT: zinc-plated steel screws, nuts and washers.

HGX-SST, HCX-BW-SST, HCX-PT-SST: AISI 304 stainless steel screws, nuts and washers.

HGX-VT, HCX-PT-VT: SUPER-technopolymer screws, AISI 304 stainless steel nuts and washers.

NBR or FKM synthetic rubber O-Ring. White lacquered aluminium contrast screen.

HCX-AR for use with fluids containing alcohol.

HCX-BW-SST for use with hot water.

Max. continuous working temp.: +176°F or +194°F

Assembly centre distances: 2.99 - 5.00 - 10.00 inch

## HCV-E - HCV-E-ST - HCV-E-STL

### Column level indicators

with level and temperature electrical sensors

METRIC



HCV-E: MIN level electrical sensor, HCV-E-ST: with MIN level and MAX temperature sensors, HCV-E-STL: MIN level sensor and temperature probe. NO, NC, SW contacts valid only for MIN level. Zinc-plated steel screws, nuts and washers.

NBR synthetic rubber O-Ring. Technopolymer float with magnetic element to activate the contact. Available with electrical contact NO or NC.

Technopolymer sensor bracket with a built-in relay.

Swivelling two-pin connectors.

Maximum continuous working temperature: +194°F

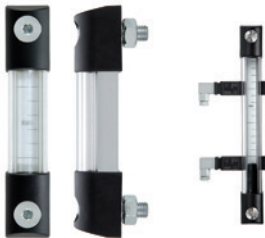
Assembly centre distances: 2.99 - 5.00 - 10.00 inch

## HCK. - SLCK

### Column level indicators

Transparent technopolymer

METRIC



Technopolymer assembly ends. Aluminium support. Transparent polycarbonate tube. HACK-GL with PYREX glass tube, also suitable for use with glycol-based solutions.

With or without transparent polycarbonate front protection. Zinc-plated or stainless steel screws, nuts and washers. NBR rubber or FKM O-Ring.

Max. continuous working temp.: +212°F or +266°F (HCK-GL). Assembly centre distances: 2.99 - 5.00 - 6.93 - 10.00 - 15.00 - 20.00 inch

SLCK kit for the electric control of the fluid level

## HCK-E - HACK-E-ST - HACK-E-STL

### Column level indicators

with level and temperature electrical sensors

METRIC



HCK-E: MIN level electrical sensor. HACK-E-ST: with MIN level and MAX temperature sensors. HACK-E-STL: MIN level sensor and temperature probe. NO, NC, SW contacts valid only for MIN level. Technopolymer assembly ends. Aluminium support. Transparent polycarbonate tube. HACK-GL with borosilicate glass tube, also suitable for use with glycol-based solutions. Transparent polycarbonate front protection.

Zinc-plated or stainless steel screws, nuts and washers. NBR rubber or FKM O-Ring. Technopolymer float with magnetic element to activate the contact. Max. continuous working temperature: +212°F or +266°F (HCK-GL). Assembly centre distances: 5.00 - 6.93 - 10.00 - 15.00 - 20.00 inch

## HFL-E - HFLT-E

### Rapid levels with float

Technopolymer

BSP



TPE flat gasket or NBR rubber O-Ring. Connector with or without sensor with side output and reed switch. AISI 304 stainless steel dipstick (HFL-E) or technopolymer dipstick featuring two raised scales (HFLT-E). With or without NBR rubber float. Assembly by means of zinc-plated steel flange or 1" Gas threaded connector.

Max. continuous working temp.: +176°F

HFL-E and HFLT-E rapid levels show a minimum or maximum default level.



17

## Castors and Wheels



A wide range of castors and wheels, suitable for manual (4 km/h) or mechanical (16 km/h) handling for trucks and equipment. The range includes wheels with fixed or turning plate bracket, with or without brakes; specific series destined for heavy loads; drive wheels and pallet truck rollers.

### RE.FF

**Injected polyurethane wheels**  
Technopolymer centre body



1200 - 3500 N



RE.FF-N: zinc-plated or AISI 304 stainless steel sheet bracket, fixed or turning plate (also with centre pass-through hole) with or without brake.  
Wheel Ø: 3.15 - 3.94 - 4.92 - 5.90 inch

### RE.F5

**Mould-on polyurethane wheels**  
Aluminium centre body

2200 - 8500 N



Hub with ball bearings. RE.F5-N: zinc-plated steel sheet bracket, fixed or turning plate (also with centre pass-through hole) with or without brake.  
RE.F5-H: steel sheet bracket for medium-heavy loads, fixed or turning plate, with or without brake.  
Wheel Ø: 3.15 - 3.94 - 4.92 - 5.90 - 7.87 inch

### RE.F2

**Soft polyurethane wheels**  
Aluminium centre body

2000 - 7000 N



Hub with ball bearings. RE.F2-N: zinc-plated steel sheet bracket, fixed plate without brake or turning plate with brake. RE.F2-H: steel sheet bracket for medium-heavy loads, fixed plate without brake or turning plate with brake. RE.F2-WH: electro-welded steel bracket for heavy loads, fixed plate without brake or turning plate with brake. Wheel Ø: 3.94 - 4.92 - 6.30 - 7.87 inch

### RE.F4-WH - RE.F4-WEH

**Mould-on polyurethane wheels**  
Electro-welded steel bracket for heavy loads

5500 - 23000 N



RE.F4-WH: electro-welded steel bracket for heavy loads, fixed or turning plate, with or without brake.  
RE.F4-WEH: electro-welded steel bracket for extra-heavy loads, fixed or turning plate, with or without brake.  
Wheel Ø: 4.92 - 5.90 - 7.87 - 9.84 - 11.81 inch

### RE.F8

**Technopolymer wheels**  
Monolithic

1200 - 9000 N



RE.F8-N: zinc-plated or AISI 304 stainless steel sheet bracket, fixed or turning plate (also with centre pass-through hole) with or without brake.  
RE.F8-H: steel sheet bracket for medium-heavy loads, fixed or turning plate, with or without brake.  
Wheel Ø: 2.56 - 3.15 - 3.94 - 4.92 - 5.90 - 7.87 inch

### RE.F8-WH

**Technopolymer wheels**  
Electro-welded steel bracket for heavy loads

6500 - 9000 N



Hub with ball bearings. RE.F8-WH: electro-welded steel sheet bracket for heavy loads, fixed or turning plate, with or without brake.  
Wheel Ø: 4.92 - 5.90 - 7.87 inch

### RE.G1

**Thermoplastic rubber wheels**  
Technopolymer centre body



700 - 1800 N



RE.G1-N: zinc-plated or AISI 304 stainless steel sheet bracket, fixed or turning plate (also with centre pass-through hole) with or without brake.  
Wheel Ø: 3.15 - 3.94 - 4.92 - 5.90 inch

### RE.F7-N-HT

**Duroplast wheels**  
Steel or stainless steel sheet bracket, high temperatures

1500 - 2000 N



Duroplast wheel body. Resistant to temperatures up to +572°F.  
Zinc-plated steel sheet or stainless steel sheet turning plate bracket, without brake.  
Wheel Ø: 3.15 - 3.94 inch

### RE.E3

**Vulcanised rubber wheels**  
Steel centre body

650 - 2300 N



RE.E3-N: zinc-plated steel sheet bracket, fixed or turning plate (also with centre pass-through hole) with or without brake.  
Wheel Ø: 3.15 - 3.94 - 4.92 - 5.90 - 7.87 inch

### RE.G2

**Elastic rubber wheels**  
Aluminium centre body

1800 - 5000 N



Hub with ball bearings. RE.G2-H: steel sheet bracket for medium-heavy loads, fixed or turning plate, with or without brake.  
Wheel Ø: 3.94 - 4.92 - 6.30 - 7.87 inch

### RE.C7

**Wheels for the general public**  
Vulcanised rubber coating

350 - 800 N



Technopolymer centre body. Zinc-plated steel sheet bracket, fixed or turning plate (also with centre pass-through hole or threaded pin) with or without brake. RE.C7-G: twin wheels version.  
Wheel Ø: 1.57 - 1.97 - 2.36 - 3.15 inch

### RE.C6

**Wheels for the general public**  
Injected polyurethane coating

400 - 1400 N



Technopolymer centre body. Zinc-plated steel sheet bracket, fixed or turning plate (also with centre pass-through hole or threaded pin) with or without brake. RE.C6-G: twin wheels version.  
Wheel Ø: 1.57 - 1.97 - 2.36 inch



# 18

## Connecting clamps



Connectors and fixed or adjustable connection clamps for square and round section tubes for the building-up of light and modular structures. Available in aluminium or stainless steel with natural finish or with epoxy resin coating, black colour.

### GN 131 - GN 131-NI

#### Two-way connecting clamps

Aluminium or stainless steel



Natural or with epoxy resin coating, black colour.  
AISI 304 stainless steel screws and nuts.  
Special executions on request:  
different combinations of holes.  
Holes Ø: 0.39 - 0.47 - 0.55 - 0.59 - 0.63 - 0.71 inch

### GN 132

#### Two-way connecting clamps

Aluminium



Natural or with epoxy resin coating, black colour.  
AISI 304 stainless steel screws and nuts.  
Special executions on request:  
different combinations of holes.  
Holes Ø: 0.79 - 0.98 - 1.18 - 1.26 - 1.38 - 1.57 - 1.65 - 1.77 - 1.90 - 1.97 - 2.16 - 2.36 inch

### GN 134

#### Two-way connecting clamps

Aluminium



Natural or with epoxy resin coating, black colour.  
AISI 304 stainless steel screws and nuts.  
Available with square holes, round holes or  
combination of square and round holes.  
Holes Ø: 0.79 - 0.98 - 1.18 - 1.26 - 1.38 - 1.57 - 1.65 - 1.77 - 1.90 - 1.97 inch

### GN 145 - GN 145-NI

#### Connecting clamps with mounting base

Aluminium or  
stainless steel

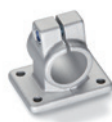


Natural or with epoxy resin coating, black colour.  
AISI 304 stainless steel screws and nuts.  
Holes Ø: 0.39 - 0.47 - 0.55 - 0.59 - 0.63 - 0.71 - 0.79 inch

### GN 146

#### Connecting clamps with mounting base

Aluminium

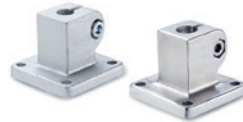


Natural or with epoxy resin coating, black colour.  
AISI 304 stainless steel screws and nuts.  
Holes Ø: 0.79 - 0.98 - 1.18 - 1.26 - 1.38 - 1.57 - 1.65 - 1.77 - 1.90 - 1.97 - 2.16 - 2.36 inch

### GN 162 - GN 162-NI

#### Connecting clamp bases

Aluminium or  
stainless steel



Natural or with epoxy resin coating, black colour.  
AISI 304 stainless steel screws and nuts.  
Holes Ø: 0.39 - 0.47 - 0.55 - 0.59 - 0.63 - 0.71 - 0.79 inch

### GN 191 - GN 191-NI

#### T-shaped connecting clamps

Aluminium or stainless steel



Natural or with epoxy resin coating, black colour.  
AISI 304 stainless steel screws and nuts.  
Special executions on request: different combinations  
of holes.  
Holes Ø: 0.39 - 0.47 - 0.55 - 0.59 - 0.63 - 0.71 - 0.79 inch

### GN 192

#### T-shaped connecting clamps

Aluminium



Natural or with epoxy resin coating, black colour.  
AISI 304 stainless steel screws and nuts.  
Special executions on request: different combinations  
of holes. Holes Ø: 0.79 - 0.98 - 1.18 - 1.26 - 1.38 - 1.57 - 1.65 - 1.77 - 1.90 - 1.97 - 2.16 - 2.36 inch

### GN 282

#### Pivoting connecting clamps

Aluminium



Natural or with epoxy resin coating, black colour.  
With continuous adjustment or adjustment by 15°  
snaps.  
AISI 304 stainless steel screws and nuts.  
Holes Ø: 1.57 - 2.56 inch

### GN 291 - GN 291.1

#### Linear actuators

Steel



AISI 303 stainless steel worm screw with trapezoidal  
threading, brass slider. Standard executions: right or  
left threaded screw, projecting on one side or both  
sides. Stroke: 2.56 - 2.76 - 3.94 - 4.53 - 5.91 - 6.50 - 6.69 - 7.87 - 8.46 - 8.66 - 10.43 - 10.63 - 11.81 - 12.40 - 12.60 - 28.35 inch

### GN 132.2

#### Two-way connecting clamps

for linear actuators, aluminium



Epoxy resin coating, black colour.  
AISI 304 stainless steel screws and nuts.  
With or without technopolymer sliding bushings.  
Holes Ø: 1.18 - 1.57 - 1.97 - 2.36 inch

### GN 146.1

#### Connecting clamps with mounting base

for linear actuators, aluminium



Epoxy resin coating, black colour.  
AISI 304 stainless steel screws and nuts.  
With or without technopolymer sliding bushing.  
Holes Ø: 1.18 - 1.57 - 1.97 - 2.36 inch

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