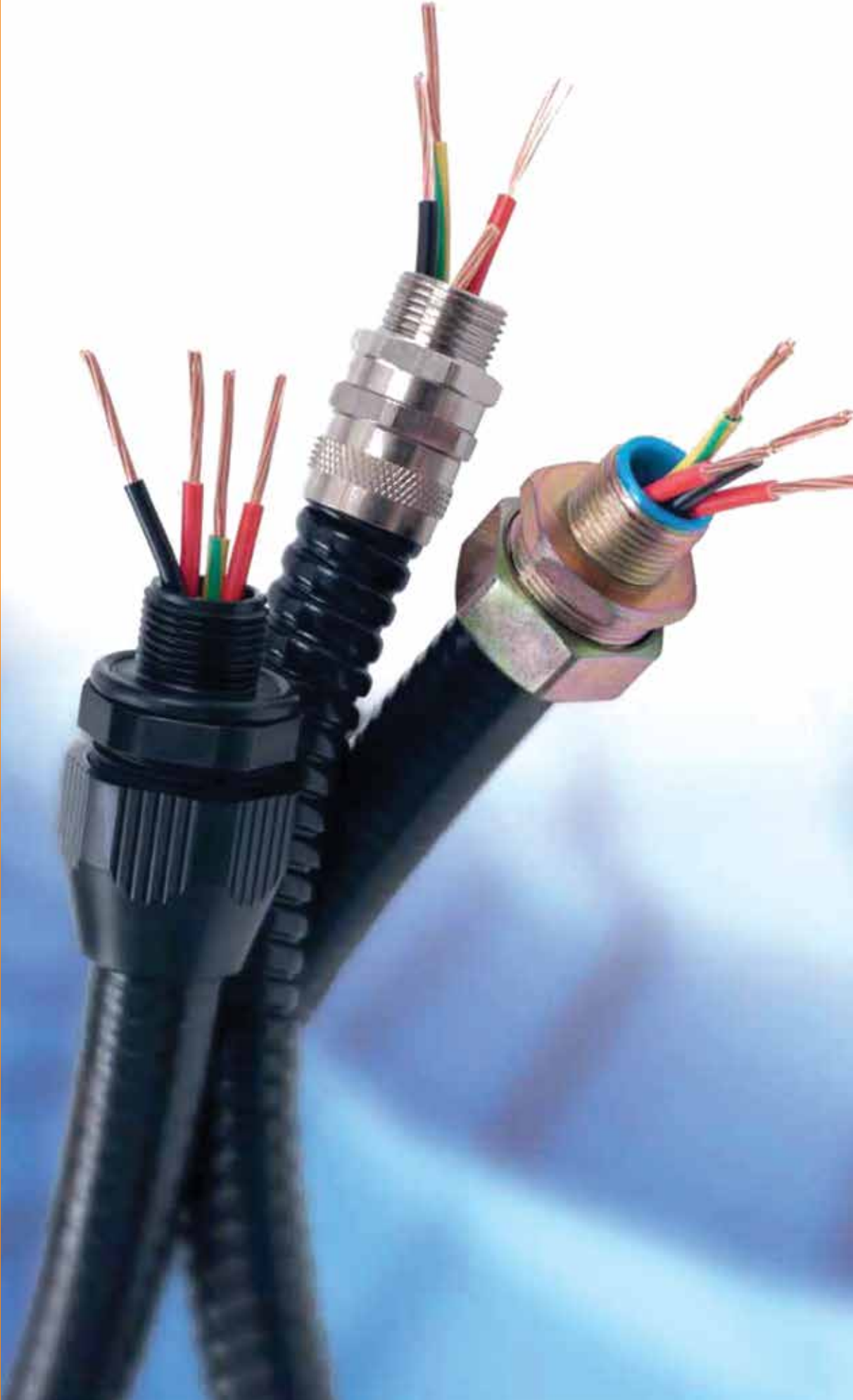


# Flexible Conduit Systems



# WHEN SAFETY MATTERS – THERE'S ONLY ONE CHOICE

The Triflex range of flexible conduit & fittings includes products tested to comply with the rigorous requirements of ANZEx and IECEx Conduit & fittings for electrical installations – That means that Triflex provides peace of mind when it comes to worker safety and asset protection!



Just look at what Triflex can bring to your installation:

- The only flexible metallic conduit tested to comply with relevant AUS/NZ standards
- The most user friendly, high performance range
- Peace of mind with regard to operator safety
- Lifetime cost savings with reduced maintenance
- Maximum asset & infrastructure protection.

The majority of the range is dedicated to the management, protection and connection of electrical cable. This means that our ranges of protection systems, flexible conduit systems and cable glands are core to the line up.

Triflex is well positioned to supply both your day to day needs and to provide specifiable products with specific performance criteria.



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# QUICK SELECTION GUIDE

| CONDUIT TYPE                       | LIQUID TIGHT | TEMP RATING (C) | METAL   | PLASTIC | UV STABLE | HALOGEN FREE | FIRE HAZARD | GENERAL CHEMICAL RESISTANCE | TIGHT BENDS | MOVEMENT | GROUNDED | STD COLOURS | PAGE |
|------------------------------------|--------------|-----------------|---------|---------|-----------|--------------|-------------|-----------------------------|-------------|----------|----------|-------------|------|
| <b>JACKETED METALLIC</b>           |              |                 |         |         |           |              |             |                             |             |          |          |             |      |
| LT                                 | ✓            | 10 to 105       | Steel   | PVC     | ✓         |              | Low         | Oils & Acids                | ✓           | ✓        | ✓        | G, B, O     | 5    |
| LTX                                | ✓            | -60 to 150      | Steel   | TPR     | ✓         | ✓            | Low         | Oils                        | ✓           |          | ✓        | B           | 6    |
| SS                                 | ✓            | -10 to 105      | S/Steel | PVC     | ✓         |              | Low         | Oils & Acids                | ✓           | ✓        | ✓        | B           | 6    |
| <b>EXTRA FLEXIBLE METALLIC</b>     |              |                 |         |         |           |              |             |                             |             |          |          |             |      |
| SL                                 |              | -20 to 250      | Steel   |         | ✓         | ✓            | Low         | Oils & Acids                | ✓           | ✓        |          |             | 10   |
| VJC                                |              | -20 to 70       | Steel   | PVC     | ✓         |              | Low         | Oils & Acids                | ✓           | ✓        |          | B           | 10   |
| <b>NON-METALLIC</b>                |              |                 |         |         |           |              |             |                             |             |          |          |             |      |
| NM                                 | ✓            | -18 to 105      |         | PVC     | ✓         |              | Low         | Oils & Acids                |             | ✓        |          | B, O, G     | 12   |
| SRM                                | ✓            | -18 to 60       |         | PVC     | ✓         |              | Low         | Oils & Acids                | ✓           | ✓        |          | B, O        | 12   |
| PA6V2                              | ✓            | -40 to 115      |         | Nylon   | ✓         | ✓            | Low         | Oils & Acids                | ✓           | ✓        |          | B           | 14   |
| PA6V0                              | ✓            | -40 to 115      |         | Nylon   | ✓         | ✓            | Extra Low   | Oils & Acids                | ✓           | ✓        |          | B           | 14   |
| FC                                 | ✓            | -5 to 60        |         | PVC     | ✓         |              | Low         | Petroleum                   | ✓           | ✓        |          | O           | 18   |
| Colours: G=Grey, B=Black, O=Orange |              |                 |         |         |           |              |             |                             |             |          |          |             |      |

## AUSTRALIAN & NEW ZEALAND STANDARDS

The AS/NZS2053 series of standards outlines a range of strict criteria that conduits and fittings for electrical applications need to meet in order to claim standards compliance and provide the specifier and end user with a high level of confidence that the product is fit for purpose. Testing to the standard should only be relied upon when carried out by an independent and accredited third party. The Triflex liquidtight metallic conduits & fittings have been independently tested and comply with:

### AS/NZS 2053.1:2001

Conduits & fittings for electrical installations – General requirements

### AS/NZS 2053.8:1995

Conduits & fittings for electrical installations – Flexible conduits and fittings of metal or composite material

*Are you confident that the conduit system you use meets all of these criteria?*

### THE COMBINATION OF THESE TWO STANDARDS ENSURES THAT:

- The internal diameter of the conduit provides the expected carrying capacity.
- The construction is free from burrs, defects or sharp edges that could damage a cable.
- The conduit has sufficient resistance to compression to ensure a Heavy Duty rating.
- The combination of conduit & fitting demonstrates excellent pull-out strength to ensure a safe installation.
- The conduit shows no signs of damage despite 5000 flexings at a rate of 40 per minute.
- The conduit can maintain its Heavy Duty rating at the maximum heat stress of 105°C.
- The conduit is non-flame propagating.

# TRIFLEX LIQUIDTIGHT FLEXIBLE HEAVY DUTY METAL CONDUIT SYSTEMS

Triflex Liquidtight Flexible Metal Conduits are compliant with Australian & New Zealand Standards, designed to provide excellent mechanical and environmental protection in all types of industrial and commercial applications.

These conduits are typically used in installations where there are motion, vibration and bending requirements such as in manufacturing or processing plants or where a high level of mechanical protection is required for an indoor or outdoor cable installation. Three grades of liquidtight jacketed metallic conduit are available to suit different types of environments.

## TYPE LT

- General Purpose
- Moisture & Oil resistant
- Superior temperature range

AS2053 Report available upon request



**EXCELLENT  
TEMP RANGE**

**HEAVY  
DUTY**

| CAT NO.* | NOMINAL SIZE (MM) | TRADE SIZE (INCH) | ID (MM) | OD (MM) | MIN BEND RADIUS (MM) | LENGTH (M)  | COLOUR  |
|----------|-------------------|-------------------|---------|---------|----------------------|-------------|---------|
| LT016    | 16                | ¾                 | 12.6    | 17.8    | 50                   | 10, 25, 150 | G, B, O |
| LT020    | 20                | ½                 | 16.1    | 21.1    | 65                   | 10, 25, 150 | G, B, O |
| LT025    | 25                | ¾                 | 21.0    | 26.5    | 75                   | 10, 25, 150 | G, B, O |
| LT032    | 32                | 1                 | 26.5    | 33.1    | 100                  | 10, 25, 120 | G, B, O |
| LT040    | 40                | 1¼                | 35.1    | 41.8    | 120                  | 10, 50      | G, B, O |
| LT050    | 50                | 1½                | 40.4    | 47.9    | 140                  | 10          | G, B, O |
| LT063    | 63                | 2                 | 51.6    | 59.9    | 180                  | 10          | G, B, O |
| LT080    | 80                | 3                 | 78.4    | 88.4    | 300                  | 10          | G, B, O |
| LT100    | 100               | 4                 | 102.1   | 113.8   | 350                  | 10          | G, B, O |

\*Catalogue Number Construction  
 Catalogue Number = Base Code + Colour + Length  
 Colours – Grey (G), Black (B), Orange (O)  
 Example – 20mm Grey 25mm roll = LT020-G-25





**STAINLESS STEEL**

## TYPE SS

- Stainless Steel core
- Moisture & Oil resistant
- Marine & Coastal applications

| CAT NO.* | NOMINAL SIZE (MM) | TRADE SIZE (INCH) | ID (MM) | OD (MM) | MIN BEND RADIUS (MM) | LENGTH (M) | COLOUR |
|----------|-------------------|-------------------|---------|---------|----------------------|------------|--------|
| SS-11    | 20                | ½                 | 16      | 21.1    | 65                   | 25, 150    | Black  |
| SS-12    | 25                | ¾                 | 21      | 26.5    | 75                   | 25, 150    | Black  |
| SS-13    | 32                | 1                 | 26.7    | 33.1    | 100                  | 25, 120    | Black  |

### Characteristics of LT & SS

- LT is tested to AS/NZS 2053.1:2001 & AS/NZS 2053.8:1995
- SS is made to the same exactly standards as Type LT but with a stainless steel core
- Flexible with excellent mechanical strength
- UV Resistance
- Temperature rating -10 to 105°C (intermittent to 150°C)
- LT has a spiral wound, electrogalvanised, interlocked, steel core for superior strength
- SS has a spiral wound, interlocked, stainless steel core for harsh environments
- Durable PVC jacket creates a liquidtight conduit resistant to most oils, acids and vapours
- IP 66 when used with Triflex liquidtight fittings
- Non-flame propagating
- Grounded due to the continuous metal core.



**EXTRA HIGH TEMP**

**HALOGEN FREE**

## TYPE LTX

- Extra high temperature resistance
- Steel core
- Moisture & Oil resistant
- RoHS Compliant

| CAT NO.* | NOMINAL SIZE (MM) | TRADE SIZE (INCH) | ID (MM) | OD (MM) | MIN BEND RADIUS (MM) | LENGTH (M) | COLOUR |
|----------|-------------------|-------------------|---------|---------|----------------------|------------|--------|
| LTX016   | 16                | ⅜                 | 12.5    | 17.8    | 50                   | 25, 150    | Black  |
| LTX020   | 20                | ½                 | 16      | 21.1    | 65                   | 25, 150    | Black  |
| LTX025   | 25                | ¾                 | 21      | 26.5    | 75                   | 25, 150    | Black  |
| LTX032   | 32                | 1                 | 26.7    | 33.1    | 100                  | 25, 120    | Black  |
| LTX040   | 40                | 1¼                | 35.4    | 41.8    | 120                  | 10, 50     | Black  |
| LTX050   | 50                | 1½                | 40.3    | 47.8    | 140                  | 10         | Black  |
| LTX063   | 63                | 2                 | 51.6    | 59.9    | 180                  | 10         | Black  |

### Characteristics of LTX

- Made to the same exactly standards as Type LT but for extra high temperatures
- Flexible with excellent mechanical strength
- Excellent UV Resistance
- Temperature rating -60 to 150°C (intermittent to 165°C)
- Spiral wound, interlocked galvanised steel core for superior strength
- High performance thermoplastic vulcanizate (TPV) jacket creates a liquidtight conduit almost unaffected by temperature extremes and with exceptional resistant to most oils and chemicals
- IP 66 when used with Triflex liquidtight fittings
- Flammability rating of UL 94-H
- Grounded due to the continuous metal core. Characteristics of LT & SS

# TRIFLEX LIQUIDTIGHT FITTINGS

Triflex liquidtight conduit fittings are designed to safely and securely attach Triflex conduits to enclosures, machinery or bulkheads.

The comprehensive range of Triflex fittings are the only range made to comply with Australian/ New Zealand and IEC standards. Triflex fittings ensure that the complete system is liquidtight to an IP66 rating and are available in three materials for different applications. The popular Triflex steel fittings have become the market standard and provide superior strength in industrial applications.

Certificate Number ANZEx 14.3013 & IECEx TSA 11.0026

| Metric Thread Fittings |             | DIECAST ZINC ALLOY |            |            | NICKEL PLATED BRASS |            |            | STAINLESS STEEL |            |            |
|------------------------|-------------|--------------------|------------|------------|---------------------|------------|------------|-----------------|------------|------------|
| CONDUIT SIZE (MM)      | THREAD SIZE | STRAIGHT           | 90 DEGREES | 45 DEGREES | STRAIGHT            | 90 DEGREES | 45 DEGREES | STRAIGHT        | 90 DEGREES | 45 DEGREES |
| 16                     | M16 X 1.5   | LTCM-D09           | LTCM-D209  | LTCM-D309  | LTCM-B09            | LTCM-B209  | LTCM-B309  | LTCM-S09        | LTCM-S209  | LTCM-S309  |
| 16                     | M20 X 1.5   | LTCM-D10           | LTCM-D20   | LTCM-D30   | LTCM-B10            | LTCM-B20   | LTCM-B30   | LTCM-S10        | LTCM-S20   | LTCM-S30   |
| 20                     | M20 X 1.5   | LTCM-D11           | LTCM-D21   | LTCM-D31   | LTCM-B11            | LTCM-B21   | LTCM-B31   | LTCM-S11        | LTCM-S21   | LTCM-S31   |
| 25                     | M25 X 1.5   | LTCM-D12           | LTCM-D22   | LTCM-D32   | LTCM-B12            | LTCM-B22   | LTCM-B32   | LTCM-S12        | LTCM-S22   | LTCM-S32   |
| 32                     | M32 X 1.5   | LTCM-D13           | LTCM-D23   | LTCM-D33   | LTCM-B13            | LTCM-B23   | LTCM-B33   | LTCM-S13        | LTCM-S23   | LTCM-S33   |
| 40                     | M40 X 1.5   | LTCM-D14           | LTCM-D24   | LTCM-D34   | LTCM-B14            | LTCM-B24   | LTCM-B34   | LTCM-S14        | LTCM-S24   | LTCM-S34   |
| 50                     | M50 X 1.5   | LTCM-D15           | LTCM-D25   | LTCM-D35   | LTCM-B15            | LTCM-B25   | LTCM-B35   | LTCM-S15        | LTCM-S25   | LTCM-S35   |
| 63                     | M63 X 1.5   | LTCM-D16           | LTCM-D26   | LTCM-D36   | LTCM-B16            | LTCM-B26   | LTCM-B36   | LTCM-S16        | LTCM-S26   | LTCM-S36   |
| 80                     | 3" LTC-18*  |                    |            |            |                     |            |            |                 |            |            |
| 100                    | 4" LTC-19*  |                    |            |            |                     |            |            |                 |            |            |

NPT, BSP, PG and other thread types available on request.

## Characteristics

- IP66 liquidtight rating
- Rated for use in Class II (DIP) environments
- Supplied complete with grounding cone and sealing ring
- Fitting will swivel on conduit until tightened, for ease of installation.
- External threaded male fittings for threaded entries and knockouts
- Flanged grounding cones for excellent pull out strength
- High quality nickel & zinc plating for superior durability
- Insulated throat to protect conductors.



# EXPLOSION PROOF SEALS SAFE FITTINGS

## ZONE 1 Barrier Fitting

### Female Barrier Fittings

| CONDUIT SIZE (MM) | THREAD SIZE (IN) | CAT. NO. |
|-------------------|------------------|----------|
| 20                | 3/4" BSP         | FLC-075  |
| 25                | 1" BSP           | FLC-100  |



## ZONE 1 Barrier Fitting

### Male Barrier Fittings

| CONDUIT SIZE (MM) | THREAD SIZE | CAT. NO. |
|-------------------|-------------|----------|
| 20                | M20 X 1.5   | FLC-20   |
| 25                | M25 X 1.5   | FLC-25   |



### Characteristics

- For use with flexible metallic liquidtight conduits
- Can be used in Zone 1 (Explosive Gas) environments
- Type of protection – Exd IIB Zone 1, DIP Zone 21
- Nickel plated brass for strength and durability
- IP65 protection for a liquidtight installation
- Multi-part fitting with the ease of installation of a union
- Co-extruded epoxy used to block flame path around conductors
- Simply insert the conduit into the gland nut and attach to the back body
- Free turning gland nut locks the front and back bodies together
- Inspection hole in nut to ensure correct position after assembly
- Certificate Number ANZEx 09.3018.

### Metric Female Hub Fittings

Female hub fittings are used to connect conduit to a male thread. This would normally occur when connecting to threaded rigid conduit or a male threaded fitting. The combination of a female hub fitting and a standard straight fitting enables the operator to securely join two lengths of conduit.



| CONDUIT SIZE (MM) | CONNECTOR THREAD SIZE | DIECAST ZINC ALLOY CAT NO. | BRASS CAT NO. |
|-------------------|-----------------------|----------------------------|---------------|
| 16                | M16                   | LTCM-D609                  | LTCM-B609     |
| 16                | M20                   | LTCM-D60                   | LTCM-B60      |
| 20                | M16                   | LTCM-D61                   | LTCM-B61      |
| 25                | M16                   | LTCM-D62                   | LTCM-B62      |
| 32                | M16                   | LTCM-D63                   | LTCM-B63      |
| 40                | M16                   | LTCM-D64                   | LTCM-B64      |
| 50                | M16                   | LTCM-D65                   | LTCM-B65      |
| 63                | M16                   | LTCM-D66                   | LTCM-B66      |

### Metric Locknuts



| CONDUIT SIZE (MM) | NICKEL PLATED BRASS | STAINLESS STEEL |
|-------------------|---------------------|-----------------|
| M12 X 1.5         | LNB12N              | LNS12           |
| M16 X 1.5         | LNB16N              | LNS16           |
| M20 X 1.5         | LNB20N              | LNS20           |
| M25 X 1.5         | LNB25N              | LNS25           |
| M32 X 1.5         | LNB32N              | LNS32           |
| M40 X 1.5         | LNB40N              | LNS40           |
| M50 X 1.5         | LNB50N              | LNS50           |
| M63 X 1.5         | LNB63N              | LNS63           |

### Metric Space Saver (Chase) Fittings

Special compact version of a fitting enables space-saving assembly thanks to the male nipple (supplied with fitting) that can be screwed into the female thread of the body.



| CONDUIT SIZE (MM) | STRAIGHT | 90 DEGREES |
|-------------------|----------|------------|
| 16                | LTCM-40  | LTCM-50    |
| 16                | LTCM-41  | LTCM-51    |
| 16                | LTCM-42  | LTCM-52    |
| 16                | LTCM-43  | LTCM-53    |



### Adaptors

Provides for the installation of a fitting to an enclosure with a different type of thread. Constructed from durable nickel plated brass.



| CAT NO.                      | OUTER THREAD (MALE) | INNER THREAD (FEMALE) |
|------------------------------|---------------------|-----------------------|
| <b>PG TO METRIC ADAPTORS</b> |                     |                       |
| ADM-P09/M16                  | P09                 | M16                   |
| ADM-P09/M20                  | P09                 | M20                   |
| ADM-P11/M20                  | P11                 | M20                   |
| ADM-P13.5/M20                | P13.5               | M20                   |
| ADM-P16/M20                  | P16                 | M20                   |
| ADM-P16/M25                  | P16                 | M25                   |
| ADM-P21/M20                  | P21                 | M20                   |
| ADM-P21/M25                  | P21                 | M25                   |
| ADM-P21/M32                  | P21                 | M32                   |
| ADM-P29/M40                  | P29                 | M40                   |

### Metric Enlargers & Reducers

Provides for the installation of a fitting to an enclosure with a smaller or larger opening. Constructed from durable nickel plated brass.

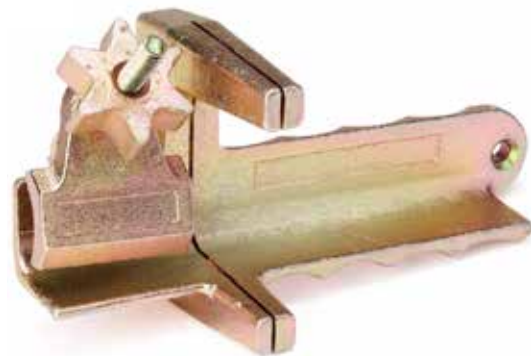


| CAT NO.          | OUTER THREAD (MALE) | INNER THREAD (FEMALE) |
|------------------|---------------------|-----------------------|
| <b>ENLARGERS</b> |                     |                       |
| MEM-M16/M20      | M16                 | M20                   |
| MEM-M20/M25      | M20                 | M25                   |
| MEM-M25/M32      | M25                 | M32                   |
| <b>REDUCERS</b>  |                     |                       |
| MRM-M20/M16      | M20                 | M16                   |
| MRM-M25/M20      | M25                 | M20                   |
| MRM-M32/M25      | M32                 | M25                   |
| MRM-M40/M32      | M40                 | M32                   |
| MRM-M50/M40      | M50                 | M40                   |

| CAT. NO. |
|----------|
| BLC-1    |

### Conduit Cutting Vice

Take the hassle out of making fast and clean conduit cuts with this robust cutting vice that can be hand held or bench mounted. Fantastic tool for use in the field or the workshop.



### Metric Sealing "O" Ring



| THREAD SIZE | CAT. NO. |
|-------------|----------|
| M16         | SOR-09   |
| M20         | SOR-11   |
| M25         | SOR-12   |
| M32         | SOR-13   |
| M40         | SOR-14   |
| M50         | SOR-15   |
| M63         | SOR-16   |



### Conduit Ferrules (Grounding Cones)



| CONDUIT SIZE (MM) | CAT. NO. LIPPED TYPE | CAT. NO. SCREW TYPE |
|-------------------|----------------------|---------------------|
| 16                | LT-0FL               | LT-0FS              |
| 20                | LT-1FL               | LT-1FS              |
| 25                | LT-2FL               | LT-2FS              |
| 32                | LT-3FL               | LT-3FS              |
| 40                | LT-4FL               | LT-4FS              |
| 50                | LT-5FL               | LT-5FS              |
| 63                | LT-6FL               | LT-6FS              |

# TRIFLEX EXTRA FLEXIBLE METALLIC CONDUIT SYSTEMS

Triflex Extra Flexible Metal Conduits are designed to provide excellent protection in tight-spot and dynamic installations.

As the name suggest, this class of conduit is used in tight-spot installations, most commonly in commercial and industrial applications. The inherent flame resistance of the unjacketed product makes it suitable for a range of uses where high mechanical strength yet extreme flexibility is required eg building fire systems. The vacuum jacketed VJC is also suitable for static, tight bend or dynamic installations such as machinery centres and robotics but adds increased protection from moisture ingress.



## TYPE SL

- Extra Flexible
- Low Fire Hazard

**EXTRA FLEXIBLE**

| CAT. NO. | NOMINAL SIZE (MM) | TRADE SIZE (INCH) | ID (MM) | OD (MM) | MIN BEND RADIUS(MM) | LENGTH (M) | COLOUR     |
|----------|-------------------|-------------------|---------|---------|---------------------|------------|------------|
| SL-08    | 10                | ¼                 | 7       | 9       | 23                  | 25         | Galvanised |
| SL-09    | 12                | 5/16              | 10      | 13      | 28                  | 25         | Galvanised |
| SL-10    | 16                | 3/8               | 13      | 16      | 30                  | 25         | Galvanised |
| SL-11    | 20                | ½                 | 16      | 20      | 43                  | 25         | Galvanised |
| SL-12    | 25                | ¾                 | 21      | 25      | 50                  | 25         | Galvanised |
| SL-13    | 32                | 1                 | 29      | 32      | 57                  | 25         | Galvanised |
| SL-14    | 40                | 1¼                | 38      | 42      | 70                  | 10         | Galvanised |
| SL-15    | 50                | 1½                | 41      | 46      | 80                  | 10         | Galvanised |
| SL-16    | 63                | 2                 | 52      | 57      | 95                  | 10         | Galvanised |



## TYPE VJC

- Extra Flexible
- Galvanised steel core
- Moisture & oil resistant

**MOISTURE & OIL RESISTANT**

| CAT. NO. | NOMINAL SIZE (MM) | TRADE SIZE (INCH) | ID (MM) | OD (MM) | MIN BEND RADIUS(MM) | LENGTH (M) | COLOUR |
|----------|-------------------|-------------------|---------|---------|---------------------|------------|--------|
| VJC-08   | 10                | ¼                 | 7       | 10      | 29                  | 25         | Black  |
| VJC-09   | 12                | 5/16              | 10      | 14      | 32                  | 25         | Black  |
| VJC-10   | 16                | 3/8               | 14      | 17      | 36                  | 25         | Black  |
| VJC-11   | 20                | ½                 | 16      | 20      | 50                  | 25         | Black  |
| VJC-12   | 25                | ¾                 | 21      | 25      | 55                  | 25         | Black  |
| VJC-13   | 32                | 1                 | 26      | 32      | 65                  | 25         | Black  |
| VJC-14   | 40                | 1¼                | 35      | 41      | 75                  | 10         | Black  |
| VJC-15   | 50                | 1½                | 40      | 47      | 86                  | 10         | Black  |
| VJC-16   | 63                | 2                 | 51      | 58      | 105                 | 10         | Black  |

### Characteristics of SL & VJC

- Extra flexible with excellent mechanical strength
- Thin, vacuum extruded jacket of VJC has minimal effect on the core flexibility
- PVC jacket of VJC is UV Resistant
- Temperature rating -20 to 250°C for SL and -20 to 105°C for VJC
- Helically wound, electrogalvanised, interlocked, steel core for superior strength
- Non-flame propagating.

### SL/VJC Fittings

These fittings are designed to fit both the SL & VJC series.



| CONDUIT SIZE (MM) | THREAD SIZE | FIXED      | SWIVEL    |
|-------------------|-------------|------------|-----------|
| 10                | M10 X 1.0   | VJCM-B08F  | VJCM-B08  |
| 12                | M12 X 1.5   | VJCM-B09AF | VJCM-B09A |
| 16                | M16 X 1.5   | VJCM-B09F  | VJCM-B09  |
| 16                | M20 X 1.5   | VJCM-B10F  | VJCM-B10  |
| 20                | M20 X 1.5   | VJCM-B11F  | VJCM-B11  |
| 25                | M25 X 1.5   | VJCM-B12F  | VJCM-B12  |
| 32                | M32 X 1.5   | VJCM-B13F  | VJCM-B13  |
| 40                | M40 X 1.5   | VJCM-B14F  | VJCM-B14  |
| 50                | M50 X 1.5   | VJCM-B15F  | VJCM-B15  |
| 63                | M63 X 1.5   | VJCM-B16F  | VJCM-B16  |

Did you know – you can use standard Triflex liquid tight fittings (see page 7) in conjunction with VJC conduit?

All you need to do is change the gland ring with the suitable one below.



### Characteristics

- Nickel plated brass for professional quality finish and durability
- High crush resistance with excellent pull out strength
- Excellent vibration resistance
- IP40 system using SL and IP54 using VJC.



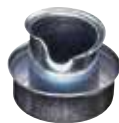
### Nylon Gland Ring

| CONDUIT SIZE (MM) | CAT. NO. |
|-------------------|----------|
| 16                | VJ-0G    |
| 20                | VJ-1G    |
| 25                | VJ-2G    |
| 32                | VJ-3G    |
| 40                | VJ-4G    |
| 50                | VJ-5G    |
| 63                | VJ-6G    |

### Conduit Ferrules (Grounding Cones)



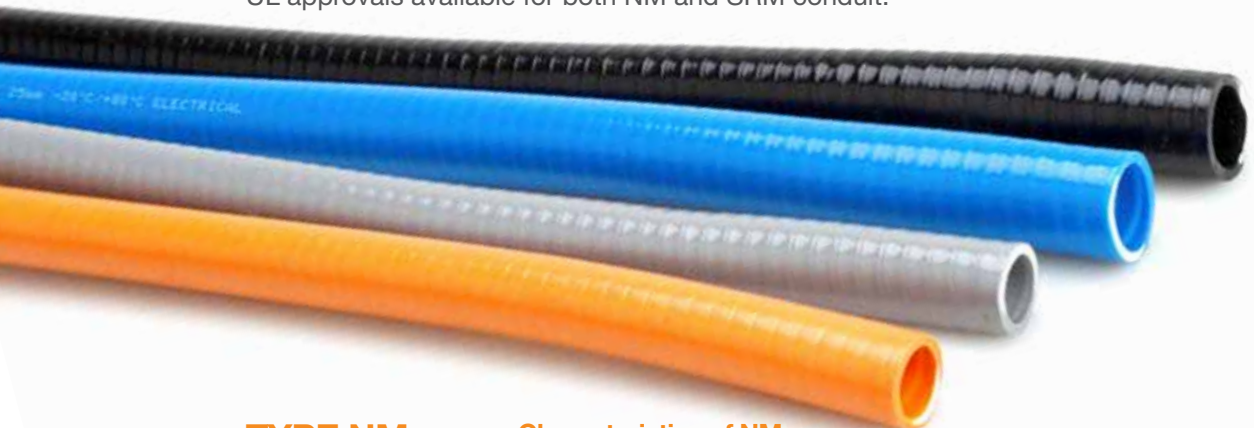
| CONDUIT SIZE (MM) | CAT. NO. |
|-------------------|----------|
| 16                | LT-0F    |
| 20                | LT-1F    |
| 25                | LT-2F    |
| 32                | LT-3F    |
| 40                | LT-4F    |
| 50                | LT-5F    |
| 63                | LT-6F    |



# TRIFLEX LIQUIDTIGHT FLEXIBLE NON-METALLIC CONDUIT SYSTEMS

The Triflex Flexible Non-Metallic Conduit systems offer a lightweight, liquidtight flexible conduit solution for demanding applications. The Triflex system ensures fast, easy installations and long-lasting, high performance in a variety of environments.

These conduits are manufactured from a range of advanced technology resins and utilise the latest processing methods to produce a comprehensive selection including two styles and a wide selection of fittings. They are recommended for machine tools, motor hook-ups, food processing equipment, extensions from wireways, sensor and microswitch wiring in control consoles. UL approvals available for both NM and SRM conduit.



## TYPE NM

- Heavy duty
- Liquid tight
- PVC

### Characteristics of NM

- Liquidtight, lightweight, non-metallic Type B Conduit
- Working temperature -18°C to 105°C
- IP68 system when used with Triflex fittings
- Fast installation, even in tight, cramped spaces
- Smooth inner diameter allows easy wire pulling
- Smooth outer jacket is UV and oil resistant
- Good tensile strength for excellent pullout protection.



| CAT. NO. | NOMINAL SIZE (MM) | TRADE SIZE (INCH) | ID (MM) | OD (MM) | LENGTH (M) | COLOUR  |
|----------|-------------------|-------------------|---------|---------|------------|---------|
| NM-016   | 16                | 3/8               | 12.3    | 17.8    | 30         | B, G, O |
| NM-020   | 20                | 1/2               | 15.8    | 21.1    | 30         | B, G, O |
| NM-025   | 25                | 3/4               | 20.8    | 26.4    | 30         | B, G, O |
| NM-032   | 32                | 1                 | 26.4    | 33.08   | 30         | B, G, O |

## TYPE SRM

- Light duty
- Liquidtight
- PVC

### Characteristics of SRM

- Liquidtight when used with Triflex fittings
- Working temperature 18degC to 60degC
- Fast installation even in tight, cramped spaces
- Smooth inner diameter allows easy wire pulling
- Good tensile strength for excellent pull out protection.



| CAT. NO. | NOMINAL SIZE (MM) | TRADE SIZE (INCH) | ID (MM) | OD (MM) | LENGTH (M) | COLOUR |
|----------|-------------------|-------------------|---------|---------|------------|--------|
| SRM016   | 16                | 3/8               | 12.4    | 17.8    | 30         | B, O   |
| SRM020   | 20                | 1/2               | 15.8    | 21.1    | 30         | B, O   |
| SRM025   | 25                | 3/4               | 20.8    | 26.4    | 30         | B, O   |

# TRIFLEX NON-METALLIC LIQUIDTIGHT FITTINGS

Triflex fittings are designed for use with both Type NM and Type SRM non-metallic conduits. Triflex fittings are easy to use and built to take it!

This engineering breakthrough meets the demand for a tough, reusable, non-metallic liquidtight fitting that provides a reliable seal with high pull-out resistance. Triflex fittings are used to terminate NM or SRM conduit to an enclosure with knock-out opening or threaded hub. Installations can be performed quickly and easily because. Triflex liquidtight fittings can be installed without disassembly.

## METRIC TRIFLEX FITTING

- Liquidtight
- Corrosion resistant

| NOMINAL SIZE (MM) | TRADE SIZE (MM) | STRAIGHT    | 90 DEGREES   |
|-------------------|-----------------|-------------|--------------|
| 16                | M20 X 1.5       | LT16P-ISO20 | LT916P-ISO20 |
| 20                | M20 X 1.5       | LT20P-ISO20 | LT920P-ISO20 |
| 25                | M25 X 1.5       | LT25P-ISO25 | LT925P-ISO25 |
| 32                | M32 X 1.5       | LT32P-ISO32 | LT932P-ISO32 |



Straight

90 Degrees

### Characteristics of Triflex Fittings

- Ferrule designed to accept variations in conduit sizes and field conduit cuts
- Friction reducing ridges and teeth provide a true double seal and high pull-out resistance
- Elongated gland nut offers additional strain relief for 90° pull and easy hand grip
- Rugged low profile construction provides space savings
- Captivated nitrile (blue) sealing O-ring features pre-determined compression to provide a reliable seal every time at the enclosure
- Steel/electro plated zinc locknut firmly secures fitting to the box or enclosure
- Meets watertight requirements of NEMA Type 4 and Type 6 enclosures and conform to UL and CSA specifications
- Suitable for indoor and outdoor corrosive environments
- Resistant to detergents, cleaners, oils, sanitizers, paints, cutting fluids and wire pulling compounds
- Body gland – weather stabilised thermoplastic (black) rated -40°C to 105°C
- Suitable for hazardous locations Zone 1 Div 2; Zone 21 Div 1 & 2; Groups E,F & G; Zone 31 per NEC; Article 501-4, 502-4 and 503-3
- UL approvals available.



# TRIFLEX NYLON CONDUIT SYSTEMS

The Triflex Nylon conduits are made from Halogen Free Polyamide6 (PA6) and are recommended for the insulation and mechanical protection of electrical cables.

Two grades of conduit are available to suit different types of applications:

- Standard Low Fire Hazard and Extra Low Fire Hazard.
- Typical applications include general wiring, machine tools, industrial equipment, automotive, air-conditioning equipment and railway rolling stock.



### Conduits Characteristics

- Flexible with excellent mechanical strength
- Halogen, phosphor and cadmium free
- RoHS compliant
- UV resistant
- Resistant to oils, acid and solvents
- Temperature rating -40°C to 115°C (Intermittent to 150°C)
- Flame Retardant :  
Self extinguishing  
Std Low Fire Hazard – V2 (UL94)  
Extra Low Fire Hazard – V0 (UL94)
- Medium wall thickness
- IP 68
- Anti-static for underground use.

| CAT. NO.                     | NOMINAL SIZE (MM) | ID (MM) | OD (MM) | MIN BEND RADIUS (MM) | LENGTH (M) |
|------------------------------|-------------------|---------|---------|----------------------|------------|
| <b>STD LOW FIRE HAZARD</b>   |                   |         |         |                      |            |
| PTM-PA6V2-10B -50            | 10                | 6.5     | 10      | 13                   | 50         |
| PTM-PA6V2-12B -50            | 12                | 10      | 13      | 15                   | 50         |
| PTM-PA6V2-16B -25            | 16                | 12      | 15.8    | 22                   | 25         |
| PTM-PA6V2-16B -50            | 16                | 12      | 15.8    | 22                   | 50         |
| PTM-PA6V2-20B -25            | 20                | 16.5    | 21.2    | 35                   | 25         |
| PTM-PA6V2-20B -50            | 20                | 16.5    | 21.2    | 35                   | 50         |
| PTM-PA6V2-25B -25            | 25                | 23      | 28.5    | 45                   | 25         |
| PTM-PA6V2-25B -50            | 25                | 23      | 28.5    | 45                   | 50         |
| PTM-PA6V2-32B -25            | 32                | 29      | 34.5    | 50                   | 25         |
| PTM-PA6V2-32B -50            | 32                | 29      | 34.5    | 50                   | 50         |
| PTM-PA6V2-40B -10            | 40                | 36      | 42.5    | 80                   | 10         |
| PTM-PA6V2-40B -25            | 40                | 36      | 42.5    | 80                   | 25         |
| PTM-PA6V2-50B -10            | 50                | 48      | 54.5    | 100                  | 10         |
| PTM-PA6V2-50B -25            | 50                | 48      | 54.5    | 100                  | 25         |
| <b>EXTRA LOW FIRE HAZARD</b> |                   |         |         |                      |            |
| PTM-PA6V0-10B-50             | 10                | 7       | 10.0    | 15                   | 50         |
| PTM-PA6V0-12B-50             | 12                | 10      | 13.0    | 15                   | 50         |
| PTM-PA6V0-16 B-50            | 16                | 12      | 15.8    | 22                   | 50         |
| PTM-PA6V0-20 B-50            | 20                | 16.5    | 21.2    | 35                   | 50         |
| PTM-PA6V0-25 B-50            | 25                | 23      | 28.5    | 45                   | 50         |
| PTM-PA6V0-32B-25             | 32                | 29      | 34.5    | 50                   | 25         |
| PTM-PA6V0-32B-50             | 32                | 29      | 34.5    | 50                   | 50         |
| PTM-PA6V0-40 B-25            | 40                | 36      | 42.5    | 80                   | 25         |
| PTM-PA6V0-50B-25             | 32                | 29      | 34.5    | 50                   | 25         |

**HALOGEN FREE**

**RoHS COMPLIANT**

**LOW FIRE HAZARD**

**ANTI STATIC**



Split Tubing,  
Economy PA6,  
Conduit Cutter  
and other colours  
also available

# TRIFLEX NYLON FITTINGS

A range of high performance fittings with a unique self locking mechanism, for a quick and secure installation offering watertight protection and outstanding pull-off strength.



## Metric Fittings

| CONDUIT SIZE (MM) | THREAD SIZE | STRAIGHT | 90°      | 45°      |
|-------------------|-------------|----------|----------|----------|
| 10                | M10 X 1.5   | PCM1-10B | PCM2-10B |          |
| 12                | M12 X 1.5   | PCM1-12B | PCM2-12B |          |
| 16                | M16 X 1.5   | PCM1-16B | PCM2-16B |          |
| 20                | M20 X 1.5   | PCM1-20B | PCM2-20B | PCM3-20B |
| 25                | M25 X 1.5   | PCM1-25B | PCM2-25B | PCM3-25B |
| 32                | M32 X 1.5   | PCM1-32B | PCM2-32B | PCM3-32B |
| 40                | M40 X 1.5   | PCM1-40B | PCM2-40B | PCM3-40B |
| 50                | M50 X 1.5   | PCM1-50B | PCM2-50B | PCM3-50B |

## Characteristics

- Made of high quality Polyamide 66 (PA66)
- Halogen, phosphor and cadmium free
- Self extinguishing
- UV resistant
- Self locking, push fit installation onto conduit
- Easy to remove, no tool required
- Complete with locknut
- IP66 rating as standard, increased to IP68 with sealing washer
- Temperature rating -40°C to 115°C (Intermittent to 150°C).



## PG Fittings

| CONDUIT SIZE (MM) | THREAD SIZE | STRAIGHT  | 90°       | 45°       |
|-------------------|-------------|-----------|-----------|-----------|
| 10                | PG7         | PCPG1-07B | PCPG2-07B |           |
| 12                | PG9         | PCPG1-09B | PCPG2-09B |           |
| 16                | PG11        | PCPG1-11B | PCPG2-11B |           |
| 20                | PG16        | PCPG1-16B | PCPG2-16B | PCPG3-16B |
| 25                | PG21        | PCPG1-21B | PCPG2-21B | PCPG3-21B |
| 32                | PG29        | PCPG1-29B | PCPG2-29B | PCPG3-29B |
| 40                | PG36        | PCPG1-36B | PCPG2-36B | PCPG3-36B |
| 50                | PG48        | PCPG1-48B | PCPG2-48B | PCPG3-48B |

## IP68 Fittings



| CONDUIT SIZE (MM) | COUPLING    | T-DIST  | Y-DIST  |
|-------------------|-------------|---------|---------|
| 10                | PAM1-68-10B |         |         |
| 12                | PAM1-68-12B | PAT-M12 | PAY-M12 |
| 16                | PAM1-68-16B | PAT-M16 | PAY-M16 |
| 20                | PAM1-68-20B | PAT-M20 | PAY-M20 |
| 25                | PAM1-68-25B | PAT-M25 | PAY-M25 |
| 32                | PAM1-68-32B | PAT-M32 | PAY-M32 |
| 40                | PAM1-68-40B | PAT-M40 | PAY-M40 |
| 50                | PAM1-68-50B | PAT-M50 | PAY-M50 |



# ACCESSORIES

## Spin Couplings

The spin coupling turns a standard fitting into a swivel fitting. The coupler accepts both 45° and 90° screwed fittings and allows easy rotation of the fitting during and after installation.



| CONDUIT SIZE (MM) | METRIC THREAD SIZE | CAT. NO. | PG THREAD SIZE | CAT. NO. |
|-------------------|--------------------|----------|----------------|----------|
| 16                | M16 X 1.5          | BCMS-16  | PG11           | PCPGS-11 |
| 20                | M20 X 1.5          | BCMS-20  | PG16           | PCPGS-16 |
| 25                | M25 X 1.5          | BCMS-25  | PG21           | PCPGS-21 |
| 32                | M32 X 1.5          | BCMS-32  | PG29           | PCPGS-29 |
| 40                | M40 X 1.5          | BCMS-40  | PG36           | PCPGS-36 |
| 50                | M50 X 1.5          | BCMS-50  | PG48           | PCPGS-48 |

## Characteristics

- Made from high quality nickel plated brass
- Metric and PG threads
- P66 as standard, IP68 with sealing washer.



## Locknuts

| THREAD SIZE | CAT. NO.   | PG THREAD SIZE | CAT. NO.    |
|-------------|------------|----------------|-------------|
| M10 X 1.5   | PAM-LN-10B | PG7            | PAPG-LN-07B |
| M12 X 1.5   | PAM-LN-12B | PG9            | PAPG-LN-09B |
| M16 X 1.5   | PAM-LN-16B | PG11           | PAPG-LN-11B |
| M20 X 1.5   | PAM-LN-20B | PG16           | PAPG-LN-16B |
| M25 X 1.5   | PAM-LN-25B | PG21           | PAPG-LN-21B |
| M32 X 1.5   | PAM-LN-32B | PG29           | PAPG-LN-29B |
| M40 X 1.5   | PAM-LN-40B | PG36           | PAPG-LN-36B |
| M50 X 1.5   | PAM-LN-50B | PG48           | PAPG-LN-48B |
| M63 X 1.5   | PAM-LN-63B |                |             |

## Characteristics

- Made from plated steel with UV resistant PVC cover
- Screw fixed for a secure installation.



## P Clamps

P Clamps are used to mount conduit on equipment or structures.



| CONDUIT SIZE (MM) | CAT. NO. | MOUNTING HOLE (MM) |
|-------------------|----------|--------------------|
| 10                | PTCM-10  | M4                 |
| 12                | PTCM-12  | M4                 |
| 16                | PTCM-16  | M4                 |
| 20                | PTCM-20  | M4                 |
| 25                | PTCM-25  | M5                 |
| 32                | PTCM-32  | M5                 |
| 40                | PTCM-40  | M6                 |
| 50                | PTCM-50  | M6                 |
| 63                | PTCM-63  | M6                 |

## Characteristics

- Made from Polyamide 66
- Temperature rating -40°C to 100°C
- Metric or PG Threads.

## Mounting Brackets

A range of mounting brackets for quickly and easily attaching Triflex conduit to equipment and structures.



| CONDUIT SIZE (MM) | CAT. NO.  | MOUNTING HOLE (MM) |
|-------------------|-----------|--------------------|
| 10                | PTSSM-10B | 4.2                |
| 12                | PTSSM-12B | 4.2                |
| 16                | PTSSM-16B | 4.2                |
| 20                | PTSSM-20B | 4.2                |
| 25                | PTSSM-25B | 4.2                |
| 32                | PTSSM-32B | 4.2                |
| 40                | PTSSM-40B | 4.2                |
| 50                | PTSSM-50B | 4.2                |

## Characteristics

- Made from Polyamide 66
- Feature an inbuilt snap cover, easily releasable and reusable
- Screw mounted for secure installation
- Temperature rating -40°C to 115°C
- Halogen free
- UV resistant
- Flame retardant - self extinguishing.



## Sealing Washers

Sealing washers are used on the fitting thread to seal between the fitting and the enclosure and provide an IP68 seal.



| THREAD SIZE (MM) | CAT. NO. | PG THREAD SIZE | CAT. NO. |
|------------------|----------|----------------|----------|
| M12 X 1.0        | SRM-10   | PG7            | SRPG-07  |
| M12 X 1.5        | SRM-12   | PG9            | SRPG-09  |
| M16 X 1.5        | SRM-16   | PG11           | SRPG-11  |
| M20 X 1.5        | SRM-20   | PG16           | SRPG-16  |
| M25 X 1.5        | SRM-25   | PG21           | SRPG-21  |
| M32 X 1.5        | SRM-32   | PG29           | SRPG-29  |
| M40 X 1.5        | SRM-40   | PG36           | SRPG-36  |
| M50 X 1.5        | SRM-50   | PG48           | SRPG-48  |
| M63 X 1.5        | SRM-63   |                |          |

## Characteristics

- Made from Tesnit high performance fibre
- Temperature Rating -40°C to 200°C
- IP68
- Metric or PG Threads.

## Flanges

The Triflex flange can be combined with a straight or elbow connector to create a complete flange connector for mounting on enclosures or equipment.



| METRIC THREAD SIZE (MM) | CAT. NO. |
|-------------------------|----------|
| M25 X 1.5               | PCFM-M25 |
| M32 X 1.5               | PCFM-M32 |
| M40 X 1.5               | PCFM-M40 |
| M50 X 1.5               | PCFM-M50 |
| M63 X 1.5               | PCFM-M63 |

## Characteristics

- Made of high quality Polyamide 66 (PA66)
- Halogen, phosphor and cadmium free
- Self extinguishing
- UV Resistant
- IP67 rating
- Temperature rating -40°C to 115°C (Intermittent to 150°C).

## End Sleeves

End sleeves are used to transition from conduit to a cable. The sleeve seals and protects the cable passing through the end of the tubing.



| CONDUIT SIZE (MM) | CAT. NO. |
|-------------------|----------|
| 10                | TAEC-M10 |
| 12                | TAEC-M12 |
| 16                | TAEC-M16 |
| 20                | TAEC-M20 |
| 25                | TAEC-M25 |
| 32                | TAEC-M32 |
| 40                | TAEC-M40 |
| 50                | TAEC-M50 |

## Characteristics

- Made from Thermoplastic Elastomer (TPE)
- Temperature rating -40°C to 100°C (Intermittent to 150°C).



# SEALSAFE HAZARDOUS AREA CONDUIT SYSTEM

Not only does the Sealsafe system provide superior protection but is exceptionally fast and simple to install in the field, eliminating the need for pre-assembly and providing ultimate flexibility during installation. No mess, no fuss, Sealsafe is the easiest way to produce a safe connection!

## TYPE FC

- Fibre braid reinforced PVC

| CAT. NO. | NOMINAL SIZE (MM) | ID (MM) | LENGTH (MM) | COLOUR |
|----------|-------------------|---------|-------------|--------|
| FC-16    | 20                | 16      | 30          | Orange |
| FC-19    | 25                | 19      | 30          | Orange |

## NEW & IMPROVED FORMULA - greater resistance to bio-fuels



**FLAME RETARDANT**

**AS2053.4 COMPLIANT**

### Characteristics of FC Conduit

- SealSafe conduit can be used with SealSafe connectors for hazardous area applications
- Certificate and test report available on request
- Operating temperature of -5 to 60°C
- Tough, resilient and flexible
- Anti static PVC with 30% nitrile blend for improved chemical resistance
- Flame retardant jacket compliant with AS2053 flammability test
- Tested to AS/NZS 2053.4:1995.



# SEALS SAFE FITTINGS

All Sealsafe fittings can be easily attached to the conduit in the field, eliminating the need for pre-assembled fixed length conduits. Sealsafe fittings can be used with flexible metallic, liquidtight conduit (as detailed on page 8) or with the FC braided conduit (as detailed page 18) or with rigid conduit as detailed below.

Using a simple co-extruded epoxy putty packed into a conventional style fitting makes installation at any angle a possibility. Certificate available upon request.



## General Purpose

| CONDUIT SIZE (MM) | CAT. NO. | THREAD SIZE | BORE |
|-------------------|----------|-------------|------|
| 20                | FHC-2002 | M20 X 1.5   | 13.5 |
| 25                | FHC-2502 | M25 X 1.5   | 18.0 |

## Characteristics

- Can be used in Zone 21 (DIP) environments
- Nickel plated brass for strength and durability
- IP65 protection for a liquidtight installation
- Swivelling action to facilitate installation
- Inspection hole in nut to ensure correct position after assembly.



IP65

ZONE 1 & ZONE 21

# BARRIER FITTINGS

## Characteristics

- Can be used in Zone 1 Explosive Gas environments
- Type of protection – Exd IIB Zone I, DIP Zone 21
- Nickel plated brass for strength and durability
- IP65 protection for a liquidtight installation
- Multi-part fitting with the ease of installation of a union
- Co-extruded epoxy used to block flame path around conductors
- Simply insert the conduit into the gland nut and attach to the back body
- Free turning gland nut locks the front and back bodies together
- Inspection hole in nut to ensure correct position after assembly.



## Male Barrier

| CONDUIT SIZE (MM) | CAT. NO. | THREAD SIZE | BORE |
|-------------------|----------|-------------|------|
| 20                | FHC-2003 | M20 X 1.5   | 13.5 |
| 25                | FHC-2503 | M25 X 1.5   | 18.0 |



## Female Barrier

| CONDUIT SIZE (MM) | CAT. NO. | THREAD SIZE | BORE |
|-------------------|----------|-------------|------|
| 20                | FHC-075  | 3/4" BSP    | 13.5 |
| 25                | FHC-100  | 1" BSP      | 18.0 |



## Universal Barrier

| CONDUIT SIZE (MM) | CAT. NO. | MALE ENTRY SIZE | FEMALE ENTRY SIZE | BORE |
|-------------------|----------|-----------------|-------------------|------|
| 20                | FB-20    | M20 X 1.5       | M20 X 1.5         | 13.5 |
| 25                | FB-25    | M25 X 1.5       | M25 X 1.5         | 18.0 |

## Characteristics

- Can be used in Class I (Explosive Gas) environments
- Type of protection – Exd IIB Zone I, DIP Zone 21
- Nickel plated brass for strength and durability
- IP65 protection for a liquidtight installation
- Co-extruded epoxy used to block flame path around conductors
- Ease installed due to swivel action – union style.

# TECHNICAL INFORMATION & GUIDANCE

Triflex conduits are tested to rigorous Australian and International standards to ensure performance and safety.

## STANDARDS & DIRECTIVES

**Standards Australia (AS)** – Standards Australia is Australia’s peak Standards body. It co-ordinates standardisation activities, develops internationally aligned Australian Standards and facilitates the accreditation of other Standards Development Organisations.

**It should be well noted that conduit can be tested to the AS/NZS standard however there is no “cation” process. In all cases it is the performance of the entire system, conduit and in fact fittings are more important in assessing the safety, integrity and performance of a system.**

**Underwriters Laboratory (UL)** – Based in the United States, Underwriters Laboratories® is an independent product safety certification organization that has been testing products and writing safety standards for more than a century. There are two UL marks that are commonly found related to product certification:



**UL Listing Mark** – this indicates that a representative samples of products has been found to meet UL’s safety requirements and is therefore considered free of reasonably foreseeable risk of fire, electric shock and related hazards.

**UL Recognised Component Mark** – this indicates that the product has been certified as a part of a finished product. Just because a finished product contains UL recognised parts however does not mean the final product is UL certified.

**Canadian Standards Association (CSA)** – has several arms one of which is involved in developing standards designed to enhance public health and safety and another one involved in product testing and certification to Canadian and international standards.



**CSA Mark** – a product bearing this mark is certified primarily to applicable Canadian standards. Customers can be confident that the product has been evaluated through a formal process involving examination, testing and follow-up inspection and that it complies with applicable standards for safety and performance.

**National Electrical Manufacturers Association (NEMA)** – in addition to roles in policy and industry data, NEMA provides a forum for the development of technical standards in the interest of industry and users.

**Restriction of Hazardous Substances (RoHS) Directive** – came into force in EU member states in 2006 and restricts the use of six hazardous substances in the manufacture of electrical and electronic equipment. The directive stipulates agreed levels of lead, cadmium, mercury, hexavalent chromium and the flame retardants PBB and PBDE. It is closely related to the Waste Electrical and Electronic Directive (WEEE). Other jurisdictions including China, USA and Australia have since been evaluating and implementing similar legislation.

# CONDUIT IN HAZARDOUS AREAS

Australia is still in a transition stage between the old series of hazardous area standards and the new ones that are harmonised with the IEC standards. Currently there are over 10 series including more than 50 individual standards that deal with classification, equipment design and manufacture, testing, inspection & maintenance, selection, installation and safe work practises in relation to electrical equipment in hazardous areas.

All electrical equipment installed in hazardous areas must be explosion protected. The specifier must consider not only the Zone Classification but also the Temperature Classification, the Gas Group (where appropriate) and the IP rating for outdoor use and/or corrosion protection.

## ANZEx Scheme – Certification of equipment for explosive Atmospheres (Formerly AUSEx)

In Australia and New Zealand the installation standards for electrical equipment to be installed in a hazardous area requires “Proof of Compliance.” Either a Certificate of Conformity within the ANZEx scheme or an IECEx Certificate of Conformity is deemed to comply with this requirement. IECEx is the first international certification scheme and certificates issued under this scheme will be recognised in all member countries including Australia, UK, France, Germany, Canada and the USA.

## IP RATING

The IP rating indicates the degree of Ingress Protection provided by enclosures for electrical equipment and is defined in Australian Standard AS60529:2004 – Degrees of protection provided by enclosures (IP Code).

The first numeral refers to the protection against the ingress of solid objects and the second refers to the protection against the ingress of water.

| PROTECTION AGAINST SOLID OBJECTS |   |
|----------------------------------|---|
| 0                                | No protection   |
| 1                                | Protection against objects >50mm <sup>2</sup> and against accidental access to hazardous parts by the back of the hand  |
| 2                                | Protection against objects larger than 12.5mm <sup>2</sup> and against access of fingers to hazardous parts             |
| 3                                | Protection against the access of tools, wires or other solid objects other solid objects larger than 2.5mm <sup>2</sup> |
| 4                                | Protected against the access of solid foreign bodies larger than 1mm <sup>2</sup>                                       |
| 5                                | Protected against the entry of dust in sufficient quantity to interfere with the operation of equipment                 |
| 6                                | Completely protected from the entry of dust   |
| PROTECTION AGAINST WATER         |   |
| 0                                | No protection   |
| 1                                | Protected against drops of water falling vertically   |
| 2                                | Protection against drops of water falling at up to 15°deg from vertical   |
| 3                                | Protection against drops of water sprayed at angles at up to 60°deg from vertical                                       |
| 4                                | Protected against spraying or splashing water from all practicable angles   |
| 5                                | Protected from low pressure jets of water from all practicable angles   |
| 6                                | Protected against strong jets of water from all practicable angles, equivalent to the force of heavy seas               |
| 7                                | Protected against temporary immersion at a specified depth for a specified time   |
| 8                                | Protected against continuous immersion at a specified depth and pressure  |

# CHEMICAL RESISTANCE

The information in this table is provided as a guide only.

Testing should be done for individual situations with the relevant conduit system.

Results shown are for chemicals at room temperature.

R = Resistant, LR = Limited Resistance, NR = Non-resistant, ND = No data

| CHEMICAL                          | PVC | TPR | PA6 | GAL STEEL |
|-----------------------------------|-----|-----|-----|-----------|
| Acetic Acid 40%                   | LR  | LR  | NR  | NR        |
| Acetic Acid 10%                   | R   | R   | LR  | NR        |
| Acetone                           | NR  | R   | R   | R         |
| Aluminium Chloride                | R   | R   | LR  | NR        |
| Ammonium Chloride                 | R   | R   | R   | NR        |
| Benzaldehyde                      | NR  | R   | LR  | R         |
| Benzene                           | NR  | R   | R   | R         |
| Bromine                           | NR  | NR  | NR  | ND        |
| Butyl Alcohol                     | R   | R   | R   | ND        |
| Calcium Chloride 20%              | R   | R   | NR  | LR        |
| Carbon Tetrachloride              | NR  | NR  | R   | R         |
| Chlorine (water solution) <5%     | LR  | LR  | NR  | NR        |
| Chloroform                        | NR  | NR  | NR  | R         |
| Citric Acid                       | R   | R   | R   | R         |
| Copper Sulphate                   | R   | R   | LR  | R         |
| Cresol                            | NR  | NR  | NR  | R         |
| Dimethyl Formamide                | NR  | NR  | R   | ND        |
| Diesel Oils                       | LR  | LR  | R   | R         |
| Diethylene Glycol                 | LR  | LR  | R   | R         |
| Ethanol L                         | R   | R   | R   | R         |
| Ether                             | NR  | NR  | R   | R         |
| Ethyl Acetate                     | NR  | R   | R   | ND        |
| Ethylene Glycol                   | R   | R   | R   | NR        |
| Ferrous Chloride                  | R   | R   | LR  | NR        |
| Formic Acid 10%                   | R   | R   | NR  | ND        |
| Freon 32                          | LR  | LR  | R   | NR        |
| Hydrochloric Acid 40%             | LR  | R   | NR  | NR        |
| Hydrochloric Acid 10%             | R   | R   | NR  | NR        |
| Hydrogen Peroxide 10%             | R   | R   | LR  | NR        |
| Kerosene                          | LR  | NR  | R   | R         |
| Lactic Acid                       | R   | R   | LR  | NR        |
| Lubricating Oils, Greases & Soaps | R   | R   | R   | R         |
| Magnesium Chloride                | R   | R   | R   | NR        |
| Magnesium Sulphate                | R   | R   | R   | ND        |
| Methanol                          | NR  | R   | LR  | R         |
| Methyl Acetate                    | NR  | NR  | R   | ND        |
| Methyl Bromide                    | NR  | NR  | NR  | R         |
| Methyl Ethyl Ketone               | NR  | R   | R   | R         |
| Mineral Oil                       | R   | NR  | R   | R         |
| Nitric Acid 10%                   | R   | R   | NR  | NR        |
| Nitric Acid 35%                   | LR  | NR  | NR  | NR        |
| Nitric Acid 70%                   | NR  | NR  | NR  | NR        |
| Oxalic Acid 10%                   | R   | R   | LR  | NR        |
| Ozone                             | LR  | LR  | NR  | NR        |
| Petroleum                         | R   | R   | R   | R         |
| Phenol                            | LR  | R   | NR  | R         |
| Phosphoric Acid 10%               | R   | R   | NR  | ND        |
| Phosphoric Acid 85%               | R   | R   | NR  | ND        |
| Potassium Hydroxide               | R   | R   | LR  | ND        |
| Seawater                          | R   | R   | R   | NR        |
| Silver Nitrate                    | R   | R   | R   | NR        |
| Sodium Chloride                   | R   | R   | R   | NR        |
| Sodium Hydroxide 10%              | R   | R   | R   | NR        |
| Sulphur Dioxide <5%               | NR  | R   | NR  | NR        |
| Sulphur Dioxide (Liquid)          | NR  | R   | NR  | NR        |
| Sulphuric Acid 50%                | R   | R   | NR  | NR        |
| Sulphuric Acid 98%                | NR  | NR  | NR  | NR        |
| Toluene                           | NR  | NR  | R   | R         |
| Transformer Oil                   | R   | R   | R   | R         |
| Trichlorethane                    | NR  | NR  | R   | NR        |
| Trichlorethylene                  | NR  | NR  | R   | NR        |
| Turpentine                        | LR  | NR  | R   | R         |
| Vegetable Oils & juices           | R   | R   | R   | R         |
| Water                             | R   | R   | R   | NR        |
| Zinc Chloride 10%                 | R   | R   | NR  | NR        |

# Flexible Conduit Systems

[www.triflexmanufacturing.com.au](http://www.triflexmanufacturing.com.au)



**triflex**  
Manufacturing

Triflex Manufacturing Pty Ltd  
Warehouse 29,  
2-4 Picrite Close  
Pemulwuy NSW 2145  
Australia  
Phone: (02) 9631 5977  
Fax: (02) 9631 9033  
Email: [sales@triflex.com.au](mailto:sales@triflex.com.au)