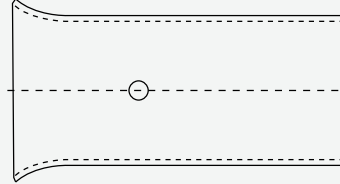


# EHB / EHG

## RUBBER BOOT AND SLEEVE

Rubber Boot EHB-32



Steel Protective Sleeve EHG-32

**Description:**

- Steel 'Trumpet' to be lightly crimped on the ferrule of a completed hose assembly
- The sleeve ensures that hose movement in the immediate vicinity of the hose tail is constrained, thus reducing potential damage to the inside liner of the hose in high impulse applications
- The rubber bellows provides a weather and dirt resistant seal around the end of the steel sleeve at the hose junction (see photo above)

**Materials and Specifications:**

- Plated steel sleeve and nitrile rubber boot

**Applications:**

- Common in large diameter spiral hose assemblies that are operating under high impulse loads eg. boom arch hoses on heavy mining equipment
- Interlock tails C62xEH fittings in conjunction with C42EH hose are the primary combinations requiring the use of these products within Pirtek

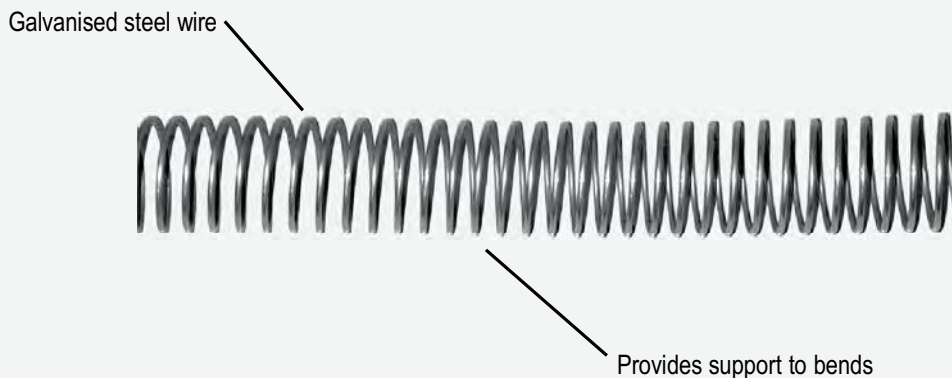
**Caution:**

Ensure the boot and sleeve are installed over the hose in the correct manner prior to crimping of the fitting. Retrofitting is not possible

| STEEL PROTECTIVE SLEEVE AND RUBBER BOOT |                  |   | Suits Hose Type & Dash Size |
|---|------------------|---|-----------------------------|
| Product Code                            | Description      | Function  |                             |
| EHG-32                                  | Steel Hose Guard | Steel Trumpet to enforce hose straightness near the fitting | C42EH-32                    |
| EHB-32                                  | Rubber Boot      | Rubber gaiter to provide weather protection to Hose Guard   | C42EH-32                    |

# FCS

## STEEL SPRING GUARD



### Description:

- Wound heavy gauge galvanised wire ideal for the protection of hose exposed to severe operating conditions
- The wire helps to distribute a bending radius on curved hoses, and reduces the likelihood of kinking
- Helps prevent abrasion and resists deep cuts

### Materials and Specifications:

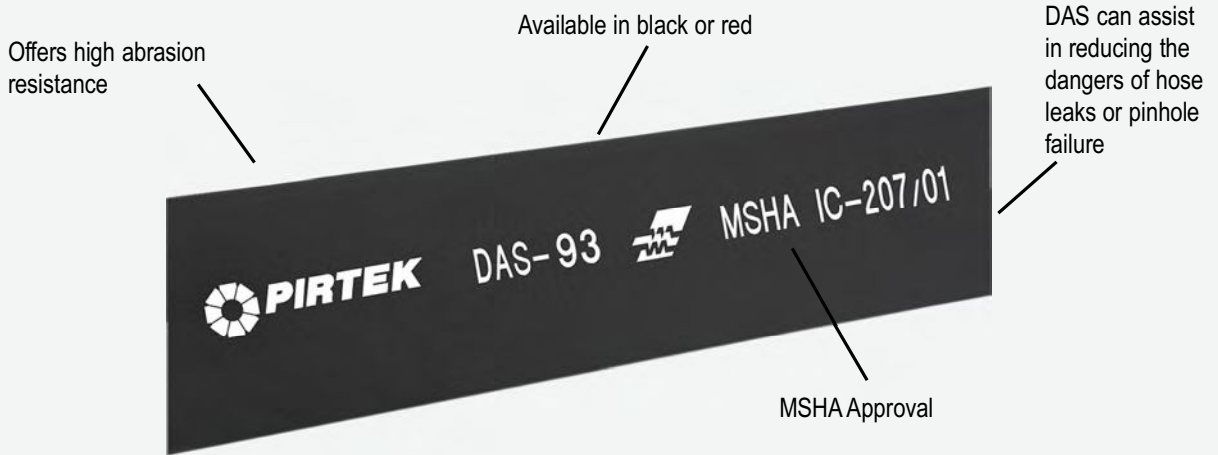
- Galvanised steel wire

### Applications:

- Common in quarries as protection from flying stones

| STEEL SPRING GUARD |               |      |        |       |              | Suits Hose Type & Dash Size  |          |            |            |            |
|--------------------|---------------|------|--------|-------|--------------|--|----------|------------|------------|------------|
| Product Code       | Dimensions mm |      |        |       | Box Quantity | R1AT   | R2AT     | C25 / PC25 | C35 / PC35 | C42 / PC42 |
|                    | ID            | OD   | Wire Ø | Pitch |              |  |          |            |            |            |
| FCS-01             | 10.8          | 13.2 | 1.2    | 5     | 4 x 5 m      | Intended for use with small diameter Synflex and STH hose          |          |            |            |            |
| FCS-02             | 13            | 15.2 | 1.2    | 5     | 4 x 5 m      | Intended for use with Bridgestone® hose PLT-04 (Komatsu® specific) |          |            |            |            |
| FCS-03             | 15            | 18.2 | 1.6    | 5.5   | 10 x 5 m     | -03, -04   | -03      |            |            |            |
| FCS-04             | 16            | 19.2 | 1.6    | 5.5   | 10 x 5 m     | -05  | -04      |            | -05        | -04        |
| FCS-06             | 20            | 23.2 | 1.6    | 5.5   | 8 x 5 m      | -06  | -05, -06 |            | -06        |            |
| FCS-08             | 23.5          | 27.5 | 2      | 6     | 6 x 5 m      | -08  | -08      |            | -08        | -06        |
| FCS-10             | 26.5          | 30.5 | 2      | 6     | 5 x 5 m      | -10  | -10      | -10        |            |            |
| FCS-11             | 30            | 34   | 2      | 6     | 5 x 5 m      | -12  |          | -12        | -10, -12   |            |
| FCS-12             | 33            | 37   | 2      | 6     | 4 x 5 m      |  | -12      |            |            | -12        |
| FCS-14             | 38            | 43   | 2.5    | 7.5   | 4 x 5 m      | Used in conjunction with DAS sleeve on -12 sizes                   |          |            |            |            |
| FCS-16             | 41            | 46   | 2.5    | 7.5   | 4 x 5 m      | -16  | -16      | -16        | -16        | -16        |
| FCS-20             | 48.5          | 53.5 | 2.5    | 7.5   | 3 x 5 m      | -20  | -20      | PC25-20    | PC35-20    |            |
| FCS-24             | 54            | 59.6 | 2.8    | 9     | 3 x 5 m      | -24  |          | C25-20     | C35-20     | -20        |
| FCS-30             | 59.5          | 65.1 | 2.8    | 7.5   | 3 x 5 m      |  | -24      | -24        | -24        | -24        |
| FCS-32             | 69            | 75.3 | 3.15   | 8     | 1 x 5 m      | -32  | -32      |            |            |            |
| FCS-36             | 75            | 81.3 | 3.15   | 7.5   | 1 x 5 m      |  |          |            | C35-32     | C42EH-32   |

# DAS DIFFUSION ABRASION SLEEVE



### Description:

- Black or red textile (Polyamide 6) sleeve for the assistance in protection of people and machinery via protection and bundling of hose, hose assemblies, cables, wires etc.
- Dense yet not bulky protection is achieved through
  1. protection of the encased product from abrasion
  2. being very effective in reducing the concentrated stream of pin hole leaks
- Burst resistant
- The smooth surface facilitates sliding over even very long assemblies, and use of talcum powder or compressed air will further facilitate the process
- Offers good leakage containment in the event of hose failure

### Materials and Specifications:

- De-aerated compact woven nylon fibres (Polyamide 6)
- In test conditions the sleeve contained the sharp stream of hydraulic oil passing through a 0.8 mm Ø pre-drilled hole when the pressure was raised to 800 bar and held for 1 minute
- Abrasion resistance exceeds the requirements of ISO 6945 (holds up to 50,000 cycles)
- Oil retention capability of 8 bar pressure for 15 seconds when tested to SAE J343
- Approved by USMSHA for the use in mines. Approval No. IC-207/01
- Exceeds the electrical conductivity requirements of ISO 8031 (between 3 and 5 x 10<sup>6</sup> Ohm/metre)
- Working temperature -40°C to 100°C
- Melting point 210°C to 220°C

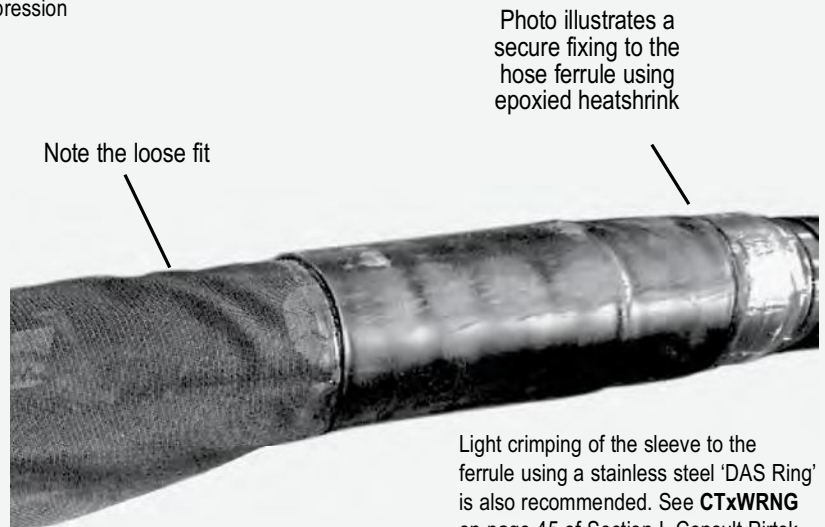
### Applications:

- Widely used as abrasion protection wherever hoses and cables may be exposed to damage through rubbing
- Gaining widespread acceptance as an effective (though not total) barrier to the dangers of hydraulic hose leaks in the vicinity of personnel, especially in underground coal mining
- Additional protection can be achieved using two layers of DAS sleeve
- The sleeve must be securely fixed to the ferrule of the hose fitting if effective protection is to be achieved at the hose to fitting interface. Epoxied heat shrink is preferred, although other methods may be adopted
- A loose fit is preferred when seeking to gain protection against a hose leak



**IMPORTANT SAFETY NOTE:**  
Diffusion Abrasion Sleeve (DAS) is a diffusion device and conditionally a burst suppression device

| PIRTEK DIFFUSION ABRASION SLEEVE |           |               |         |                  |
|----------------------------------|-----------|---------------|---------|------------------|
| Product Code                     |           | Nominal ID mm |         | Coil Length<br>m |
|                                  |           | Flat          | Round Ø |                  |
| Black                            | Red       |               |         |                  |
| DAS-20                           | DAS-20RD  | 31            | 20      | 50               |
| DAS-25                           | DAS-25RD  | 39            | 25      | 50               |
| DAS-31                           | DAS-31RD  | 49            | 31      | 50               |
| DAS-40                           | DAS-40RD  | 63            | 40      | 50               |
| DAS-53                           | DAS-53RD  | 83            | 53      | 50               |
| DAS-60                           | DAS-60RD  | 94            | 60      | 50               |
| DAS-73                           | DAS-73RD  | 115           | 73      | 50               |
| DAS-93                           | DAS-93RD  | 146           | 93      | 50               |
| DAS-112                          | DAS-112RD | 176           | 112     | 50               |



# SSG / FRASG

## SPIRAL SAFETY GUARD AND FRAS GUARD



### Description:

- Flame retardant high density polyethylene with a domed centre and rounded edges strip wound
- An ideal and economical hose wrap for individual hoses or for use in bundling
- Available as normal fire resistant safety wrap, and also in an approved fire resistant and anti-static (FRAS) form for use in underground coal mines
- UV resistant
- Rounded edges prevent industrial injury
- Can be retrofitted on site to existing hoses and bundles while in place
- Self lubricating properties
- Exceptional anti-crushing and abrasion resistance

### Materials and Specifications:

- High density polyethylene copolymer
- ASTM D792 density 1.03 g/cm<sup>2</sup>
- ASTM D648 temperature 103°C
- ASTM D2863 Oxygen Index 26%
- International compliance to EN ISO 6805 tests 8030 and 8031
- FRAS version Approval No. MSHA IC-213/2
- *Not approved for use on electrical cables*
- Working temperature -100°C to +100°C
- Vicat softening temperature +130°C (Pin Penetration Test)

### Applications:

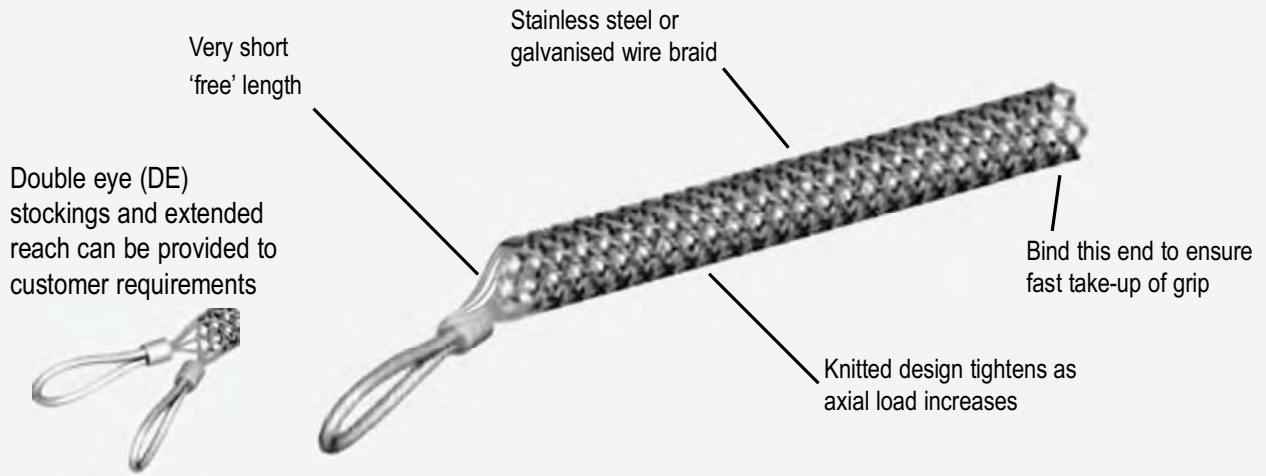
- Agricultural equipment
- Mining and quarrying
- Oil and gas distribution
- Forestry (colour coding available to order)
- Welding hose protection
- Robotic arms and booms
- Transport
- *Not approved for use on electrical cables*

| PIRTEK SAFETY SPIRAL GUARD & FRAS GUARD |             |               |     |             |      | Hose Dash Size                        | Hose Type |     |     |       | Range of Hose OD |
|---|-------------|---------------|-----|-------------|------|---------------------------------------|-----------|-----|-----|-------|------------------|
| Product Code                            |             | Dimensions mm |     | Coil Length | R1AT |                                       | R2AT      | C35 | C42 |       |                  |
| Safety Spiral                           | FRAS Guard  |               | OD  | ID          | m    |                                       |           |     |     | mm    |                  |
| Black                                   | Black       | Red           |     |             |      |                                       |           |     |     |       |                  |
| SSG-012BL                               | -           | -             | 12  | 8.5         | 20   | -03                                   | •         | •   |     | 9-12  |                  |
| SSG-016BL                               | FRASG-016BL | -             | 16  | 13          | 20   | -04                                   | •         | •   | •   | 12-17 |                  |
| SSG-020BL                               | FRASG-020BL | -             | 20  | 16          | 20   | -04 to -08                            | •         | •   | •   | 16-22 |                  |
| SSG-025BL                               | FRASG-025BL | -             | 25  | 21          | 20   | -08 to -10                            | •         | •   | •   | 22-28 |                  |
| SSG-032BL                               | FRASG-032BL | FRASG-032RD   | 32  | 27          | 20   | -12                                   | •         | •   | •   | 27-33 |                  |
| SSG-040BL                               | FRASG-040BL | FRASG-040RD   | 40  | 35          | 20   | -16                                   | •         | •   | •   | 33-42 |                  |
| SSG-050BL                               | FRASG-050BL | FRASG-050RD   | 50  | 44          | 20   | -20 to -24                            | •         | •   | •   | 42-55 |                  |
| SSG-063BL                               | FRASG-063BL | FRASG-063RD   | 63  | 57          | 20   | -24 to -32                            |           | •   | •   | 52-65 |                  |
| SSG-075BL                               | FRASG-075BL | FRASG-075RD   | 75  | 66          | 20   | -32 to -40                            | •         | •   | •   | 65-80 |                  |
| SSG-090BL                               | FRASG-090BL | -             | 90  | 79          | 20   | Hose bundles 80 mm to 150 mm diameter |           |     |     |       |                  |
| SSG-110BL                               | FRASG-110BL | -             | 110 | 99          | 10   | Hose bundles above 150 mm diameter    |           |     |     |       |                  |



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# GRIP-CHEK BRAIDED STEEL WIRE STOCKING



**Description:**

- Hand made stainless steel or galvanised wire mesh stocking designed to afford maximum grip to a rubber hydraulic hose assembly in the event of fitting failure, thereby minimising uncontrolled whip of the assembly
- Developed to industry requirements in response to increasing demand for higher safety levels in underground mining applications
- Reusable many times (subject to a maintenance schedule)

**Materials and Specifications:**

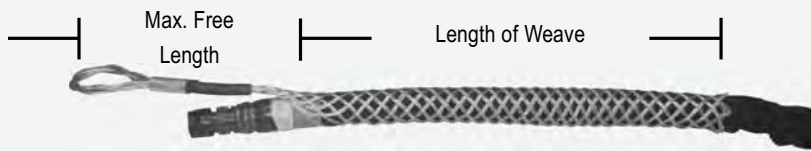
- Stainless steel or galvanised wire strands in various configurations to achieve strength requirements
- Copper ferrules (stainless steel on request)
- Special configurations such as double looped ends and extended reach can be provided to order (**DE** as a suffix signifies double ended types with alloy ferrule. Copper and stainless steel ferrules are available on request)

**Applications and Notes:**

- Can be used in conjunction with Diffusion Abrasion Sleeve (DAS)
- Provides a closer and stronger grip on the hose than is possible with whip checks
- enables almost direct restraint along the longitudinal axis of the hose to minimise uncontrolled flailing of the hose end

**Installation:**

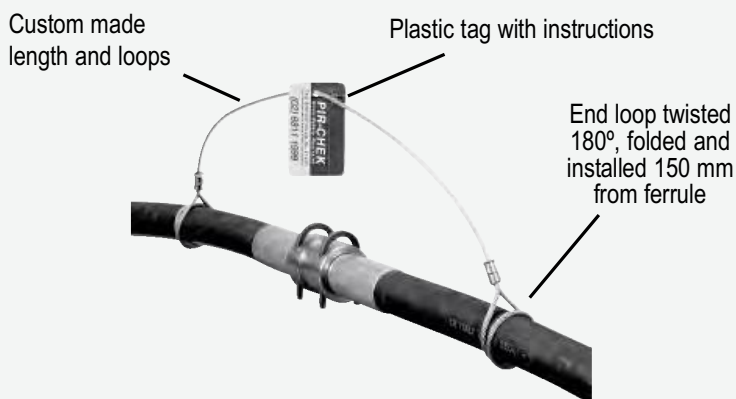
- Bind the free end of the weave tightly with tape to ensure a more rapid grip response where initial slipping may otherwise occur
- Must always be affixed to a suitable load bearing attachment point - NOT hose to hose (use Pir-Chek for hose to hose restraint - see page 73)
- The use of Pir-Chek is preferred in the hose size ranges from DN6 to DN20 (-04 to -12. Refer page 73
- Shackle strength to exceed rated wire breaking strain
- 13 to 40mm "slack" over shackle bolt is recommended. It must not be tight to the shackle bolt



| GRIP-CHEK                |                 |                 |                  |             |                 |                                   |               |                                |                             |               |
|--------------------------|-----------------|-----------------|------------------|-------------|-----------------|-----------------------------------|---------------|--------------------------------|-----------------------------|---------------|
| Product Code             |                 | Dimensions mm   |                  |             |                 | Strands in Weave & Wires / Strand | Total Strands | Aggregate Wire Breaking Strain | To Suit Pirtek Hose Product |               |
|                          |                 | Suits Outside Ø | Max. Free Length | I.D. of Eye | Length of Weave |                                   |               |                                | Medium Pressure             | High Pressure |
| Galvanised               | Stainless Steel |                 |                  |             |                 | Qty. x No.                        | No.           | kN                             | R2AT / 2SC                  | C35 / C42     |
| GRIP-CHEKGAL-25          | GRIP-CHEKSS-25  | 34 - 44         | 460              | 62          | 650             | 6 x 3                             | 18            | 53.1                           | R2AT-16                     | -16           |
| GRIP-CHEKGAL-32          | GRIP-CHEKSS-32  | 45 - 55         | 515              | 62          | 650             | 6 x 3                             | 18            | 53.1                           | R2AT-20, R2AT-24            | -20           |
| GRIP-CHEKGAL-40          | GRIP-CHEKSS-40  | 56 - 66         | 640              | 75          | 650             | 6 x 3                             | 18            | 75.1                           | -                           | -24           |
| GRIP-CHEKGAL-50          | GRIP-CHEKSS-50  | 67 - 82         | 720              | 95          | 650             | 6 x 3                             | 18            | 75.1                           | R2AT-32, 2SC-40             | -32           |
| GRIP-CHEKGAL-63          | GRIP-CHEKSS-63  | 83 - 100        | 780              | 100         | 650             | 6 x 3                             | 18            | 108                            | 2SC-48, JBF-40              | -             |
| <b>Double Eye Styles</b> |                 |                 |                  |             |                 |                                   |               |                                |                             |               |
| GRIP-CHEKGAL-10-DE       |                 | 19 - 28         | 190              | 15          | 500             | 6 x 2                             | 12            | 38                             | Polyflex-06                 | -             |
| GRIP-CHEKGAL-13-DE       |                 | 28 - 40         | 230              | 18          | 600             | 6 x 2                             | 12            | 57                             | -                           | WB1100-08     |
| GRIP-CHEKGAL-50-DE       |                 | 60 - 70         | 330              | 22          | 900             | 6 x 2                             | 12            | 100                            |                             | IRSAB-051     |

# PIR-CHEK

## PIRTEK WHIP CHECK FOR HOSES



Also available in Retrofit styles  
**PIR-CHEK-X-R**  
**PIR-CHEK-X-R-D**

### Description:

- A specially fabricated high strength wire assembly (4 mm or 6 mm stainless steel) designed to prevent uncontrolled flaying of a hose in the event of fitting blow off or accidental disconnection
- For effective implementation, each assembly must be custom made to suit the specific requirements ) including Retrofit styles
- Products have been tested by Test Safe Australia for use at 450 bar working pressure and flow rates to 400 litres per minute (dependent on hose diameter)
- A durable plastic tag with installation instructions is attached to each cable
- Customer specific colour codes and other information can be added on request

### Materials Specifications:

- Available in 2 gauges of stainless steel high strength 4 mm or 6 mm wire
- Terminating loops sized to suit hose type and ferrule dimensions
- Clamps of nickel plated copper or stainless steel

### Determining the Required Length:

Provide the following data to your Pirtek representative:

- Measure hose OD
- Measure ferrule / fitting OD
- *For hose to fixed point applications* measure from the proposed anchor point to a point 150 mm beyond the ferrule and add 200 mm. Document the anchor point
- *For hose to hose applications* measure from a point 150 mm beyond the ferrule of one hose to the corresponding point of the second hose and add 200 mm
- Specific requirements of colour codes etc

### Applications:

- Used whenever the occurrence of hose fitting blow-off or accidental disconnection of a hose end could endanger the lives of personnel working nearby
- Primarily intended for use in underground mines where confined spaces make hydraulic hose failures potentially very dangerous
- Good also for securing compressed air and steam hoses where sudden expansion of released gas can cause severe whipping, although Pirtek's cable stocking style Gripchek may be better suited to these applications

### PIRTEK WHIP CHECK INSTALLATION INSTRUCTIONS

| Standard Whip-Chek  | Retrofit Whip-Chek   |
|---|--|
| <ul style="list-style-type: none"> <li>• Hold a looped end in the centre of the loop and twist the top half through 180°. Then fold the twisted end over the bottom section of the loop and slide over the hose end to a point about 150 mm beyond the ferrule</li> <li>• Repeat for the second looped end</li> <li>• Suited to both hose to hose installation or hose to a fixed anchor point</li> </ul> | <ul style="list-style-type: none"> <li>• Lay the Pirchek-R across the top of the hose about 200mm from the end of the hose and similarly about 200mm from the end of the Pirchek-R.</li> <li>• Pass the ends of the Pirchek-R under the hose crossing each other, and bringing back to the top.</li> <li>• With the locking screw backed off leaving the slot clear, lay the Pirchek cable through the slot, in the Pirchek-R attachment. Pull up snugly, check location is 150 / 200mm from back of ferrule and fully insert screw past the cable and into the lower section of the attachment.</li> <li>• Attach the other end to a suitable anchor point</li> </ul> |

### PIRTEK WHIP CHECK

| Product Codes  |                    | Description  |
|----------------|--------------------|--|
| Standard       | With Colour Coding |  |
| PIR-CHEK       | PIR-CHEK-C         | Pir-Chek Whip Chek 4 mm S/Steel Up to 2000 mm            |
| PIR-CHEK-X     | PIR-CHEK-X-C       | Pir-Chek Whip Chek 6 mm S/Steel Up to 2000 mm            |
| PIR-CHEK-X-R   |                    | Retrofit Pir-Chek 6 mm S/S Up to 2000 mm One Loop End    |
| PIR-CHEK-X-R-D |                    | Retrofit Pir-Chek 6 mm S/S Up to 2000 mm Double Loop End |



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