

Global Leaders in Dynamic Protection
for Equipment and People

PRODUCT OVERVIEW

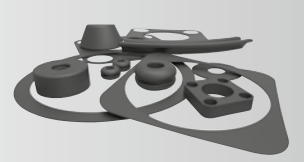
PROTECTIVE COVERS



CABLE AND HOSE CARRIERS



SLIP CLUTCHES



ELASTOMER PRODUCTS



- 1** Global Headquarters & Manufacturing, Gortite Division
NEW BERLIN, WISCONSIN, U.S.A.
- 2** U.S.A. Manufacturing, Gortrac Division
VALPARAISO, INDIANA, U.S.A.
- 3** U.S.A. Manufacturing, Polyclutch Division
NORTH HAVEN, CONNECTICUT, U.S.A.
- 4** U.S.A. Manufacturing, LSI Division
TRAVERSE CITY, MICHIGAN, U.S.A.
- 5** U.S.A. Manufacturing, Ro-Lab Division
TRACY, CALIFORNIA, U.S.A.
- 6** Europe Sales
Formerly Dynatect-Halltech
SCHWAIG, GERMANY
- 7** Europe Manufacturing
Formerly Dynatect-MFB
STEINHAGEN, GERMANY
- 8** Asia Sales & Support
SHANGHAI, CHINA

THE EXACT PRODUCT FOR YOUR NEEDS

Dynatect offers a broad portfolio of industrial equipment protection ranging from protective covers through miniature slip clutches to custom elastomer moldings.

Dynatect Manufacturing (formerly A&A Manufacturing) was founded in the U.S.A. in 1945 and in 1949 began manufacturing bellows for the machine tool industry. Today it is the largest manufacturer of industrial plant protection products in the United States.

Dynatect provides not only longstanding know-how but also customer proximity all over the world thanks to its subsidiaries in Europe and Asia.

We can look back on over 500,000 designs, developments and customized solutions and are the perfect partner for the development and production of tailor-made protective covers.

As a global leader in dynamic protection for equipment and people, we are continually optimizing our manufacturing processes and fine-tuning our products to provide our customers with high product quality, both now and in the future.

Dynatect Timeline

1945	A&A Manufacturing Company founded	
1949	Flexible protective covers	
1967	Telescopic steel covers	
1970	GORTRAC cable and hose carriers	
1973	Bellows for articulated buses and light rail vehicles	
1998	Manufacturing facility opened in Valparaiso, Indiana	
2000	Roll-up doors introduced	
2002	Milwaukee Protective Covers (MPC) acquired	
2008	Polyclutch acquired	
2012	Ro-Lab and Halltech GmbH acquired	 
2013	Lead Screws International and MFB-Technik Schillig acquired	 
2014	Positioning under new umbrella brand	

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PROTECTIVE COVERS FOR YOUR EQUIPMENT AND PERSONNEL

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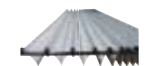
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REQUEST FOR QUOTE – IT'S EASY ONLINE

Whether you have a straightforward order, want to modify an existing design or need an entirely new solution, just request a quote at our online interactive quote forms. Visit us at www.dynatect.de



Have any questions?

Our technical advisors can answer any questions – call

+49 8122 96 66 60

APPLICATION EXAMPLES



Telaflex steel covers and bellows with blades are used here to protect the machine ways of a horizontal boring machine from accumulating chips and liquids.



Bellows and Nylatrac cable carriers on a waterjet machine.



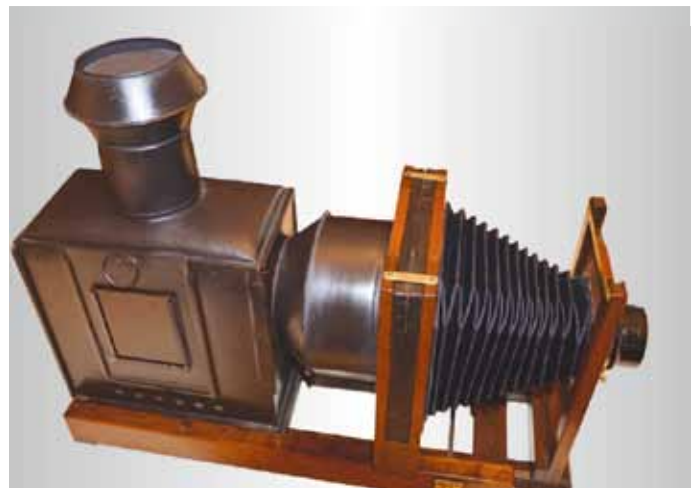
Special laser beam bellows are used in horizontal and vertical configurations.



Bellows and Nylatrac cable carriers for machine way protection on a large vertical machining center.



Bellows with stainless steel blades for machine way protection have been successfully applied in vertical, horizontal and crossrail configurations.



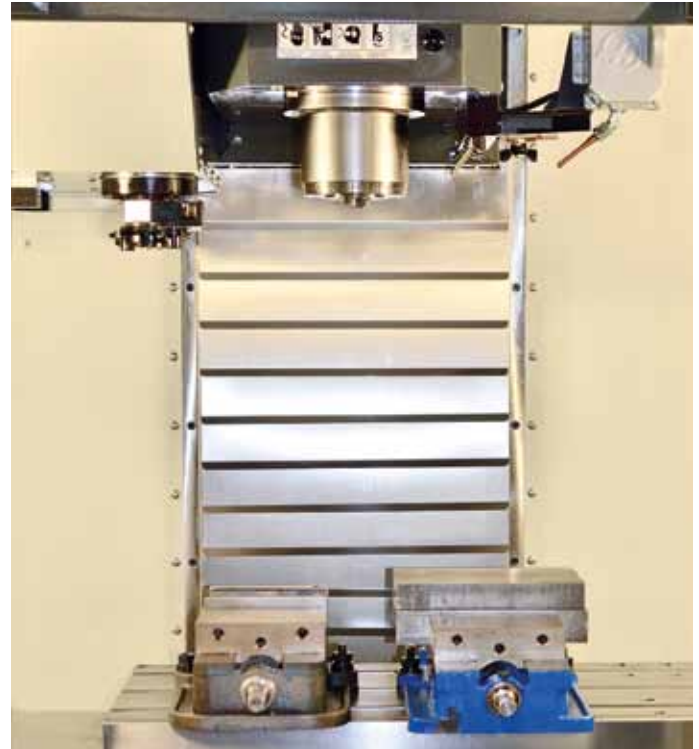
Light-tight folded bellows used on a restored photo enlarger.



Heavy-duty roll-ups can be applied to fire truck hose beds as a retractable cover and also as a walk-on surface when not in use.



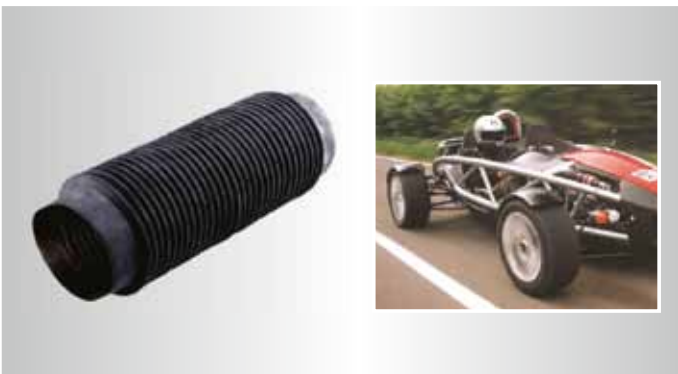
Steelflex walk-on duty covers have been used for decades for personnel safety and machine protection in the covering of machine ways and inspection pits.



Lightweight Gorplate sliding plate covers provide machine ways, linear guides and machine components with effective protection from hot chips and weld splatter.



An enclosed Gorframe cover concealing the operational mechanism of a tilt table while withstanding a range of motion in a variety of directions.



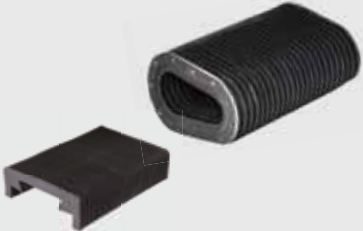
Suitable for operation in rugged, outdoor environments, Gortiflex bellows have been applied on military and commercial vehicles, aircraft and more. They are constructed of elastomer materials rated to withstand UV light, temperature variations and moisture.



Gorframe bellows for flexible air ducting on a heavy truck.

PROTECTIVE BELLOWS

Greatest variety on the market

BELLOWS TYPE	BELLOWS CONSTRUCTION	SPECIAL FEATURES/ADVANTAGES
Heat Sealed Bellows 	Custom-engineered to drawing or sample. Stiffeners and reinforcing frames are thermally welded to the cover material. Mounting: With steel, aluminum or PVC flanges or Velcro strip	Dust and liquid tight, assured dimensional stability Dimensions: As required Options: • Stainless steel protecting blades • Extension limiters • Scissor systems
Molded Bellows 	Custom-engineered to drawing or sample. Vulcanized bellows are compression molded. Mounting: With collars, flanges or beads for snap-in mounting	• High repeat accuracy for reorders • Dust and liquid tight • Almost 500 standard sizes available from stock (For drawings and dimensions, please see our <i>Molded Bellows</i> catalog.)
Bellows (Rubber Disk Bellows) 	Custom-engineered to drawing or sample. These bellows are made of molded elastomer and can also be delivered with a fabric inlay. Mounting: With collars, flanges, collars with flanges and pot flanges	• Dust and liquid tight • Outstanding extension ratio (up to 1:15) Dimensions: Outside diameter: up to approx. 450 mm Options: • Air vents • Sliding bearings • Supporting disks
Vulca Seal Bellows 	Manufactured to customer specifications. Vulca Seal bellows are made of fabric-faced CSM or EPDM elastomers in a vulcanization process. Mounting: According to customer requirements	• Withstands pressure up to 0.7 bar • Extremely durable – also highly suitable in abrasive conditions • Ideal for OEM use on both prototype models and new designs Dimensions: Up to 1500 mm wide Options: Breather vents
Multiflex Bellows 	These folded bellows are produced using a dip molding process according to customer specifications. Operating temperature range is -30° C to +80° C. Mounting: With collars, flanges or a bead for snap-in mounting	• Speedy prototype tooling and sample delivery • Neat, clean and very attractive appearance • Seamless protection against water, oil and other contaminants • Excellent UV and ozone resistance Dimensions: Smallest inside diameter: 12 mm Large inside diameter: 600 mm Options: Zip fastener, wire rings, breather vents, air flaps

SHAPES	MATERIALS	TYPICAL APPLICATIONS
Almost any configuration is feasible.	Coated plastic fabrics are generally used. Depending on intended deployment, environmental conditions, acceleration and speed we can make the right choice from among 50 different materials, incl.: • polyurethane-coated polyester • polyurethane-coated Kevlar® • Lasertex (Preox Kevlar®) • PVC-coated polyester Kevlar® is a registered trademark of Dupont.	• Machine tools • Wood-working machines • Measuring and testing machines • Linear guides • Water-jet machines • Welding machines • Laser machines
Cylindrical, rectangular, oval, tapered	• NBR (Nitrile Butadiene Rubber), HNBR (Hydrogenated Nitrile Butadiene Rubber), Neoprene, EPDM (Ethylene Propylene Diene Monomer) and SI (Silicone Rubber) are the most frequently deployed materials. • Also available in white/FDA quality • Depending on item quantity, other colours also possible	• On machines and appliances • On balances and adjustable ladders • On game consoles and fitness equipment • In the automotive industry • In the wood and paper industries • In the food-processing industry • In the packaging industry • On welding machines
Round, rectangular, oval	CSM (Chlorosulfonated Polyethylene Synthetic Rubber), NBR (Nitrile Butadiene Rubber) and EPDM (Ethylene Propylene Diene Monomer) are the most frequently deployed materials – also with Teflon® coating (paper industry). Neoprene-coated fabric	• In mechanical engineering • For protecting hydraulic and pneumatic cylinders • On ball screws and spindles • On piston rods and guides • On lifting jacks • On measuring machines • In medical engineering • In the wood and paper industries
Round, rectangular, oval, as apron-type cover or folded bellows without stiffener	CSM- and EPDM-coated fabric	• Machine ways • Linear guides
(Almost) any configuration is feasible.	Thermoplastic Standard colors: Black, gray, white – high gloss or matte	• Wherever ozone and UV resistance are required • In a paint and lacquer environment • In offshore work (excellent resistance to salt water!) • In agricultural machinery • In the food-processing industry • In the computer industry (joysticks) • In the chemical industry • In sanitary installations • In medical engineering • For clean room applications

PROTECTIVE BELLOWS Greatest variety on the market

BELLOWS TYPE	BELLOWS CONSTRUCTION	SPECIAL FEATURES/ADVANTAGES
Gortiflex Molded Bellows 	Gortiflex molded bellows are constructed from a tube of elastomer or fabric with or without a fabric coating. Thickness: 0.8 - 3.2 mm. No tooling fee. Dimensions: • Smallest inside diameter: 12.7 mm • Largest outside diameter: 1650 mm Mounting: All means are possible	• Superior durability in outdoor environments with exposure to moisture, ice, sand, oil, temperature variations and ultraviolet radiation • Sealed construction resists moisture, liquid or chemical spray, contaminants and dirt • Resistant to temperatures up to 230°C • Withstands pressure up to 0.7 bar Options: Air vents, zip fastener, wire rings, sliding bushes
PowerGuard Fabric Bellows 	Produced to specification out of coated fabric materials Mounting: With collars or flanges	Robust bellows characterized by a long service life and high tensile strength. • Resistance to acid and chemicals • Resistant to high temperatures • UV/ozone resistance • Extreme durability and tear strength Options: Zip fastener, air vents, wire rings, coil springs, grommets, Velcro strips, extension limiters
Sewn Bellows 	Sewn bellows are manufactured of elastomer-coated fabric. Dimensions according to customer specifications. Largest diameter produced to date: 5000 mm Mounting: Collars, flanges	• Low-cost protection from dust, dirt and other contaminants • Round sewn bellows can be produced at short notice Options: Zip fastener, air vents, wire rings, coil springs
LIFTGARD Lift Table Covers 	Liftgard lift table covers are constructed of precision engineered aluminum extrusions shaped to provide structure and strength to folded PVC/Nylon. The cover can be provided a wash-down (water-tight) design if required. Mounting: Steel or aluminum frame, Velcro strip. Corner venting optimized to accommodate rapidly rising and descending lifts. Dimensions according to customer specifications	The Liftgard was especially designed with the purpose of covering scissors/lift tables to prevent injuries and accidents. The aluminum frame provides a stiff and supportive structure. A zipper on one or two sides is provided for fast and easy installation.
Box-Type Bellows for Lift and Scissor Tables 	Manufactured to customer specifications. Depending on size, box-style bellows are either heat sealed or sewn. Dimensions according to customer specifications; side lengths of over 5000 mm are possible. Mounting: By means of flanges or Velcro strips	PVC stiffeners in every fold Options: Extension limiters, air vents

SHAPES	MATERIALS	TYPICAL APPLICATIONS
All shapes with an inner radius are possible.	Neoprene, CSM (Chlorosulfonated Polyethylene Synthetic Rubber), NBR (Nitrile Butadiene Rubber), SI (Silicone Rubber), Butyl, Viton®, EPDM (Ethylene Propylene Diene Monomer), Kevlar®, Silicone-coated fiberglass fabric Also available: • In FDA (CR white) • Flame-retardant • For low temperatures Viton®, Kevlar® are registered trademarks of Dupont.	Ideal for: • Outdoor environments • Harsh conditions • On ball screws, shafts • As expansion joints • In mechanical engineering
Cylindrical, tapered, rectangular, oval	• Neoprene fabric (also flame-resistant) • Neoprene with Teflon® coating • Kevlar® or carbon fiber fabric with aluminum coating • Fiberglass fabric • Nomex® fabric with silicone coating • Leather Kevlar® is a registered trademark of Dupont.	• Cardan shafts • Piston rods Wherever parts have to be protected from high ambient temperatures, flying sparks, dust, scale, sand, etc.
According to customer requirements; all shapes are possible	Huge choice of materials: Elastomer-coated fabric for all applications (also for high temperature applications)	Wherever parts have to be protected from high ambient temperatures, flying sparks, dust, scale, sand, etc.
According to customer specifications, rectangular	PVC/nylon in yellow with black corners (warning effect) – also available in other colors	• Lift tables • Scissor lift tables • Tilt tables • Installation platforms
According to customer specifications, rectangular	• Polyester fabric, PU-coated • Polyester fabric, PVC-coated • Polyester fabric, Teflon®-coated on one side • Polyester fabric, conductive • Meta-aramid, PU-coated	• Lift tables • Scissor lift tables • Tilt tables • Installation platforms

PROTECTIVE BELLOWS Greatest variety on the market

BELLOWS TYPE	BELLOWS CONSTRUCTION	SPECIAL FEATURES/ADVANTAGES
Thermiseal Bellows 	Thermiseal bellows are made of thermoplastic materials bonded together in a thermic weld process. Mounting: Collars, flange	• Attractive, clean, uniform appearance – great as an aesthetic cover for concealing mechanical components • Lightweight construction and excellent extended to retracted ratio • Air, dust and liquid tight • Can withstand high cycles and high-speed movement • Ideal for covering sensitive measuring equipment
Folded Bellows with Inner Laminate Finish 	Custom-engineered with inner laminate finish to drawing or sample Mounting: All means are possible	• Completely sealed from light, air and dirt penetration • High durability • Can withstand high cycles and high-speed movement • Withstands moderate internal or external pressure • No tooling fees
Gorframe Wireframe 	These wireframe bellows are designed to withstand a range of motion in a variety of directions and are made to customer specifications. Mounting: According to customer requirements	An ideal cover that withstands a range of motions (vertical, lateral, shear movements) Small retracted length
Bellows for Traction Motor Ventilation 	These bellows are constructed with endless/seamless tubing in silicone-coated meta-aramid fabric or other materials. Mounting: According to customer requirements	Developed and manufactured specifically for the ventilation of traction motors on electric locomotives and railcars Air- and water-tight Dimensional stability is assured by stainless steel wire rings inside the convolution peaks; protection profiles additionally secure the convolution peaks

i Detailed information on our folded bellows and standard bellows sizes can be found at www.dynatect.de and in our folded bellows catalogs.

SHAPES	MATERIALS	TYPICAL APPLICATIONS
Round, oval, rectangular or as apron-type cover	Polyurethane, PVC	• Clean room applications • Measuring equipment • In the medical field • Semi-conductor production
Square, rectangular (both also tapered)	Elastomer or thermoplastic material, incl.: • Aluminized Polyester • Buna/Nylon FDA • CSM/Polyester • Neoprene/Nylon (oil-resistant)	• Laser beam applications • Air feed-through • Cameras • Copying machines • Photo enlargers
Four-sided cover with rounded corners Three-sided "clamshell"-style cover, or round-shaped	• Neoprene/Nylon for oil resistance • CSM/Polyester for UV, ozone and chemical resistance • Kevlar® for high temperatures • Fiberglass fabric • Neoprene/Polyester-FR (fire retardant, non-conductive) • Polyurethane/pre-oxidized Kevlar® against weld splatter • Polyurethane-Polyester against microbes; fire retardant • Vinyl/Polyester (washdown environments) • Aluminized Fiberglass (high temperature, weld splatter, hot chips) Kevlar® ist ein eingetragenes Warenzeichen von Dupont	• Medical tables • X-ray equipment • Dental patient chairs • Rides in amusement parks • Elevating platforms • Machines
Oval, tapered, round, rectangular, square	Silicone-coated meta-aramid fabric, flame retardant, certified to the following fire protection standards: • EN-45545-2:2013 • DIN 5510-2 • NFF 16101-F1/M1	Transportation operations: Ventilation of traction motors and in the form of a flexible connecting element as an integral part of the cooling air flow between railway cars

CUSTOMIZED PROTECTION FOR EVERY APPLICATION

The Dynatect bellows portfolio offers a wide choice of materials and manufacturing methods.

We can accordingly provide you an objective recommendation tailored to your particular application and requirements.



High temperature bellows



Heavy chip loads



Light-tight bellows for laser beam path



Chemical or coolant resistant



Bellows in abrasive environments



Medical devices: Bellows in use on breathing apparatus



Air duct bellows



Bellows for exposure to weld splatter



Bellows for shear/tilt/lateral movements

BELLOWS OPTIONS AND ACCESSORIES



Breather vents
For ventilation of sealed covers



Grommets
For use with supports or guide rods



Tie strips
To limit cover stretch



Wire guides, internal or external
To maintain shape in sealed covers experiencing internal pressure or vacuum



Internal guides (inserts)
For long or horizontal applications



Zipper
For easy installation without disassembling machine parts

ROLLGUARD Roll-Up Covers

Custom protective roll-up covers for the machine-tool industry are the ideal solution when:

- There is a little room for compression
- Simple mounting and retrofitting are required
- High speed and acceleration are needed
- Cost and delivery time are important factors
- Long working life and safe operations are indispensable

Roll-up covers are available as follows:

- With housing for additional protection of the winding mechanism
- Without housing for tight space conditions
- With an aluminum apron cover (available in various thicknesses)
- With textile band (highly tear-resistant coated fabric)
- With steel band (available in several thicknesses)
- With guide rollers



i For bracket drawings, information on material options, and a quote request form in which to specify your requirements, see **www.dynatect.de** and our *Protective Roll-Up Covers* catalog.

ALUGUARD Apron Covers

AluGuard apron covers are first choice for automated applications such as machine tool changers and many others.

The precision profiles are made of natural anodized aluminum, have a small roll-up radius and are corrosion resistant. In addition they can be provided with see-through slats or openings. The following profile thicknesses are available:

5.5 - 8 - 14 and 25 mm

Also available: "Light" and "Heavy" versions with aluminum and/or steel segments riveted to highly tear-resistant coated fabric.

Advantages:

- Small size, requires only minimum space
- Simple mounting (just screw into place)
- Splash- and shower-proof as per IP 54
- Long service life

When AluGuard protective roll-up covers are used as roll-up doors, they can be integrated into a custom assembly incorporating a metal housing, motor and drive controls.



STEELFLEX Walk-On Pit Covers

Roll-up covers for machine ways and pits

STEELFLEX roll-up systems are designed to protect the openings of large machinery and equipment and to cover inspection pits or electroplating baths, etc. Depending on execution they provide a walk-on surface and not only enhance the safety of operating personnel but protect against damage and soiling. Using STEELFLEX walk-on covers to cover open pits ensures easy access to the machines and eliminates the need for cumbersome sliding plates.

Construction:

Aluminum or steel ribs are riveted to a stainless steel band in a special process. The rib profile depends on the width and also the load that will be placed on the cover.

Possible drive types:

- Pneumatic motor
- Electric motor (optionally with position measuring system)
- Spring motor
- Manual

The main advantages at a glance:

- Heavy-duty construction
- Safe and strong continuous stainless steel surface
- Custom-designed to fit your machine or pit
- Custom width and length (largest width made to date: 8000 mm)
- Impervious to hot chips, coolants and abrasives
- Non-skid surface
- Damaged segments can be individually replaced
- Manual or motor driven take-up
- Take-up available with or without canister
- Excellent testimonials



Unique: Flexible in both directions



i For further information, see our *Steelflex* catalog and www.dynatect.de

STEELFLEX Walk-On Pit Covers

Motor-driven or manually operated

Roll-up tank covers are ideal for covering tanks or large containers. They can be manually moved or fitted with an electric motor for forward, reverse and stop functions.

They can also be supplied with a scroll take-up system.

The tank covers are individually designed and are supplied as a complete system in any width or length. Usually they are constructed with a continuous stainless steel top surface and aluminum or stainless steel support ribs on the underside.

When environmental conditions prohibit the use of steel, thermoplastic designs are also available.

STEELFLEX tank covers prevent the contamination of tank contents, keep fumes from escaping and protect operating staff.

Ideal for covering:

- Chemicals tanks
- Degreasing tanks
- Plating tanks
- Painting tanks



ROLL-UP DOORS

Gortite Roll-Up Doors for Machines and Vehicles

Motorized roll-up doors prevent unauthorized access to machinery and vehicle compartments and protect them from dust and dirt. In comparison to other solutions they not only save on space but keep machinery and equipment secure.

Gortite roll-up doors are tailor-made to customer requirements and can be motor-driven or manually operated.

Ideal for:

- Automation cells
- Machining centers
- Laser machines
- Robotic welding lines
- Commercial vehicles, etc.

Features:

- Precision profiles in various sizes and designs
- Stainless steel guide rails
- Complete with see-through slats and openings
- Water-tight

Options:

- Stainless steel lift bar
- Locking system
- Custom paint finish



Roll-up door, 4500 mm wide, for a laser machine



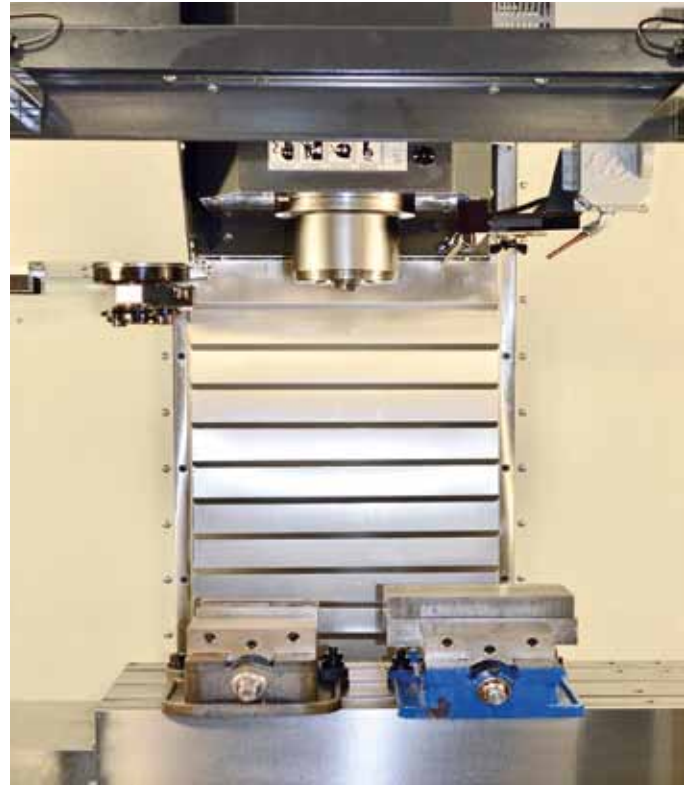
i For further details, see our *Protective Roll-Up Covers* catalogue or visit **www.dynatect.de**

GORPLATE Sliding Plate Covers

The innovative system of stainless steel plates and mono-filament connections creates a lightweight cost-effective system for protecting linear rails, ways and machine elements from damage.

The main advantages at a glance:

- Non-corrosive stainless steel
- Light weight
- Resists heavy chip load
- Resists weld splatter
- Excellent extended to retracted
Lmax : Lmin ratio



ROOF COVERS

The translucent machine roof covers provide containment of dust and particles and noise attenuation.

The support structure is made of lightweight aluminum and the roof material out of polyurethane TPE with high-strength monofilament polyester.

Key Features:

- Low-friction plastic guide blocks and precision bearing rollers for smoothness of travel
- Capable of up to 1G acceleration; 60 meter/minute velocity
- 10:1 extended-to-retracted length ratio
- Variable fold depth and folding direction (standard or inverted)
- Large self-supporting span with minimal deflection up to 9000 mm
- Individually replaceable folding sections



TELAFLEX Steel Covers

Stable machine way protection

Telaflex telescopic way covers consist of stable steel boxes that slide telescopically one into the other. With a Telaflex way cover, valuable equipment will be protected from chips, dirt, and coolants.

Depending on the set speed and acceleration, Telaflex way covers are engineered and designed to specific requirements for horizontal, vertical and cross rail use.

All shapes are possible:

Flat, roof-shaped, low-pitch and monopitch

Options:

- Wiper and damping systems
- Way extension and scissor systems



XY-SHIELDS

Custom multi-axis protection for machine tool or automation applications

Possible versions:

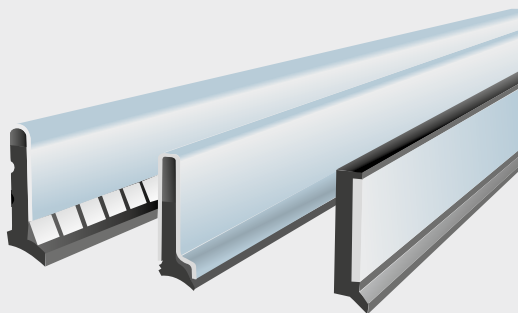
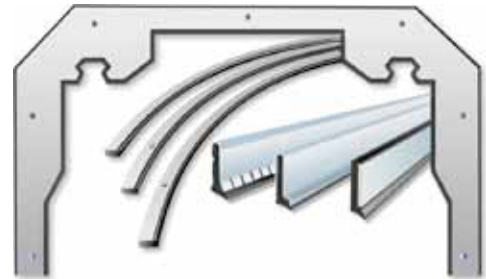
- Roll-up covers with textile or steel plate
- Folded bellows with or without ribs
- Sliding plates
- Combinations of the above



WAY WIPERS Standard and customized versions

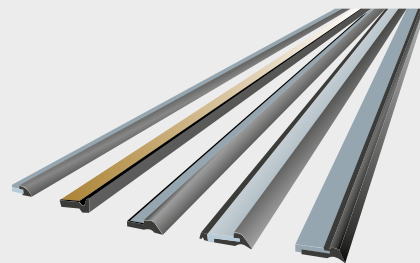
Dynatect wipers save costly maintenance, reduce down-time, and prolong the service life of machine tool ways.

The wiper lips are highly abrasion-resistant, resistant to coolants, mineral oils and microorganisms plus they offer excellent mechanical properties.



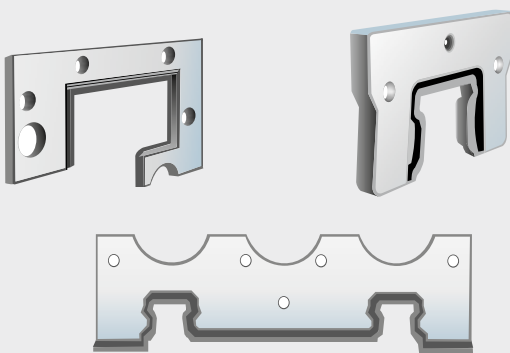
■ Way wipers

are primarily deployed at machine ways.



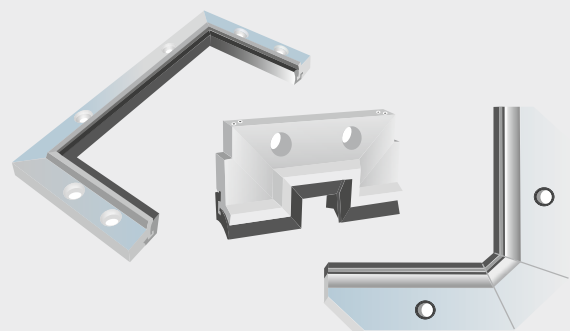
■ Wipers for telescopic covers

keep the individual cover boxes clean and prevent dirt and chip ingress. The wipers are spot-welded, riveted or screwed to the cover boxes. Standard lengths available from stock.



■ Molded way wipers

are molded according to customer drawings. 100% repeat accuracy for reorders.



■ Custom-made Wipers

are produced according to drawing or sample from standard wiper lengths. They will be welded or bolted to size. Bore holes on request.

SPRINGGUARD Telescopic Springs

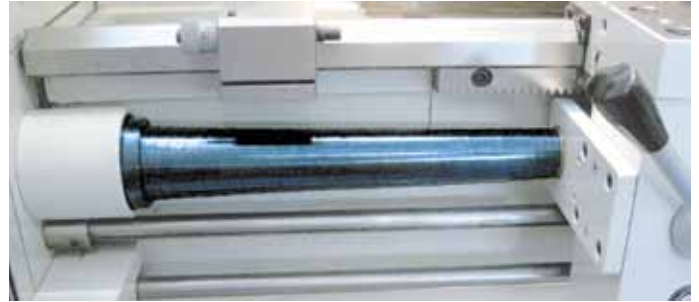
Accident prevention, spindle protection, chip protection

SpringGuard Telescopic Springs are deployed to protect against accidents, soiling and mechanical damage wherever there are rotating parts, such as spindles or shafts. SpringGuard springs are available in over 1,000 track-tested sizes.

Features:

- They consist of high-quality blue spring steel strip with rounded edges. Strength amounts to up to 1800 N/m.2.
- Where coolants with a high water content are deployed regularly, we recommend telescopic springs made of stainless steel.

For detailed information and sizes please see our *Telescopic Springs* catalog or visit www.dynatect.de



GORTRAC CABLE AND HOSE CARRIERS

Cable and hose carriers made of plastic – lightweight and inexpensive

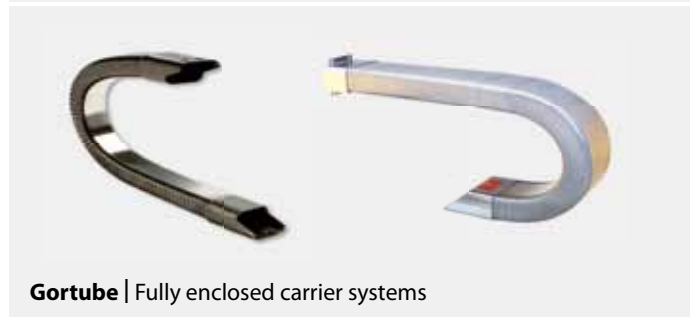
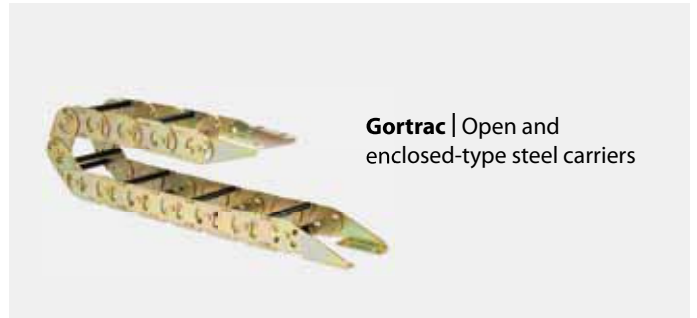
Plastic cable and hose carriers can be individually configured out of inexpensive standard components. Depending on application, Gortrac carriers are adapted to your requirements, such as low wear, resistance to extreme temperatures, environmental conditions or aggressive chemicals as well as special fire classes or explosion protection.

Metal cable and hose carriers – a durable solution for heavy-duty applications

A durable alternative to plastic solutions for applications requiring high strength, temperature and chemical resistance or maximum unsupported spans.

Ideal for applications such as:

construction machines, heavy machinery in steel works and foundries, paper processing machines and refineries.



i For detailed information and sizes, see our *GORTRAC* catalog or visit www.dynatect.de

POLYCLUTCH Miniature slip clutches

POLYCLUTCH slip clutches prevent stiction

Polyclutch has developed a unique technology and manufacturing process resulting in static friction being lower than dynamic friction. This characteristic generates repeatable torque control and smooth operation while slipping.

Key benefits:

- Smooth breakaway and continuous slip
- Long life of 20 to 30 million cycles in slip condition
- Torque range from 0.06 Nm to 84.7 Nm
- Fixed, adjustable and custom designs
- Clutches are bi-directional
- No lubrication needed

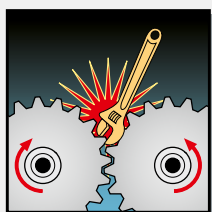


Applications:

- Overload protection (machine and personnel safety)
- Torque control (bottle capping, fastener driving)
- Tension control (printing, stamping, labeling and take-up reels)
- Positioning hinge (covers, medical equipment, light fixtures)

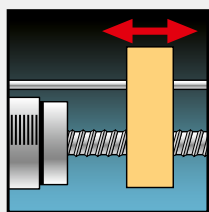
Continuous slip clutches solve many design engineering problems:

Polyclutch slip clutches can slip continuously or intermittently for over 30 million cycles. This opens up many design engineering options including:



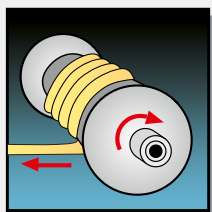
Overload protection

Clutch will slip when mechanism is jammed. Motion will continue when impediment is removed.



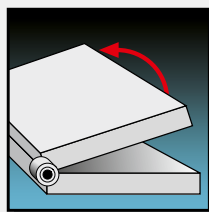
Soft starts/ cushioned stops

Inertia makes clutch slip when starting and/or stopping. Results in less shock throughout the system.



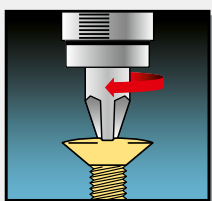
Tension control

Maintain constant tension while winding or unwinding wire, paper, film, thread, etc. Slip clutch automatically compensates for changes in speed and diameter.



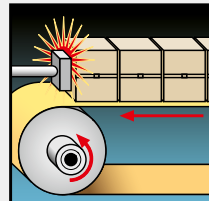
Positioning hinge

Hold lid, cover, door, light fixture, screen, etc., at any position.



Torque control

Screw bottle caps, screws, controls, etc., to correct torque setting. Combine with one way clutch to slip at rated torque in one direction and freewheel or positive drive in other direction.



Force control

Push product against gate with constant force. Remove gate and move to next position.

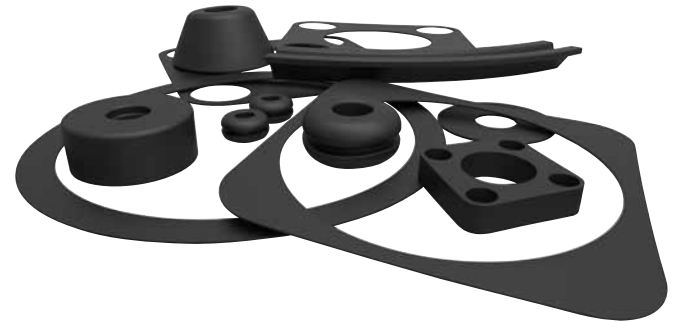
RO-LAB Rubber and Polyurethane

Custom molded rubber and urethane products

Dynatect Ro-Lab is a leading specialist in compounding and producing custom rubber and urethane products. The company offers total production control from concept through manufacturing and can boast over 100 years of combined elastomer experience, in-house quality control and testing.

Molding capabilities:

- Rubber molding (compression, injection, transfer)
- Urethane molding (compression, RIM, low pressure injection, open cast)
- Mandrel-formed products (hoses, industrial and agricultural rolls, rubber-lined pipes, continuous lengths of tubing and belts)



Specialties:

- Small sized, high-volume parts
- Large-scale parts
- Insert molding (functional metal, textiles or ceramic inserts molded into rubber or polyurethane)
- Custom material formulation (to meet performance specifications for durability, flexibility and elasticity)
- Precise tolerances and special finishes

Press capacity for large components, high volumes

The Dynatect Ro-Lab commitment is supported by an inventory of 100 rubber and urethane presses, with capacities ranging from 5 to 2,500 tons.



Rubber molding presses

- 75+ presses, 40 - 2,500 ton capacity
- Presses up to 2032 mm wide
- Platen sizes up to 6.1 m long
- Custom compound production

Urethane molding

- 23 presses with capacities from 5 - 250 tons
- Up to 610 mm x 610 mm platen size
- Machine mixing to 18 kg/min.
- Oven capacities to 81.5 m³ (61 m x 3.6 m x 3.6 m)

My contact details:

☐ Bellows	Last name:
☐ Molded bellows	First name:
☐ Protective roll-up covers (roll-up covers, apron covers, roll-up doors)	Company:
☐ Steelflex covers	Job title:
☐ Telescopic springs	Address:
☐ Way wipers	Postcode, city:
☐ Polyclutch miniature slip clutches	Country:
☐ Other products:	Email:

NOTES:

This image shows a full page of blank graph paper. The grid consists of small, equal-sized squares formed by thin, light gray lines. There are no margins, text, or other markings on the page.

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