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MANUFACTURING
COMPANY
INC.

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WHO IS RAMCO?

Ramco is the worldwide leader in the manufacturing and supply of Safety Shields used to protect personnel from injury and equipment from damage in the event of a piping connection spray-out due to gasket, packing or connection failure.

Ramco manufactures the Safety Shields out of the highest quality materials and maintains the highest quality manufacturing standards in accordance with our ISO 9001:2008 Certification.



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What are Safety Shields?

Safety shields are protective devices manufactured out of multiple material types that are installed around piping connections to control the release of materials when a connection fails.

Safety Shields perform multiple functions by controlling the spray-out

1. Protect personnel from injury
2. Prevent damage to equipment
3. Detect leaks through a pH indication patch or visual
4. Reduce the clean up area after a material release



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What are common Industries for Safety Shields?

Safety shields are commonly installed on the following industries

PetroChemical
Oil & Gas
Marine
Aerospace
Power Generation
Mining

SemiConductor
Automotive
Pulp & Paper
Water/Wastewater
Food & Beverage
Pharmaceutical



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What are common applications for Safety Shields?

Safety shields are commonly installed on the following connections

Flanges
Flanged Valves
SW/TH Valves
Expansion Joints
Flowmeters
Pumps

Unions
Couplings
Tees
Elbows 90/45
Sight-glasses

Valve Bonnets
Camlock Connections
Hoses
Manway Covers
Y-Strainers
Pressure Relief Valves



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What Safety Shields are available

Safety shields are available in the below materials

EconoGards

PolyVinyl- Red/ White/ Yellow/ Clear

Polyethylene- Brown/ Translucent

SpraGards

Polypropylene-Black

Polypropylene (VUE)-Black with Clear

TFE Coated Fiberglass-Beige or Tan (most common)

TFE Coated Fiberglass(VUE)-Orange with Clear

Metal

Galvanized

304 or 316 Stainless Steel

304FM (Factory Mutual approved)

Spray Control

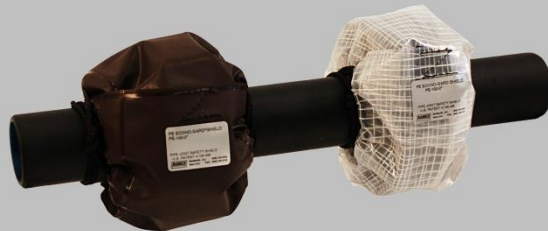
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What Safety Shields are available

Safety shields are available in the below materials

EconoGards



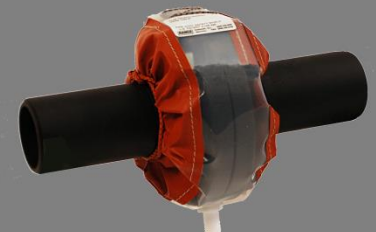
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What Safety Shields are available

Safety shields are available in the below materials

SpraGards



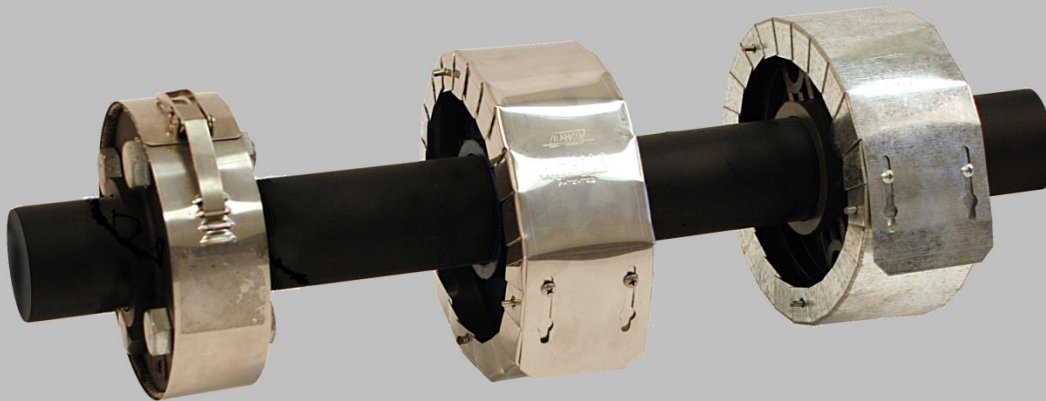
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What Safety Shields are available

Safety shields are available in the below materials

Metal Safety Shields



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How well do the Safety Shields work?



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Acid Detection Paint





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On Guard Detection Paint

Ramco offers the Acid/Base Detection Paint that is a visual detection system to help quickly identify leaks in piping connections where acids or caustics are present.

On Guard provides a physical color change so that operators, maintenance or other personnel can quickly identify a leak saving valuable time and money in locating the source of a leak versus using electronic detection devices.

Another unique property of the On Guard Detection Paint System is that after an “activation” or color change and the leaking component is fixed, the Acid or Base paint can be neutralized and it will return to its Neutral color ready to activate again.

This saves money by not having to re-coat the connection. We recommend no more than 3-4 exposures before repainting.

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Products in the On Guard family

Acid Detection Paint is available in Gallons, Quarts or Aerosol

Base Detection Paint is available in Gallons or Quarts

White Primer #315 is available in Gallons

Acid Spot'R is available in a Spray Pump Bottle

Base Spot'R is available in a Spray Pump Bottle

RTY Neutralizer is available in Spray Pump Bottle



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How does On Guard work?

ON Guard Detection Paint physically changes color due to a chemical change in the coating when it comes in contact with pH levels within the “activating” threshold.

The Acid Detection Paint is **YELLOW** in a neutral state and changes to **RED** when it comes in contact with liquid 3 pH or below.

The Base Detection Paint is **WHITE** in a neutral state and changes to **BLUE** when it comes in contact with liquid 10 pH or above.

White Primer #315 is a primer for use under the Acid/Base Detection paints that helps ensure adhesion to the surface and aids in the color change process.



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How does On Guard work?

Acid Spot'R and Base Spot'R is used by operators or maintenance to identify what could be hazardous material by spraying it with the Spot'R.

Acid Spot'R-if the sprayed liquid material is pH 3 or below the **YELLOW** spray instantly changes to **PURPLE**.

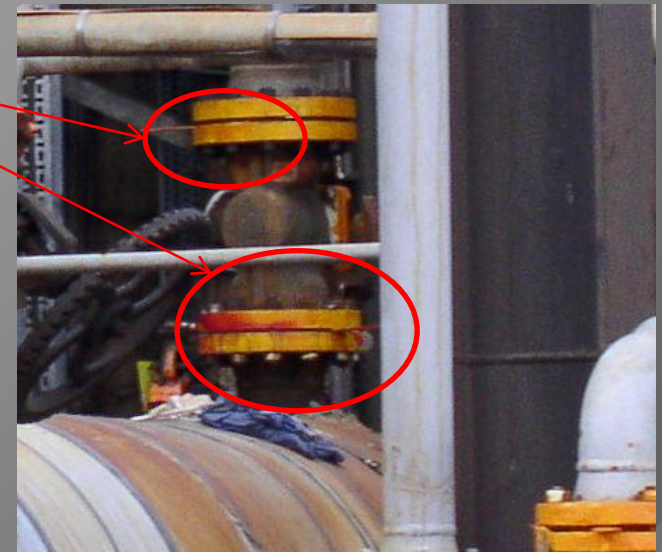
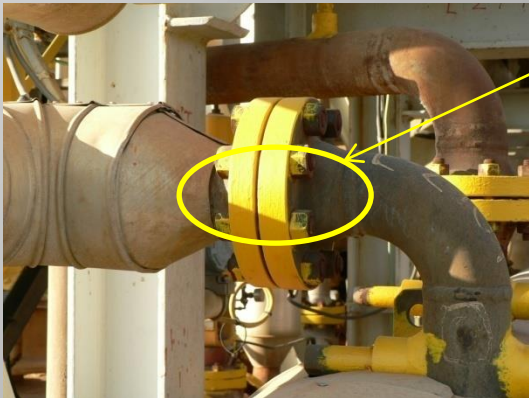
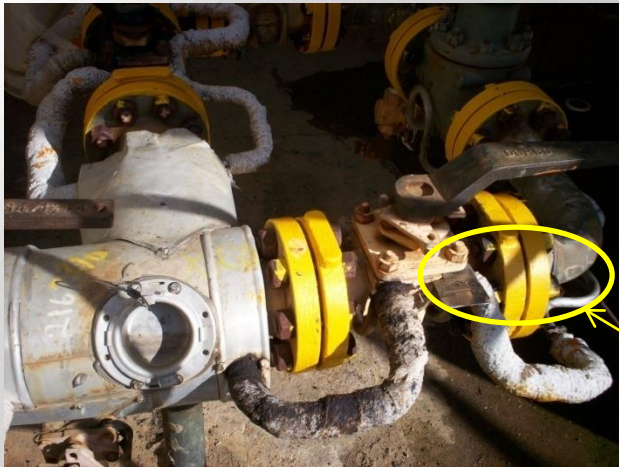
Base Spot'R-if the sprayed liquid material is pH 10 or above the spray instantly changes to **BLUE**.

RTY Neutralizer is a specially formulated liquid contained in a spray bottle that aids in the neutralization of material pH 3 and below so that it can be safely cleaned up as well as helping return the Acid Detection paint back to its neutral color of **YELLOW**.

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Acid Detection Paint



Safe Flange

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