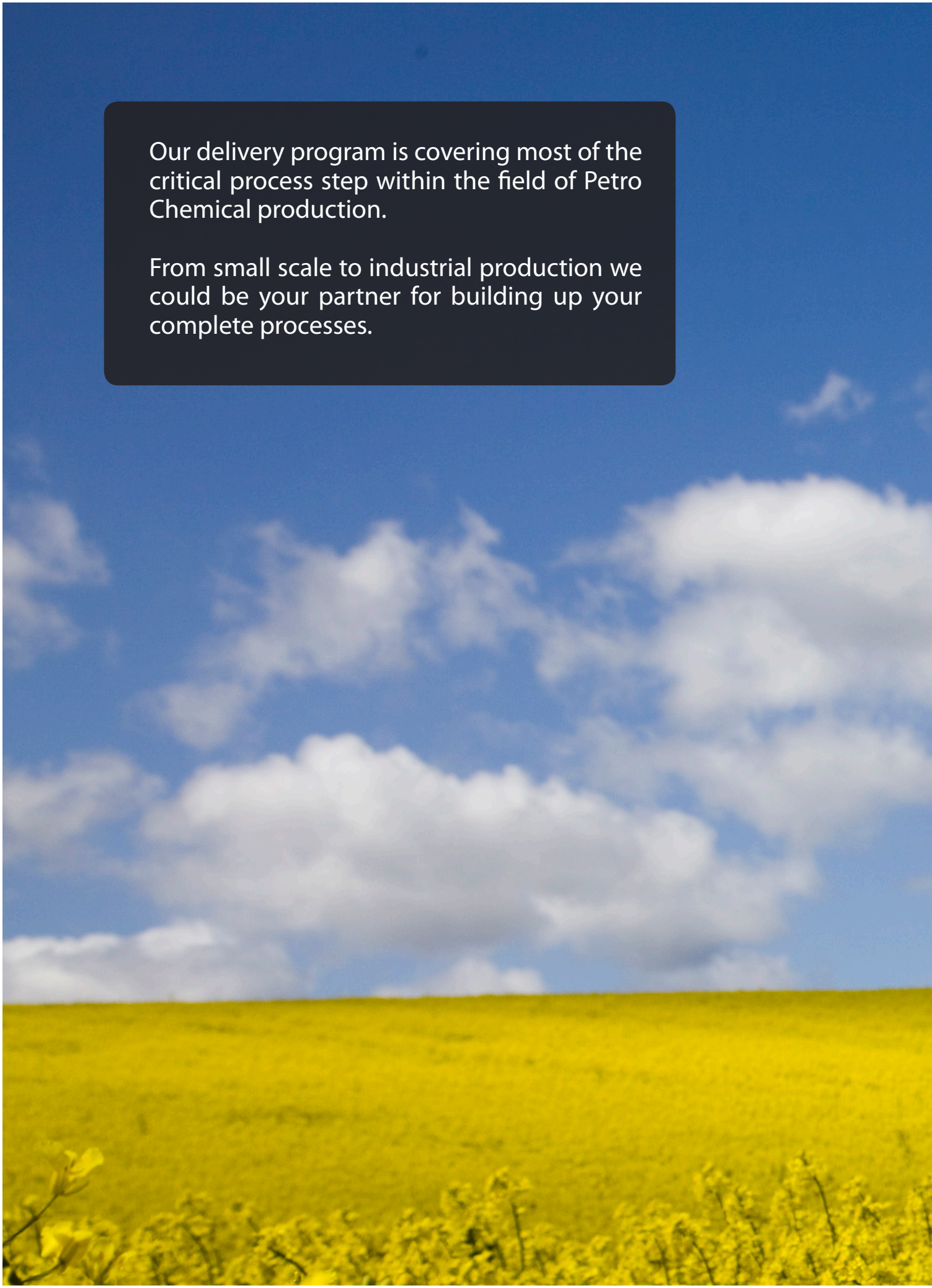
PETROCHEMICAL

Mass & Heat Transfer Solutions

THURNE TEKNIK



Our delivery program is covering most of the critical process step within the field of Petro Chemical production.

From small scale to industrial production we could be your partner for building up your complete processes.


"The empty vessel makes the loudest sound."
William Shakespeare

Mass Transfer

CERAMIC CATLYST BED SUPPORT AND TOP LAYER MEDIA

Inert ceramic balls and alumina balls catalyst support and top bed media guarantee high quality. The largest capacity in Europe as well as the highest compression strength on the market.

Technical details:
DURANIT®, DURANIT® X500, DURANIT® D92 Alumina and DURANIT® D99 High Alumina inert balls are available in sizes from 1/8" - 3".

RANDOM PACKING

Metal, ceramic and plastic random packing in most standard shapes as well as new patented designs offering low pressure drop and convincing mass transfer.

Technical details:
Carbone, stainless steel, nickel alloys, monel and other exotic metals.
Plastic materials such as PP, PVDF, PVC, PTFE etc.

COLUMN INTERNALS

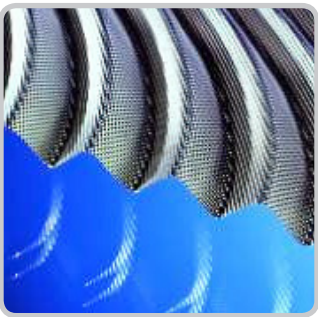
Internals such as liquid distributors, hold-down grids, support plates and re-distributors.

Technical details:
Carbone, stainless steel, nickel alloys, monel and other exotic metals.
Plastic materials such as PP, PVDF, PVC, PTFE etc.

DEMISTERS & COALESCERS

Wired mesh-type dropplet separators for more efficient gas separation.
Typical separation is 99,5 - 99,9% and depends on the dropplet size.

Technical details:
Available in stainless steels and most other metals, plastics such as PP, PVDF, PFA and others.



STRUCTURED PACKING

Wire mesh, metal sheet and high capacity structured packing.

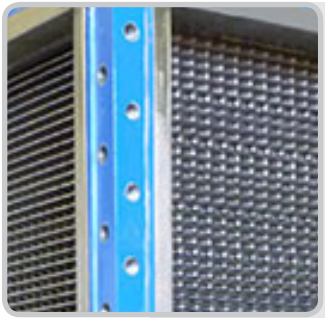
Technical details:
Available in most stainless steels and other metals. Specific surface: wire mesh: 500-750 m2/m3, metal sheet: 65-500 m2/m3, high capacity: 250-500 m2/m3.

Heat Transfer

DIMPLED PLATE HEAT EXCHANGERS - HXE

HXE dimple plate heat exchanger is designed for processes with one dirty fouling and one slightly fouling fluid.

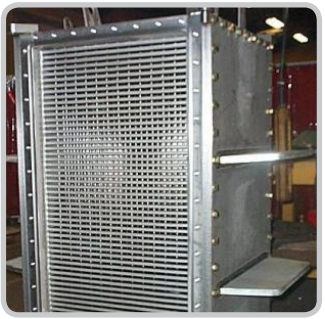
Technical details:
Robust design with up to 625 m2 surface area, access for cleaning on one side, free gap design up to 40 mm spacing between plate pack. Carbone and Stainless steel, nickel alloys, zirconium, titanium, Duplex.



CORRUGATED PLATE HEAT EXCHANGERS - HXC

Standard HXC corrugated plate heat exchanger is designed for two clean fluids and the Free-Flow type is designed for one fouling fluid.

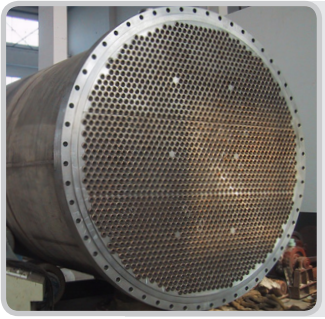
Technical details:
High thermal efficiency, surface area up to 280 m2, free-flow design offers up to 25 mm spacing between plate pack for access of cleaning.
Stainless steel, nickel alloys, titanium.



STUDDED PLATE HEAT EXCHANGERS - HXS

HXS studded plate heat exchanger is designed for heavy fouling applications with access on all four sides for mechanical cleaning.

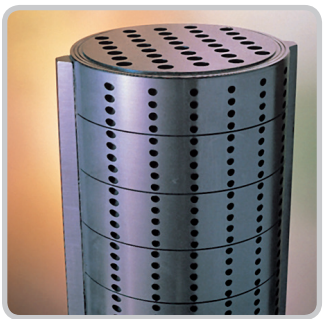
Technical details:
Optimal solution for sludge/sludge- , sugar-, stripping applications etc. up to 25 mm spacing between plate pack.



SHELL & TUBE HEAT EXCHANGERS

Conventional Shell- and Tube Heat Exchangers with smooth and corrugated tubes for high temperature or pressure applications.

Technical details:
Stainless steel, nickel alloys, zirconium, titanium, tantalum.



GRAPHITE & SILICON CARBIDE HEAT EXCHANGERS

An impregnated graphite heat exchanger gives significant resistance to corrosion, in a wide range of industrial applications. For even more extreme applications SiC heat exchangers are available with high thermal conductivity, high mechanical strength and excellent resistance to corrosion, temperatures and abrasion.

Technical details:
Design and quotation upon request.

Components

BELLOWS & COMPENSATORS

Standard and reinforced PTFE lined bellows and compensators to protect fragile equipment or absorb vibrations for corrosive or high-temperature conditions.

Technical details:
Standard sizes from DN20 to DN600 for normal or vacuum conditions.

RUPTURE DISCS GRAPHITE / METAL

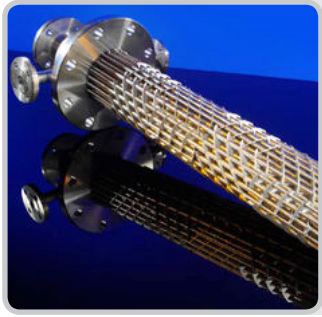
The bursting disc is a good safety device which protects installations against sudden overpressure or depression. Discs in graphite are chemically inert, temperature and corrosion resistant and are long term stable.

Technical details:
Replaceable membrane-, monoblock or capsulated discs with size up to DN600 and pressures up to 30 bars at 20°C. Stainless steel support, bursting detector, vacuum netting and thermal insulation are options.

RELIEF VALVES / FLAME ARRESTOR

Relief valves protect against damage from pressure or vacuum and reduce losses from product evaporation and protect the environment from harmful VOCs.
Flame and detonation arresters reduce the risk of damage or injury from fire.

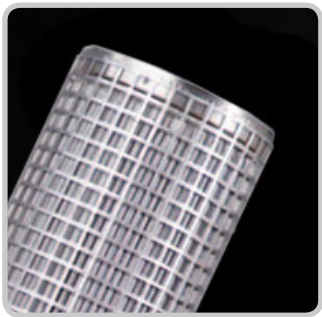
Technical details:
Different sizes and pressure/vacuum settings.
Materials: aluminum, carbon steel, stainless steel, fiberglass and other materials
ATEX and PED approval.



STATIC MIXING

The Static Mixer has no moving parts. Liquids or gases are mixed by pump energy only, while the mixing elements in the tube are static for minimized energy consumption.

Technical details:
Materials as PP, PE, PVC, PTFE, FRP (fibre reinforced plastics), carbone and stainless steels.



INDUSTRIAL FILTRATION

Filtration is critical to ensure the long term life of equipment used in the manufacturing process. Factors such as chemical compatibility, viscosity and operating temperatures must be considered.

Technical details:
Bag and cartridge filters in a wide range of pore size and surface area combined with stainless or carbon steel housings.

Pressure Vessels

PRODUCTION OF PRESSURE VESSELS IN CHINA AT MERSEN XIANDA SHANGHAI

FACTS

Mersen is a worldwide recognized designer and manufacturer of pressure vessels made out of different materials ranging from stainless steel and nickel alloys up to highly anticorrosive solutions such as titanium, zirconium. Engineering capabilities comply with international standards such as ASME, AS ADM, JIS, CODAP or RTOD.

» Pressure vessels also are fully in accordance with international certifications:
ASME U stamp, PED, ISO 9001, ISO 14001, 18001, GOST-R etc.
» Mersen masters all available welding processes such as GTAW, GMAW, SAW, PAW, FCAW, SMAW.

THURNE EXPERIENCE WITH PROJECT MANAGEMENT

For each project a MERSEN project manager is assigned to manage all different parts of the project.

To support both our customers and the project manager Thurne take an active role as translator of expectations and requirements from our customers to the project manager and back. Our responsibility in each projects are to create a good working platform with good communication from both our customers and the project manager, a respectful spirit throughout the project and to create the circumstances for a successful project.
Our responsibilities in each project include:

» Help with contractual terms and conditions
» Support with project plan management and follow up
» Drawing approval support on site at Mersen Xianda
» Mid inspection of equipment
» Fulfillments of procedures and actions throughout the project
» Follow-up of reporting
» Joining for FAT at Mersen Xianda

SUPPLIERS
Petrochemical

THURNE TEKNIK

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

Mass & Heat Transfer.

Mass and Heat transfer applications have been in our scope since the start of the company in 1962. We have concentrated us on solutions for critical process steps such as fractonation columns, distillation columns, condensers, reboilers, heat recovery units and areas where risk of high level fouling occurs.

We are also able to support our customers with design of complete column systems and all type of Heat Exchangers in different steel qualities.

Vers. 1807

We are proud to present our partners below:

Parker domnick hunter

MONTZ Your partner in chemical engineering

MERSEN

Continental Disc Corporation
Performance Under Pressure

VFF

RHODIUS
Safety and Environmental Solutions

ANDRITZ Separation

fluitec
mixing + reaction solutions

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