



Safety shields for flange joints

RIZUR-F-KZ

Intended use and application area

RIZUR-F-KZ safety shields for flange joints are manufactured in accordance with Technical regulations TU-3442-001-12189681-2014. Safety shields are mounted onto the flange joints of the pipelines, gate valves, and other pipeline valve equipment. They are designed for the transportation of the chemically aggressive high-temperature media as well as high-pressure media.

The safety shields are designed for the improvement in the industrial safety level, as they protect the personnel and equipment, as well as the environment, from the consequences of the emergency spillage and seepage of the pumped fluid or the depressurization of the flange joints. Apart from that, RIZUR-F-KZ safety shields protect the flange joints themselves from the negative environment impacts, thus prolonging their service life.

RIZUR-F-KZ safety shields are manufactured for use with flanges of all diameters. Their application area is explosion-hazardous areas of the indoor and outdoor facilities in accordance with the specified marking, industry safety requirements, and the recommendations of the manufacturer. The operational safety of the RIZUR-F-KZ in the explosion-hazardous areas is confirmed by the Customs Union Certificate of Conformity «On Safety of Equipment for Work in Explosive Environments» № TC RU C-RU.ME92.B.00041/19.

Main characteristics

- reliable protection of personnel from the media spillage and high temperatures impact;
- repeated use;
- easy and quick mounting and maintenance;
- decrease in workplace injuries;
- flange joint protection from the environmental impacts;
- service life of up to 30 years.

Types of design variants of RIZUR safety shields

Safety shield RIZUR-F-KZR

Safety shield of RIZUR-F-KZR type is used on pipelines transporting high temperature, aggressive media (acids, alkalis, liquid reagents, oil products, etc.) as well as high-pressure media.

Application area - the protection of the personnel against spillage of the chemicals, high-temperature liquids, and high-pressure media in the case of the depressurization of the flange joints.

RIZUR-F-KZR are manufactured from different materials depending on the peculiarities of the technological process and the customer's requirements.

■ **RIZUR-F-KZR-M metal safety shield** has different design variants depending on the material used: stainless steel(standard), zinc-plated steel, etc. On request, the safety shield can be painted any color.

RIZUR-F-KZR-M can be equipped with fittings and flexible lines of an emergency discharge system to divert hazardous liquids from safety shields to a safe space.

Distinctive features:

- operating temperature: -60°C...+630°C;
- high reliability;
- durability;
- high corrosion resistance (depending on the material used).



Metal safety shield without sides (Type 1)



Metal safety shield with sides (Type 2)

Textile safety shield RIZUR-F-KZR-T

■ **RIZUR-F-KZR-T** textile safety shield can be manufactured from different fabrics (PVC-fabric, glass fiber cloth with silicon or fluoroplastic coating, etc.) The textile safety shields are used for protection from media spillage. They are mounted to the pipeline flanges and valve units used for liquid compounds and chemical media.

Benefits:

- operating temperature: -70°C...+ 190°C, +260°C, +350°C, +450°C (depending on the material);
- high breaking load;
- low cost.

■ **Polymer safety shield RIZUR-F-KZR-P** can be made from different polymer materials such as glass fiber plastic, polyethylene, etc.

Polymer safety shield RIZUR-F-KZR-P made of polymer materials have excellent technical and performance specifications. The materials have high durability, long service life, biological and chemical stability, as well as low heat conductivity. They're also good dielectrics and resistant to decay.

Distinctive features:

- operating temperature: -70°C...+80°C;
- high durability;
- resistant to decaying and corrosion.



Textile safety shield



Polymer safety shield

Safety shield RIZUR-F-KZZ

RIZUR-F-KZZ safety shield for flanged joints is used in the pipelines transporting the media at high temperatures.

Its intended use is to protect personnel from high-temperature hazardous impacts (burn injuries) and spillage of hazardous media, as well as to reduce heat loss. RIZUR-F-KZZ safety shield is a «sandwich» design that includes an external covering, a thermal insulator, and an internal covering.

RIZUR-F-KZZ can be made of different materials depending on the peculiarities of the technological process and the customer's requirements.

Distinctive features:

- operating temperature: -70°C...+80°C, +110°C, +260°C, +350°C, +450°C, +1200°C (depending on the materials used);
- energy loss reduction up to 95%;
- high breaking load;
- low cost.



Insulated textile safety shield

Safety shield RIZUR-F-KZA

RIZUR-F-KZA safety shield is used in the pipelines transporting different aggressive media (acids, alkalis, liquid reagents, oil products, etc.) and is designed to prevent unauthorized access to the flange joints and blind flanges.

The safety shield is made of metal (zinc-plated steel, stainless steel) and can be painted any color upon the customer's request. To provide protection from unauthorized access, the safety shield is equipped with locks.

A safety shield has a perforated surface to enable visual control of the blind flange location without opening the shield.



Metal perforated safety shield

Order code for the safety shields for flange joints

RIZUR-F-KZ

Ordering information:

RIZUR-F-KZ-R-MN/15-N-165/80/130-2-3-0-200

1 2 3 4 5 6 7 8 9

1. Model	
RIZUR-F-KZ	Safety shield
2. Application	
Z	Heat insulation
R	Spillage protection
A	Unauthorized access protection (manufactured from perforated metals)
3. Design variants depending on the material used	
Textile	
TP	PVC-fabric
TS	Fiberglass with double-sided silicon coating
TF	Fiberglass with a fluoroplastic coating
TL	Polypropylene
TX	Other fabric (specified in writing outside the order code)
Metal	
__/XX	Choice of material
MN	Stainless steel (unpainted on default)*
MO	Zinc-plated steel(unpainted on default)*
MC	Carbon steel (with polymer powder coating and red color on default)*
MX	Other metal (specified in writing outside the order code)
* in case the product needs to be painted, color code RAL should be specified in writing outside the order code	
XX/__	Choice of thickness (for metal shields only)
12	Thickness of 1,2 mm
15	Thickness of 1,5 mm
20	Thickness of 2 mm
X	Other (specified in writing outside the order code)
Polymer materials	
PS	Fiberglass
PP	Polyethylene

4. Heat insulation	
U	Available (except for RIZUR-F-KZA)
N	Not available
5. Flange joint dimensions	
XX / __ / __	Specify the external diameter of a flange joint in mm, H
__ / XX / __	Specify the external diameter of the pipeline in mm, P
__ / __ / XX	Specify the width of a flange connection (with screws) in mm, L
* If both the safety shield and the pipeline have heat-insulation, then one should specify the external diameter and the distance from the screws to the coating. In case the flange joint is used for two tubes of different external diameters, then both should be specified, e.g. 150-129	
6. Safety shield type	
0	For non-metal shield
1	Type 1 - protection is installed only around the external diameter of the flange (without sides)
2	Type 2 - protection is installed around the external diameter and on the sides
7. Locking system	
V	Velcro strips
T	Tightening straps
S	Self-tightening lock
M	Metal clamp for use with screwdrivers
O	Holes for installing locks (standard design variant allows 3 locks to be installed)
XX	Other (specified in writing outside the order code)
Note: L or P versions can be used with textile shields only. Z or H variants can be used with metal shields only.	
8. Service openings	
0	Without openings
C	Drain adapter (for metal shields only)
9. Ambient temperature	
XX	Operating temperature, °C
10. Additional options	
C	The necessity of painting. Color code RAL should be specified in writing outside the order code.