

COMPONENTS

Chemical Processes



Process Components

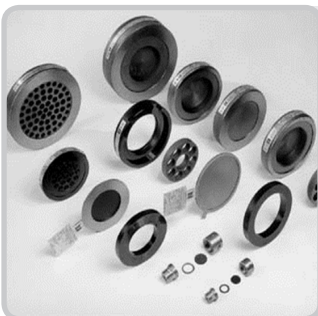


RUPTURE DISCS IN METALL

Properly designed and manufactured bursting discs offer your process equipment and piping an “engineered weak spot” to protect it from unexpected pressure variations.

Technical details:

The discs come in a wide range of dimensions, materials and bursting pressures from very low pressures up to >5000 bar.



BURSTING DISCS IN GRAPHITE

For corrosive processes, graphite bursting discs are a good alternative. They are available in different graphite grades and the connections suit all typical flange sizes on the market.

Technical details:

The discs come in a wide range of dimensions, materials and bursting pressures from very low pressures up to >100 bar.



BURSTING DISC INDICATORS

The BDI (Burst Disc Indicators) are either integrated onto a bursting disc or supplied separately to fit between the flanges with the bursting disc during installation on-site.

Technical details:

The signal cable will be connected to the plant control system to provide the information of disc being ruptured.



GLASS-LINED PIPING

Glass-lined piping offers cost effective means for designing corrosion-, and pressure resistant as well as vacuum resistant pipe lines.

Technical details:

Available in a wide range of standard items, e.g. straight pipes, elbows, reducers, in nominal sizes from DN25 to DN300, many of them kept on stock. Special, customized pieces and jacketed pieces are also available.



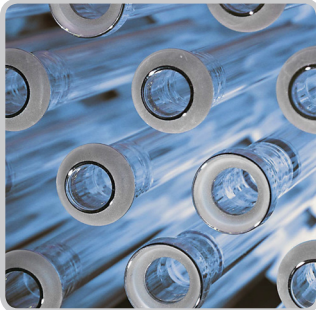
PTFE-LINED PIPING

PTFE/PFA-lined steel piping system offer exceptional anti-corrosion features. The performance of these products is a result of mastering the process of high performance fluorated polymer applications: PTFE/PFA.

Technical details:

Available in a wide range of standard items, e.g. straight pipes, elbows, reducers, in nominal sizes from DN15 to DN600, many of them kept on stock. Special, customized pieces and jacketed pieces are also available.

Process Components

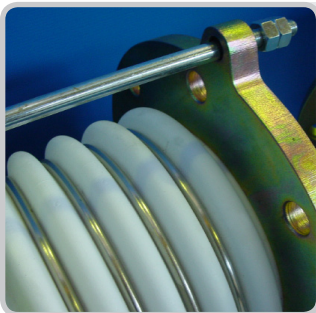


BOROSILICATE PIPING

Borosilicate glass is transparent, corrosion resistant, catalytically inert and has a smooth and easily cleaned surface. Therefore it is widely used as the basis for the construction of complete process systems or pipe lines.

Technical details:

Available in a wide range of standard items, e.g. straight pipes, elbows, reducers, in nominal sizes from DN15 to DN1000, many of them kept on stock. Special, customized pieces and jacketed pieces are also available.



BELLOWS/COMPENSATORS IN PTFE

Bellows and compensators remove mechanical stress on piping and equipment and make installation procedures easier. Bellows made in PTFE are excellent for use in any pipelines for aggressive liquids or gases.

Technical details:

Standard sizes available in DN20 – DN600 with various flange sizes. Different models with internal and/or external reinforcements for full vacuum resistance and high pressure resistance.



STATIC MIXERS

The static mixer is a good choice for mixing fluids and/or gases directly in the pipeline. The mixer has no moving parts, but uses the flow energy of the media to do the mixing.

Technical details:

Diameters from 3 mm to several m. Materials available are steels (inox, carbon steel, high-grade metals) and plastics (PTFE, PP, PE, PVC).

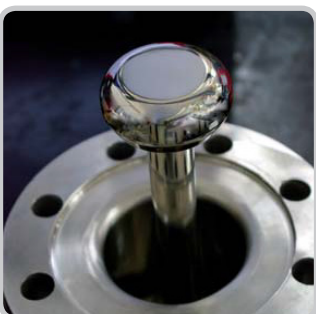


GLASS-LINED BOTTOM OUTLET VALVES

The clean valve range offers glass-lined bottom outlet valves with only enamel and fluoropolymer (PTFE, PFA) in contact with the process. They are designed to be easy to clean and to minimize liquid hold-up.

Technical details:

Sizes from DN50/32 to DN150/100 with flanges PN16, ANSI 150 or JIS 10K. The valves can either be manually operated or with actuator, comply with the Directive 97/23/EC (PED) and are CE marked.



STAINLESS STEEL AND HASTELLOY BOTTOM OUTLET VALVES

The clean valve range offers bottom outlet valves in stainless steel or alloy with seat made of fluoropolymer (PTFE, PFA) in contact with the process. They are designed to be easy to clean and to minimize liquid hold-up.

Technical details:

Sizes from DN50/32 to DN150/100 with flanges PN16, ANSI 150 or JIS 10K. The valves can either be manually operated or with actuator, comply with the Directive 97/23/EC (PED) and are CE marked.

Process Components



PROCESS CARTRIDGE FILTERS

Filters provide security to your process and remove any unwanted particles from your process streams. The filter types vary from nominal rated depth filters to very highly controlled membrane filters.

Technical details:

Filter cartridges from 2.5" to 40" and pore size ratings from 0.1 μm up to 1000 μm are available. The materials vary from PP, PE, Nylon and cellulosic materials (depth filters) to PTFE and PES membranes.

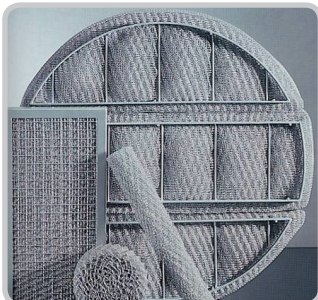


PROCESS SHEET FILTERS

Filter sheet provide an economical way to filter large quantities. The sheets can be used "alone" or together with filter aids like DE and perlites. The same filter sheet material is available as lenticular filter modules which are installed in filter housings.

Technical details:

Filter sheet are available as standard in 400x400 and 600x600 mm versions. The nominal pore size ratings are from 0.2 – 35 μm . The typical flow rates vary from 100 L/m² per hour up to 700...1000 L/m² h.



DROPLET & COALESCENCE SEPARATORS

Knitted wire mesh is used for droplet separation (mist elimination) and/or for liquid-liquid separation and/or for separation of oil and emulsion mist from exhaust air.

Technical details:

The knitted wire mesh is available in many different sizes and types and is manufactured in a wide range of materials: stainless steel, Ni-alloys, polymers/plastics and fiber materials.



RANDOM PACKING

Column internals of type random packing are often used for absorption, distillation and extraction applications. One very typical specific application is cleaning of gases by scrubbing.

Technical details:

Several types of packing, i.e. Raschig Rings, Pall Rings, Saddles, Tall Pak and Medal Pak in ceramic, metal or plastic material. Typical size range is between 3 mm and 90 mm.



TANTALUM REPAIR KIT

Repair of small damages in glass-lined vessels are commonly performed by use of tantalum sleeves and/or tantalum plugs or screws.

Technical details:

Standard tantalum sleeves for nozzles between DN50 and DN250. Tantalum screw kits typically between M5 and M10.

Service & Support



SAFETY DAYS / SAFETY AUDIT

We can provide a free of charge audit at your site to make a report on all rupture disc applications in order to verify that the right type of rupture disc is chosen for each application. This audit also includes training for your staff in rupture disc technology and contains guides for the design of safety systems.



FILTRATION SCHOOL

It is one thing to understand a filter itself as a product, and it is another thing to understand how it works when fulfilling a filtration task. Therefore, Thurne Teknik offers a basic filtration course in order to explain the theoretical background of separation by filtration. The theory is varied with practical examples. The duration of the course is half a day.



COURSE FOR USERS OF GLASS-LINED EQUIPMENT

The target group for the course consists of users of glass-lined equipment, i.e. process operators, process engineers and maintenance staff. During the course, we will learn about enamel, how glass-lined equipment is manufactured and practical advice will be given by using examples from reality. The duration of the course is half a day.



SUPPLIERS

Process Components



Some equipment may not be available from Thurne Teknik in certain geographical areas.

COMPONENTS WITH PROCESS UNDERSTANDING.

By tradition, our scope of supply has been process equipment and process systems. This gives us high process understanding, which we believe also helps us when serving customers within the field of components. Furthermore, our aim is to be easy-to-do-business-with, which for us means simple administration and communication according to customer wishes.

We are proud to present our partners below:



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