www.dynoteq.com

DYNOTEQ ACCESSORIES

NUTS, BOLTS, FLANGES & VALVES

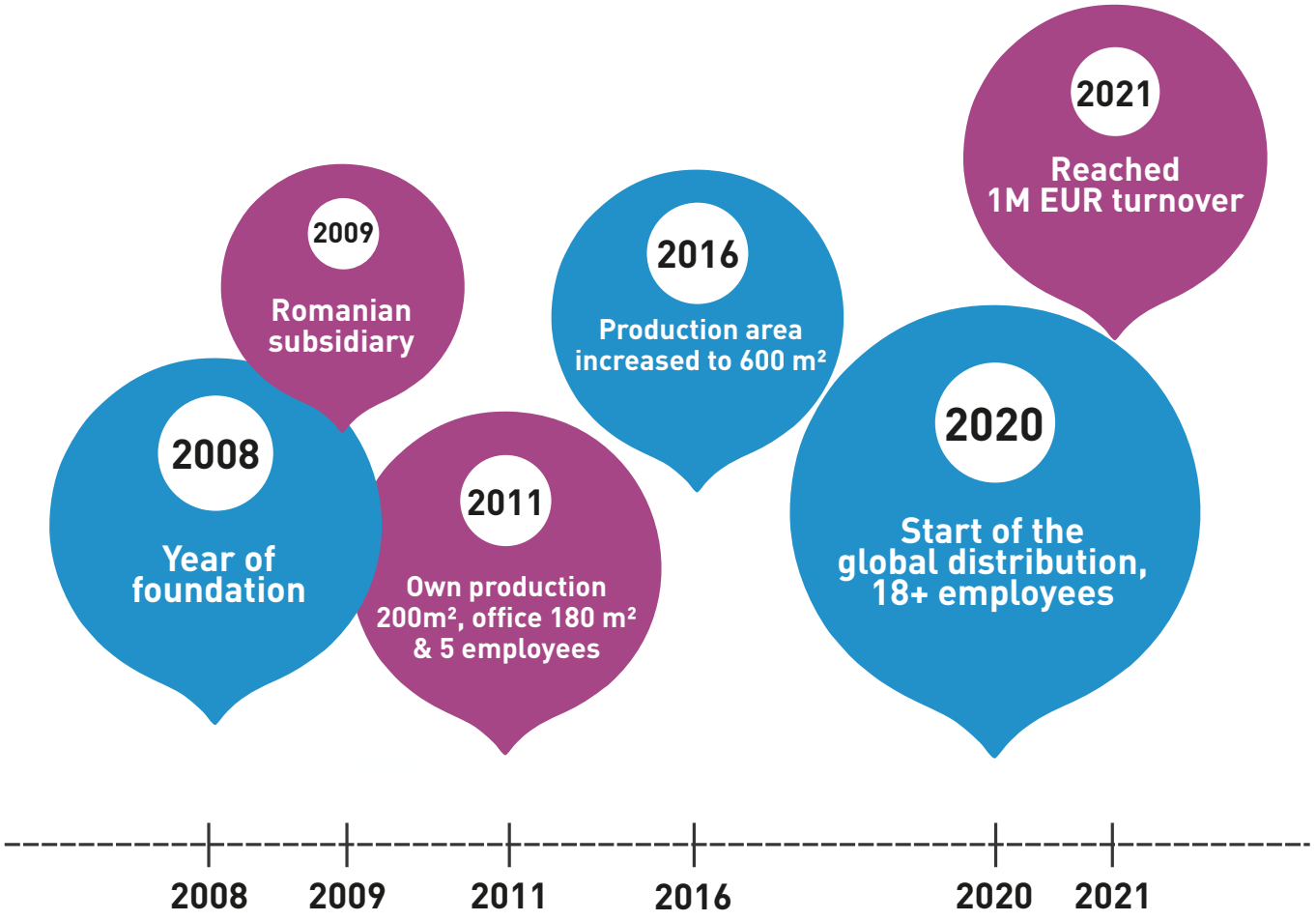
DYNOTEQ
Dynamic Technology

About us

Our mission is to ensure that we provide the right service, solution and product at the right time to minimize our clients' operational costs. We don't want to be the biggest, but we do want to be the best in all we do, offer and supply.

"The reward for job well-done is the opportunity to do more... is what drives us." Karoly Feher, CEO.

Our Milestones



Dynoteq Ltd. has been operating since the year 2008 as a 100% Hungarian-owned family business. We deal with the distribution and manufacturing of special sealing products as well as the thermal insulation materials. We have been dealing with sealing technology since 2004, so we have some 18 years of experience in this field.

We consciously built and build our company around industrial activities. Our goal is to serve the ever-increasing and changing needs effectively. We carefully examine all problem areas or applications to provide our costumers with the most suitable product, thus providing the best solution.

Our range of products and service is build by our costumers' diverse needs. We advise and consult our costumers in any aspect to cover the demands of the end-user in any industry. We are application driven and can with our flexible approach meet ost any meterial requests.

Accessories overview

As part of our range of unique products and solutions we can offer one of the most extensive **DIN and ANSI** portfolios within the sealing and fluid control industry, components for our products are obtained from certified sources and using the latest design and pilot technology.

We focus on ensuring plant safety. No matter whether the medium to be transported is fluid or gaseous, we see it as our responsibility to ensure that media remain where they are intended. Our duty is to assist in avoiding such incidents through the provision of our innovative and state of the product range, which is tailored to meet the specific requirements of the industries we are active in.

ACCESSORIES PRODUCT RANGE				
				
Flanges	**Valves**	**Compensators**	**Washers**	**Fasteners**

Areas of application

We can provide our customers with the widest range of valves. From the most commonly used, standard and cheap versions and brands, to the more complex, premium types. We have partners from all around the Globe and Europe as well. Our huge stock capabilities are helping to reduce lead time and making our customers' needs fulfilled. We can assure the best choice as well as optimal delivery.

Full service provider

We can provide our customers with the widest range of valves. From the most commonly used, standard and cheap versions and brands, to the more complex, premium types. We have partners from all around the Globe and Europe as well. Our huge stock capabilities are helping to reduce lead time and making our customers' needs fulfilled. We can assure the best choice as well as optimal delivery.

Flanges

Slip-on Flanges

Advantage & Properties

A slip-on flange's internal diameter is larger than that of the connecting pipe, which allows it to slide/slip onto the pipe.
There is no full penetration weld between the pipe and the flange, thus there are limitations for its usage due to lower weld integrity.

We supply as per the **ASTM/ASME A/SA182/DN** standards.

Dimensions

1/2" - 20" - ASME B16.5
DN10 - 500 - EN 1092-1

Material grades

304/304L (1.4301/1.4307) · 321/321H (1.4541)
316/316L (1.4401/1.4404) · 316Ti (1.4571)
904L (1.4539) · (Super)Duplex · Nickel Alloys
+CS, S235JRG2, C22.8

Weld neck Flange

Advantage & Properties

Weld neck flange has a neck that can relocated stress of the pipe, so to reduce the pressure that gathered in the flange bottom. It is compatible to the pipelines that works in high or low temperature and bear high pressure.

We supply as per the **ASTM/ASME A/SA182/DN** standards.

Dimensions

1/2" – 24" = ASME B16.5
DN10 - 600 - EN 1092-1

Material grades

304/304L (1.4301/1.4307) · 321/321H (1.4541)
316/316L (1.4401/1.4404) · 316Ti (1.4571)
904L (1.4539) · (Super)Duplex · Nickel Alloys
+CS, S235JRG2, C22.8

Threaded Flange

Advantage & Properties

The threaded flange design (Screw flange) uses a screw thread to connect the flange to the pipe. A male thread is cut onto a pipe end whilst a female thread is cut into the bore of the flange; the male threaded pipe is then screwed into the female threaded flange.

We supply as per the **ASTM/ASME A/SA182/DN** standards.

Dimensions

3/8" - 6" - ASME B16.5
DN10 - 150 - EN 1092-1

Material grades

304/304L (1.4301/1.4307) · 321/321H (1.4541)
316/316L (1.4401/1.4404) · 316Ti (1.4571)
904L (1.4539) · (Super)Duplex · Nickel Alloys
+CS, S235JRG2, C22.8

Valves

Globe Valve

Advantage & Properties

A globe valve is a type of valve used for regulating flow in a pipeline, consisting of a movable plug or disc element and a stationary ring seat in a generally spherical body.

Globe valves, so-called because of their outside shape, are widely used in plant piping. They are suitable for manual and automatic operation. Unlike the gate valve, globe valve can be used for regulating flow or pressures as well as complete shutoff of flow.

Dimensions

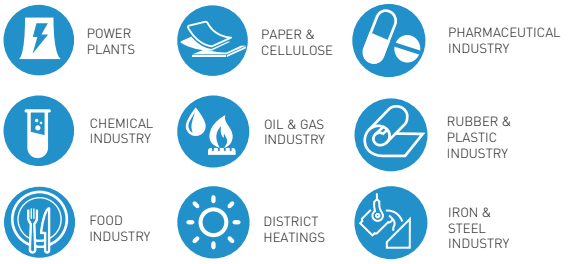
>> Available in ASME from 1/2" to 10"
>> Available in DIN from DN 15-250

Working conditions

Pressure	250 bar
Temperature	Max. resistance 670 °C
Medium	Water, steam and other non-toxic, non- aggressive liquid and gas media
Typical applications	Suitable for low-medium-high pressure applications, Cryogenic applications

*The pressure/temperature shown above can not be used simultaneously.

Areas of application



Gate Valve

Advantage & Properties

A gate valve, also known as a sluice valve, is a valve that opens by lifting a barrier out of the path of the fluid. Gate valves require very little space along the pipe axis and hardly restrict the flow of fluid when the gate is fully opened. The gate faces can be parallel but are most commonly wedge-shaped.

A gate valve is generally used to completely shut off fluid flow or, in the fully open position, provide full flow in a pipeline. Thus it is used either in the fully closed or fully open positions. A gate valve consists of a valve body, seat and disc, a spindle, gland, and a wheel for operating the valve.

Standards and dimensions

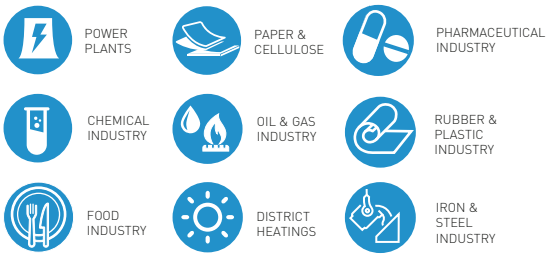
>> Available in ASME from 1-1/5" - 24"
>> Available in DIN from DN40 - 600

Working conditions

Pressure	400 bar
Temperature	Max. resistance 670 °C
Medium	Water, steam and other non-toxic, non- aggressive liquid and gas media
Typical applications	Suitable for low-medium-high pressure applications, Cryogenic applications

*The pressure/temperature shown above can not be used simultaneously.

Areas of application



Ball Valve

Advantage & Properties

Ball valves are modern shut-off valves which are very reliable in operation.
A ball valve is a flow control device which uses a hollow, perforated, pivoting ball to control liquid flowing through it.

Ball valves are durable, performing well after many cycles, and reliable, closing securely even after long periods of disuse.

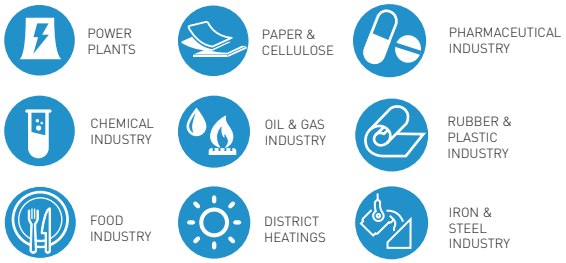
Typical applications

>> Suitable for severe applications, such as underground urban heating ditches, buried pipelines, cogeneration plant, pulp and paper industry
>> Also for mining, metallurgy, geothermal industry and tunnel drilling machines

Dimensions

>> Available in ASME from 1/2" - 16"
>> Available in DIN from DN15 - 400

Areas of application



Working conditions

Pressure	70 bar
Temperature	-45 to 200 °C
Typical applications	Shutoff and control applications.

*The pressure/temperature shown above can not be used simultaneously.

Butterfly Valve

Properties

Butterfly valves are used where space is limited. Unlike gate valves, butterfly valves can be use d for throttling or regulating flow as well as in the full open and fully closed position.

The pressure loss through a butterfly valve is small in comparison with the gate valve.

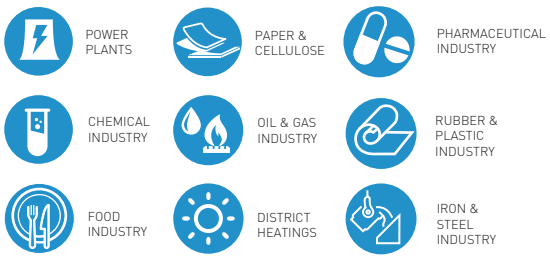
Advantages

>> Total and permanent tightness
>> Direction of Flow indifferent
>> Simple assembly and disassembly

Dimensions and working conditions

>> Available in ASME from 2" to 24"
>> Available in DIN from DN 50 to 600

Areas of application



Pressure	70 bar
Temperature	-45 to 210 °C
Typical applications	Shutoff and control applications.

*The pressure/temperature shown above can not be used simultaneously.

Non-return Valve

Advantage & Properties

A non-return valve allows a medium to flow in only one direction and is fitted to ensure that the medium flows through a pipe in the right direction, where pressure conditions may otherwise cause reversed flow.

There are different types of non-return valves, such as spring-loaded, swing type, and clapper type valves.

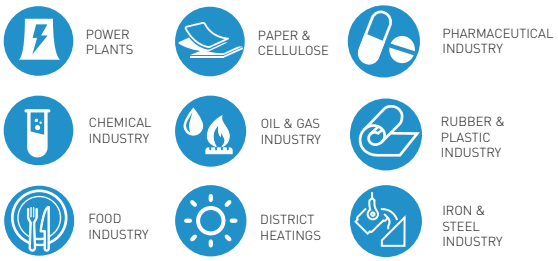
Typical applications

>> Suitable for industrial uses in applications such as recycling facilities, chemical industries, hospitals, process water installations for mediums such as steam, process water, air and oil
>> High Temperature applications

Dimensions

>> Available in ASME from 1/2" - 8"
>> Available in DIN from DN15 - 200

Areas of application



Working conditions

Pressure	70 bar
Temperature	-45 to 300 °C
Typical applications	Shutoff and control applications.

*The pressure/temperature shown above can not be used simultaneously.

Y-strainers

Advantage & Properties

Made from cast iron body GG25 - stainless steel screen - with draining cap Y-Strainers are devices for mechanically removing unwanted solids from liquid, gas or steam lines by means of a perforated or wire mesh straining element.

They are used in pipelines to protect pumps, meters, control valves, steam traps, regulators and other process equipment.

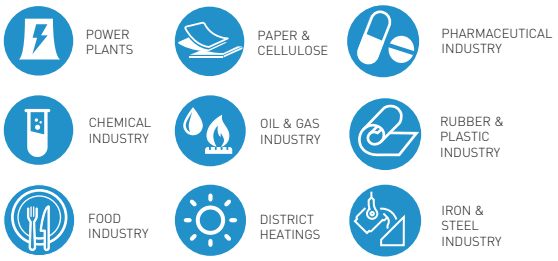
Typical applications

>> Suitable for industrial uses in applications such as recycling facilities, chemical industries, hospitals, process water installations for mediums such as steam, process water, air and oil
>> High Temperature applications

Dimensions

>> Available in ASME from 1/2" to 16"
>> Available in DIN from DN 15-400

Areas of application



Working conditions

Pressure	70 bar
Temperature	-45 to 250 °C
Typical applications	Shutoff and control applications.

*The pressure/temperature shown above can not be used simultaneously.

Compensators - Expansion joints

Expansion joint allows for **heat expansion of pipe system** due to thermal fluctuations or vibrations.

As a solution, a flexible piping component may be used to absorb relative piping movements. The expansion joints can be jointed to the line by direct butt welding or flange connection. Our products can be custom-built in a variety of styles and configurations to accommodate pipe size reductions, misalignments and offsets.

Understanding your requirements our offering includes standard designs as well as products specifically tailored to meet specific requirements. There are three main types of expansion joints: **metal, fabric and rubber.**

Metal expansion joints

Advantage & Properties

Used to compensate for pipe expansions, as vibration dampers, as installation compensators for non-flooding pipes or to facilitate installation of pipe fittings. Metal expansion joints have a very versatile application and can be used for practically all cases.

Composition and working conditions

>> 304ss – 316ss and 321ss
>> Carbon steel (Alloyed steel for high. temp. applications)
The compensators can also be manufactured from highly acid- and heat-resistant alloys **1.4828, Inconel, Hastelloy** and the like.

Pressure	500 bar
Temperature	up to 400 °C
Typical applications	High temperatures and pressures. Can absorb axial, angular and lateral movements as well as vibrations.

Areas of application

POWER PLANTS
PAPER & CELLULOSE
PHARMACEUTICAL INDUSTRY
CHEMICAL INDUSTRY
OIL & GAS INDUSTRY
RUBBER & PLASTIC INDUSTRY
FOOD INDUSTRY
DISTRICT HEATINGS
IRON & STEEL INDUSTRY

Fabric expansion joints

Advantage & Properties

A non-return valve allows a medium to flow in only one direction and is fitted to ensure that the medium flows through a pipe in the right direction, where pressure conditions may otherwise cause reversed flow.

There are different types of non-return valves, such as:
>> **spring-loaded**
>> **swing type**
>> **clapper type valves.**

Composition materials and working conditions

>> Fibre Glass
>> PTFE foil & coating
>> Glass weave
>> Silicon coating
>> Karlene and **many other options.**

Pressure	500 bar
Temperature	up to 700 °C
Typical applications	Withstanding extreme temperatures and pressure soft-material compensators are used in all industries.

Areas of application

POWER PLANTS
PAPER & CELLULOSE
PHARMACEUTICAL INDUSTRY
CHEMICAL INDUSTRY
OIL & GAS INDUSTRY
RUBBER & PLASTIC INDUSTRY
FOOD INDUSTRY
DISTRICT HEATINGS
IRON & STEEL INDUSTRY

Rubber expansion joints

Material properties & advantages

Highly elastic pipe connectors assuring absorption of axial and radial expansion, noise, vibrations and oscillations. Basically supplying nearly total noise absorption in pipelines, domestic supply mains, heating systems, pump and motor connections.

Smooth inside and out, high pressure-resistant textile fabric interlinings with moulded rubber stub end vulcanized on both sides, with embedded steel wire reinforcement that allows for accurate and complete adaption to the counter flange.

Material types

Available in various rubber qualities assuring tailored solution of any need:

>> **EPDM** for water
>> **Neoprene** for petrol, fuel, oils and cooling water up-to 90 degrees
>> **Hypalon** for acids and basic chemicals.

Areas of application:

All sectors of industry, apparatus, and pipeline construction, power plants, shipbuilding, fuel pumps, heating, climate control and ventilation plants, etc.

Material and Max. temperature

Material	spring steel **(AISI 6150)***
Temperature	Max. resistance **260 °C**

*Mainly used material type

Washers

Live Loading – DISC Spring washers

Material properties & applications

Flange washers maintain sufficient bolt tension and resultant gasket stresses in high-temperature and high-pressure applications and do not need to be retorqued once installed. Applications examples include **flange/bonnet gasket live loading, heat exchangers, actuators and various cryogenic applications**.

A disc spring is a spring washer with a conical shape. This shape gives the spring washer its flexible effect. Disc springs are also called conical spring washers. The properties of the disc spring make it unique in applica-

Flat washers, hardened steel washers or stainless steel

Screws and Socket types:
>> Machine Screws,
>> Metal Screws
>> Drywall Screws
>> Deck Screws
>> Socket Head Cap Screws
>> Socket Head Set Screws
>> Square Head Set Screws
>> Socket Shoulder Screws
>> Socket Pipe Plugs
>> Hex Keys

Standards and sizes

Disc Washers are manufactured in accordance with specification **ASTM A967** to remove contaminants and further improve resistance to corrosion.

Sizes are specified by **DIN 2093.**

Material and Max. temperature

Material	spring steel **(AISI 6150)***
Temperature	Max. resistance **260 °C**

*Mainly used material type

Fasteners

Bolts, nuts, screws and more

Fasteners play a critical role in the construction of all industrial equipment. The gaskets need to be compressed to fill the imperfections of the sealing surface, and the torque applied to the bolts is providing the necessary clamping force for safely sealing the gasket.

Typically, fasteners form a non-permanent joint. In other words, when you use a fastener to connect two components, you can remove it, and the separate pieces should come apart without suffering any damage. The same wouldn't be the case with a welded joint, for instance.

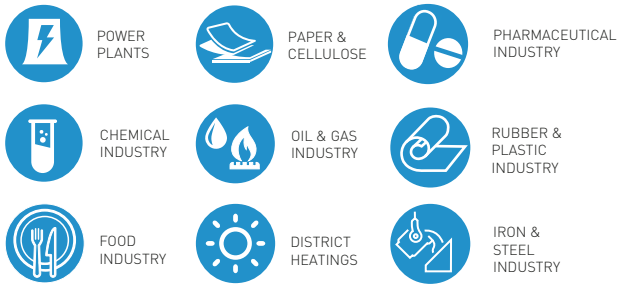
A definition overlap between BOLTS and SCREWS

Bolts and screws are among the many types of threaded devices referred to collectively as fasteners and there is some overlap between the definitions of bolts and screws.

Generally, if the fastener is designed for use with a nut, and if it is tightened by applying a torque to the nut, then the fastener is a bolt. If it is designed for insertion into a hole with internal threads (as in an engine block), and if it is tightened by applying a torque to its head, then the fastener is a screw. Studs are headless fasteners or threaded rods.

In the chemical industry, where standard pipe flanges are common, through bolts are used almost exclusively. In other industries, most flat-faced flanges are clamped together with tap bolts or cap screws.

Areas of application



Stud bolts

Types and sizes

Ranging from 1/4" to 8" diameter:
B7, B7M, B8, B8M, B16, L7, L7M and DIN (mm).

Other grades are also available:
STEEL, INCONEL, MONEL, and A286.

Surface finish

Different coatings can be specified including PTFE, Zinc, Galvanising. Other coatings are available upon request.

Nuts

Types and sizes

>> Finished Hex Nuts
>> Heavy Hex Nuts
>> Hex Machine Screw Nuts
>> Cap Nuts
>> Coupling Nuts
>> Tee Nuts
>> Jam Nuts
>> Finished and Heavy Slotted Nuts
>> Castle Nuts

Disclamer:

All testings are done by external institutes and re-confirmed by end-users. The competitive product is one of the leading producers. All information is based on years of experience in production and operation of sealing elements. However, in view of the wide variety of possible installation and operating conditions one cannot draw final conclusions in all application cases regarding the behaviour in gasket joint. The data may not, therefore, be used to support any warranty claims. This edition cancels all previous issues. Subject to change without notice.

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