

COMPANY PORTFOLIO



SAFETY
PROTECTIVE
COMPONENTS



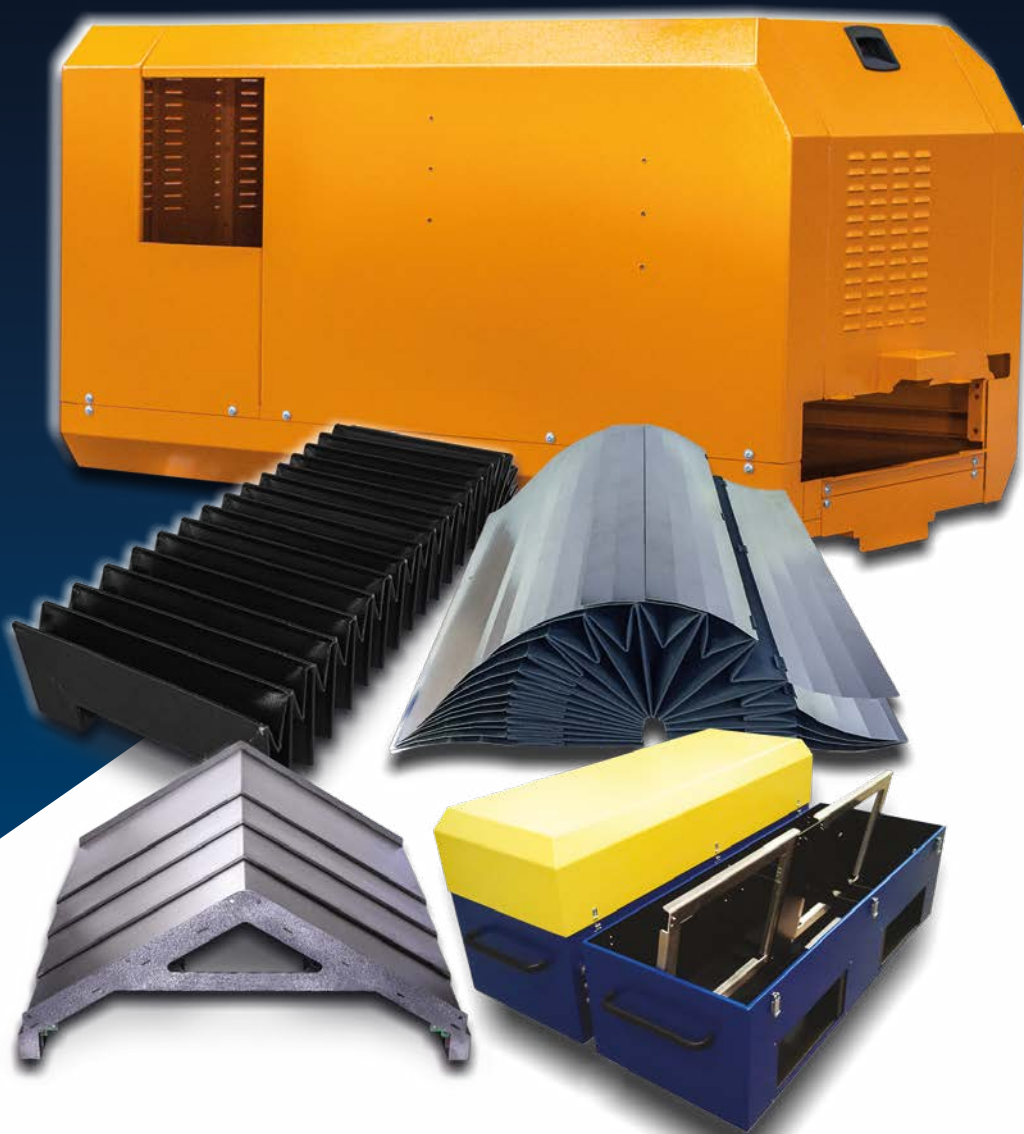
CUSTOM
ENGINEERING
PRODUCTION



OWN
PRODUCTS



ASSEMBLY
AND SERVICE



 **CZECH** BEST
MANAGED
COMPANIES



HESTEGO

member of **ITS** Group

ABOUT COMPANY



Member of	ITS Group
Legal form	Joint-stock company
Founded in	1995
Number of employees	300
Production area	12 550 m²
Headquarters	Vyškov, CZ
Branch office	Stuttgart, DE

We have been developing and manufacturing protective components for machines for nearly 30 years. It all started in 1995 with the manufacturing of telescopic covers for machine tools. These days, Hestego offers a wide range of machine protection systems and components.

Apart from telescopic steel covers, folded bellows, complete machine cover systems, this also includes clamping and braking systems, rotating safety windows and a complete system of internal and external machine covers.



Our processes are regularly checked and certified by independent bodies. Our KAIZEN teams continue to improve the production processes on a permanent basis. The company's main goal is to deliver the state-of-the-art design solutions that meet the technical and technological specifications of the most demanding customers. Our development and design department cooperates closely with renowned institutions.



Certifications:

- ISO 9001
- ISO 14001
- ISO 3834-2
- ISO 15085-2

TECHNOLOGY

Materials cutting using CNC laser and cutting centres

- State-of-the-art laser punching, forming and cutting technology (Combi and Fiber laser, CO2)
- Cutting/punching force 300 kN
- Sheet metal processing up to the format of 5 000 x 1 500 mm
- Standard formats 4 000 x 2 000 mm and 4 000 x 1 500 mm

Sheet metal bending using press brakes

- Pressing force up to 2 400 kN
- Bending length up to 5 100 mm
- Positioning accuracy +/- 0.1 mm



Sheet metal rolling

- Working length 2 500 mm
- Sheet metal thickness: 6 mm - in full working length
- 4 rollers, maximum diameter: 3 000 mm, minimum diameter: 180 mm

Welding and metalworking

- Manual welding using MIG, MAG, TIG technologies
- Robotic electric arc welding
- Spot welding
- Resistance welding of studs
- Maximum dimensions of welded part: 4 000 x 2 000 mm
- Maximum weight of welded part 1 500 kg

Edge and surface treatment

- Edge deburring - maximum width 1 480 mm
- Mechanical grinding - maximum width 1 250 mm
- Manual grinding

AUTOMATION

Materials processed

- Structural materials up to the thickness of 20 mm
- Stainless steel/aluminium up to 8 mm
- Other materials up to 4 mm

Production automation

- Automatic warehouse
- Automatic sorting of parts
- 280 pallet places
- Stacker speed 3 m/s
- 3 infeed/outfeed stations



Powder painting shop

- Continuous automatic line for series powder painting
- Chemical 5 step pre-treatment - nanotechnology
- Pass-through drying oven
- 2 painting booths
- One-coat and two-coat painting (optional use of the zinc base)
- Quick paint replacement and overpainted powder regeneration
- Automatic guns controlled by optical gateway
- Paint shop processes include cross-cut testing, paint layer thickness measurement, gloss measurement, shade check (spectrophotometer)
- Painted materials - steel, aluminium and zinc
- Logistic facilities and possibility of packaging parts on site
- Maximum dimensions of painted part: 3 000 x 1 700 x 700 mm (length x height x width)



OWN PRODUCTION AND CUSTOM MANUFACTURING



Product range

- Smart delivery boxes BOXIE
- Smart waste bins SMART Be
- Contactless hand sanitizers
- Production of simple and complex weldments in series
- Powder coated and uncoated parts / assemblies
- Partial pre-assembly / complete assembly of parts
- Electrical installations



Application areas

- Mechanical engineering
- Electrical industry
- Woodworking industry
- Waste management
- Automotive
- Energy sector
- Rail vehicles

MACHINE COVERS

- Design of covers, including customized design study
- Original design solutions
- Complete manufacture of covers
- Covers for small, large and medium-sized machines
- Complete deliveries, including drives and wiring
- Production in line with the customer documentation
- Serial production
- Complete installation and service of supplied covers



TELESCOPIC COVERS FOR MACHINE TOOLS AND GRINDING MACHINES

Telescopic covers are a traditional means of covering guideways, spindles, shafts, columns and other sensitive machine tool parts. Their application:

- Protects surfaces against chips and cutting fluids
- Prevents mechanical damage to surfaces
- Prolongs machine service life.

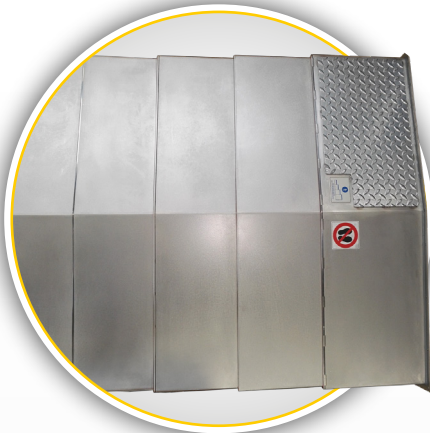
By focusing on the continuous development of new technologies, we are also reducing the energy required to power our machine tools and are therefore contributing to the reduction of CO2 emissions.

Benefits of HESTEGO telescopic covers:

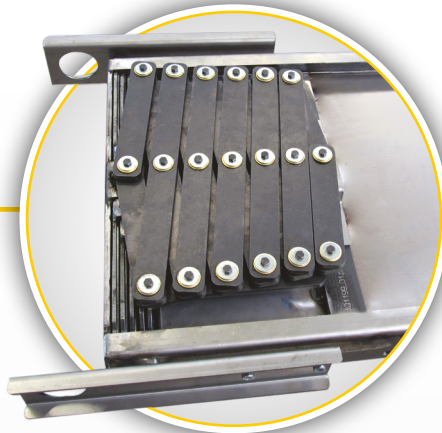
- Sliding elements with low passive resistance
- Roller elements for high load bearing and speed of motion
- Wiping systems with high blade flexibility and easy replacement
- Patented impact absorption
- High quality steel with maximum flatness
- Flexible application for all working positions.

Casing:

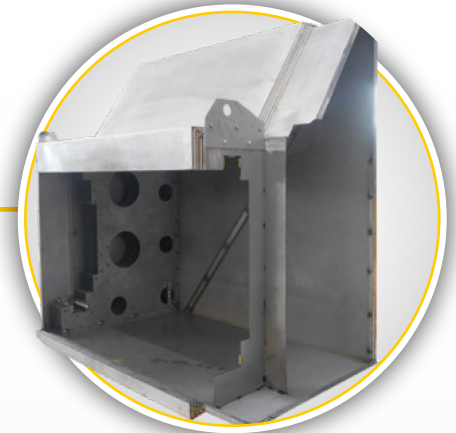
Machine bed



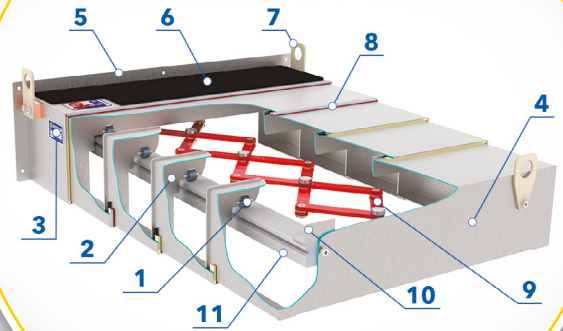
Machine stand



Machine cross member

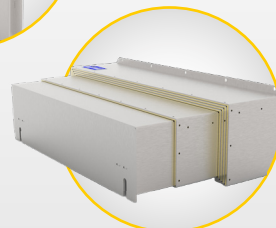
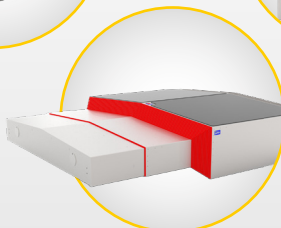
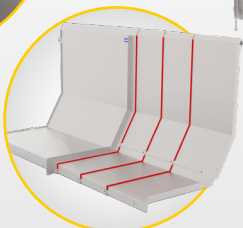
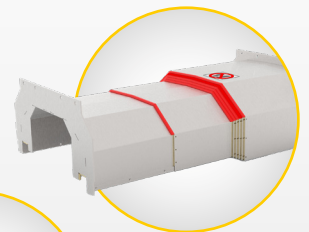
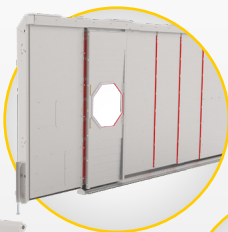
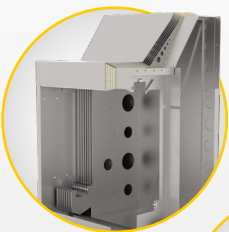


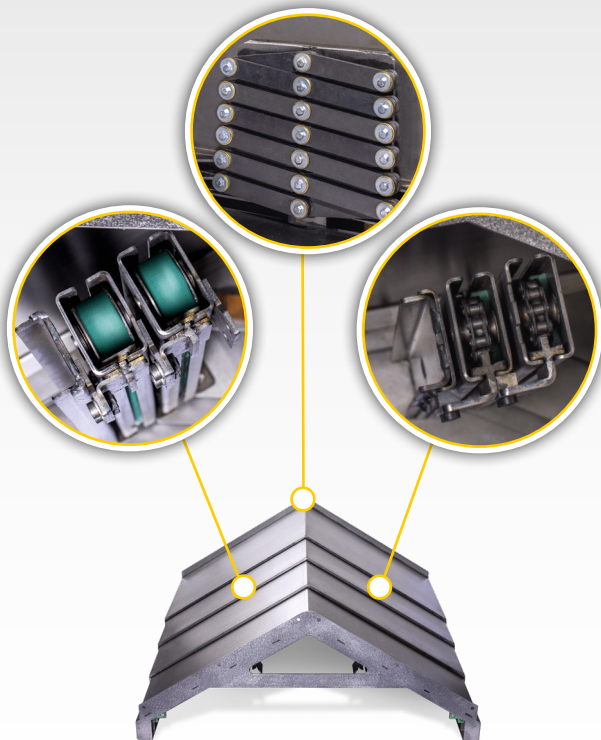
Telescopic cover parts



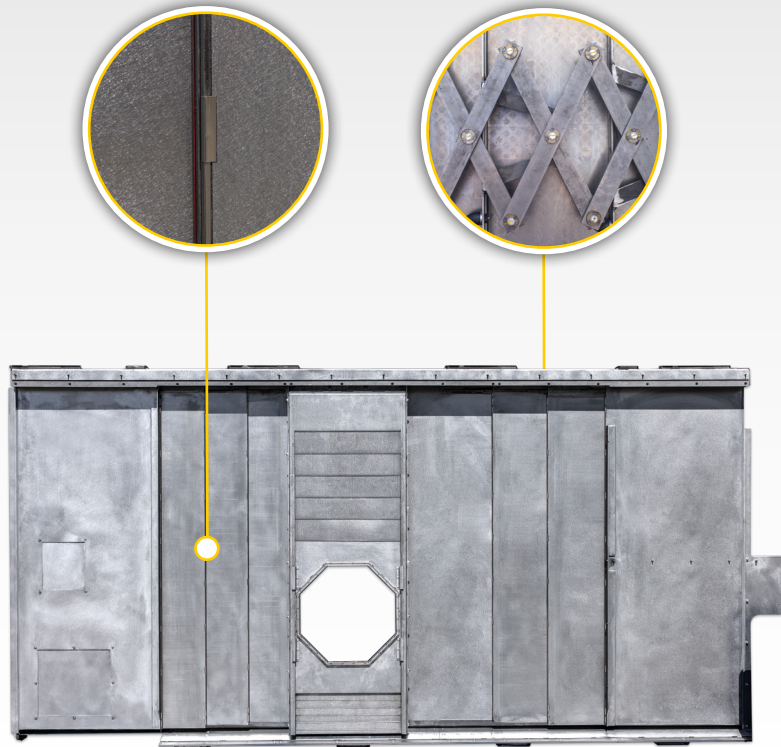
1. Main guiding element
2. Side guiding element
3. Label
4. KN - front wall, smallest part
5. K01 - rear wall, largest part
6. Chequer plate (designed to be walked on)
7. Lifting lug
8. Wiping system
9. Mechanism for fully controlled movement of parts
10. Supporting element for positioning smallest part
11. Telescopic cover guideway on the machine

Basic shapes of telescopic covers





Telescopic covers with synchronized (constrained) movement



Special versions of telescopic covers

Before a telescopic cover is shipped to the customer, it is extensively tested using a specially designed test station.

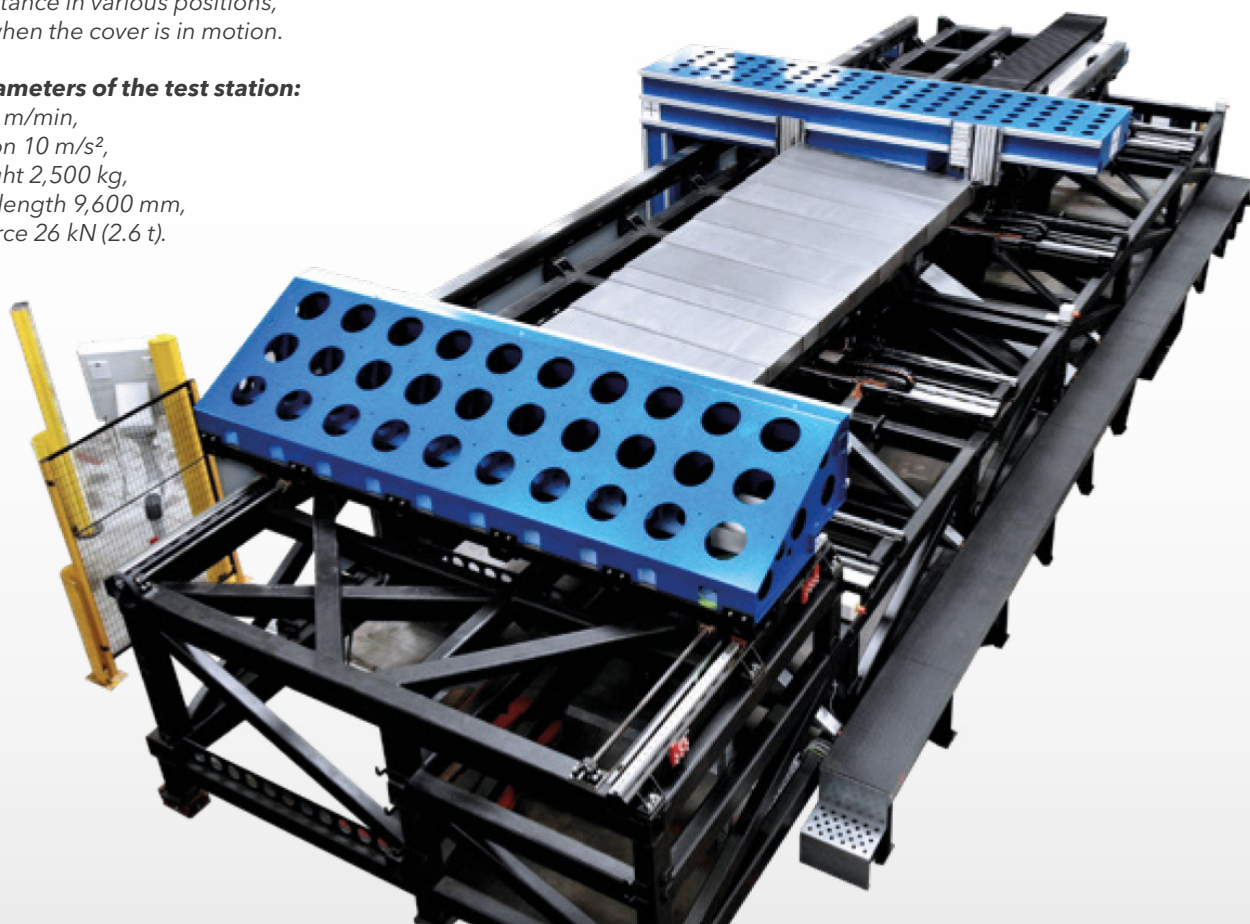
Covers that need to operate in different positions can be tested. The following are tested: smoothness of cover operation; required Lmin and Lmax parameters; and effectiveness of shock absorption

The following data can be incorporated in the measurement report:

- Cover resistance in various positions,
- Vibration when the cover is in motion.

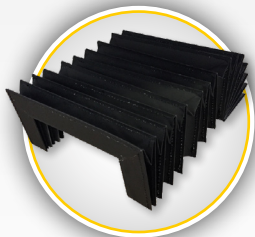
Maximum parameters of the test station:

- Speed 100 m/min,
- Acceleration 10 m/s²,
- Cover weight 2,500 kg,
- Extended length 9,600 mm,
- Traction force 26 kN (2.6 t).

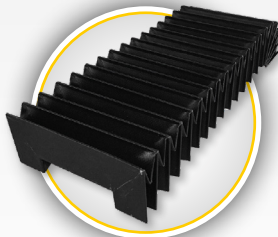


PROTECTIVE BELLOWS

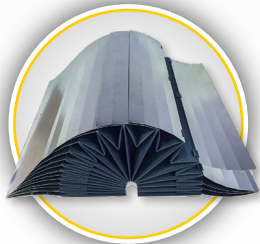
Bellow types



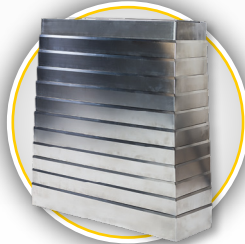
stitched



welded

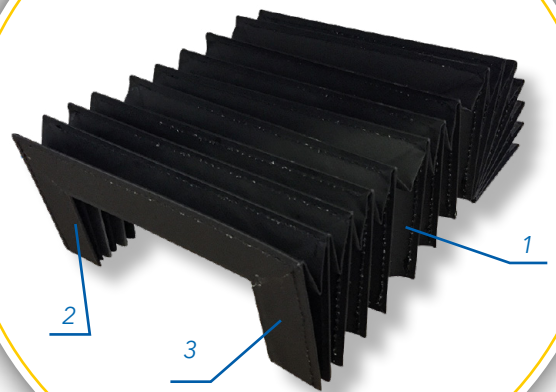


with moving cover plates



with hard cover plates

Bellows

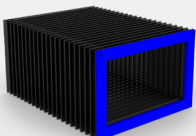
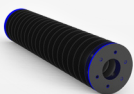
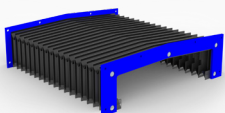
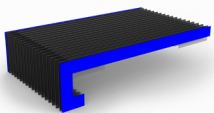
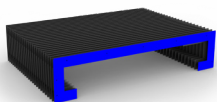


1. Fabric with protective layer
2. PVC reinforcement frame with sliding elements
3. End flanges for attachment to the machine

Fabric parameters:

- carrier material: PES (polyester - Yantai, Kevlar, Aramid),
- coating: PU (polyurethane - PTFE (Teflon) or PVC),
- material thickness: 0.22 - 0.4 mm,
- temperature stability: -20 to +120°C.

SHAPES OF BELLOWS



Practical use of bellows



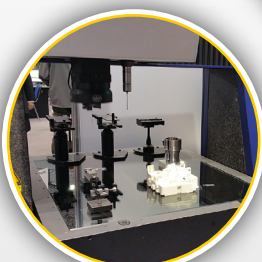
Lifting equipment



Machine tools



Lasers

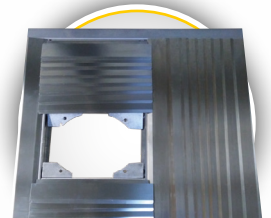
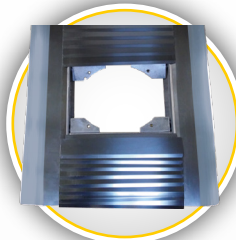


Measuring equipment

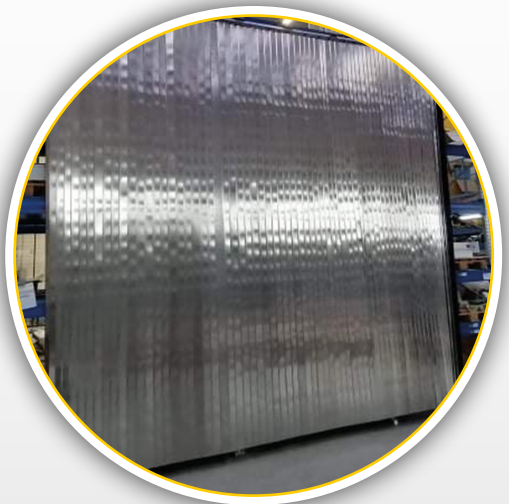
Atypical covers

XY modules

- maximum dimension 5,000 x 2,000 mm



Bellows systems (screens)



WIPING SYSTEMS

Wiping systems are used for cleaning the guide surfaces of machine tools. Their use helps to maintain accuracy and increase the service life of the guide surfaces. Depending on the type, they can either be screwed, riveted, glued, or spot-welded onto a supporting profile.

- continuous development to reduce passive resistance
- application of new materials
- applications for wet and dry operations
- wide range of profiles and applications
- manufactured in-house

Reduced energy consumption:

- New wiper material based on a thermoplastic polyurethane with modifiers which reduces the passive resistance of the wiper itself by 75% in dry machining, while maintaining all its key properties, such as abrasion resistance and toughness.

Precise surface wipers

■ **S type**

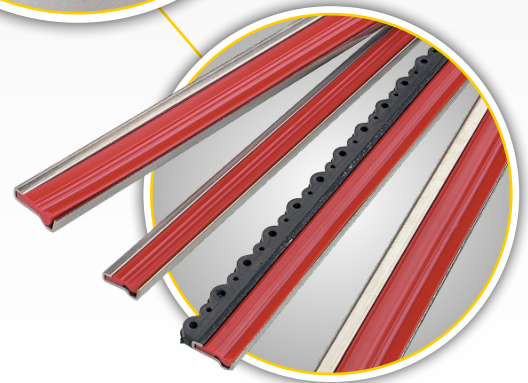
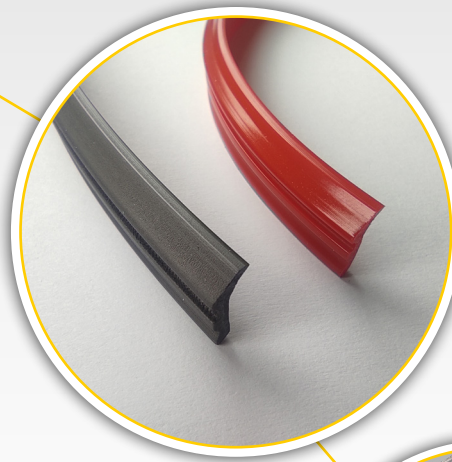
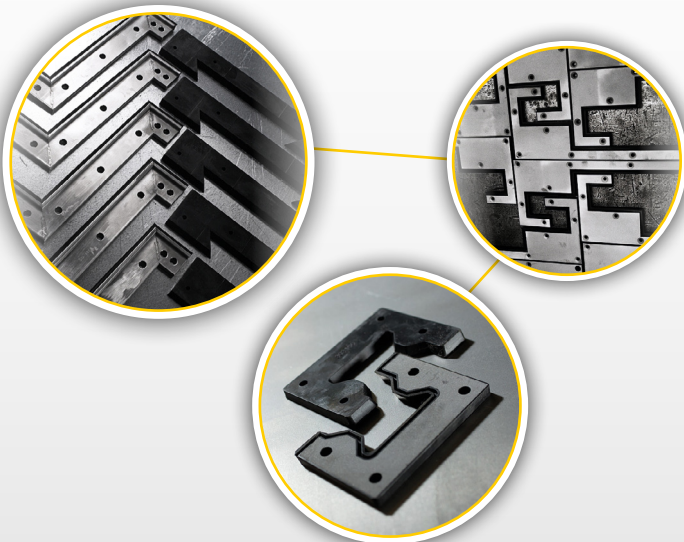
Heavy duty wiper in a stainless-steel profile. PU85 wiping profile. Suitable for wiping large volumes of chips and liquid on precise surfaces, Blade stroke 1 mm. Can be fitted with a pre-wiper of flexible stainless steel.

■ **E type**

Easy Click wiper for standard applications. PU80 wiping profile with screw holes mounted to a steel profile. Particularly suitable for guideway surfaces under telescopic covers. Blade stroke up to 3 mm. Follows the surface to be wiped with precision.

■ **Cast wipers**

Characterized by their high precision. Made from NBR and mounted to a steel profile. Mainly designed for serial production.



Wipers for standard surfaces of telescopic covers

■ **DSP8**

Designed for use with small telescopic covers. Features stainless-steel support profile for welding. The SLP8 wiping profile made from PU85 material is replaceable. Available in a version with integrated shock absorption.

■ **DSP12**

Designed for use with medium-sized telescopic covers. Features stainless-steel support profile for welding. The SLP12 wiping profile made from PU85 material is replaceable.

■ **DV12**

Designed for use with large telescopic covers. Features a stainless-steel support profile for welding. The SLV12 wiping profile made from PU85 material is replaceable. Big blade stroke.

■ **LP8**

Designed for use with small and medium-sized telescopic covers. Features a drawn support profile for welding. The ST1 wiping profile with optimized geometry and reduced passive resistance is replaceable.

Wipers for versatile use

■ **L type wipers**

Made from NBR. Features a vulcanized wiping profile mounted to a 500 mm long steel support profile. Types: L12,5, L14, L18, L25, P01, P02, P03.

■ **FB-D1 wiper**

Features Viton wiping material mounted to a steel support profile by vulcanization. Viton is highly resistant to wear and is protected from chips by a stainless-steel pre-wiper.

SIGHT WINDOWS

Sight windows and spin windows enable an unobstructed view of the machining area and the production process.

It is recommended to use sight windows to protect machine operators. If machine tools are only equipped with simple polycarbonate glass, it quickly becomes brittle due to the permanent contact with coolants, thereby losing its retention power. For this reason, HESTEGO uses a combination of safety glass and polycarbonate for the manufacture of its sight windows.



Based on the recommendations of VDW, sight windows should be replaced every 5 years.



Impact tests

Our sight windows have been designed to comply with the standards for machine tools. Due to their encapsulation and sealing, the sight windows are permanently and effectively protected against external influences.

The retention capacity is tested in accordance with the aforementioned standards. This involves bombarding the sight window with projectiles weighing up to 2.5 kg, travelling at a speed of up to 80 m/s before impact, and with a force of up to 8,000 Nm.

We supply sight windows for machine tools as composite safety panels made from a combination of polycarbonate and safety glass.

SPINVISTA sight windows

When machine tools are in operation, the view of the interior can be restricted due to flying chips and cooling lubricant splashing around.

SPINVISTA sight windows rotate at such a high speed that liquids and debris are kept away from the disc. The result is a clear view of the production process without the risk of injury to the operator.

The sight windows are designed for all types of CNC machines and machining centres, both for new equipment and for retrofitting. They are suitable for high-speed milling and grinding machines and, as a single system, for lathes, too.

SPINVISTA sight windows:

- **SPINVISTA EVO** - outer diameter 253 mm and visible area approx. 284 cm²
- **SPINVISTA NEO** - outer diameter 290 mm and visible area approx. 430 cm²



Various installation options

SPINVISTA sight windows can be mounted to both the (existing) sight glass and sliding doors of a machine tool.

ROLLING COVERS

Rolling covers can be used as a replacement for folded bellows where lack of space does not allow for another technical solution and where perfect sealing is not required.

Design

- Without protective case
- With protective case

Strip material used

- regular steel
- stainless steel
- plastic



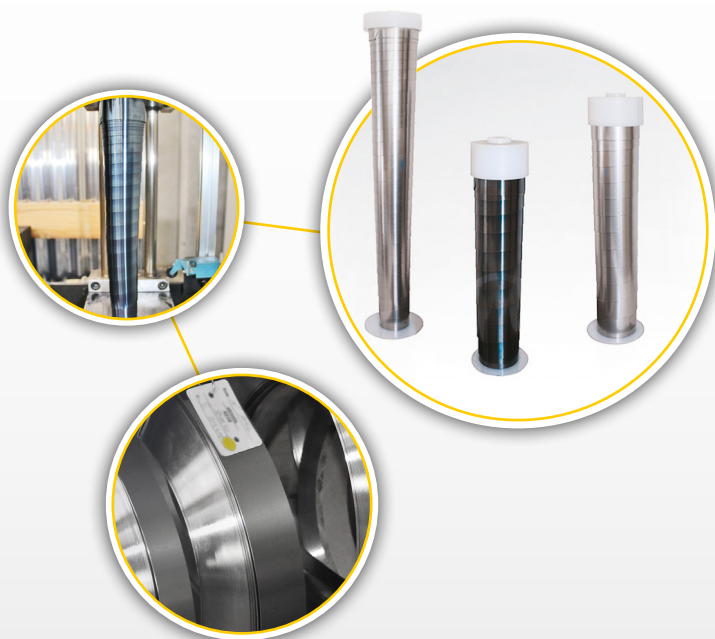
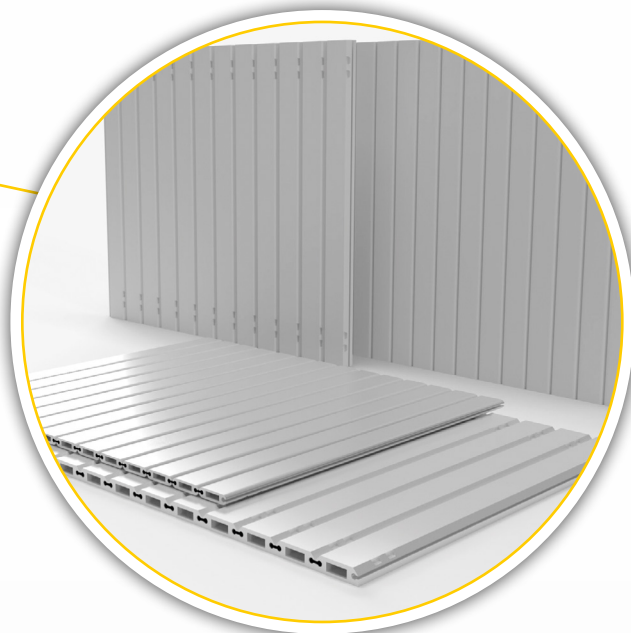
Rolling cover drives

- **FM-drives** - they are used with steel strips mostly in applications with a higher tension load.
- **SA-drives** - they are supplied only with standard steel strip because the external strip used for covering also serves as spring drive.
- **TF-drives** - they are used for high running speeds with minimum strain. We recommend them mostly for plastic strips.

SECTIONAL SCREENS

Sectional screens are used for frontal protection against small amounts of chips and coolant. Due to their simplicity they offer good mobility, easy assembly, and do not require much space.

- **FLEXPRO Link screen**
- **FLEXSTAR screen**
- **FLEXSTAR-Windows**
- **FLEXWALK**



TELESCOPIC SPRINGS

These protect spindles from contamination that can affect the dynamics of running movements, therefore enabling efficient and exact positioning

Mounting position

- Horizontal
- Vertical

Material

- Steel or stainless steel

Inner diameter 15 - 160 mm

Extension length up to 4,500 mm for vertical types

THE PERFECT CLAMPING SYSTEM FOR EVERY APPLICATION

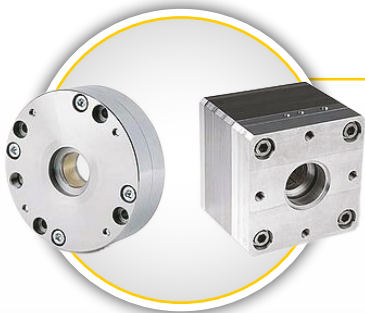
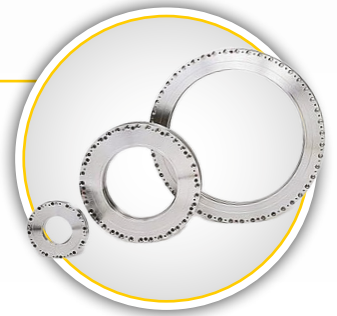
We supply the highest performance and torque pneumatic clamping or braking systems for a wide range of applications.

Both axles and moving bodies can be clamped on the linear guideway. The clamping system provides a high clamping force and improves safety. If the compressed air system fails, the axle or load is immediately fixed into position. The manually operated clamp is ideal for fixing machine parts for transport or rebuilding purposes.



RotoClamp

RotoClamp is a compact pneumatic clamping system for rotary applications. The high clamping force outperforms hydraulic systems in terms of efficiency and efficacy, with significantly lower system costs. RotoClamp is fail-safe because in the event of tire failure, the shaft is clamped immediately and with great force.



PClamp

PClamp is a modular system for the safe clamping of bar loads and pneumatic cylinders. It can be adapted to standard systems such as pneumatic cylinders from leading manufacturers (e.g. SMC, Festo) or to customised solutions.

LinClamp

LinClamps are used wherever moving masses need to be held or braked in the axial direction. This clamping and braking system can be used on almost all commercially available linear guides and elements and are easy to install.



MClamp

Clamps are often used only as safety devices for machine tools. Hydraulic, pneumatic or electric models would have to be completely oversized for this purpose. Our engineers have therefore designed a low-cost manual clamping system for simple rail clamping - MClamp.

R&D / INSTALLATION / SERVICING

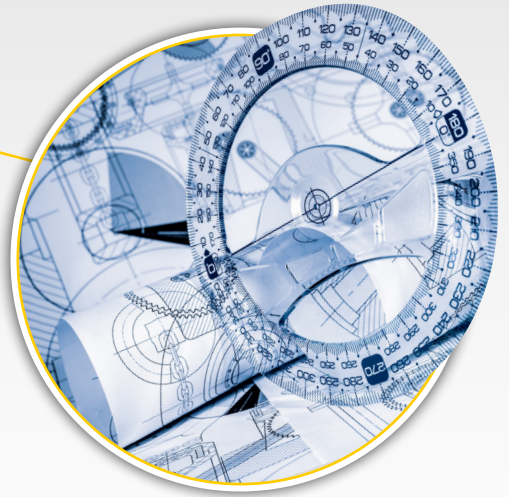
Our R&D department takes a holistic view of product design.

Every product starts with an idea, either from a customer, marketing specialist or designer.

When taking up an idea, it is our customers that define the requirements and inform the direction of product development. From start to finish, the ensuing process is a holistic one that also involves designers, engineers and technical experts. Together, their combined efforts help us to create innovative and successful products that are technically sound and completely functional.

While endeavouring to satisfy the ever changing needs of our customers, we also constantly bear in mind sustainability and environmental considerations, as based on our company's well-established policy on corporate social responsibility.

It is these factors that are the keys to our success on the market.



INSTALLATION / ELECTRICAL INSTALLATION

We also offer electrical installations of complete products. We can install required components into an existing product, perform basic electrical testing and load software. Alternatively, we can design customised electrical solutions according to a customer's needs, including testing.

SERVICING/REPAIR OF TELESCOPIC COVERS

Covers protect your machine and its operator. We are happy to provide technical assistance in the maintenance of internal cover systems for machine tools and devices.

We provide a fast, high-quality service whenever you need to quickly resolve a machine casing defect anywhere in Europe. Our servicemen are always at the ready and will deal with the problem in the shortest time possible. They are fully equipped to handle such demanding situations.

- Fully equipped service vans direct to your door
- Inspection of the technical condition and replacement of worn out cover components and wipers
- Complete repairs of covers (also from other manufacturers)
- "FAST TRACK" repairs and servicing of telescopic covers within short deadlines
- Measurement of the cover directly on the machine and making of new telescopic cover if repair is not possible
- Installation of covers
- Repairs of other manufacturer's covers.

