

# FGE

## FRIAGRIP end-cap

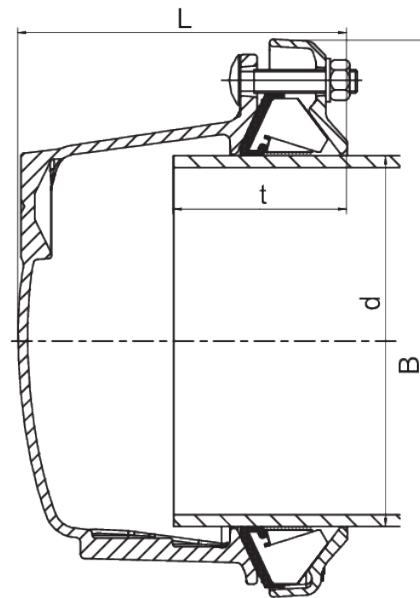
Restrained end-cap to close and seal pipes constantly or to cut off pipes temporarily connecting pipes of different materials (steel, cast iron, ductile iron, asbestos cement, PVC, PE-HD/PEX) to PE

- 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
672201	43,5-63,5	40	16	140	65	95	3 x 670603	2,800	4	96
672203	63,0-83,7	65	16	140	65	95	3 x 670603	3,300	4	96
672205	85,7-107,0	80	16	156	65	110	3 x 670603	4,200	4	96

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Reference	Diameter	DN	PN	L	t min	t max	Screws (pc. / size)	Weight [kg]	BX	Pallet quantity
672207	107,2-133,2	100	16	184	90	125	3 x 670707	8,050	2	48
672209	132,2-160,2	125	16	202	90	135	3 x 670707	9,600	1	18
672211	158,2-192,2	150	16	206	90	135	4 x 670707	11,800	1	18
672213	192,2-226,9	175	16	222	125	165	5 x 670707	13,800	1	8
672215	218,1-256,0	200	16	224	125	165	5 x 670707	18,800	1	4
672217	266,2-310,2	250	16	299	125	165	6 x 670717	32,200	1	4
672219	315,0-356,0	300	16	300	125	200	8 x 670717	40,000	1	4

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
670201	43,5-63,5	40	5	140	65	95	3 x 670603	2,800	4	96
670203	63,0-83,7	65	5	140	65	95	3 x 670603	3,300	4	96
670205	85,7-107,0	80	5	156	65	110	3 x 670603	4,200	4	96
670207	107,2-133,2	100	5	184	90	125	3 x 670707	8,050	2	48
670209	132,2-160,2	125	5	202	90	135	3 x 670707	9,600	1	18
670211	158,2-192,2	150	5	206	90	135	4 x 670707	11,800	1	18
670213	192,2-226,9	175	5	222	125	165	5 x 670707	13,800	1	8
670215	218,1-256,0	200	5	224	125	165	5 x 670707	18,800	1	4
670217	266,2-310,2	250	5	299	125	165	6 x 670717	32,200	1	4
670219	315,0-356,0	300	5	300	125	200	8 x 670717	40,000	1	4

## FRIAGRIP end-cap

### Good reasons for FRIAGRIP

Workload is reduced to a minimum (no abutments required for changes of direction)

The components are supplied pre-assembled at the factory, so no conversion and replacement work is required on site

One sealing package and one gripping segment for the pipe materials steel, cast iron, ductile cast iron, fiber cement, PVC, PE-HD/PEX

The sealing and gripping systems work independently of each other. This ensures a secure seal under dynamic axial loads

The waffle profile of the seal forms sealing chambers on the pipe surface, which support secure sealing on rough pipe surfaces

Pipes can be angled up to 8° (coupling) or 4° (flange adapter). In the event of pipe fractures, a misalignment can be compensated for 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

It is not necessary to check the tightening torque of the screws several times

The tolerance range of up to 54 mm enables different pipe materials to be connected to one component. Reduced stock levels for suppliers and retailers

### Application areas

FRIAGRIP end cap FGE as a restrained sealing element for pipes made of different materials (steel, cast iron, ductile cast iron, fiber cement\*\*, PVC\*\*\*\*, PEHD\*\*\*). Available from DN 40 to DN 300.

The clamping ranges are designed so that a component can be used on all pipe materials of a nominal diameter.

Available as a closed end cap or with an internal thread on the end face. There is the option of attaching an additional radial internal thread (Rp 3/4" - 1").

FRIAGRIP can be used with the NBR gasket for gas, water and waste water media, in the drinking water distribution network with EPDM seal (DVGW-W270 [11.2007], KTW). Screws and nuts galvanized and sheraplex-coated.

FRIAGRIP components can only be used in civil engineering!

### Processing instructions

FRIAGRIP can be used to produce restrained joints without abutments (exception: fiber 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 observed.

\*Water:  $\leq$  DN 300 PN 16,  $>$  DN 300 PN 10 / Gas:  $\leq$  DN 400 PN 5 The information on the type plate must be observed!

\*\* For fiber cement pipes, the longitudinal force locking cannot be guaranteed

\*\*\* For use with PE-HD/PEX pipes, the FRIAGRIP support sleeve (type FRIATEC Mod. SHVA, see current FRIAGRIP price list) must be used