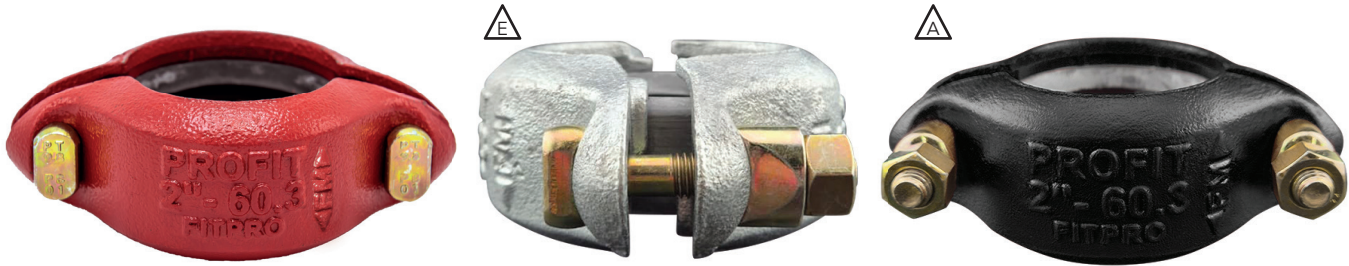


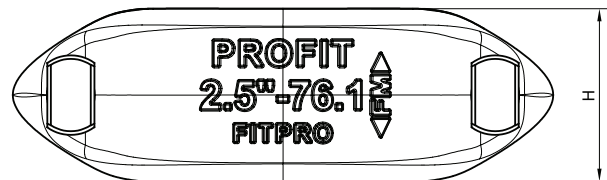
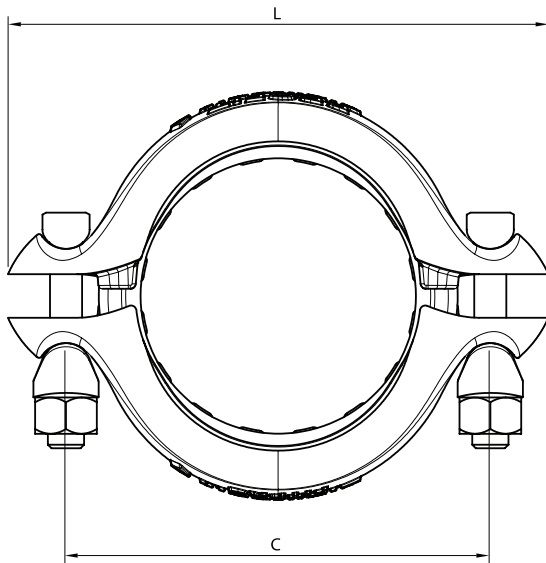
Size range: 1¼" - 4"



Fitpro® is a coupling designed to make fast rigid connections in both dry and wet sprinkler piping systems. It is used with grooved piping only and it is ready for installation. **Patented design.**

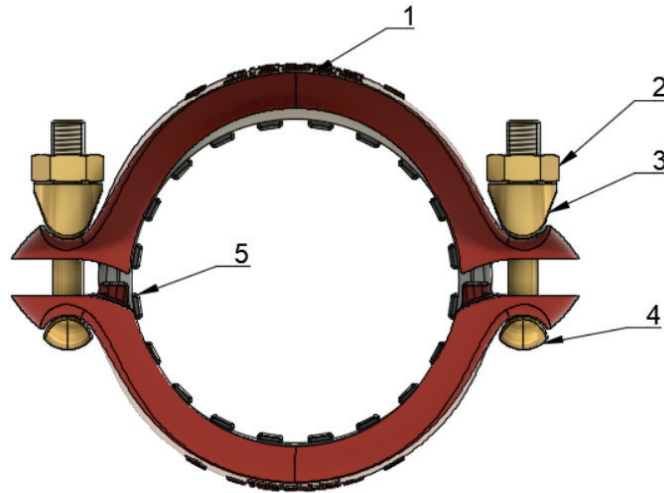
**Working pressure**

- 2,07 MPa / 20,7 bar / 300 psi<sup>1</sup>.



| Reference |           |           | Nominal size |          | Pipe<br>Ø O.D. | Coupling dimensions |         |         | Bolt<br>size | Socket<br>size | Torque  | Weight |
|-----------|-----------|-----------|--------------|----------|----------------|---------------------|---------|---------|--------------|----------------|---------|--------|
| Red       | Galva     | Black     | NPS<br>inch  | DN<br>mm | mm             | L<br>mm             | H<br>mm | C<br>mm | metric       | mm             | Nm      | kg     |
| FitproR1¼ | FitproG1¼ | FitproB1¼ | 1¼"          | 32       | 42,4           | 114                 | 46      | 82      | M10          | 17             | 40-50   | 0,64   |
| FitproR1½ | FitproG1½ | FitproB1½ | 1½"          | 40       | 48,3           | 120                 | 46      | 88      | M10          | 17             | 40-50   | 0,72   |
| FitproR2  | FitproG2  | FitproB2  | 2"           | 50       | 60,3           | 133                 | 47      | 101     | M10          | 17             | 40-50   | 0,80   |
| FitproR2½ | FitproG2½ | FitproB2½ | 2½"          | 65       | 76,1           | 149                 | 47      | 117     | M10          | 17             | 40-50   | 0,95   |
| FitproR3  | FitproG3  | FitproB3  | 3"           | 80       | 88,9           | 162                 | 47      | 130     | M10          | 17             | 40-50   | 1,07   |
| FitproR4  | FitproG4  | FitproB4  | 4"           | 100      | 114,3          | 201                 | 51      | 161     | M12          | 22             | 100-110 | 1,74   |

<sup>1</sup> For use with Sched 40/30 pipes. Please refer to table page 3 for use with other pipes.



### Material specifications

1. **Fitpro® coupling housing (2x):** ductile iron conforming to EN-GJS-450-10 (ASTM A 536 65 45 12).

Standard coatings are:

- Red (RAL 3000) painted EPD epoxy paint (type FitproR).
- Coated with black powdercoating paint (RAL 9005).
- Hot dip galvanised (type FitproG).



2. **Heavy hex nut (2x):** carbon steel heavy hexagon nut Grade 9, conforming to ISO 898-1.

Standard coating is: yellow zinc electroplated conforming to ISO 4042.

3. **R-spacer (2x):**

Semi-spherical spacer: ductile iron conforming to EN-GJS-450-10 (ASTM A 536 65 45 12) or carbon steel with comparable physical properties.

Standard coating is: yellow zinc electroplated conforming to ISO 4042.

4. **T-bolt (2x):** carbon steel heavy hexagon nut grade 9.8, conforming to ISO 898-2

Standard coating is: yellow zinc electroplated conforming to ISO 4042.

5. **Fitpro® self-lubricating gasket (1x):**

Grade: EPDM-rubber<sup>2</sup>, properties in accordance with ASTM D 2000.



### Optional: Corrofit-line (on request)

1. **Castings coated with two-layer protection system:** hot dip galvanised + polyester-based powdercoating paint (RAL 3000).

- 2, 3, 4. **Geomet® 321 B-coating.**

<sup>2</sup> Suitable for use with water and compressed air, maximum working temperature + 50 °C. For use with fluids or other working temperatures, please contact our technical R&D department.

## FUNCTIONAL DATA



| Red         | Galva       | Black       | Maximum pipe end separation <sup>3</sup><br>(mm) | Maximum end load <sup>4</sup><br>(N) |
|-------------|-------------|-------------|--|--------------------------------------|
| FitproR5/4  | FitproG5/4  | FitproB5/4  | 3,8  | 3049                                 |
| FitproR6/4  | FitproG6/4  | FitproB6/4  | 3,8  | 3930                                 |
| FitproR2    | FitproG2    | FitproB2    | 3,3  | 6173                                 |
| FitproR21/2 | FitproG21/2 | FitproB21/2 | 3,3  | 9856                                 |
| FitproR3    | FitproG3    | FitproB3    | 3,3  | 13128                                |
| FitproR4    | FitproG4    | FitproB4    | 3,8  | 21540                                |

<sup>3</sup> This value represents the maximum axial pipe movement (when pressurising the system). To be taken into account during system layout. In practice values may vary (decrease). Depending on: actual groove dimensions, vertical or horizontal installation, and spacing applied during installation.

<sup>4</sup> Table values are maximum total end load from external + internal forces acting on the coupling joint when using standard weight pipes.

- The maximum pipe end separation values shown in the table are valid for rolled groove, they may be doubled for cut groove. For design and installation purposes, we recommend to reduce these values by 50% (1"-3") and by 25% (4"-10").

## LISTINGS & APPROVALS

| Pipe Brand / type  | Pipe range (DN)                | FM Pressure rating |
|--|--------------------------------|--------------------|
| Rolled and Cut Groove Schedule 40                                | 1-¼, 1-½, 2, 3 inch<br>76.1 mm | 300 psi / 2070 kPa |
| Rolled and Cut Groove Schedule 40                                | 4 inch                         | 232 psi / 1600 kPa |
| Rolled Groove Schedule 10  | 1-¼, 1-½, 2, 3 inch<br>76.1 mm | 300 psi / 2070 kPa |
| Rolled Groove Schedule 10  | 4 inch                         | 232 psi / 1600 kPa |
| Rolled Groove ASME B36.10-2004 Schedule 10 Equivalent EN 10217-7 | 1-¼, 1-½, 2, 3 inch<br>76.1 mm | 300 psi / 2070 kPa |
| Rolled Groove ASME B36.10-2004 Schedule 10 Equivalent EN 10217-7 | 4 inch                         | 232 psi / 1600 kPa |
| Rolled Groove Schedule 5   | 1-¼, 1-½, 2 inch               | 175 psi / 1205 kPa |
| Rolled Groove ISO 4200 Thickness D                               | 4 inch                         | 232 psi / 1600 kPa |
| Rolled Groove ISO 4200 Thickness E                               | 1-¼, 1-½, 2, 3 inch<br>76.1 mm | 300 psi / 2070 kPa |
| Rolled Groove ISO 4200 Thickness E                               | 4 inch                         | 232 psi / 1600 kPa |
| Rolled and Cut Groove ISO 4200 Thickness F                       | 1-¼, 2, 3 inch                 | 300 psi / 2070 kPa |
| Rolled and Cut Groove ISO 4200 Thickness F                       | 4 inch                         | 232 psi / 1600 kPa |
| Rolled Groove ISO 4200 Thickness F                               | 1-½ inch<br>76.1 mm            | 300 psi / 2070 kPa |

| Pipe Brand / type                          | Pipe range (DN)                   | FM Pressure rating |
|--|-----------------------------------|--------------------|
| Rolled and Cut Groove ISO 4200 Thickness G | 1-¼, 1-½, 2, 3 inch<br>76.1 mm    | 300 psi / 2070 kPa |
| Rolled and Cut Groove ISO 4200 Thickness G | 4 inch                            | 232 psi / 1600 kPa |
| Rolled Groove DIN 2448                     | 1-¼, 1-½, 2, 3 inch<br>76.1 mm    | 300 psi / 2070 kPa |
| Rolled Groove DIN 2448                     | 4 inch                            | 232 psi / 1600 kPa |
| Rolled Groove DIN 2458 / EN 10220          | 1-¼, 1-½, 2, 3 inch<br>76.1 mm    | 300 psi / 2070 kPa |
| Rolled Groove DIN 2458 / EN 10220          | 4 inch                            | 232 psi / 1600 kPa |
| Sprinkler Nordic AB Nordic Flow            | 1-¼, 1-½, 2, 3, 4 inch<br>76.1 mm | 232 psi / 1600 kPa |
| Wuppermann Austria GmbH WLight7            | 1-¼, 1-½, 2, 3, 4 inch<br>76.1 mm | 175 psi / 1205 kPa |
| Wuppermann Austria GmbH WGALWELD7          | 1-¼, 1-½, 2, 3, 4 inch<br>76.1 mm | 175 psi / 1205 kPa |
| Wuppermann Austria GmbH WGALWELD7E         | 1-¼, 1-½, 2, 3, 4 inch<br>76.1 mm | 175 psi / 1205 kPa |
| Wuppermann Austria GmbH WFlow5             | 1-¼, 1-½, 2 inch                  | 175 psi / 1205 kPa |
| Wuppermann Austria GmbH WGALWELD5          | 1-¼, 1-½, 2 inch                  | 175 psi / 1205 kPa |
| Wuppermann Austria GmbH WGALWELD5E         | 1-¼, 1-½, 2 inch                  | 175 psi / 1205 kPa |
| Borusan Mannesmann Easy Flow               | 1-¼, 1-½, 2, 3, 4 inch<br>76.1 mm | 175 psi / 1205 kPa |

## Approvals

- Sprinkler-specific:

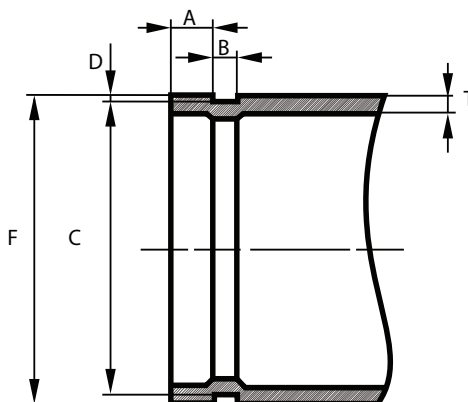


- Other qualifications:



- Rubbercompound tested by Kiwa according to EN 681-1/WC/WD.
- CSTB: test comprise 1000 hours leak-free service at 110°C.
- Becetel: test comprise vacuum tests and glycol (0,15 bara) / water mixture pressure tests (64 bar).

ROLLED GROOVE DIMENSIONS ACC. TO AWWA C606



| Nominal pipe size |      | Outside diameter |      |      | Gasket seat A            | Groove width B           | Groove diameter C |              | Groove depth* D | Maximum outspread F |
|-------------------|------|------------------|------|------|--------------------------|--------------------------|-------------------|--------------|-----------------|---------------------|
| NPS (DN)          | Size | mm               | + mm | - mm | Tolerance +0,4 / -0,8 mm | Tolerance +0,8 / -0,4 mm | Size              | Tolerance mm | mm              | mm                  |
| 1¼                | 32   | 42,4             | 0,50 | 0,60 | 15,9                     | 7,1                      | 39,0              | +0/-0,4      | 1,6             | 43,3                |
| 1½                | 40   | 48,3             | 0,44 | 0,52 | 15,9                     | 7,1                      | 45,1              | +0/-0,4      | 1,6             | 49,4                |
| 2                 | 50   | 60,3             | 0,61 | 0,61 | 15,9                     | 8,7                      | 57,2              | +0/-0,4      | 1,6             | 62,2                |
| 2½                | 65   | 76,1             | 0,76 | 0,76 | 15,9                     | 8,7                      | 72,3              | +0/-0,4      | 2,0             | 77,7                |
| 3                 | 80   | 88,9             | 0,89 | 0,79 | 15,9                     | 8,7                      | 84,9              | +0/-0,4      | 2,0             | 90,6                |
| 4                 | 100  | 114,3            | 1,14 | 0,79 | 15,9                     | 8,7                      | 110,1             | +0/-0,5      | 2,2             | 116,2               |

For installations within Europe (EC) please note that the minimum pipe thickness in fire sprinkler piping should be according to standard EN 12845.

## **MINIMUM PIPE WALL THICKNESS**

Allowable minimum pipe wall thickness combinations with PROFIT FITPRO® - coupling and rolled grooves.

### 1. Carbon steel pipes

| Nominal pipe size |     | Minimum thickness T*<br>MPW = 16 bar | Minimum thickness T**<br>MWP = 20,7 bar | Minimum thickness T***<br>Only combined with FM-approved pipes |           |
|-------------------|-----|--------------------------------------|---|--|-----------|
| NPS               | DN  | mm                                   | mm                                      | Thickness (mm)   | MWP (bar) |
| 1¼                | 32  | 2                                    | 2,77                                    | 1,6  | 12        |
| 1½                | 40  | 2                                    | 2,77                                    | 1,6  | 12        |
| 2                 | 50  | 2                                    | 2,77                                    | 1,6  | 12        |
| 2½                | 65  | 2                                    | 3,05                                    | 2,11   | 12        |
| 3                 | 80  | 2                                    | 3,05                                    | 2,34   | 12        |
| 4                 | 100 | 2,3                                  | 3,05 (16 bar)                           | 2,6  | 12        |

### 2. Stainless steel pipes <sup>1</sup>

| NPS<br>Inch | DN<br>mm | Minimum pipe thickness<br>for MWP 10 bar<br>mm | Minimum pipe thickness<br>for MWP 16 bar<br>mm |
|-------------|----------|--|--|
| 2"          | 50       | 2  | 2  |
| 2.5"        | 65       | 2  | 2  |
| 3"          | 80       | 2  | 2  |
| 4"          | 100      | 2  | 2  |

T\* According to Nordic Flow® grooved pipes (FM Approved).

T\*\* For FM-application when couplings are combined with pipes with wall thickness bigger than the minimum thickness according to FM Property Loss Prevention datasheet 2-0.

T\*\*\* For FM-application only when combination of coupling and pipe are FM-listed.

MWP = maximum working pressure

<sup>1</sup> Test pressure = maximum 1,5 x MWP.

For installations within Europe (EC) please note that the minimum pipe thickness in fire sprinkler piping should be according to standard EN 12845.

## GENERAL INFO

- Installers should be trained or experienced to install and understand the product.
- Read and understand all technical datasheets and installation instructions before attempting to install, remove or adjust any Profit piping products.
- Depressurise and drain the sprinkler installation system before attempting to install, remove or adjust any Profit piping products.
- Never work on piping-systems that are pressurised and / or filled with water.
- Use the necessary Personal Protection Equipment (PPE) to avoid personal injury (helmet, safety shoes and goggles, Profit gloves).



- Piping Logistics reserves the right to change specifications, designs and / or standard equipment without notice and without incurring in any obligations.
- Profit red and black coated products are intended for piping with indoor application (EN 12944-2 corrosivity category C1 & C2). For outdoor installations near the sea (corrosivity category C3) we advise the use of our hot dip galvanised couplings and fittings. For application in corrosivity category C4 (higher salinity climate) or higher, please contact [info@pipinglogistics.eu](mailto:info@pipinglogistics.eu).
- Pressure ratings listed for fire sprinkler applications are CWP (cold working pressure) or MWP (maximum working pressure) at a maximum service temperature of 66°C. This rating may occasionally differ from maximum working pressure listed and / or approved by UL and / or FM, as testing conditions and test pipes can differ. For more information, please contact [info@pipinglogistics.eu](mailto:info@pipinglogistics.eu).
- Maximum working pressure listed is the total of internal and external pressures based on standard weight (ANSI) steel pipe and standard roll or cut groove in accordance with Profit specifications. For more information, please contact [info@pipinglogistics.eu](mailto:info@pipinglogistics.eu).
- For one time field test only, the maximum joint working pressure may be increased by 150% the figure shown.
- Independent technical datasheet for bolts and nuts and rubber gaskets.

**Failure to follow these instructions could result in death or serious injury and property damage.**

**We advise to always store our products in closed and dry environments, the products do not need any specific maintenance once installed on an above ground sprinkler installation.**

## REVISION TABLE

| Date       | △ | Notes  |
|------------|---|--|
| 26/06/2024 |   | Page 4 - Addition of the CE certificate.                     |
| 09/05/2025 |   | New design.  |
| 09/05/2025 | B | Page 1 - New notation of the working pressure.               |
| 09/05/2025 | C | Page 2 - Addition of information about Corrofit and Geomet®. |
| 09/05/2025 | D | Page 6 - Addition of the minimum pipe wall thickness.        |
| 24/09/2025 | A | Page 1, 2 & 3 - Addition of the black powdercoating.         |
| 02/10/2025 | E | Page 1 - New product picture.                                |