

# FGK

## FRIAGRIP coupling

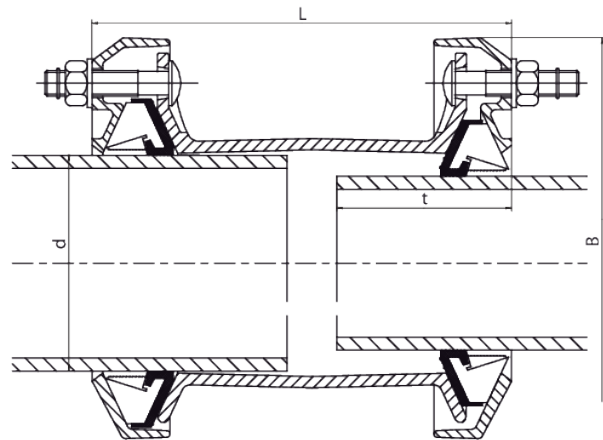
Restrained coupling for connecting pipes of different materials (steel, cast iron, ductile iron, asbestos cement, PVC, PE-HD/PEX).

- Body and bonnet are made of ductile iron (EN-GS-450-10)
- Corrosion protection Rilsan (min. 250 µm acc. GSK).
- Progressive Gripping Mechanism increases its end load restraint capability as the internal pressure in the pipe. One gripper system suits all recommended pipe materials and offers full end load resistance at full angular deflection.
- Carriers made of acetal, gripping segment made of acetal, corundum-coated
- Gasket material EPDM or NBR
- Diameter tolerance dimensionally dependent up to max. 54 mm
- Nuts and Bolts made of stainless steel.
- Maximum pipe deflection 8°
- Temperature range: -20 °C - +30 °C

### Note:

When used on PE-HD/PEX pipes, our inner support liner SHVA is required.

When used on asbestos cement pipes, restrained function cannot be ensured.



Gasket EPDM, DIN-EN 681-1 / KTW / UBA / DVGW-W270

PFA /PN Water: up to DN 300 = 16 bar, larger DN 300 = 10 bar

| Reference | Diameter   | DN | PN | L   | t min | t max | Screws (pc. / size)     | Weight [kg] | BX | Pallet quantity |
|-----------|------------|----|----|-----|-------|-------|-------------------------|-------------|----|-----------------|
| 672101    | 43,5-63,5  | 40 | 16 | 222 | 65    | 95    | 3 x 670601 / 3 x 670601 | 5,760       | 5  | 90              |
| 672102    | 48,0-71,0  | 50 | 16 | 256 | 65    | 110   | 3 x 670603 / 3 x 670603 | 4,700       | 1  | 72              |
| 672103    | 63,0-83,7  | 65 | 16 | 222 | 65    | 95    | 3 x 670601 / 3 x 670601 | 5,100       | 4  | 72              |
| 672105    | 85,7-107,0 | 80 | 16 | 248 | 65    | 110   | 3 x 670601 / 3 x 670601 | 7,400       | 1  | 30              |

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| Reference | Diameter    | DN   | PN | L   | t min | t max | Screws (pc. / size)       | Weight [kg] | BX | Pallet quantity |
|-----------|-------------|------|----|-----|-------|-------|---------------------------|-------------|----|-----------------|
| 672107    | 107,2-133,2 | 100  | 16 | 296 | 90    | 125   | 3 x 670707 / 3 x 670707   | 12,600      | 1  | 24              |
| 672109    | 132,2-160,2 | 125  | 16 | 296 | 90    | 125   | 3 x 670707 / 3 x 670707   | 14,100      | 1  | 12              |
| 672111    | 158,2-192,2 | 150  | 16 | 340 | 90    | 135   | 4 x 670707 / 4 x 670707   | 17,600      | 1  | 12              |
| 672113    | 192,2-226,9 | 175  | 16 | 347 | 125   | 165   | 5 x 670707 / 5 x 670707   | 33,220      | 1  | 12              |
| 672115    | 218,1-256,0 | 200  | 16 | 347 | 125   | 165   | 5 x 670707 / 5 x 670707   | 34,900      | 1  | 8               |
| 672117    | 266,2-310,2 | 250  | 16 | 484 | 125   | 165   | 6 x 670717 / 6 x 670717   | 51,800      | 1  | 2               |
| 672119    | 315,0-356,0 | 300  | 16 | 484 | 125   | 200   | 8 x 670717 / 8 x 670717   | 58,900      | 1  | 2               |
| 672121    | 352,2-396,0 | 350  | 10 | 485 | 125   | 200   | 9 x 670717 / 9 x 670717   | 60,000      | 1  | 1               |
| 672123    | 398,2-442,0 | 400  | 10 | 485 | 125   | 200   | 10 x 670717 / 10 x 670717 | 70,000      | 1  | 1               |
| 672125    | 448,0-492,0 | 400+ | 10 | 545 | 125   | 200   | 12 x 670619 / 12 x 670619 | 135,000     | 1  | 1               |
| 672127    | 498,0-552,0 | 500  | 10 | 565 | 140   | 215   | 9 x 670719 / 9 x 670719   | 142,000     | 1  | 1               |
| 672129    | 558,0-608,0 | 500+ | 10 | 565 | 140   | 215   | 10 x 670719 / 10 x 670719 | 162,000     | 1  | 1               |
| 672131    | 604,0-648,0 | 600  | 10 | 605 | 195   | 255   | 12 x 670719 / 12 x 670719 | 181,000     | 1  | 1               |
| 672133    | 676,0-726,0 | 600+ | 10 | 605 | 195   | 255   | 14 x 670719 / 14 x 670719 | 202,000     | 1  | 1               |

Gasket NBR, DIN-EN 682

MOP Gas: up to DN 400 = 5 bar

Other water qualities PFA /PN: up to DN 300 = 16 bar,

larger DN 300 = 10 bar

| Reference | Diameter    | DN  | PN | L   | t min | t max | Screws (pc. / size)       | Weight [kg] | BX | Pallet quantity |
|-----------|-------------|-----|----|-----|-------|-------|---------------------------|-------------|----|-----------------|
| 670101    | 43,5-63,5   | 40  | 5  | 222 | 65    | 95    | 3 x 670601 / 3 x 670601   | 5,760       | 5  | 90              |
| 670102    | 48,0-71,0   | 50  | 5  | 256 | 65    | 110   | 3 x 670603 / 3 x 670603   | 4,700       | 1  | 72              |
| 670103    | 63,0-83,7   | 65  | 5  | 222 | 65    | 95    | 3 x 670601 / 3 x 670601   | 6,860       | 4  | 72              |
| 670105    | 85,7-107,0  | 80  | 5  | 248 | 65    | 110   | 3 x 670601 / 3 x 670601   | 7,400       | 1  | 30              |
| 670107    | 107,2-133,2 | 100 | 5  | 296 | 90    | 125   | 3 x 670707 / 3 x 670707   | 12,600      | 1  | 24              |
| 670109    | 132,2-160,2 | 125 | 5  | 296 | 90    | 125   | 3 x 670707 / 3 x 670707   | 14,100      | 1  | 12              |
| 670111    | 158,2-192,2 | 150 | 5  | 340 | 90    | 135   | 4 x 670707 / 4 x 670707   | 17,600      | 1  | 12              |
| 670113    | 192,2-226,9 | 175 | 5  | 347 | 125   | 165   | 5 x 670707 / 5 x 670707   | 21,800      | 1  | 12              |
| 670115    | 218,1-256,0 | 200 | 5  | 347 | 125   | 165   | 5 x 670707 / 5 x 670707   | 37,500      | 1  | 8               |
| 670117    | 266,2-310,2 | 250 | 5  | 484 | 125   | 165   | 6 x 670717 / 6 x 670717   | 51,800      | 1  | 2               |
| 670119    | 315,0-356,0 | 300 | 5  | 484 | 125   | 200   | 8 x 670717 / 8 x 670717   | 58,900      | 1  | 2               |
| 670121    | 352,2-396,0 | 350 | 5  | 485 | 125   | 200   | 9 x 670717 / 9 x 670717   | 60,000      | 1  | 1               |
| 670123    | 398,2-442,0 | 400 | 5  | 485 | 125   | 200   | 10 x 670717 / 10 x 670717 | 70,000      | 1  | 1               |

## FRIAGRIP coupling

### Areas of application

FRIAGRIP coupling FGK as a restrained coupling<sup>1</sup> for pipes made of different materials (steel, cast iron, ductile iron, fiber cement<sup>2</sup>, PVC<sup>3</sup>, PE-HD/PEX<sup>4</sup>). Available from DN 40 to DN 600+.

FRIAGRIP components can only be used in buried areas

### Processing instructions

FRIAGRIP, restrained couplings for connections without without abutments (exception: asbestos cement pipes).

The pipe ends must be prepared in accordance with the general installation requirements (see FRIAGRIP installation instructions).

The insertion depths  $t_{min.}/t_{max.}$  must be strictly observed.

<sup>1</sup> Restrained; water:  $\leq$  DN 300 PN 16,  $>$  DN 300 PN10 / restrained:  $\leq$  DN 400 PN 5.

<sup>2</sup> Restrained cannot be guaranteed for asbestos cement pipes

<sup>3</sup> For application on PVC gas pipes, see FRIAGRIP Technical Information. For PVC pipes with wall thicknesses DIN 8061/62 - PN 10, use the FRIAGRIP support liners (type FRIATEC Mod. SHVA).

For application on stainless steel pipes, see FRIAGRIP Technical Information.

<sup>4</sup> When used with PE-HD/PEX pipes, the FRIAGRIP support liners

### Good reasons for FRIAGRIP

- Working in Pipe Trenches reduced to a minimum (no abutments required for directional changes)
- The components are delivered pre-assembled at the factory, thus no conversion and replacement work is required on site
- One gasket-package and one gripping segment for the pipe materials steel, cast iron, ductile iron, fiber cement, PVC, PE-HD/PEX.
- Gasket and gripping system operate independently of each other. This ensures a reliable seal under dynamic axial loads.
- Specially profiled gasket ensures full seal even on scored and corroded pipes.
- Deflection of the pipes up to 8° (coupling) or 4° (flange adapter).
- In case of pipe breakage, axial misalignment can be compensated by installing two couplings. The couplings act like a joint and keep the pipe stress-free
- Simple installation with standard tools
- One torque for all pipe materials
- Repeated checking of the tightening torque of the bolts not necessary
- The tolerance range of up to 54 mm allows different pipe materials to be connected to one FRIAGRIP-Size, therefore reduced stock-keeping necessary