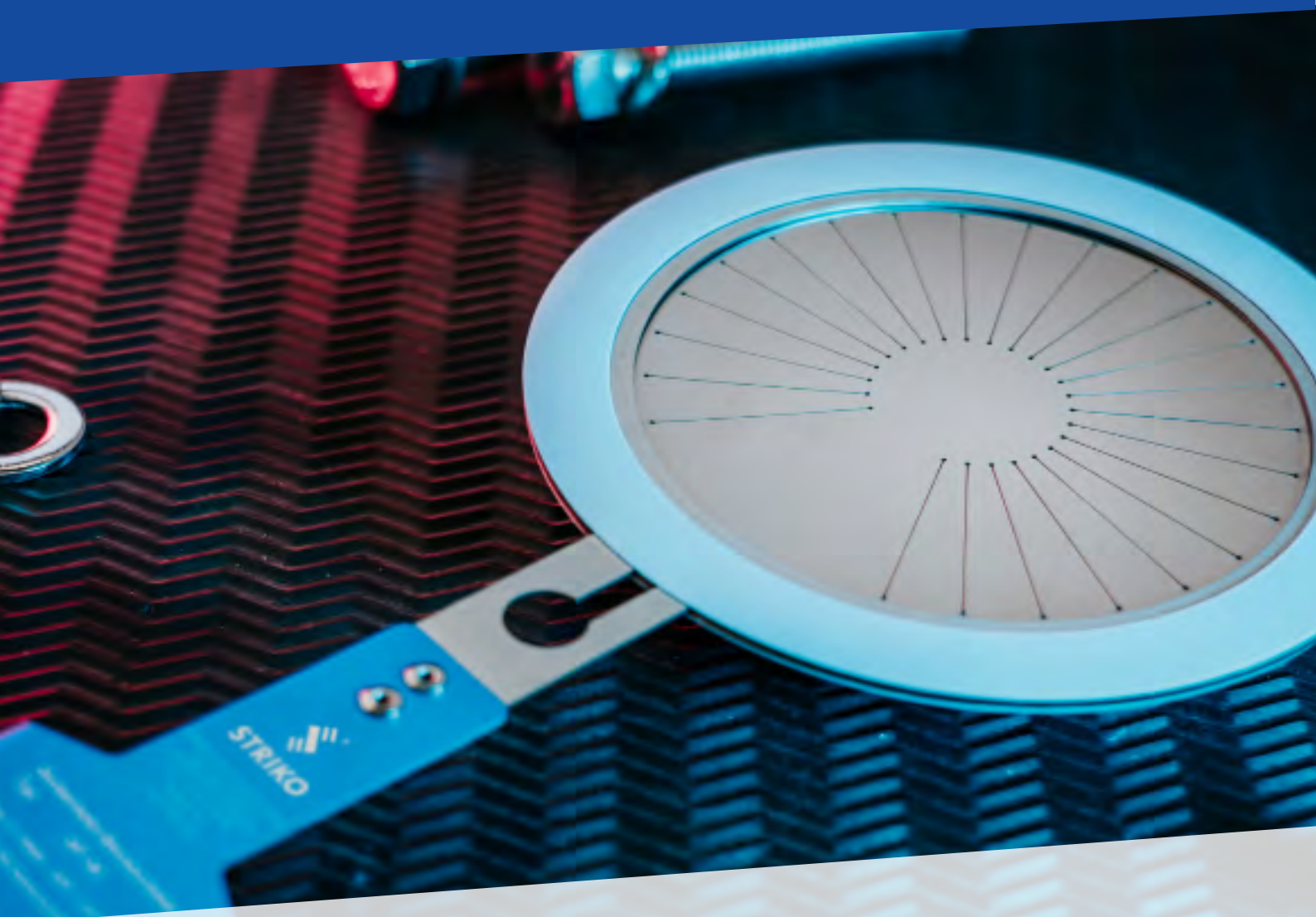




**STRIKO**  
VERFAHRENSTECHNIK

**Rupture disc  
Static Mixer  
Heat Exchanger**



**You are Safe with STRIKO.**

# RUPTURE DISC

MADE OF METAL



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

The diverse rupture disc variants, made of metal and non-metal materials, cover a comprehensive range of nominal widths, bursting pressures and operating temperatures. Therefore, STRIKO rupture discs 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 discs, 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 disc 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:

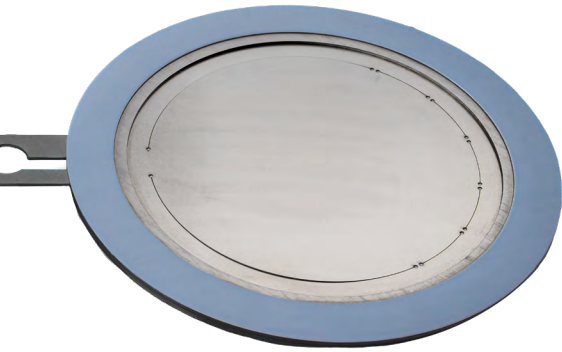
- exact response within few milliseconds
- 100 % sealing
- high-quality materials
- minimum maintenance costs
- short periods of exchange

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



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

RUPTUREDISC@STRIKO.DE



#### **STRIKO Composite Rupture Discs**

**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 Disc**

**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 Discs**

**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 DISC

MADE OF METAL



## STRIKO Aseptic Rupture Discs

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 disc
- 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 Discs

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 Disc 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", 3/4", 1/2", 1/4" - further on demand
- operating ratio: up to 80 %





# RUPTURE DISC

MADE OF GRAPHITE



## STRIKO Graphite Rupture Disc Series: G2

- flat graphite rupture discs
- 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 Disc Series: G3M/G3A

- monoblock graphite rupture discs
- 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 discs of the series G2 is available in graphite, stainless steel 1.4571 or special materials such as Hastelloy®, Inconel® or with PTFE liner

# RUPTURE DISC

## HOLDER



### **STRIKO StandardHolder**

**Series: SHF / SHZ / SHU**

- metal seal between rupture disc 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**

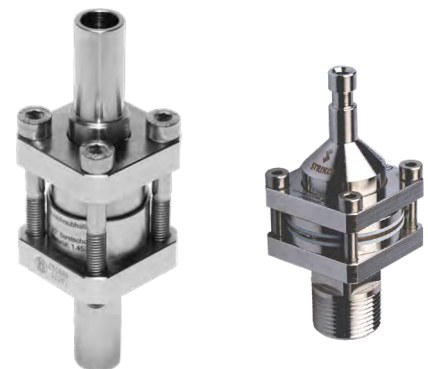
- force-closed preload and metal sealing between rupture disc and holder (SHZ Pro / SHU Pro) enable an easy and safe assembly
- centre bores for flange bolts
- possible reinstallation of the closed rupture disc holder system e.g. after visual inspection
- nominal diameters: DN20 up to DN400
- available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



# RUPTURE DISC

## BURST INDICATOR



### **Burst Indicator SVT 02 Leakage Sensor SVT 05**

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



### **Inductive Proximity Switch**

- for signaling the response of rupture disc
- cost-effective rupture indication in case of frequent response of the rupture disc
- 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

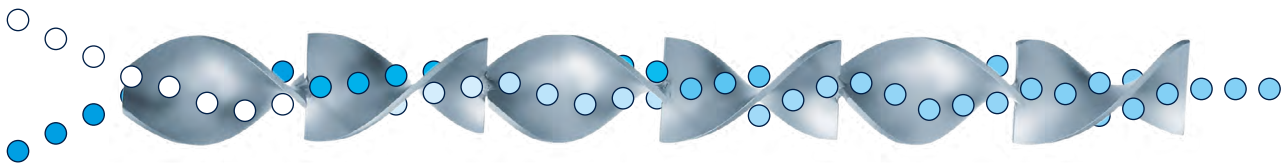


Static mixers of the enterprise STRIKO are applied successfully to a wide range of process operations in various industrial branches including mixing, dispersion, emulsion, heat exchange and reaction. The use of static mixers stands for lowest investment and operating costs being attributed to the fact 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.



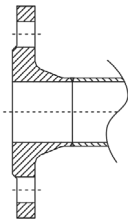
Following the below e-mail address will keep  
you in contact with us at any time:

MIXER@STRIKO.DE

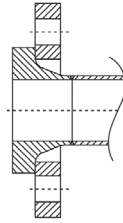


## CONNECTIONS

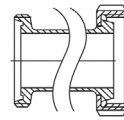
STRIKO offers almost unlimited possibilities concerning the installed mixer connections – always according to specifications and upon customer's request. Individually required solutions can be realized with regard to flanges, screw joints, clamps and weld preparation.



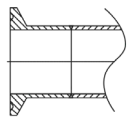
e.g. fixed flange acc. to-  
DIN EN 1092-1 type 11



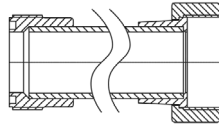
e.g. lose flange acc. to  
DIN EN 1092-1 Typ 04



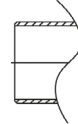
e.g. screw connections  
acc. to DIN 11851



e.g. clamp stub acc. to  
ISO 2852



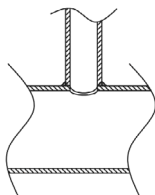
e.g. GF screw connections  
for plastics



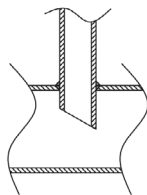
weld preparation e.g.  
for big dimensions

## DOSING POINTS

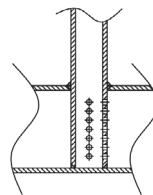
STRIKO offers various possibilities, also in the range of dosing points. In dependence on the respective application, when dimensioning the static mixers, the optimum variant will be selected so that the static mixer in its entirety, consisting of dosing point and mixing elements, achieves the required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



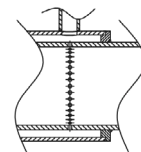
T-piece



centerline



dosing lance



ring dosing

# MIXING ELEMENTS

## Helical / K-Helical

nominal diameters:  
Helical: DN3 - DN100  
K-Helical: DN100 - DN2000

the universal mixer



## STX

nominal diameters:  
DN10 - DN2000

the viscous mixer



## STV

nominal diameters:  
DN25 - DN2000

the gas mixer



## EREstat®

nominal diameters:  
DN15 - DN500

the two-phase mixer



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



Helical / K-Helical by STRIKO are statically working inline mixer types for mixing low to high viscous to high 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



The static mixer type STX has been designed for mixing higher-viscous media up to extremely 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



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 NO<sub>2</sub>
- admixing of finely dispersed fluids in high-volume gas flows



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

**examples of application:**

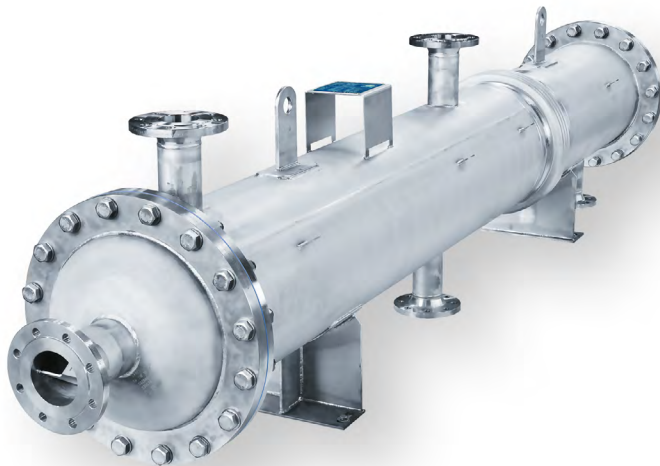
- gas/fluid applications
- food sector

# HEAT EXCHANGER



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



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

HEATEXCHANGER@STRIKO.DE



## 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



# How you can reach us

Rupture Disc  
[rupturedisc@striko.de](mailto:rupturedisc@striko.de)

Static Mixer  
[mixer@striko.de](mailto:mixer@striko.de)

Heat Exchanger  
[heatexchanger@striko.de](mailto:heatexchanger@striko.de)

## where you find us



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You are safe with STRIKO.



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