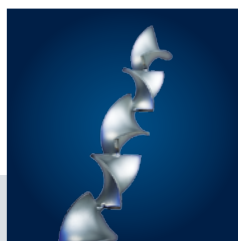


**RUPTURE DISK
STATIC MIXER
HEAT EXCHANGER
DEMISTER**



VERFAHRENSTECHNIK



**INNOVATION. QUALITY.
RELIABILITY.**

STRIKO Verfahrenstechnik is a reliable partner to the industry since 1973. The company is located in Wiehl-Bomig, right in the heart of Europe. From here we advise and supply well-known companies at home and abroad. In addition to our standard program, we offer you individually tailor-made solutions.

STRIKO maintains long-standing business relations with companies of the industrial sectors:

- chemistry
- oil and gas
- plant engineering
- pharmaceutical industry
- food industry
- transport and logistics

Our high-quality products, combined with engineering services, guarantee highest plant and process

safety for your operations as a result of many years of experience of our employees as well as the specialization in design of pressure vessels according to the effective rules and standards. Product-specific parameters such as the required minimum net flow area of rupture disks, the pressure loss and mixing quality of static mixers, the heating and cooling capacity of heat exchangers as well as the separation efficiency of demisters are calculated and the results will be checked in our in-house test facilities if necessary.

The project-related design is made in 3D models from which the drawings will be derived. We are pleased to provide our products also in STEP format AP202DIS according to ISO 10303.

An extensive warehouse and flexible manufacture enable a high availability of products which are often custom-made.

RUPTURE DISK

MADE OF METAL



Following the below e-mail address will keep you in contact with us at any time:

RUPTUREDISK@STRIKO.DE



NEW STANDARD:

Grounding flap on every rupture disk for an equipotential!



STRIKO burst safety devices are pressure relief devices consisting of rupture disk and, according to execution, of rupture disk holder. The same can be extended by a rupture indicator system. The rupture disk is a pressurized component and reacts within very short time to critical pressure increase in the system. If the rupture disk responds, there will be opened a vent area for protecting so personnel, systems and environment.

The diverse rupture disk variants, made of metal and non-metal materials, cover a comprehensive range of nominal widths, bursting pressures and operating temperatures. Therefore, STRIKO rupture disks can guard precisely and reliably against overpressure and underpressure when being used in pressure devices such as pressure vessels, pipelines, reactors and other closed pressurized systems.

You will have always a factory-new and, above all, leak-free pressure relief device in your system because rupture disks, due to their function, must be replaced after pressure relief. This is an essential advantage over other pressure protection components which, in addition to higher leakage rates, often cause high costs concerning purchase and maintenance. A combination of rupture disk and safety relief valve is an alternative possibility.

Legal guidelines and demands on safety are absolute minimum requirements for STRIKO Verfahrenstechnik. Our claim is to give you a safe feeling every day when operating your system. Wherever pressure appliances or systems are to be protected, STRIKO burst safety devices are used reliably every day.

STRIKO BURST SAFETY DEVICES ARE CHARACTERIZED BY:

- exact response within few milliseconds
- 100 % sealing
- high-quality materials
- minimum maintenance costs
- short periods of exchange

We manufacture rupture disks of stainless steel, graphite and special materials such as tantalum, Hastelloy®* or Inconel®*



STRIKO COMPOSITE RUPTURE DISKS SERIES: SF-M / SF-MV / SF-MD

- ideal for static operating pressures
- also applicable without holder
- available with vacuum support
- available in nominal diameters up to DN 800 alternating and pulsating loads
- minimally fragmenting
- operating ratio up to 80 %

STRIKO CROSS-SCORED RUPTURE DISK SERIES: SZ-X

- applicable at higher pressures and high temperatures
- applicable as sole pressure protection or in combination with safety relief valve
- „Fail-Safe“: Incorrect installation causes the SZ-X to burst below the determined bursting pressure
- non-fragmenting bursting
- operating ratio: 90 %

STRIKO REVERSE ACTING RUPTURE DISKS SERIES: SU-R / SU-C

- ideal for alternating pressure load
- back pressure resistance: min. 1,4 times rated burst pressure
- ideal for materials tending to adherences
- can be used as stand-alone pressure protection component or in combination with a safety relief valve
- testing of safety relief valves without removing the same
- non-fragmenting bursting
- operating ratio: 90 %

RUPTURE DISK

MADE OF METAL

RUPTURE DISK

MADE OF GRAPHITE



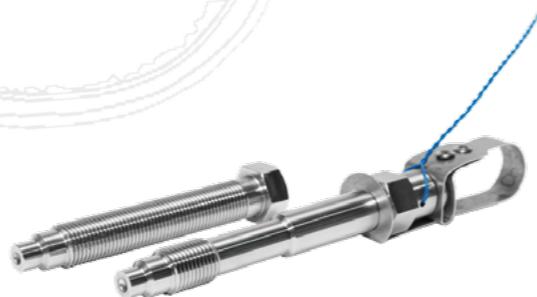
STRIKO ASEPTIC RUPTURE DISKS SERIES: SF-M-S / SF-MV-S SU-C-S / SU-R-S

- incl. seals for sterile applications (FDA- and USPSS-Class-VI-conform)
- flat, forward-acting or also as reverse-acting rupture disk
- applicable between clamps or NA connect
- can be combined with all STRIKO rupture indicator systems
- non-fragmenting bursting
- operating ratio: up to 90 %



STRIKO EXTRUDER RUPTURE DISKS SERIES: S-EB / S-EB-SVT

- ideal addition to active safety elements such as pressure transducers and temperature sensors use at high pressure and temperatures
- available in 3 standard lengths, further lengths on demand
- S-EB-SVT with integrated rupture indicator
- operating ratio: 80 %



STRIKO RUPTURE DISK PLUGS SERIES: S-BS / S-BM

- to be used for example in hydraulic systems
- application-specific and customized design
- flexible pressure protection of individual components
- low leaking rate meets highest tightness requirements
- easy and quick installation or exchange
- threads: 1", ¾", ½", ¼" - further on demand
- operating ratio: up to 80 %



STRIKO GRAPHITE RUPTURE DISK SERIES: G2

- flat graphite rupture disks
- excellent corrosion resistance
- to be used in holder HG2
- available with optional vacuum support
- nominal diameters: DN25 up to DN600
- operating ratio: 80 %



STRIKO GRAPHITE RUPTURE DISK SERIES: G3M/G3A

- monoblock graphite rupture disks
- excellent corrosion resistance
- useable directly between flanges without holder
- available with optional vacuum support
- G3A with stainless steel armor
- nominal diameters: DN25 up to DN600
- operating ratio: 80 %



HOLDER SPECIAL DESIGNS

- with sintered Teflon coating to be used up to 260 °C
- can be combined with all sealing materials
- with PTFE liner at product side
- holder HG2 for rupture disks of the series G2 is available in graphite, stainless steel 1.4571 or special materials such as Hastelloy®, Inconel® or with PTFE liner

RUPTURE DISK

HOLDER

STRIKO STANDARDHOLDER SERIES: SHF / SHZ / SHU

- metal seal between rupture disk and holder (SHZ / SHU)
- nominal diameters: DN20 up to DN800
- available in stainless steel or special materials such as Hastelloy®, Inconel® or with PTFE liner



STRIKO PRELOADEDHOLDER PRO SERIES: SHF/SHZ/SHU PRO

- force-closed preload and metal sealing between rupture disk and holder (SHZ Pro / SHU Pro) enable an easy and safe assembly
- centre bores for flange bolts
- possible reinstallation of the closed rupture disk holder system e.g. after visual inspection
- nominal diameters: DN20 up to DN400
- available in stainless steel or special materials such as Hastelloy® or Inconel®



STRIKO PRELOADEDHOLDER SERIES: SH LAB

- compact and robust design
- meets highest tightness requirements
- connections individually executable
- torsion-free installation of the rupture disk
- available in stainless steel or special materials such as Hastelloy® or Inconel®



RUPTURE DISK

BURST INDICATOR



BURST INDICATOR SVT 02 LEKAGE SENSOR SVT 05

- for signaling the response of rupture disk
- can be combined with graphite and metal rupture disks, also with rupture disks of other manufacturers
- installation behind rupture disk or safety relief valve (outlet side) slotted PEEK foil with vacuum-metallized conductor path
- of silver
- for detecting minimum leakages (SVT 05)
- continuous use at temperatures from -30 °C to +220 °C
- usual nominal diameters on stock-delivery ready for installation



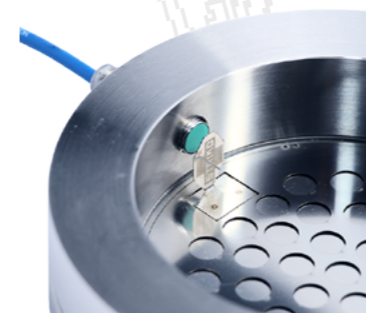
FULL-METAL BURST INDICATOR SVT AM

- for signaling the response of rupture disk
- use at high temperatures in dependence on sealing material
- installation behind rupture disk or safety relief valve (outlet side)
- back-pressure-resistance
- can be combined with graphite and metal rupture disks, also with rupture disks of other manufacturers
- usual nominal diameters on stock-delivery ready for installation



INDUCTIVE PROXIMITY SWITCH

- for signaling the response of rupture disk
- cost-effective rupture indication in case of frequent response of the rupture disk
- reusability of the sensor
- can be used up to 150 °C, higher temperatures on demand
- back pressure-independent
- low maintenance costs
- simple retrofitting capability



STATIC MIXER



Following the below e-mail address will keep you in contact with us at any time:

MIXER@STRIKO.DE

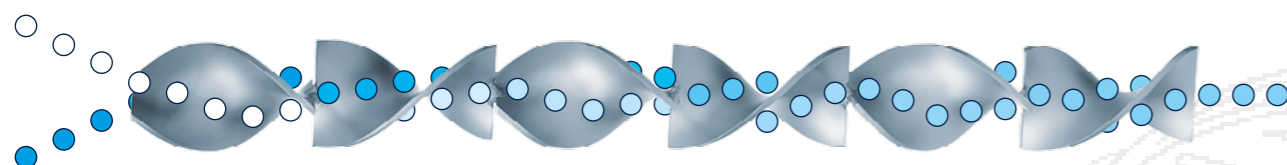


Static mixers of the enterprise STRIKO are applied successfully to a wide range of process operations in various industrial branches including mixing, dispersion, emulsion, heat exchange and reaction. The use of static mixers stands for lowest investment and operating costs being attributed to the fact that the energy will not be supplied externally, but is taken from the kinetic energy of the product flow.

Static mixer run in continuous operation in a closed piping system. They don't contain moving parts and are therefore virtually free from wear. Static mixers can be cleaned, sterilized and steamed inline; upon request, they can be dismantled

completely for executing optimal cleaning work. Connection types and dosing points will be realized individually and upon customer's request. STRIKO mixing elements are also used in heat exchangers. Due to the continuous movement of the medium from the pipe inside to the pipe wall and back, the heat transfer increases significantly whereby the heat output will be increased and a caking („fouling“) of the product on the inner wall of pipe can be prevented.

For a detailed and personal advice, the experts of STRIKO Verfahrenstechnik are always at your disposal.



FUNCTIONAL PRINCIPLE

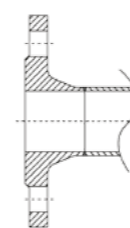
The core task when designing a static mixer is to find out how many mixing elements of a specific type are to be arranged in series for achieving the required mixing quality with an acceptable pressure drop. In case of simple mixing applications, where, for example, low-viscous components, such as water, are mixing easily, only few

elements are often enough for obtaining a very good homogeneity. In other cases, twenty and more elements are necessary for achieving an acceptable result. Target is to obtain a mixing quality of at least 95 %. This is a so-called technically homogeneous mixation.

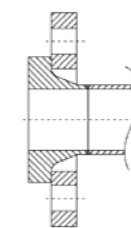
Whether for food, viscous media or universal applications – static mixers by STRIKO are efficient, cost-effective solutions for high-quality applications. In a variety of industrial branches, our mixers are used successfully every day.

CONNECTIONS

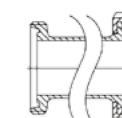
STRIKO offers almost unlimited possibilities concerning the installed mixer connections – always according to specifications and upon customer's request. Individually required solutions can be realized with regard to flanges, screw joints, clamps and weld preparation.



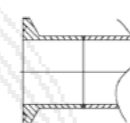
e.g. fixed flange acc. to DIN EN 1092-1 type 11



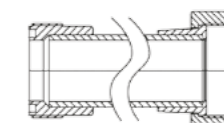
e.g. lose flange acc. to DIN EN 1092-1 Typ 04



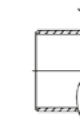
e.g. screw connections according to DIN 11851



e.g. clamp stub according to ISO 2852



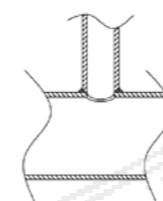
e.g. GF screw connections for plastics



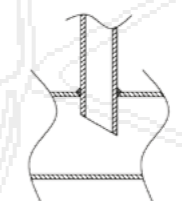
weld preparation e.g. for big dimensions

DOSING POINTS

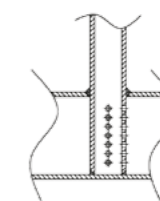
STRIKO offers various possibilities, also in the range of dosing points. In dependence on the respective application, when dimensioning the static mixers, the optimum variant will be selected so that the static mixer in its entirety, consisting of dosing point and mixing elements, achieves the required mixing quality with minimum pressure drop.



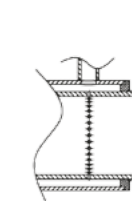
tee



centerline



dosing lance



ring dosing

HELICAL / K-HELICAL

the universal mixer

nominal diameters:

Helical: DN3 - DN100
K-Helical: DN100 - DN2000



Helical / K-Helical by STRIKO are statically working inline mixer types for mixing low-viscous fluids. The area of applications has a wide range, starting from electro-polished laboratory mixer up to heavy duty application in the petroleum industry.

examples of application:

- low-viscous fluids
- sterile applications
- food sector
- plastic processing

STX

the viscous mixer

nominal diameters:

DN10 - DN2000



The static mixer type STX has been designed for mixing higher-viscous media up to high-viscous media. When designing, special attention is to be paid to the velocity of flow because high shearing forces are occurring in dependence on type. The STX reaches high mixing quality with low number of elements.

examples of application:

- inking of silicon
- mixing of lubricating grease
- homogenization of polymer melts

STV

the gas mixer

nominal diameters:

DN25 - DN2000



The static mixer, type STV, will be used mainly for mixing gas flows and produces high mixing quality with low pressure drop.

examples of application:

- temperature homogenization in exhaust gas flows
- exhaust gas re-treatment for removing NO₂
- admixing of finely dispersed fluids in high-volume gas flows

ERESTAT®

the two-phase mixer

nominal diameters:

DN15 - DN500



The mixer type EREStat® by STRIKO is a self-cleaning static mixer, preferably for carbonating and venting fluids.

examples of application:

- gas/fluid applications
- food sector

Our static mixers are available in following materials:
all usual stainless steels, structural steels, plastics, special materials

HEAT EXCHANGER



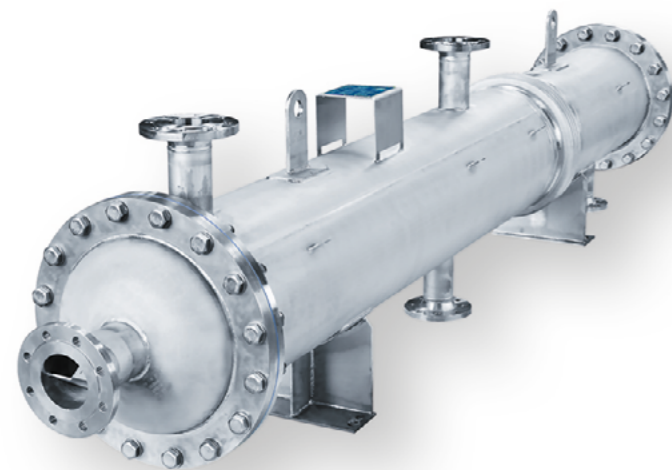
Following the below e-mail address will keep you in contact with us at any time:

HEATEXCHANGER@STRIKO.DE



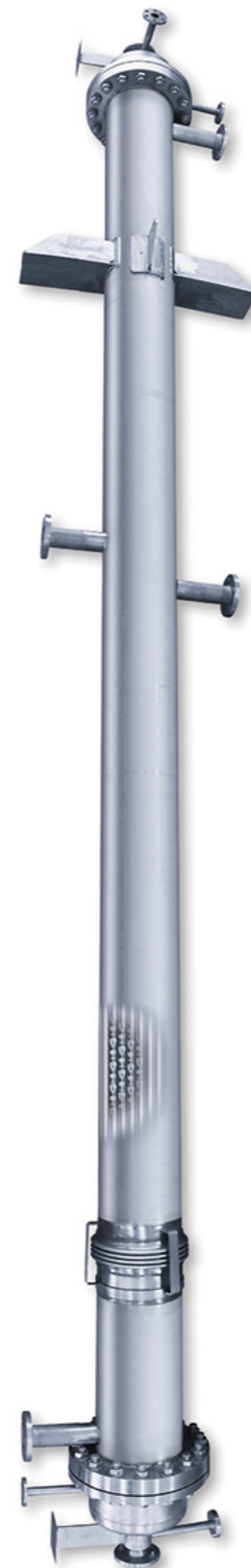
Heat exchangers from STRIKO are designed specially for tempering higher-viscous up to high-viscous media in laminar flow. The devices are designed as straight tube heat exchangers. The product tubes are equipped with patented mixing elements, type S-Helical, which prevent a fouling or caking of the product on the inside wall of tube due to continuous mixing. This effect occurs also in case of Reynolds' numbers <1 . In the process, the medium to be tempered is always conducted through the tubes (not around the tubes).

In addition, the efficiency of the heat exchanger will be enhanced significantly by increasing the product-side heat transfer what leads to smaller dimensions and consequently to a reduction of costs. The mixing elements are integrated into the product tubes in such a manner that they can be removed for executing cleaning work effectively, easily and thoroughly.



STRIKO HEAT EXCHANGERS ARE DISTINGUISHED BY:

- tempering and homogenization of high-viscous media
- high efficiency, minimum construction length
- increasing of the product-side heat transfer
- effective cleaning
- delivery ready for installation
- patented mixing elements



FUNCTIONAL PRINCIPLE

When conveying higher viscous media, the flow velocity in the product tube is distributed unevenly. This effect will be amplified when cooling media whose dynamic viscosity increases with the decreasing temperature. In this case, it comes to fouling in the product tube by which the cooling capacity of the heat exchanger will be reduced because of plug flow incredibly. Under

certain circumstances, individual tubes are completely obstructed. This effect will be significantly reduced or completely prevented by using STRIKO S-Helical mixing elements. The result is that the heat exchanger can be operated with a constantly high performance over a long period of time whereby periods of rest and costs for maintenance work can be reduced essentially.



Plug flow without S-Helical mixing elements



Flow with S-Helical mixing elements

materials:

all usual carbon and stainless steels as well as special materials

nominal diameters:

DN15 - DN1000
(more dimensions on demand)

heating / cooling capacity:

according to execution up to 2.500 kW

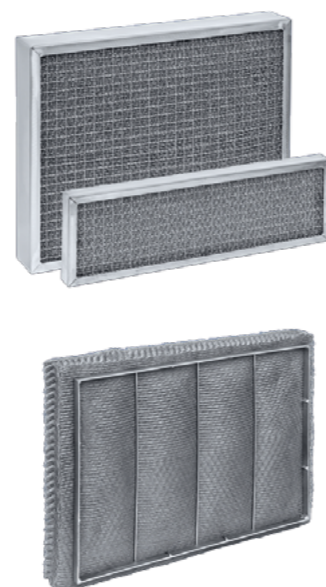
examples of application:

- cooling of silicone, bitumen, hexane
- heating of sugar starch-syrup, PE petrol solution, viscous oils
- trace heating for static mixers (double jacket)
- tempering of polymer melts



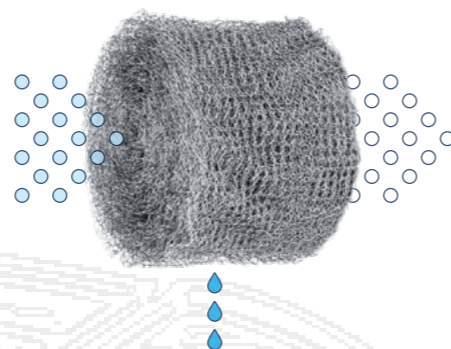
STRIKO demisters are application-oriented liquid or aerosol separators for a multitude of ranges of operation. We offer solutions with and without housing. There are varied application possibilities ranging from technical damping elements, filter cartridges, catalyzers to medial applications.

STRIKO demisters can be manufactured, according to process requirement, in different materials, forms and dimensions. There are available different stainless steels, special materials and various plastics. Just as the materials, also the packing densities and the wire diameter can be designed in accordance with the requirements. STRIKO demisters are resistant against high corrosive media and have, in case of low pressure drop, very good separation efficiencies of up to 99,9 %. The separation efficiency depends on use, gas velocity and packing specification.



FUNGCIONAL PRINCIPLE

The separation of liquid droplets from a gas flow by means of a wire mesh demister is based on the inertia of mass. In contrast to the gas phase and because of their higher density, the droplets cannot avoid an obstacle, in this case the wire mesh. Thus, the individual droplets bounce against the wire forming so a liquid film on which further droplets are accumulating for coalescing finally into a big drop. Due to gravity, the same falls down and will so be removed out of the gas phase. Thus, separation efficiencies of up to 99,9 % can be achieved with low pressure loss.



STRIKO DEMISTERS ARE DISTINGUISHED BY:

- calculated separation efficiency
- low pressure loss
- easy assembly and maintenance
- individual size and form
- delivery, ready for installation, incl. container or housing

COMPLETE SOLUTION

Special performance characteristics of STRIKO are the design and manufacture of demister housings and containers incl. wire mesh demister in accordance with customized stipulations. STRIKO can fall back on a variety of proven housing concepts. The same are calculated and manufactured

according to the effective rules and standards. The demisters are delivered, ready for installation, in frame with fixing material, on request also with CIP cleaning nozzles in housing. When designing, easy assembly and minimum maintenance are always in the spotlight.



materials:

all usual steels, stainless steels, aluminium, special materials such as Monel[®]*, Hastelloy[®]* and plastics such as PP, PE, PTFE and PVDF

design:

round, also with support grids and segmented angular, also with support grids or frames

separation efficiency:

for drop sizes of >3 µm up to 99,9 %

examples of application:

- water separation from vapors, e.g. saturated vapor in vapor drums
- separation of solvents from the exhaust air when producing colors
- air conditioning and exhaust air systems
- evaporating and stress relieving systems
- vacuum and compressed air systems
- absorber and distillation systems
- steam boilers and gas washers
- oil and emulsion mist separation

AN EXCERPT OF OUR REFERENCES



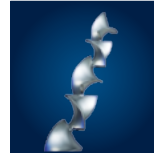
INNOVATION. QUALITY.
RELIABILITY.

OUR KNOW-HOW AND OUR RELIABILITY ENABLE US TO BE FOR YOUR COMPANY THE COMPETENT PARTNER YOU ARE LOOKING FOR.

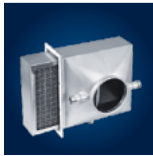
HOW YOU CAN REACH US



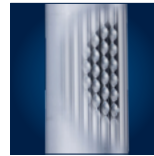
Rupture Disk
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Static Mixer
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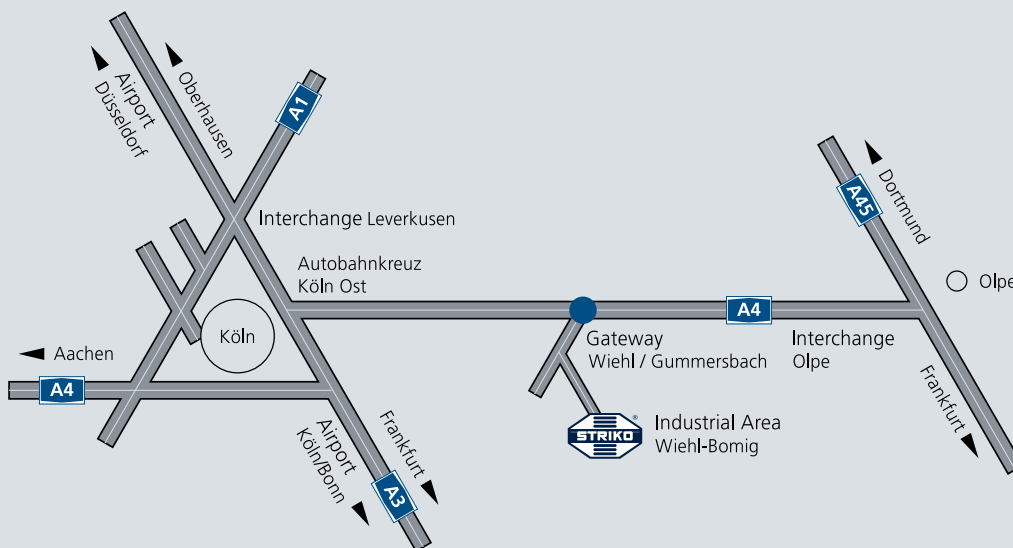


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WHERE YOU FIND US



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