

# Electica and Mechanica Catalogue

MGA Engineering Global Dış Tic. Ltd. Şti.



# **About Us**





MGA Engineering Global was established in 2022 within the framework of its founders' more than 25 years of industry experience, knowledge and customer satisfaction.

By closely following the latest technology developments in the sector; We provide the most accurate engineering services from the beginning to the end of the project, taking into account the principles of legal regulations, environmental awareness, occupational health and employer satisfaction.

Our company offers professional solutions to its customers in many fields such as electrical contracting services, mechanical contracting services, weak current systems, professional audio and video systems, automation systems.

In order to provide solutions to customers' problems and requests, we blend our knowledge and experience with the quality of the world's leading brands, so we can shape the most accurate projects/systems and present them to our customers.

We offer solutions not only in Turkey but also on a global scale with our educated and professional staff who have carried out many projects at Turkey and abroad.

All of our projects are working in accordance with world standards. In addition, all of our projects are studied in accordance with the special laws and regulations of local governments during the time. In this way, we offer all our projects to our customers as from start to finish, without any worries of legal or any other matter.





While shaping your projects, we provide the most accurate consultancy services by our professional team

### **DESIGN & ENGINEERING**

Considering your demands and regulations, we offer project des development and engineering services.

### SUPPLY & MANUFACTURING

Supply of products needed in the project and production of special products for the project.

## **INSTALLATION & TRAINING**

### AFTER SALES SUPPORT

Following up the malfunctions, additions and changes that may occur after the sale.



# **Electrical Product Sales** 8 **Supervision Services**



# The brands we work with; **EAE Legrand FAT N Nexans** ABB Prysmian Group Schneider

We provide supply and supervision services for all products used in projects in many areas where electrical energy is present, such as congress centers, conference halls, theater and opera halls, hospitals, hotels, business towers, private and official residences, presidential palaces and residences.

- Low Voltage Systems
- Medium Voltage Systems
- Weak Current Systems
- Electrical Installation Installation
- Busbar Energy Distribution Systems
- Transformer and Generator Systems
- UPS Systems
- Lighting Systems
- Grounding and Lightning Protection Systems









### About ABB

ABB is a technology leader in electrification and automation, enabling a more sustainable and resource-efficient future. The company's solutions connect engineering know-how and software to optimize how things are manufactured, moved, powered and operated. Building on more than 130 years of excellence, ABB's 110,000 employees are committed to driving innovations that accelerate industrial transformation.









0

0









Ban an All

21.0°C

e







## About EAE

The EAE Group of Companies journey began in 1973. EAE's mindset has always been to design and manufacture products and systems to make the processes easier for its customers, more reliable and more cost effective. With founders having engineering backgrounds, the products and their reliability and quality has always been at the forefront for EAE. EAE Elektrik Inc.the In the beginning the company focussed on the design, manufacture, and sales of electrical distribution systems. Its product groups include Busbar Systems, and Cable Management and Support Systems. In 1983 EAE Lighting Inc.was founded with focus on the design and manufacture of LED lighting products for office and industrial use,. EAE Machinery Inc., EAE Electrotechnic Inc. and EAE Technology Inc were founded consecutively in 1996, 2004 and 2009.

Since its foundation EAE modernized its manufacturing facilities to accommodate the growing requirements of the market and to enhance its process efficiency and product reliability by adapting new technologies. In 2019 the group moved to a new manufacturing facility increasing its enclosed manufacturing area to 280.000 m<sup>2</sup> The facility also houses two state of the art testing and innovation laboratories, one for lighting products and one for electrical products.









# La legrand®





## **About Legrand Group**

Headquartered in France, Legrand specializes in products and systems for building, electrical and digital infrastructures. Legrand Group, which has commercial activities covering 180 countries, 39,000 employees and more than 300 thousand different product references, has complete system solutions for residences, commercial and industrial buildings. It offers end-to-end complete systems for residences, commercial and industrial buildings, from transformers, switchgear products, distribution boards, uninterruptible power supply, cable transport systems, switch sockets, home automation systems, emergency lighting products, structural cabling and lighting control systems.

- Electrical Products and Systems
- Energy Distribution and Protection Products
- Switch Socket Series
- Home Automation and Intercom Systems
- Structured Cabling Systems and data center solutions
- Lighting Management and Safety Lighting Systems
- Cable Distribution Systems























....



## **About EATON**

As a power management company, we enable our customers to solve their biggest power challenges with industry-leading electrical, aerospace, hydraulic and vehicle products and services. For more than 100 years, our teams have helped people work more safely, live more energy-efficient and more sustainable lives.

We are a power management company with more than 99,000 employees and doing business in more than 175 countries. Our energy-efficient products and services help our customers manage hydraulic and mechanical power more reliably, efficiently, safely and sustainably, as well as electrical power. We do this by giving people the tools to use power more efficiently, helping companies do business more sustainably, and encouraging every employee at Eaton to think differently about the impact we can have on our business, our communities and the world.





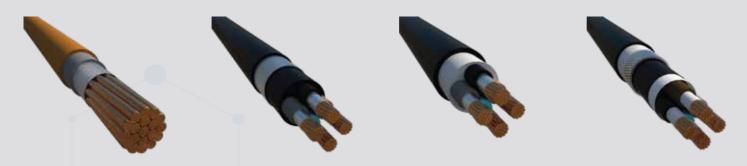








# Nexans



## About NEXANS

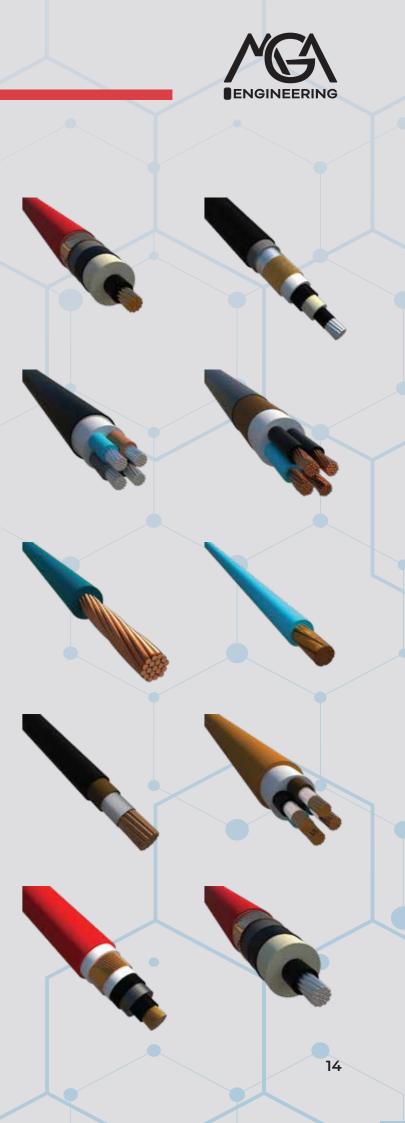
Nexans designs systematic and integrated solutions to its customers' unique needs, from the production and distribution of energy to mobility solutions. Innovative and smart solutions offered by Nexans provides sustainable profitability to its customers and business partners, whilst enabling planet and human progress as priority.

Our vision is to lead the energy transformation in the new world where safe, sustainable, renewable, decarbonized and environmentally friendly electricity will be used to build a better future for all. On this path, our aim is to be the most preferred business partner by offering smart solutions to our customers.

Our values are our guides for this vision.

Nexans Turkey aims to maintain its leadership in the cable sector throughout the country and the world and to increase its effectiveness in all markets in the coming years.





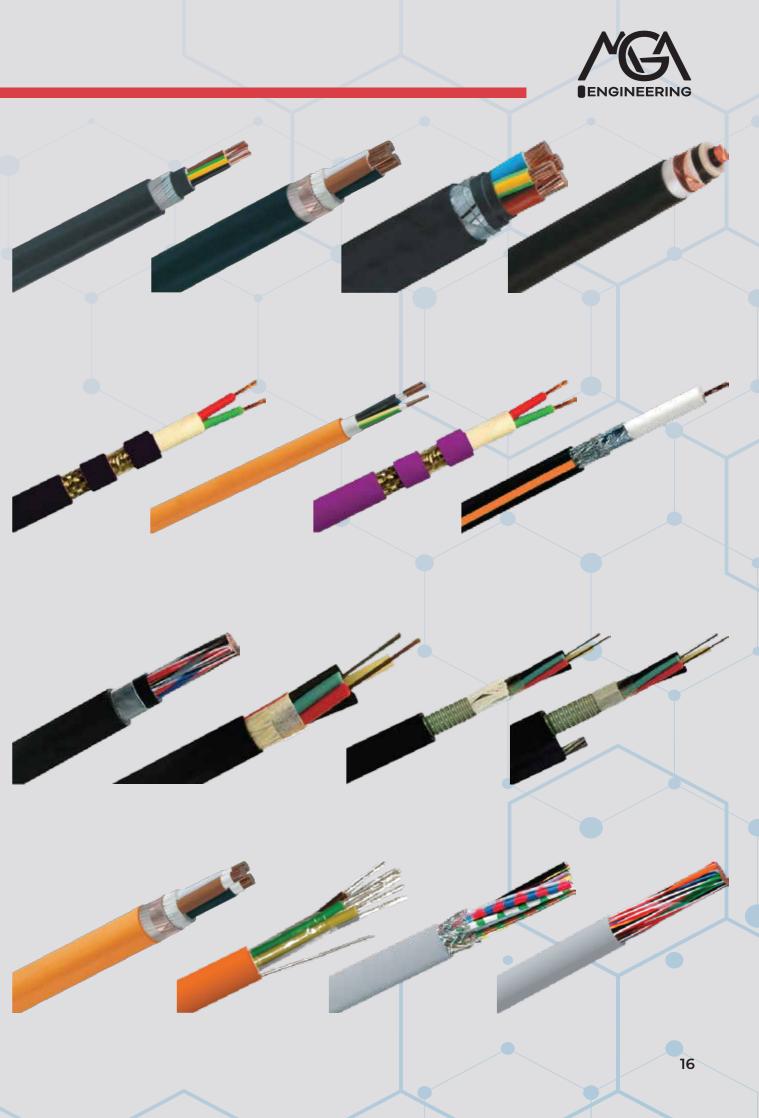


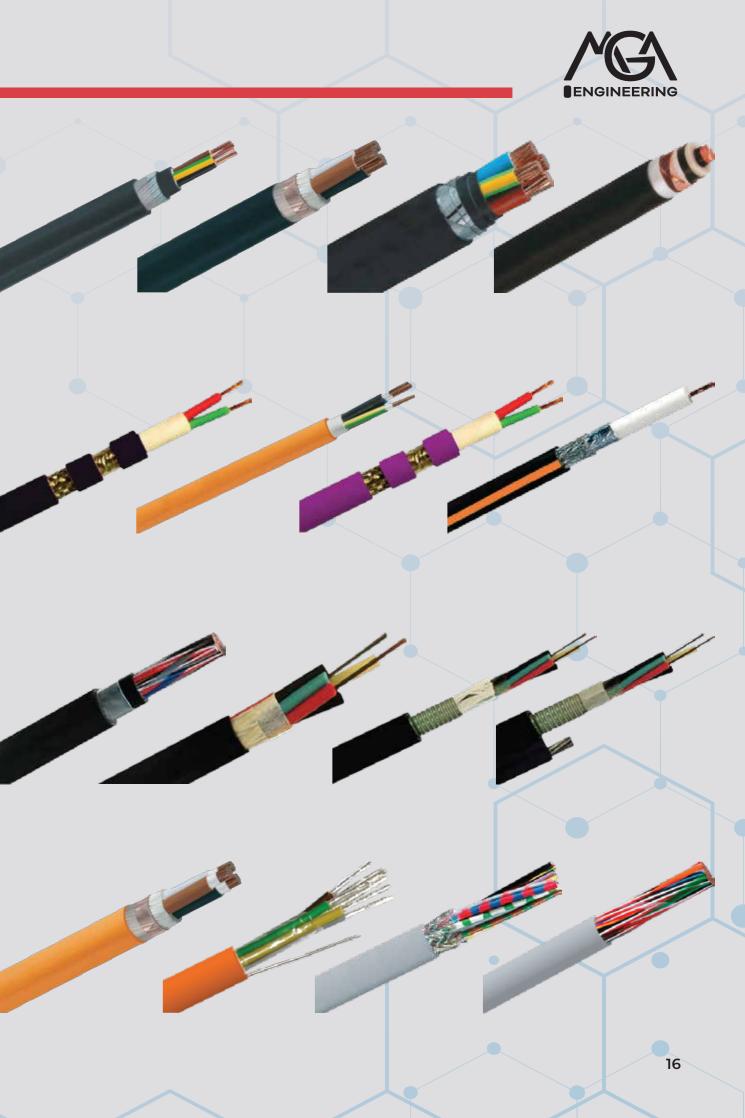


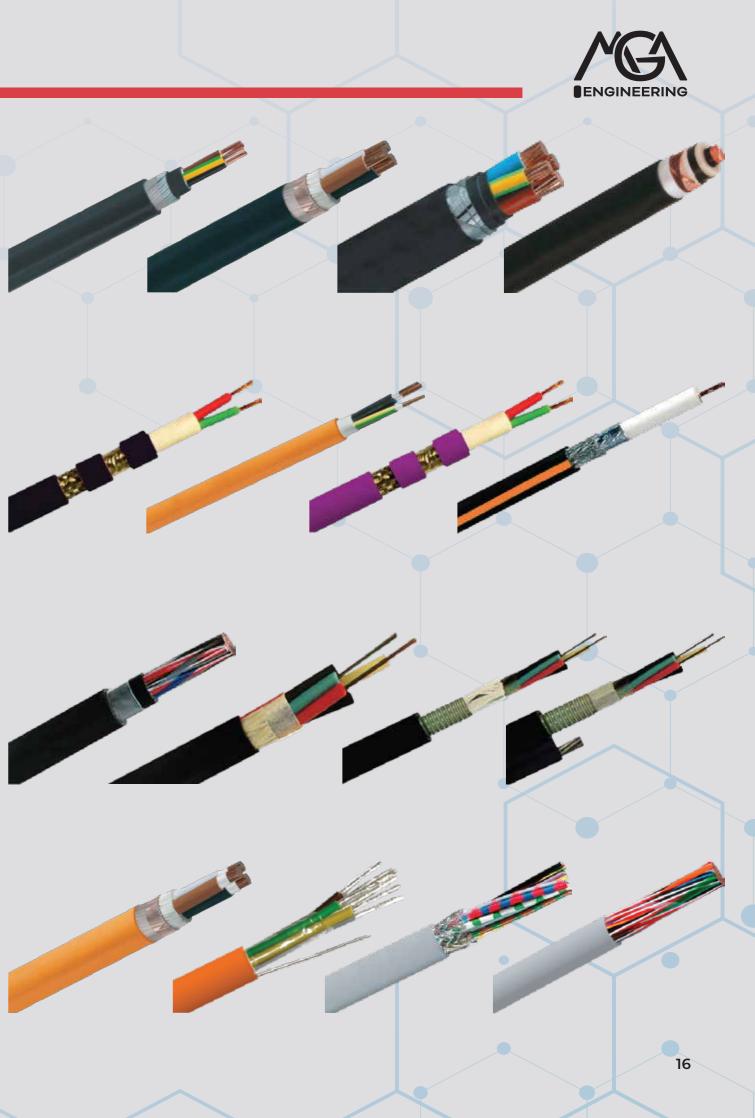
### About Prysmian

The company stands out in Prysmian Group as one of the 16 plants that can simultaneously produce energy and telecom cables with Prysmian and Draka brands. Wide product range of Türk Prysmian includes all energy cables up to 220 kV, copper conductor communication cables up to 3.600 pairs, optical fiber cables, railway signalization cables, studio broadcast cables and special cables. Today Mudanya factory can produce over 22.000 different cables. Furthermore, Türk Prysmian delivers "turn key" projects for cables and systems providing each one customer tailored and premium services.

Prysmian Group has 26 R&D centers worldwide and one in Türk Prysmian's Mudanya factory. Material Technologies Laboratory in the Mudanya R&D center is registered by Turkish Accreditation Agency (TÜRKAK) with accreditation certificate TS EN ISO/IEC 17025 "General Requirements For The Competence of Testing and Calibration Laboratories". The certificate granted by TÜRKAK is a certification that the results of 'fire tests' conducted in Türk Prysmian's laboratory are reliable and internationally valid.











# Schneider Gelectric









## About Schneider Electric

Schneider Electric SE is a French multinational company specializing in digital automation and energy management. It combines energy technologies, real-time automation, software and services to address homes, buildings, data centers, infrastructure and industries.

Our Mission is to be your digital business partner for Sustainability and Efficiency. We support digital transformation by providing integrated enterprise management through world-leading integrations of compute and energy technologies, connecting products from the edge to the cloud, controlling, software and services for homes, buildings, data centers, infrastructures and industries throughout the entire lifecycle.

We are the most local company among global companies. We are advocates of our partnership ecosystems and open standards, passionate about our Shared Purpose, Inclusive, and Strong values.



0

Å

- 1

0

Ŵ



0

Ra

0

A





















# Mechanical Materials Sales & Supervision Services



The brands we work with;

💕 PRIZMA 🗛.s.

Central Heating-Cooling Systems

Potable and Potable Water Systems

Waste Water Treatment Systems

• Fire Extinguishing Systems

palaces and residences.

Plumbing





We provide all products related to mechanical systems and supervision services in many areas such as congress centers, conference halls, theater and opera halls, hospitals, hotels, business towers, private and official residences, presidential

Heating - Cooling & Ventilation Systems

Waste Water and Waste Water Recovery Systems and Lines

Swimming Pool and Sports Complex Pool systems



# erensan

## Wall-Hung Condensing Boilers



## VARIAL

VARIAL wall-mounted condensing boilers are designed to meet all kinds of heating and hot water preparation demands. High performance and efficiency, economic operation and environmental friendliness of the boiler are the main features of VARIAL boiler. Thanks to its physical structure, it saves space and offers both fast and easy assembly with its wide accessories.

- \* High and fast heat transfer with aluminium cast heat exchanger
- \* Compliant with the energy efficiency directive (ErP)
- \* Wide modulation range (1: 5)
- \* Efficiency up to 99.6% at full load and 110% at partial load
- \* NOx emission class 6 (NOx <40 mg/kWh)
- \* Easy to use Turkish control menu
- \* Possibility of connecting up to 16 boilers in cascade
- \* Easy service and maintenance by removing panels on three sides
- \* Internal flue gas flap
- \* Internal check valve \* Suitable for hermetic and ordinary chimneys.



### TR C 465 - 1250

Three-pass condensing boiler

principle:

temperature water

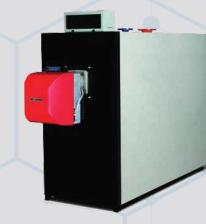
**EUROMAX C** 

Three-Pass Condensing Hot Water Boiler with Integrated Economizer Optimum heat transfer, long boiler life

\* 6-8 bar operating pressure

- \* Up to 96,5% efficiency

## **Floor-Standing Condensing Boilers**



## TR C 175 - 350

Three-pass condensing boiler Compact design, easy assembly, high efficiency

This boiler has been designed in accordance with heat layering principle:

\* While the upper part contains high temperature water, the bottom part where condensation takes place contains high amount of low temperature water

\* Boiler has been designed to relieve thermal expansions



## VARMAX

Premix Burner, Gas Fired Stainless Steel Condensing Hot Water Boiler 8 models ranging from 120 kW to 450 kW

- \* 6 bar operating pressure
- \* 109,1 % efficiency
- \* Heat exchanger and condenser is made of stainless steel material \* Premix burner operating with natural gas or LPG with modulation rates between 20% and 100%
- outlet options





- Compact design, easy assembly, high efficiency
- This boiler has been designed in accordance with heat layering
- \* While the upper part contains high temperature water, the bottom part where condensation takes place contains high amount of low
- \* Boiler has been designed to relieve thermal expansions

- \* Optimum thermal balancing and heat energy use, effective heat use, three passes for reduced operation costs
- \* Uninterrupted passes in all three passes and balanced cooling of flue gases resulting in extended service life

- \* Optimax: more efficient and economic with 2, 3 and 4 connection





### VARMAX TWIN

Premix Burner, Stainless Steel Condensing Gas Fired Boiler 4 models ranging from 550 kW to 900 kW

In addition to standard specifications of VARMAX boiler;

- \* Consists of 2 boilers at same capacity starting from 275 model
- \* In standard it has joint smoke flue and single chimney outlet
- \* In standard it has cascade communication module
- \* Suitable for only B23 and B23p type chimneys

## **Floor-Standing Conventional Boilers**



## TR 80 - 350

Three-Pass Hot Water Boiler Small size, high efficiency, long life

- \* 4-6-8 bar operating pressure
- \* Up to 95,4% efficiency
- \* Small width enables easy access to boiler room and assembly of the boiler
- \* Thanks to low chimney gas emissions, damage to environment is minimized

## TR 465 - 1250

Three-Pass Hot Water Boiler Small size, high efficiency, long life

- \* 4-6-8 bar operating pressure
- \* Up to 95,4% efficiency
- \* Small width enables easy access to boiler room and assembly of the boiler
- \* Thanks to low chimney gas emissions, damage to environment is minimized



۵**II**n.

erensan

### EUROMAX

Three-Pass Hot Water Boiler Optimum heat transfer, environment friendly

- \* 6-8 bar operating pressure
- \* Up to 94,4% efficiency
- \* Optimum thermal balancing and heat energy use, effective heat use, three passes for reduced operation costs
- \* Uninterrupted passes in all three passes and balanced cooling of flue gases resulting in extended service life.
- transfer surfaces.

### TR P

Pipe Coiled Three-Pass Hot Water Boiler Compact design, easy assembly

- \* 4-8 bar operating pressure
- \* Up to 94,7% efficiency
- \* Easy access to boiler room and easy assembly with compact design \* Three-pass; pipe coils between passes except for fire box \* Long boiler life with uninterrupted pass in all three suction

### NA R

- High efficiency, high saving rate
- \* 4-6-8 bar operating pressure
- \* Up to 93,7 % efficiency
- life

### HWR

- \* 6-16 bar operating pressure
- \* Liquid and gas fueled
- \* Can be used with pressure jet burner
- \* Thanks to high density insulation material used in coating boiler body, radiation and standby losses are reduced





23







- \* Robust boiler construction thanks to symmetrically positioned heat

Liquid and Gas Fired, Backpressure Hot Water Boiler

\* Suitable for natural gas, LPG and liquid fuel, high efficiency and long

\* Provides savings with low fuel consumption

Liquid and Gas Fueled, Two-Pass Package Superheated Water Boiler

\* 465-4070 kW Superheated water generation capacity



## **Steam Boilers**





## **Diathermic Oil Boilers**



## DB

ESB

Liquid and Gas Fueled Package Hot Oil Boiler

- \* 300.000 8.000.000 kcal/h hot oil generation range
- \* 6 bar operating pressure
- \* Package solution for thermal oil outlet temperatures up to 300 °C \* Heat generation with special heat transfer oils at required temperatures

Liquid and Gas Fuel Fired, Three-Pass, High Pressure Steam Boiler

\* Suitable for sudden steam intake with optimum water-steam

Fluid and Gas Fueled, Two-Pass, High Pressure Steam Boiler

\* Low furnace load to ensure burning is completed in furnace (< 1,3

\* Up-to 91% boiler efficiency. Up-to 95.5% efficiency in economizer

\* 1-30 t/h steam generation capacity

\* 0,25-5,5 t/h steam generation capacity

\* Can be used with pressure jet burner

\* 6-16 bar operating pressure

\* 6-16 bar operating pressure

\* Liquid and gas fueled

\* Liquid and gas fired

volumeratio

applications.

MW/m3)

SP

\* Safe use in low pressures for processes where high temperature is required

## **Superheated Water Boilers**



## **EUROMAX S**

Liquid and Gas Fueled, Three-Pass Superheated Water Boiler

- \* 1170-10000 kW superheated water generation capacity
- \* 6-16 bar operating pressure
- \* Liquid and gas fueled
- \* Long boiler life with uninterrupted pass in all three suction and balanced cooling of steam gases
- \* Pollution sections is minimized with low chimney gas emissions



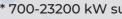


### **EUROMAX SC**

Liquid and Gas Fueled, Three-Pass, Integrated Condensing Economizer Superheated Water Boiler

- \* 1170-10000 kW superheated water generation capacity \* 6-16 bar operating pressure
- \* Liquid and gas fueled
- balanced cooling of steam gases \* Pollution is minimized with low chimney gas emissions

## SHW



- \* 6-16 bar operating pressure
- \* Liquid and gas fueled
- \* Suitable for large capacity central heating systems
- surface

SMOKE TUBE

gases

WHB-S

## Waste Heat Boilers





- \* Maximum steam and superheated steam generation from turbine waste gasses at high pressures
- \* Heat and electricity generation using the energy from high temperature waste flue gas
- \* Project specific design yielding solutions suitable for process data \* Material selection and design solutions suitable for chemical and physical properties of the waste gas





- \* Long boiler life with uninterrupted pass in all three suction and

Liquid and Gas Fueled, Three-Pass Superheated Water Boiler

- \* 700-23200 kW superheated water generation capacity
- \* Can be used with pressure jet burner
- \* Suitable for energy demand peaks
- \* Wet-back design enables maximum benefit from heat transfer

Smoke Tube Waste Heat Boilers

\* Generation of steam, superheated water and hot water at requested pressure for turbines, furnaces, gas and liquid fueled motor waste

- \* Heat and electricity generation using the energy from high temperature waste flue gas
- \* Project specific design solutions suitable for process data
- \* Material selection and design solutions suitable for chemical and physical properties of the waste gas

Water Tube, Waste Heat Boilers



## **Complementary Products**



ecomax



**BOILER CONTROL PANEL** 

- \* Euromatic panel series consists of control panels of different models. Erensan offers standard solutions for small and medium sized applications with Euromatic panel series
- \* It provides fast assembly ability designed to be used in large scale applications. Euromatic panels can also be used in a communication network (bus).
- \* Sequenced boiler control and cascaded boiler controls can be done
- \* Error messages can be sent to a preset GSM number

## ECOMAX

Condensing Steel Economizer, Energy Recovery

- \* With 12 different models, it's suitable for boiler capacities in 95-6470 kW range
- \* It's a low cost solution to increase boiler efficiency. It has stainless exchanger
- \* Can be assembled behind both new and operational boilers.
- \* Increases boiler efficiency by 3-4% depending on return water temperature

## **BURNERS**

## **IDEA Series Natural Gas Burners**

IDEA series is designed in compliance with bread, dye and drying ovens, central heating system boilers, steam generators, hot air generators and hot oil systems from 41 kW to 570 kW.

## **TECNOPRESS Series**

TECNOPRESS series burners are designed for all industrial and domestic applications from 160 kW to 2050 kW. With robust bodies, they are highly durable and long lived with Class A gas routes and control panel equipment.

## Vertical Expansion Tank with Membran

- \* Certificated suitability to hygienic use
- \* Does not need pump resulting in energy saving
- \* Low operating costs
- \* Easily assembled and dismantled
- \* Smaller volume requirement
- \* Low corrosion risk and long tank life

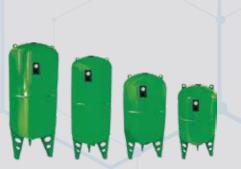


## Single-Dual Coil Water Heater

contacting water insulation from 800lt to 3000 lt

- \* Cathodic protection \* High efficiency
- \* Optional electrical resistance
  - \* Aesthetic view
  - \* 10 bar operating pressure







- \* Capacity between 100 lt-3000 lt (single coil) \* Capacity between 160 lt-3000 lt (Dual coil) \* Hygienic thanks to double layer enamel coating over surfaces
- \* 50 mm Polyurethane insulation from 100 lt to 600 lt; special sponge
- \* Electrostatic dust painted sheath over galvanized sheet from 100 lt to 600 lt; special winlex sheath from 800 lt to 3000 lt



**>masdaf** 

## **Industrial Pump Types**



NM mDrive Series Magnetic Coupling Without Packing Centrifugal Pump



**NME Series** Heavy Duty Centrifugal Pumps



**KME Series** High Pressure Stage Centrifugal Pumps



**KYP** Series Centrifugal Hot Oil Pumps



**YKF Series** Gear Pumps



2HM / 2VM Series Screw Pumps





**OMKV** Series High Pressure Stage Centrifugal Pumps





**NMP Series** End Suction Stainless Steel Sheet Pumps

**ASP/VSP Series** 

Automatic Suction Systems

**INMD Series** 

Line Type Twin Centrifugal

Pumps









**SPLT Series Double Suction Centrifugal** Pumps with Separable Body



**OMK Series KMU Series** High Pressure Stage Centrifugal High Pressure Stage Centrifugal Pumps Pumps





## Fire Pump Systems



**ENM Series** End Suction Volute Casing FI-FI System Pumps



YNM NFPA Series End Suction Fire Pumps



**YNM UL - FM Series** End Suction Centrifugal Fire Pumps



YPSP UL / FM Series Detachable Body Double Suction Centrifugal Fire Pumps



**YPH NFPA 20 Series** Line Type Fire Pumps



YPSP NFPA Series End Suction Centrifugal Fire Pumps



Electrical Fire Pump Controller General Use Controllers



Diesel Fire Pump Controller General Use Controllers



Container Type Fire Fighting Systems Container Type Systems







## **IACON** VATER E-MOTION



### **R206AF** Pressure independent control valve PICV, flanged connections

Working conditions with water - Temperature range: -10÷120 °C

- Max. static pressure: 16 bar
- Max. differential pressure: 4 bar



### **R206BF** Static balancing valve, flanged connections

Working conditions with water - Temperature range: -10÷120 °C - Max. static pressure: 16 bar

- Max. differential pressure: 11 bar

Gate valve with EPDM coated

Working conditions with water

- Max. continuous pressure: 11 bar

- Max. temperature: 100 °C

- Max. pressure: 16 bar



### R206CF Differential pressure control valve DPCV, flanged connections

Working conditions with water

- Temperature range: -10÷120 °C
- Max. pressure: 16 bar

R59FL

**R60W** 

- Controllable differential pressure

LUG type butterfly valve

- Max. temperature: 120 °C

- Max. pressure: 16 bar

- Max. pressure: 16 bar

Working conditions with water

- Max. continuous pressure: 11 bar

Brass body disc type check valve

Working conditions with water - Max. temperature: 120 °C

- Max. continuous pressure: 11 bar

range: 20÷100 / 80÷160 kPa





### **R59W** Wafer type butterfly valve

- Working conditions with water
- Max. temperature: 120 °C
- Max. pressure: 16 bar
- Max. continuous pressure: 11 bar

Full bore ball valve with stainless steel ball

- Working conditions with water
- Max. temperature: 120 °C
- Max. pressure: 16 bar
- Max. continuous pressure: 11 bar



## Pressure Rating: PN16 / PN25

Body: Ductile iron Disc: EPDM Flanged / Grooved



### UVAVB200 Unival Wet Alarm Valve -**UVAVB** Series

- Working conditions with water - Max. static pressure: 35 bar
- Max. working pressure: 17 bar



## Wafer Type DN65 Wafer Type Butterfly Valve

- Working pressure: 21 bar
- Max. Test Pressure: 42 bar
- Temperature range: ~120°C



### R910SX004 Hose Connection Ball Valve with Drain Tap

Working conditions with water - Temperature range: -20÷120 °C

- Max. working pressure: 42 bar



### **R782G Ball Corner Valve for** Hazardous Gases

- Temperature range: -20÷60 °C - Max. working pressure(gas): 5 bar

### R74FL Strainer with stainless steel screen, epoxy painted

Working conditions with water - Max. temperature: 120 °C - Max. pressure: 16 bar - Max. continuous pressure: 11 bar





- **R740FL**





R55FL

wedge



## UFKV-0301 Float Valve

Pressure Rating: PN16-PN25 Body: Sfero Döküm Disc: Stainless Steel Flanged/Grooved



### UVPPD 100A **Pre-Reaction & Deluge Alarm** Valve

Working conditions with water

- Max. static pressure: 25 bar
- Max. working pressure: 12 bar



### R910X024 Ball Valve

Working conditions with water - Max. working pressure: 42 bar



R250G **Ball Valve for Hazardous** Gases

- Temperature range: -20÷60 °C - Max. working pressure(gas): 5 bar



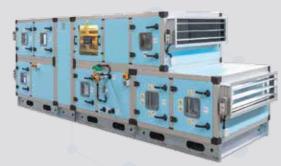
**R851** Valve for Hazardous Gases

- Temperature range: -20÷60 °C - Max. working pressure(gas): 5 bar





## **Air Handling Units**



## **Heat Recovery Units**







## **NIF Series Air Handling Units**

- Modular structure
- 30 different section options
- Wide air flow range between 1.000 m<sup>3</sup>/h and 120.000 m<sup>3</sup>/h
- Provision of subsection regarding the project requirements
- Easy and quick installation
- Configuration flexibility
- High energy efficiency - Quality production
- Flexible solutions regarding the project requirements

## VHR Heat Recovery Unit

- 12 standard models with CE mark.
- High efficient and direct driven AC Fans with low noise level,
- Proper ventilation by fan speed control having 5 levels for
- exhaust air and fresh air controlled separately,

- Aluminum plate type heat exchangers with high conductivity and performance,

- High indoor air quality with washable polyurethane filters,
- Excellent sound and heat isolation with fully insulated cabinet.

## VHR CF High Efficiency Heat Recovery Unit

- 6 standard models with CE mark,
- High efficient and direct driven plug type AC Fans with low noise level,
- Proper ventilation by fan speed control having 5 levels for exhaust air and fresh air controlled separately,
- Easy installation and maintenance by compact design,
- Aluminum plate type counter flow heat exchangers with high conductivity and performance,
- High indoor air quality with synthetic fiber G3 filters,
- Excellent sound and heat isolation with fully insulated cabinet.

## VHR SX Heat Recovery Unit with Cellulosic Exchanger

- 9 standard models with CE mark,
- High efficient and direct driven AC Fans with low noise level,
- Proper ventilation by fan speed control having 5 levels for
- exhaust air and fresh air controlled separately,
- Easy installation and maintenance by compact design,
- Cellulosic type heat exchangers with high conductivity and performance,
- High indoor air quality with washable polyurethane filters,
- Excellent sound and heat isolation with fully insulated cabinet.

## Smoke Exhaust Fans



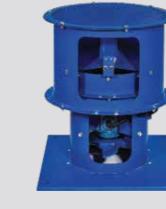


- - noise

  - 400V, 3 phase, 50 Hz







- EN12101-3
- galvanized coated
- noise

- 400 V, 3 phase, 50 Hz



## VAX-S Axial Smoke Exhaust Fans

- F300 certified harmonized with EN12101-3 - Full size from Ø 400 mm to Ø 1400 mm diameter - Hot dip galvanized sheet metal fan casing - Cast aluminum adjustable blade angle impellers - Aerodynamic profiled impellers allow high efficiency and low

- Die cast aluminum alloy fan hubs - Optimum capacity obtained by different blade-hub combinations besides adjustable blade angels - IP 67 terminal box is placed out of the casing - Electrical motors with IP 55 and H class insulation

## VAX-J Axial Jet Fans

- The uni-directional and reversible models provide flexibility for jet fan lavout in a car park

- The jet fans have a circular silencer at the both sides to provide a laminar air flow besides reducing noise level.

- The uni-directional jet fans have a deflector at the outlet and a zinc plated guard at the inlet. The reversible jet fans have a deflector at the both ends.

- The jet fans are tested and approved at 300°C temperature for 2 hours regarding to EN 12101-3 standard.

### VRJ Radial Jet Fans

- The radial jet fans with 50 N and 100 N trust models reduce number of the jet fans in the jet fan system

- Backward curved blade radial fans allow less turbulence of air - The radial jet fans are ideal for height restricted car parks - The jet fans are tested and approved at 300°C temperature for 2

hours regarding to EN 12101-3 standard.

- Electrical motors with IP 55 and H class insulation. - 400 V, 3 Phase, 50 Hz Motor

### VAX-S-CAS Roof Type Axial Smoke Exhaust Fans

- F300 certified axial smoke exhaust fan harmonized with

- Full size from Ø 400 mm to Ø 1000 mm diameter

- The casing and its relevant parts are epoxy coated or hot dip

- Cast aluminum adjustable blade angle impellers

- Aerodynamic profiled impellers allow high efficiency and low

- Die cast aluminum alloy fan hubs

- Optimum capacity obtained by different blade-hub

combinations besides adjustable blade angels

- IP 67 terminal box is placed out of the casing

- Electrical motors with IP 55 and H class insulation

- Operating temperature at 300°C for 2 hours



## **Axial Fans**









## VAX Duct Type Axial Fans

- Full size from Ø 315 mm to Ø 1.400 mm diameter
- Hot dip galvanized sheet metal fan casing
- Cast aluminum adjustable blade angle impellers
- Aerodynamic profiled impellers allow high efficiency and low noise
- Die cast aluminum alloy fan hubs
- Optimum capacity obtained by different blade-hub combinations besides adjustable blade angels
- IP 67 terminal box is placed out of the casing
- Electrical motors with IP 55 and F class insulation
- 230V, 1 phase, 50 Hz and 380V, 3 phase, 50 Hz
- Operating temperature between -20°C and 60°C

## VAX Axial Pressurization Fans

- Full size from Ø 315 mm to Ø 1.400 mm diameter
- Hot dip galvanized sheet metal fan casing
- Cast aluminum adjustable blade angle impellers
- Aerodynamic profiled impellers allow high efficiency and low noise
- Die cast aluminum allov fan hubs
- Optimum capacity obtained by different blade-hub combinations
- besides adjustable blade angels
- IP 67 terminal box is placed out of the casing
- Electrical motors with IP 55 and F class insulation
- 230V, 1 phase, 50 Hz and 380V, 3 phase, 50 Hz
- Operating temperature between -20°C and 60°C

## VAX-H Axial Fans with Casing

- Full size from Ø 400 mm to Ø 1.400 mm diameter
- Hot dip galvanized sheet metal fan casing and galvanized sheet outer casing
- Cast aluminum adjustable blade angle impellers
- Aerodynamic profiled impellers allow high efficiency and low noise
- Die cast aluminum alloy fan hubs
- Optimum capacity obtained by different blade-hub combinations
- besides adjustable blade angels
- 50 mm rock wool insulation
- IP 67 terminal box is placed out of the outer casing
- Electrical motors with IP 55 and F class insulation
- 230V, 1 phase, 50 Hz and 380V, 3 phase, 50 Hz

### VD Wall Mounted Axial Fans

- 7 standard sizes in the range of Ø315-630 mm,
- The casing and its relevant parts are epoxy coated.
- Die cast aluminum alloy fan hubs,
- Providing feasible solution for ventilation systems requiring high air flow and low pressure,
- Electrical motors with IP55 and F class insulation,
- The operating temperature is between -20°C and 40°C for the models from VD 315 up to VD 450.
- The operating temperature is between -20°C and 60°C for other models.
- They can be supplied with 230 V/1 Phase /50 Hz and 400 V/ 3 Phases/ 50 Hz motor options.

## **Ex-Proof Fans**



## **VAX-EX Explosion Proof Axial Fans**

- Hot dip galvanized sheet metal fan casing
- Cast aluminum adjustable blade angle impellers
- Aerodynamic profiled impellers allow high efficiency and low noise - Die cast aluminum alloy fan hubs
- Optimum capacity obtained by different blade-hub combinations besides adjustable blade angels
- Ex-proof certified IP 65 terminal box is placed out of the casing
- Ex d IIB T4 electrical motors with IP 55 and F class insulation
- 230 V, 1 phase, 50 Hz and 380 V, 3 phase, 50 Hz

## **VD-EX Explosion Proof Wall Mounted Axial Fans**

- 7 standard sizes in the range of Ø315-630 mm,
- Easy and quick mounting on the wall,
- Galvanized coated casing and aluminum inlet cone,
- Die cast aluminum alloy fan hubs,
- Electrical motors with IP 66 and F class insulation,
- 50 Hz motor options.

## **RKX Duct Type Explosion Proof Fans**

- Galvanized steel sheet casing - II 2G Ex e IIB+H2 T3 Gb protection class
- ATEX-certified
- Three phased motor with external rotor and IP 44 protection class - Non-Sparkling inlet cone is made up of copper - Easy cleaning and maintenance with the hinged connection

## **RFTX Explosion Proof Radial Single Inlet Fans**

- Galvanized steel sheet casing
- ATEX-certified





37





- In compliance with the ATEX 2014/34/EU, EN 14986 : 2017, EN 60079-0 : 2013, EN 13463-1 : 2009, EN 13463-5 :2011 Standards
- Full size from Ø 500 mm to Ø 1.400 mm diameter

- Operating temperature between -20°C and 40°C

- Operating temperature between -20°C and 60°C,
- They can be supplied with 230 V/1 Phase /50 Hz and 400 V/ 3 Phases/

- II 2G Ex e IIB+H2 T3 Gb protection class
- Three phased motor with IP 55 protection class



## **Duct Type Fans**



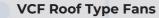
### **VTF Duct Type Twin Fans**

- CE marked in compliance with applicable directives
- The casing is made up of galvanized steel sheet.
- Backward curved type, direct coupled and external rotor fan. - Easy installation with self-flanged inlets and outlets
- Motor protection class is IP 44 and electrical connection box protection class is IP 67.
- Accessible fan for maintenance and service
- Mounting capability in all angles
- Air flow direction is determined automatically through the motor operated damper
- Operation of the fans by concurrent ageing method through auto change over panel working as time adjusted

## VDF Rectangular Duct Type Fans

- The casing is made up of galvanized steel sheet.
- Backward curved type, direct coupled and external rotor fan.
- Easy installation with the self-flanged inlets and outlets. - Motor protection class is IP 44 and electrical connection box
- protection class is IP 67.
- Accessible rotor and motor for maintenance and service.
- The fans can be installed at any angle.
- Speed controllers are optional.

## **Roof Type Fans**



- Epoxy coated galvanized sheet casing
- Backward curved type, direct coupled and external rotor fan
- The fans are protected with mesh wire
- Motor protection class is IP 44 and electrical connection box protection class is IP 67
- Accessible rotor and motor for maintenance and service
- Speed controllers are optional
- Repair and maintenance switch is optional

## VMC Roof Type Kitchen Exhaust Fans

- The motor is outside of air flow
- Direct coupled and backward curved aluminum blade fan provides high efficiency
- Electrical motors with IP 55 and F class insulation
- Frequency convertors are optional to control the capacity in the range of % 25 - %100.
- The design provides easy installation and maintenance

## Kitchen Exhaust Fans



VMK Duct Type Kitchen Exhaust Fans

- The design provides easy installation and maintenance - 3.296 m<sup>3</sup>/h-39.705 m<sup>3</sup>/h air flow range - High efficient direct coupled plug fan - The motor is outside of air flow - All standard models are available in the stocks - Metal filter (Optional) - Fan speed control (Optional)

- Differential pressure switch for the filter (Optional)
- Active carbon filter (Optional)



- The design provides easy installation and maintenance - High efficient direct coupled EC plug fan - The motor is outside of air flow - Efficient ventilation with the EC motor

- Equipped with a differential pressure sensor to run at the optimum
  - working point - Removable side panels - Metal filter(Optional) - Electrical motors with IP 55 - Differential pressure switch for the filter(Optional)

- Active carbon filter(Optional)
- Low noise level

39



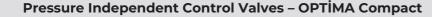
40

### VMH EC Kitchen Exhaust Fans with Casing

- Corrosion resistant casing that can operate outdoor - It can operate at the two different set values (Day/Night)







With OPTIMA Compact you get a dynamic flow, pressure and temperature control valve for heating and cooling systems OPTIMA Compact combines the functions of an externally adjustable automatic balancing valve with an integrated differential pressure controller and a full authority modulating control valve in one single, compact valve housing. The OPTIMA Compact provides modulating control with full authority regardless of variations in the differential pressure of the system making it possible to achieve 100% control of the water flow in the building.

### **OPTIMA Compact Actuators**

- Actuators
- Failsafe & Feedback actuators
- Thermostat with remote sensor
- Modbus actuators
- Spring Return actuators

**OPTIMIZER 6-way** Pressure Independent Control Group

The Frese OPTIMIZER 6-way Pressure Independent Control Group provides complete pressure independent balancing and control for 4-pipe heating and cooling systems.

The Frese OPTIMIZER 6-way provides modulating control, which works independently of any variations in the differential pressure of the system.

The group consists of an OPTIMA Compact pressure independent control valve (PICV) with a 0-10V modulating actuator, a 6-way control valve with a rotating actuator and the Control Unit. The Frese OPTIMIZER 6-way can be used in 4-pipe systems, such

- as: - Heating and cooling ceilings
- Convectors
- Decentralised ventilation units
- Fan coil systems
- Convection heating & cooling units





pressure of the system.



### **Frese PV Compact - Differential Pressure Control** Valve

The Frese PV Compact Valve ensures a constant differential pressure across the load or circuit and subsequently, very accurate control valve regulation.

Due to the compact design of the value it is easily installed in both domestic and commercial heating and cooling systems.



Frese STBV Range FODRV - DN15-DN300

The Frese FODRV is a Fixed Orifice Double Regulating Valve for flow balancing and verification.



## SIGMA Compact Dynamic Balancing Valve

With SIGMA Compact you get simple, accurate and reliable flow limitation and isolation for use in both heating and cooling systems. The externally adjustable SIGMA Compact dynami balancing valve can be easily set to the required position by using the hand wheel or scale to limit the flow rate in certain parts of a system, eradicating overflows and the unnecessary wastage of energy.

The internal differential pressure control function ensures that the set flow rate is limited irrespective of fluctuations in the differential

In addition to the flow limiting function, the SIGMA Compact can also isolate up to 10 bar differential pressure. The maximum flow position can be set and locked for easy reopening back to the preset flow position after the valve has been used for isolation.

### Frese MODULA Direct **Direct Mount Bypass Unit with Flow Measurement**

Frese MODULA Direct is a versatile valve system that combines the Frese range of OPTIMA Compact pressure independent control valves with isolation, flushing, draining and measurement components within a prefabricated, tested and ready to install terminal bypass unit. The MODULA Direct is supplied with an integral venturi metering station for accurate flow verification.



42

**Frese VODRV** DN15-DN500

The Frese VODRV is a Variable Orifice Double Regulating Valve for flow balancing and verification.





### **ALPHA Sanitary**

ALPHA Sanitary is the next generation of optimised system balance and legionella control in one compact valve solution. This dynamic balancing valve is manufactured in stainless steel in order to ensure the highest possible resistance against corrosion in domestic hot water, but it is based on familiar and extremely well-proven technology.

It is, in fact, identical to one of Frese's classic valves - The ALPHA which has been used in heating and cooling systems all over the world for several years. Only the material is different - the core features and benefits remain exactly the same.



## Circon - TemCon

TemCon is a control valve in stainless steel designed for domestic hot water installations with circulation.

The valve automatically control the temperature of the water that circulates through the valves. Thus the thermal balance is ensured throughout the domestic hot water system.

The value is adjusted on a scale to a desired temperature in the interval between  $37^{\circ}$ C and  $65^{\circ}$ C.









## DIFFUSERS



(DTD-01-01A)

SWIRL DIFFUSERS

(DTD-02)

**AIR DAMPERS** 



SQUARE CEILING DIFFUSERS (DTD-04-05)



TURBULANCE DIFFUSERS (DTD-07-07A-08-08A)



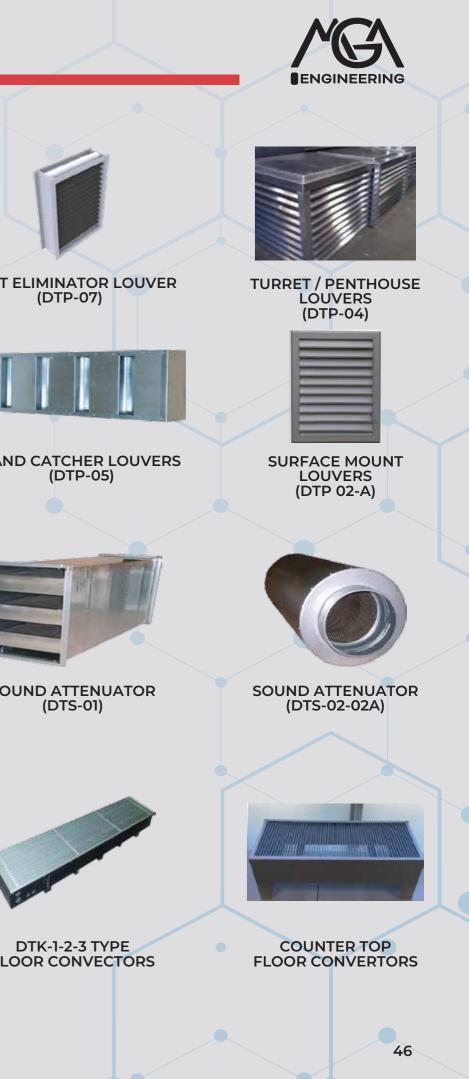
JET DIFFFUSERS (DTD-13)



JET NOZZLE DIFFUSERS (DTD-20)



LOUVERS

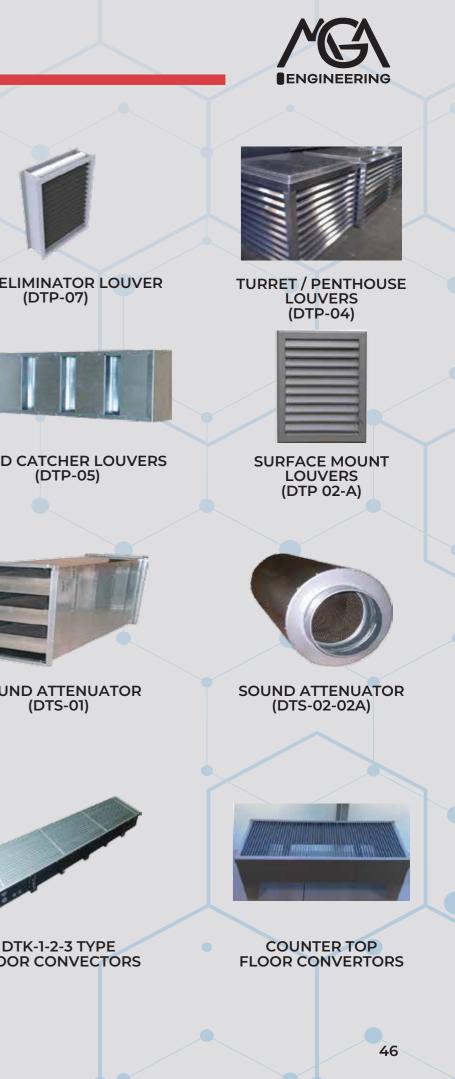


(DTP-06)

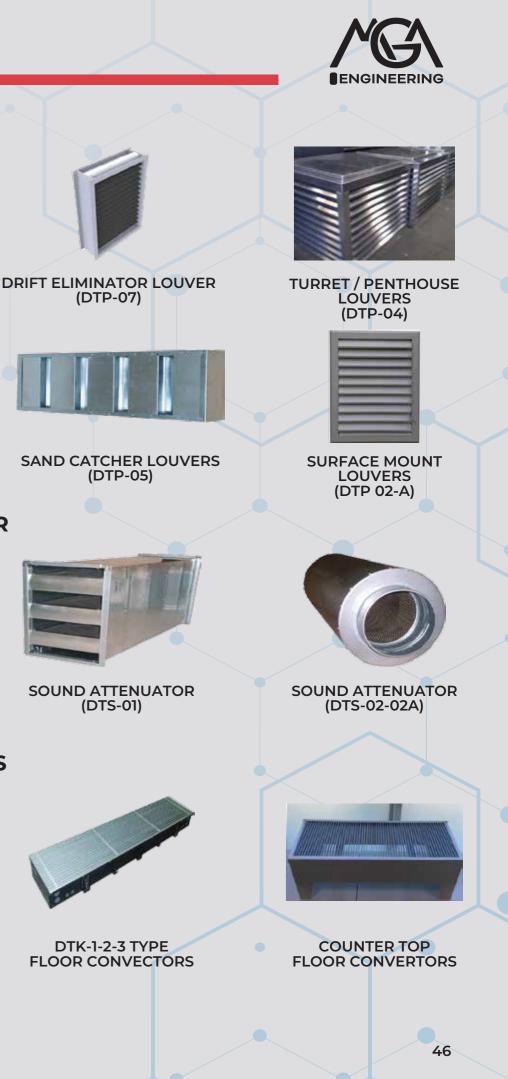


**EXTERNAL LOUVERS** (DTP-02-03)

## SOUND ATTENUATOR



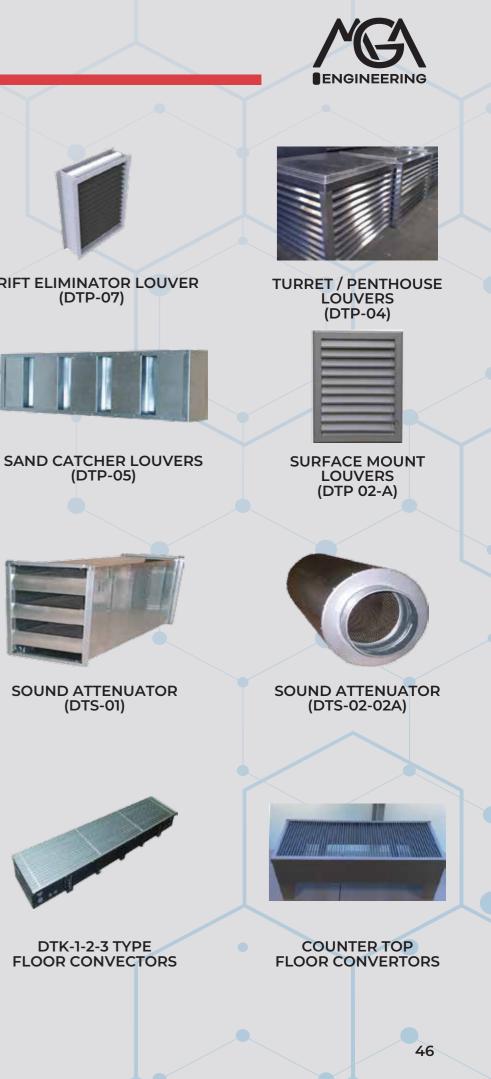




ACOUSTIC AIR LOUVER (DTS-03)

## **FLOOR CONVECTORS**





DTF-1-2-3 TYPE **FLOOR CONVECTORS** 



PRESSURE DAMPERS (DTH-04)



**Pneumatic Actuated** Damper for Air Cooled Heat **Exchangers and Condensers** (DTH-08)



CAV DAMPERS (DTH-06)



**IRIS DAMPERS** (DTH-07)



**AIR DAMPERS** (DTH-01-02)



VAV DAMPERS (DTH-05-05A)













# SENSUS





## 620 Water Meter

620 is a high-precision, MID approved R400 volumetric water meter with a unique piston measuring chamber that detects even the lowest flow rates.

You can choose between a register with an integrated wiper or a sealed copper-glass version. For a more comfortable readout, the 620 is prepared for AMR.

- Registers the lowest flow rates, thanks to its unique piston measuring chamber

- Ensures optimum legibility under all conditions of use
- Operates quietly

### 640C/640MC Water Meter

The 640C/640MC is a MID\* approved high-accuracy water meter with a unique piston measuring chamber that detects even the lowest flow rates for a well-proven metrology.

Designed with recyclability in mind and encased in a composite body, the 640C/640MC complies with all new and planned regulations for potable water and will help you reduce your carbon footprint. Its integrated radio functionality enables the meter to quickly and easily communicate with your water network data.

- Registers the lowest flow rates, thanks to its unique piston
- measuring chamber
- Communicates data via its integrated radio functionality (electronic reaister)
- Helps reduce your carbon footprint
- Operates quietly

### AN 130 Flow Sensor



AN 130 Flow Sensor is a multi-jet, dry-dial, vane-impeller hot water meter. It can be installed in central heating and cooling systems and remote warning systems. With its built-in pulse sender, it is approved for heating meters according to the European measuring instruments directive (MID\*) 2004/22/EG.

- Ideally applicable for 6/12 °C chilling systems due to the high temperature range of the flow sensor from 5 to 130 °C - Can be used with water glycol mixtures due to mechanical measuring principle

\* MID : European Measuring Instruments Directive (Avrupa Ölçüm Cihazları Direktifi)







### MeiStream® FS Flow Sensor 90 °C

The MeiStream® FS Flow Sensor 90 °C combines the high reliability and measurement accuracy of the Woltman WP meter with the advantages of the Woltman WS meter in the lower measuring range. This combination creates an excellent flow sensor with an MID approval according to MI004 or EN 1434 in the accuracy class 2. Volume pulses are generated by the interface HRI-Mei FS. This interface transfers volume pulses with programmable pulse values to the heating or cooling calculator. Possible reverse flows are compensated.

## PolluCom® F Thermal Energy Meter

The new PolluCom F is Sensus' next generation mechanical thermal energy meter following the successful PolluCom E with multiple new features.

and billing programs

- Battery lifetime up to 13 years
- Ideally applicable for "6/12 °C cooling systems" due to temperature range of the flow sensor from 5 to 90 °C
- Updates measuring values quickly (4 seconds for temperatures, 4 seconds for energy and flow rate)
- Password-protected parameter selections on the meter itself; no additional peripheral equipment needed
- Optional, factory-fitted modules for electronic meter reading and connection with building automation systems
- principle
- water glycol systems

## PolluTherm® Integrator

concrete core activation).

on-site (order variant without surcharge)



- Provides excellent metrological performance - Installs in a horizontal or vertical position - Easy installation, even in narrow locations - Compatible with existing measuring points

- Optional communications easy to be integrated to different reading
- Big size storage of the historical data

- Can be used with water glycol mixtures due to mechanical measuring

- Provides a pre-settable correction factor for enthalpy for usage in

- The PolluTherm® integrator measures energy consumption in heating or cooling circuits. PolluTherm can also be used in combined heating and cooling systems where an automatic switch-over point stores heating and cooling energy in separate registers. This switch-over point can be changed in accordance with the heating and cooling system requirements even after the meter has already been installed (e.g.,
- The novel casing concept of the PolluTherm offers two slots for upgrade with various modules (e.g., M-Bus or remote reading pulses) at any time for data communication and remote reading.
- Simplifies stock-keeping; input pulse values can also be programmed
- Connects temperature sensors Pt 500 in four-wire technology for quick and economic extension of temperature sensor cable (standard)



# Hisense

## Indoor Units



## **4-Way Cassette Type**

4-Way Cassette provides a comfortable and aesthetically pleasing environment, making it the perfect asset for your business.



Mini 4-Way Cassette Type

Mini 4-Way Cassette provides a comfortable and aesthetically pleasing environment, making it the perfect asset for your business.



2-Way Cassette Type

Console unit is designed with stylish appearance, providing a relaxing environment for customers.



Dış Mekan Üniteleri

Hi-FLEXi S Heat Recovery

The S heat recovery series can make full use of energy to realize cooling and heating simultaneously in heat recovery mode and also can be used as two-pipe systems. Water module is available to be connected in refrigerant system which can support floor heating & DHW & fan coil & radiator to provide more comfortable environment.

## Hi-FLEXi S Mavo+ Series

- High-efficiency Compressor

## Hi-FLEXi S Mavo Series (Cooling Only)



## **Ceiling & Floor Type**

The Ceiling and Floor unit delivers a powerful performance and provides a modern design that blends in perfectly with any type of space.

# Wall Mounted Type

Wall Mount unit is a powerful cooling and heating solution that can be installed quickly and easily.

## Ceiling Ducted Type (AC/DC Low-height)

The Ceiling Ducted is a concealed unit that provides comfortable and even airflow without affecting interior aesthetics.



## **Hi-FLEXi W Series**

Hi-FLEXi W series is water cooled combined module product, with max.20HP of single module, and max. 60HP of 3 modules combined. Also it can realize simultaneously cooling and heating within one system. Besides, a new switch box is designed to connect with it, with convenient piping installation.

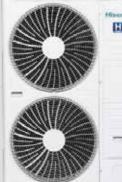




- Patented 360° fitted refrigerant cooling technology - Triple back up operation - Precise temperature control - One-touch refrigerant recycle

S mayo series cooling only unit is based on the latest product platform. Capacity range and EER have been improved greatly compared with the previous product.





### **Hi-Smart H Series**

Hi-Smart H series, front flow product, is designed and developed with state-of-the art technologies. It's focusing on customers' various requirements and comfort.



# **D** Gestra

## **Steam Traps**

## **BK Range**



- Steam traps with bimetallic regulator up to PN 630/Class 2500.

BK steam traps are suited to the toughest operating conditions.

- The bimetallic regulator makes this steam trap particularly resistant to waterhammer and frost.

## **UNA Range**



- Steam traps with ball float up to PN 160/Class 900. - Especially suitable for condensate discharge without banking-up. for extreme and sudden fluctuations of pressure and condensate flowrate

## **TRAP MONITORING**



The Vaposcope VK is a sight glass that provides a visual indication of flow in pipelines and monitors the discharge downstream of steam traps. The Vaposcope can be used in horizontal or vertical pipework without any modification.

## **Continuous and Intermittent Blowdown Valves**



## Type MPA

- Type MPA For automatic, program-controlled intermittent blowdown of steam boilers and waste-heat boilers.

- Especially suited for boilers operating without constant supervision.

Type BAE

MK Range

flowrates.

lifter PN40.

banking-up,

- Steam traps with membrane

regulator up to PN 40/Class 300.

- This range is suitable for both

- Pump steam trap / condensate

- Pumping effected by means of

motive steam of up to 6 or 13 bar

- Suitable for all operating

vacuum applications.

conditions, low pressure and

for condensate discharge without

small and large condensate

UNA 25 PK/PS Range

- The GESTRA thermostatic capsule

exhibits very high control precision in discharging the condensate.

- Continuous blowdown valves with adjustable stage nozzle, sampling valve and electric actuator for automatically controlled continuous blowdown. - Especially suited for boilers operating without continuous supervision.

## **Cooling Water Control Valves**

## Type CW



- Operating without auxiliary energy, the cooling water control valves type CW, PN 16, DN 25-100, are proportional controllers which regulate the cooling water flowrate of the users or plant components individually as a function of the coolingwater return temperature.

## **Temperature/Pressure Control Valves**

## Type 5801



Directly controlled pressure-reducing valve with large set-point ranges for steam, gases and liquids.

## **Control Valves**

## **Type 701**



- For the automatic control of the level, temperature, pressure and flow of liquids in heat engineering and process-control technology. - With pneumatic or electric actuators.

## **Steam Trap Testing**



## **VKP Test Serisi**

- For testing, analyzing and evaluating steam trap operation - It can detect leaks in steam systems and calculate steam loss, CO<sup>2</sup> emissions.







## Type BW

- Return-temperature control valves are proportional controllers operating without auxiliary energy. - With external setting device

- as optional extra.
- BW 31 for hot water
- BW 31A for hot oil



### **Type Clorius**

- Type Clorius Self-acting temperature control valves of the type Clorius operate as normal- and reverse-acting valves with external feeler. - Suitable for applications with steam, gas

and liquids.



## Type ZK

- Control valve with multi-stage pressure reduction for high differential pressures up to 560 bar - Suitable for water, condensate and steam.

- YHigh wear resistance, low noise and highest leakproofness - With pneumatic, electric or hydraulic actuator or handwheel.



# **IK**; KESSEL

## **Backwater Protection**



More than a backwater valve: Pumpfix F is the only backwater valve that pumps against the backwater. In normal operation, the backwater pumping station continuously disposes of the wastewater via the slope to the sewer, making it energy-neutral. In the event of backwater, the backwater flap closes automatically and when wastewater arises this is pumped against the backwater pressure. The integrated cutting wheel shreds solids and so the Pumpfix F is also suitable for use wastewater containing sewage. It can also drain basement staircases up to 5 m<sup>2</sup>.



## STAUFIX FKA BACKWATER VALVE

Particularly reliable motor operation: In contrast to conventional backwater valves, the Staufix FKA achieves the sealing with the help of a motor. This means that it is also suitable for wastewater containing sewage - not only for showers, washbasins and washing machines, but also for toilets.



## STAUFIXCONTROL BACKWATER VALVE

The new StaufixControl is the result of decades of product development and optimisation. It is just as safe as the original Staufix, but now even more compact, allowing a simpler installation and more flexible mounting.

## STAUFIX BASIC BACKWATER VALVE

Reliable, durable and affordable in price: These properties do not have to be mutually exclusive. This is proven by our Staufix Basic backwater valve. It is the ideal solution to provide protection for individual draining elements such as a shower, washbasin and washing machine which are located below the backwater level.

## **STAUFIX SIPHON Ø 50 BACKWATER VALVE**

The Staufix Siphon backwater valve with a nominal size of DN 50 serves as protection for individual drainage points such as washbasins, showers or washing machines in rooms below the backwater level. It is installed in drain fittings and is available as a siphon for washbasins and with an inlet funnel for the emergency overflow of heating systems.



## PIPE FLAP VALVES / FROG FLAP MADE FROM POLYMER

The self-actuating pipe flap valves prevent undesirable backwash into wastewater pipes in the event of backwater or high water levels. They are made entirely from polymer and so are 100% corrosion-free.

## STANDARD BACKWATER CHAMBER

A backwater chamber in front of the building offers significant advantages. It enables all drainage points that are at risk of backwater to be safeguarded outside the building at a single central and maintenance-friendly point. Noise nuisance, for example due to pumps or similar, can be ruled out and there is no loss of living space in the building.

## MODULAR BACKWATER CHAMBER



A backwater chamber in front of the building offers significant advantages. It enables all drainage points that are at risk of backwater to be safeguarded outside the building at a single central and maintenance-friendly point. Noise nuisance, for example due to pumps or similar, can be ruled out and there is no loss of living space in the building.

## **Hybrid Lifting Stations**



The Ecolift is the clever alternative to a conventional lifting station. The hybrid lifting station pumps only when it is really necessary - in the event of backwater. Otherwise, the Ecolift simply makes use of the natural gradient to the sewer. This, of course, saves energy. Since it only rarely runs, it also does not need as much maintenance. It is also more reliable because it works without any power as it makes use of the gradient unlike conventional lifting stations.

## HYBRID LIFTING STATION ECOLIFT XL

The Ecolift XL is a larger and more powerful version of the Ecolift. The hybrid lifting station is, therefore, ideal for commercial buildings and multi-family homes. With a power rating of up to 4.5 kW, the Ecolift XL can reliably pump the wastewater away even working against the backwater pressure. Up to two motor-driven closure systems provide the closure to the sewer. However, this is only necessary in the event of backwater. In normal operation, it does not pump and instead makes use of the natural gradient.





## HYBRID LIFTING STATION ECOLIFT



## Pump Technology Lifting Stations, Pumping Stations and Submersible Pumps

When a washing machine, shower or toilet is located in the basement, it is important to consider how the wastewater will be discharged. This is because a drainage point in the basement is usually below the backwater level. This means that the wastewater cannot flow down a natural gradient to the sewer, as with a gravity system, but has to be pumped up with a lifting station or pump. In addition to the pumping height, the type of wastewater is an important criterion when choosing a suitable product: black water (wastewater with sewage) always requires different solutions than grey water(wastewater without sewage).

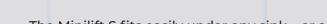
## **Lifting Stations**





LIFTING STATION FOR RESTRICTED US MINILIFT S

Compact and also suitable for black water: the Minilift F for exposed installation drains the toilet and other sanitary units in rooms underneath the backwater level or without sufficient slope to the next wastewater collecting pipe. The small lifting station chops sewage and toilet paper reliably and in a flash with the powerful high-quality macerator SharkTwister.



The Minilift S fits easily under any sink - or also in the basement floor slab. A washing machine, shower and further inlets can all be connected to the small lifting station at the same time. The Minilift S is equipped with a 300 W pump with a float switch circuit.

## LIFTING STATION AQUALIFT F

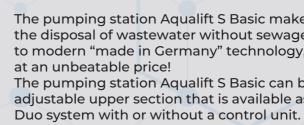
The Aqualift F is the classic solution for disposing of domestic wastewater. The lifting station transports black water in addition to grey water. Depending on the version, the Aqualift F has one or two automatic pumps that switch on as soon as a certain water level has been reached in the tank and transports the wastewater through the pressure pipe into the sewer. The Mono system is equipped with one pump and the Duo system has two pumps that operate alternately. Duo systems are used where no operational interruptions can occur due to the failure of a pump. Both system types are available with and without a shut-off valve and with pumps of different performance classes.

## LIFTING STATION AQUALIFT S COMPACT

Reliable and hygienic: the lifting station Aqualift S Compact is a real quick-change artist. It is the first lifting station in our range that can be converted comfortably from a Mono to a Duo system after floor slab installation. Yet that is not the only feature that makes the Aqualift S Compact so special: the free suspension and acoustic decoupling of the pump(s) also makes particularly quiet operation possible. The Aqualift S Compact is available with a float switch or pneumatic level measurement. The lifting station can also take up and discharge water additionally from the surface through the drain integrated in the black or tileable cover. It is delivered from the factory with either one or two pumps; the new GTF 500 and GTF 500 resistant (for aggressive wastewater such as heating condensate) and the GTF 1200 are the models used here.

## **Pumping Stations**

## **PUMPING STATION AQUALIFT S BASIC**



## **PUMPING STATION AQUALIFT S**

The Aqualift S is the first choice when it comes to the disposal of wastewater without sewage below the backwater level, backwater protection for separator systems and the clearing of drainage lines. The pumping station comprises a compact chamber with an inner diameter of 600 mm and integrated pumps for wastewater and rainwater. The Aqualift S is groundwater resistant to a depth of 2.500 mm.

The pumping station is available with pumps of different performance classes. In addition, you can choose between level detection with a float switch or innovative pressure sensor. Two versions are available for installation depths of between 800 and 2,250 mm.

## **PUMPING STATION AQUALIFT F BASIC**

When it comes to the disposal of wastewater with sewage outside buildings, the pumping station Aqualift F Basic makes looking for an economical solution child's play. It offers modern "made in Germany" technology in a compact tank at an unbeatable price.

The pumping station Aqualift F Basic is available as a Mono or Duo system with or without a control unit. An optional upper section makes it particularly flexible for underground installation.

## **PUMPING STATION AQUALIFT F**

The pumping station Aqualift F is used for the disposal of wastewater with sewage below the backwater level. The installation chamber, 600 mm in diameter, contains the pump STZ 1000 for grey and black water and is resistant to groundwater to a depth of 2000 mm. It is available as a Mono or Duo system with or without a control unit. Its height-adjustable upper section makes it particularly flexible for underground

installations.

## SUBMERSIBLE PUMP AQUADIVE KTP 300

Mobile submersible motor pumps, such as the KTP 300, are used wherever it is not worth using a permanently installed pump. The KTP 300 pumps up to 8 m3 of water an hour up to a maximum height of 6 metres and is, therefore, also ideal for pumping large quantities of clear water, rainwater and wastewater from swimming pools, ponds, excavations etc. It is also suitable for continuous operation with a constant load (S1).

## SUBMERSIBLE PUMP AQUADIVE GTF 1000

The submersible pump Aquadive GTF 1000 has an input power of 1,000 W and is suitable for periodic intermittent operation (S3). It can pump up to 15.5 m3 an hour up to a height up 9 metres.





The pumping station Aqualift S Basic makes looking for an economical solution for the disposal of wastewater without sewage outside buildings child's play – thanks to modern "made in Germany" technology, packed in a compact tank - and all that

The pumping station Aqualift S Basic can be installed flexibly underground with an adjustable upper section that is available as an option. It is available as a Mono or

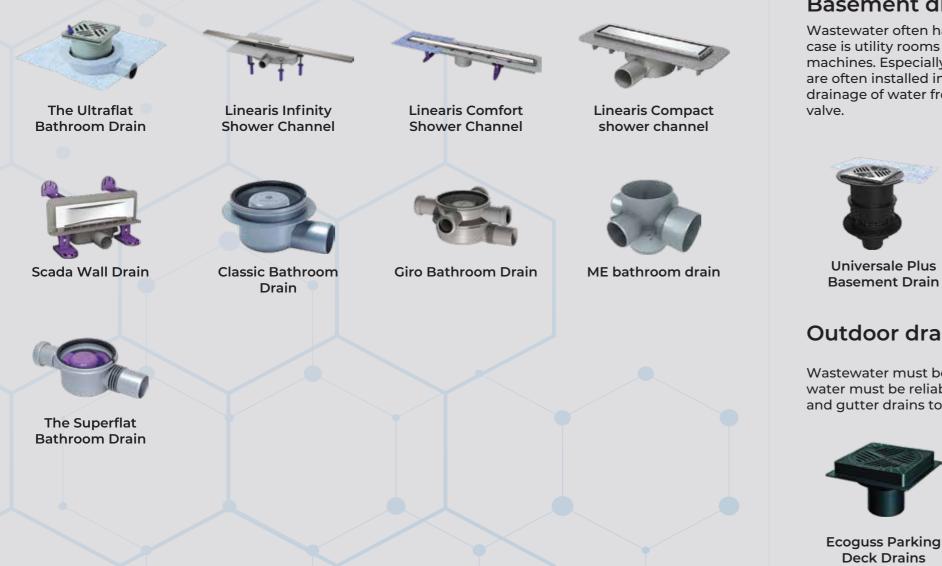


## **Drain Technology** Drainage for Inside and Outside

In outdoor areas and rooms where water accumulates openly, appropriate facilities must be created for the collection and discharge of wastewater. We can offer you everything that you will need with our wide range of drains and channels for commercial and private applications. Our products are characterised by their flexible applications and by durable and innovative materials.

## **Bathroom Drains and Shower Channels**

Ob Whether a shower, swimming pool or wellness area: wastewater is a natural occurrence. That is why the appropriate drainage needs to be installed in these areas. We offer modern drainage solutions for bathrooms in private, commercial and public buildings. Our range of bathroom and shower channels is suitable for new buildings as well as refurbishment and refurbishment projects - from practical, maintenance-friendly solutions and barrier-free room concepts to a unique design experience.



## **Floor drains**

The requirements for the drainage of different objects sometimes vary considerably. In order to satisfy all of these requirements, we rely on various materials such as polymer, stainless steel or composite materials such as Ecoguss for our floor and roof drains. Particular attention is paid to health and safety aspects, for which special precautions have to be taken, especially in commercial and public buildings.



**Practicus Floor Drain** 

## **Basement drains**

Wastewater often has to be drained from the basement through drains on the floor. The most common case is utility rooms where splashing and dripping water is to be expected from sinks or washing machines. Especially in the commercial sector, wellness facilities such as saunas or infrared heat cabins are often installed in basements where wastewater is generated. We offer various solutions for the reliable drainage of water from basement floors. Our basement drains are available with or without a backwater

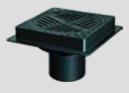




**Drehfix Basement** Drain

## **Outdoor drains**

Wastewater must be disposed of safely not only in the building but also outdoors. Rainwater and melt water must be reliably fed into the sewer system. Our range extends from parking deck drains, yard drains and gutter drains to roof drains.





Yard Drains



Ferrofix Floor Drain

Floor Trays, Box and Slotted Channels Made of Stainless Steel



**Basement Drain with** a Light Liquid Trap



**Basement Drains** without a Backwater Valve





**Roof Drains for Flat Roof Surfaces** 



## Separators

Water is one of our most precious resources and is not available in unlimited quantities. It is not always possible to avoid contamination in many applications, such as in kitchens or vehicle refuelling. For this reason, contaminated wastewater must be pretreated and cleaned with the appropriate separator systems before it is discharged into the public sewer system. This is the only way to comply with the wastewater values stipulated by the local authority and to prevent environmental damage at an early stage. We offer an extensive range of innovative polymer separators for different applications and wastewater quantities.



### **EasyClean Free Auto Mix & Pump Grease Separator** The all-rounder for exposed installation

As good as it gets. The EasyClean free Auto Mix & Pump grease separator simply has everything: program-controlled, fully-automatic disposal and rinsing equipment, shredder-mix system, disposal pump, direct disposal pipe and control unit. The contents of the closed tank are disposed of through permanently installed pipes into the disposal vehicle. The system's own pump is used if the disposal pipe is so long that the disposal vehicle's pump is not sufficient. The shredder-mix system is used to circulate and homogenise the contents of the tank for easy disposal.

The grease separator is available in nominal sizes NS 2 to NS 10, which is sufficient for most businesses such as restaurants and hotels. It is also available in nominal sizes NS 15 to NS 30 for larger volumes of wastewater. In addition, we also offer individual solutions for specific requirements and installation situations.



## EasyOil Ground Oil/Fuel Separator

Effective against light liquids: EasyOil is used to protect water bodies and sewer systems against contamination from mineral oil – i.e. anywhere that light liquids are used, such as in petrol stations, car washes, vehicle repair garages and industry.





# PERSIA

## Valves



## **Gate Valves**



## Swing Check Valves



## Media

Materials

1.5415

1.7357

1.6368

1,4571

1.4581

Materials

1.5415

1.6368

1.0566 1.4571

1.4581

1.5415

1.4581

1.4571

1.0460 / A105

1.0619 / A216WCB

1.0425 / A516Gr.60

1.7335 / A182 F12

1.7383 / A182 F22

1.4903 / A182 F91

1.4901 / A182 F92

1.0460 / A105

1.0619 / A216WCB

1.7335 / A182 F12

1.7383 / A182 F22

1.4903 / A182 F91

1.4901 / A182 F92

Water, steam, gas, oil and other aggressive and non-aggressive media.

Pressure Up to PN 630

**Nominal Size** Up to DN 250

Temperature 1.4550 / A182 F347H Up to +650°C

## Media

Water, steam, gas, oil and other aggressive and non-aggressive media.

Water, steam, oil, gas and

other non-aggressive media.

Pressure Up to PN 630

Nominal Size Up to DN 1000

Temperature Up to +650°C

Media

### Materials 1.0460 / A105 1.0619 / A216 WCB 1.0425 / A516Gr.60

Pressure 1.7335 / A182 F12 Up to PN 630 1.7383 / A182 F22 1.6368 **Nominal Size** 1.4903 / A182 F91 Up to DN 800 1.4901 / A182 F92

> Temperature Up to +650°C

## **Stop Check Valve**



Materials 1.0460 / A105 1.5415 1.7335 / A182 F12 1.7383 / A182 F22 1.6368 1.4903 / A182 F91 1.4901 / A182 F92

## **Line Blind Valves**



Materials 1.0619 / A216WCB 1.0460 / A105 1.0425 / A516Gr.60 1.5415 1.7335 / A182 F12 1.7383 / A182 F22 1.6368 1.4903 / A182 F91 1.4901 / A182 F92 1.0566 1.4571 1.4581



Media Water, steam, oil, gas and other non-aggressive media.

> Pressure Up to PN 630

Nominal Size Up to DN 450

Temperature Up to +650°C

Media Water, steam, gas, oil and other aggressive and non-aggressive media.

Pressure

Up to PN 630

Nominal Size Up to DN 800

Temperature Up to +650°C



# aquamatch



## **FILTRATION SYSTEMS**

Filtration Systems remove physical impurities such as sediments, turbidity, suspended solids, colour, odour and smell. Filtration system technologies include fine mesh screening, media filtration and membrane filtration, all of which separate solids from water. This is necessary to start the purification process with the basic step of removing the large particles which could foul or clog the more sensitive equipment used in later stages.

- Multigrate Filters
- Activated Carbon Filters
- Iron removal Filters
- Mechanical Filters
- Seperator Filters
- Catridge Filtres
- Bag Filters

## MEMBRANE TECHNOLOGY

The membrane is a special filter that lets water flow through while catching suspended solids and other substances. Several methods that enable substances to penetrate a membrane. For instance, applications of high pressure, the maintenance of a concentration gradient on both sides of the membrane and the introduction of an electric potential may activate the membrane treatment process.

Membrane technology has become a widely acclaimed separation technology over the past decade. The distinctive feature of membrane technology is that it works without the addition of chemicals and use relatively less energy than conventional thermal separation processes.

- Ultrafiltration
- Nanofiltration
- Reverse Osmosis Systems
- Membrane Bio Reactor
- Electrodeionization (EDI)

## SOFTENING SYSTEMS

Softening system removes hardness by exchanging calcium and magnesium ions with sodium based resin. When the resin is exhausted, it is regenerated with brine which is stored in brine tank automatically. Softening system may be used in various working areas; from domestic to industrial, softening system is vital for a successful water treatment process. Furthermore, softening system enhances energy transfer in the following utility stages.





## WASTEWATER TREATMENT SYSTEMS

Wastewater treatment is the process of converting wastewater - water that is no longer suitable to use - into water that can be reused for another purpose and/or discharged back to the environment. Wastewater is full of contaminants including bacteria, chemicals, pathogens and toxins. Its treatment aims to reduce the contaminants to acceptable levels and make the water safe for human health and biodiversity. Wastewater treatment plants are designed based on the organic load of the initial wastewater and the expected standards of the product water. Both conventional treatment equipment and membrane technology can be used in the production of the wastewater treatment plants.

## **GREY WATER TREATMENT SYSTEMS**







## DEZENFEKSİYON

Disinfection is the process of removing, deactivating or killing of pathogenic microorganisms. Disinfectants must have a residual effect, which means that they remain active in the water after disinfection. Therefore, disinfectant should prevent pathogenic microorganisms from growing in the plumbing after disinfection. Disinfection is usually one of the final steps the treatment. Ultraviolet systems are becoming widely used in the recent years. The advantages of this alternative method is that it does not alter taste, odour, colour or PH of water; it does not impact toxic by-products into the water; it requires very little maintenance and running costs are often lower than other disinfection methods.

- Ultraviolet Systems - Dosage Systems

Grey water is the domestic wastewater, which consists of showers, bathtubs and sinks, excluding blackwater (sewage). The main difference between greywater and blackwater is the density of organic loading. Sewage has a much larger organic loading compared to greywater, making it harder and more costly to treat.

Treated greywater can be used in the irrigation process. Grey water reuse has major benefits to environmental sustainability. First, it reduces the need for fresh water. Minimizing freshwater use would reduce household water bills and demands on public water supply. Second, grey water reuse would reduce the amount of wastewater entering sewers or on-site treatment systems. Again, this benefits both households and the larger public.





### **POST-TREATMENT PROCESS**

The choice of posttreatment process is determined by regulatory requirements, the design of the system, expected water quality criteria and water chemistry. Post-treatment processes typically include stabilization, disinfection and corrosion control, and can include degasification and/or air stripping processes. Four primary issues concerning the post-treatment water are blending, remineralization, disinfection and the materials used for storage.

- Ozonation Systems
- Mineral Dosing Systems
- Remineralization



### WATER TREATMENT CHEMICALS

Aquamatch provides its own chemicals for RO plants and Industrial Systems to achieve optimum efficiency and smooth operation with a minimum operating cost. Through the use of chemicals Aquamatch aims to maximize production and minimize environmental footprint. With years long experience in chemicals conditioning field Aquamatch provide sthe best optimization for water savings.

**RO** Chemicals;

- Antiscalants

- Biocides
- RO Cleaning Chemicals

By using Aquamatch RO chemicals, you can lower operating costs and improve system performance as well as recovery. Plus, using suitable chemicals extends membrane lifetime and decreases maintenance requirement. These enhancements result in more production.

### Industrial Chemicals:

- Cooling Water Treatment (Deposits and Corrosion Inhibitors & Scale Inhibitors)
- Boiler Treatment (Oxygen Scavenger, Scale Inhibitors, Condensate Corrosion Inhibitors)
- Closed system treatment (Deposits and Corrosion Inhibitors)

Selection of suitable chemicals is the most essential part of water conditioning for Industrial systems like Boiler, Closed Systems, and Cooling water systems. Aguamatch provides the best guality chemicals with its own experience and site service supports to his industrial clients.

Aquamatch's industrial chemicals ensure safe and reliable operation along with water & energy savings.

# PRIZMA A.S.



### MODULAR STAINLESS WATER TANK

- Capacity from 1.25 m3 to 2000 m3 for domestic and industrial applications
- Stainless 304 quality steel product,
- Easy and practical installation, clean water storage facility

### MODULAR GALVANIZED WATER TANK

- Capacity from 1.25 m3 to 2000 m3 for domestic and industrial applications
- Galvanized steel product
- Easy and practical installation, clean water storage facility

### MODULAR DIP GALVANIZED WATER TANK

- Capacity from 1.25 m3 to 2000 m3 for domestic and industrial applications
- Made of hot-dip galvanized steel
- Easy and practical installation, clean water storage facility

### MODULAR GRP WATER TANK

- Storage of drinking water, agricultural applications and chemical liquids
- Glass fiber reinforced polyester
- Lightweight and robust High resistance to corrosion

### MODULAR PRE-COAT COATED STEEL WATER TANK

- Capacity from 1.25 m3 to 2000 m3 for domestic and industrial applications
- Pre-coat coated steel product
- Easy and practical installation, clean water storage facility

\* RO: Reverse Osmosis





## MGA Engineering Global Dış Tic. Ltd. Şti.

- Barbaros Mah. Gülpınar Sok. Sembol Han No: 5 İç Kapı No: 2 Ataşehir/İstanbul
- +90 216 324 64 64
- ☑ info@mgaengglobal.com
- www.mgaengglobal.com