CRP SERIES

ChemValve-Schmid Americas

SAFETY SHIELDS

PROTECTING PERSONNEL, PROCESS EQUIPMENT, AND THE ENVIRONMENT

Safety Shields are designed to minimize the impact of a leak or loss of containment from a piping system's flanged connection, bellows, or valve because of pressure dissipation. In the event of a small leak, the temporary containment provided by the safety shields provides valuable time to detect the leak and take proactive measures before it becomes more serious. The design of the safety shield is to reduce the effect of the system line pressure and route the leak along the piping rather than directly at plant personnel.

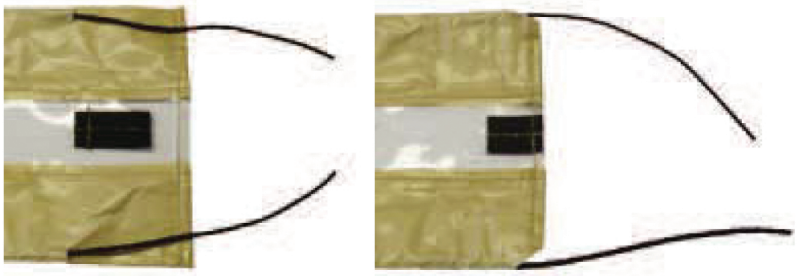
Safety Shields can act as a key improvement component of a risk reduction program when used with equipment that is conveying or isolating hazardous materials, high temperature fluids or flammable products. They can assist with achieving the safety requirements of the PED *(Pressure Equipment Directive)*.

The use of safety shields can be throughout a process facility where there is a high level of risk associated with handling corrosive or dangerous substances or specific to piping that is transferring hazardous materials in locations that are above or alongside personnel walkways.

CONSTRUCTION

All of the fabric shields come with Velcro fastenings securely sewn onto the shield fabric. This enables one person to wrap the shield around the flange connection and complete the fastening in a short time.

Well retained drawcords give an easy means of closing the shield. Once wrapped around the components the safety shield can be securely tied using the drawcords and a simple reef knot enabling installation by one person in less than a minute.



Cross the right over left | Then under | Cross the left over right | Then under | Pull ends to tighten

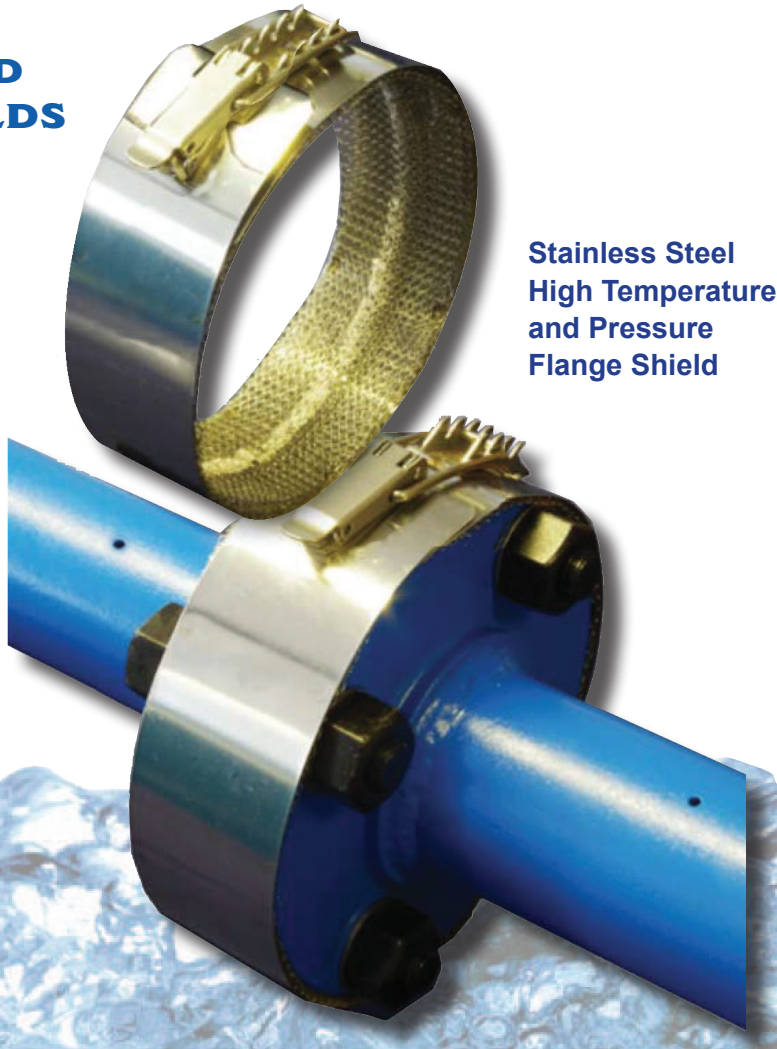
VALVE SHIELDS

As a universal choice for valve shields we recommend the PTFE woven glass cloth shield with a clear high temperature FEP viewing window. Valve shields are available for all types of valve including ball, check, butterfly, gate, plug, diaphragm, control and globe with bonnet shields available for gate and globe valves to enable operation. Shields are also available for covering instrumentation, actuators and electronics to protect them from local atmospheric conditions. Because valve dimensions vary from manufacturer to manufacturer even on the same style of valve it is necessary to provide information on the specific valve types to be protected.

PTFE coated Valve Shield for a Ball Valve

HIGH TEMPERATURE AND PRESSURE FLANGE SHIELDS

For an 1100^{o}C and 200 Bar performance there is a 316 stainless steel shield available.
The stainless steel band securely clamps around the flange (different widths are available). A layer of stainless steel netting around the inside diameter of the shield dissipates any pressurised spray by directing it around the flange circumference. This shield is again designed for fitting without tools, has smooth corners to avoid sharp edges and is designed for the flange bolting to remain visible when fitted.



Stainless Steel High Temperature and Pressure Flange Shield

FLANGE SHIELDS

Flange shields are available as standard for ASME and DIN flanges for all popular nominal bores and can be manufactured for sizes up to 40 inches (DN 1000).

The most universal and popular product comprises two layers of woven PTFE coated fibreglass cloth for the side pieces and a high temperature FEP viewing window. The draw cords and sewing threads are manufactured from Nomex® the flame resistant metaaramid. The viewing strip enables complete visual inspection and the product is fire, tear and UV resistant with a continuous operating temperature of 200°C, and near universal chemical resistance.

A product option is to have a PTFE drain attached. This can route any leak to site containment using PTFE tubing as a push fit. This is popular in high traffic areas or where sensitive electronic equipment is in the vicinity. Alternatively it can act as a drain for leaks, a vent for rainwater or moisture or as an emissions test port. It is also possible to fit pH indicator paper to indicate the presence of acids or alkalis.

Universal PTFE coated Flange Shield

Flange Shield fitted with PTFE Drain

BELLOWS SHIELDS

The shield style for bellows is a double layer PTFE coated woven fibreglass cloth, with a clear high temperature FEP viewing window. The FEP provides nearly universal chemical and UV light resistance and a 200°C upper performance. As standard these are available for 2-5 convolution bellows with ASME or DIN flanges in all nominal bores up to 40 inches (DN 1000).

As non-metallic bellows generally only have a single layer of PTFE or rubber between the media and the outside world and as by definition they are subject to flexible movement throughout their lives. We strongly recommend safety shields on bellows applications. These shields are suitable for PTFE, rubber and metallic bellows and are of course designed to function with the range of movements expected in the bellows.

Universal PTFE coated Bellows Shield

Distributed By:

This information is for general purposes only and CRP believes the literature to be accurate. Nothing contained herein is to be construed as a warranty or guarantee, express or implied, regarding any matter with respect to this product.

© 2024 ChemValve-Schmid Americas LLC
Destin, FL, USA All Rights Reserved

ChemValve-Schmid Americas L.L.C.
34990 Emerald Coast Parkway
Suite 367
Destin, FL 32541
USA
850-842-0045

chemvalve-schmid-americas.com
sales@chemvalve-schmid-americas.com