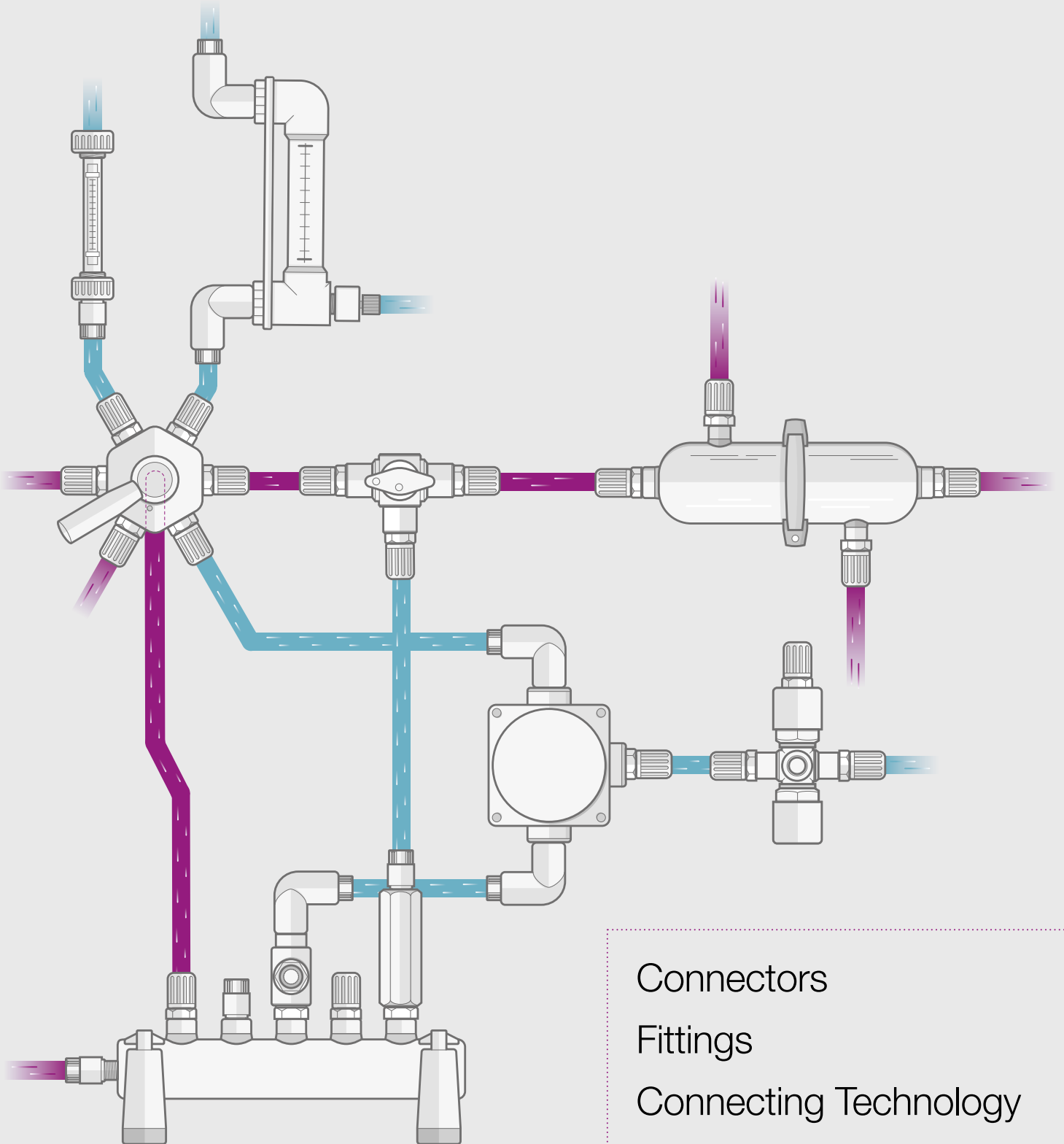


emtechnik

simply better



Connectors

Fittings

Connecting Technology





Welcome



Dear Sir or Madam,

The company was founded by my father, Norbert Meier, in Ludwigshafen in 1965. From the very early days, he concentrated on the development and production of connectors and fittings in small nominal diameters manufactured exclusively from special plastics. This technology has since established itself in practice and our modular product system continues to be used in a very wide range of applications. True to the motto, "everything from a single source", we offer you high-quality and reliable products. Over the course of the years, a whole range of very successful products and product lines evolved that have established themselves as standard solutions on the market.

We will also continue to change in the future: we will adapt to the new challenges of the market as well as the increased needs of our customers and look forward to a continued good cooperation with you.

A handwritten signature in black ink, appearing to read "M. Meier". The signature is fluid and cursive, with a large initial "M" and a stylized "Meier".

Michael Meier, President/CEO

08 Industry Competence

10 High-Tech Products Made of Plastic

12 Standards & Norms

14 Modular Product System

16 Products in Use

20 Products

36 The Company **emtechnik**



emtechnik, a medium-sized family company, is one of the world's leading manufacturers of high-quality miniature fittings and connectors made of special plastics.

Competence in All Areas





Laboratory & Research



Process Analytical
Technology



Semiconductor Industry



Pharmaceutical &
Medical Technology



Green Energy



Water



Chemistry



Food

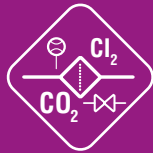
You Can Benefit From Our Industry Competence



Laboratory & Research

*Efficient and Reliable
Even on a Small Scale*

emtechnik offers a large selection of GL connectors, micro-connectors and mini ball valves for use in laboratories and research. They can be used compactly and flexibly even for setting up tests on a small scale. The wide choice of materials covering PP, natural PP, PVDF and PFA guarantees reliable productivity, efficiency and safety.



Process Analytical
Technology

*Precision Knows no
Compromises*

Our unique product diversity in the area of process analytical technology features impressive precision and a corrosion-free long service life, particularly when working with aggressive media. We offer a selection of highly fluorinated special plastics including PVDF, PFA and PTFE which guarantee maximum safety and reliability.



Semiconductor Industry

*Absolute Purity is
Crucial for Us*

For emtechnik it goes without saying that our products for the semiconductor industry are delivered to our customers with the highest degree of purity. Our products are therefore manufactured in controlled environments, i.e. in a clean room to ISO 14644-1 Class 5, so that e.g. our flare connectors meet the highest standards of cleanliness and purity.



Pharmaceutical &
Medical Technology

*Health – a Matter Close
to Our Heart*

Continuous quality control, seamless documentation and our own clean room in accordance with ISO 14644-1 Class 5 guarantee high process purity in pharmaceutical and medical technology. That is why all the raw materials used by emtechnik meet all the strict criteria of USP Class VI and are also ADI-free.

We want to offer an extensive assortment to our customers in all industries. Because of this, **emtechnik** is constantly engaged in developing solutions for industries with its many years of experience and in keeping with its guiding principles. We develop and produce different sizes and variants of connectors. Our extensive product portfolio is drawn from the many possible combinations.

Due to the existing basic structures in production, individual product solutions tailored exactly to practical industry-specific requirements can also be manufactured.



Green Energy

Water

Chemistry

Food

Our Contribution to the Turnaround in Energy Policy

We are especially focused on the issue of sustainability. Our products therefore make a valuable contribution to supporting the process chain in efficient regenerative energy recovery. All **emtechnik** connectors and fittings feature maximum operational reliability, a long service life, high-quality materials and impressive quality.

Crystal Clear Quality

Clean drinking water is a decisive factor for ensuring a healthy quality of life around the world. Thanks to innovative plastics, the flow-optimised fittings and connectors from **emtechnik** provide an impressive solution with long service life, high media resistance, UV stability and excellent Kv values. In this way we are able to make an important contribution to the production, analysis and treatment of drinking water.

When Things Get Hot We Stay Cool

We offer a large selection of highly fluorinated plastics for chemical plant engineering, featuring high chemical and thermal resistance. Our products guarantee corrosion-free long-term operation, particularly in applications with highly aggressive chemicals. Our high-tech plastics with top-quality material properties ensure maximum safety and reliability.

A Strong Partner for Your Foodstuffs

emtechnik uses materials that meet all the relevant EU and US standards for applications involving foodstuffs. The products ensure a safe supply and discharge of the media particularly in drinking water treatment and in dispensing systems. In cleaning processes (CIP/SIP) and during the disinfection of machines and plants, they withstand even the most aggressive media and high temperatures – so that the highest standards of hygiene can be guaranteed.

High-Tech Products Made of Plastic

The following plastics are currently in use for a variety of applications: organic PA, PP, natural PP, PVDF, ECTFE, PTFE, PFA and PEEK. They feature numerous advantages due to their high-tech properties and are often used where other materials fail.

For handling aggressive media in potentially explosive environments, our products are available in electrically conductive material variants of PP, PVDF and PTFE. To prevent electrostatic charges from accumulating, these high-performance materials are equipped with electrically conducting particles. Our products made of fluoroplastics are an optimum solution for outdoor applications, as they are resistant to UV radiation.

ECTFE, PFA, PVDF and PTFE are heat and pressure-resistant in addition and can be sterilised in an autoclave without difficulty. Our products made of PEEK are able to withstand high mechanical loads.



PP

- FDA approval
- Radiation sterilisable
- Particularly lightweight
- Electrically conducting available



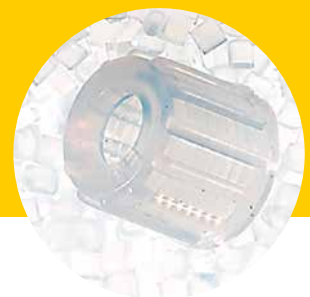
PVDF

- FDA approval
- USP Class VI
- Non-toxic
- Radiation / steam sterilisable
- Good chemical resistance
- ADI-free
- Electrically conducting available



Natural PP

- FDA approval
- Radiation sterilisable
- Particularly lightweight



PFA

- FDA approval
- USP Class VI
- Non-toxic
- Steam sterilisable
- Outstanding chemical resistance
- ADI-free

Product Materials

ISO-Code	Material	Colour	Operating Temperature	Tensile Strength at 23°C	EU No. 10/2011	FDA	USP VI	ADI-free
ECTFE	Ethylene-Chlorotrifluoroethylene	beige	-40 to +140°C	30 – 54 N/mm ²				●
Organic PA	Polyamide	natural	-20 to +60°C	54 N/mm ²		●		●
PP	Polypropylene	grey	+5 to +90°C	25 – 40 N/mm ²	●	●		
Conductive PP	Polypropylene	black	+5 to +90°C	~ 55 N/mm ²				
Natural PP	Polypropylene	natural	+5 to +90°C	25 – 40 N/mm ²	●	●		
PVDF	Polyvinylidenfluoride	natural	-40 to +140°C	38 – 50 N/mm ²	●	●	●	●
Conductive PVDF	Polyvinylidenfluoride	black	-40 to +140°C	~ 60 N/mm ²				
PFA	Perfluoroalkoxy	transparent	-200 to +200°C	27 – 32 N/mm ²	●	●	●	●
PTFE	Polytetrafluorethylene	white	-200°C to + 260°C	30 – 40 N/mm ²	●	●	○	●
Conductive PTFE	Polytetrafluorethylene	black	-200 to +260°C	≥ 24,0 N/mm ²	○	●		
PEEK	Polyetheretherketone	brown/grey	-65 to +250°C	0 – 80 N/mm ²	○	○		●

Sealing Materials

ISO-Code	Material	Colour	Operating Temperature	Strength at 23°C	FDA	USP VI
FKM	Fluorinated rubber	black	-15 to +200°C	13 N/mm ²	○	○
EPDM	Ethylene propylene diene monomer	black	-50 to +140°C	10 N/mm ²	○	○
FFKM	Perfluoro rubber	black	-20 to +275°C	12 N/mm ²	○	○
Gylon®	Polytetrafluorethylene	blue	-210 to +260°C	14 N/mm ²	●	●

Natural PP, PFA, PTFE and PVDF are also available at clean room quality level. ● Standard ○ On Request



PEEK

- Radiation / steam sterilisable
- Very good chemical resistance
- FDA approval
- Made from renewable raw materials



Organic PA



ECTFE

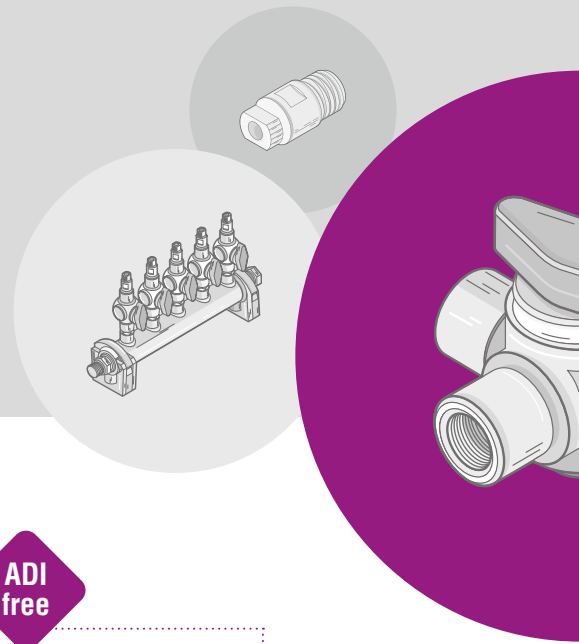
- ADI-free
- Resistant to acids and alkalis



PTFE

- ADI-free
- FDA approval
- Resistant to particularly aggressive media
- Resistant to high temperatures
- Electrically conducting available

Approvals and Standards



Food Safety

emtechnik offers a broad range of food-safe plastics that comply with the requirements of the US American Food and Drug Administration FDA and/or the European regulations of 1935/2004/EC. The plastics used also comply with the directive relating to materials and articles intended to come into contact with foodstuffs (10/2011/EU).



ADI-free

In order to avoid any contamination with animal constituents, such as BSE pathogens, in the production process, **emtechnik** offers products made from plastics classified as ADI-free.



High Purity

emtechnik has had a clean room to ISO 14644-1 Class 5 since 1997. This facility makes it possible to clean and assemble our products in a contamination-free atmosphere. All of our products certified to conform to the high-purity standard undergo a carefully monitored production process at our works.



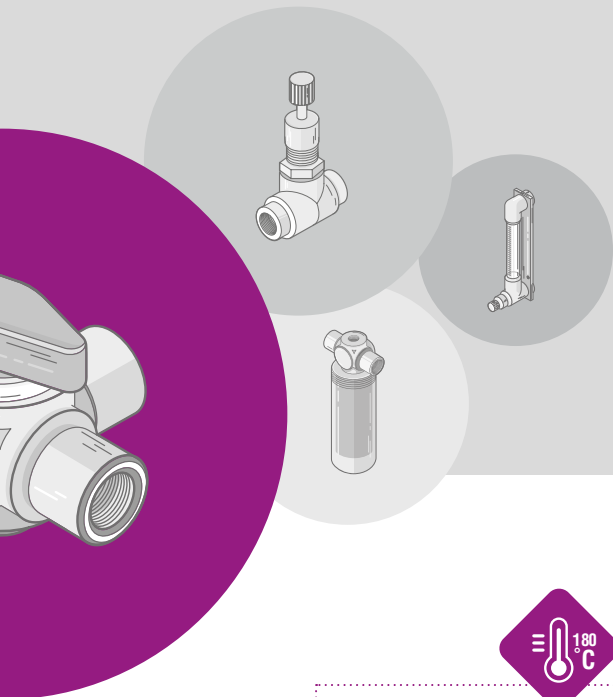
Sterile

PVDF and PFA are also suitable for hot steam sterilisation – the indispensable requirement for absolute sterility. PVDF is autoclavable with no concerns at 134°C or can be sterilised with radiation while fully retaining its mechanical properties (maximum dosage 25 – 50 kGy). PVDF is non-toxic in the range < 150°C and does not provide any breeding ground for microorganisms, since it behaves very similarly to glass.



Electrically Conducting

To prevent electrostatic charges from accumulating, the high-performance plastics PP, PVDF and PTFE are equipped with electrically conducting particles, which gives them a very low surface resistance of < 103Ω and < 102Ω. The conductive PVDF and PTFE materials are also UV-resistant.



High Temperature Compatibility

Our versatile connector types are the ideal solution if you have to work with aggressive media at very high temperatures. The outstanding chemical properties, high operational reliability and special connection principles meet all the requirements for working with high-temperature media.



No Dead Volume

A conical, thread end without seams for both the female and male thread of the connector or ball valve guarantees a connection with no dead volume. This in turn ensures that no bacteria can become lodged, media do not crystallise and dirt particles cannot adhere.



USP Class VI

emtechnik uses materials that meet the latest standards relating to the quality of medications and other medical products (USP Class VI).



RoHS

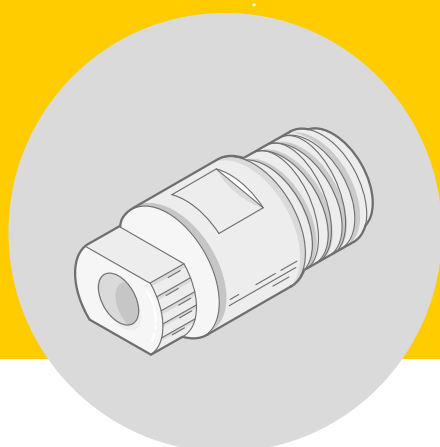
The raw materials used by **emtechnik** meet the requirements of the RoHS directive 2011/65/EU. That means they contain no lead, cadmium, chromium VI, mercury or the flame retardants PBB and PDBE or the plasticisers DEHP, BBP, DBP and DIBP, and that such materials are also not used anywhere in the production process.



Resistance to Aggressive Media

Plastics can come into contact with a very wide range of different liquids and chemicals during use. The **emtechnik** products have long-term resistance to aggressive media in numerous fields of application as well as being resistant to aggressive environments.

Our Modular Product System



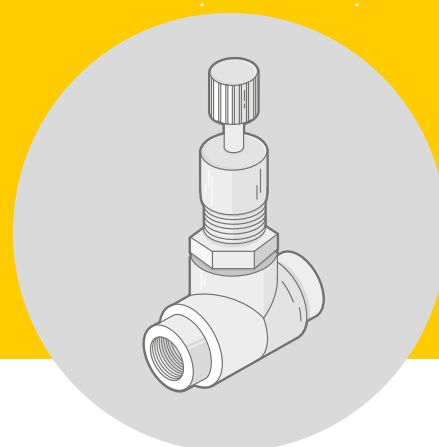
Connecting

The great diversity of our connectors with various connection principles makes it possible to connect flexible tubes or pipes made of many different materials safely and reliably – even with high industry requirements.



Shutting Off

The design of the shut-off products from **emtechnik** impress with their very good leak tightness and their compact construction. The media flow is safely and reliably shut off and is very conducive to flow inside the products.



Regulating

Our products are used wherever gas and liquid flows have to be regulated – particularly when in applications with aggressive media. Even very low flow rates can be precisely regulated.

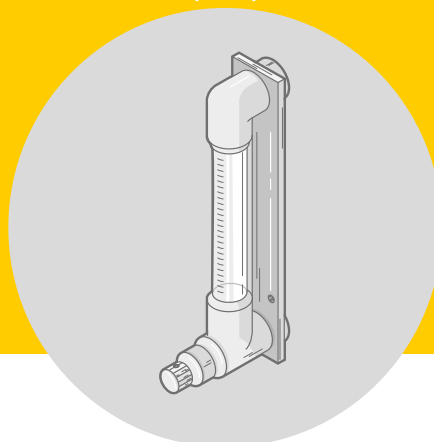
emtechnik products are based on a modular system. Because they are coordinated with each other in terms of their functions and can be combined variably, together they can cover almost any application.

From the individual building block to complex application concepts, we provide perfect solutions exactly tailored to your requirement profile – everything from a single source.



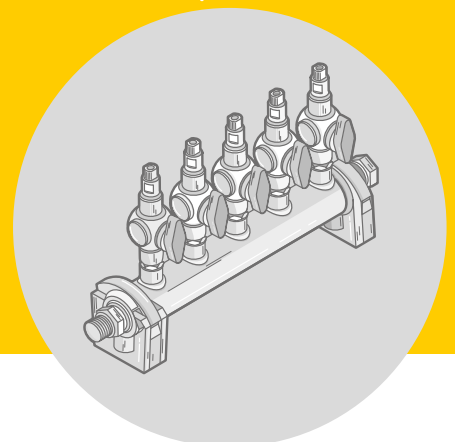
Filtering

Our filters can be used for a wide range of applications and are safe and easy to handle. They reliably clean gasses and liquids and are available as particle filters or coalescence filters. Various filter grades are available for specific applications.



Measuring

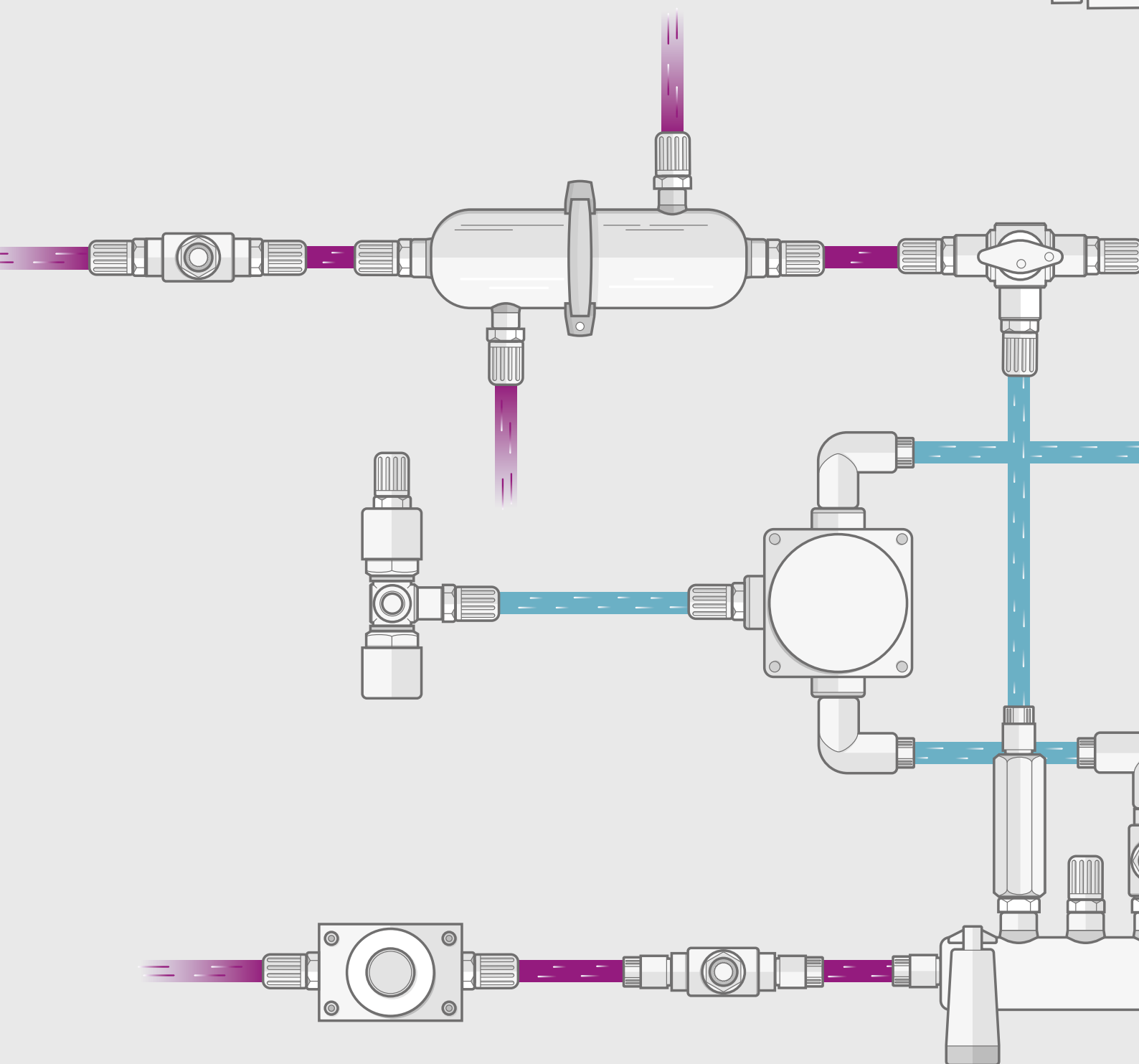
The **emtechnik** fittings precisely measure volumetric flows or pressure and provide exact measurement results. They are used in various measurement ranges, and can easily be integrated into existing applications.

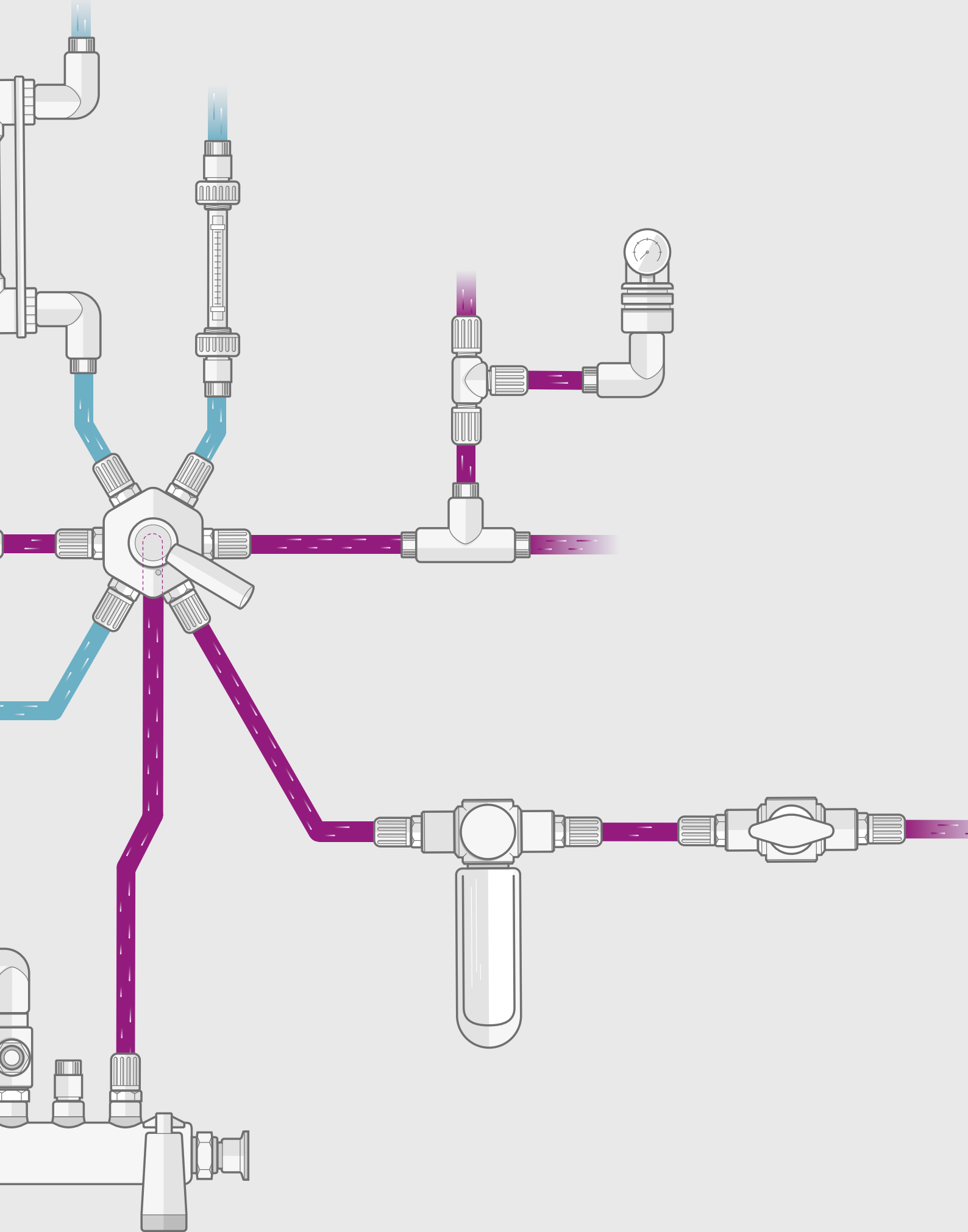


Distributing

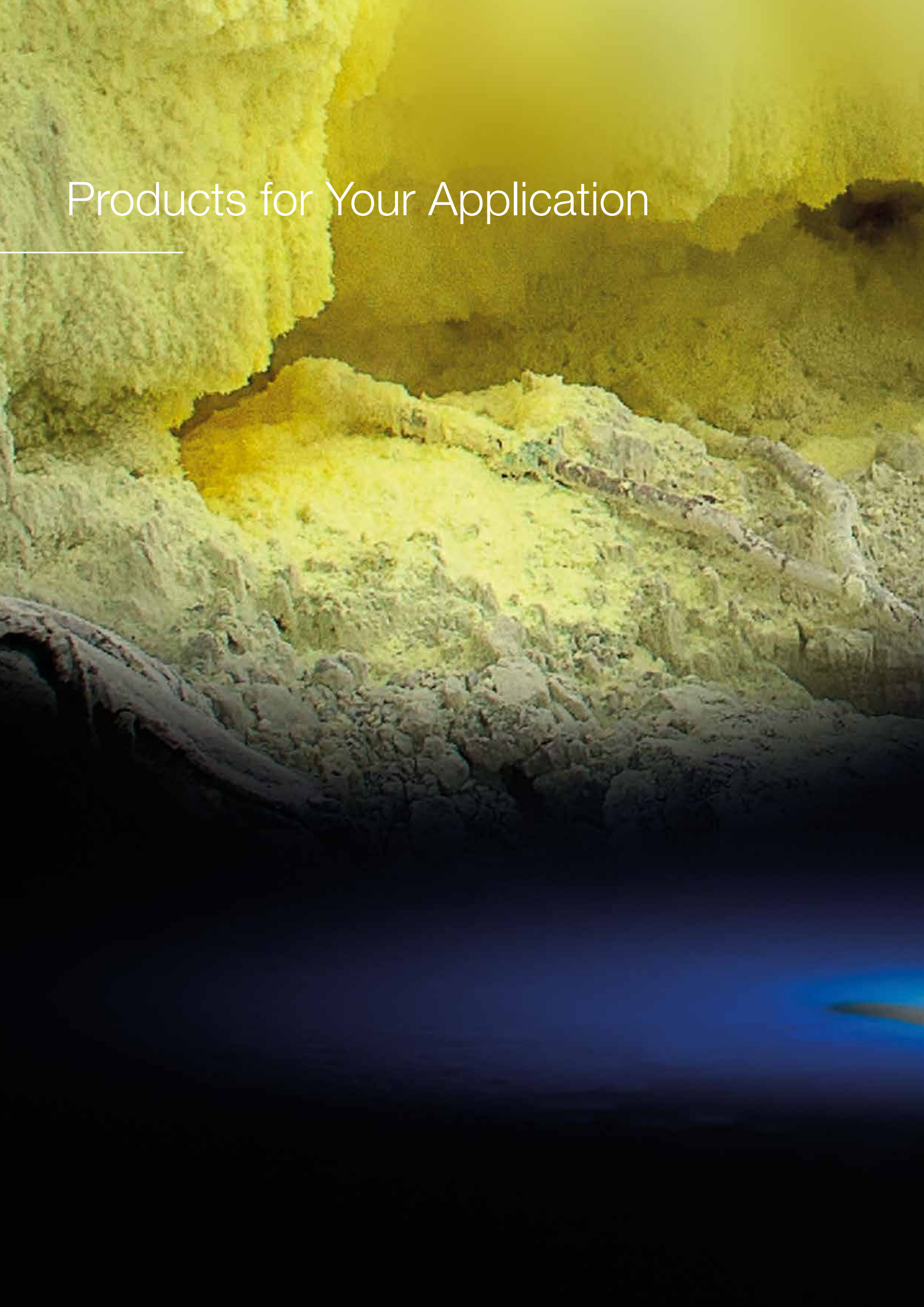
Manifolds from **emtechnik** are the ideal partner wherever media are distributed or collected. Depending on the application, the medium can be either distributed directly or shut off as required using the appropriate fittings.

Our Products in Use





Products for Your Application





Connecting



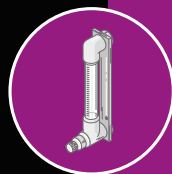
Shutting Off



Regulating



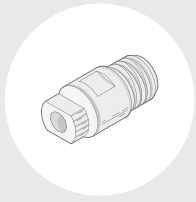
Filtering



Measuring



Distributing



Connecting

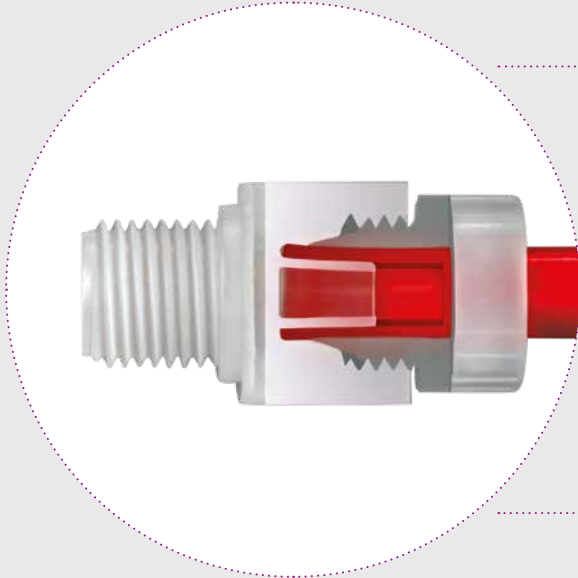
Our Generation+

Materials: PP, natural PP, PVDF, PFA

Nominal Diameters: DN04/06 – DN18/20, DN1/8"/1/4" – DN7/8"/1

Threads: G1/8" – G1", NPT1/8" – NPT1", UNF

Compact design, sturdy construction and simple handling. All products of the **emtechnik** Generation+ are made of only two parts with an integral clamping ring. They feature threads and connecting sleeves without seams and can be installed multiple times. The risk of overtightening is excluded by the defined stop.



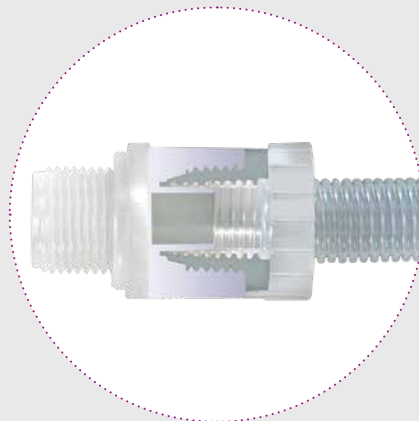
Connection Principle 1+

- Can be assembled multiple times without loss of quality
- Completely leak-proof and reliable without tools
- Pressure stage PN16



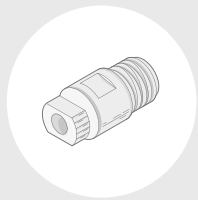
Connection Principle 1B+

- Flexible tube connector for mesh-reinforced flexible tubes
- Media-resistant materials: PP, PVDF
- Pressure stage PN16 for PP and PVDF (short-term pressure peaks of up to 30 bar at T = 20°C possible)
- Also available in organic PA



Connection Principle 1W+

- Flexible tube connector for corrugated flexible tube with smooth inside surface
- Ready for connection immediately: no smoothing of corrugated tube ends required
- Pressure stage of connector PN04 for PP and PVDF



Connecting

Flexible Tube Connectors

Materials: PA, PP, natural PP, PVDF, PFA

Nominal Diameters: DN04/06 – DN18/20, DN1/8"/1/4" – DN7/8"/1"

Threads: G1/16" – G1", NPT1/8" – NPT1", M5 – M24x1,5, UNF

Depending on materials and wall thicknesses, the following connection principles are available for you when connecting flexible tubes. All products feature threads and connecting sleeves without seams and can be installed multiple times.



Connection Principle 1A

- Flexible tube is pushed onto the integrated connecting sleeve
- Pressure stage PN10
- Locking via clamping ring
- Securing via knurled nut
- No tube strain beyond 6%



Connection Principle 1C

- For high-temperature applications
- For firm flexible tube, e.g. PFA
- Flexible tube is pushed onto the integrated connecting sleeve
- Sealing provided by sealing ring made of PTFE
- Locking by means of cutting ring made of PEEK and knurled nut



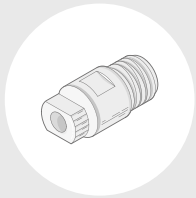
Connection Principle 1B

- Mesh-reinforced flexible tube spreads when pushed onto the integrated connecting sleeve
- Pressure stage PN16 for PP and PVDF (short-term pressure peaks of up to 30 bar at T = 20°C possible)
- Locking via knurled nut



Connection Principle 1D

- Flare connection with no dead volume →
 - no particle deposits
 - no collection of bacteria
 - no media escape
- Tools for flaring the tubes available
- Connector made of natural PP, PVDF, PFA in HP quality



Connecting

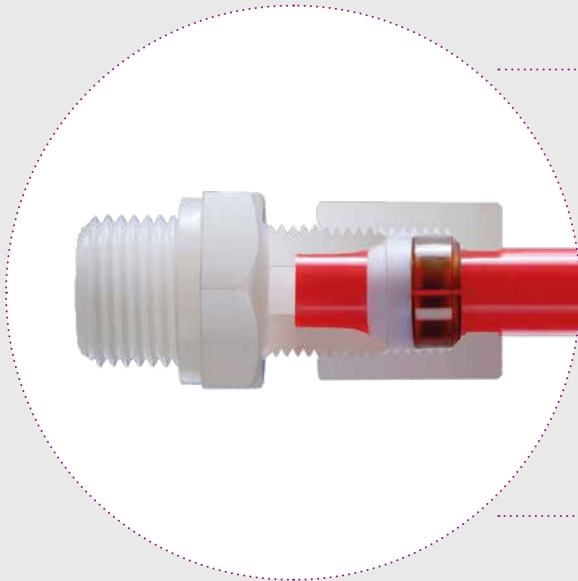
Pipe Connectors

Materials: PP, natural PP, PVDF, PFA, PTFE, PEEK

Nominal Diameters: D0,7 – D25, D1/8" – D1"

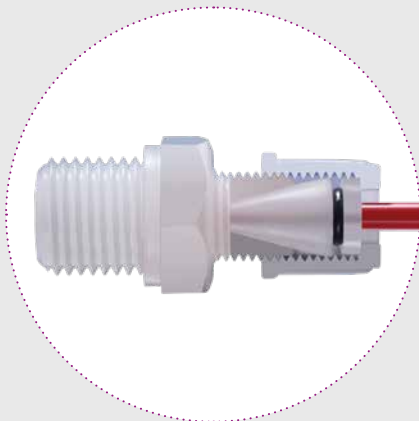
Threads: G1/8" – G1", NPT1/8" – NPT1", M10x1 – M26x1,5, UNF

The following reusable connection principles without sleeves are available for connecting rigid tubes and pipes from 0.7 mm to 25 mm outside diameter.



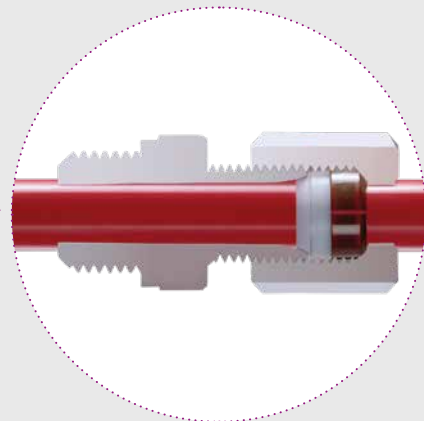
Connection Principle 2N

- Sealing provided by sealing ring made of PTFE
- Pressure stage PN10
- Locking via cutting ring and nut
- No reduction of cross-section



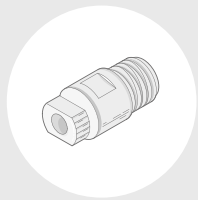
Connection Principle 2M

- Specially for thin pipes with external diameter 0.7 mm – 6.35 mm
- Sealing provided by sealing cone made of PTFE
- O-ring holds capillary tube
- No reduction of cross-section
- Pressure disc protects O-ring against damage



Connection Principle 2D

- Pipe opening
- Sealing provided by sealing ring made of PTFE
- Locking via cutting ring and nut



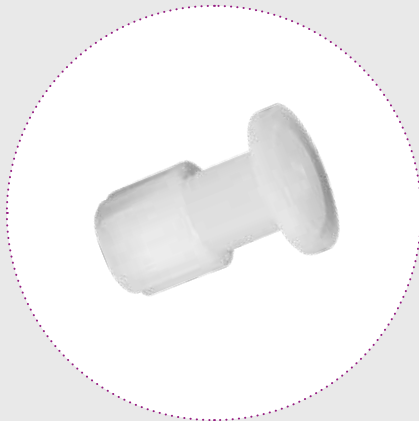
Connecting

Other Connection Types

Materials: PP, natural PP, PVDF, PFA, PTFE, PEEK

Nominal Diameters: D0,7 – D25, D1/8" – D1", DN04/06 – DN18/20, DN1/8"/1/4" – DN7/8"/1"

Threads: G1/8" – G1", NPT1/8" – NPT1", M5 – M24x1,5



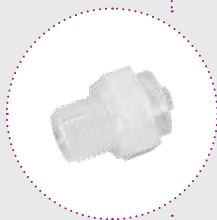
Tri-Clamp Connector 3C

- Quick connection with locking clip made of stainless steel or plastic
- Size, diameter and locking clip in accordance with DIN 32676, ISO 2852, BS 4825
- Matching flange sealings of EPDM, FPM, PTFE, FFKM and Gylon® available



Quick Connector 3K

- Coupling and nipple can be shut off
- Spring made of PEEK, 1.4571 or Hastelloy®; body made of PVDF
- Spring made of TFM 1600, body made of PFA
- Tube connections up to DN10/12



Luer Lock Adapter 3L

- Allows for quick connection
- Luer lock thread without seam according to DIN EN 20594-1 or ISO 594
- Depending on material, can be autoclaved at 134°C or sterilised with radiation



Glass Thread Adapter 3G

- Standard GL thread connection
- Sealing with media-resistant O-ring of FKM
- Permanent tight and secure connection



3F Fittings

- Nipples: with male threads
- Unions: with female threads
- Reducers: with different male and female threads and combinations of different thread sizes
- Flanges: are used for detachable connection of pipes



Welding Adapter 3W

- Various connection principles for flexible tube and pipe connections
- Wall thickness of welding unions as defined by DIN ISO 10931
- Suitable for butt and socket welding methods
- Standard range complemented by a variety of reducers



Shutting Off

Materials: PP, natural PP, PVDF, PFA, PTFE

Nominal Diameters: DN02 – DN15

Threads: G1/16" – G3/4", NPT1/8" – NPT1/2"

To shut off aggressive gases and liquids safely and reliably and prevent return flow, we offer ball valves, check valves and other solutions.



Ball Valves

- 2-way to 5-way ball valves are available (7, 9, 11-way ball valves on request)
- With seamless female thread
- Various fastening options
- Electrical or pneumatic part-turn actuators possible



Electrical Ball Valves 6R

- With optical position indicator
- DC micro-motor with planetary gear
- Wear-free Hall sensors as position indicator
- Motor housing is made of impact-resistant PP
- Directly connectable to PLC or PCS



Check Valves

- Prevent return flow/back blow of media in systems
- COMPACT version with integrated flexible tube connectors for direct inline installation
- Spring made of Hastelloy® or PCTFE
- Also for low opening pressures of 10 mbar and up



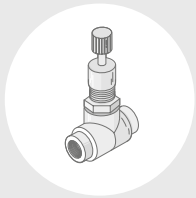
Diaphragm Valves 5P

- Pneumatically controlled shut-off or safety fittings
- Nominal diameter DN05
- Sealing principle: diaphragm with 90° cone made of XP40
- Design with no dead space



Shut-Off Valve 5A

- Leak test to DIN 12266 strictest quality controls
- Low-wear valve seat
- Streamlined design
- Suitable for wall mounting



Regulating

Materials: PP, natural PP, PVDF, PFA, PTFE

Nominal Diameters: DN04 – DN15

Threads: G1/8" – G1/2", NPT1/8" – NPT1/2"

We offer valves in different materials as a suitable and reliable solution for regulating the flow of media, especially for use with aggressive media.



Regulation Valves

- Regulating and shutting off gas and liquid flows
- For panel mounting
- Particularly light and compact design
- Maintenance-free design



Fine Control Valves

- Linear flow rate characteristics for precision control
- Manual, with adjustment scale for reproducible settings
- Spindle specifically matched to the flow range



Fine Control Valve

- Volume flows precisely adjustable via input signal (4 to 20mA)
- Spindle position can be precisely approached
- Linear characteristic



Pressure Reducing Valves

- For reducing system pressures to largely constant working pressures
- Valve adjustment also possible at working pressure
- Hermetically leak-proof by valve diaphragms made of PTFE



Pressure Keeping Valves

- Safe elimination of pressure peaks and pulses
- Valve adjustment also possible at working pressure
- Small hysteresis
- Any installation position



Filtering

Materials: PP, natural PP, PVDF, PFA, PTFE

Nominal Diameters: on request

Threads: G1/8", G1/4", G3/8", G1/2"

Connections: DN04/06 – DN10/12

Suitable for many applications and safe and easy to use, our particle filters or coalescence filters reliably clean the gases or liquids you are using. Different types of filters are available for individual applications with filter grades from 0.3 µm to 100 µm.



Tube Filter

- With female G-thread on both ends
- Particle or coalescence filter
- Easy filter change
- Available with shut-off or drain



Tri-Clamp Filter

- With sealing and bracket
- With male G-thread on both ends
- For inline installation
- Can be upgraded in existing installations
- Also with integrated flexible tube connectors



Macrofilter

- For liquid media
- With female G-thread



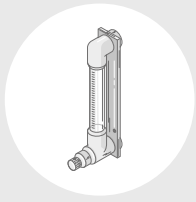
Inline Filter

- With connection for flexible tube on both ends
- Small and compact
- Easy to interchangeable and can be upgraded without problem
- For inline installation
- For air only



Line Filter

- For front panel installation or in 19" racks (e.g. in analysis systems)
- Viewing glass for assessing the degree of soiling
- With connectors inside and filters outside
- Fast and easy filter replacement from outside



Measuring

Measuring: PP, natural PP, PVDF, PFA, PTFE

Nominal Diameters: DN04 – DN10

Threads: G1/8" – G1/2", NPT1/8" – NPT1/2"

Connections: DN04/06 – DN06/08

Our flow meters use the float principle and are suitable for exact measurement of gases and liquids. Our diaphragm pressure gauges with manometer are available for measuring pressure in neutral and aggressive media. Individual measuring ranges and different types of measurement acquisition are also possible on request.



Flow Meter 4L

- Wide range of standard measuring ranges
- With rear female G-thread and fine control valve
- Measuring tube made of DURAN® glass
- Measurement acquisition possible



Diaphragm Pressure Gauge 3D

- Different pressure measurement ranges
- Reliable protection of the manometer from aggressive media
- With welding union, G female or male thread
- With retaining bracket
- Exact measurement results thanks to large diaphragm surface area



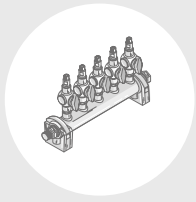
Mini Flow Meter 4M

- For very small flow rates
- With connection for flexible tube on the back
- Measuring tube made of DURAN® glass



Flow Meter 4H

- Sturdy thanks to break-proof measuring tube of PSU
- With two integrated connections for flexible tubes: flexible tube connector, female G-thread or welding tube adapter
- Measuring ranges from 1.5 l/h to 1,000 l/h
- For liquid and gaseous media
- Minimum space requirement thanks to short overall length
- Measurement acquisition possible



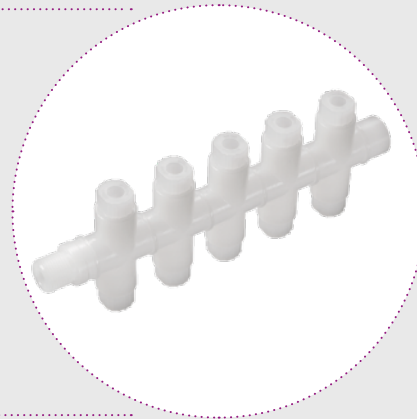
Distributing

Materials: PP, PVDF, PTFE
Nominal Diameters: on request
Threads: on request

Manifolds from **emtechnik** are the ideal partner wherever medium is distributed or collected. Our series 8B offers standard manifolds in various designs and materials. We also offer customised solutions to your individual specifications. Depending on the application, the medium can be either distributed directly or shut off or regulated as required using the appropriate fittings.

Compact Manifolds 8C

- Features an impressively small size
- Available 1-sided with 2-5 outlets or double-sided with 2, 6, 8 or 10 outlets
- Available with integrated connections for flexible tube 1+ (DN04/06, DN06/08) or threads (G1/8", G1/4")
- Available with side end pieces closed or with G3/8" or G1/2" threads
- All threaded connections can be designed with male or female threads



Manifolds 8B

- Linking of manifolds easily possible thanks to special design
- Depending on the application, the medium can be directly distributed or shut off
- Latest welding methods, e.g. computer-controlled infra-red welding, socket welding or rotation welding
- Individual manifolds to customer specification

Special Distributor

- Customized according to your specifications on material, length, shape, number and arrangement of outlets
- With integrated connectors and/or fittings of your choice
- For direct connection to flexible tubes or rigid pipes



Other Applications

Conveying – Injectors

- For pumping and mixing various gases without electrical power
- No wear parts

High Performance Injector:

- Two-piece design due to integrated sealing collar
- O-ring no longer required
- Better flow rate due to very good ratio of volume flow rates of intake medium to motive medium
- Less motive medium and therefore less energy consumption

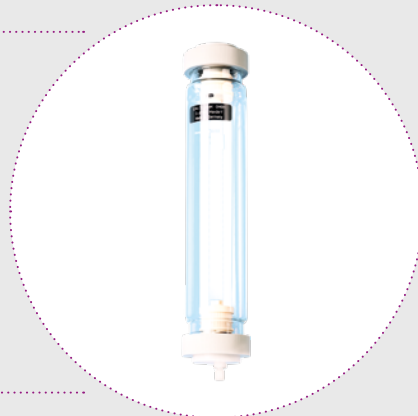


Collecting – Condensate Collectors

- Safe and reliable collecting of condensed liquids
- Different volumes
- Containers made of DURAN® glass with GL drain

Separating – Ion Exchanger

- Function based on direct-current method
- Can be filled with any carrier material by the customer
- Containers made of DURAN® glass



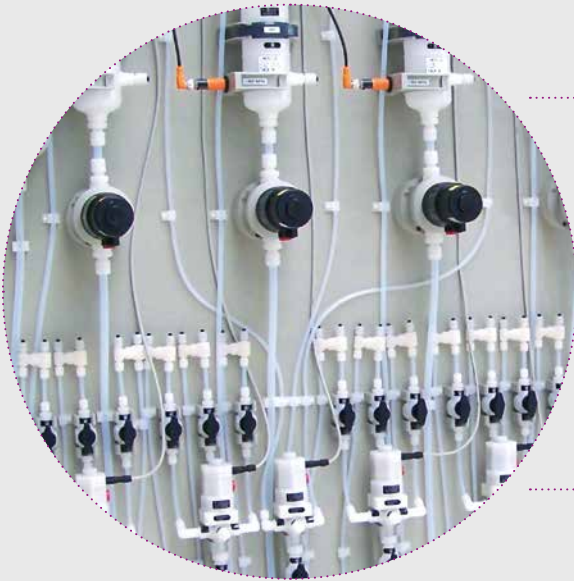
Containers

Our special vessels offer numerous possibilities for applications: as traditional condensate collector, compensation tank, mixing container, overflow or pearl vessel. These containers can be used to collect, mix, store or separate gases or liquids.

Individual Customer Solutions

Do you have a very special application you are unable to cover with standard products? We can develop a solution together with you. Whether it requires modifications to one of our standard products or an individual combination of connectors and fittings to make a specific application ready for use on a plate as a

“Plant Panel”. Or do you need a completely new product? Our engineers and technicians can find a solution for almost any problem that occupies our customers.



Plant Panels

We will produce your Plant Panel individually and specially for you, tailor made for your application. Everything is possible with our modularly structured product line, whether shutting off, dosing, controlling, distributing or measuring. You will receive your Plant Panel ready to use – planned according to your wishes and produced by us, fully assembled, tested and documented.



Specialist Ball Valves

Our ball valves can easily be combined with peripheral parts to produce fittings that cover a wider range of applications.



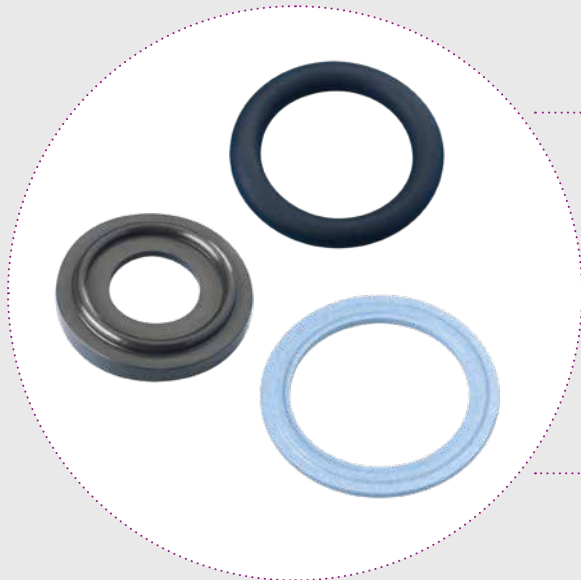
Sampling Pump

The pump was developed to simplify the sampling of liquids. The integrated flexible tube is immersed in the drum and 40 ml of liquid are drawn off by pulling the handle. The sampling glass can then be unscrewed.

Accessories and Sealings

Accessories for Connectors

- Plug caps
- Knurled and flat nuts
- Sealing, cutting and clamping rings
- Tube cutter



Sealings

- Suitable for all types and sizes of thread
- Tri-clamp sealings
- In various materials for many different possible applications



Accessories for Flow Meters

- Measuring tube
- Annular proximity switch
- Isolating amplifier



Accessories for Ball Valves

- Fastening clamps
- Mounting brackets
- Drive systems



Accessories for Filters

- Filter diaphragms
- Filter cartridges

emtubes, the Flexible Tube Range from emtechnik

Nominal Diameters: DN01/03 – DN19/27, DN1/32"/1/16" – DN7/8"/1"

- Materials:**
- **ETFE:** Media-resistant flexible tubes with high flexibility. ⁴
 - **ETFE, Fabric-Reinforced:** Flexible tubes with high pressure resistance. ¹
 - **FEP:** Flexible tubes with particular suitability for CIP processes.
 - **FKM:** Versatile flexible tubes for a wide range of industrial applications. ⁵
 - **PA:** Compressed air flexible tube for pneumatic applications.
 - **PE:** Universally applicable with weak acids and alkalis. ⁶
 - **PFA:** High transparency for outstanding media visibility.
 - **PTFE Corrugated Flexible Tube:** Flexible tube with small bending radius and smooth inner wall. ⁷
 - **PTFE:** Universally resistance to aggressive process conditions. Also available as electrically conductive for safe use in potentially explosive atmospheres. ²
 - **PVC:** Flexible tubes with high resistance to water and organic solvents.
 - **PVDF:** Weathering and radiation-resistant with balanced properties.
 - **Santoprene:** With very good recovery behaviour and good resistance to chemicals.
 - **Silicone, Fabric-Reinforced:** Glassfibre-reinforced for higher process reliability. Also available with USP Class VI. ³
 - **Silicone:** Peroxide cross-linked flexible tubes with very good weathering resistance. Also available with USP Class VI.

Processing & Packaging: We offer various services for customised flexible tube make-up, such as bending, crimping or flaring so that the flexible tubes fit perfectly, e.g. on the corresponding flare connectors. We can do all this and more for you.



1

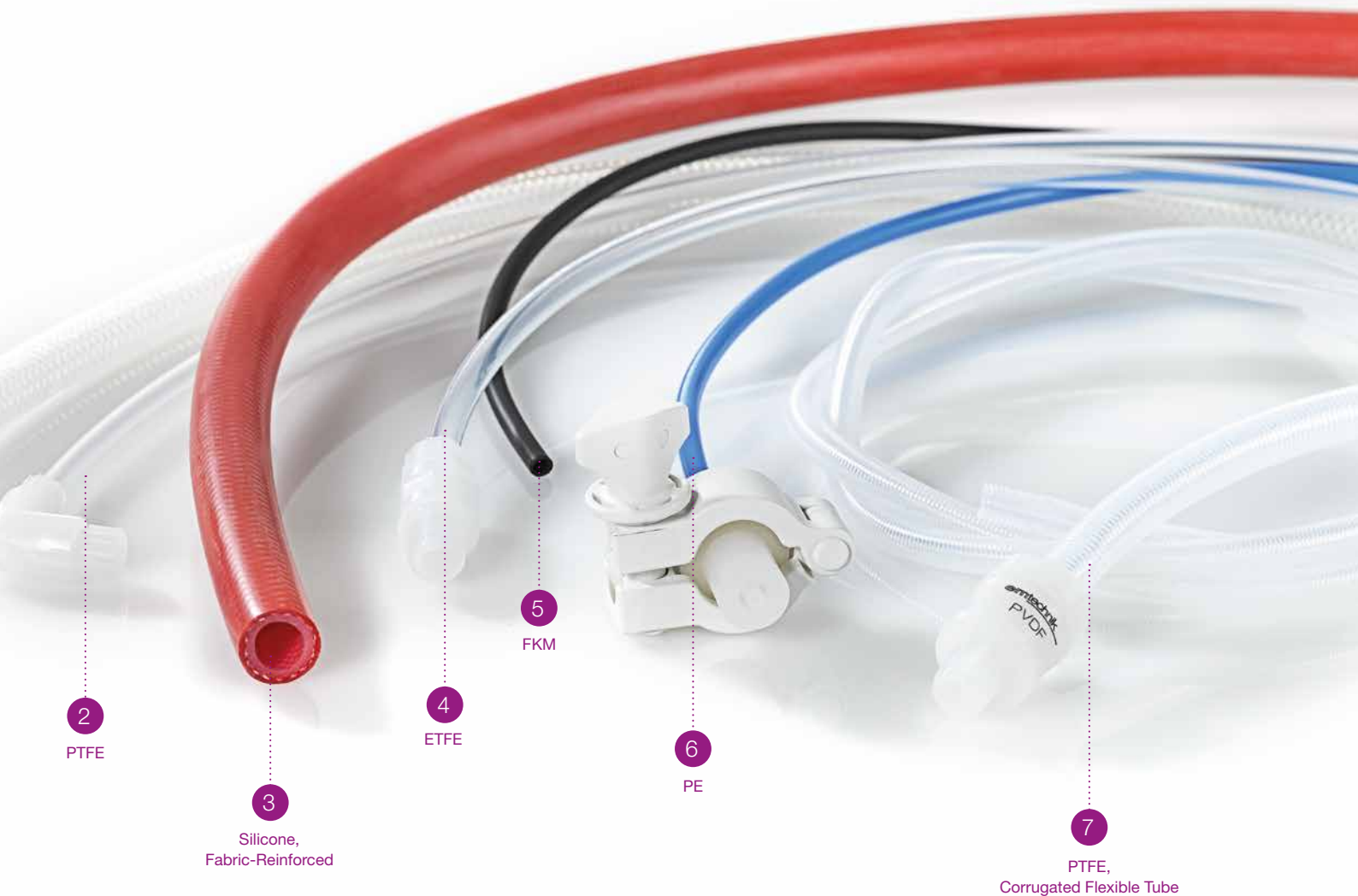
ETFE,
Fabric-Reinforced

emtubes is the flexible tube range from EM-Technik GmbH. Through the combination of our flexible tubes and connectors, we supply solutions that are always tailored to the individual needs of the customers – true to the motto “everything from a single source”. The flexible tubes from **emtubes** observe the standards of the corporate guidelines. To ensure this, they are strictly anchored in our quality management system.



Flexible Tube Accessories

You need the appropriate tools for proper preparation and fixing of the flexible tubes. Whether tube cutter, angle clamp, pipe clamp or tube clip – you will find all the accessories for our extensive product range here.



2
PTFE

3
Silicone,
Fabric-Reinforced

4
ETFE

5
FKM

6
PE

7
PTFE,
Corrugated Flexible Tube

The Company **emtechnik**





Competence and Quality for Your Objectives

emtechnik, a medium-sized family company, is one of the world's leading manufacturers of high-quality miniature fittings and connectors made of special plastics. Our goal is to consistently develop high quality products from our customers' perspective.

Products are manufactured exclusively at emtechnik headquarters in Maxdorf, Germany through the combined efforts of over 100 employees. Various subsidiaries and representatives in Europe, Asia and the USA provide support and consulting for our customers in foreign markets.

Safety Without Compromise for the Most Demanding Requirements

Our extensive line of products forms a modular system in which all the parts fit with each other and can be used compatibly and variably. In this way products of emtechnik open up a wide range of applications that met the most exacting demands for quality, safety and reliability.

We have set technical standards in many application areas with our products. We meet our high requirements for the performance capability of our products in a closely intermeshed process of product development, manufacturing and quality management.

Guiding Principles

Because we use premium plastics exclusively, we produce products with outstanding quality and high technological standards. It is very important for us to offer products we have produced ourselves. Our connectors and fittings are manufactured in nominal diameters from 0.7 to 25 mm or DN04 to 10 mm. We offer our customers an optimum price/performance ratio and guarantee you the durability, leak tightness, chemical resistance and hence maximum operational reliability of our products. Taking into account all these aspects and uniform, sustainable actions, we are able to create products for our customers that make their production processes easier and more reliable.





We Are Your Reliable International Partner

With subsidiaries in Belgium, France, Great Britain, India, Italy, the Netherlands, Oman, Singapore and Taiwan as well as our representatives in Finland, Sweden, Spain and the USA we provide direct local advice and support to our customers. Our modular system makes it possible to implement a very wide range of application solutions. Whenever that is not sufficient, we are happy to develop innovative solutions together with you and tailored to your needs, in keeping with **emtechnik's** guiding principles.

Our development and production department is also available to help in planning your individual solutions. For additional information and questions, simply contact us.

Short Distances for High Efficiency

emtechnik consistently follows a philosophy of production based on short distances. Product development, manufacturing, quality assurance, assembly and shipping are integrated into one closely knit and seamlessly documented process. This guarantees high quality and efficient processing for our customers from the time an order is received until delivery.

Living Responsibility – for Us There Is No Alternative

To make our contribution for following generations, we not only use regenerative energy sources, but also follow a consistent concept of sustainability.

*Consistent conservation of resources also plays a role here, as does social responsibility and production which is nearly CO₂ neutral. Thinking sustainably determines how **emtechnik** acts, and not only in reference to the performance of our products – it has been one of the cornerstones of **emtechnik**'s philosophy for many years.*





Sustainability

Energy Management

By using regenerative energy from hydroelectric power, we have reduced the annual output of harmful CO₂ in our production centre by 1400 tons. Because we care deeply about using eco power, we have voluntarily committed to operating our location exclusively with regenerative energy sources by the end of 2019. The clean electricity produced in our own energy plant by a block heating and regenerating plant is fed into the public power network. We use the heat generated in the process to heat and cool our production buildings and machines.

Quality

Uncompromising reliability, a long service life and a modular product system are the key features of emtechnik's sustainable quality. We have established a production system with short distances with closely intermeshed development and production that is fully documented in our quality management system. Quality assurance regularly includes auditing by our customers.

Production

Through our active environmental management we control responsible dealing with all the raw materials that are required in production. By using a high-tech polyamide based on castor oil, we have succeeded for the first time in manufacturing products from 100% regenerative material. Bioplastics are characterized primarily by their technical properties, which make them suitable for many industrial applications. The material has been confirmed by the FDA as suitable for contact with foodstuffs. We have been manufacturing our products CO₂-neutrally for years and we take care with our well organised environmental management to ensure that all production waste is recycled, if possible with no residue.

Personnel Development

Supporting young people in their personal, social and professional development is for us one of the most valuable investments in the future. As a result, time and again we are able to recruit interested and motivated young people who we provide with training and entry into professional life.

Cleanliness Without Compromise

*When the issue is our customers' quality requirements, we know no compromises at **emtechnik**. This is especially true where requirements for sterile cleanliness are extremely high for modern production processes such as the food and pharmaceutical industries or medical technology and the semiconductor industry.*

emtechnik has had a clean room to ISO 14644-1 class 5 since 1997. It was expanded in 2018 with two new areas including sealed doors to ISO 14644-1 class 7:

In the first area products can be manufactured by a separate injection moulding machine under optimum clean room conditions, thereby meeting the highest requirements. In the second area an ultrasonic washing line including separate production of ultrapure water provides optimum cleaning to ensure absence of particles, oil and grease.

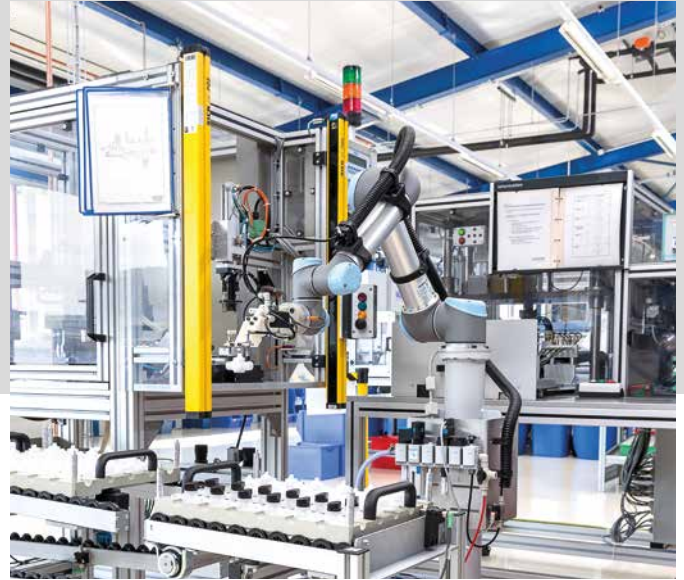
The two new ISO 7 areas connect directly to the ISO 14644-1 class 5 clean room, which allows for a final cleaning with vacuum drying and final assembly of our products in a contamination-free atmosphere. Quality control is performed by specially trained employees who package all clean room products for safe transport in special double-welded packaging which is also filled with class 5.0 nitrogen. All of our products certified to conform to the high-purity standard undergo this carefully monitored production process at our works.





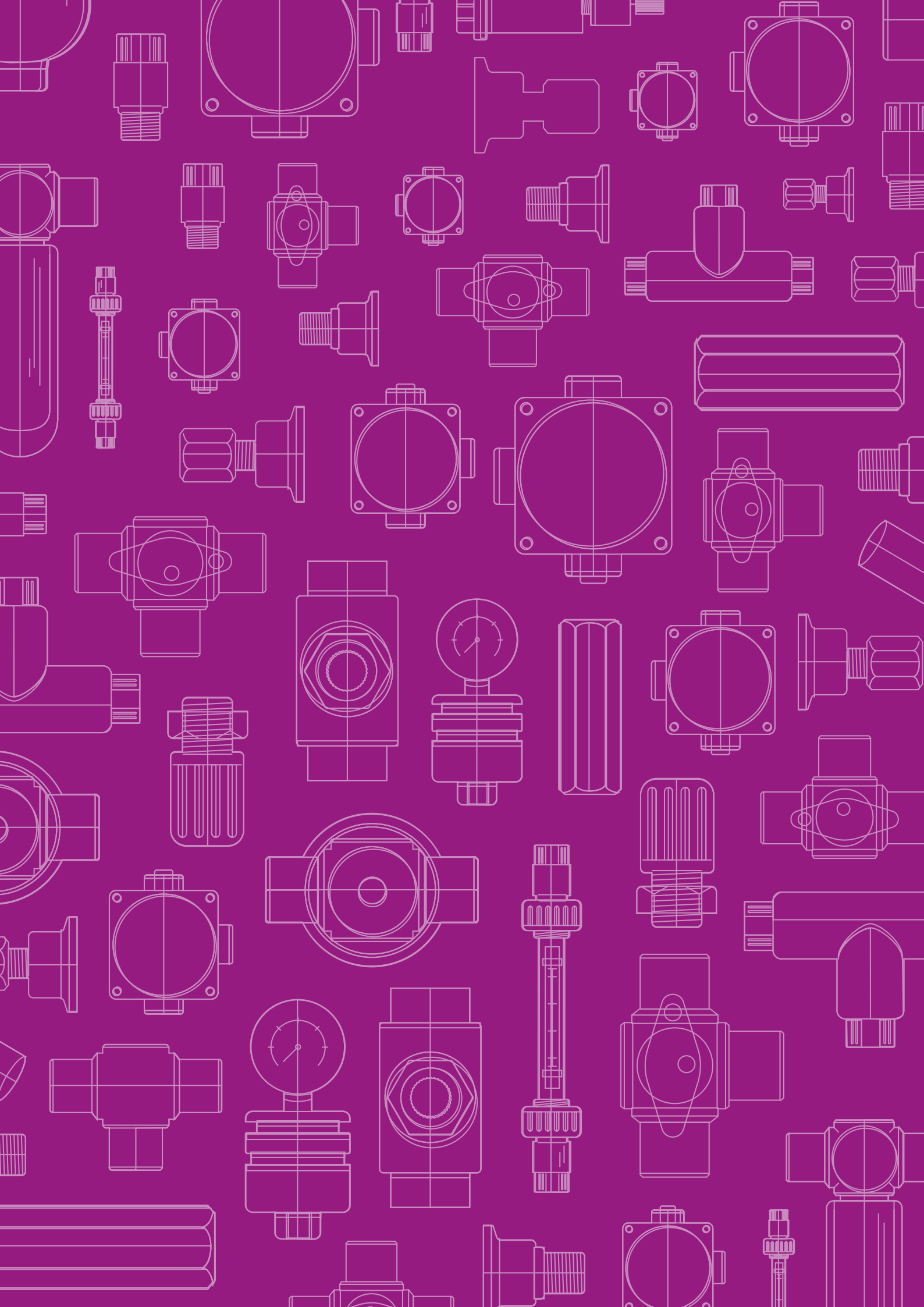
Mould Making

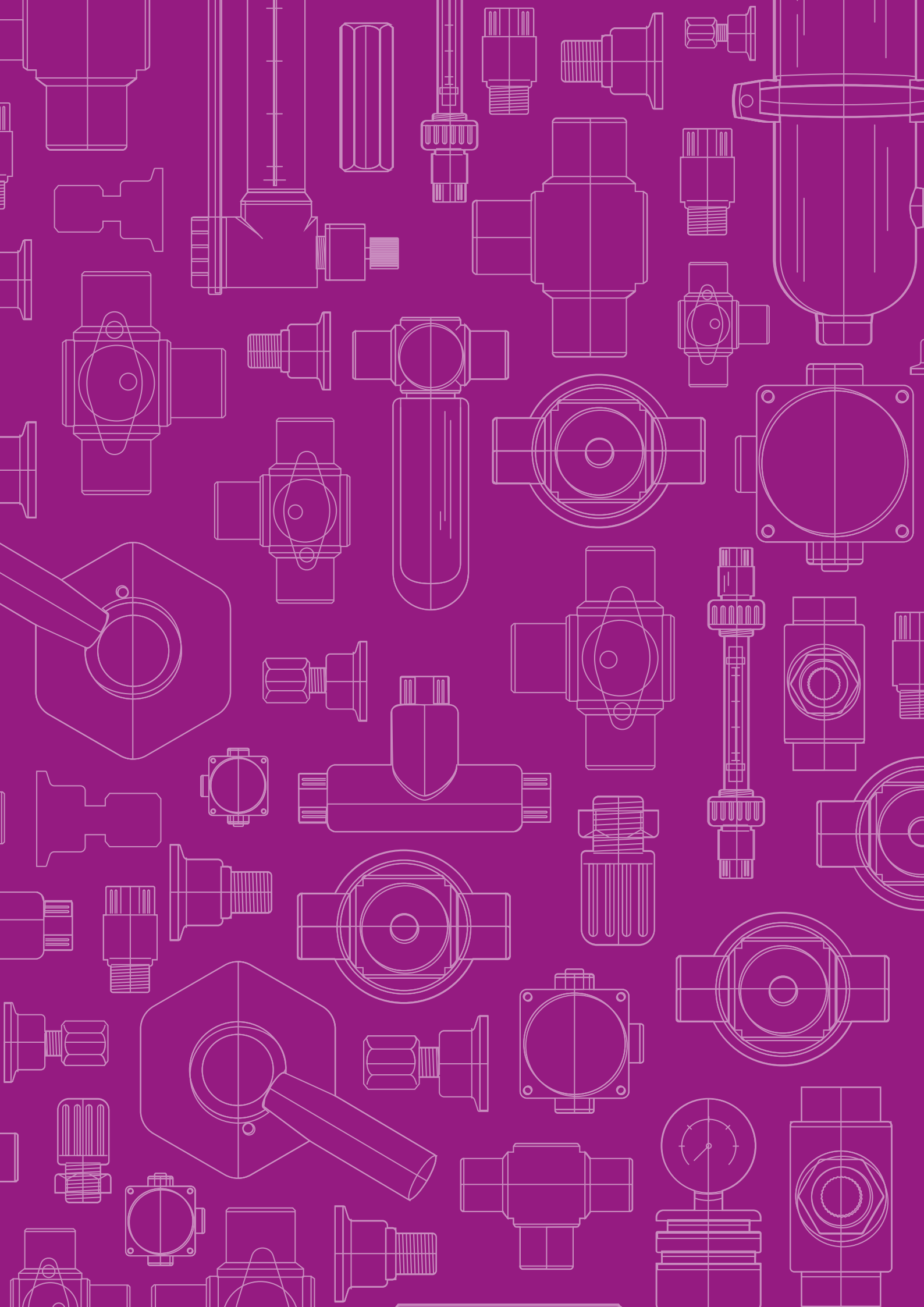
One of the core tasks of **em**technik mould making in our own factory is the production of individual injection moulding tools. From planning and manufacturing of moulds to support of production processes and on to maintenance and repair of tools, everything is done inside the company. The wide range of moulds are responsible for the large selection of products. Specific requests for changes can be implemented flexibly so we are also able to provide individual solutions for our customers.



Innovative Manufacturing Processes

The goal of our innovative manufacturing processes is to achieve smooth interplay between humans and machines to ensure optimum work results. Our employees in production are supported by the most modern machines for assembly processes or test sequences. That makes work steps more effective and the results more documentable and reproducible.





emtechnik Worldwide

Germany

EM-Technik GmbH
Industriestraße 2
67133 Maxdorf

Phone +49 6237 4070
Fax +49 6237 40777
info@em-technik.com

Belgium

EM-Technik GmbH
Voortstraat 14
2890 Oppeuws

Mobile +32 479 412 400
em-technik.be@skynet.be

France

EM-Technique SARL
23-24 Rue Nicolas Copernic
ZAC Les portes de l'Oise
60230 Chambly

Phone +33 1 3937 2290
Fax +33 1 3028 1352
info@em-technique.fr

Great Britain

EM-Technik UK Ltd.
Unit 10, Summit Business Park
Lingard Street, Stoke on Trent
Staffordshire ST61ED

Telefon +44 1782 980 320
info@em-technik.co.uk

Italy

EM-Technik Italia S.r.l.
Via J. F. Kennedy 19
20871 Vimercate (MB)

Phone +39 039 688 1198
Fax +39 039 937 0378
Mobile +39 335 571 9763
info@emtechnik-italia.it

Netherlands

EM-Technik Holland B.V.
Hyperonenweg 6c
3542 AG Utrecht

Phone +31 30 241 2318
info@em-technik.nl

East Asia

EM-Technik East Asia Ltd.
5 FL., No.39 Lane 159,
Fu-Der 1. Road
Shih Chih District, New Taipei City
Taiwan

Phone +886 2 2692 4448
Fax +886 2 2694 8922
steven.chen@em-technik.com.tw

India

EM-Technik India Pvt. Ltd.
Plot No. 133 + 138
Tiny Industrial Co-op Estate
Kondhwa Budruk
Pune - 411 048

Phone +91 20 2693 4072
Fax +91 20 2693 4073
info@em-technik.in

Middle East

EM-Technik Middle East LLC
Way 48, Building 393, Office 401
18th Nov. Street, Al Azaiba
Sultanate of Oman

Phone +968 2490 2544
Mobile +968 9322 3185
info@em-technik.om

Southeast Asia

EM-Technik Asia Pte Ltd.
448 Tagore Industrial Avenue
Singapore 787819

Phone +65 6484 3202
Fax +65 6484 2276
info@em-technik.sg

Our Representatives

Finland

Oy Colly Company AB
Hankasuontie 3 A
00391 Helsinki

Phone +358 29 006 150
Fax +358 29 006 1150
sales@colly.fi
www.colly.fi

Sweden

GPA Flowsystem AB
Brovägen 5
26675 Hjärnarp

Phone +46 431 445 800
Fax +46 431 454 666
info@gpa.se
www.gpa.se

Spain

Aplicaciones Tecny Fluor, S.L.
Pg. Joan Miro, 10 Local 1
08222 Terrassa - Barcelona

Phone +34 93 73610 30
Fax +34 93 73610 31
tecnyfluor@tecnyfluor.com
www.tecnyfluor.com

USA

ASAHI/AMERICA
655 Andover Street
Lawrence, MA 01843

Phone +1 781 321 5409
Fax +1 781 321 4421
asahi@asahi-america.com
www.asahi-america.com