



2012 / 2013

Product Catalogue

Georg Fischer Waga N.V.



+GF+

GEORG FISCHER
PIPING SYSTEMS

World wide at home

Georg Fischer Waga N.V. Founded in 1957 and with the main focus on the development, production and sales of high quality connection techniques. For many years now, our products have successfully been used around the world in above and below ground water and gas applications for new construction, expansion and maintenance & repair.



GEORG FISCHER
PIPING SYSTEMS

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For more product
documentation see
our download center
www.waga.nl

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The technical data are not binding and not expressly warranted characteristics of the goods.
They are subject to change. Please consult our general conditions of supply.



Water & gas

Under- and above-ground piping systems for water and gas can easily be installed and repaired with products from the Georg Fischer Waga program. We offer a wide range of products that can be used for applications in transport lines, distribution lines, house connections and service lines.



Transport lines

Transport lines carry water and gas from the source to the distribution lines. Distribution lines distribute the water or gas towards the end customer. Transport lines, usually with large diameters, are repaired with large diameter fittings. Especially for these large diameter transport lines we developed products that can easily be used to connect and repair these pipelines in the nominal sizes DN300 up to and including DN2800.

Distribution lines

Distribution lines ensure water and gas distribution to the end customer. Through large diameter transport lines, via distribution and service lines, water or gas reaches the end customer. Whether it concerns new construction or maintenance and repair applications. With products from the Georg Fischer Waga program distribution lines in the nominal sizes DN50 up to and including DN300 can perfectly be realized.

House connections and service lines

The last stage of the water or gas distribution grid is through pipelines that supply the water or gas to the meter. These pipelines are commonly known as house connections and service lines. Through these pipe lines, with nominal sizes of up to and including DN50, the water and gas is brought into the house or building. We have developed products for connections to these smaller diameter pipe lines, such as saddles and drilling devices.

Meet the Vips

With all of our products we put quality and simplicity first. With our reliable fittings a quick, easy and maintenance free connection can be made that will last for a long time. That is the strength of all our products and for the water and gas market an absolute need!



Wide range fittings



MULTI/JOINT® 3000 Plus



MULTI/JOINT® XL

Tailor-made fittings



Plast/Joint®



ST-System



FGR

Repair clamps and saddles



Multi/Clamp



WAL/V



Multi/Saddle Plus

Drilling devices



W400/W410

Reference projects

Whether it is connecting, repairing or tapping, our products can be used in a variety of applications. Our product programs are successfully implemented in the water and gas market in various applications around the world.



References in wide range fittings



MULTI/JOINT® 3000 Plus



MULTI/JOINT® XL

References in tailor-made fittings



Plast/Join®



ST-System



FGR

References in repair clamps and saddles



Multi/Clamp



WAL/V



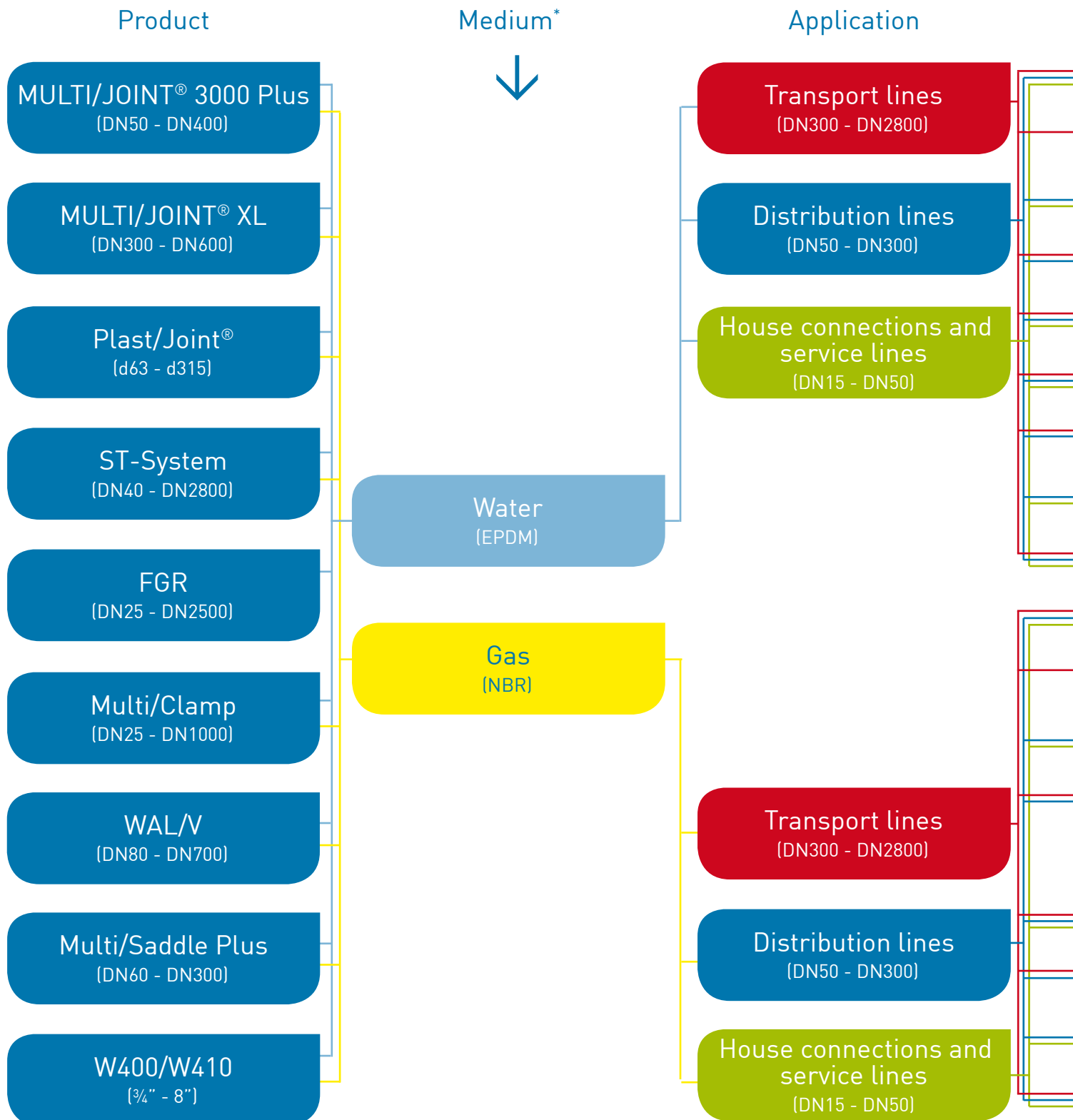
Multi/Saddle Plus

References in drilling devices



W400/W410

Which product is suitable for your application?



Our products can be used for various applications. Therefore we would like to help you make the right choice. In the below shown flow cart you can see which product is suitable for your application.



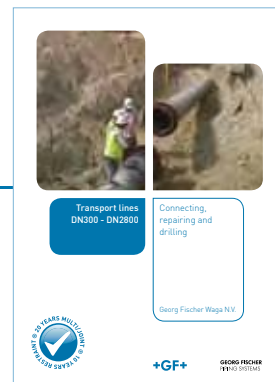
What documentation is suitable for your application?



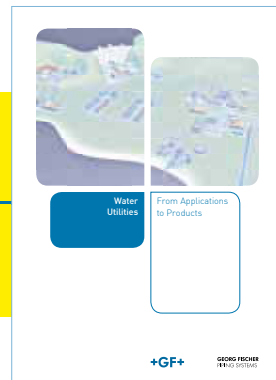
Company Profile



Water and gas utilities.
Maintenance and Repair



Transport lines



Water utilities, From
application to products



Distribution lines



Productcatalogue



Gas utilities, From
application to products



House connections
and service lines

The summary below shows the brochures that are available. You can request these brochures by phone or email, or use our request form on our website www.waga.nl



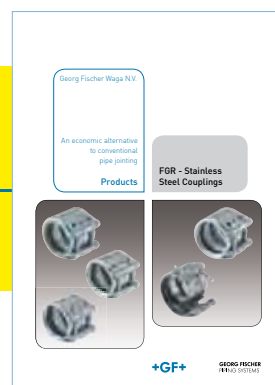
MULTI/JOINT® 3000 Plus



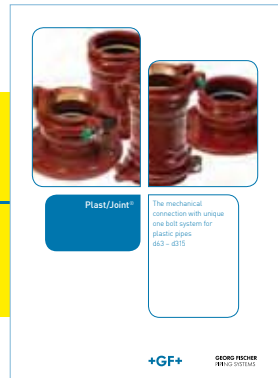
MULTI/JOINT® XL



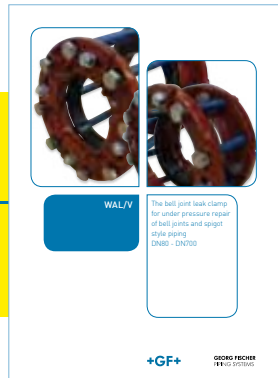
ST-System



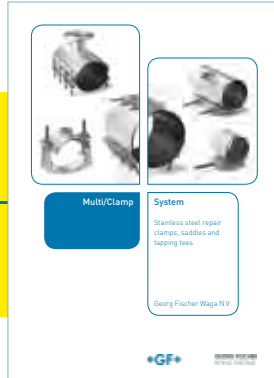
FGR



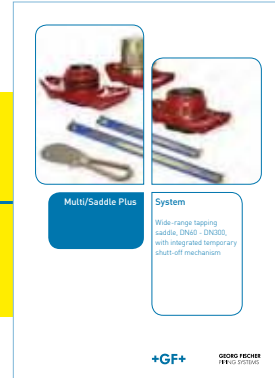
Plast/Join®



WAL/V



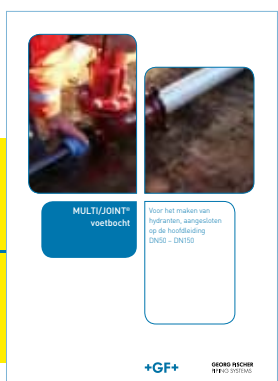
Multi/Clamp



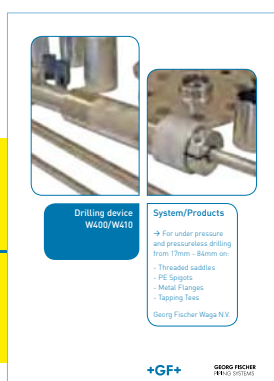
Multi/Saddle Plus



MULTI/JOINT® PE adaptor



MULTI/JOINT® Duckfoot
(language Dutch)



W400/W410



Insert stiffeners



MULTI/JOINT® The original!

Perfection in every detail, MULTI/JOINT® 3000 Plus

Clamp ring, ductile iron GGG45, EN-GJS-450-10 with Resicoat® epoxy powder coating, type RT 9000 R4

Varioseal® rubber gasket (EPDM or NBR)

Uni/Fikser®, Stainless Steel A4 (AISI 316)

Bolts, Stainless Steel A2, teflon coated, optional stainless steel A4 (AISI 316)



Uni/Fiks® ring

Washer, Stainless Steel A2 (AISI 304) / A4 (AISI 316)

Body, ductile iron GGG45, EN-GJS-450-10 with Resicoat® epoxy powder coating, type RT 9000 R4

Nuts, Stainless Steel A2 (AISI 304), galvanized and passivated, optional Stainless Steel A4 (AISI 316)



Product range



MULTI/JOINT® 3000 Plus

→ Your benefits

- Restraint system
- Peace of mind
- The quick, simple and safe repair solution
- Reduction of your stock costs thanks to the “one size fits all” principle
- Durable corrosion protection by Resicoat® epoxy powder coating (GSK approved)
- Suitable for all pipe materials
- Reusable
- Applicable for under- and above-ground use



Contents MULTI/JOINT® 3000 Plus

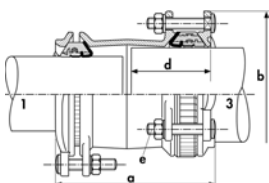
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MULTI/JOINT® 3000 Plus DN50 - DN400

MULTI/JOINT® 3000 Plus Wide Range Coupling, non-restraint

Model:

- Suitable for all kinds of pipe material
- Suitable for water and gas
- Ductile Cast iron GGG45 body and clamping ring(s), acc. to EN-GJS-450-10
- RESICOAT® epoxy powder coating, according to GSK standards and EN 14901
- NBR or EPDM gasket, NBR acc. to EN 682 (-5°C up to +50°C), EPDM acc. to EN 681-1 (0°C up to +50°C)
- Angular deflection of max. 8° per socket at installation (based on the middle of the coupling range)
- Stainless steel A2 quality (AISI 304) bolts, nuts and washers (optional: A4 quality)
- For all plastic pipes, the use of an insert stiffener (see accessories) is advised or in some cases mandatory, check our technical information.
- * DN350 and DN400: launch Q2 2012



DN [mm]	Range 1 [mm]	Range 3 [mm]	NBR / A2 Code	EPDM / A2 Code	NBR / A4 Code	
50	46 - 71	46 - 71	709 301 210	709 301 610	709 301 010	
65	63 - 90	63 - 90	709 301 212	709 301 612	709 301 012	
80	84 - 105	84 - 105	709 301 214	709 301 614	709 301 014	
100	104 - 132	104 - 132	709 301 216	709 301 616	709 301 016	
125	132 - 155	132 - 155	709 301 218	709 301 618	709 301 018	
150	154 - 192	154 - 192	709 301 220	709 301 620	709 301 020	
200	192 - 232	192 - 232	709 301 224	709 301 624	709 301 024	
225	230 - 268	230 - 268	709 301 226	709 301 626	709 301 026	
250	267 - 310	267 - 310	709 301 228	709 301 628	709 301 028	
300	315 - 356	315 - 356	709 301 232	709 301 632	709 301 032	
* 350	352 - 393	352 - 393	709 301 236	709 301 636	709 301 036	
* 400	392 - 433	392 - 433	709 301 240	709 301 640	709 301 040	

DN [mm]	Range 1 [mm]	Range 3 [mm]	EPDM / A4 Code	kg	
50	46 - 71	46 - 71	709 301 310	4.800	
65	63 - 90	63 - 90	709 301 312	5.600	
80	84 - 105	84 - 105	709 301 314	7.200	
100	104 - 132	104 - 132	709 301 316	9.400	
125	132 - 155	132 - 155	709 301 318	12.000	
150	154 - 192	154 - 192	709 301 320	14.800	
200	192 - 232	192 - 232	709 301 324	28.600	
225	230 - 268	230 - 268	709 301 326	33.400	
250	267 - 310	267 - 310	709 301 328	40.000	
300	315 - 356	315 - 356	709 301 332	51.500	
* 350	352 - 393	352 - 393	709 301 336		
* 400	392 - 433	392 - 433	709 301 340		

DN [mm]	a [mm]	b [mm]	d [mm]	e [mm]	PN Water [bar]	PN Gas [bar]	
50	209 - 233	164	95	3xM12	25.0	8.0	
65	220 - 250	186	100	3xM12	25.0	8.0	
80	234 - 262	204	115	3xM12	25.0	8.0	
100	230 - 268	236	110	3xM16	25.0	8.0	
125	246 - 282	264	120	4xM16	25.0	8.0	
150	242 - 298	304	120	4xM16	25.0	8.0	
200	297 - 351	354	140	6xM16	25.0	8.0	
225	342 - 404	386	145	6xM20	25.0	8.0	
250	354 - 424	432	170	6xM20	25.0	8.0	
300	356 - 426	490	170	8xM20	25.0	8.0	
* 350							
* 400							

PF 1 54 323 060



MULTI/JOINT® 3007 Plus Wide Range Coupling, restraint, Uni/Fiksers®

Model:

- Suitable for all kinds of pipe material
- Suitable for water and gas
- Ductile Cast iron GGG45 body and clamping ring(s), acc. to EN-GJS-450-10
- RESICOAT® epoxy powder coating, according to GSK standards and EN 14901
- NBR or EPDM gasket, NBR acc. to EN 682 (-5°C up to +50°C), EPDM acc. to EN 681-1 (0°C up to +50°C)
- Angular deflection of max. 8° per socket at installation (based on the middle of the coupling range)
- Stainless steel A4 quality (AISI 316) Uni/Fiksers®
- Stainless steel A2 quality (AISI 304) bolts, nuts and washers (optional: A4 quality)
- For restraint versions, on plastic pipes, the use of an insert stiffener (see accessories) is mandatory, check our technical information
- * DN350 and DN400: launch Q2 2012

Note:

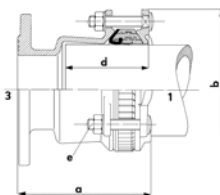
For pipe sizes >ø 284 mm - 310 mm please contact us

DN [mm]	Range 1 [mm]	Range 3 [mm]	NBR / A2 Code	EPDM / A2 Code	NBR / A4 Code	
50	46 - 71	46 - 71	709 305 210	709 305 610	709 305 010	
65	63 - 90	63 - 90	709 305 212	709 305 612	709 305 012	
80	84 - 105	84 - 105	709 305 214	709 305 614	709 305 014	
100	104 - 132	104 - 132	709 305 216	709 305 616	709 305 016	
125	132 - 155	132 - 155	709 305 218	709 305 618	709 305 018	
150	154 - 192	154 - 192	709 305 220	709 305 620	709 305 020	
200	192 - 232	192 - 232	709 305 224	709 305 624	709 305 024	
225	230 - 268	230 - 268	709 305 226	709 305 626	709 305 026	
250	267 - 310	267 - 310	709 305 228	709 305 628	709 305 028	
300	315 - 356	315 - 356	709 305 232	709 305 632	709 305 032	
* 350	352 - 393	352 - 393	709 305 236	709 305 636	709 305 036	
* 400	392 - 433	392 - 433	709 305 240	709 305 640	709 305 040	

DN [mm]	Range 1 [mm]	Range 3 [mm]	EPDM / A4 Code	kg	
50	46 - 71	46 - 71	709 305 310	4.800	
65	63 - 90	63 - 90	709 305 312	5.600	
80	84 - 105	84 - 105	709 305 314	7.200	
100	104 - 132	104 - 132	709 305 316	9.400	
125	132 - 155	132 - 155	709 305 318	12.000	
150	154 - 192	154 - 192	709 305 320	14.800	
200	192 - 232	192 - 232	709 305 324	28.600	
225	230 - 268	230 - 268	709 305 326	33.400	
250	267 - 310	267 - 310	709 305 328	40.000	
300	315 - 356	315 - 356	709 305 332	51.500	
* 350	352 - 393	352 - 393	709 305 336		
* 400	392 - 433	392 - 433	709 305 340		

DN [mm]	a [mm]	b [mm]	d [mm]	e [mm]	PN Water [bar]	PN Gas [bar]	
50	209 - 233	164	95	3xM12	16.0	8.0	
65	220 - 250	186	100	3xM12	16.0	8.0	
80	234 - 262	204	115	3xM12	16.0	8.0	
100	230 - 268	236	110	3xM16	16.0	8.0	
125	246 - 282	264	120	4xM16	16.0	8.0	
150	242 - 298	304	120	4xM16	16.0	8.0	
200	297 - 351	354	140	6xM16	16.0	8.0	
225	342 - 404	386	145	6xM20	16.0	8.0	
250	354 - 424	432	170	6xM20	16.0	8.0	
300	356 - 426	490	170	8xM20	10.0	5.0	
* 350							
* 400							

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MULTI/JOINT® 3050 Plus Wide Range Flange adaptor, non-restraint

Model:

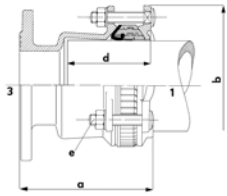
- Suitable for all kinds of pipe material
- Suitable for water and gas
- Ductile Cast iron GGG45 body and clamping ring(s), acc. to EN-GJS-450-10
- RESICOAT® epoxy powder coating, according to GSK standards and EN 14901
- NBR or EPDM gasket, NBR acc. to EN 682 (-5°C up to +50°C), EPDM acc. to EN 681-1 (0°C up to +50°C)
- Angular deflection of max. 8° per socket at installation (based on the middle of the coupling range)
- Stainless steel A2 quality (AISI 304) bolts, nuts and washers (optional: A4 quality)
- For all plastic pipes, the use of an insert stiffener (see accessories) is advised or in some cases mandatory, check our technical information.
- * DN350 and DN400: launch Q2 2012

DN [mm]	Range 1 [mm]	Flange 3 [mm]	Drilling pattern	NBR / A2 Code	EPDM / A2 Code	NBR / A4 Code	
50	46 - 71	50	PN16	709 351 210	709 351 610	709 351 010	
65	63 - 90	60/65	PN16	709 351 212	709 351 612	709 351 012	
80	84 - 105	80	PN16	709 351 214	709 351 614	709 351 014	
100	104 - 132	100	PN16	709 351 216	709 351 616	709 351 016	
125	132 - 155	125	PN16	709 351 218	709 351 618	709 351 018	
150	154 - 192	150	PN16	709 351 220	709 351 620	709 351 020	
200	192 - 232	200	PN10	709 351 224	709 351 624	709 351 024	
200	192 - 232	200	PN16	709 351 225	709 351 625	709 351 025	
250	267 - 310	250	PN10	709 351 228	709 351 628	709 351 028	
250	267 - 310	250	PN16	709 351 229	709 351 629	709 351 029	
300	315 - 356	300	PN10	709 351 232	709 351 632	709 351 032	
300	315 - 356	300	PN16	709 351 233	709 351 633	709 351 033	
* 350	352 - 393	350	PN10	709 351 236	709 351 636	709 351 036	
* 350	352 - 393	350	PN16	709 351 237	709 351 637	709 351 037	
* 400	392 - 433	400	PN10	709 351 238	709 351 638	709 351 038	
* 400	392 - 433	400	PN16	709 351 239	709 351 639	709 351 039	

DN [mm]	Range 1 [mm]	Flange 3 [mm]	Drilling pattern	EPDM / A4 Code	kg	
50	46 - 71	50	PN16	709 351 310	5.600	
65	63 - 90	60/65	PN16	709 351 312	6.500	
80	84 - 105	80	PN16	709 351 314	6.500	
100	104 - 132	100	PN16	709 351 316	8.600	
125	132 - 155	125	PN16	709 351 318	13.000	
150	154 - 192	150	PN16	709 351 320	14.000	
200	192 - 232	200	PN10	709 351 324	21.700	
200	192 - 232	200	PN16	709 351 325	21.700	
250	267 - 310	250	PN10	709 351 328	31.100	
250	267 - 310	250	PN16	709 351 329	31.100	
300	315 - 356	300	PN10	709 351 332	40.500	
300	315 - 356	300	PN16	709 351 333	40.500	
* 350	352 - 393	350	PN10	709 351 336		
* 350	352 - 393	350	PN16	709 351 337		
* 400	392 - 433	400	PN10	709 351 338		
* 400	392 - 433	400	PN16	709 351 339		

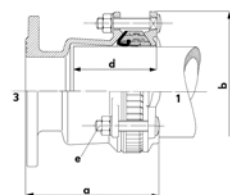
DN [mm]	a [mm]	b [mm]	d [mm]	e [mm]	PN Water [bar]	PN Gas [bar]	
50	179 - 194	164	100	3xM12	25.0	8.0	
65	187 - 198	186	95	3xM12	25.0	8.0	
80	183 - 197	204	115	3xM12	25.0	8.0	
100	181 - 200	236	110	3xM16	25.0	8.0	
125	196 - 214	264	120	4xM16	25.0	8.0	
150	194 - 222	304	120	4xM16	25.0	8.0	
200	224 - 251	354	140	6xM16	25.0	8.0	
200	224 - 251	354	140	6xM16	25.0	8.0	
250	260 - 295	432	170	6xM20	25.0	8.0	
250	260 - 295	432	170	6xM20	25.0	8.0	

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DN [mm]	a [mm]	b [mm]	d [mm]	e [mm]	PN Water [bar]	PN Gas [bar]	
300	283 - 318	490	170	8xM20	25.0	8.0	
300	283 - 318	490	170	8xM20	25.0	8.0	
* 350							
* 350							
* 400							
* 400							



MULTI/JOINT® 3057 Plus Wide Range Flange adaptor, restraint, Uni/Fiksers®

Model:

- Suitable for all kinds of pipe material
- Suitable for water and gas
- Ductile Cast iron GGG45 body and clamping ring(s), acc. to EN-GJS-450-10
- RESICOAT® epoxy powder coating, according to GSK standards and EN 14901
- NBR or EPDM gasket, NBR acc. to EN 682 (-5°C up to +50°C), EPDM acc. to EN 681-1 (0°C up to +50°C)
- Angular deflection of max. 8° per socket at installation (based on the middle of the coupling range)
- Stainless steel A4 quality (AISI 316) Uni/Fiksers®
- Stainless steel A2 quality (AISI 304) bolts, nuts and washers (optional: A4 quality)
- For restraint versions, on plastic pipes, the use of an insert stiffener (see accessories) is mandatory, check our technical information
- * DN350 and DN400: launch Q2 2012

Note:

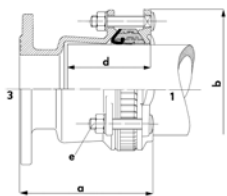
For pipe sizes >ø 284 mm - 310 mm please contact us

DN [mm]	Range 1 [mm]	Flange 3 [mm]	Drilling pattern	NBR / A2 Code	EPDM / A2 Code	NBR / A4 Code	
50	46 - 71	50	PN16	709 355 210	709 355 610	709 355 010	
65	63 - 90	60/65	PN16	709 355 212	709 355 612	709 355 012	
80	84 - 105	80	PN16	709 355 214	709 355 614	709 355 014	
100	104 - 132	100	PN16	709 355 216	709 355 616	709 355 016	
125	132 - 155	125	PN16	709 355 218	709 355 618	709 355 018	
150	154 - 192	150	PN16	709 355 220	709 355 620	709 355 020	
200	192 - 232	200	PN10	709 355 224	709 355 624	709 355 024	
200	192 - 232	200	PN16	709 355 225	709 355 625	709 355 025	
250	267 - 310	250	PN10	709 355 228	709 355 628	709 355 028	
250	267 - 310	250	PN16	709 355 229	709 355 629	709 355 029	
300	315 - 356	300	PN10	709 355 232	709 355 632	709 355 032	
300	315 - 356	300	PN16	709 355 233	709 355 633	709 355 033	
* 350	352 - 393	350	PN10	709 355 236	709 355 636	709 355 036	
* 350	352 - 393	350	PN16	709 355 237	709 355 637	709 355 037	
* 400	392 - 433	400	PN10	709 355 238	709 355 638	709 355 038	
* 400	392 - 433	400	PN16	709 355 239	709 355 639	709 355 039	

DN [mm]	Range 1 [mm]	Flange 3 [mm]	Drilling pattern	EPDM / A4 Code	kg	
50	46 - 71	50	PN16	709 355 310	5.600	
65	63 - 90	60/65	PN16	709 355 312	6.500	
80	84 - 105	80	PN16	709 355 314	6.500	
100	104 - 132	100	PN16	709 355 316	8.600	
125	132 - 155	125	PN16	709 355 318	13.000	
150	154 - 192	150	PN16	709 355 320	14.000	
200	192 - 232	200	PN10	709 355 324	21.700	
200	192 - 232	200	PN16	709 355 325	21.700	
250	267 - 310	250	PN10	709 355 328	31.100	
250	267 - 310	250	PN16	709 355 329	31.100	
300	315 - 356	300	PN10	709 355 332	40.500	
300	315 - 356	300	PN16	709 355 333	40.500	
* 350	352 - 393	350	PN10	709 355 336		
* 350	352 - 393	350	PN16	709 355 337		
* 400	392 - 433	400	PN10	709 355 338		
* 400	392 - 433	400	PN16	709 355 339		

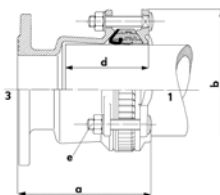
DN [mm]	a [mm]	b [mm]	d [mm]	e [mm]	PN Water [bar]	PN Gas [bar]	
50	179 - 194	164	100	3xM12	16.0	8.0	
65	187 - 198	186	95	3xM12	16.0	8.0	
80	183 - 197	204	115	3xM12	16.0	8.0	
100	181 - 200	236	110	3xM16	16.0	8.0	
125	196 - 214	264	120	4xM16	16.0	8.0	
150	194 - 222	304	120	4xM16	16.0	8.0	
200	224 - 251	354	140	6xM16	16.0	8.0	

table continued next page



DN [mm]	a [mm]	b [mm]	d [mm]	e [mm]	PN Water [bar]	PN Gas [bar]	
200	224 - 251	354	140	6xM16	16.0	8.0	
250	260 - 295	432	170	6xM20	16.0	8.0	
250	260 - 295	432	170	6xM20	16.0	8.0	
300	283 - 318	490	170	8xM20	10.0	5.0	
300	283 - 318	490	170	8xM20	10.0	5.0	
* 350							
* 350							
* 400							
* 400							

PF 1 54 323 061



MULTI/JOINT® 3050 Plus Wide Range Flange adaptor, non-restraint, acc. to AWWA C110

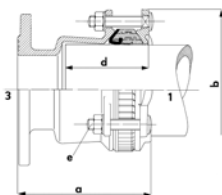
Model:

- Suitable for all kinds of pipe material
- Suitable for water and gas
- Ductile Cast iron GGG45 body and clamping ring(s), acc. to EN-GJS-450-10
- RESICOAT® epoxy powder coating, according to GSK standards and EN 14901
- NBR or EPDM gasket, NBR acc. to EN 682 (-5°C up to +50°C), EPDM acc. to EN 681-1 (0°C up to +50°C)
- Angular deflection of max. 8° per socket at installation (based on the middle of the coupling range)
- Stainless steel A2 quality (AISI 304) bolts, nuts and washers (optional: A4 quality)
- For all plastic pipes, the use of an insert stiffener (see accessories) is advised or in some cases mandatory, check our technical information.
- For measures and drawings see our product flyer

DN [mm]	DN [inch]	Range 1 [mm]	Range 1 [inch]	Flange 3 [mm]	Flange 3 [inch]	NBR / A2 Code	EPDM / A2 Code	
80	3	84 - 105	3.3 - 4.1	80	3	709 351 240	709 351 640	
100	4	104 - 132	4.1 - 5.2	100	4	709 351 242	709 351 642	
150	6	154 - 192	6.1 - 7.6	150	6	709 351 244	709 351 644	
200	8	192 - 232	7.6 - 9.1	200	8	709 351 246	709 351 646	
250	10	267 - 310	10.5 - 12.2	250	10	709 351 248	709 351 648	
300	12	315 - 356	12.4 - 14.0	300	12	709 351 250	709 351 650	

DN [mm]	DN [inch]	Range 1 [mm]	Range 1 [inch]	Flange 3 [mm]	Flange 3 [inch]	NBR / A4 Code	EPDM / A4 Code	kg
80	3	84 - 105	3.3 - 4.1	80	3	709 351 040	709 351 340	6.900
100	4	104 - 132	4.1 - 5.2	100	4	709 351 042	709 351 342	9.100
150	6	154 - 192	6.1 - 7.6	150	6	709 351 044	709 351 344	15.000
200	8	192 - 232	7.6 - 9.1	200	8	709 351 046	709 351 346	22.700
250	10	267 - 310	10.5 - 12.2	250	10	709 351 048	709 351 348	33.100
300	12	315 - 356	12.4 - 14.0	300	12	709 351 050	709 351 350	42.500

PF 1 54 323 060



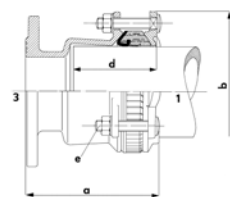
MULTI/JOINT® 3050 Plus Wide Range Flange adaptor, non-restraint, acc. to JIS

Model:

- Suitable for all kinds of pipe material
- Suitable for water and gas
- Ductile Cast iron GGG45 body and clamping ring(s), acc. to EN-GJS-450-10
- RESICOAT® epoxy powder coating, according to GSK standards and EN 14901
- NBR or EPDM gasket, NBR acc. to EN 682 (-5°C up to +50°C), EPDM acc. to EN 681-1 (0°C up to +50°C)
- Angular deflection of max. 8° per socket at installation (based on the middle of the coupling range)
- Stainless steel A2 quality (AISI 304) bolts, nuts and washers (optional: A4 quality)
- For all plastic pipes, the use of an insert stiffener (see accessories) is advised or in some cases mandatory, check our technical information.
- For measures and drawings see our product flyer

DN [mm]	Range 1 [mm]	Flange 3 [mm]	NBR / A2 Code	EPDM / A2 Code	NBR / A4 Code	EPDM / A4 Code	kg
80	84 - 105	80	709 351 260	709 351 660	709 351 060	709 351 360	6.900
100	104 - 132	100	709 351 262	709 351 662	709 351 062	709 351 362	9.100
150	154 - 192	150	709 351 264	709 351 664	709 351 064	709 351 364	15.000
200	192 - 232	200	709 351 266	709 351 666	709 351 066	709 351 366	22.700
250	267 - 310	250	709 351 268	709 351 668	709 351 068	709 351 368	33.100
300	315 - 356	300	709 351 270	709 351 670	709 351 070	709 351 370	42.500

PF 1 54 323 060



MULTI/JOINT® 3057 Plus Wide Range Flange adaptor, restraint, Uni/Fiksers® acc. to AWWA C110

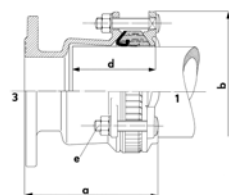
Model:

- Suitable for all kinds of pipe material
- Suitable for water and gas
- Ductile Cast iron GGG45 body and clamping ring(s), acc. to EN-GJS-450-10
- RESICOAT® epoxy powder coating, according to GSK standards and EN 14901
- NBR or EPDM gasket, NBR acc. to EN 682 (-5°C up to +50°C), EPDM acc. to EN 681-1 (0°C up to +50°C)
- Angular deflection of max. 8° per socket at installation (based on the middle of the coupling range)
- Stainless steel A4 quality (AISI 316) Uni/Fiksers®
- Stainless steel A2 quality (AISI 304) bolts, nuts and washers (optional: A4 quality)
- For restraint versions, on plastic pipes, the use of an insert stiffener (see accessories) is mandatory, check our technical information
- For measures and drawings see our product flyer

DN [mm]	DN [inch]	Range 1 [mm]	Range 1 [inch]	Flange 3 [mm]	Flange 3 [inch]	NBR / A2 Code	EPDM / A2 Code	
80	3	84 - 105	3.3 - 4.1	80	3	709 355 240	709 355 640	
100	4	104 - 132	4.1 - 5.2	100	4	709 355 242	709 355 642	
150	6	154 - 192	6.1 - 7.6	150	6	709 355 244	709 355 644	
200	8	192 - 232	7.6 - 9.1	200	8	709 355 246	709 355 646	
250	10	267 - 310	10.5 - 12.2	250	10	709 355 248	709 355 648	
300	12	315 - 356	12.4 - 14.0	300	12	709 355 250	709 355 650	

DN [mm]	DN [inch]	Range 1 [mm]	Range 1 [inch]	Flange 3 [mm]	Flange 3 [inch]	NBR / A4 Code	EPDM / A4 Code	kg
80	3	84 - 105	3.3 - 4.1	80	3	709 355 040	709 355 340	6.900
100	4	104 - 132	4.1 - 5.2	100	4	709 355 042	709 355 342	9.100
150	6	154 - 192	6.1 - 7.6	150	6	709 355 044	709 355 344	15.000
200	8	192 - 232	7.6 - 9.1	200	8	709 355 046	709 355 346	22.700
250	10	267 - 310	10.5 - 12.2	250	10	709 355 048	709 355 348	33.100
300	12	315 - 356	12.4 - 14.0	300	12	709 355 050	709 355 350	42.500

PF 1 54 323 061



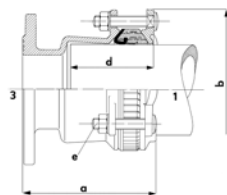
MULTI/JOINT® 3057 Plus Wide Range Flange adaptor, restraint, Uni/Fiksers® acc. to JIS

Model:

- Suitable for all kinds of pipe material
- Suitable for water and gas
- Ductile Cast iron GGG45 body and clamping ring(s), acc. to EN-GJS-450-10
- RESICOAT® epoxy powder coating, according to GSK standards and EN 14901
- NBR or EPDM gasket, NBR acc. to EN 682 (-5°C up to +50°C), EPDM acc. to EN 681-1 (0°C up to +50°C)
- Angular deflection of max. 8° per socket at installation (based on the middle of the coupling range)
- Stainless steel A4 quality (AISI 316) Uni/Fiksers®
- Stainless steel A2 quality (AISI 304) bolts, nuts and washers (optional: A4 quality)
- For restraint versions, on plastic pipes, the use of an insert stiffener (see accessories) is mandatory, check our technical information
- For measures and drawings see our product flyer

DN [mm]	Range 1 [mm]	Flange 3 [mm]	NBR / A2 Code	EPDM / A2 Code	NBR / A4 Code	EPDM / A4 Code	kg
80	84 - 105	80	709 355 260	709 355 660	709 355 060	709 355 360	6.900
100	104 - 132	100	709 355 262	709 355 662	709 355 062	709 355 362	9.100
150	154 - 192	150	709 355 264	709 355 664	709 355 064	709 355 364	15.000
200	192 - 232	200	709 355 266	709 355 666	709 355 066	709 355 366	22.700
250	267 - 310	250	709 355 268	709 355 668	709 355 068	709 355 368	33.100
300	315 - 356	300	709 355 270	709 355 670	709 355 070	709 355 370	42.500

PF 1 54 323 061



MULTI/JOINT® 3057 Plus Wide Range Flange adaptor, restraint, Uni/Fiksers® acc. to Table E AS2129

Model:

- Suitable for all kinds of pipe material
- Suitable for water and gas
- Ductile Cast iron GGG45 body and clamping ring(s), acc. to EN-GJS-450-10
- RESICOAT® epoxy powder coating, according to GSK standards and EN 14901
- NBR or EPDM gasket, NBR acc. to EN 682 (-5°C up to +50°C), EPDM acc. to EN 681-1 (0°C up to +50°C)
- Angular deflection of max. 8° per socket at installation (based on the middle of the coupling range)
- Stainless steel A4 quality (AISI 316) Uni/Fiksers®
- Stainless steel A2 quality (AISI 304) bolts, nuts and washers (optional: A4 quality)
- For restraint versions, on plastic pipes, the use of an insert stiffener (see accessories) is mandatory, check our technical information
- For measures and drawings see our product flyer

DN [mm]	Range 1 [mm]	Flange 3 [mm]	NBR / A2 Code	kg	
50	46 - 71	50	709 355 110	5.600	
65	63 - 90	65	709 355 112	6.500	
80	84 - 105	80	709 355 114	6.500	
125	132 - 155	125	709 355 118	13.000	
150	154 - 192	150	709 355 120	14.000	
200	192 - 232	200	709 355 124	22.900	
250	267 - 310	250	709 355 128	31.100	
300	315 - 356	300	709 355 132	40.500	

PF 1 54 323 061



MULTI/JOINT® 3100 Plus Wide Range Reduced Coupling, non-restraint

Model:

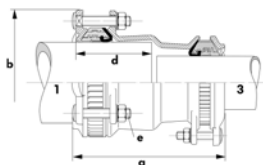
- Suitable for all kinds of pipe material
- Suitable for water and gas
- Ductile Cast iron GGG45 body and clamping ring(s), acc. to EN-GJS-450-10
- RESICOAT® epoxy powder coating, according to GSK standards and EN 14901
- NBR or EPDM gasket, NBR acc. to EN 682 (-5°C up to +50°C), EPDM acc. to EN 681-1 (0°C up to +50°C)
- Angular deflection of max. 8° per socket at installation (based on the middle of the coupling range)
- Stainless steel A2 quality (AISI 304) bolts, nuts and washers (optional: A4 quality)
- For all plastic pipes, the use of an insert stiffener (see accessories) is advised or in some cases mandatory, check our technical information.
- * DN350 and DN400: launch Q2 2012

DN-DN [mm]	Range 1 [mm]	Range 3 [mm]	NBR / A2 Code	EPDM / A2 Code	NBR / A4 Code
50 - 65	46 - 71	63 - 90	709 401 218	709 401 618	709 401 018
65 - 80	63 - 90	84 - 105	709 401 220	709 401 620	709 401 020
80 - 100	84 - 105	104 - 132	709 401 224	709 401 624	709 401 024
100 - 125	104 - 132	132 - 155	709 401 232	709 401 632	709 401 032
100 - 150	104 - 132	154 - 192	709 401 236	709 401 636	709 401 036
125 - 150	132 - 155	154 - 192	709 401 238	709 401 638	709 401 038
150 - 200	154 - 192	192 - 232	709 401 248	709 401 648	709 401 048
200 - 225	192 - 232	230 - 268	709 401 278	709 401 678	709 401 078
225 - 250	230 - 268	267 - 310	709 401 282	709 401 682	709 401 082
250 - 300	267 - 310	315 - 356	709 401 286	709 401 686	709 401 086
* 350 - 400	352 - 393	392 - 433	709 401 290	709 401 690	709 401 090

DN-DN [mm]	Range 1 [mm]	Range 3 [mm]	EPDM / A4 Code	kg
50 - 65	46 - 71	63 - 90	709 401 318	5.500
65 - 80	63 - 90	84 - 105	709 401 320	6.700
80 - 100	84 - 105	104 - 132	709 401 324	8.300
100 - 125	104 - 132	132 - 155	709 401 332	11.100
100 - 150	104 - 132	154 - 192	709 401 336	13.800
125 - 150	132 - 155	154 - 192	709 401 338	14.400
150 - 200	154 - 192	192 - 232	709 401 348	22.000
200 - 225	192 - 232	230 - 268	709 401 378	31.900
225 - 250	230 - 268	267 - 310	709 401 382	36.200
250 - 300	267 - 310	315 - 356	709 401 386	49.000
* 350 - 400	352 - 393	392 - 433	709 401 390	

DN-DN [mm]	a [mm]	b [mm]	d [mm]	e [mm]	PN Water [bar]	PN Gas [bar]
50 - 65	242 - 268	186	95	3xM12/3xM12	25.0	8.0
65 - 80	242 - 268	204	115	3xM12/3xM12	25.0	8.0
80 - 100	232 - 265	236	110	3xM12/3xM16	25.0	8.0
100 - 125	238 - 275	264	120	3xM16/4xM16	25.0	8.0
100 - 150	276 - 323	304	120	4xM16/4xM16	25.0	8.0
125 - 150	276 - 322	304	120	4xM16/4xM16	25.0	8.0
150 - 200	265 - 321	354	120	4xM16/6xM16	25.0	8.0
200 - 225	340 - 398	386	145	6xM16/6xM20	25.0	8.0
225 - 250	358 - 424	432	170	6xM20/6xM20	25.0	8.0
250 - 300	356 - 426	490	170	6xM20/8xM20	25.0	8.0
* 350 - 400						

PF 1 54 323 060



MULTI/JOINT® 3107 Plus Wide Range Reduced Coupling, restraint, Uni/Fiksers®

Model:

- Suitable for all kinds of pipe material
- Suitable for water and gas
- Ductile Cast iron GGG45 body and clamping ring(s), acc. to EN-GJS-450-10
- RESICOAT® epoxy powder coating, according to GSK standards and EN 14901
- NBR or EPDM gasket, NBR acc. to EN 682 (-5°C up to +50°C), EPDM acc. to EN 681-1 (0°C up to +50°C)
- Angular deflection of max. 8° per socket at installation (based on the middle of the coupling range)
- Stainless steel A4 quality (AISI 316) Uni/Fiksers®
- Stainless steel A2 quality (AISI 304) bolts, nuts and washers (optional: A4 quality)
- For restraint versions, on plastic pipes, the use of an insert stiffener (see accessories) is mandatory, check our technical information
- * DN350 and DN400: launch Q2 2012

Note:

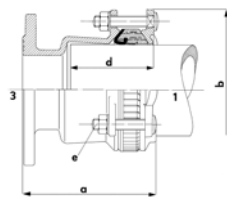
For pipe sizes >ø 284 mm - 310 mm please contact us

DN-DN [mm]	Range 1 [mm]	Range 3 [mm]	NBR / A2 Code	EPDM / A2 Code	NBR / A4 Code	
50 - 65	46 - 71	63 - 90	709 405 218	709 405 618	709 405 018	
65 - 80	63 - 90	84 - 105	709 405 220	709 405 620	709 405 020	
80 - 100	84 - 105	104 - 132	709 405 224	709 405 624	709 405 024	
100 - 125	104 - 132	132 - 155	709 405 232	709 405 632	709 405 032	
100 - 150	104 - 132	154 - 192	709 405 236	709 405 636	709 405 036	
125 - 150	132 - 155	154 - 192	709 405 238	709 405 638	709 405 038	
150 - 200	154 - 192	192 - 232	709 405 248	709 405 648	709 405 048	
200 - 225	192 - 232	230 - 268	709 405 278	709 405 678	709 405 078	
225 - 250	230 - 268	267 - 310	709 405 282	709 405 682	709 405 082	
250 - 300	267 - 310	315 - 356	709 405 286	709 405 686	709 405 086	
* 350 - 400	352 - 393	392 - 433	709 405 290	709 405 690	709 405 090	

DN-DN [mm]	Range 1 [mm]	Range 3 [mm]	EPDM / A4 Code	kg	
50 - 65	46 - 71	63 - 90	709 405 318	5.500	
65 - 80	63 - 90	84 - 105	709 405 320	6.700	
80 - 100	84 - 105	104 - 132	709 405 324	8.300	
100 - 125	104 - 132	132 - 155	709 405 332	11.100	
100 - 150	104 - 132	154 - 192	709 405 336	13.800	
125 - 150	132 - 155	154 - 192	709 405 338	14.400	
150 - 200	154 - 192	192 - 232	709 405 348	22.000	
200 - 225	192 - 232	230 - 268	709 405 378	31.900	
225 - 250	230 - 268	267 - 310	709 405 382	36.200	
250 - 300	267 - 310	315 - 356	709 405 386	49.000	
* 350 - 400	352 - 393	392 - 433	709 405 390		

DN-DN [mm]	a [mm]	b [mm]	d [mm]	e [mm]	PN Water [bar]	PN Gas [bar]	
50 - 65	242 - 268	186	95	3xM12/3xM12	16.0	8.0	
65 - 80	242 - 268	204	115	3xM12/3xM12	16.0	8.0	
80 - 100	232 - 265	236	110	3xM12/3xM16	16.0	8.0	
100 - 125	238 - 275	264	120	3xM12/4xM16	16.0	8.0	
100 - 150	276 - 323	304	120	3xM16/4xM16	16.0	8.0	
125 - 150	276 - 322	304	120	4xM16/4xM16	16.0	8.0	
150 - 200	265 - 321	354	120	4xM16/6xM16	16.0	8.0	
200 - 225	340 - 398	386	145	6xM16/6xM20	16.0	8.0	
225 - 250	358 - 424	432	170	6xM20/6xM20	16.0	8.0	
250 - 300	356 - 426	490	170	6xM20/8xM20	10.0	5.0	
* 350 - 400							

PF 1 54 323 061



MULTI/JOINT® 3150 Plus Wide Range Reduced flange adaptor, non-restraint

Model:

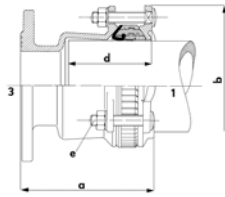
- Suitable for all kinds of pipe material
- Suitable for water and gas
- Ductile Cast iron GGG45 body and clamping ring(s), acc. to EN-GJS-450-10
- RESICOAT® epoxy powder coating, according to GSK standards and EN 14901
- NBR or EPDM gasket, NBR acc. to EN 682 (-5°C up to +50°C), EPDM acc. to EN 681-1 (0°C up to +50°C)
- Angular deflection of max. 8° per socket at installation (based on the middle of the coupling range)
- Stainless steel A2 quality (AISI 304) bolts, nuts and washers (optional: A4 quality)
- For all plastic pipes, the use of an insert stiffener (see accessories) is advised or in some cases mandatory, check our technical information.
- * DN350 and DN400: launch Q2 2012

DN-DN [mm]	Range 1 [mm]	Flange 3 [mm]	Drilling pattern	NBR / A2 Code	EPDM / A2 Code	NBR / A4 Code
50 - 40	46 - 71	40	PN16	709 451 208	709 451 608	709 451 008
65 - 80	63 - 90	80	PN16	709 451 218	709 451 618	709 451 018
100 - 80	104 - 132	80	PN16	709 451 224	709 451 624	709 451 024
125 - 100	132 - 155	100	PN16	709 451 232	709 451 632	709 451 032
125 - 150	132 - 155	150	PN16	709 451 238	709 451 638	709 451 038
225 - 200	230 - 268	200	PN10	709 451 278	709 451 678	709 451 078
225 - 200	230 - 268	200	PN16	709 451 279	709 451 679	709 451 079
225 - 250	230 - 268	250	PN10	709 451 280	709 451 680	709 451 080
225 - 250	230 - 268	250	PN16	709 451 281	709 451 681	709 451 081
350 - 300	352 - 393	300	PN10	709 451 284	709 451 684	709 451 084
350 - 300	352 - 393	300	PN16	709 451 285	709 451 685	709 451 085
400 - 350	392 - 433	350	PN10	709 451 288	709 451 688	709 451 088
400 - 350	392 - 433	350	PN16	709 451 289	709 451 689	709 451 089

DN-DN [mm]	Range 1 [mm]	Flange 3 [mm]	Drilling pattern	EPDM / A4 Code	kg
50 - 40	46 - 71	40	PN16	709 451 308	5.000
65 - 80	63 - 90	80	PN16	709 451 318	6.700
100 - 80	104 - 132	80	PN16	709 451 324	9.100
125 - 100	132 - 155	100	PN16	709 451 332	11.800
125 - 150	132 - 155	150	PN16	709 451 338	13.200
225 - 200	230 - 268	200	PN10	709 451 378	29.700
225 - 200	230 - 268	200	PN16	709 451 379	29.700
225 - 250	230 - 268	250	PN10	709 451 380	27.700
225 - 250	230 - 268	250	PN16	709 451 381	27.700
350 - 300	352 - 393	300	PN10	709 451 384	
350 - 300	352 - 393	300	PN16	709 451 385	
400 - 350	392 - 433	350	PN10	709 451 388	
400 - 350	392 - 433	350	PN16	709 451 389	

DN-DN [mm]	a [mm]	a [mm]	d [mm]	e [mm]	PN Water [bar]	PN Gas [bar]
50 - 40	185 - 200	164	100	3xM12	25.0	8.0
65 - 80	198 - 210	186	95	3xM12	25.0	8.0
100 - 80	196 - 215	236	110	3xM16	25.0	8.0
125 - 100	197 - 215	264	120	4xM16	25.0	8.0
125 - 150	276 - 294	264	120	4xM16	25.0	8.0
225 - 200	274 - 301	386	190	6xM20	25.0	8.0
225 - 200	274 - 301	386	190	6xM20	25.0	8.0
225 - 250	212 - 239	386	130	6xM20	25.0	8.0
225 - 250	212 - 239	386	130	6xM20	25.0	8.0
350 - 300						
350 - 300						
400 - 350						
400 - 350						

PF 1 54 323 060



MULTI/JOINT® 3157 Plus Wide Range

Reduced flange adaptor, restraint, Uni/Fikers®

Model:

- Suitable for all kinds of pipe material
- Suitable for water and gas
- Ductile Cast iron GGG45 body and clamping ring(s), acc. to EN-GJS-450-10
- RESICOAT® epoxy powder coating, according to GSK standards and EN 14901
- NBR or EPDM gasket, NBR acc. to EN 682 (-5°C up to +50°C), EPDM acc. to EN 681-1 (0°C up to +50°C)
- Angular deflection of max. 8° per socket at installation (based on the middle of the coupling range)
- Stainless steel A4 quality (AISI 316) Uni/Fikers®
- Stainless steel A2 quality (AISI 304) bolts, nuts and washers (optional: A4 quality)
- For restraint versions, on plastic pipes, the use of an insert stiffener (see accessories) is mandatory, check our technical information
- * DN350 and DN400: launch Q2 2012

DN-DN [mm]	Range 1 [mm]	Flange 3 [mm]	Drilling pattern	NBR / A2 Code	EPDM / A2 Code	NBR / A4 Code	
50 - 40	46 - 71	40	PN16	709 455 208	709 455 608	709 455 008	
65 - 80	63 - 90	80	PN16	709 455 218	709 455 618	709 455 018	
100 - 80	104 - 132	80	PN16	709 455 224	709 455 624	709 455 024	
125 - 100	132 - 155	100	PN16	709 455 232	709 455 632	709 455 032	
125 - 150	132 - 155	150	PN16	709 455 238	709 455 638	709 455 038	
225 - 200	230 - 268	200	PN10	709 455 278	709 455 678	709 455 078	
225 - 200	230 - 268	200	PN16	709 455 279	709 455 679	709 455 079	
225 - 250	230 - 268	250	PN10	709 455 280	709 455 680	709 455 080	
225 - 250	230 - 268	250	PN16	709 455 281	709 455 681	709 455 081	
350 - 300	352 - 393	300	PN10	709 455 284	709 455 684	709 455 084	
350 - 300	352 - 393	300	PN16	709 455 285	709 455 685	709 455 085	
400 - 350	392 - 433	350	PN10	709 455 288	709 455 688	709 455 088	
400 - 350	392 - 433	350	PN16	709 455 289	709 455 689	709 455 089	

DN-DN [mm]	Range 1 [mm]	Flange 3 [mm]	Drilling pattern	EPDM / A4 Code	kg	
50 - 40	46 - 71	40	PN16	709 455 308	5.000	
65 - 80	63 - 90	80	PN16	709 455 318	6.700	
100 - 80	104 - 132	80	PN16	709 455 324	9.100	
125 - 100	132 - 155	100	PN16	709 455 332	11.800	
125 - 150	132 - 155	150	PN16	709 455 338	13.200	
225 - 200	230 - 268	200	PN10	709 455 378	29.700	
225 - 200	230 - 268	200	PN16	709 455 379	29.700	
225 - 250	230 - 268	250	PN10	709 455 380	27.700	
225 - 250	230 - 268	250	PN16	709 455 381	27.700	
350 - 300	352 - 393	300	PN10	709 455 384		
350 - 300	352 - 393	300	PN16	709 455 385		
400 - 350	392 - 433	350	PN10	709 455 388		
400 - 350	392 - 433	350	PN16	709 455 389		

DN-DN [mm]	a [mm]	b [mm]	d [mm]	e [mm]	PN Water [bar]	PN Gas [bar]	
50 - 40	185 - 200	164	100	3xM12	16.0	8.0	
65 - 80	198 - 210	186	95	3xM12	16.0	8.0	
100 - 80	196 - 215	236	110	3xM16	16.0	8.0	
125 - 100	197 - 215	264	120	4xM16	16.0	8.0	
125 - 150	276 - 294	264	120	4xM16	16.0	8.0	
225 - 200	274 - 301	386	190	6xM20	16.0	8.0	
225 - 200	274 - 301	386	190	6xM20	16.0	8.0	
225 - 250	212 - 239	386	130	6xM20	16.0	8.0	
225 - 250	212 - 239	386	130	6xM20	16.0	8.0	
350 - 300							
350 - 300							
400 - 350							
400 - 350							



MULTI/JOINT® 3200 Plus Wide Range end-cap blind, non-restraint

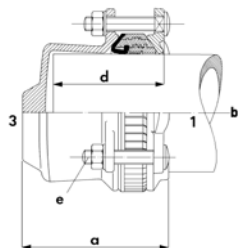
Model:

- Suitable for all kinds of pipe material
- Suitable for water and gas
- Ductile Cast iron GGG45 body and clamping ring(s), acc. to EN-GJS-450-10
- RESICOAT® epoxy powder coating, according to GSK standards and EN 14901
- NBR or EPDM gasket, NBR acc. to EN 682 (-5°C up to +50°C), EPDM acc. to EN 681-1 (0°C up to +50°C)
- Angular deflection of max. 8° per socket at installation (based on the middle of the coupling range)
- Stainless steel A2 quality (AISI 304) bolts, nuts and washers (optional: A4 quality)
- For all plastic pipes, the use of an insert stiffener (see accessories) is advised or in some cases mandatory, check our technical information.
- * DN350 and DN400: launch Q2 2012

DN [mm]	Range 1 [mm]	NBR / A2 Code	EPDM / A2 Code	NBR / A4 Code	EPDM / A4 Code	kg	
50	46 - 71	709 371 210	709 371 610	709 371 010	709 371 310	3.500	
65	63 - 90	709 371 212	709 371 612	709 371 012	709 371 312	4.100	
80	84 - 105	709 371 214	709 371 614	709 371 014	709 371 314	5.100	
100	104 - 132	709 371 216	709 371 616	709 371 016	709 371 316	6.500	
125	132 - 155	709 371 218	709 371 618	709 371 018	709 371 318	7.800	
150	154 - 192	709 371 220	709 371 620	709 371 020	709 371 320	9.600	
200	192 - 232	709 371 224	709 371 624	709 371 024	709 371 324	18.300	
225	230 - 268	709 371 226	709 371 626	709 371 026	709 371 326	20.900	
250	267 - 310	709 371 228	709 371 628	709 371 028	709 371 328	27.100	
300	315 - 356	709 371 232	709 371 632	709 371 032	709 371 332	34.400	
* 400	392 - 433	709 371 234	709 371 634	709 371 034	709 371 334		

DN [mm]	a [mm]	b [mm]	d [mm]	e [mm]	PN Water [bar]	PN Gas [bar]	
50	115 - 130	164	100	3xM12	25.0	8.0	
65	145 - 157	186	95	3xM12	25.0	8.0	
80	142 - 156	204	115	3xM12	25.0	8.0	
100	144 - 163	236	110	3xM16	25.0	8.0	
125	151 - 169	264	120	4xM16	25.0	8.0	
150	149 - 177	304	120	4xM16	25.0	8.0	
200	180 - 207	354	140	6xM16	25.0	8.0	
225	211 - 242	386	145	6xM20	25.0	8.0	
250	214 - 249	432	170	6xM20	25.0	8.0	
300	219 - 254	490	170	8xM20	25.0	8.0	
* 400							

PF 1 54 323 060



MULTI/JOINT® 3207 Plus Wide Range end-cap blind, restraint, Uni/Fiksers®

Model:

- Suitable for all kinds of pipe material
- Suitable for water and gas
- Ductile Cast iron GGG45 body and clamping ring(s), acc. to EN-GJS-450-10
- RESICOAT® epoxy powder coating, according to GSK standards and EN 14901
- NBR or EPDM gasket, NBR acc. to EN 682 (-5°C up to +50°C), EPDM acc. to EN 681-1 (0°C up to +50°C)
- Angular deflection of max. 8° per socket at installation (based on the middle of the coupling range)
- Stainless steel A4 quality (AISI 316) Uni/Fiksers®
- Stainless steel A2 quality (AISI 304) bolts, nuts and washers (optional: A4 quality)
- For restraint versions, on plastic pipes, the use of an insert stiffener (see accessories) is mandatory, check our technical information
- * DN350 and DN400: launch Q2 2012

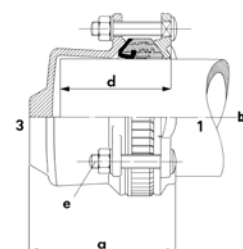
Note:

For pipe sizes >ø 284 mm - 310 mm please contact us

DN [mm]	Range 1 [mm]	NBR / A2 Code	EPDM / A2 Code	NBR / A4 Code	EPDM / A4 Code	kg	
50	46 - 71	709 375 210	709 375 610	709 375 010	709 375 310	3.500	
65	63 - 90	709 375 212	709 375 612	709 375 012	709 375 312	4.100	
80	84 - 105	709 375 214	709 375 614	709 375 014	709 375 314	5.100	
100	104 - 132	709 375 216	709 375 616	709 375 016	709 375 316	6.500	
125	132 - 155	709 375 218	709 375 618	709 375 018	709 375 318	7.800	
150	154 - 192	709 375 220	709 375 620	709 375 020	709 375 320	9.600	
200	192 - 232	709 375 224	709 375 624	709 375 024	709 375 324	18.300	
225	230 - 268	709 375 226	709 375 626	709 375 026	709 375 326	20.900	
250	267 - 310	709 375 228	709 375 628	709 375 028	709 375 328	27.100	
300	315 - 356	709 375 232	709 375 632	709 375 032	709 375 332	34.400	
* 400	392 - 433	709 375 234	709 375 634	709 375 034	709 375 334		

DN [mm]	a [mm]	b [mm]	d [mm]	e [mm]	PN Water [bar]	PN Gas [bar]	
50	115 - 130	164	100	3xM12	16.0	8.0	
65	145 - 157	186	95	3xM12	16.0	8.0	
80	142 - 156	204	115	3xM12	16.0	8.0	
100	144 - 163	236	110	3xM16	16.0	8.0	
125	151 - 169	264	120	3xM16	16.0	8.0	
150	149 - 177	304	120	4xM16	16.0	8.0	
200	180 - 207	354	140	6xM16	16.0	8.0	
225	211 - 242	386	145	6xM20	16.0	8.0	
250	214 - 249	432	170	6xM20	16.0	8.0	
300	219 - 254	490	170	8xM20	10.0	5.0	
* 400	-						

PF 1 54 323 061



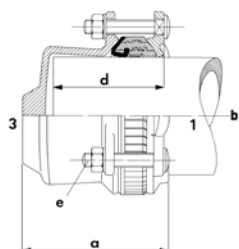
MULTI/JOINT® 3200 Plus Wide Range end-cap threaded, non-restraint

Model:

- Suitable for all kinds of pipe material
- Suitable for water and gas
- Ductile Cast iron GGG45 body and clamping ring(s), acc. to EN-GJS-450-10
- RESICOAT® epoxy powder coating, according to GSK standards and EN 14901
- NBR or EPDM gasket, NBR acc. to EN 682 (-5°C up to +50°C), EPDM acc. to EN 681-1 (0°C up to +50°C)
- Angular deflection of max. 8° per socket at installation (based on the middle of the coupling range)
- Stainless steel A2 quality (AISI 304) bolts, nuts and washers (optional: A4 quality)
- For all plastic pipes, the use of an insert stiffener (see accessories) is advised or in some cases mandatory, check our technical information.
- * DN350 and DN400: launch Q2 2012

DN [mm]	Range 1 [mm]	Rp [inch]	NBR / A2 Code	EPDM / A2 Code	NBR / A4 Code	EPDM / A4 Code	kg
50	46 - 71	¾	709 381 204	709 381 604	709 381 004	709 381 304	3.500
50	46 - 71	1	709 381 205	709 381 605	709 381 005	709 381 305	3.500
50	46 - 71	1 ¼	709 381 206	709 381 606	709 381 006	709 381 306	3.500
50	46 - 71	1 ½	709 381 207	709 381 607	709 381 007	709 381 307	3.500
50	46 - 71	2	709 381 208	709 381 608	709 381 008	709 381 308	3.500
65	63 - 90	1	709 381 210	709 381 610	709 381 010	709 381 310	4.100
65	63 - 90	1 ¼	709 381 211	709 381 611	709 381 011	709 381 311	4.100
65	63 - 90	1 ½	709 381 212	709 381 612	709 381 012	709 381 312	4.100
65	63 - 90	2	709 381 213	709 381 613	709 381 013	709 381 313	4.100
80	84 - 105	¾	709 381 214	709 381 614	709 381 014	709 381 314	5.100
80	84 - 105	1	709 381 215	709 381 615	709 381 015	709 381 315	5.100
80	84 - 105	1 ¼	709 381 216	709 381 616	709 381 016	709 381 316	5.100
80	84 - 105	1 ½	709 381 217	709 381 617	709 381 017	709 381 317	5.100
80	84 - 105	2	709 381 218	709 381 618	709 381 018	709 381 318	5.100
100	104 - 132	¾	709 381 219	709 381 619	709 381 019	709 381 319	6.500
100	104 - 132	1	709 381 220	709 381 620	709 381 020	709 381 320	6.500
100	104 - 132	1 ¼	709 381 221	709 381 621	709 381 021	709 381 321	6.500
100	104 - 132	1 ½	709 381 222	709 381 622	709 381 022	709 381 322	6.500
100	104 - 132	2	709 381 223	709 381 623	709 381 023	709 381 323	6.500
125	132 - 155	¾	709 381 224	709 381 624	709 381 024	709 381 324	7.800
125	132 - 155	1	709 381 225	709 381 625	709 381 025	709 381 325	7.800
125	132 - 155	1 ¼	709 381 226	709 381 626	709 381 026	709 381 326	7.800
125	132 - 155	1 ½	709 381 227	709 381 627	709 381 027	709 381 327	7.800
125	132 - 155	2	709 381 228	709 381 628	709 381 028	709 381 328	7.800
150	154 - 192	¾	709 381 229	709 381 629	709 381 029	709 381 329	9.600
150	154 - 192	1	709 381 230	709 381 630	709 381 030	709 381 330	9.600
150	154 - 192	1 ¼	709 381 231	709 381 631	709 381 031	709 381 331	9.600
150	154 - 192	1 ½	709 381 232	709 381 632	709 381 032	709 381 332	9.600
150	154 - 192	2	709 381 233	709 381 633	709 381 033	709 381 333	9.600
200	192 - 232	¾	709 381 234	709 381 634	709 381 034	709 381 334	18.300
200	192 - 232	1	709 381 235	709 381 635	709 381 035	709 381 335	18.300
200	192 - 232	1 ¼	709 381 236	709 381 636	709 381 036	709 381 336	18.300
200	192 - 232	1 ½	709 381 237	709 381 637	709 381 037	709 381 337	18.300
200	192 - 232	2	709 381 238	709 381 638	709 381 038	709 381 338	18.300
225	230 - 268	¾	709 381 249	709 381 649	709 381 049	709 381 349	20.900
225	230 - 268	1	709 381 250	709 381 650	709 381 050	709 381 350	20.900
225	230 - 268	1 ¼	709 381 251	709 381 651	709 381 051	709 381 351	20.900
225	230 - 268	1 ½	709 381 252	709 381 652	709 381 052	709 381 352	20.900
225	230 - 268	2	709 381 253	709 381 653	709 381 053	709 381 353	20.900
250	267 - 310	¾	709 381 239	709 381 639	709 381 039	709 381 339	27.100
250	267 - 310	1	709 381 240	709 381 640	709 381 040	709 381 340	27.100
250	267 - 310	1 ¼	709 381 241	709 381 641	709 381 041	709 381 341	27.100
250	267 - 310	1 ½	709 381 242	709 381 642	709 381 042	709 381 342	27.100
250	267 - 310	2	709 381 243	709 381 643	709 381 043	709 381 343	27.100
300	315 - 356	¾	709 381 244	709 381 644	709 381 044	709 381 344	34.400
300	315 - 356	1	709 381 245	709 381 645	709 381 045	709 381 345	34.400
300	315 - 356	1 ¼	709 381 246	709 381 646	709 381 046	709 381 346	34.400
300	315 - 356	1 ½	709 381 247	709 381 647	709 381 047	709 381 347	34.400
300	315 - 356	2	709 381 248	709 381 648	709 381 048	709 381 348	34.400

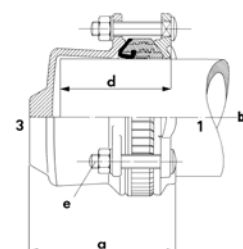
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DN [mm]	Range 1 [mm]	Rp [inch]	NBR / A2 Code	EPDM / A2 Code	NBR / A4 Code	EPDM / A4 Code	kg	
* 400	392 - 433	¾	709 381 254	709 381 654	709 381 054	709 381 354		
* 400	392 - 433	1	709 381 255	709 381 655	709 381 055	709 381 355		
* 400	392 - 433	1 ¼	709 381 256	709 381 656	709 381 056	709 381 356		
* 400	392 - 433	1 ½	709 381 257	709 381 657	709 381 057	709 381 357		
* 400	392 - 433	2	709 381 258	709 381 658	709 381 058	709 381 358		

DN [mm]	a [mm]	b [mm]	d [mm]	e [mm]	PN Water [bar]	PN Gas [bar]	
50	115 - 130	164	100	3xM12	25.0	8.0	
50	115 - 130	164	100	3xM12	25.0	8.0	
50	115 - 130	164	100	3xM12	25.0	8.0	
50	115 - 130	164	100	3xM12	25.0	8.0	
50	115 - 130	164	100	3xM12	25.0	8.0	
65	145 - 157	186	95	3xM12	25.0	8.0	
65	145 - 157	186	95	3xM12	25.0	8.0	
65	145 - 157	186	95	3xM12	25.0	8.0	
65	145 - 157	186	95	3xM12	25.0	8.0	
80	142 - 156	204	115	3xM12	25.0	8.0	
80	142 - 156	204	115	3xM12	25.0	8.0	
80	142 - 156	204	115	3xM12	25.0	8.0	
80	142 - 156	204	115	3xM12	25.0	8.0	
80	142 - 156	204	115	3xM12	25.0	8.0	
100	144 - 163	236	110	3xM16	25.0	8.0	
100	144 - 163	236	110	3xM16	25.0	8.0	
100	144 - 163	236	110	3xM16	25.0	8.0	
100	144 - 163	236	110	3xM16	25.0	8.0	
100	144 - 163	236	110	3xM16	25.0	8.0	
125	151 - 169	264	120	4xM16	25.0	8.0	
125	151 - 169	264	120	4xM16	25.0	8.0	
125	151 - 169	264	120	4xM16	25.0	8.0	
125	151 - 169	264	120	4xM16	25.0	8.0	
125	151 - 169	264	120	4xM16	25.0	8.0	
150	154 - 192	304	120	4xM16	25.0	8.0	
150	154 - 192	304	120	4xM16	25.0	8.0	
150	154 - 192	304	120	4xM16	25.0	8.0	
150	154 - 192	304	120	4xM16	25.0	8.0	
150	154 - 192	304	120	4xM16	25.0	8.0	
200	180 - 207	354	140	6xM16	25.0	8.0	
200	180 - 207	354	140	6xM16	25.0	8.0	
200	180 - 207	354	140	6xM16	25.0	8.0	
200	180 - 207	354	140	6xM16	25.0	8.0	
200	180 - 207	354	140	6xM16	25.0	8.0	
225	211 - 242	386	145	6xM20	25.0	8.0	
225	211 - 242	386	145	6xM20	25.0	8.0	
225	211 - 242	386	145	6xM20	25.0	8.0	
225	211 - 242	386	145	6xM20	25.0	8.0	
225	211 - 242	386	145	6xM20	25.0	8.0	
250	214 - 249	432	170	6xM20	25.0	8.0	
250	214 - 249	432	170	6xM20	25.0	8.0	
250	214 - 249	432	170	6xM20	25.0	8.0	
250	214 - 249	432	170	6xM20	25.0	8.0	
250	214 - 249	432	170	6xM20	25.0	8.0	
300	219 - 254	490	170	8xM20	25.0	8.0	
300	219 - 254	490	170	8xM20	25.0	8.0	
300	219 - 254	490	170	8xM20	25.0	8.0	
300	219 - 254	490	170	8xM20	25.0	8.0	
300	219 - 254	490	170	8xM20	25.0	8.0	
* 400							
* 400							
* 400							
* 400							
* 400							

PF 1 54 323 060



MULTI/JOINT® 3207 Plus Wide Range end-cap threaded, restraint, Uni/Fiksers®

Model:

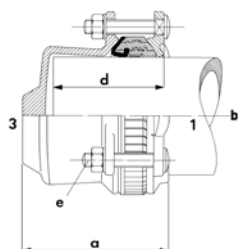
- Suitable for all kinds of pipe material
- Suitable for water and gas
- Ductile Cast iron GGG45 body and clamping ring(s), acc. to EN-GJS-450-10
- RESICOAT® epoxy powder coating, according to GSK standards and EN 14901
- NBR or EPDM gasket, NBR acc. to EN 682 (-5°C up to +50°C), EPDM acc. to EN 681-1 (0°C up to +50°C)
- Angular deflection of max. 8° per socket at installation (based on the middle of the coupling range)
- Stainless steel A4 quality (AISI 316) Uni/Fiksers®
- Stainless steel A2 quality (AISI 304) bolts, nuts and washers (optional: A4 quality)
- For restraint versions, on plastic pipes, the use of an insert stiffener (see accessories) is mandatory, check our technical information
- * DN350 and DN400: launch Q2 2012

Note:

For pipe sizes >ø 284 mm - 310 mm please contact us

DN [mm]	Range 1 [mm]	Rp [inch]	NBR / A2 Code	EPDM / A2 Code	NBR / A4 Code	EPDM / A4 Code	kg
50	46 - 71	¾	709 385 204	709 385 604	709 385 004	709 385 304	3.500
50	46 - 71	1	709 385 205	709 385 605	709 385 005	709 385 305	3.500
50	46 - 71	1 ¼	709 385 206	709 385 606	709 385 006	709 385 306	3.500
50	46 - 71	1 ½	709 385 207	709 385 607	709 385 007	709 385 307	3.500
50	46 - 71	2	709 385 208	709 385 608	709 385 008	709 385 308	3.500
65	63 - 90	¾	709 385 209	709 385 609	709 385 009	709 385 309	4.100
65	63 - 90	1	709 385 210	709 385 610	709 385 010	709 385 310	4.100
65	63 - 90	1 ¼	709 385 211	709 385 611	709 385 011	709 385 311	4.100
65	63 - 90	1 ½	709 385 212	709 385 612	709 385 012	709 385 312	4.100
65	63 - 90	2	709 385 213	709 385 613	709 385 013	709 385 313	4.100
80	84 - 105	¾	709 385 214	709 385 614	709 385 014	709 385 314	5.100
80	84 - 105	1	709 385 215	709 385 615	709 385 015	709 385 315	5.100
80	84 - 105	1 ¼	709 385 216	709 385 616	709 385 016	709 385 316	5.100
80	84 - 105	1 ½	709 385 217	709 385 617	709 385 017	709 385 317	5.100
80	84 - 105	2	709 385 218	709 385 618	709 385 018	709 385 318	5.100
100	104 - 132	¾	709 385 219	709 385 619	709 385 019	709 385 319	6.500
100	104 - 132	1	709 385 220	709 385 620	709 385 020	709 385 320	6.500
100	104 - 132	1 ¼	709 385 221	709 385 621	709 385 021	709 385 321	6.500
100	104 - 132	1 ½	709 385 222	709 385 622	709 385 022	709 385 322	6.500
100	104 - 132	2	709 385 223	709 385 623	709 385 023	709 385 323	6.500
125	132 - 155	¾	709 385 224	709 385 624	709 385 024	709 385 324	7.800
125	132 - 155	1	709 385 225	709 385 625	709 385 025	709 385 325	7.800
125	132 - 155	1 ¼	709 385 226	709 385 626	709 385 026	709 385 326	7.800
125	132 - 155	1 ½	709 385 227	709 385 627	709 385 027	709 385 327	7.800
125	132 - 155	2	709 385 228	709 385 628	709 385 028	709 385 328	7.800
150	154 - 192	¾	709 385 229	709 385 629	709 385 029	709 385 329	9.600
150	154 - 192	1	709 385 230	709 385 630	709 385 030	709 385 330	9.600
150	154 - 192	1 ¼	709 385 231	709 385 631	709 385 031	709 385 331	9.600
150	154 - 192	1 ½	709 385 232	709 385 632	709 385 032	709 385 332	9.600
150	154 - 192	2	709 385 233	709 385 633	709 385 033	709 385 333	9.600
200	192 - 232	¾	709 385 234	709 385 634	709 385 034	709 385 334	18.300
200	192 - 232	1	709 385 235	709 385 635	709 385 035	709 385 335	18.300
200	192 - 232	1 ¼	709 385 236	709 385 636	709 385 036	709 385 336	18.300
200	192 - 232	1 ½	709 385 237	709 385 637	709 385 037	709 385 337	18.300
200	192 - 232	2	709 385 238	709 385 638	709 385 038	709 385 338	18.300
225	230 - 268	¾	709 385 249	709 385 649	709 385 049	709 385 349	20.900
225	230 - 268	1	709 385 250	709 385 650	709 385 050	709 385 350	20.900
225	230 - 268	1 ¼	709 385 251	709 385 651	709 385 051	709 385 351	20.900
225	230 - 268	1 ½	709 385 252	709 385 652	709 385 052	709 385 352	20.900
225	230 - 268	2	709 385 253	709 385 653	709 385 053	709 385 353	20.900
250	267 - 310	¾	709 385 239	709 385 639	709 385 039	709 385 339	27.100
250	267 - 310	1	709 385 240	709 385 640	709 385 040	709 385 340	27.100
250	267 - 310	1 ¼	709 385 241	709 385 641	709 385 041	709 385 341	27.100
250	267 - 310	1 ½	709 385 242	709 385 642	709 385 042	709 385 342	27.100
250	267 - 310	2	709 385 243	709 385 643	709 385 043	709 385 343	27.100

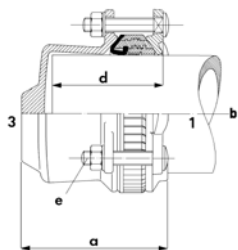
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DN [mm]	Range 1 [mm]	Rp [inch]	NBR / A2 Code	EPDM / A2 Code	NBR / A4 Code	EPDM / A4 Code	kg
300	315 - 356	¾	709 385 244	709 385 644	709 385 044	709 385 344	34.400
300	315 - 356	1	709 385 245	709 385 645	709 385 045	709 385 345	34.400
300	315 - 356	1 ¼	709 385 246	709 385 646	709 385 046	709 385 346	34.400
300	315 - 356	1 ½	709 385 247	709 385 647	709 385 047	709 385 347	34.400
300	315 - 356	2	709 385 248	709 385 648	709 385 048	709 385 348	34.400
* 400	392 - 433	¾	709 385 254	709 385 654	709 385 054	709 385 354	
* 400	392 - 433	1	709 385 255	709 385 655	709 385 055	709 385 355	
* 400	392 - 433	1 ¼	709 385 256	709 385 656	709 385 056	709 385 356	
* 400	392 - 433	1 ½	709 385 257	709 385 657	709 385 057	709 385 357	
* 400	392 - 433	2	709 385 258	709 385 658	709 385 058	709 385 358	

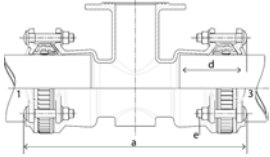
DN [mm]	a [mm]	b [mm]	d [mm]	e [mm]	PN Water [bar]	PN Gas [bar]
50	115 - 130	164	100	3xM12	16.0	8.0
50	115 - 130	164	100	3xM12	16.0	8.0
50	115 - 130	164	100	3xM12	16.0	8.0
50	115 - 130	164	100	3xM12	16.0	8.0
50	115 - 130	164	100	3xM12	16.0	8.0
65	145 - 157	186	95	3xM12	16.0	8.0
65	145 - 157	186	95	3xM12	16.0	8.0
65	145 - 157	186	95	3xM12	16.0	8.0
65	145 - 157	186	95	3xM12	16.0	8.0
65	145 - 157	186	95	3xM12	16.0	8.0
80	142 - 156	204	115	3xM12	16.0	8.0
80	142 - 156	204	115	3xM12	16.0	8.0
80	142 - 156	204	115	3xM12	16.0	8.0
80	142 - 156	204	115	3xM12	16.0	8.0
80	142 - 156	204	115	3xM12	16.0	8.0
100	144 - 163	236	110	3xM16	16.0	8.0
100	144 - 163	236	110	3xM16	16.0	8.0
100	144 - 163	236	110	3xM16	16.0	8.0
100	144 - 163	236	110	3xM16	16.0	8.0
100	144 - 163	236	110	3xM16	16.0	8.0
125	151 - 169	264	120	4xM16	16.0	8.0
125	151 - 169	264	120	4xM16	16.0	8.0
125	151 - 169	264	120	4xM16	16.0	8.0
125	151 - 169	264	120	4xM16	16.0	8.0
125	151 - 169	264	120	4xM16	16.0	8.0
150	149 - 177	304	120	4xM16	16.0	8.0
150	149 - 177	304	120	4xM16	16.0	8.0
150	149 - 177	304	120	4xM16	16.0	8.0
150	149 - 177	304	120	4xM16	16.0	8.0
150	149 - 177	304	120	4xM16	16.0	8.0
200	180 - 207	354	140	6xM16	16.0	8.0
200	180 - 207	354	140	6xM16	16.0	8.0
200	180 - 207	354	140	6xM16	16.0	8.0
200	180 - 207	354	140	6xM16	16.0	8.0
200	180 - 207	354	140	6xM16	16.0	8.0
225	211 - 242	386	145	6xM20	16.0	8.0
225	211 - 242	386	145	6xM20	16.0	8.0
225	211 - 242	386	145	6xM20	16.0	8.0
225	211 - 242	386	145	6xM20	16.0	8.0
225	211 - 242	386	145	6xM20	16.0	8.0
250	214 - 249	432	170	6xM20	16.0	8.0
250	214 - 249	432	170	6xM20	16.0	8.0
250	214 - 249	432	170	6xM20	16.0	8.0
250	214 - 249	432	170	6xM20	16.0	8.0
250	214 - 249	432	170	6xM20	16.0	8.0
300	219 - 254	490	170	8xM20	10.0	5.0
300	219 - 254	490	170	8xM20	10.0	5.0
300	219 - 254	490	170	8xM20	10.0	5.0
300	219 - 254	490	170	8xM20	10.0	5.0
300	219 - 254	490	170	8xM20	10.0	5.0
* 400						
* 400						

table continued next page



PF 1 54 323 061

DN [mm]	a [mm]	b [mm]	d [mm]	e [mm]	PN Water [bar]	PN Gas [bar]	
* 400							
* 400							
* 400							



MULTI/JOINT® 3750 Plus Wide Range T-piece, non-restraint

Model:

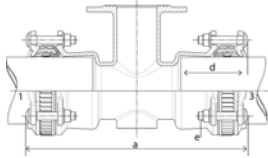
- Suitable for all kinds of pipe material
- Suitable for water and gas
- Ductile Cast iron GGG45 body and clamping ring(s), acc. to EN-GJS-450-10
- RESICOAT® epoxy powder coating, according to GSK standards and EN 14901
- NBR or EPDM gasket, NBR acc. to EN 682 (-5°C up to +50°C), EPDM acc. to EN 681-1 (0°C up to +50°C)
- Angular deflection of max. 8° per socket at installation (based on the middle of the coupling range)
- Stainless steel A2 quality (AISI 304) bolts, nuts and washers (optional: A4 quality)
- Threaded outlet (3/4 - 2 inch) optional
- For all plastic pipes, the use of an insert stiffener (see accessories) is advised or in some cases mandatory, check our technical information.

DN [mm]	Range 1 [mm]	Flange 2 [mm]	Range 3 [mm]	Drilling pattern	NBR / A2 Code	EPDM / A2 Code	NBR / A4 Code
100	104 - 132	80	104 - 132	PN16	709 501 226	709 501 626	709 501 026
150	154 - 192	80	154 - 192	PN16	709 501 234	709 501 634	709 501 034

DN [mm]	Range 1 [mm]	Flange 2 [mm]	Range 3 [mm]	Drilling pattern	EPDM / A4 Code	kg	
100	104 - 132	80	104 - 132	PN16	709 501 326	15.800	
150	154 - 192	80	154 - 192	PN16	709 501 334	23.700	

DN [mm]	a [mm]	b [mm]	d [mm]	e [mm]	h [mm]	PN Water [bar]	PN Gas [bar]	
100	400 - 438	236	110	3xM16	169	25.0	8.0	
150	412 - 468	304	120	4xM16	184	25.0	8.0	

PF 1 54 323 060



MULTI/JOINT® 3757 Plus Wide Range T-piece, restraint, Uni/Fiksers®

Model:

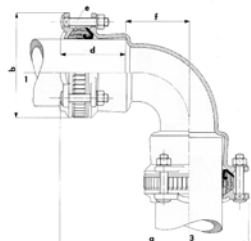
- Suitable for all kinds of pipe material
- Suitable for water and gas
- Ductile Cast iron GGG45 body and clamping ring(s), acc. to EN-GJS-450-10
- RESICOAT® epoxy powder coating, according to GSK standards and EN 14901
- NBR or EPDM gasket, NBR acc. to EN 682 (-5°C up to +50°C), EPDM acc. to EN 681-1 (0°C up to +50°C)
- Angular deflection of max. 8° per socket at installation (based on the middle of the coupling range)
- Stainless steel A4 quality (AISI 316) Uni/Fiksers®
- Stainless steel A2 quality (AISI 304) bolts, nuts and washers (optional: A4 quality)
- Threaded outlet (3/4 - 2 inch) optional
- For restraint versions, on plastic pipes, the use of an insert stiffener (see accessories) is mandatory, check our technical information

DN [mm]	Range 1 [mm]	Flange 2 [mm]	Range 3 [mm]	Drilling pattern	NBR / A2 Code	EPDM / A2 Code	NBR / A4 Code
100	104 - 132	80	104 - 132	PN16	709 505 226	709 505 626	709 505 026
150	154 - 192	80	154 - 192	PN16	709 505 234	709 505 634	709 505 034

DN [mm]	Range 1 [mm]	Flange 2 [mm]	Range 3 [mm]	Drilling pattern	EPDM / A4 Code	kg
100	104 - 132	80	104 - 132	PN16	709 505 326	15.800
150	154 - 192	80	154 - 192	PN16	709 505 334	23.700

DN [mm]	a [mm]	b [mm]	d [mm]	e [mm]	h [mm]	PN Water [bar]	PN Gas [bar]
100	400 - 438	236	110	3xM16	169	16.0	8.0
150	412 - 468	304	120	4xM16	184	16.0	8.0

PF 1 54 323 061



MULTI/JOINT® 3400 Plus Wide Range Bend, non-restraint

Model:

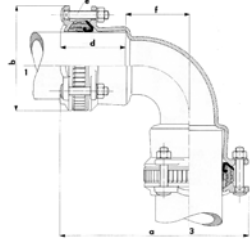
- Suitable for all kinds of pipe material
- Suitable for water and gas
- Ductile Cast iron GGG45 body and clamping ring(s), acc. to EN-GJS-450-10
- RESICOAT® epoxy powder coating, according to GSK standards and EN 14901
- NBR or EPDM gasket, NBR acc. to EN 682 (-5°C up to +50°C), EPDM acc. to EN 681-1 (0°C up to +50°C)
- Angular deflection of max. 8° per socket at installation (based on the middle of the coupling range)
- Stainless steel A2 quality (AISI 304) bolts, nuts and washers (optional: A4 quality)
- For all plastic pipes, the use of an insert stiffener (see accessories) is advised or in some cases mandatory, check our technical information.

DN [mm]	Range 1 [mm]	Range 3 [mm]	NBR / A2 Code	EPDM / A2 Code	NBR / A4 Code	
80	84 - 105	84 - 105	709 471 214	709 471 614	709 471 014	
100	104 - 132	104 - 132	709 471 216	709 471 616	709 471 016	
150	154 - 192	154 - 192	709 471 220	709 471 620	709 471 020	

DN [mm]	Range 1 [mm]	Range 3 [mm]	EPDM / A4 Code	kg	
80	84 - 105	84 - 105	709 471 314	10.200	
100	104 - 132	104 - 132	709 471 316	13.600	
150	154 - 192	154 - 192	709 471 320	26.300	

DN [mm]	a [mm]	b [mm]	d [mm]	e [mm]	f [mm]	PN Water [bar]	PN Gas [bar]	
80	291 - 315	204	115	3xM12	100	25.0	8.0	
100	346 - 365	236	110	3xM16	125	25.0	8.0	
150	417 - 445	304	120	4xM16	175	25.0	8.0	

PF 1 54 323 060



MULTI/JOINT® 3407 Plus Wide Range Bend, restraint, Uni/Fiksers®

Model:

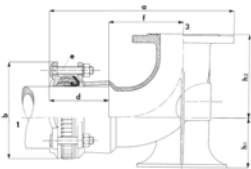
- Suitable for all kinds of pipe material
- Suitable for water and gas
- Ductile Cast iron GGG45 body and clamping ring(s), acc. to EN-GJS-450-10
- RESICOAT® epoxy powder coating, according to GSK standards and EN 14901
- NBR or EPDM gasket, NBR acc. to EN 682 (-5°C up to +50°C), EPDM acc. to EN 681-1 (0°C up to +50°C)
- Angular deflection of max. 8° per socket at installation (based on the middle of the coupling range)
- Stainless steel A4 quality (AISI 316) Uni/Fiksers®
- Stainless steel A2 quality (AISI 304) bolts, nuts and washers (optional: A4 quality)
- For restraint versions, on plastic pipes, the use of an insert stiffener (see accessories) is mandatory, check our technical information

DN [mm]	Range 1 [mm]	Range 3 [mm]	NBR / A2 Code	EPDM / A2 Code	NBR / A4 Code	
80	84 - 105	84 - 105	709 475 214	709 475 614	709 475 014	
100	104 - 132	104 - 132	709 475 216	709 475 616	709 475 016	
150	154 - 192	154 - 192	709 475 220	709 475 620	709 475 020	

DN [mm]	Range 1 [mm]	Range 3 [mm]	EPDM / A4 Code	kg	
80	84 - 105	84 - 105	709 475 314	10.200	
100	104 - 132	104 - 132	709 475 316	13.600	
150	154 - 192	154 - 192	709 475 320	26.300	

DN [mm]	a [mm]	b [mm]	d [mm]	e [mm]	f [mm]	PN Water [bar]	PN Gas [bar]	
80	291 - 315	204	115	3xM12	100	16.0	8.0	
100	346 - 365	236	110	3xM16	125	16.0	8.0	
150	417 - 445	304	120	4xM16	175	16.0	8.0	

PF 1 54 323 061



MULTI/JOINT® 3450 Plus Wide Range Duckfoot, non-restraint

Model:

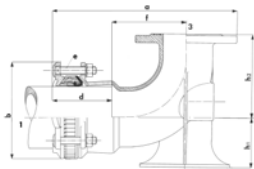
- Suitable for all kinds of pipe material
- Suitable for water and gas
- Ductile Cast iron GGG45 body and clamping ring(s), acc. to EN-GJS-450-10
- RESICOAT® epoxy powder coating, according to GSK standards and EN 14901
- NBR or EPDM gasket, NBR acc. to EN 682 (-5°C up to +50°C), EPDM acc. to EN 681-1 (0°C up to +50°C)
- Angular deflection of max. 8° per socket at installation (based on the middle of the coupling range)
- Stainless steel A2 quality (AISI 304) bolts, nuts and washers (optional: A4 quality)
- Threaded outlet (3/4 - 2 inch) optional
- For all plastic pipes, the use of an insert stiffener (see accessories) is advised or in some cases mandatory, check our technical information.

DN [mm]	Range 1 [mm]	Flange 3 [mm]	Drilling pattern	Rp [inch]	NBR / A2 Code	EPDM / A2 Code	NBR / A4 Code	
80	84 - 105	80	PN16	2	709 481 208	709 481 608	709 481 008	

DN [mm]	Range 1 [mm]	Flange 3 [mm]	Drilling pattern	Rp [inch]	EPDM / A4 Code	kg	
80	84 - 105	80	PN16	2	709 481 308	15.500	

DN [mm]	a [mm]	b [mm]	d [mm]	e [mm]	f [mm]	h1 [mm]	h2 [mm]	PN Water [bar]	
80	380 - 394	204	115	3xM12	165	108	174	25.0	

PF 1 54 323 060



MULTI/JOINT® 3457 Plus Wide Range Duckfoot, restraint, Uni/Fiksers®

Model:

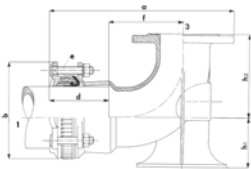
- Suitable for all kinds of pipe material
- Suitable for water and gas
- Ductile Cast iron GGG45 body and clamping ring(s), acc. to EN-GJS-450-10
- RESICOAT® epoxy powder coating, according to GSK standards and EN 14901
- NBR or EPDM gasket, NBR acc. to EN 682 (-5°C up to +50°C), EPDM acc. to EN 681-1 (0°C up to +50°C)
- Angular deflection of max. 8° per socket at installation (based on the middle of the coupling range)
- Stainless steel A4 quality (AISI 316) Uni/Fiksers®
- Stainless steel A2 quality (AISI 304) bolts, nuts and washers (optional: A4 quality)
- Threaded outlet (3/4 - 2 inch) optional
- For restraint versions, on plastic pipes, the use of an insert stiffener (see accessories) is mandatory, check our technical information

DN [mm]	Range 1 [mm]	Flange 3 [mm]	Drilling pattern	Rp [inch]	NBR / A2 Code	EPDM / A2 Code	NBR / A4 Code	
80	84 - 105	80	PN16	2	709 485 208	709 485 608	709 485 008	

DN [mm]	Range 1 [mm]	Flange 3 [mm]	Drilling pattern	Rp [inch]	EPDM / A4 Code	kg	
80	84 - 105	80	PN16	2	709 485 308	15.500	

DN [mm]	a [mm]	b [mm]	d [mm]	e [mm]	f [mm]	h1 [mm]	h2 [mm]	PN Water [bar]	
80	380 - 394	204	115	3xM12	165	108	174	16.0	

PF 1 54 323 061



MULTI/JOINT® 3550 Plus Wide Range Reduced duckfoot, non-restraint

Model:

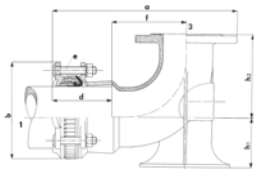
- Suitable for all kinds of pipe material
- Suitable for water and gas
- Ductile Cast iron GGG45 body and clamping ring(s), acc. to EN-GJS-450-10
- RESICOAT® epoxy powder coating, according to GSK standards and EN 14901
- NBR or EPDM gasket, NBR acc. to EN 682 (-5°C up to +50°C), EPDM acc. to EN 681-1 (0°C up to +50°C)
- Angular deflection of max. 8° per socket at installation (based on the middle of the coupling range)
- Stainless steel A2 quality (AISI 304) bolts, nuts and washers (optional: A4 quality)
- Threaded outlet (3/4 - 2 inch) optional
- For all plastic pipes, the use of an insert stiffener (see accessories) is advised or in some cases mandatory, check our technical information.

DN-DN [mm]	Range 1 [mm]	Flange 3 [mm]	Drilling pattern	Rp [inch]	NBR / A2 Code	EPDM / A2 Code	NBR / A4 Code	
50 - 80	46 - 72	80	PN16	2	709 491 218	709 491 618	709 491 018	
100 - 80	104 - 132	80	PN16	2	709 491 223	709 491 623	709 491 023	

DN-DN [mm]	Range 1 [mm]	Flange 3 [mm]	Drilling pattern	Rp [inch]	EPDM / A4 Code	kg	
50 - 80	46 - 72	80	PN16	2	709 491 318	13.100	
100 - 80	104 - 132	80	PN16	2	709 491 323	17.600	

DN-DN [mm]	Range 1 [mm]	a [mm]	b [mm]	d [mm]	e [mm]	f [mm]	h1 [mm]	h2 [mm]	PN Water [bar]	
50 - 80	46 - 72	356 - 371	164	100	3xM12	140	90	174	25.0	
100 - 80	104 - 132	408 - 426	236	110	3xM16	190	135	184	25.0	

PF 1 54 323 060



MULTI/JOINT® 3557 Plus Wide Range Reduced duckfoot, restraint, Uni/Fiksers®

Model:

- Suitable for all kinds of pipe material
- Suitable for water and gas
- Ductile Cast iron GGG45 body and clamping ring(s), acc. to EN-GJS-450-10
- RESICOAT® epoxy powder coating, according to GSK standards and EN 14901
- NBR or EPDM gasket, NBR acc. to EN 682 (-5°C up to +50°C), EPDM acc. to EN 681-1 (0°C up to +50°C)
- Angular deflection of max. 8° per socket at installation (based on the middle of the coupling range)
- Stainless steel A4 quality (AISI 316) Uni/Fiksers®
- Stainless steel A2 quality (AISI 304) bolts, nuts and washers (optional: A4 quality)
- Threaded outlet (3/4 - 2 inch) optional
- For restraint versions, on plastic pipes, the use of an insert stiffener (see accessories) is mandatory, check our technical information

DN-DN [mm]	Range 1 [mm]	Flange 3 [mm]	Drilling pattern	Rp [inch]	NBR / A2 Code	EPDM / A2 Code	NBR / A4 Code
50 - 80	46 - 72	80	PN16	2	709 495 218	709 495 618	709 495 018
65 - 80	63 - 90	80	PN10	2	709 495 236	709 495 636	709 495 036
65 - 80	63 - 90	80	PN16	2	709 495 230	709 495 630	709 495 030
100 - 80	104 - 132	80	PN16	2	709 495 223	709 495 623	709 495 023
125 - 80	132 - 155	80	PN16	2	709 495 261	709 495 661	709 495 061
125 - 80	132 - 155	80	PN10	2	709 495 248	709 495 648	709 495 048
150 - 80	154 - 192	80	PN10	2	709 495 273	709 495 673	709 495 073
150 - 80	154 - 192	80	PN16	2	709 495 267	709 495 667	709 495 067

DN-DN [mm]	Range 1 [mm]	Flange 3 [mm]	Drilling pattern	Rp [inch]	EPDM / A4 Code	kg
50 - 80	46 - 72	80	PN16	2	709 495 318	12.700
65 - 80	63 - 90	80	PN10	2	709 495 336	14.600
65 - 80	63 - 90	80	PN16	2	709 495 330	14.600
100 - 80	104 - 132	80	PN16	2	709 495 323	17.600
125 - 80	132 - 155	80	PN16	2	709 495 361	19.400
125 - 80	132 - 155	80	PN10	2	709 495 348	19.400
150 - 80	154 - 192	80	PN10	2	709 495 373	19.800
150 - 80	154 - 192	80	PN16	2	709 495 367	19.800

DN-DN [mm]	a [mm]	b [mm]	d [mm]	e [mm]	f [mm]	h1 [mm]	h2 [mm]	PN Water [bar]
50 - 80	356 - 371	164	100	3xM12	140	90	174	16.0
65 - 80	402 - 413	186	95	3xM12	170	90	180	16.0
65 - 80	402 - 413	186	95	3xM12	170	90	180	16.0
100 - 80	408 - 426	236	110	3xM16	190	135	184	16.0
125 - 80	394 - 412	264	120	4xM16	170	135	184	16.0
125 - 80	394 - 412	264	120	4xM16	170	135	184	16.0
150 - 80	407 - 435	264	120	4xM16	180	160	184	16.0
150 - 80	407 - 435	264	120	4xM16	180	160	184	16.0

PF 1 54 323 061



MULTI/JOINT® 3067 Plus Wide Range PE adaptor, restraint, Uni/Fiksers®

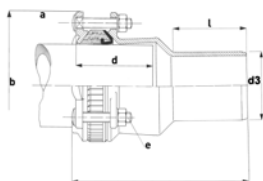
Model:

- Suitable for all kinds of pipe material (MULTI/JOINT® 3067 part)
- Suitable for water and gas
- Ductile Cast iron GGG45 body and clamping ring(s), acc. to EN-GJS-450-10
- PE: PE100 SDR11
- RESICOAT® epoxy powder coating, according to GSK standards and EN 14901
- NBR or EPDM gasket, NBR acc. to EN 682 (-5°C up to +50°C), EPDM acc. to EN 681-1 (0°C up to +50°C)
- Angular deflection of max. 8° per socket at installation (based on the middle of the coupling range)
- Stainless steel A4 quality (AISI 316) Uni/Fiksers®
- Stainless steel A2 quality (AISI 304) bolts, nuts and washers (optional: A4 quality)
- For restraint versions, on plastic pipes, the use of an insert stiffener (see accessories) is mandatory, check our technical information

DN [mm]	Range 1 [mm]	PE outlet [mm]	NBR / A2 Code	EPDM / A2 Code	NBR / A4 Code	EPDM / A4 Code	kg
65	63 - 90	63	709 365 211	709 365 611	709 365 011	709 365 311	4.400
65	63 - 90	75	709 365 212	709 365 612	709 365 012	709 365 312	4.400
80	84 - 105	90	709 365 214	709 365 614	709 365 014	709 365 314	5.400
80	84 - 105	110	709 365 215	709 365 615	709 365 015	709 365 315	5.400
100	104 - 132	90	709 465 216	709 465 616	709 465 016	709 465 316	6.900
100	104 - 132	110	709 365 216	709 365 616	709 365 016	709 365 316	6.900
100	104 - 132	125	709 465 217	709 465 617	709 465 017	709 465 317	6.900
125	132 - 155	110	709 465 218	709 465 618	709 465 018	709 465 318	8.900
125	132 - 155	125	709 365 218	709 365 618	709 365 018	709 365 318	8.900
125	132 - 155	140	709 465 219	709 465 619	709 465 019	709 465 319	8.900
125	132 - 155	160	709 465 221	709 465 621	709 465 021	709 465 321	12.300
150	154 - 192	160	709 365 220	709 365 620	709 365 020	709 365 320	15.300
150	154 - 192	180	709 465 220	709 465 620	709 465 020	709 465 320	15.300
200	192 - 232	200	709 365 224	709 365 624	709 365 024	709 365 324	22.600
200	192 - 232	225	709 465 224	709 465 624	709 465 024	709 465 324	22.600
250	267 - 310	250	709 365 228	709 365 628	709 365 028	709 365 328	39.300
250	267 - 310	280	709 465 228	709 465 628	709 465 028	709 465 328	41.900
300	315 - 356	315	709 365 232	709 365 632	709 365 032	709 365 332	55.200

DN [mm]	b [mm]	d [mm]	e [mm]	PN Water [bar]	PN Gas [bar]
65	186	95	3xM12	16.0	8.0
65	186	95	3xM12	16.0	8.0
80	204	115	3xM12	16.0	8.0
80	204	115	3xM12	16.0	8.0
100	236	110	3xM16	16.0	8.0
100	236	110	3xM16	16.0	8.0
100	236	110	3xM16	16.0	8.0
125	264	120	4xM16	16.0	8.0
125	264	120	4xM16	16.0	8.0
125	264	120	4xM16	16.0	8.0
125	264	120	4xM16	16.0	8.0
150	304	120	4xM16	16.0	8.0
150	304	120	4xM16	16.0	8.0
200	354	140	6xM16	16.0	8.0
200	354	140	6xM16	16.0	8.0
250	432	142	6xM20	16.0	8.0
250	432	142	6xM20	16.0	8.0
300	490	168	8xM20	10.0	5.0

PF 1 54 323 061



MULTI/JOINT® 3080 Plus Wide Range Spigot end, non-restraint

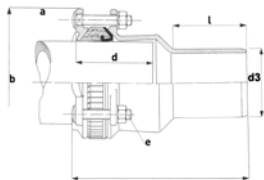
Model:

- Suitable for all kinds of pipe material
- Suitable for water and gas
- Ductile Cast iron GGG45 body and clamping ring(s), acc. to EN-GJS-450-10
- RESICOAT® epoxy powder coating, according to GSK standards and EN 14901
- NBR or EPDM gasket, NBR acc. to EN 682 (-5°C up to +50°C), EPDM acc. to EN 681-1 (0°C up to +50°C)
- Angular deflection of max. 8° per socket at installation (based on the middle of the coupling range)
- Stainless steel A2 quality (AISI 304) bolts, nuts and washers (optional: A4 quality)
- For all plastic pipes, the use of an insert stiffener (see accessories) is advised or in some cases mandatory, check our technical information.

DN [mm]	d3 [mm]	Range 1 [mm]	NBR / A2 Code	EPDM / A2 Code	NBR / A4 Code	EPDM / A4 Code	kg
50	63	46 - 71	709 331 210	709 331 610	709 331 010	709 331 310	3.400
100	110	104 - 132	709 331 216	709 331 616	709 331 016	709 331 316	7.400
150	160	154 - 192	709 331 220	709 331 620	709 331 020	709 331 320	11.600
200	200	192 - 232	709 331 229	709 331 629	709 331 029	709 331 329	21.100

DN [mm]	d3 [mm]	a [mm]	b [mm]	d [mm]	e [mm]	L [mm]	PN Water [bar]	PN Gas [bar]
50	63	204 - 219	164	100	3xM12	75	25.0	8.0
100	110	258 - 277	269	110	3xM16	120	25.0	8.0
150	160	289 - 317	304	120	4xM16	135	25.0	8.0
200	200	335 - 362	354	140	6xM16	145	25.0	8.0

PF 1 54 323 060



MULTI/JOINT® 3087 Plus Wide Range Spigot end, restraint, Uni/Fiksers®

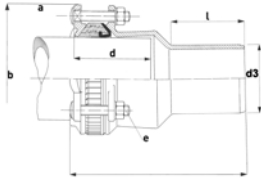
Model:

- Suitable for all kinds of pipe material
- Suitable for water and gas
- Ductile Cast iron GGG45 body and clamping ring(s), acc. to EN-GJS-450-10
- RESICOAT® epoxy powder coating, according to GSK standards and EN 14901
- NBR or EPDM gasket, NBR acc. to EN 682 (-5°C up to +50°C), EPDM acc. to EN 681-1 (0°C up to +50°C)
- Angular deflection of max. 8° per socket at installation (based on the middle of the coupling range)
- Stainless steel A4 quality (AISI 316) Uni/Fiksers®
- Stainless steel A2 quality (AISI 304) bolts, nuts and washers (optional: A4 quality)
- For restraint versions, on plastic pipes, the use of an insert stiffener (see accessories) is mandatory, check our technical information

DN [mm]	d3 [mm]	Range 1 [mm]	NBR / A2 Code	EPDM / A2 Code	NBR / A4 Code	EPDM / A4 Code	kg	
50	63	46 - 71	709 335 210	709 335 610	709 335 010	709 335 310	3.400	
100	110	104 - 132	709 335 216	709 335 616	709 335 016	709 335 316	7.400	
150	160	154 - 192	709 335 220	709 335 620	709 335 020	709 335 320	11.600	
200	200	192 - 232	709 335 229	709 335 629	709 335 029	709 335 329	21.100	

DN [mm]	d3 [mm]	a [mm]	b [mm]	d [mm]	e [mm]	L [mm]	PN Water [bar]	PN Gas [bar]	
50	63	204 - 219	164	100	3xM12	75	16.0	8.0	
100	110	258 - 277	269	110	3xM16	120	16.0	8.0	
150	160	289 - 317	304	120	4xM16	135	16.0	8.0	
200	200	335 - 362	354	140	6xM16	145	16.0	8.0	

PF 1 54 323 061



PF 1 54 323 060

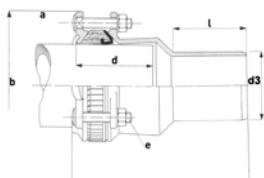
MULTI/JOINT® 3180 Plus Wide Range Reduced spigot end, non-restraint

Model:

- Suitable for all kinds of pipe material
- Suitable for water and gas
- Ductile Cast iron GGG45 body and clamping ring(s), acc. to EN-GJS-450-10
- RESICOAT® epoxy powder coating, according to GSK standards and EN 14901
- NBR or EPDM gasket, NBR acc. to EN 682 (-5°C up to +50°C), EPDM acc. to EN 681-1 (0°C up to +50°C)
- Angular deflection of max. 8° per socket at installation (based on the middle of the coupling range)
- Stainless steel A2 quality (AISI 304) bolts, nuts and washers (optional: A4 quality)
- For all plastic pipes, the use of an insert stiffener (see accessories) is advised or in some cases mandatory, check our technical information.

DN [mm]	d3 [mm]	Range 1 [mm]	NBR / A2 Code	EPDM / A2 Code	NBR / A4 Code	EPDM / A4 Code	kg	
80	110	84 - 105	709 341 224	709 341 624	709 341 024	709 341 324	5.700	

DN [mm]	d3 [mm]	a [mm]	b [mm]	d [mm]	e [mm]	l [mm]	PN Water [bar]	PN Gas [bar]	
80	110	240 - 254	204	115	3xM12	120	25.0	8.0	



PF 1 54 323 061

MULTI/JOINT® 3187 Plus Wide Range Reduced spigot end, restraint, Uni/Fiksers®

Model:

- Suitable for all kinds of pipe material
- Suitable for water and gas
- Ductile Cast iron GGG45 body and clamping ring(s), acc. to EN-GJS-450-10
- RESICOAT® epoxy powder coating, according to GSK standards and EN 14901
- NBR or EPDM gasket, NBR acc. to EN 682 (-5°C up to +50°C), EPDM acc. to EN 681-1 (0°C up to +50°C)
- Angular deflection of max. 8° per socket at installation (based on the middle of the coupling range)
- Stainless steel A4 quality (AISI 316) Uni/Fiksers®
- Stainless steel A2 quality (AISI 304) bolts, nuts and washers (optional: A4 quality)
- For restraint versions, on plastic pipes, the use of an insert stiffener (see accessories) is mandatory, check our technical information

DN [mm]	d3 [mm]	Range 1 [mm]	NBR / A2 Code	EPDM / A2 Code	NBR / A4 Code	EPDM / A4 Code	kg	
80	110	84 - 105	709 345 224	709 345 624	709 345 024	709 345 324	5.700	

DN [mm]	d3 [mm]	a [mm]	b [mm]	d [mm]	e [mm]	l [mm]	PN Water [bar]	PN Gas [bar]	
80	110	240 - 254	204	115	3xM12	120	16.0	8.0	



MULTI/JOINT® XL

→ Your benefits

- Quick, simple and safe installation
- Stock reduction, thanks to the 'one size fits all' principle
- Durable corrosion protection by Resicoat® epoxy powder coating (GSK approved)
- Suitable for all pipe materials
- Large insertion depth for an easy installation
- Reusable
- Applicable for under- and above-ground use

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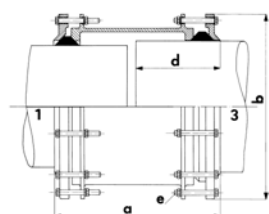
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MULTI/JOINT® XL

MULTI/JOINT® XL 2500 Wide Range Coupling, non-restraint

Model:

- Ductile Cast iron GGG45 body and clamping ring(s), acc. to EN-GJS-450-10
- RESICOAT® epoxy powder coating, according to GSK standards and EN 14901
- NBR or EPDM gasket, NBR acc. to EN 682 (-5°C up to +50°C), EPDM acc. to EN 681-1 (0°C up to +50°C)
- Angular deflection of max. 4° per socket (based on the middle of the coupling range)
- Stainless steel A2 quality (AISI 304) bolts, nuts and washers (optional: A4 quality)
- Suitable for all kinds of pipe material
- Suitable for water and gas
- Other dedicated sized couplings up to 2800 mm on request
- For all plastic pipes, the use of an insert stiffener (see accessories) is advised or in some cases mandatory, check our technical information.

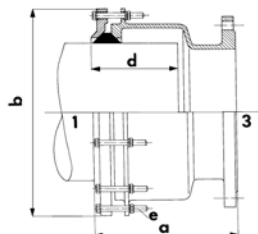


DN [mm]	Range 1 [mm]	Range 3 [mm]	NBR / A2 Code	EPDM / A2 Code	NBR / A4 Code	
350	356 - 380	356 - 380	709 006 200	709 006 600	709 006 000	
400	400 - 429	400 - 429	709 006 205	709 006 605	709 006 005	
450	450 - 482	450 - 482	709 006 207	709 006 607	709 006 007	
500	500 - 532	500 - 532	709 006 210	709 006 610	709 006 010	
600	605 - 637	605 - 637	709 006 215	709 006 615	709 006 015	

DN [mm]	Range 1 [mm]	Range 3 [mm]	EPDM / A4 Code	kg	
350	356 - 380	356 - 380	709 006 300	99.000	
400	400 - 429	400 - 429	709 006 305	115.000	
450	450 - 482	450 - 482	709 006 307	122.000	
500	500 - 532	500 - 532	709 006 310	149.000	
600	605 - 637	605 - 637	709 006 315	178.000	

DN [mm]	a [mm]	b [mm]	d [mm]	e [mm]	PN Water [bar]	PN Gas [bar]	
350	520	551	240	8xM16	10.0	4.0	
400	520	600	240	10xM16	10.0	4.0	
450	520	653	240	10xM16	10.0	4.0	
500	520	720	240	10xM20	10.0	4.0	
600	520	820	240	12xM20	10.0	4.0	

PF 1 54 323 062



MULTI/JOINT® XL 2550 Wide Range Flange adaptor, non-restraint

Model:

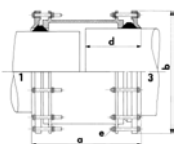
- Ductile Cast iron GGG45 body and clamping ring(s), acc. to EN-GJS-450-10
- RESICOAT® epoxy powder coating, according to GSK standards and EN 14901
- NBR or EPDM gasket, NBR acc. to EN 682 (-5°C up to +50°C), EPDM acc. to EN 681-1 (0°C up to +50°C)
- Angular deflection of max. 4° per socket (based on the middle of the coupling range)
- Stainless steel A2 quality (AISI 304) bolts, nuts and washers (optional: A4 quality)
- Suitable for all kinds of pipe material
- Suitable for water and gas
- Other dedicated sized couplings up to 2800 mm on request
- For all plastic pipes, the use of an insert stiffener (see accessories) is advised or in some cases mandatory, check our technical information.

DN [mm]	Range 1 [mm]	Flange 3 [mm]	Drilling pattern	NBR / A2 Code	EPDM / A2 Code	NBR / A4 Code	
350	356 - 380	350	PN10	709 008 255	709 008 655	709 008 055	
350	356 - 380	350	PN16	709 008 256	709 008 656	709 008 056	
400	400 - 429	400	PN10	709 008 260	709 008 660	709 008 060	
400	400 - 429	400	PN16	709 008 261	709 008 661	709 008 061	
500	500 - 532	500	PN10	709 008 264	709 008 664	709 008 064	
500	500 - 532	500	PN16	709 008 265	709 008 665	709 008 065	
600	605 - 637	600	PN10	709 008 270	709 008 670	709 008 070	
600	605 - 637	600	PN16	709 008 271	709 008 671	709 008 071	

DN [mm]	Range 1 [mm]	Flange 3 [mm]	Drilling pattern	EPDM / A4 Code	kg	
350	356 - 380	350	PN10	709 008 355	77.000	
350	356 - 380	350	PN16	709 008 356	77.000	
400	400 - 429	400	PN10	709 008 360	88.000	
400	400 - 429	400	PN16	709 008 361	88.000	
500	500 - 532	500	PN10	709 008 364	120.000	
500	500 - 532	500	PN16	709 008 365	120.000	
600	605 - 637	600	PN10	709 008 370	142.000	
600	605 - 637	600	PN16	709 008 371	142.000	

DN [mm]	a [mm]	b [mm]	d [mm]	e [mm]	PN Water [bar]	PN Gas [bar]	
350	360	551	240	8xM16	10.0	4.0	
350	360	551	240	8xM16	10.0	4.0	
400	360	600	240	10xM16	10.0	4.0	
400	360	600	240	10xM16	10.0	4.0	
500	360	720	240	10xM20	10.0	4.0	
500	360	720	240	10xM20	10.0	4.0	
600	360	820	240	12xM20	10.0	4.0	
600	360	820	240	12xM20	10.0	4.0	

PF 1 54 323 062



MULTI/JOINT® XL 2600 Wide Range Reduced Coupling, non-restraint

Model:

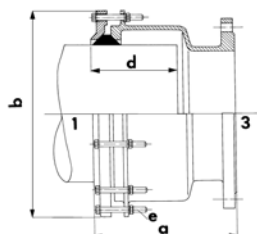
- Ductile Cast iron GGG45 body and clamping ring(s), acc. to EN-GJS-450-10
- RESICOAT® epoxy powder coating, according to GSK standards and EN 14901
- NBR or EPDM gasket, NBR acc. to EN 682 (-5°C up to +50°C), EPDM acc. to EN 681-1 (0°C up to +50°C)
- Angular deflection of max. 4° per socket (based on the middle of the coupling range)
- Stainless steel A2 quality (AISI 304) bolts, nuts and washers (optional: A4 quality)
- Suitable for all kinds of pipe material
- Suitable for water and gas
- Other dedicated sized couplings up to 2800 mm on request
- For all plastic pipes, the use of an insert stiffener (see accessories) is advised or in some cases mandatory, check our technical information.

DN-DN [mm]	Range 1 [mm]	Range 3 [mm]	NBR / A2 Code	EPDM / A2 Code	NBR / A4 Code	
300 - 350	315 - 337	356 - 380	709 007 205	709 007 605	709 007 005	
350 - 400	356 - 380	400 - 429	709 007 207	709 007 607	709 007 007	
400 - 450	400 - 429	450 - 482	709 007 210	709 007 610	709 007 010	
450 - 500	450 - 482	500 - 532	709 007 212	709 007 612	709 007 012	
500 - 550	500 - 532	548 - 580	709 007 215	709 007 615	709 007 015	

DN-DN [mm]	Range 1 [mm]	Range 3 [mm]	EPDM / A4 Code	kg	
300 - 350	315 - 337	356 - 380	709 007 305	102.000	
350 - 400	356 - 380	400 - 429	709 007 307	114.000	
400 - 450	400 - 429	450 - 482	709 007 310	125.000	
450 - 500	450 - 482	500 - 532	709 007 312	145.000	
500 - 550	500 - 532	548 - 580	709 007 315	160.000	

DN-DN [mm]	Range 1 [mm]	a [mm]	b [mm]	d [mm]	e [mm]	PN Water [bar]	PN Gas [bar]	
300 - 350	315 - 337	520	551	240	8xM16/8xM16	10.0	4.0	
350 - 400	356 - 380	520	600	240	10xM16/8xM16	10.0	4.0	
400 - 450	400 - 429	520	653	240	10xM16/10xM16	10.0	4.0	
450 - 500	450 - 482	520	717	240	12xM20/10xM16	10.0	4.0	
500 - 550	500 - 532	520	765	240	12xM20/12xM20	10.0	4.0	

PF 1 54 323 062



MULTI/JOINT® XL 2650 Wide Range Reduced Flange Adaptor, non-restraint

Model:

- Ductile Cast iron GGG45 body and clamping ring(s), acc. to EN-GJS-450-10
- RESICOAT® epoxy powder coating, according to GSK standards and EN 14901
- NBR or EPDM gasket, NBR acc. to EN 682 (-5°C up to +50°C), EPDM acc. to EN 681-1 (0°C up to +50°C)
- Angular deflection of max. 4° per socket (based on the middle of the coupling range)
- Stainless steel A2 quality (AISI 304) bolts, nuts and washers (optional: A4 quality)
- Suitable for all kinds of pipe material
- Suitable for water and gas
- Other dedicated sized couplings up to 2800 mm on request
- For all plastic pipes, the use of an insert stiffener (see accessories) is advised or in some cases mandatory, check our technical information.

DN-DN [mm]	Range 1 [mm]	Flange 3 [mm]	Drilling pattern	NBR / A2 Code	EPDM / A2 Code	NBR / A4 Code	
350 - 300	356 - 380	300	PN10	709 008 250	709 008 650	709 008 050	
350 - 300	356 - 380	300	PN16	709 008 251	709 008 651	709 008 051	
450 - 400	450 - 482	400	PN10	709 008 262	709 008 662	709 008 062	
450 - 400	450 - 482	400	PN16	709 008 263	709 008 663	709 008 063	
550 - 500	548 - 580	500	PN10	709 008 266	709 008 666	709 008 066	
550 - 500	548 - 580	500	PN16	709 008 267	709 008 667	709 008 067	

DN-DN [mm]	Range 1 [mm]	Flange 3 [mm]	Drilling pattern	EPDM / A4 Code	kg	
350 - 300	356 - 380	300	PN10	709 008 350	78.000	
350 - 300	356 - 380	300	PN16	709 008 351	78.000	
450 - 400	450 - 482	400	PN10	709 008 362	94.000	
450 - 400	450 - 482	400	PN16	709 008 363	94.000	
550 - 500	548 - 580	500	PN10	709 008 366	130.000	
550 - 500	548 - 580	500	PN16	709 008 367	128.000	

DN-DN [mm]	a [mm]	b [mm]	d [mm]	e [mm]	PN Water [bar]	PN Gas [bar]	
350 - 300	360	551	240	8xM16	10.0	4.0	
350 - 300	360	551	240	8xM16	10.0	4.0	
450 - 400	360	653	240	10xM16	10.0	4.0	
450 - 400	360	653	240	10xM16	10.0	4.0	
550 - 500	360	765	240	10xM20	10.0	4.0	
550 - 500	360	765	240	10xM20	10.0	4.0	

PF 1 54 323 062



→ ST-System

→ Your benefits

- Tailor-made solution, suitable for any pipe outside diameter DN40 – DN2800
- Quick, simple and safe installation
- Durable corrosion protection by Resicoat® epoxy powder coating (GSK approved)
- Large insertion depth for an easy installation
- Can be used as a disassembly piece
- Reusable
- Applicable for under- and above-ground use

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ST-System

Coupling, non-restraint



Model:

- Body and clamping ring(s): steel (ST 37-2)
- Bolts and nuts: standard stainless steel A2, others on request
- RESICOAT® epoxy powder coating, according to GSK standards and EN 14901
- Gaskets NBR or EPDM
- Working pressures: Water: 10 bar, 16 bar or 25 bar; Gas: 4
- Ranges: DN40 - DN80 (+2 / -1), DN100 - DN200 (+2 / -1,5), DN250 - DN500 (+4 / -3), DN600 - DN1100 (+5 / -4), DN1200 - DN1600 (+5,5 / -5)
- All kinds of dimensions from DN80 up to DN2800 are possible on request and different lengths and pressure classes are also possible by mentioning exact outside diameter
- For all plastic pipes, the use of an insert stiffener (see accessories) is advised or in some cases mandatory, check our technical information.

DN [mm]	Length [mm]	Code
80	300	DN80C-N
100	300	DN100C-N
200	300	DN200C-N
250	300	DN250C-N
300	300	DN300C-N
350	300	DN350C-N
400	300	DN400C-N
450	300	DN450C-N
500	300	DN500C-N
550	300	DN550C-N
600	300	DN600C-N
650	300	DN650C-N
700	300	DN700C-N
800	300	DN800C-N
900	300	DN900C-N
1000	300	DN1000C-N
1100	300	DN1100C-N
1200	300	DN1200C-N
1300	300	DN1300C-N
1400	300	DN1400C-N
1500	300	DN1500C-N
1600	300	DN1600C-N
1700	300	DN1700C-N
1800	300	DN1800C-N
1900	300	DN1900C-N
2000	300	DN2000C-N
2100	300	DN2100C-N
2200	300	DN2200C-N
2300	300	DN2300C-N
2400	300	DN2400C-N
2500	300	DN2500C-N
2600	300	DN2600C-N
2700	300	DN2700C-N
2800	300	DN2800C-N



Flange Adaptor, non-restraint

Model:

- Body and clamping ring(s): steel (ST 37-2)
- Bolts and nuts: standard stainless steel A2, others on request
- RESICOAT® epoxy powder coating, according to GSK standards and EN 14901
- Gaskets NBR or EPDM
- Working pressures: Water: 10 bar, 16 bar or 25 bar; Gas: 4
- Ranges: DN40 - DN80 (+2 / -1), DN100 - DN200 (+2 / -1,5), DN250 - DN500 (+4 / -3), DN600 - DN1100 (+5 / -4), DN1200 - DN1600 (+5,5 / -5)
- All kinds of dimensions from DN80 up to DN2800 are possible on request and different lengths and pressure classes are also possible by mentioning exact outside diameter
- Flange drilling: PN10, PN16, PN25; others on request
- For all plastic pipes, the use of an insert stiffener (see accessories) is advised or in some cases mandatory, check our technical information.

DN [mm]	DN flange [mm]	Length [mm]	Code	
80	80	300	DN80F-N	
100	100	300	DN100F-N	
200	200	300	DN200F-N	
250	250	300	DN250F-N	
300	300	300	DN300F-N	
350	350	300	DN350F-N	
400	400	300	DN400F-N	
450	450	300	DN450F-N	
500	500	300	DN500F-N	
550	550	300	DN550F-N	
600	600	300	DN600F-N	
650	650	300	DN650F-N	
700	700	300	DN700F-N	
800	800	300	DN800F-N	
900	900	300	DN900F-N	
1000	1000	300	DN1000F-N	
1100	1100	300	DN1100F-N	
1200	1200	300	DN1200F-N	
1300	1300	300	DN1300F-N	
1400	1400	300	DN1400F-N	
1500	1500	300	DN1500F-N	
1600	1600	300	DN1600F-N	
1700	1700	300	DN1700F-N	
1800	1800	300	DN1800F-N	
1900	1900	300	DN1900F-N	
2000	2000	300	DN2000F-N	
2100	2100	300	DN2100F-N	
2200	2200	300	DN2200F-N	
2300	2300	300	DN2300F-N	
2400	2400	300	DN2400F-N	
2500	2500	300	DN2500F-N	
2600	2600	300	DN2600F-N	
2700	2700	300	DN2700F-N	
2800	2800	300	DN2800F-N	



Reduction Coupling, non-restraint

Model:

- Body and clamping ring(s): steel (ST 37-2)
- Bolts and nuts: standard stainless steel A2, others on request
- RESICOAT® epoxy powder coating, according to GSK standards and EN 14901
- Gaskets NBR or EPDM
- Working pressures: Water: 10 bar, 16 bar or 25 bar; Gas: 4
- Ranges: DN40 - DN80 (+2 / -1), DN100 - DN200 (+2 / -1,5), DN250 - DN500 (+4 / -3), DN600 - DN1100 (+5 / -4), DN1200 - DN1600 (+5,5 / -5)
- All kinds of dimensions from DN80 up to DN2800 are possible on request and different lengths and pressure classes are also possible by mentioning exact outside diameter
- For all plastic pipes, the use of an insert stiffener (see accessories) is advised or in some cases mandatory, check our technical information.

DN [mm]	Length [mm]	Code	
80	300	DN80RC-N	
100	300	DN100RC-N	
200	300	DN200RC-N	
250	300	DN250RC-N	
300	300	DN300RC-N	
350	300	DN350RC-N	
400	300	DN400RC-N	
450	300	DN450RC-N	
500	300	DN500RC-N	
550	300	DN550RC-N	
600	300	DN600RC-N	
650	300	DN650RC-N	
700	300	DN700RC-N	
800	300	DN800RC-N	
900	300	DN900RC-N	
1000	300	DN1000RC-N	
1100	300	DN1100RC-N	
1200	300	DN1200RC-N	
1300	300	DN1300RC-N	
1400	300	DN1400RC-N	
1500	300	DN1500RC-N	
1600	300	DN1600RC-N	
1700	300	DN1700RC-N	
1800	300	DN1800RC-N	
1900	300	DN1900RC-N	
2000	300	DN2000RC-N	
2100	300	DN2100RC-N	
2200	300	DN2200RC-N	
2300	300	DN2300RC-N	
2400	300	DN2400RC-N	
2500	300	DN2500RC-N	
2600	300	DN2600RC-N	
2700	300	DN2700RC-N	
2800	300	DN2800RC-N	



Reduction Flange Adaptor, non-restraint

Model:

- Body and clamping ring(s): steel (ST 37-2)
- Bolts and nuts: standard stainless steel A2, others on request
- RESICOAT® epoxy powder coating, according to GSK standards and EN 14901
- Gaskets NBR or EPDM
- Working pressures: Water: 10 bar, 16 bar or 25 bar; Gas: 4
- Ranges: DN40 - DN80 (+2 / -1), DN100 - DN200 (+2 / -1,5), DN250 - DN500 (+4 / -3), DN600 - DN1100 (+5 / -4), DN1200 - DN1600 (+5,5 / -5)
- All kinds of dimensions from DN80 up to DN2800 are possible on request and different lengths and pressure classes are also possible by mentioning exact outside diameter
- Flange drilling: PN10, PN16, PN25; others on request
- For all plastic pipes, the use of an insert stiffener (see accessories) is advised or in some cases mandatory, check our technical information.

DN [mm]	DN flange [mm]	Length [mm]	Code	
80	80 - 2800	300	DN80RF-N	
100	80 - 2800	300	DN100RF-N	
200	80 - 2800	300	DN200RF-N	
250	80 - 2800	300	DN250RF-N	
300	80 - 2800	300	DN300RF-N	
350	80 - 2800	300	DN350RF-N	
400	80 - 2800	300	DN400RF-N	
450	80 - 2800	300	DN450RF-N	
500	80 - 2800	300	DN500RF-N	
550	80 - 2800	300	DN550RF-N	
600	80 - 2800	300	DN600RF-N	
650	80 - 2800	300	DN650RF-N	
700	80 - 2800	300	DN700RF-N	
800	80 - 2800	300	DN800RF-N	
900	80 - 2800	300	DN900RF-N	
1000	80 - 2800	300	DN1000RF-N	
1100	80 - 2800	300	DN1100RF-N	
1200	80 - 2800	300	DN1200RF-N	
1300	80 - 2800	300	DN1300RF-N	
1400	80 - 2800	300	DN1400RF-N	
1500	80 - 2800	300	DN1500RF-N	
1600	80 - 2800	300	DN1600RF-N	
1700	80 - 2800	300	DN1700RF-N	
1800	80 - 2800	300	DN1800RF-N	
1900	80 - 2800	300	DN1900RF-N	
2000	80 - 2800	300	DN2000RF-N	
2100	80 - 2800	300	DN2100RF-N	
2200	80 - 2800	300	DN2200RF-N	
2300	80 - 2800	300	DN2300RF-N	
2400	80 - 2800	300	DN2400RF-N	
2500	80 - 2800	300	DN2500RF-N	
2600	80 - 2800	300	DN2600RF-N	
2700	80 - 2800	300	DN2700RF-N	
2800	80 - 2800	300	DN2800RF-N	



→ Plast/Joint®

→ Your benefits

- Easy installation, where access is difficult, thanks to the one bolt system
- Quick, efficient and cost effective installation, no machines or special tools necessary
- Durable corrosion protection by Resicoat® epoxy powder coating (GSK approved)
- Reusable
- Applicable for under- and above-ground use
- All weather use

Contents Plast/Joint®

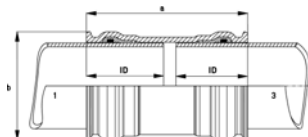
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Plast/Joint®

Plast/Joint® 8000 Coupling, non-restraint

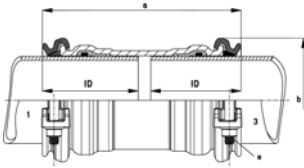
Model:

- Ductile Cast iron GGG45 body and clamping ring(s), acc. to EN-GJS-450-10
- RESICOAT® epoxy powder coating, according to GSK standards and EN 14901
- Gaskets NBR or EPDM
- Suitable for water and gas
- For water applications on PE and PVC pipes SDR 9, SDR 11 and SDR 17 (SDR 17.6) and for PVC pipes SDR 21, 34 and bi oriented SDR 41 insert stiffeners are not required. Note: for all gas applications and for PE pipes with SDR 21 or thinner wall thicknesses, insert stiffeners are mandatory
- For more information on the use of insert stiffeners please contact your local dealer



d [mm]	NBR Code	EPDM Code	kg	a [mm]	b [mm]	PN Water [bar]	PN Gas [bar]	insertion depth [mm]
63	709 200 210	709 200 610	2.326	165	94	16.0	8.0	80
75	709 200 212	709 200 612	2.418	165	106	16.0	8.0	80
90	709 200 214	709 200 614	3.279	175	121	16.0	8.0	85
110	709 200 216	709 200 616	4.669	209	141	16.0	8.0	102
125	709 200 218	709 200 618	5.129	218	156	16.0	8.0	106
140	709 200 220	709 200 620	6.168	222	172	16.0	8.0	108
160	709 200 222	709 200 622	8.664	250	197	16.0	8.0	122
180	709 200 224	709 200 624	10.400	269	217	16.0	8.0	132
200	709 200 226	709 200 626	12.752	274	237	16.0	8.0	134
225	709 200 228	709 200 628	14.530	277	262	16.0	8.0	136
250	709 200 230	709 200 630	18.026	337	292	16.0	8.0	166
280	709 200 232	709 200 632	21.186	344	323	16.0	8.0	169
315	709 200 234	709 200 634	26.210	349	358	16.0	8.0	172

PF 1 54 932 001



Plast/Joint® 8007 Coupling, restraint

Model:

- Ductile Cast iron GGG45 body and clamping ring(s), acc. to EN-GJS-450-10
- RESICOAT® epoxy powder coating, according to GSK standards and EN 14901
- Stainless steel A2 quality (AISI 304) bolts, nuts and washers (optional: A4 quality)
- Gripping in brass
- Gaskets NBR or EPDM
- Suitable for water and gas
- For water applications on PE and PVC pipes SDR 9, SDR 11 and SDR 17 (SDR 17.6) and for PVC pipes SDR 21, 34 and bi oriented SDR 41 insert stiffeners are not required. Note: for all gas applications and for PE pipes with SDR 21 or thinner wall thicknesses, insert stiffeners are mandatory
- For more information on the use of insert stiffeners please contact your local dealer

d [mm]	NBR / A2 Code	NBR / A4 Code	EPDM / A2 Code	EPDM / A4 Code	kg	
63	709 207 210	709 207 010	709 207 610	709 207 310	4.789	
75	709 207 212	709 207 012	709 207 612	709 207 312	5.079	
90	709 207 214	709 207 014	709 207 614	709 207 314	6.200	
110	709 207 216	709 207 016	709 207 616	709 207 316	7.900	
125	709 207 218	709 207 018	709 207 618	709 207 318	8.638	
140	709 207 220	709 207 020	709 207 620	709 207 320	9.939	
160	709 207 222	709 207 022	709 207 622	709 207 322	15.742	
180	709 207 224	709 207 024	709 207 624	709 207 324	18.030	
200	709 207 226	709 207 026	709 207 626	709 207 326	20.943	
225	709 207 228	709 207 028	709 207 628	709 207 328	23.510	
250	709 207 230	709 207 030	709 207 630	709 207 330	32.261	
280	709 207 232	709 207 032	709 207 632	709 207 332	36.719	
315	709 207 234	709 207 034	709 207 634	709 207 334	43.080	

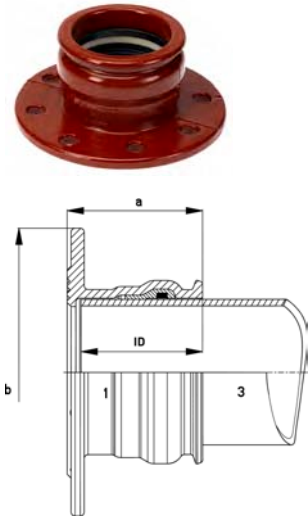
d [mm]	a [mm]	b [mm]	PN Water [bar]	PN Gas [bar]	insertion depth [mm]	
63	201	160	16.0	8.0	98	
75	201	173	16.0	8.0	98	
90	211	188	16.0	8.0	103	
110	245	206	16.0	8.0	120	
125	254	222	16.0	8.0	124	
140	258	238	16.0	8.0	126	
160	294	283	16.0	8.0	144	
180	314	303	16.0	8.0	150	
200	318	324	16.0	8.0	156	
225	321	349	16.0	8.0	158	
250	397	385	16.0	8.0	196	
280	404	416	16.0	8.0	199	
315	409	451	16.0	8.0	202	

PF 1 54 932 001

Plast/Joint® 8050 Flange Adaptor, non-restraint

Model:

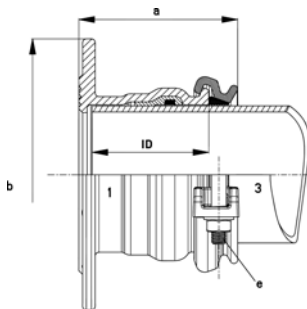
- Ductile Cast iron GGG45 body and clamping ring(s), acc. to EN-GJS-450-10
- RESICOAT® epoxy powder coating, according to GSK standards and EN 14901
- Gaskets NBR or EPDM
- Suitable for water and gas
- Flange drilling according to EN 1092-2
- For water applications on PE and PVC pipes SDR 9, SDR 11 and SDR 17 (SDR 17.6) and for PVC pipes SDR 21, 34 and bi oriented SDR 41 insert stiffeners are not required. Note: for all gas applications and for PE pipes with SDR 21 or thinner wall thicknesses, insert stiffeners are mandatory
- For more information on the use of insert stiffeners please contact your local dealer



d [mm]	DN [mm]	Drilling pattern	NBR Code	EPDM Code	kg	
63	50	PN16	709 250 210	709 250 610	2.451	
75	65	PN16	709 250 212	709 250 612	2.723	
90	80	PN16	709 250 214	709 250 614	3.495	
110	100	PN16	709 250 216	709 250 616	4.457	
125	100	PN16	709 250 218	709 250 618	4.372	
140	125	PN16	709 250 220	709 250 620	5.465	
160	150	PN16	709 250 222	709 250 622	7.763	
180	150	PN16	709 250 224	709 250 624	7.716	
200	200	PN10	709 250 225	709 250 625	12.112	
200	200	PN16	709 250 226	709 250 626	12.112	
225	200	PN10	709 250 227	709 250 627	11.930	
225	200	PN16	709 250 228	709 250 628	11.930	
250	250	PN10	709 250 229	709 250 629	15.985	
250	250	PN16	709 250 230	709 250 630	15.985	
280	250	PN10	709 250 231	709 250 631	16.660	
280	250	PN16	709 250 232	709 250 632	16.660	
315	300	PN10	709 250 233	709 250 633	21.954	
315	300	PN16	709 250 234	709 250 634	21.410	

d [mm]	DN [mm]	a [mm]	b [mm]	PN Water [bar]	PN Gas [bar]	insertion depth [mm]	
63	50	84	165	16.0	8.0	74	
75	65	84	185	16.0	8.0	74	
90	80	89	200	16.0	8.0	79	
110	100	104	220	16.0	8.0	94	
125	100	108	220	16.0	8.0	98	
140	125	110	250	16.0	8.0	100	
160	150	122	285	16.0	8.0	112	
180	150	132	285	16.0	8.0	122	
200	200	135	340	16.0	8.0	125	
200	200	135	340	16.0	8.0	125	
225	200	136	340	16.0	8.0	126	
225	200	136	340	16.0	8.0	126	
250	250	164	400	16.0	8.0	154	
250	250	164	400	16.0	8.0	154	
280	250	167	400	16.0	8.0	157	
280	250	167	400	16.0	8.0	157	
315	300	171	455	16.0	8.0	159	
315	300	171	455	16.0	8.0	159	

PF 1 54 932 001



Plast/Joint® 8057 Flange Adaptor, restraint

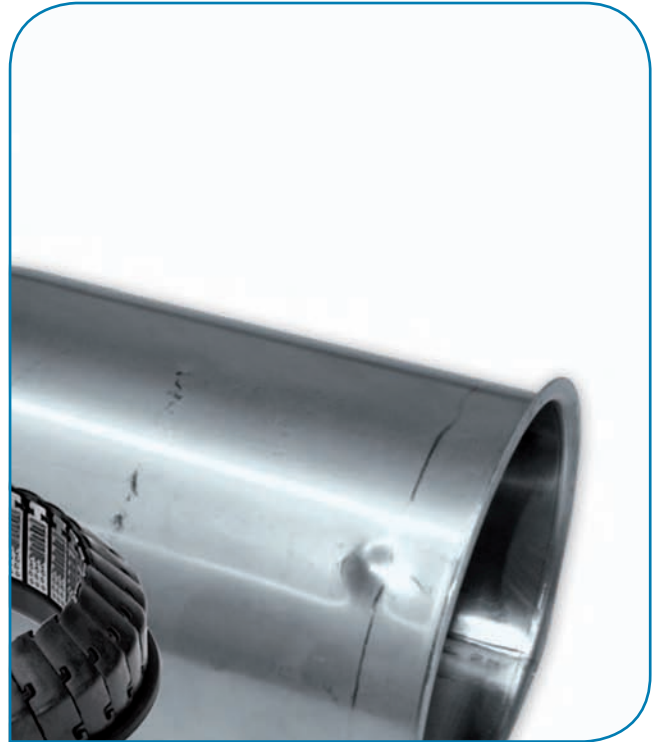
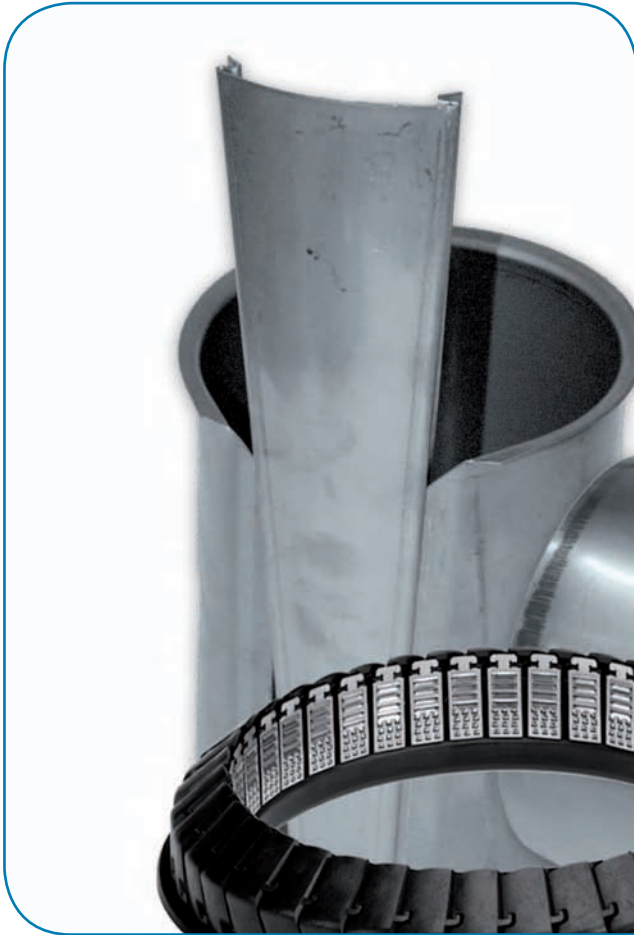
Model:

- Ductile Cast iron GGG45 body and clamping ring(s), acc. to EN-GJS-450-10
- RESICOAT® epoxy powder coating, according to GSK standards and EN 14901
- Stainless steel A2 quality (AISI 304) bolts, nuts and washers (optional: A4 quality)
- Gripping in brass
- Gaskets NBR or EPDM
- Suitable for water and gas
- Flange drilling according to EN 1092-2
- For water applications on PE and PVC pipes SDR 9, SDR 11 and SDR 17 (SDR 17.6) and for PVC pipes SDR 21, 34 and bi oriented SDR 41 insert stiffeners are not required. Note: for all gas applications and for PE pipes with SDR 21 or thinner wall thicknesses, insert stiffeners are mandatory
- For more information on the use of insert stiffeners please contact your local dealer

d [mm]	DN [mm]	Drilling pattern	NBR / A2 Code	NBR / A4 Code	EPDM / A2 Code	EPDM / A4 Code	kg
63	50	PN16	709 257 210	709 257 010	709 257 610	709 257 310	3.647
75	65	PN16	709 257 212	709 257 012	709 257 612	709 257 312	4.017
90	80	PN16	709 257 214	709 257 014	709 257 614	709 257 314	4.906
110	100	PN16	709 257 216	709 257 016	709 257 616	709 257 316	5.998
125	100	PN16	709 257 218	709 257 018	709 257 618	709 257 318	6.024
140	125	PN16	709 257 220	709 257 020	709 257 620	709 257 320	7.236
160	150	PN16	709 257 222	709 257 022	709 257 622	709 257 322	11.165
180	150	PN16	709 257 224	709 257 024	709 257 624	709 257 324	11.380
200	200	PN10	709 257 225	709 257 025	709 257 625	709 257 325	15.902
200	200	PN16	709 257 226	709 257 026	709 257 626	709 257 326	15.902
225	200	PN10	709 257 227	709 257 027	709 257 627	709 257 327	15.830
225	200	PN16	709 257 228	709 257 028	709 257 628	709 257 328	15.830
250	250	PN10	709 257 229	709 257 029	709 257 629	709 257 329	22.678
250	250	PN16	709 257 230	709 257 030	709 257 630	709 257 330	22.678
280	250	PN10	709 257 231	709 257 031	709 257 631	709 257 331	23.877
280	250	PN16	709 257 232	709 257 032	709 257 632	709 257 332	23.877
315	300	PN10	709 257 233	709 257 033	709 257 633	709 257 333	29.734
315	300	PN16	709 257 234	709 257 034	709 257 634	709 257 334	29.734

d [mm]	DN [mm]	a [mm]	b [mm]	PN Water [bar]	PN Gas [bar]	insertion depth [mm]
63	50	102	165	16.0	8.0	92
75	65	102	185	16.0	8.0	92
90	80	107	200	16.0	8.0	97
110	100	122	220	16.0	8.0	112
125	100	126	220	16.0	8.0	116
140	125	128	250	16.0	8.0	118
160	150	144	285	16.0	8.0	134
180	150	155	285	16.0	8.0	140
200	200	157	340	16.0	8.0	147
200	200	157	340	16.0	8.0	147
225	200	158	340	16.0	8.0	148
225	200	158	340	16.0	8.0	148
250	250	194	400	16.0	8.0	184
250	250	194	400	16.0	8.0	184
280	250	197	400	16.0	8.0	187
280	250	197	400	16.0	8.0	187
315	300	201	455	16.0	8.0	189
315	300	201	455	16.0	8.0	189

PF 1 54 932 001



Accessories

→ Your benefits

- One stop shopping for all your repair parts and tools

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MULTI/JOINT® Accessories

Insert stiffener Economy



Model:

- Suitable for PE and PVC pipes
- Stainless steel A2 quality (AISI 304), optional A4 quality (AISI 316)
- For pipe sizes >d355 use an insert stiffener with wedge
- Other dimensions available on request

d x e [mm]	SDR	L [mm]	Code
50 x 4,6	11.0	100	709 026 203
50 x 2,9	17.6 / 17.0	100	709 026 206
63 x 5,8	11.0	100	709 026 211
63 x 3,6	17.6 / 17.0	100	709 026 214
63 x 2,0	33	100	709 026 217
63 x 1,5	41	100	709 026 415
75 x 6,8	11.0	100	709 026 220
75 x 4,3	17.6 / 17.0	100	709 026 223
75 x 1,9	41	100	709 026 227
90 x 8,2	11.0	120	709 026 230
90 x 5,2	17.6 / 17.0	120	709 026 233
90 x 2,8	33	120	709 026 236
90 x 2,2	41	120	709 026 238
110 x 10,0	11.0	120	709 026 242
110 x 6,3	17.6 / 17.0	120	709 026 245
110 x 3,4	33	120	709 026 248
110 x 2,7	41	120	709 026 250
125 x 11,4	11.0	120	709 026 254
125 x 7,2	17.6 / 17.0	120	709 026 257
140 x 12,7	11.0	140	709 026 266
140 x 8,0	17.6 / 17.0	140	709 026 269
160 x 14,6	11.0	140	709 026 278
160 x 9,1	17.6 / 17.0	140	709 026 281
160 x 4,9	33	140	709 026 284
160 x 4,0	41	140	709 026 286
180 x 16,4	11.0	140	709 026 290
180 x 10,7	17.0	140	709 026 408
180 x 10,3	17.6	140	709 026 293
200 x 18,2	11.0	160	709 026 302
200 x 11,9	17.0	160	709 026 409
200 x 11,4	17.6	160	709 026 305
200 x 6,1	33	160	709 026 308
200 x 4,9	41	160	709 026 310
225 x 20,5	11.0	160	709 026 314
225 x 13,4	17.0	160	709 026 410
225 x 12,8	17.6	160	709 026 317
250 x 22,8	11.0	160	709 026 326
250 x 14,8	17.0	160	709 026 411
250 x 14,3	17.6	160	709 026 329
250 x 7,6	33	160	709 026 332
250 x 6,1	41	160	709 026 334
280 x 25,5	11.0	160	709 026 338
280 x 16,6	17.0	160	709 026 340
280 x 16,0	17.6	160	709 026 341
315 x 28,7	11.0	160	709 026 350
315 x 18,7	17.0	160	709 026 413
315 x 17,9	17.6	160	709 026 353
315 x 9,6	33	160	709 026 356
315 x 7,7	41	160	709 026 358
355 x 32,3	11.0	160	709 026 362
355 x 21,1	17.0	160	709 026 414
355 x 20,2	17.6	160	709 026 365

PF 1 54 323 064



Insert stiffener with wedge

Model:

- Suitable for PE and PVC pipes
- Stainless steel A2 quality (AISI 304), optional A4 quality (AISI 316)
- Other dimensions available on request

d x e [mm]	SDR	L [mm]	Code	
63 x 3.6	17.6 / 17.0	175	709 026 012	
63 x 5.8	11.0	175	709 026 016	
63 x 8.7	7.5	175	709 026 018	
75 x 4.3	17.6 / 17.0	175	709 026 022	
75 x 6.9	11.0	175	709 026 026	
90 x 5.1	17.6 / 17.0	175	709 026 032	
90 x 8.2	11.0	175	709 026 036	
90 x 12.5	7.5	175	709 026 038	
110 x 6.3	17.6 / 17.0	175	709 026 042	
110 x 10.0	11.0	175	709 026 046	
110 x 15.2	7.5	175	709 026 048	
125 x 7.1	17.6 / 17.0	175	709 026 052	
125 x 11.4	11.0	175	709 026 056	
140 x 8.0	17.6 / 17.0	175	709 026 062	
140 x 12.8	11.0	175	709 026 066	
160 x 4.8	33.0	200	709 026 070	
160 x 9.1	17.6 / 17.0	200	709 026 072	
160 x 14.6	11.0	200	709 026 076	
180 x 10.2	17.6 / 17.0	200	709 026 082	
180 x 16.4	11.0	200	709 026 086	
200 x 11.4	17.6 / 17.0	200	709 026 092	
200 x 18.2	11.0	200	709 026 096	
225 x 12.8	17.6 / 17.0	225	709 026 102	
225 x 20.5	11.0	225	709 026 106	
250 x 14.2	17.6 / 17.0	225	709 026 115	
250 x 22.8	11.0	225	709 026 116	
280 x 16.6	17.6 / 17.0	225	709 026 127	
280 x 25.5	11.0	225	709 026 126	
315 x 17.9	17.6	225	709 026 125	
315 x 28.7	11.0	225	709 026 124	
355 x 10.8	33.0	225	709 026 132	
355 x 20.1	17.6	225	709 026 129	
355 x 32.3	11.0	225	709 026 128	
370 x 35.0	11.0	225	709 026 133	
400 x 15.4	26.0	225	709 026 140	
400 x 22.7	17.6	225	709 026 139	
400 x 36.4	11.0	225	709 026 138	
450 x 25.5	17.6	225	709 026 149	
450 x 41.0	11.0	225	709 026 148	
500 x 28.3	17.6	225	709 026 159	
500 x 45.5	11.0	225	709 026 158	
560 x 31.7	17.6	225	709 026 169	
560 x 51.0	11.0	225	709 026 168	
630 x 35.7	17.6	225	709 026 179	
630 x 57.3	11.0	225	709 026 178	
710 x 40.2	17.6	225	709 026 189	
710 x 64.5	11.0	225	709 026 188	
800 x 45.3	17.6	225	709 026 199	
800 x 72.7	11.0	225	709 026 198	
900 x 51.2	17.6	225	709 026 183	
900 x 81.8	11.0	225	709 026 182	
1000 x 56.8	17.0	225	709 026 191	
1000 x 90.9	11.0	225	709 026 192	
1200 x 109.1	11.0	225	709 026 184	
1400 x 79.6	17.6	225	709 026 187	
1400 x 127.3	11.0	225	709 026 186	
1600 x 90.9	17.6	225	709 026 196	
1600 x 145.5	11.0	225	709 026 195	

PF 1 54 323 065



Uni/Fleks® ring

Model:

- Consists of a segmented plastic ring and Varioseal® (gasket)
- NBR or EPDM gasket, NBR acc. to EN 682 (-5°C up to +50°C), EPDM acc. to EN 681-1 (0°C up to +50°C)
- non-restraint

DN [mm]	Range [mm]	NBR Code	EPDM Code	
50	46 - 71	709 390 030	709 390 130	
65	63 - 90	709 390 032	709 390 132	
80	84 - 105	709 390 034	709 390 134	
100	104 - 132	709 390 036	709 390 136	
125	132 - 155	709 390 038	709 390 138	
150	154 - 192	709 390 040	709 390 140	
200	192 - 232	709 390 044	709 390 144	
225	230 - 268	709 390 046	709 390 146	
250	267 - 310	709 390 048	709 390 148	
300	315 - 356	709 390 052	709 390 152	

PF 1 54 323 063



Uni/Fiks® ring with Uni/Fiksers®

Model:

- Consists of a segmented plastic ring and Varioseal® (gasket) + Uni/Fiksers®
- NBR or EPDM gasket, NBR acc. to EN 682 (-5°C up to +50°C), EPDM acc. to EN 681-1 (0°C up to +50°C)
- Restraint on all pipe materials
- For AC and GRP pipes please contact us

DN [mm]	Range [mm]	NBR Code	EPDM Code	
50	46 - 71	709 597 230	709 597 630	
65	63 - 90	709 597 232	709 597 632	
80	84 - 105	709 597 234	709 597 634	
100	104 - 132	709 597 236	709 597 636	
125	132 - 155	709 597 238	709 597 638	
150	154 - 192	709 597 240	709 597 640	
200	192 - 232	709 597 244	709 597 644	
225	230 - 268	709 597 246	709 597 646	
250	267 - 310	709 597 248	709 597 648	
300	315 - 356	709 597 252	709 597 652	

PF 1 54 323 063



PF 1 54 323 063

Multi/Fikser® set MULTI/JOINT® 3000

Model:

- For each MULTI/JOINT® 3000 socket, 1 set is needed
- Stainless steel A4 quality (AISI 316) Fiksers®
- Including sticker for correct marking

DN [mm]	Range [mm]	Fiksers (qty)	Code	
50	46 - 71	4	709 597 350	
65	69 - 90	4	709 597 352	
80	84 - 105	4	709 597 354	
100	104 - 132	4	709 597 356	
125	132 - 155	4	709 597 358	
150	154 - 192	6	709 597 360	
200	192 - 232	6	709 597 364	
225	232 - 257	7	709 597 366	
250	267 - 310	8	709 597 368	
300	315 - 356	8	709 597 372	

Poly/Fikser® set MULTI/JOINT® 3000

Model:

- For each MULTI/JOINT® 3000 socket, 1 set is needed
- Stainless steel A4 quality (AISI 316) Fiksers®
- Including sticker for correct marking
- DN50 and DN65: use Multi/Fikser® set

DN [mm]	Range [mm]	Fiksers (qty)	Code	
80	84 - 105	5	709 599 354	
100	104 - 132	7	709 599 356	
125	132 - 155	6	709 599 358	
150	154 - 192	7	709 599 360	
200	192 - 232	9	709 599 364	
225	230 - 267	9	709 599 366	
250	267 - 310	10	709 599 368	
300	315 - 356	10	709 599 372	



PF 1 54 323 063

Uni/Fikser® set MULTI/JOINT® 3000 Plus

Model:

- For each MULTI/JOINT® 3000 Plus socket, 1 set is needed
- Stainless steel A4 quality (AISI 316) Fiksers®

DN [mm]	Range [mm]	Fiksers (qty)	Code	
50	46 - 71	16	709 597 258	
65	63 - 90	19	709 597 259	
80	84 - 105	22	709 597 260	
100	104 - 132	15	709 597 261	
125	132 - 155	18	709 597 262	
150	154 - 192	40	709 597 263	
200	192 - 232	48	709 597 264	
225	230 - 267	45	709 597 266	
250	267 - 310	53	709 597 268	
300	315 - 356	60	709 597 272	



PF 1 54 323 063



Bolts set MULTI/JOINT® 3000 / 3000 Plus - A2 quality

Model:

- Stainless steel A2 quality (AISI 304) bolts, nuts and washers
- Set consisting of bolts, nuts and washers
- For each MULTI/JOINT® 3000 socket, 1 set is needed

DN [mm]	DN-DN [mm]	DN-DN-DN [mm]	M	Code	
100	-	50 - 65 - 80	3xM12	700 618 940	
	-	--	3xM16	700 618 942	
200	125 - 150	--	4xM16	700 618 944	
	-	--	6xM16	700 618 946	
300	225 - 250	--	6xM20	700 618 948	
	-	--	8xM20	700 618 950	

PF 1 54 323 063



Bolts set MULTI/JOINT® 3000 / 3000 Plus - A4 quality

Model:

- Stainless steel A4 quality (AISI 316) bolts, nuts and washers
- Set consisting of bolts, nuts and washers
- For each MULTI/JOINT® 3000 socket, 1 set is needed

DN [mm]	DN-DN [mm]	DN-DN-DN [mm]	M	Code	
100	-	50 - 65 - 80	3xM12	700 618 910	
	-	--	3xM16	700 618 912	
200	125 - 150	--	4xM16	700 618 914	
	-	--	6xM16	700 618 918	
300	225 - 250	--	6xM20	700 618 916	
	-	--	8xM20	700 618 920	

PF 1 54 323 063



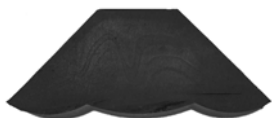
Bolts set MULTI/JOINT® XL - A2

Model:

- Stainless steel A2 quality (AISI 304) bolts, nuts and washers
- Set consisting of bolts, nuts and washers
- For each MULTI/JOINT® 3000 socket, 1 set is needed

DN-DN [mm]	M	A2 quality Code	
300 - 350	8xM16	700 618 970	
400 - 450	10xM16	700 618 972	
500 - 550	10xM20	700 618 974	
600 -	12xM20	700 618 976	

PF 1 54 323 063



Rubber gasket for MULTI/JOINT® XL

Model:

- NBR or EPDM gasket, NBR acc. to EN 682 (-5°C up to +50°C), EPDM acc. to EN 681-1 (0°C up to +50°C)

DN [mm]	Range [mm]	NBR Code	EPDM Code	
300	315 - 337	700 610 830	700 610 850	
350	356 - 380	700 610 832	700 610 852	
400	400 - 429	700 610 834	700 610 854	
450	450 - 482	700 610 836	700 610 856	
500	500 - 532	700 610 838	700 610 858	
550	548 - 580	700 610 840	700 610 860	
600	605 - 637	700 610 842	700 610 862	

PF 1 54 323 062



RESICOAT® repair set

Model:

- To repair the coating of the fitting

Contents	Code	
30cc	709 900 000	

PF 1 54 329 012



Molykote Copper paste (CU-7439)

Model:

- To be used in case of re-using bolts
- To lubricate the thread of the stainless steel bolts

Contents	Code	
100 g	709 900 001	

PF 1 54 329 012



Torque key wrench set

Model:

- 1 torque key 20-200 Nm
- 4 wrench keys sizes: 19, 22, 24 and 30
- 4 ring spanners sizes: 19, 22, 24 and 30
- robust metal case

description	Code	
basic set	200 008 083	

PF 1 54 329 012



Adaptor set

Model:

- 1 ratchet key 20-200 Nm
- 3 adaptors sizes: 19, 24 and 30
- compatible with the torque key set

description	Code	
adaptor set + ratchet key	200 008 084	

PF 1 54 329 012



Ratchet spanner

Model:

- For easy nut tightening
- M12 for MULTI/JOINT® DN50, DN65 and DN80
- M16 for MULTI/JOINT® DN100, DN125 and DN150

Description	Code	
17x19 mm / M12	700 619 010	
22x24 mm / M16	700 619 012	

PF 1 54 329 012



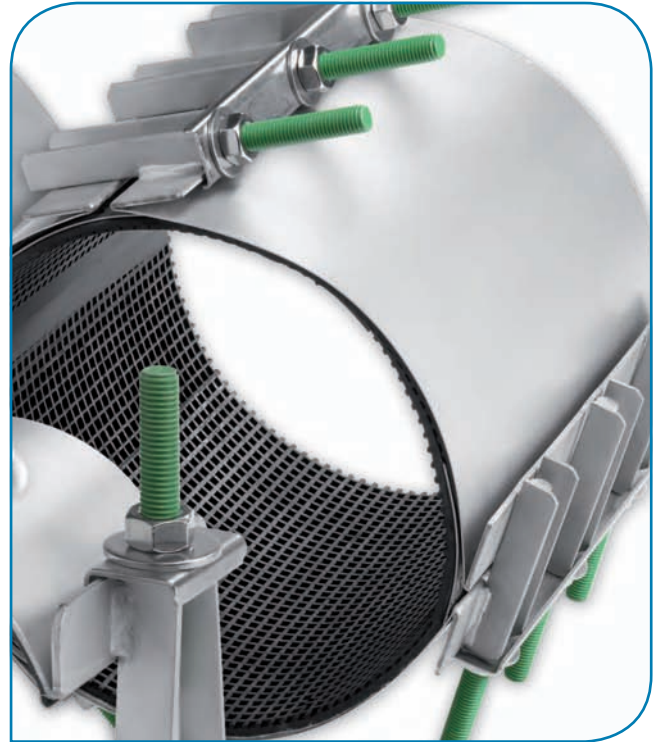
Wrench key / c.w. Ratchet

Model:

- the wrench keys are available in 4 different sizes

description	Code	
wrench key 19 mm	200 008 070	
wrench key 22 mm	200 008 071	
wrench key 24 mm	200 008 072	
wrench key 30 mm	200 008 073	

PF 1 54 329 012



Multi/Clamp

→ Your benefits

- Quick and easy installation
- Suitable for under pressure repair
- Wide variety of stainless steel repair clamps and tapping tees
- Durable and free from corrosion thanks to stainless steel body
- Reusable
- Applicable for under- and above-ground use

Contents Multi/Clamp

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Multi/Clamp

Multi/Clamp Snap length 75 mm



Model:

- All metal parts are stainless steel, quality AISI 304 (on request AISI 316)
- Lugs are made of ductile cast iron
- The rubber gasket is available in NBR (EPDM on request)
- The rubber gasket is clamped and partially covers the inside of the band

Range [mm]	PN Water [bar]	NBR Code	kg	
15 - 22	16.0	724 208 010	0.300	
21 - 25	16.0	724 208 019	0.300	
26 - 30	16.0	724 208 028	0.300	
33 - 37	16.0	724 208 037	0.300	
37 - 41	16.0	724 208 046	0.300	
42 - 45	16.0	724 208 055	0.400	
48 - 51	16.0	724 208 064	0.400	
50 - 54	16.0	724 208 073	0.400	
55 - 58	16.0	724 208 082	0.400	
60 - 64	16.0	724 208 091	0.400	
62 - 66	16.0	724 208 100	0.400	
65 - 69	16.0	724 208 109	0.400	
69 - 73	16.0	724 208 118	0.400	
71 - 76	16.0	724 208 127	0.400	
74 - 80	16.0	724 208 136	0.500	
87 - 93	16.0	724 208 145	0.500	
94 - 100	16.0	724 208 154	0.500	
99 - 104	16.0	724 208 163	0.500	
105 - 111	16.0	724 208 172	0.600	
112 - 117	10.0	724 208 181	0.600	
115 - 121	10.0	724 208 190	0.600	
120 - 126	10.0	724 208 199	0.600	
126 - 131	10.0	724 208 208	0.700	
131 - 136	10.0	724 208 217	0.700	
139 - 145	10.0	724 208 226	0.700	
149 - 155	10.0	724 208 235	0.800	
156 - 162	10.0	724 208 244	0.800	
167 - 173	10.0	724 208 253	0.800	
173 - 179	10.0	724 208 262	0.800	
200 - 206	10.0	724 208 271	0.900	
217 - 223	10.0	724 208 280	0.900	
223 - 229	10.0	724 208 289	1.001	
272 - 278	6.0	724 208 298	1.001	
323 - 329	6.0	724 208 307	1.200	

PF 1 54 325 010



Multi/Clamp Snap length 150 mm

Model:

- All metal parts are stainless steel, quality AISI 304 (on request AISI 316)
- Lugs are made of ductile cast iron
- The rubber gasket is available in NBR (EPDM on request)
- The rubber gasket is clamped and partially covers the inside of the band

Range [mm]	PN Water [bar]	NBR Code	kg	
15 - 22	16.0	724 208 011	0.500	
21 - 25	16.0	724 208 020	0.600	
26 - 30	16.0	724 208 029	0.600	
33 - 37	16.0	724 208 038	0.600	
37 - 41	16.0	724 208 047	0.600	
42 - 45	16.0	724 208 056	0.700	
48 - 51	16.0	724 208 065	0.700	
50 - 54	16.0	724 208 074	0.700	
55 - 58	16.0	724 208 083	0.700	
60 - 64	16.0	724 208 092	0.800	
62 - 66	16.0	724 208 101	0.800	
65 - 69	16.0	724 208 110	0.800	
69 - 73	16.0	724 208 119	0.800	
71 - 76	16.0	724 208 128	0.800	
74 - 80	16.0	724 208 137	0.900	
87 - 93	16.0	724 208 146	1.001	
94 - 100	16.0	724 208 155	1.001	
99 - 104	16.0	724 208 164	1.001	
105 - 111	16.0	724 208 173	1.100	
112 - 117	10.0	724 208 182	1.100	
115 - 121	10.0	724 208 191	1.100	
120 - 126	10.0	724 208 200	1.100	
126 - 131	10.0	724 208 209	1.200	
131 - 136	10.0	724 208 218	1.200	
139 - 145	10.0	724 208 227	1.200	
149 - 155	10.0	724 208 236	1.300	
156 - 162	10.0	724 208 245	1.300	
167 - 173	10.0	724 208 254	1.300	
173 - 179	10.0	724 208 263	1.300	
200 - 206	10.0	724 208 272	1.400	
217 - 223	10.0	724 208 281	1.400	
223 - 229	10.0	724 208 290	1.500	
272 - 278	6.0	724 208 299	1.500	
323 - 329	6.0	724 208 308	1.700	

PF 1 54 325 010



Multi/Clamp Snap length 225 mm

Model:

- All metal parts are stainless steel, quality AISI 304 (on request AISI 316)
- Lugs are made of ductile cast iron
- The rubber gasket is available in NBR (EPDM on request)
- The rubber gasket is clamped and partially covers the inside of the band

Range [mm]	PN Water [bar]	NBR Code	kg	
15 - 22	16.0	724 208 012	0.800	
21 - 25	16.0	724 208 021	0.800	
26 - 30	16.0	724 208 030	0.900	
33 - 37	16.0	724 208 039	0.900	
37 - 41	16.0	724 208 048	0.900	
42 - 45	16.0	724 208 057	1.001	
48 - 51	16.0	724 208 066	1.001	
50 - 54	16.0	724 208 075	1.001	
55 - 58	16.0	724 208 084	1.100	
60 - 64	16.0	724 208 093	1.100	
62 - 66	16.0	724 208 102	1.100	
65 - 69	16.0	724 208 111	1.200	
69 - 73	16.0	724 208 120	1.200	
71 - 76	16.0	724 208 129	1.200	
74 - 80	16.0	724 208 138	1.300	
87 - 93	16.0	724 208 147	1.400	
94 - 100	16.0	724 208 156	1.500	
99 - 104	16.0	724 208 165	1.500	
105 - 111	16.0	724 208 174	1.600	
112 - 117	10.0	724 208 183	1.600	
115 - 121	10.0	724 208 192	1.600	
120 - 126	10.0	724 208 201	1.600	
126 - 131	10.0	724 208 210	1.700	
131 - 136	10.0	724 208 219	1.700	
139 - 145	10.0	724 208 228	1.700	
149 - 155	10.0	724 208 237	1.800	
156 - 162	10.0	724 208 246	1.800	
167 - 173	10.0	724 208 255	1.800	
173 - 179	10.0	724 208 264	1.800	
200 - 206	10.0	724 208 273	1.900	
217 - 223	10.0	724 208 282	1.900	
223 - 229	10.0	724 208 291	2.000	
272 - 278	6.0	724 208 300	2.000	
323 - 329	6.0	724 208 309	2.200	

PF 1 54 325 010



Multi/Clamp Midi length 100 mm

Model:

- Single band clamp with partial gasket
- All metal parts are stainless steel, quality AISI 304 (on request AISI 316)
- The rubber gasket is available in NBR (EPDM on request)

Range [mm]	PN Water [bar]	NBR Code	kg	
19 - 23	16.0	724 209 010	0.600	
25 - 29	16.0	724 209 019	0.600	
32 - 36	16.0	724 209 028	0.600	
38 - 42	16.0	724 209 037	0.600	
44 - 51	16.0	724 209 046	0.800	
48 - 55	16.0	724 209 055	1.050	
54 - 58	16.0	724 209 064	0.900	
60 - 64	16.0	724 209 073	1.050	
63 - 70	16.0	724 209 082	1.120	
67 - 74	16.0	724 209 091	1.120	
70 - 77	16.0	724 209 100	1.120	
73 - 80	16.0	724 209 109	1.120	
75 - 83	16.0	724 209 118	1.120	
82 - 90	16.0	724 209 127	1.200	
87 - 97	16.0	724 209 136	1.200	
95 - 104	16.0	724 209 145	1.200	
98 - 108	16.0	724 209 154	1.200	
102 - 112	16.0	724 209 163	1.350	
108 - 118	16.0	724 209 172	1.350	
113 - 123	16.0	724 209 181	1.350	
118 - 128	16.0	724 209 190	1.350	
120 - 131	16.0	724 209 199	1.350	

PF 1 54 325 009



Multi/Clamp Midi length 150 mm

Model:

- Single band clamp with partial gasket
- All metal parts are stainless steel, quality AISI 304 (on request AISI 316)
- The rubber gasket is available in NBR (EPDM on request)

Range [mm]	PN Water [bar]	NBR Code	kg	
54 - 58	16.0	724 209 065	1.400	
60 - 64	16.0	724 209 074	1.400	
63 - 70	16.0	724 209 083	1.500	
67 - 74	16.0	724 209 092	1.500	
70 - 77	16.0	724 209 101	1.500	
73 - 80	16.0	724 209 110	1.500	
75 - 83	16.0	724 209 119	1.500	
82 - 90	16.0	724 209 128	1.600	
87 - 97	16.0	724 209 137	1.600	
95 - 104	16.0	724 209 146	1.600	
98 - 108	16.0	724 209 155	1.600	
102 - 112	16.0	724 209 164	1.800	
108 - 118	16.0	724 209 173	1.800	
113 - 123	16.0	724 209 182	1.800	
118 - 128	16.0	724 209 191	1.800	
120 - 131	16.0	724 209 200	1.800	
125 - 135	16.0	724 209 209	2.100	
133 - 144	16.0	724 209 218	2.100	
139 - 150	16.0	724 209 227	2.100	
145 - 155	16.0	724 209 236	2.100	
151 - 161	16.0	724 209 245	2.200	
159 - 170	16.0	724 209 254	2.200	
165 - 175	16.0	724 209 263	2.200	
168 - 180	16.0	724 209 272	2.200	
176 - 186	10.0	724 209 281	2.600	

PF 1 54 325 009



Multi/Clamp Midi length 200 mm

Model:

- Single band clamp with partial gasket
- All metal parts are stainless steel, quality AISI 304 (on request AISI 316)
- The rubber gasket is available in NBR (EPDM on request)

Range [mm]	PN Water [bar]	NBR Code	kg	
95 - 104	16.0	724 209 147	2.000	
98 - 108	16.0	724 209 156	2.000	
102 - 112	16.0	724 209 165	2.200	
108 - 118	16.0	724 209 174	2.200	
113 - 123	16.0	724 209 183	2.200	
118 - 128	16.0	724 209 192	2.200	
120 - 131	16.0	724 209 201	2.200	
125 - 135	16.0	724 209 210	2.600	
133 - 144	16.0	724 209 219	2.600	
139 - 150	16.0	724 209 228	2.600	
145 - 155	16.0	724 209 237	2.600	
151 - 161	16.0	724 209 246	2.800	
159 - 170	16.0	724 209 255	2.800	
165 - 175	16.0	724 209 264	2.800	
168 - 180	16.0	724 209 273	2.800	
176 - 186	10.0	724 209 282	3.200	
180 - 191	10.0	724 209 291	3.200	
193 - 203	10.0	724 209 300	3.200	
200 - 210	10.0	724 209 309	3.500	
209 - 220	10.0	724 209 318	3.600	

PF 1 54 325 009



Multi/Clamp Single length 75 mm

Model:

- Single band clamp with full circle gasket
- All metal parts are stainless steel, quality AISI 304 (on request AISI 316)
- The rubber gasket is available in NBR (EPDM on request)

Range [mm]	PN Water [bar]	NBR Code	kg	
19 - 23	16.0	724 211 010	0.400	
25 - 29	16.0	724 211 026	0.400	
32 - 36	16.0	724 211 042	0.400	
38 - 42	16.0	724 211 058	0.400	

PF 1 54 325 009



Multi/Clamp Single length 150 mm

Model:

- Single band clamp with full circle gasket
- All metal parts are stainless steel, quality AISI 304 (on request AISI 316)
- The rubber gasket is available in NBR (EPDM on request)

Range [mm]	PN Water [bar]	NBR Code	kg	
19 - 23	16.0	724 211 011	0.800	
25 - 29	16.0	724 211 027	0.800	
32 - 36	16.0	724 211 043	0.800	
38 - 42	16.0	724 211 059	0.800	
44 - 51	16.0	724 211 075	1.400	
48 - 55	16.0	724 211 091	1.400	
52 - 59	16.0	724 211 107	1.400	
57 - 64	16.0	724 211 123	1.400	
60 - 67	16.0	724 211 139	1.400	
63 - 70	16.0	724 211 155	1.500	
67 - 74	16.0	724 211 171	1.500	
70 - 77	16.0	724 211 187	1.500	
73 - 80	16.0	724 211 203	1.500	
75 - 83	16.0	724 211 219	1.500	
82 - 90	16.0	724 211 235	1.600	
87 - 97	16.0	724 211 251	1.600	
95 - 104	16.0	724 211 267	1.600	
98 - 108	16.0	724 211 283	1.600	
102 - 112	16.0	724 211 299	1.800	
108 - 118	16.0	724 211 315	1.800	
113 - 123	16.0	724 211 331	1.800	
118 - 128	16.0	724 211 347	1.800	
120 - 131	16.0	724 211 363	1.800	
125 - 135	16.0	724 211 379	2.100	
133 - 144	16.0	724 211 395	2.100	
139 - 150	16.0	724 211 411	2.100	
145 - 155	16.0	724 211 427	2.100	
151 - 161	16.0	724 211 443	2.200	
159 - 170	16.0	724 211 459	2.200	
165 - 175	16.0	724 211 475	2.200	
168 - 180	16.0	724 211 491	2.200	

PF 1 54 325 009



Multi/Clamp Single length 200 mm

Model:

- Single band clamp with full circle gasket
- All metal parts are stainless steel, quality AISI 304 (on request AISI 316)
- The rubber gasket is available in NBR (EPDM on request)

Range [mm]	PN Water [bar]	NBR Code	kg	
44 - 51	16.0	724 211 076	1.600	
48 - 55	16.0	724 211 092	1.600	
52 - 59	16.0	724 211 108	1.700	
57 - 64	16.0	724 211 124	1.700	
60 - 67	16.0	724 211 140	1.700	
63 - 70	16.0	724 211 156	1.800	
67 - 74	16.0	724 211 172	1.800	
70 - 77	16.0	724 211 188	1.800	
73 - 80	16.0	724 211 204	1.800	
75 - 83	16.0	724 211 220	1.800	
82 - 90	16.0	724 211 236	2.000	
87 - 97	16.0	724 211 252	2.000	
95 - 104	16.0	724 211 268	2.000	
98 - 108	16.0	724 211 284	2.000	
102 - 112	16.0	724 211 300	2.200	
108 - 118	16.0	724 211 316	2.200	
113 - 123	16.0	724 211 332	2.200	
118 - 128	16.0	724 211 348	2.200	
120 - 131	16.0	724 211 364	2.200	
125 - 135	16.0	724 211 380	2.600	
133 - 144	16.0	724 211 396	2.600	
139 - 150	16.0	724 211 412	2.600	
145 - 155	16.0	724 211 428	2.600	
151 - 161	16.0	724 211 444	2.800	
159 - 170	16.0	724 211 460	2.800	
165 - 175	16.0	724 211 476	2.800	
168 - 180	16.0	724 211 492	2.800	
176 - 186	10.0	724 211 508	3.200	
180 - 191	10.0	724 211 524	3.200	
193 - 203	10.0	724 211 540	3.200	
200 - 210	10.0	724 211 556	3.500	
209 - 220	10.0	724 211 572	3.500	
215 - 226	10.0	724 211 588	3.500	
219 - 230	10.0	724 211 604	3.500	
222 - 233	10.0	724 211 620	3.500	
228 - 240	10.0	724 211 636	3.800	
243 - 253	10.0	724 211 652	3.800	
252 - 262	10.0	724 211 668	3.900	
261 - 271	10.0	724 211 684	3.900	
271 - 281	10.0	724 211 700	3.900	
280 - 290	10.0	724 211 716	3.900	
294 - 304	10.0	724 211 732	3.900	
300 - 310	10.0	724 211 748	4.300	
310 - 320	10.0	724 211 764	4.300	
315 - 326	10.0	724 211 780	4.300	
320 - 330	10.0	724 211 796	4.300	
324 - 334	10.0	724 211 812	4.300	
335 - 346	10.0	724 211 828	4.300	

PF 1 54 325 009



Multi/Clamp Single length 250 mm

Model:

- Single band clamp with full circle gasket
- All metal parts are stainless steel, quality AISI 304 (on request AISI 316)
- The rubber gasket is available in NBR (EPDM on request)

Range [mm]	PN Water [bar]	NBR Code	kg	
60 - 67	16.0	724 211 141	2.300	
63 - 70	16.0	724 211 157	2.500	
67 - 74	16.0	724 211 173	2.500	
70 - 77	16.0	724 211 189	2.500	
73 - 80	16.0	724 211 205	2.500	
75 - 83	16.0	724 211 221	2.500	
82 - 90	16.0	724 211 237	2.700	
87 - 97	16.0	724 211 253	2.700	
95 - 104	16.0	724 211 269	2.700	
98 - 108	16.0	724 211 285	2.700	
102 - 112	16.0	724 211 301	3.000	
108 - 118	16.0	724 211 317	3.000	
113 - 123	16.0	724 211 333	3.000	
118 - 128	16.0	724 211 349	3.000	
120 - 131	16.0	724 211 365	3.000	
125 - 135	16.0	724 211 381	3.400	
133 - 144	16.0	724 211 397	3.400	
139 - 150	16.0	724 211 413	3.400	
145 - 155	16.0	724 211 429	3.400	
151 - 161	16.0	724 211 445	3.700	
159 - 170	16.0	724 211 461	3.700	
165 - 175	16.0	724 211 477	3.700	
168 - 180	16.0	724 211 493	3.700	
176 - 186	10.0	724 211 509	4.200	
180 - 191	10.0	724 211 525	4.200	
193 - 203	10.0	724 211 541	4.200	
200 - 210	10.0	724 211 557	4.700	
209 - 220	10.0	724 211 573	4.700	
215 - 226	10.0	724 211 589	4.700	
219 - 230	10.0	724 211 605	4.700	
222 - 233	10.0	724 211 621	4.700	
228 - 240	10.0	724 211 637	4.900	
243 - 253	10.0	724 211 653	4.900	
252 - 262	10.0	724 211 669	5.200	
261 - 271	10.0	724 211 685	5.200	
271 - 281	10.0	724 211 701	5.200	
280 - 290	10.0	724 211 717	5.200	
294 - 304	10.0	724 211 733	5.200	
300 - 310	10.0	724 211 749	5.600	
310 - 320	10.0	724 211 765	5.600	
315 - 326	10.0	724 211 781	5.600	
320 - 330	10.0	724 211 797	5.600	
324 - 334	10.0	724 211 813	5.600	
335 - 346	10.0	724 211 829	5.600	

PF 1 54 325 009



Multi/Clamp Single length 300 mm

Model:

- Single band clamp with full circle gasket
- All metal parts are stainless steel, quality AISI 304 (on request AISI 316)
- The rubber gasket is available in NBR (EPDM on request)

Range [mm]	PN Water [bar]	NBR Code	kg	
60 - 67	16.0	724 211 142	2.600	
63 - 70	16.0	724 211 158	2.800	
67 - 74	16.0	724 211 174	2.800	
70 - 77	16.0	724 211 190	2.800	
73 - 80	16.0	724 211 206	2.800	
75 - 83	16.0	724 211 222	2.800	
82 - 90	16.0	724 211 238	3.000	
87 - 97	16.0	724 211 254	3.000	
95 - 104	16.0	724 211 270	3.000	
98 - 108	16.0	724 211 286	3.000	
102 - 112	16.0	724 211 302	3.400	
108 - 118	16.0	724 211 318	3.400	
113 - 123	16.0	724 211 334	3.400	
118 - 128	16.0	724 211 350	3.400	
120 - 131	16.0	724 211 366	3.400	
125 - 135	16.0	724 211 382	4.000	
133 - 144	16.0	724 211 398	4.000	
139 - 150	16.0	724 211 414	4.000	
145 - 155	16.0	724 211 430	4.000	
151 - 161	16.0	724 211 446	4.300	
159 - 170	16.0	724 211 462	4.300	
165 - 175	16.0	724 211 478	4.300	
168 - 180	16.0	724 211 494	4.300	
176 - 186	10.0	724 211 510	4.900	
180 - 191	10.0	724 211 526	4.900	
193 - 203	10.0	724 211 542	4.900	
200 - 210	10.0	724 211 558	5.400	
209 - 220	10.0	724 211 574	5.400	
215 - 226	10.0	724 211 590	5.400	
219 - 230	10.0	724 211 606	5.400	
222 - 233	10.0	724 211 622	5.400	
228 - 240	10.0	724 211 638	6.100	
243 - 253	10.0	724 211 654	6.100	
252 - 262	10.0	724 211 670	6.400	
261 - 271	10.0	724 211 686	6.400	
271 - 281	10.0	724 211 702	6.400	
280 - 290	10.0	724 211 718	6.400	
294 - 304	10.0	724 211 734	6.400	
300 - 310	10.0	724 211 750	6.900	
310 - 320	10.0	724 211 766	6.900	
315 - 326	10.0	724 211 782	6.900	
320 - 330	10.0	724 211 798	6.900	
324 - 334	10.0	724 211 814	6.900	
335 - 346	10.0	724 211 830	6.900	

PF 1 54 325 009



Multi/Clamp Single length 400 mm

Model:

- Single band clamp with full circle gasket
- All metal parts are stainless steel, quality AISI 304 (on request AISI 316)
- The rubber gasket is available in NBR (EPDM on request)

Range [mm]	PN Water [bar]	NBR Code	kg	
63 - 70	16.0	724 211 159	3.600	
67 - 74	16.0	724 211 175	3.600	
70 - 77	16.0	724 211 191	3.600	
73 - 80	16.0	724 211 207	3.600	
75 - 83	16.0	724 211 223	3.600	
82 - 90	16.0	724 211 239	3.900	
87 - 97	16.0	724 211 255	3.900	
95 - 104	16.0	724 211 271	3.900	
98 - 108	16.0	724 211 287	3.900	
102 - 112	16.0	724 211 303	4.500	
108 - 118	16.0	724 211 319	4.500	
113 - 123	16.0	724 211 335	4.500	
118 - 128	16.0	724 211 351	4.500	
120 - 131	16.0	724 211 367	4.500	
125 - 135	16.0	724 211 383	5.200	
133 - 144	16.0	724 211 399	5.200	
139 - 150	16.0	724 211 415	5.200	
145 - 155	16.0	724 211 431	5.200	
151 - 161	16.0	724 211 447	5.600	
159 - 170	16.0	724 211 463	5.600	
165 - 175	16.0	724 211 479	5.600	
168 - 180	16.0	724 211 495	5.600	
176 - 186	10.0	724 211 511	6.400	
180 - 191	10.0	724 211 527	6.400	
193 - 203	10.0	724 211 543	6.400	
200 - 210	10.0	724 211 559	7.100	
209 - 220	10.0	724 211 575	7.100	
215 - 226	10.0	724 211 591	7.100	
219 - 230	10.0	724 211 607	7.100	
222 - 233	10.0	724 211 623	7.100	
228 - 240	10.0	724 211 639	7.900	
243 - 253	10.0	724 211 655	7.900	
252 - 262	10.0	724 211 671	8.500	
261 - 271	10.0	724 211 687	8.500	
271 - 281	10.0	724 211 703	8.500	
280 - 290	10.0	724 211 719	8.500	
294 - 304	10.0	724 211 735	8.500	
300 - 310	10.0	724 211 751	9.000	
310 - 320	10.0	724 211 767	9.000	
315 - 326	10.0	724 211 783	9.000	
320 - 330	10.0	724 211 799	9.000	
324 - 334	10.0	724 211 815	9.000	
335 - 346	10.0	724 211 831	9.000	

PF 1 54 325 009



Multi/Clamp Single length 500 mm

Model:

- Single band clamp with full circle gasket
- All metal parts are stainless steel, quality AISI 304 (on request AISI 316)
- The rubber gasket is available in NBR (EPDM on request)

Range [mm]	PN Water [bar]	NBR Code	kg
108 - 118	16.0	724 211 320	5.400
113 - 123	16.0	724 211 336	5.400
118 - 128	16.0	724 211 352	5.400
120 - 131	16.0	724 211 368	5.400
125 - 135	16.0	724 211 384	6.700
133 - 144	16.0	724 211 400	6.700
139 - 150	16.0	724 211 416	6.700
145 - 155	16.0	724 211 432	6.700
151 - 161	16.0	724 211 448	7.200
159 - 170	16.0	724 211 464	7.200
165 - 175	16.0	724 211 480	7.200
168 - 180	16.0	724 211 496	7.200
176 - 186	10.0	724 211 512	8.200
180 - 191	10.0	724 211 528	8.200
193 - 203	10.0	724 211 544	8.200
200 - 210	10.0	724 211 560	9.100
209 - 220	10.0	724 211 576	9.100
215 - 226	10.0	724 211 592	9.100
219 - 230	10.0	724 211 608	9.100
222 - 233	10.0	724 211 624	9.100
228 - 240	10.0	724 211 640	9.300
243 - 253	10.0	724 211 656	9.300
252 - 262	10.0	724 211 672	10.600
261 - 271	10.0	724 211 688	10.600
271 - 281	10.0	724 211 704	10.600
280 - 290	10.0	724 211 720	10.600
294 - 304	10.0	724 211 736	10.600
300 - 310	10.0	724 211 752	11.600
310 - 320	10.0	724 211 768	11.600
315 - 326	10.0	724 211 784	11.600
320 - 330	10.0	724 211 800	11.600
324 - 334	10.0	724 211 816	11.600
335 - 346	10.0	724 211 832	11.600

PF 1 54 325 009



Multi/Clamp Single length 600 mm

Model:

- Single band clamp with full circle gasket
- All metal parts are stainless steel, quality AISI 304 (on request AISI 316)
- The rubber gasket is available in NBR (EPDM on request)

Range [mm]	PN Water [bar]	NBR Code	kg
222 - 233	10.0	724 211 625	10.900
228 - 240	10.0	724 211 641	11.100
243 - 253	10.0	724 211 657	11.100
252 - 262	10.0	724 211 673	12.700
261 - 271	10.0	724 211 689	12.700
271 - 281	10.0	724 211 705	12.700
280 - 290	10.0	724 211 721	12.700
294 - 304	10.0	724 211 737	12.700
300 - 310	10.0	724 211 753	14.200
310 - 320	10.0	724 211 769	14.200
315 - 326	10.0	724 211 785	14.200
320 - 330	10.0	724 211 801	14.200
324 - 334	10.0	724 211 817	14.200
335 - 346	10.0	724 211 833	14.200

PF 1 54 325 009



Multi/Clamp Double length 200 mm

Model:

- Double band clamp with full circle gasket
- All metal parts are stainless steel, quality AISI 304 (on request AISI 316)
- The rubber gasket is available in NBR (EPDM on request)

Range [mm]	PN Water [bar]	NBR Code	kg	
88 - 110	16.0	724 212 058	3.300	
108 - 128	16.0	724 212 074	3.400	
112 - 134	16.0	724 212 090	3.400	
120 - 140	16.0	724 212 106	3.400	
133 - 155	16.0	724 212 122	3.800	
138 - 160	16.0	724 212 138	3.800	
158 - 180	16.0	724 212 154	4.400	
168 - 190	16.0	724 212 170	4.400	
190 - 210	10.0	724 212 186	4.700	
195 - 217	10.0	724 212 202	4.700	
210 - 230	10.0	724 212 218	4.900	
216 - 238	10.0	724 212 234	4.900	
225 - 246	10.0	724 212 250	5.100	
238 - 260	10.0	724 212 266	5.100	
251 - 271	10.0	724 212 282	5.300	
260 - 280	10.0	724 212 298	5.300	
269 - 289	10.0	724 212 314	5.300	
273 - 293	10.0	724 212 330	5.300	
295 - 315	10.0	724 212 346	5.300	

PF 1 54 325 009



Multi/Clamp Double length 250 mm

Model:

- Double band clamp with full circle gasket
- All metal parts are stainless steel, quality AISI 304 (on request AISI 316)
- The rubber gasket is available in NBR (EPDM on request)

Range [mm]	PN Water [bar]	NBR Code	kg	
88 - 110	16.0	724 212 059	4.500	
108 - 128	16.0	724 212 075	4.700	
112 - 134	16.0	724 212 091	4.700	
120 - 140	16.0	724 212 107	4.700	
133 - 155	16.0	724 212 123	5.200	
138 - 160	16.0	724 212 139	5.200	
158 - 180	16.0	724 212 155	6.000	
168 - 190	16.0	724 212 171	6.000	
190 - 210	10.0	724 212 187	6.400	
195 - 217	10.0	724 212 203	6.400	
210 - 230	10.0	724 212 219	6.600	
216 - 238	10.0	724 212 235	6.600	
225 - 246	10.0	724 212 251	6.900	
238 - 260	10.0	724 212 267	6.900	
251 - 271	10.0	724 212 283	7.200	
260 - 280	10.0	724 212 299	7.200	
269 - 289	10.0	724 212 315	7.200	
273 - 293	10.0	724 212 331	7.200	
295 - 315	10.0	724 212 347	7.200	
314 - 335	10.0	724 212 363	7.400	
322 - 344	10.0	724 212 379	7.400	
334 - 354	10.0	724 212 395	7.400	
340 - 360	10.0	724 212 411	7.400	

PF 1 54 325 009



Multi/Clamp Double length 300 mm

Model:

- Double band clamp with full circle gasket
- All metal parts are stainless steel, quality AISI 304 (on request AISI 316)
- The rubber gasket is available in NBR (EPDM on request)

Range [mm]	PN Water [bar]	NBR Code	kg	
88 - 110	16.0	724 212 060	5.000	
108 - 128	16.0	724 212 076	5.300	
112 - 134	16.0	724 212 092	5.300	
120 - 140	16.0	724 212 108	5.300	
133 - 155	16.0	724 212 124	5.800	
138 - 160	16.0	724 212 140	5.800	
158 - 180	16.0	724 212 156	6.700	
168 - 190	16.0	724 212 172	6.700	
190 - 210	10.0	724 212 188	7.100	
195 - 217	10.0	724 212 204	7.100	
210 - 230	10.0	724 212 220	7.500	
216 - 238	10.0	724 212 236	7.500	
225 - 246	10.0	724 212 252	7.800	
238 - 260	10.0	724 212 268	7.800	
251 - 271	10.0	724 212 284	8.900	
260 - 280	10.0	724 212 300	8.900	
269 - 289	10.0	724 212 316	8.900	
273 - 293	10.0	724 212 332	8.900	
295 - 315	10.0	724 212 348	8.900	
314 - 335	10.0	724 212 364	9.500	
322 - 344	10.0	724 212 380	9.500	
334 - 354	10.0	724 212 396	9.500	
340 - 360	10.0	724 212 412	9.500	
348 - 368	10.0	724 212 428	10.200	
365 - 385	10.0	724 212 444	10.200	
376 - 396	10.0	724 212 460	10.200	
382 - 402	10.0	724 212 476	10.200	
390 - 410	10.0	724 212 492	10.200	
404 - 424	10.0	724 212 508	11.000	
420 - 440	10.0	724 212 524	11.000	

PF 1 54 325 009



Multi/Clamp Double length 400 mm

Model:

- Double band clamp with full circle gasket
- All metal parts are stainless steel, quality AISI 304 (on request AISI 316)
- The rubber gasket is available in NBR (EPDM on request)

Range [mm]	PN Water [bar]	NBR Code	kg	
88 - 110	16.0	724 212 061	6.600	
108 - 128	16.0	724 212 077	6.900	
112 - 134	16.0	724 212 093	6.900	
120 - 140	16.0	724 212 109	6.900	
133 - 155	16.0	724 212 125	7.600	
138 - 160	16.0	724 212 141	7.600	
158 - 180	16.0	724 212 157	8.800	
168 - 190	16.0	724 212 173	8.800	
190 - 210	10.0	724 212 189	9.400	
195 - 217	10.0	724 212 205	9.400	
210 - 230	10.0	724 212 221	9.800	
216 - 238	10.0	724 212 237	9.800	
225 - 246	10.0	724 212 253	10.200	
238 - 260	10.0	724 212 269	10.200	
251 - 271	10.0	724 212 285	11.500	
260 - 280	10.0	724 212 301	11.500	
269 - 289	10.0	724 212 317	11.500	
273 - 293	10.0	724 212 333	11.500	
295 - 315	10.0	724 212 349	11.500	
314 - 335	10.0	724 212 365	12.300	
322 - 344	10.0	724 212 381	12.300	
334 - 354	10.0	724 212 397	12.300	
340 - 360	10.0	724 212 413	12.300	
348 - 368	10.0	724 212 429	13.200	
365 - 385	10.0	724 212 445	13.200	
376 - 396	10.0	724 212 461	13.200	
382 - 402	10.0	724 212 477	13.200	
390 - 410	10.0	724 212 493	13.200	
404 - 424	10.0	724 212 509	14.200	
420 - 440	10.0	724 212 525	14.200	
440 - 460	10.0	724 212 541	14.200	
457 - 477	10.0	724 212 557	14.800	
468 - 488	10.0	724 212 573	14.800	
488 - 508	10.0	724 212 589	14.800	
500 - 520	10.0	724 212 605	15.900	
520 - 540	6.0	724 212 621	15.900	
527 - 547	6.0	724 212 637	15.900	
545 - 565	6.0	724 212 653	15.900	
555 - 570	6.0	724 212 669	15.900	
568 - 588	6.0	724 212 685	15.900	
586 - 606	6.0	724 212 701	15.900	
600 - 620	6.0	724 212 717	17.700	
625 - 645	6.0	724 212 733	17.700	
650 - 670	6.0	724 212 749	17.700	

PF 1 54 325 009



Multi/Clamp Double length 500 mm

Model:

- Double band clamp with full circle gasket
- All metal parts are stainless steel, quality AISI 304 (on request AISI 316)
- The rubber gasket is available in NBR (EPDM on request)

Range [mm]	PN Water [bar]	NBR Code	kg	
88 - 110	16.0	724 212 062	8.400	
108 - 128	16.0	724 212 078	8.800	
112 - 134	16.0	724 212 094	8.800	
120 - 140	16.0	724 212 110	8.800	
133 - 155	16.0	724 212 126	9.600	
138 - 160	16.0	724 212 142	9.600	
158 - 180	16.0	724 212 158	11.200	
168 - 190	16.0	724 212 174	11.200	
190 - 210	10.0	724 212 190	12.100	
195 - 217	10.0	724 212 206	12.100	
210 - 230	10.0	724 212 222	12.500	
216 - 238	10.0	724 212 238	12.500	
225 - 246	10.0	724 212 254	13.000	
238 - 260	10.0	724 212 270	13.000	
251 - 271	10.0	724 212 286	15.200	
260 - 280	10.0	724 212 302	15.200	
269 - 289	10.0	724 212 318	15.200	
273 - 293	10.0	724 212 334	15.200	
295 - 315	10.0	724 212 350	15.200	
314 - 335	10.0	724 212 366	16.100	
322 - 344	10.0	724 212 382	16.100	
334 - 354	10.0	724 212 398	16.100	
340 - 360	10.0	724 212 414	16.100	
348 - 368	10.0	724 212 430	17.200	
365 - 385	10.0	724 212 446	17.200	
376 - 396	10.0	724 212 462	17.200	
382 - 402	10.0	724 212 478	17.200	
390 - 410	10.0	724 212 494	17.200	
404 - 424	10.0	724 212 510	18.700	
420 - 440	10.0	724 212 526	18.700	
440 - 460	10.0	724 212 542	18.700	
457 - 477	10.0	724 212 558	19.200	
468 - 488	10.0	724 212 574	19.200	
488 - 508	10.0	724 212 590	19.200	
500 - 520	10.0	724 212 606	20.700	
520 - 540	6.0	724 212 622	20.700	
527 - 547	6.0	724 212 638	20.700	
545 - 565	6.0	724 212 654	20.700	
555 - 570	6.0	724 212 670	20.700	
568 - 588	6.0	724 212 686	20.700	
586 - 606	6.0	724 212 702	20.700	
600 - 620	6.0	724 212 718	22.900	
625 - 645	6.0	724 212 734	22.900	
650 - 670	6.0	724 212 750	22.900	

PF 1 54 325 009



Multi/Clamp Double length 600 mm

Model:

- Double band clamp with full circle gasket
- All metal parts are stainless steel, quality AISI 304 (on request AISI 316)
- The rubber gasket is available in NBR (EPDM on request)

Range [mm]	PN Water [bar]	NBR Code	kg	
314 - 335	10.0	724 212 367	19.000	
322 - 344	10.0	724 212 383	19.000	
334 - 354	10.0	724 212 399	19.000	
340 - 360	10.0	724 212 415	19.000	
348 - 368	10.0	724 212 431	20.500	
365 - 385	10.0	724 212 447	20.500	
376 - 396	10.0	724 212 463	20.500	
382 - 402	10.0	724 212 479	20.500	
390 - 410	10.0	724 212 495	20.500	
404 - 424	10.0	724 212 511	21.800	
420 - 440	10.0	724 212 527	21.800	
440 - 460	10.0	724 212 543	21.800	
457 - 477	10.0	724 212 559	23.000	
468 - 488	10.0	724 212 575	23.000	
488 - 508	10.0	724 212 591	23.000	
500 - 520	10.0	724 212 607	24.500	
520 - 540	6.0	724 212 623	24.500	
527 - 547	6.0	724 212 639	24.500	
545 - 565	6.0	724 212 655	24.500	
555 - 570	6.0	724 212 671	24.500	
568 - 588	6.0	724 212 687	24.500	
586 - 606	6.0	724 212 703	24.500	
600 - 620	6.0	724 212 719	27.200	
625 - 645	6.0	724 212 735	27.200	
650 - 670	6.0	724 212 751	27.200	
705 - 725	4.0	724 212 767	19.700	
730 - 750	4.0	724 212 783	29.200	
755 - 775	4.0	724 212 799	29.200	
805 - 825	3.0	724 212 815	30.500	
835 - 855	3.0	724 212 831	31.500	

PF 1 54 325 009



Multi/Clamp Double length 750 mm

Model:

- Double band clamp with full circle gasket
- All metal parts are stainless steel, quality AISI 304 (on request AISI 316)
- The rubber gasket is available in NBR (EPDM on request)

Range [mm]	PN Water [bar]	NBR Code	kg	
420 - 440	10.0	724 212 528	26.300	
440 - 460	10.0	724 212 544	26.300	
457 - 477	10.0	724 212 560	28.500	
468 - 488	10.0	724 212 576	28.500	
488 - 508	10.0	724 212 592	28.500	
500 - 520	10.0	724 212 608	30.900	
520 - 540	6.0	724 212 624	30.900	
527 - 547	6.0	724 212 640	30.900	
545 - 565	6.0	724 212 656	30.900	
555 - 570	6.0	724 212 672	30.900	
568 - 588	6.0	724 212 688	30.900	
586 - 606	6.0	724 212 704	30.900	
600 - 620	6.0	724 212 720	34.500	
625 - 645	6.0	724 212 736	34.500	
650 - 670	6.0	724 212 752	34.500	
705 - 725	4.0	724 212 768	24.900	
730 - 750	4.0	724 212 784	36.500	
755 - 775	4.0	724 212 800	36.500	
805 - 825	3.0	724 212 816	38.000	
835 - 855	3.0	724 212 832	39.000	

PF 1 54 325 009



Multi/Clamp Triple length 300 mm

Model:

- Triple band clamp with full circle gasket
- All metal parts are stainless steel, quality AISI 304 (on request AISI 316)
- The rubber gasket is available in NBR (EPDM on request)

Range [mm]	PN Water [bar]	NBR Code	kg	
267 - 297	10.0	724 213 060	9.000	
300 - 330	10.0	724 213 076	10.200	
323 - 353	10.0	724 213 092	10.200	
352 - 382	10.0	724 213 108	10.500	
378 - 408	10.0	724 213 124	12.000	
402 - 432	10.0	724 213 140	12.000	
429 - 459	10.0	724 213 156	12.000	
456 - 486	10.0	724 213 172	12.900	
490 - 520	10.0	724 213 188	14.100	
520 - 550	10.0	724 213 204	14.700	

PF 1 54 325 009



Multi/Clamp Triple length 400 mm

Model:

- Triple band clamp with full circle gasket
- All metal parts are stainless steel, quality AISI 304 (on request AISI 316)
- The rubber gasket is available in NBR (EPDM on request)

Range [mm]	PN Water [bar]	NBR Code	kg	
267 - 297	10.0	724 213 061	11.700	
300 - 330	10.0	724 213 077	13.500	
323 - 353	10.0	724 213 093	13.500	
352 - 382	10.0	724 213 109	14.100	
378 - 408	10.0	724 213 125	15.600	
402 - 432	10.0	724 213 141	15.600	
429 - 459	10.0	724 213 157	15.600	
456 - 486	10.0	724 213 173	16.800	
490 - 520	10.0	724 213 189	17.700	
520 - 550	10.0	724 213 205	19.200	
532 - 562	6.0	724 213 221	19.200	
545 - 575	6.0	724 213 237	19.200	
570 - 600	6.0	724 213 253	19.200	

PF 1 54 325 009



Multi/Clamp Triple length 500 mm

Model:

- Triple band clamp with full circle gasket
- All metal parts are stainless steel, quality AISI 304 (on request AISI 316)
- The rubber gasket is available in NBR (EPDM on request)

Range [mm]	PN Water [bar]	NBR Code	kg	
352 - 382	10.0	724 213 110	15.600	
378 - 408	10.0	724 213 126	20.100	
402 - 432	10.0	724 213 142	20.100	
429 - 459	10.0	724 213 158	20.100	
456 - 486	10.0	724 213 174	21.600	
490 - 520	10.0	724 213 190	23.400	
520 - 550	10.0	724 213 206	24.600	
532 - 562	6.0	724 213 222	24.600	
545 - 575	6.0	724 213 238	24.600	
570 - 600	6.0	724 213 254	24.600	
586 - 616	6.0	724 213 270	24.600	
609 - 639	6.0	724 213 286	26.000	
615 - 645	6.0	724 213 302	26.000	

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PF 1 54 325 009

Range [mm]	PN Water [bar]	NBR Code	kg
633 - 663	4.0	724 213 318	26.000
640 - 670	4.0	724 213 334	26.000
654 - 684	4.0	724 213 350	26.000



Multi/Clamp Triple length 600 mm

Model:

- Triple band clamp with full circle gasket
- All metal parts are stainless steel, quality AISI 304 (on request AISI 316)
- The rubber gasket is available in NBR (EPDM on request)

Range [mm]	PN Water [bar]	NBR Code	kg
456 - 486	10.0	724 213 175	25.800
490 - 520	10.0	724 213 191	27.300
520 - 550	10.0	724 213 207	30.000
532 - 562	6.0	724 213 223	30.000
545 - 575	6.0	724 213 239	30.000
570 - 600	6.0	724 213 255	30.000
586 - 616	6.0	724 213 271	30.000
609 - 639	6.0	724 213 287	32.000
615 - 645	6.0	724 213 303	32.000
633 - 663	4.0	724 213 319	32.000
640 - 670	4.0	724 213 335	32.000
654 - 684	4.0	724 213 351	32.000
670 - 700	4.0	724 213 367	32.000
702 - 732	4.0	724 213 383	35.000
711 - 741	4.0	724 213 399	35.000
729 - 759	4.0	724 213 415	35.000
747 - 777	4.0	724 213 431	35.000
780 - 815	4.0	724 213 447	38.000
800 - 830	4.0	724 213 463	38.000
813 - 843	3.0	724 213 479	38.000
830 - 860	3.0	724 213 495	38.000
852 - 882	2.0	724 213 511	38.000
864 - 894	2.0	724 213 527	38.000
900 - 930	2.0	724 213 543	40.000
925 - 955	2.0	724 213 559	40.000
945 - 975	2.0	724 213 575	40.000
970 - 1000	2.0	724 213 591	40.000

PF 1 54 325 009



Multi/Clamp Triple length 750 mm

Model:

- Triple band clamp with full circle gasket
- All metal parts are stainless steel, quality AISI 304 (on request AISI 316)
- The rubber gasket is available in NBR (EPDM on request)

Range [mm]	PN Water [bar]	NBR Code	kg
545 - 575	6.0	724 213 240	39.000
570 - 600	6.0	724 213 256	39.000
586 - 616	6.0	724 213 272	39.000
609 - 639	6.0	724 213 288	41.000
615 - 645	6.0	724 213 304	41.000
633 - 663	4.0	724 213 320	41.000
640 - 670	4.0	724 213 336	41.000
654 - 684	4.0	724 213 352	41.000
670 - 700	4.0	724 213 368	41.000
702 - 732	4.0	724 213 384	44.000
711 - 741	4.0	724 213 400	44.000
729 - 759	4.0	724 213 416	44.000
747 - 777	4.0	724 213 432	44.000

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Range [mm]	PN Water [bar]	NBR Code	kg	
780 - 815	4.0	724 213 448	47.000	
800 - 730	4.0	724 213 464	47.000	
813 - 843	3.0	724 213 480	47.000	
830 - 860	3.0	724 213 496	47.000	
852 - 882	2.0	724 213 512	47.000	
864 - 894	2.0	724 213 528	47.000	
900 - 930	2.0	724 213 544	49.000	
925 - 955	2.0	724 213 560	49.000	
945 - 975	2.0	724 213 576	49.000	
970 - 1000	2.0	724 213 592	49.000	

PF 1 54 325 009

Multi/Clamp Thread (surcharge)



Model:

- The Multi/Clamp Single, Double and Triple can be equipped with a threaded outlet
- To obtain the total product price please take the surcharge for the threaded outlet and the price of the repair clamp
- All metal parts are stainless steel, quality AISI 304 (on request AISI 316)
- Female threaded outlet (other threads or combinations on request)

Inch	threaded outlet	Length	Code	
1/2	from 48 mm	min. width 150 mm	thread1/2	
3/4	from 48 mm	min. width 150 mm	thread3/4	
1	from 54 mm	min. width 150 mm	thread1	
1 1/4	from 76 mm	min. width 150 mm	thread1.1/4	
1 1/2	from 82 mm	min. width 200 mm	thread1.1/2	
2	from 87 mm	min. width 200 mm	thread2	
2 1/2	from 110 mm	min. width 200 mm	thread2.1/2	
3	from 130 mm	min. width 300 mm	thread3	
4	from 155 mm	min. width 400 mm	thread4	

Multi/Clamp Saddle Studs threaded outlet 1/2"



Model:

- Saddle with threaded outlet
- All metal parts are stainless steel, quality AISI 304 (on request AISI 316)
- The rubber gasket is available in NBR (EPDM on request)
- Outlet dimension up to 4" available on request
- Lower shell half is without gasket (available on request)
- Other sizes available on request

Range [mm]	PN Water [bar]	NBR Code	kg	
68 - 78	16.0	724 201 061	1.000	
88 - 110	16.0	724 201 073	1.000	
108 - 134	16.0	724 201 097	1.000	
133 - 155	16.0	724 201 133	1.000	
159 - 181	16.0	724 201 169	1.000	
168 - 190	16.0	724 201 193	1.000	
190 - 212	16.0	724 201 205	1.000	
216 - 238	16.0	724 201 217	1.000	
238 - 260	16.0	724 201 241	1.000	
267 - 289	16.0	724 201 253	1.000	

PF 1 54 327 011

Multi/Clamp Saddle Studs threaded outlet 3/4"



Model:

- Saddle with threaded outlet
- All metal parts are stainless steel, quality AISI 304 (on request AISI 316)
- The rubber gasket is available in NBR (EPDM on request)
- Outlet dimension up to 4" available on request
- Lower shell half is without gasket (available on request)
- Other sizes available on request

Range [mm]	PN Water [bar]	NBR Code	kg	
68 - 78	16.0	724 201 062	1.000	
88 - 110	16.0	724 201 074	1.000	
108 - 134	16.0	724 201 098	1.000	

table continued next page

Range [mm]	PN Water [bar]	NBR Code	kg	
133 - 155	16.0	724 201 134	1.000	
159 - 181	16.0	724 201 170	1.000	
168 - 190	16.0	724 201 194	1.000	
190 - 212	16.0	724 201 206	1.000	
216 - 238	16.0	724 201 218	1.000	
238 - 260	16.0	724 201 242	1.000	
267 - 289	16.0	724 201 254	1.000	

PF 1 54 327 011



Multi/Clamp Saddle Studs threaded outlet 1"

Model:

- Saddle with threaded outlet
- All metal parts are stainless steel, quality AISI 304 (on request AISI 316)
- The rubber gasket is available in NBR (EPDM on request)
- Outlet dimension up to 4" available on request
- Lower shell half is without gasket (available on request)
- Other sizes available on request

Range [mm]	PN Water [bar]	NBR Code	kg	
68 - 78	16.0	724 201 063	1.000	
88 - 110	16.0	724 201 075	1.000	
108 - 134	16.0	724 201 099	1.000	
133 - 155	16.0	724 201 135	1.000	
159 - 181	16.0	724 201 171	1.000	
168 - 190	16.0	724 201 195	1.000	
190 - 212	16.0	724 201 207	1.000	
216 - 238	16.0	724 201 219	1.000	
238 - 260	16.0	724 201 243	1.000	
267 - 289	16.0	724 201 255	1.000	

PF 1 54 327 011



Multi/Clamp Saddle Studs threaded outlet 1 1/4"

Model:

- Saddle with threaded outlet
- All metal parts are stainless steel, quality AISI 304 (on request AISI 316)
- The rubber gasket is available in NBR (EPDM on request)
- Outlet dimension up to 4" available on request
- Lower shell half is without gasket (available on request)
- Other sizes available on request

Range [mm]	PN Water [bar]	NBR Code	kg	
88 - 110	16.0	724 201 076	1.000	
108 - 134	16.0	724 201 100	1.000	
133 - 155	16.0	724 201 136	1.000	
159 - 181	16.0	724 201 172	1.000	
168 - 190	16.0	724 201 196	1.000	
190 - 212	16.0	724 201 208	1.000	
216 - 238	16.0	724 201 220	1.000	
238 - 260	16.0	724 201 244	1.000	
267 - 289	16.0	724 201 256	1.000	

PF 1 54 327 011



Multi/Clamp Saddle Studs threaded outlet 1 1/2"

Model:

- Saddle with threaded outlet
- All metal parts are stainless steel, quality AISI 304 (on request AISI 316)
- The rubber gasket is available in NBR (EPDM on request)
- Outlet dimension up to 4" available on request
- Lower shell half is without gasket (available on request)
- Other sizes available on request

Range [mm]	PN Water [bar]	NBR Code	kg	
108 - 134	16.0	724 201 101	1.000	
133 - 155	16.0	724 201 137	1.000	
159 - 181	16.0	724 201 173	1.000	
168 - 190	16.0	724 201 197	1.000	
190 - 212	16.0	724 201 209	1.000	
216 - 238	16.0	724 201 221	1.000	
238 - 260	16.0	724 201 245	1.000	
267 - 289	16.0	724 201 257	1.000	

PF 1 54 327 011



Multi/Clamp Saddle Studs threaded outlet 2"

Model:

- Saddle with threaded outlet
- All metal parts are stainless steel, quality AISI 304 (on request AISI 316)
- The rubber gasket is available in NBR (EPDM on request)
- Outlet dimension up to 4" available on request
- Lower shell half is without gasket (available on request)
- Other sizes available on request

Range [mm]	PN Water [bar]	NBR Code	kg	
108 - 134	16.0	724 201 102	1.000	
133 - 155	16.0	724 201 138	1.000	
159 - 181	16.0	724 201 174	1.000	
168 - 190	16.0	724 201 198	1.000	
190 - 212	16.0	724 201 210	1.000	
216 - 238	16.0	724 201 222	1.000	
238 - 260	16.0	724 201 246	1.000	
267 - 289	16.0	724 201 258	1.000	

PF 1 54 327 011



Multi/Clamp Flange (tapping sleeve) length 200 mm

Model:

- Double band saddle with flanged outlet
- Full circle construction for optimal pipe support
- To obtain the total product price, please take the price of the tapping sleeve and add the price for the flange outlet
- All metal parts are stainless steel, quality AISI 304 (on request AISI 316)
- The rubber gasket is available in NBR (EPDM on request)

Range [mm]	PN Water [bar]	NBR Code	
95 - 104	16.0	95-104L200N	
98 - 108	16.0	98-108L200N	
108 - 128	16.0	108-128L200N	
118 - 138	16.0	118-138L200N	
133 - 153	16.0	133-153L200N	
143 - 163	16.0	143-163L200N	
160 - 180	16.0	160-180L200N	
180 - 200	16.0	180-200L200N	
190 - 210	16.0	190-210L200N	
210 - 230	16.0	210-230L200N	
230 - 250	16.0	230-250L200N	
240 - 260	16.0	240-260L200N	
250 - 270	16.0	250-270L200N	
270 - 290	16.0	270-290L200N	
290 - 310	16.0	290-310L200N	



Multi/Clamp Flange (tapping sleeve) length 300 mm

Model:

- Double band saddle with flanged outlet
- Full circle construction for optimal pipe support
- To obtain the total product price, please take the price of the tapping sleeve and add the price for the flange outlet
- All metal parts are stainless steel, quality AISI 304 (on request AISI 316)
- The rubber gasket is available in NBR (EPDM on request)

Range [mm]	DN [mm]	PN Water [bar]	NBR Code	
95 - 104		16.0	95-104L300N	
98 - 108		16.0	98-108L300N	
108 - 128		16.0	108-128L300N	
118 - 138		16.0	118-138L300N	
133 - 153		16.0	133-153L300N	
143 - 163		16.0	143-163L300N	
160 - 180		16.0	160-180L300N	
180 - 200		16.0	180-200L300N	
190 - 210		16.0	190-210L300N	
210 - 230		16.0	210-230L300N	
230 - 250		16.0	230-250L300N	
240 - 260		16.0	240-260L300N	
250 - 270		16.0	250-270L300N	
270 - 290		16.0	270-290L300N	
290 - 310		16.0	290-310L300N	
315 - 335		16.0	315-335L300N	
335 - 355		16.0	335-355L300N	
-	350	16.0	DN350L300N	



Multi/Clamp Flange (tapping sleeve) length 400 mm

Model:

- Double band saddle with flanged outlet
- Full circle construction for optimal pipe support
- To obtain the total product price, please take the price of the tapping sleeve and add the price for the flange outlet
- All metal parts are stainless steel, quality AISI 304 (on request AISI 316)
- The rubber gasket is available in NBR (EPDM on request)

Range [mm]	DN [mm]	PN Water [bar]	NBR Code	
95 - 104		16.0	95-104L400N	
98 - 108		16.0	98-108L400N	
108 - 128		16.0	108-128L400N	
118 - 138		16.0	118-138L400N	
133 - 153		16.0	133-153L400N	
143 - 163		16.0	143-163L400N	
160 - 180		16.0	160-180L400N	
180 - 200		16.0	180-200L400N	
190 - 210		16.0	190-210L400N	
210 - 230		16.0	210-230L400N	
230 - 250		16.0	230-250L400N	
240 - 260		16.0	240-260L400N	
250 - 270		16.0	250-270L400N	
270 - 290		16.0	270-290L400N	
290 - 310		16.0	290-310L400N	
315 - 335		16.0	315-335L400N	
335 - 355		16.0	335-355L400N	
-	350	16.0	DN350L400N	
-	400	16.0	DN400L400N	
-	450	16.0	DN450L400N	
-	500	16.0	DN500L400N	
-	600	10.0	DN600L400N	
-	700		DN700L400N	



Multi/Clamp Flange (tapping sleeve) length 500 mm

Model:

- Double band saddle with flanged outlet
- Full circle construction for optimal pipe support
- To obtain the total product price, please take the price of the tapping sleeve and add the price for the flange outlet
- All metal parts are stainless steel, quality AISI 304 (on request AISI 316)
- The rubber gasket is available in NBR (EPDM on request)

Range [mm]	DN [mm]	PN Water [bar]	NBR Code	
95 - 104		16.0	95-104L500N	
98 - 108		16.0	98-108L500N	
108 - 128		16.0	108-128L500N	
118 - 138		16.0	118-138L500N	
133 - 153		16.0	133-153L500N	
143 - 163		16.0	143-163L500N	
160 - 180		16.0	160-180L500N	
180 - 200		16.0	180-200L500N	
190 - 210		16.0	190-210L500N	
210 - 230		16.0	210-230L500N	
230 - 250		16.0	230-250L500N	
240 - 260		16.0	240-260L500N	
250 - 270		16.0	250-270L500N	
270 - 290		16.0	270-290L500N	
290 - 310		16.0	290-310L500N	
315 - 335		16.0	315-335L500N	
335 - 355		16.0	335-355L500N	
-	350	16.0	DN350L500N	

table continued next page

Range [mm]	DN [mm]	PN Water [bar]	NBR Code	
-	400	16.0	DN400L500N	
-	450	16.0	DN450L500N	
-	500	16.0	DN500L500N	
-	600	10.0	DN600L500N	
-	700		DN700L500N	
-	750		DN750L500N	
-	800		DN800L500N	



Multi/Clamp Flange (tapping sleeve) length 600 mm

Model:

- Double band saddle with flanged outlet
- Full circle construction for optimal pipe support
- To obtain the total product price, please take the price of the tapping sleeve and add the price for the flange outlet
- All metal parts are stainless steel, quality AISI 304 (on request AISI 316)
- The rubber gasket is available in NBR (EPDM on request)

Range [mm]	DN [mm]	PN Water [bar]	NBR Code	
315 - 335		16.0	315-335L600N	
335 - 355		16.0	335-355L600N	
-	350	16.0	DN350L600N	
-	400	16.0	DN400L600N	
-	450	16.0	DN450L600N	
-	500	16.0	DN500L600N	
-	600	10.0	DN600L600N	
-	700		DN700L600N	
-	750		DN750L600N	
-	800		DN800L600N	



Multi/Clamp Flange (tapping sleeve) length 750 mm

Model:

- Double band saddle with flanged outlet
- Full circle construction for optimal pipe support
- To obtain the total product price, please take the price of the tapping sleeve and add the price for the flange outlet
- All metal parts are stainless steel, quality AISI 304 (on request AISI 316)
- The rubber gasket is available in NBR (EPDM on request)

DN [mm]	PN Water [bar]	NBR Code	
400	16.0	DN400L750N	
450	16.0	DN450L750N	
500	16.0	DN500L750N	
600	10.0	DN600L750N	
700		DN700L750N	
750		DN750L750N	
800		DN800L750N	

Multi/Clamp Flange (flange outlet)



Model:

- To obtain the total product price please add the price of the tapping sleeve
- All metal parts are stainless steel, quality AISI 304 (on request AISI 316)

DN [mm]	Drilling pattern	required body length	Code	
50	PN 10/16	200 mm	flangeDN50	
65	PN 10/16	300 mm	flangeDN65	
80	PN 10/16	300 mm (400 mm if POD > 300)	flangeDN80	
100	PN 10/16	400 mm	flangeDN100	
125	PN 10/16	400 mm	flangeDN125	
150	PN 10/16	400 mm	flangeDN150	
200	PN 10	500 mm	flangeDN200	
250	PN 10	600 mm	flangeDN250	
300	PN 10	750 mm	flangeDN300	



Multi/Clamp Combi Box length 400 mm

Model:

- A combination of either two or more shell sections enables you to repair pipes from 213 mm up to 1146 mm OD
- All metal parts are stainless steel, quality AISI 304 (on request AISI 316)
- The rubber gasket is available in NBR (EPDM on request)

description	NBR A2 Code	kg
repair set complete (all shell sections + wooden box)	724 213 730	46.700
shell section A	724 213 746	5.000
shell section B	724 213 762	5.300
shell section C	724 213 778	5.700
shell section D	724 213 794	6.100
shell section E	724 213 810	6.700
wooden box separate	724 213 826	17.900

Range (mm)	description
	<u>shell sections to combine with 1 Multi/Clamp Combi box:</u>
213 - 233	A B
233 - 253	A C
253 - 273	B C
264 - 284	A D
284 - 304	B D
294 - 314	A E
304 - 324	C D
314 - 334	B E
335 - 355	C E
354 - 384	A B C
386 - 416	A B D
406 - 436	A C D
416 - 446	A B E
426 - 456	B C D
436 - 466	A C E
456 - 486	B C E
467 - 497	A D E
487 - 517	B D E
508 - 538	C D E
527 - 567	A B C D
558 - 598	A B C E
589 - 629	A B D E
609 - 649	A C D E
629 - 669	B C D E
	<u>shell sections to combine with 2 Multi/Clamp Combi boxes:</u>
720 - 770	E E B A A
761 - 811	E E C B A
832 - 882	E E D C B
853 - 903	E E D C C
934 - 994	E E D C B A
965 - 1025	E E D D B A
1026 - 1086	E E D D C C
1076 - 1146	E E D C C B A

PF 1 54 325 009



WAL/V

→ Your benefits

- Quick, efficient and reliable solution for under pressure repair of leaking socket and spigot joints made of cast iron, asbestos cement and steel
- Usable for various diameters thanks to adjustable clamping parts
- Durable corrosion protection by Resicoat® epoxy powder coating (GSK approved)
- Reusable
- Applicable for under- and above-ground use

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WAL/V

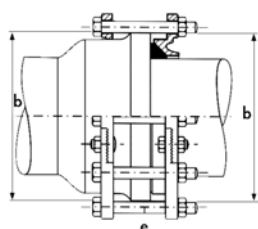
WAL/V Single

Model:

- Ductile Cast iron GGG40 body
- RESICOAT® epoxy powder coating, according to GSK standards and EN 14901
- Gasket: NBR
- Stainless steel A2 quality (AISI 304) bolts, nuts and washers
- Suitable for usage in potable water or gas

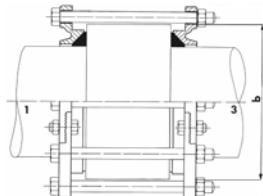
Note:

Other sizes up to DN1200 on request



DN [mm]	Range [mm]	NBR Code	kg	b [mm]	e [mm]	bolt length [mm]	PN Water [bar]	PN Gas [bar]	
80	90 - 114	709 016 053	6.500	175	8xM16	140	10.0	4.0	
100	110 - 135	709 016 055	7.500	195	8xM16	140	10.0	4.0	
125	134 - 156	709 016 060	12.500	240	8xM16	140	10.0	4.0	
150	168 - 191	709 016 065	13.000	250	8xM16	140	10.0	4.0	
175	204 - 218	709 016 070	15.000	280	8xM16	140	10.0	4.0	
200	220 - 253	709 016 075	16.000	315	8xM16	140	10.0	4.0	
225	246 - 278	709 016 080	17.000	350	8xM16	140	10.0	4.0	
250	265 - 293	709 016 085	18.000	360	8xM16	140	10.0	4.0	
300	319 - 348	709 016 095	20.000	435	12xM16	140	10.0	4.0	
325	344 - 372	709 016 100	23.000	435	12xM16	140	10.0	4.0	
350	374 - 397	709 016 105	27.000	490	12xM16	140	10.0	4.0	
400	424 - 453	709 016 110	27.500	545	16xM16	140	10.0	4.0	
500	524 - 552	709 016 120	36.000	660	20xM16	140	10.0	4.0	
600	627 - 655	709 016 130	42.000	775	20xM16	140	10.0	4.0	
625	647 - 675	709 016 131	45.500	775	20xM16	140	10.0	4.0	
700	735 - 767	709 016 135	54.000	895	20xM16	140	10.0	4.0	

PF 1 54 325 008



WAL/V Double

Model:

- Ductile Cast iron GGG40 body
- RESICOAT® epoxy powder coating, according to GSK standards and EN 14901
- Gasket: NBR
- Stainless steel A2 quality (AISI 304) bolts, nuts and washers
- Suitable for usage in potable water or gas

Note:

Other sizes up to DN1200 on request

DN [mm]	Range [mm]	NBR Code	kg	b [mm]	e [mm]	bolt length [mm]	PN Water [bar]	PN Gas [bar]	
80	90 - 114	709 016 701	7.800	175	8xM16	240	10.0	4.0	
100	110 - 135	709 016 702	8.800	195	8xM16	240	10.0	4.0	
125	134 - 156	709 016 703	14.600	240	8xM16	240	10.0	4.0	
150	168 - 191	709 016 704	13.000	250	8xM16	240	10.0	4.0	
175	192 - 216	709 016 705	17.000	280	8xM16	240	10.0	4.0	
200	220 - 253	709 016 706	20.000	315	8xM16	240	10.0	4.0	
225	246 - 278	709 016 707	21.000	350	8xM16	240	10.0	4.0	
250	265 - 293	709 016 708	23.000	360	8xM16	240	10.0	4.0	
300	319 - 348	709 016 710	23.000	435	12xM16	240	10.0	4.0	
325	344 - 372	709 016 711	27.500	435	12xM16	240	10.0	4.0	
350	374 - 397	709 016 712	32.000	490	12xM16	240	10.0	4.0	
400	424 - 453	709 016 714	33.000	545	16xM16	240	10.0	4.0	
500	524 - 552	709 016 715	48.000	660	20xM16	240	10.0	4.0	
600	627 - 655	709 016 725	55.000	775	20xM16	240	10.0	4.0	
625	647 - 675	709 016 727	59.000	775	20xM16	240	10.0	4.0	
700	735 - 767	709 016 735		895	20xM16	240	10.0	4.0	

PF 1 54 325 008



Multi/Saddle Plus

→ Your benefits

- Easy installation
- Complete saddle program
- High quality connection
- Stock reduction thanks to universal saddles
- Easy stacking thanks to compact packing
- Suitable for all pipe materials; except PE and thin walled PVC (wall thickness less than SDR 13,6)

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Multi/Saddle Plus

Multi/Saddle Plus 301

saddle range 60-355 mm (to be combined with straps)

Model:

- With direct PE connection by means of Push-Fit
- With temporary shut-off mechanism by means of spatula (See Multi/Saddle Plus Spatula)
- Ductile Cast iron GGG40 saddle head
- RESICOAT® epoxy powder coating, according to GSK standards and EN 14901
- Stainless steel A2 (AISI 304) band with NBR protection (to be ordered separately)
- Rubber inlay: EPDM for water and NBR for water and gas
- Forged brass insert and nut

Note:

*Must be applied for pipes DN80 or larger

Outlet [mm]	EPDM Code	NBR Code	PN Water [bar]	PN Gas [bar]	
25	709 613 752	709 613 852	16.0	5.0	
32	709 613 754	709 613 854	16.0	5.0	
40*	709 613 756	709 613 856	16.0	5.0	
50*	709 613 758	709 613 858	16.0	5.0	

PF 1 54 327 010



Multi/Saddle Plus 201

saddle range 60-355 mm (to be combined with straps)

Model:

- With female threaded outlet
- With temporary shut-off mechanism by means of spatula (See Multi/Saddle Plus Spatula)
- Ductile Cast iron GGG40 saddle head
- RESICOAT® epoxy powder coating, according to GSK standards and EN 14901
- Stainless steel A2 (AISI 304) band with NBR protection (to be ordered separately)
- Rubber inlay: EPDM for water and NBR for water and gas

Note:

*Must be applied for pipes DN80 or larger

Thread outlet [inch]	EPDM Code	NBR Code	PN Water [bar]	PN Gas [bar]	
1	709 613 734	709 613 834	16.0	5.0	
1 1/4	709 613 736	709 613 836	16.0	5.0	
1 1/2*	709 613 738	709 613 838	16.0	5.0	
2*	709 613 740	709 613 840	16.0	5.0	

PF 1 54 327 010



Multi/Saddle Plus 200

saddle range 60-355 mm (to be combined with straps)

Model:

- With female threaded outlet
- Ductile Cast iron GGG40 saddle head
- RESICOAT® epoxy powder coating, according to GSK standards and EN 14901
- Stainless steel A2 (AISI 304) band with NBR protection (to be ordered separately)
- Rubber inlay: EPDM for water and NBR for water and gas

Note:

*Must be applied for pipes DN80 or larger

Thread outlet [inch]	EPDM Code	NBR Code	PN Water [bar]	PN Gas [bar]	
1	709 613 714	709 613 814	16.0	5.0	
1 1/4	709 613 716	709 613 816	16.0	5.0	
1 1/2*	709 613 718	709 613 818	16.0	5.0	
2*	709 613 720	709 613 820	16.0	5.0	

PF 1 54 327 010



Multi/Saddle Plus Straps

(to be combined with Multi/Saddle Plus 301, 201 and 200)

Model:

- Stainless steel A2 (AISI 304) band with NBR protection (to be ordered separately)
- The straps can be combined with all Multi/Saddle Plus types
- Weldfree design avoiding intergranular corrosion
- Range d60 - 355 mm
- Special packaging, flat labelled boxes for easy handling and identification
- Ready to install, studs and nuts in one package

Range [mm]	Code	
60 - 80	709 613 930	
70 - 90	709 613 932	
90 - 110	709 613 934	
110 - 130	709 613 936	
130 - 150	709 613 938	
145 - 165	709 613 940	
160 - 180	709 613 942	
175 - 195	709 613 944	
190 - 210	709 613 946	
205 - 225	709 613 948	
220 - 240	709 613 950	
235 - 255	709 613 952	
250 - 270	709 613 954	
270 - 290	709 613 956	
285 - 305	709 613 958	
300 - 320	709 613 960	
315 - 335	709 613 962	
335 - 355	709 613 964	

PF 1 54 327 010



Multi/Saddle Plus Spatula

Description	Code	
spatula for saddle outlet 1" / d25 + d32	709 613 903	
spatula for saddle outlet 1 1/4"	709 613 904	
spatula for saddle outlet 1 1/2" / d40 + d50	709 613 905	
spatula for saddle outlet 2"	709 613 906	

PF 1 54 327 010



PF 1 54 327 010

Multi/Saddle Plus Hot Tap Adaptors

Description	Code	
Hot Tap Adaptor Multi/Saddle Plus 301 PE d25 x 1	709 613 652	
Hot Tap Adaptor Multi/Saddle Plus 301 PE d32 x 1	709 613 654	
Hot Tap Adaptor Multi/Saddle Plus 301 PE d40 x 1 ½	709 613 656	
Hot Tap Adaptor Multi/Saddle Plus 301 PE d50 x 1 ½	709 613 658	
Hot Tap Adaptor Multi/Saddle Plus 201 1	709 613 634	
Hot Tap Adaptor Multi/Saddle Plus 201 1 ½	709 613 638	
Hot Tap Adaptor Multi/Saddle Plus 201 2	709 613 640	



PF 1 54 326 005

Male threaded adaptors for W400 drilling device

Model:

- Suitable to connect to Multi/Saddle Plus 200 and 201 saddles

Description	Code	
male threaded adaptor 3/4	709 702 257	
male threaded adaptor 1	709 702 258	
male threaded adaptor 1 1/4	709 702 259	
male threaded adaptor 1 1/2	709 702 260	
male threaded adaptor 2	709 702 261	



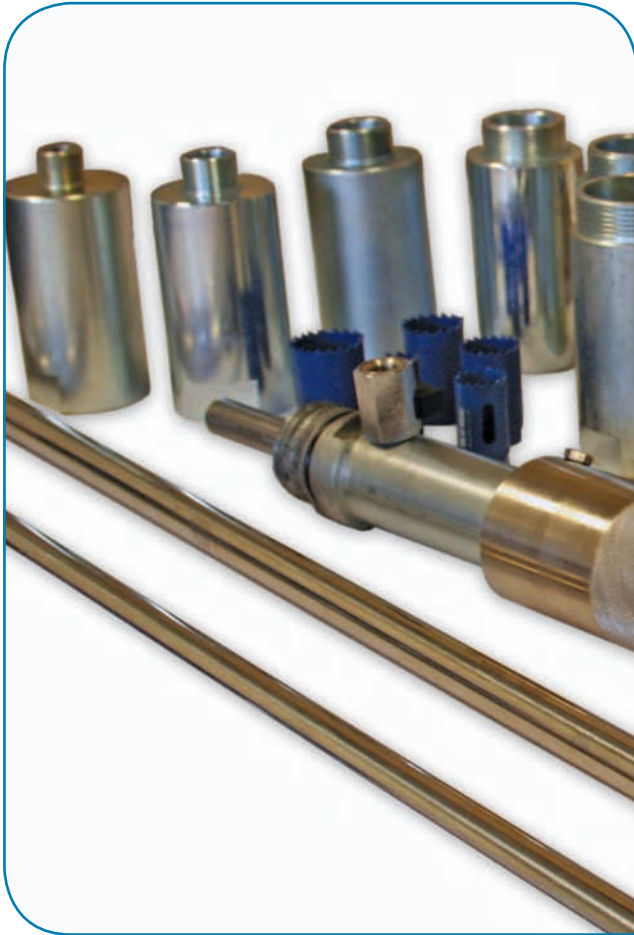
PF 1 54 326 005

Female threaded adaptors for W400 drilling device

Model:

- Suitable to connect to Multi/Saddle Plus 301 saddles

Description	Code	
female threaded adaptor d25 + d32	709 702 262	
female threaded adaptor d40 + d50	709 702 263	



W400/W410

→ Your benefits

- Easy installation thanks to light weight and compact design
- Easy to handle by one person
- Suitable for drilling under pressure
- Various modular components with universal drills
- Applicable for above- and below-ground applications
- All weather use

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W400 drilling device (3/4" - 2")



Basic Drilling Device W400

including ratchet and drill shaft (accessories to be added)

PF 1 54 326 005

Description	Code	
basic device including ratchet and drill shaft	709 700 000	



Male threaded adaptors for W400 drilling device

Model:

- Suitable to connect to Multi/Saddle Plus 200 and 201 saddles

PF 1 54 326 005

Description	Code	
male threaded adaptor 3/4	709 702 257	
male threaded adaptor 1	709 702 258	
male threaded adaptor 1 1/4	709 702 259	
male threaded adaptor 1 1/2	709 702 260	
male threaded adaptor 2	709 702 261	



Female threaded adaptors for W400 drilling device

Model:

- Suitable to connect to Multi/Saddle Plus 301 saddles

PF 1 54 326 005

Description	Code	
female threaded adaptor d25 + d32	709 702 262	
female threaded adaptor d40 + d50	709 702 263	



Mandrel combined with pilot drill

Model:

- mandrel including special pilot drill 6mm with dual retention wires

PF 1 54 326 005

Description	Code	
hole saw mandrel 9/16 inch - 1 3/16 inch with retain pilot drill	709 701 260	
hole saw mandrel 1 1/4 inch - 6 inch with retain pilot drill	709 701 261	



Pilot drill

Model:

- pilot drill 6 mm with dual retention wires

PF 1 54 326 005

Description	Code	
pilot drill 6 mm with dual retention wires	709 800 006	



Cup drill PRO-FIT (other sizes on request)

Model:

- Suitable for PE and PVC pipes

Inch	Description	Code	
11/16	PRO-FIT PE/PVC cutter 17,5 mm	709 810 711	
3/4	PRO-FIT PE/PVC cutter 19,1 mm	709 810 712	
7/8	PRO-FIT PE/PVC cutter 22,2 mm	709 810 714	
1	PRO-FIT PE/PVC cutter 25,4 mm	709 810 716	
1 1/4	PRO-FIT PE/PVC cutter 31,8 mm	709 810 720	
1 1/2	PRO-FIT PE/PVC cutter 38,1 mm	709 810 724	
1 3/4	PRO-FIT PE/PVC cutter 44,5 mm	709 810 728	
1 7/8	PRO-FIT PE/PVC cutter 48,2 mm	709 810 730	

PF 1 54 326 005



Cup drill Blu-mol HSS

Model:

- suitable for steel and (ductile) cast iron

Inch	Description	Code	
11/16	HSS bi-metal cutter 17,5 mm	709 810 511	
3/4	HSS bi-metal cutter 19,1 mm	709 810 512	
7/8	HSS bi-metal cutter 22,2 mm	709 810 514	
15/16	HSS bi-metal cutter 23,8 mm	709 810 515	
1	HSS bi-metal cutter 25,4 mm	709 810 516	
1 1/8	HSS bi-metal cutter 28,6 mm	709 810 518	
1 3/16	HSS bi-metal cutter 30,2 mm	709 810 519	
1 1/4	HSS bi-metal cutter 31,8 mm	709 810 520	
1 3/8	HSS bi-metal cutter 34,9 mm	709 810 522	
1 7/16	HSS bi-metal cutter 36,5 mm	709 810 523	
1 1/2	HSS bi-metal cutter 38,1 mm	709 810 524	
1 3/4	HSS bi-metal cutter 44,5 mm	709 810 528	
2	HSS bi-metal cutter 50,8 mm	709 810 532	

PF 1 54 326 005



Cup drill Blu-mol Carbide tipped

Model:

- suitable for abrasive materials such as asbestos cement and cement lined (ductile) iron pipes

Inch	Description	Code	
3/4	carbide tipped HSS bi-metal cutter 19,1 mm	709 810 612	
7/8	carbide tipped HSS bi-metal cutter 22,2 mm	709 810 614	
1	carbide tipped HSS bi-metal cutter 25,4 mm	709 810 616	
1 1/8	carbide tipped HSS bi-metal cutter 28,6 mm	709 810 618	
1 1/4	carbide tipped HSS bi-metal cutter 31,8 mm	709 810 620	
1 3/8	carbide tipped HSS bi-metal cutter 34,9 mm	709 810 622	
1 1/2	carbide tipped HSS bi-metal cutter 38,1 mm	709 810 624	
1 3/4	carbide tipped HSS bi-metal cutter 44,5 mm	709 810 628	
2	carbide tipped HSS bi-metal cutter 50,8 mm	709 810 632	

PF 1 54 326 005



Heavy duty transport / storage box for W400 drilling device

Model:

- Including: hex key 3 mm, hex key 6 mm and screwdriver
- Outside dimension transport case: 80 x 40 x 20 cm

Code	Description	
709 706 416	Heavy duty transport / storage box for W400 drilling device	

PF 1 54 326 005

W410 drilling device (3/4" - 8")



Basic Drilling Device W410 including ratchet (all accessories to be added)

PF 1 54 326 005

Description	Code	
basic device including ratchet	709 700 100	



Drill shafts

Model:

- Drill shafts to be selected depending on build up length of your configuration

PF 1 54 326 005

Description	Code	
drill shaft 620 mm	709 700 010	
drill shaft 775 mm	709 700 021	
drill shaft 920 mm	709 700 022	
drill shaft 1070 mm	709 700 023	



Flange adaptors

Model:

- Flange adaptor for W410
- Suitable for Plast/Joint® flange adaptor / connection to PE spigot
- Suitable for flange to flange connections
- Not included flange bolts / gasket

PF 1 54 326 005

Description	Code	
flange adaptor DN50	709 702 045	
flange adaptor DN65	709 702 046	
flange adaptor DN80	709 702 047	
flange adaptor DN100	709 702 048	
flange adaptor DN125	709 702 049	
flange adaptor DN150	709 702 050	
flange adaptor DN200	709 702 051	



Mandrel combined with pilot drill

Model:

- mandrel including special pilot drill 6mm with dual retention wires

PF 1 54 326 005

Description	Code	
hole saw mandrel 9/16 inch - 1 3/16 inch with retain pilot drill	709 701 260	
hole saw mandrel 1 1/4 inch - 6 inch with retain pilot drill	709 701 261	



Pilot drill

Model:

- pilot drill 6 mm with dual retention wires

PF 1 54 326 005

Description	Code	
pilot drill 6 mm with dual retention wires	709 800 006	



Cup drill PE chipless Ø45, Ø60, Ø63, Ø80 and Ø84 mm

Model:

- For demanding drillings on PE
- Maximum PE pipe d630 SDR11
- Suitable for under pressure drilling
- Push rod for coupon release out of the cup drill

Description	Code
PE cup drill chipless 45 mm x 60 mm	709 810 410
PE cup drill chipless 60 mm x 60 mm	709 810 412
PE cup drill chipless 63 mm x 60 mm	709 810 414
PE cup drill chipless 80 mm x 60 mm	709 810 415
PE cup drill chipless 84 mm x 60 mm	709 810 416
PE cup drill chipless 45 mm x 120 mm	709 810 420
PE cup drill chipless 60 mm x 120 mm	709 810 422
PE cup drill chipless 63 mm x 120 mm	709 810 424
PE cup drill chipless 80 mm x 120 mm	709 810 425
PE cup drill chipless 84 mm x 120 mm	709 810 426
PE cup drill push rod	709 700 024

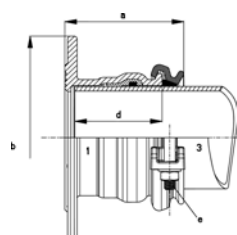
PF 1 54 326 005



Plast/Joint® 8057 Flange Adaptor, restraint

Model:

- For connection to PE Spigot ends
- Ductile Cast iron GGG45 body and clamping ring(s), acc. to EN-GJS-450-10
- RESICOAT® epoxy powder coating, according to GSK standards and EN 14901
- Stainless steel A2 quality (AISI 304) bolts, nuts and washers (optional: A4 quality)
- Gasket: NBR
- Suitable for water and gas
- Flange drilling according to EN 1092-2
- Gripping in brass



d [mm]	DN [mm]	Drilling pattern	NBR / A2 Code	a [mm]	b [mm]	PN Water [bar]	PN Gas [bar]
63	50	PN16	709 257 210	102	165	16.0	8.0
75	65	PN16	709 257 212	102	185	16.0	8.0
90	80	PN16	709 257 214	107	200	16.0	8.0
110	100	PN16	709 257 216	122	220	16.0	8.0
125	100	PN16	709 257 218	126	220	16.0	8.0
160	150	PN16	709 257 222	144	285	16.0	8.0
200	200	PN16	709 257 226	157	340	16.0	8.0

PF 1 54 932 001



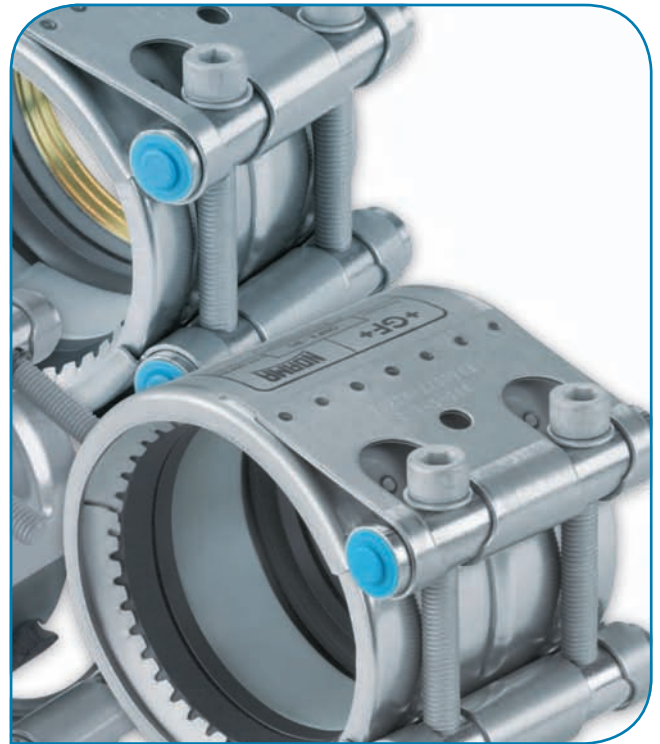
Heavy duty transport / storage box for W410 drilling device

Model:

- Including: hex key 3 mm, hex key 6 mm and screwdriver
- Outside dimension transport / warehouse box: 120 x 40 x 40 cm

Code	Description
709 706 414	Heavy duty transport / storage box for W410 drilling device

PF 1 54 326 005



FGR

→ Your benefits

- Quick and easy installation thanks to lightweight and compact design
- Durable corrosion free fittings thanks to stainless steel body
- Reusable
- Applicable for under- and above-ground use

Contents FGR Stainless Steel Couplings

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FGR - Stainless Steel Couplings

Flex E d26 up to d100

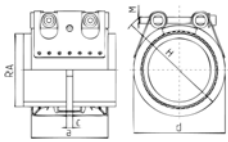
Model:

- All metal parts W2 quality: housing AISI 304, bolts AISI 4140H, lock bars AISI 12 L 14, protection ring AISI 301, steel band insert AISI 316 Ti
- All metal parts W5 quality: housing AISI 316 Ti, bolts AISI 316 L, lock bars AISI 316, protection ring AISI 316 Ti, steel band insert AISI 316 Ti
- Gaskets NBR or EPDM
- Temperature range: with EPDM gasket Ø <170 mm -30°C – 125°C and Ø >180 mm -20°C – 80°C; with NBR gasket -20°C – 80°C
- EPDM for: water, Aqueous acids, alkaline solutions, alcohols, compressed air
- NBR for: water, sea water, mineral oils, lubricants, fuels, gas, compressed air
- Nominal pressure (PN) is meant for ship building purposes; Operating pressure P max is meant for industrial purposes
- Other dimensions available on request

d [mm]	Range [mm]	PN [bar]	Operating pressure P max. [bar]	NBR W2 Code	EPDM W2 Code	NBR W5 Code
26.9	26.4 - 27.5	16.0	48.0	779 101 001	779 104 001	779 109 001
28.0	27.5 - 28.5	16.0	48.0	779 101 002	779 104 002	779 109 002
30.0	29.5 - 30.6	16.0	48.0	779 101 003	779 104 003	779 109 003
33.7	33.0 - 34.3	16.0	48.0	779 101 005	779 104 005	779 109 005
35.0	34.5 - 35.6	16.0	48.0	779 101 006	779 104 006	779 109 006
38.0	37.5 - 38.6	16.0	48.0	779 101 007	779 104 007	779 109 007
42.4	41.7 - 43.0	16.0	48.0	779 101 009	779 104 009	779 109 009
44.5	44.0 - 45.1	16.0	40.0	779 101 010	779 104 010	779 109 010
48.3	47.6 - 50.5	16.0	40.0	779 101 011	779 104 011	779 109 011
54.0	53.3 - 54.6	16.0	40.0	779 101 014	779 104 014	779 109 014
57.0	56.3 - 57.7	16.0	40.0	779 101 015	779 104 015	779 109 015
60.3	59.5 - 61.0	16.0	40.0	779 101 016	779 104 016	779 109 016
63.0	62.2 - 63.9	16.0	36.0	779 101 017	779 104 017	779 109 017
70.0	69.0 - 71.0	16.0	36.0	779 101 018	779 104 018	779 109 018
73.0	72.1 - 73.8	16.0	36.0	779 101 019	779 104 019	779 109 019
76.1	75.2 - 77.0	16.0	36.0	779 101 020	779 104 020	779 109 020
78.0	77.1 - 78.9	16.0	32.0	779 101 021	779 104 021	779 109 021
80.0	79.0 - 80.8	16.0	32.0	779 101 022	779 104 022	779 109 022
84.0	83.0 - 85.0	16.0	32.0	779 101 024	779 104 024	779 109 024
88.9	87.0 - 89.9	16.0	32.0	779 101 025	779 104 025	779 109 025
98.0	96.9 - 99.0	16.0	30.0	779 101 028	779 104 028	779 109 028

d [mm]	Range [mm]	PN [bar]	Operating pressure P max. [bar]	EPDM W5 Code	kg
26.9	26.4 - 27.5	16.0	48.0	779 112 001	0.320
28.0	27.5 - 28.5	16.0	48.0	779 112 002	0.320
30.0	29.5 - 30.6	16.0	48.0	779 112 003	0.320
33.7	33.0 - 34.3	16.0	48.0	779 112 005	0.320
35.0	34.5 - 35.6	16.0	48.0	779 112 006	0.430
38.0	37.5 - 38.6	16.0	48.0	779 112 007	0.430
42.4	41.7 - 43.0	16.0	48.0	779 112 009	0.440
44.5	44.0 - 45.1	16.0	40.0	779 112 010	0.460
48.3	47.6 - 50.5	16.0	40.0	779 112 011	0.470
54.0	53.3 - 54.6	16.0	40.0	779 112 014	0.610
57.0	56.3 - 57.7	16.0	40.0	779 112 015	0.620
60.3	59.5 - 61.0	16.0	40.0	779 112 016	0.630
63.0	62.2 - 63.9	16.0	36.0	779 112 017	1.000
70.0	69.0 - 71.0	16.0	36.0	779 112 018	1.000
73.0	72.1 - 73.8	16.0	36.0	779 112 019	1.250
76.1	75.2 - 77.0	16.0	36.0	779 112 020	1.250
78.0	77.1 - 78.9	16.0	32.0	779 112 021	1.000
80.0	79.0 - 80.8	16.0	32.0	779 112 022	1.000

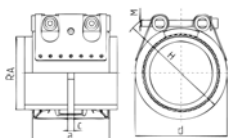
table continued next page



d [mm]	Range [mm]	PN [bar]	Operating pressure P max. [bar]	EPDM W5 Code	kg	
84.0	83.0 - 85.0	16.0	32.0	779 112 024	1.270	
88.9	87.0 - 89.9	16.0	32.0	779 112 025	1.290	
98.0	96.9 - 99.0	16.0	30.0	779 112 028	1.450	

d [mm]	a [mm]	C max. [mm]	d [mm]	H [mm]	
26.9	47	3	50	70	
28.0	47	3	50	70	
30.0	47	3	50	70	
33.7	47	3	55	75	
35.0	63	8	55	75	
38.0	63	8	60	80	
42.4	63	8	65	85	
44.5	63	8	65	85	
48.3	63	8	70	90	
54.0	78	17	75	95	
57.0	78	17	80	100	
60.3	78	17	85	105	
63.0	78	17	85	105	
70.0	98	25	90	110	
73.0	98	25	95	115	
76.1	98	25	100	120	
78.0	98	25	100	120	
80.0	98	25	100	120	
84.0	98	25	105	125	
88.9	98	25	110	130	
98.0	98	25	120	140	

PF 1 54 500 125



Flex E d101 up to d250

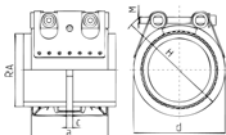
Model:

- All metal parts W2 quality: housing AISI 304, bolts AISI 4140H, lock bars AISI 12 L 14, protection ring AISI 301, steel band insert AISI 316 Ti
- All metal parts W5 quality: housing AISI 316 Ti, bolts AISI 316 L, lock bars AISI 316, protection ring AISI 316 Ti, steel band insert AISI 316 Ti
- Gaskets NBR or EPDM
- Temperature range: with EPDM gasket Ø <170 mm -30°C – 125°C and Ø >180 mm -20°C – 80°C; with NBR gasket -20°C – 80°C
- EPDM for: water, Aqueous acids, alkaline solutions, alcohols, compressed air
- NBR for: water, sea water, mineral oils, lubricants, fuels, gas, compressed air
- Nominal pressure (PN) is meant for ship building purposes; Operating pressure P max is meant for industrial purposes
- Other dimensions available on request

d [mm]	Range [mm]	PN [bar]	Operating pressure P max. [bar]	NBR W2 Code	EPDM W2 Code	NBR W5 Code	
101.6	100.4 - 102.8	16.0	30.0	779 101 029	779 104 029	779 109 029	
104.0	102.8 - 106.1	16.0	30.0	779 101 030	779 104 030	779 109 030	
108.0	106.8 - 109.2	16.0	30.0	779 101 032	779 104 032	779 109 032	
110.0	108.8 - 111.4	16.0	30.0	779 101 328	779 104 328	779 109 328	
114.3	113.0 - 115.5	16.0	30.0	779 101 033	779 104 033	779 109 033	
125.0	123.6 - 126.5	16.0	30.0	779 101 037	779 104 037	779 109 037	
129.0	127.6 - 131.1	16.0	30.0	779 101 038	779 104 038	779 109 038	
133.0	131.5 - 134.4	16.0	30.0	779 101 039	779 104 039	779 109 039	
139.7	138.1 - 141.6	16.0	30.0	779 101 040	779 104 040	779 109 040	
141.3	139.6 - 142.8	16.0	30.0	779 101 041	779 104 041	779 109 041	
154.0	152.3 - 156.1	16.0	25.0	779 101 045	779 104 045	779 109 045	
159.0	157.3 - 160.7	16.0	25.0	779 101 046	779 104 046	779 109 046	
168.3	166.5 - 170.1	16.0	25.0	779 101 050	779 104 050	779 109 050	
180.0	178.0 - 182.0	13.7	21.9	779 101 054	779 104 054	779 109 054	
206.0	202.0 - 208.0	13.7	21.9	779 101 060	779 104 060	779 109 060	
219.1	216.0 - 221.0	13.7	21.9	779 101 063	779 104 063	779 109 063	
225.0	222.0 - 227.0	12.0	19.2	779 101 065	779 104 065	779 109 065	
229.9	228.0 - 232.0	12.0	19.2	779 101 066	779 104 066	779 109 066	
244.5	242.0 - 247.0	12.0	19.2	779 101 070	779 104 070	779 109 070	

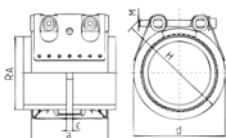
d [mm]	Range [mm]	PN [bar]	Operating pressure P max. [bar]	EPDM W5 Code	kg	
101.6	100.4 - 102.8	16.0	30.0	779 112 029	1.450	
104.0	102.8 - 106.1	16.0	30.0	779 112 030	1.460	
108.0	106.8 - 109.2	16.0	30.0	779 112 032	1.460	
110.0	108.8 - 111.4	16.0	30.0	779 112 328	1.500	
114.3	113.0 - 115.5	16.0	30.0	779 112 033	1.500	
125.0	123.6 - 126.5	16.0	30.0	779 112 037	2.220	
129.0	127.6 - 131.1	16.0	30.0	779 112 038	2.220	
133.0	131.5 - 134.4	16.0	30.0	779 112 039	2.240	
139.7	138.1 - 141.6	16.0	30.0	779 112 040	2.260	
141.3	139.6 - 142.8	16.0	30.0	779 112 041	2.260	
154.0	152.3 - 156.1	16.0	25.0	779 112 045	2.440	
159.0	157.3 - 160.7	16.0	25.0	779 112 046	2.530	
168.3	166.5 - 170.1	16.0	25.0	779 112 050	2.580	
180.0	178.0 - 182.0	13.7	21.9	779 112 054	3.300	
206.0	202.0 - 208.0	13.7	21.9	779 112 060	3.800	
219.1	216.0 - 221.0	13.7	21.9	779 112 063	3.900	
225.0	222.0 - 227.0	12.0	19.2	779 112 065	3.900	
229.9	228.0 - 232.0	12.0	19.2	779 112 066	1.000	
244.5	242.0 - 247.0	12.0	19.2	779 112 070	4.500	

table continued next page



d [mm]	a [mm]	C max. [mm]	d [mm]	H [mm]
101.6	98	25	125	145
104.0	98	25	125	145
108.0	98	25	130	150
110.0	98	25	130	150
114.3	98	25	135	155
125.0	113	35	145	165
129.0	113	35	155	185
133.0	113	35	160	190
139.7	113	35	165	195
141.3	113	35	170	200
154.0	113	35	180	210
159.0	113	35	185	215
168.3	113	35	195	225
180.0	139	35	210	240
206.0	139	35	240	270
219.1	139	35	250	280
225.0	139	35	255	285
229.9	139	35	260	290
244.5	139	35	275	305

PF 1 54 500 122



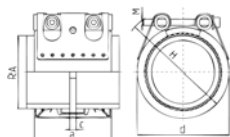
Flex E d251 up to d1016

Model:

- All metal parts W2 quality: housing AISI 304, bolts AISI 4140H, lock bars AISI 12 L 14, protection ring AISI 301, steel band insert AISI 316 Ti
- All metal parts W5 quality: housing AISI 316 Ti, bolts AISI 316 L, lock bars AISI 316, protection ring AISI 316 Ti, steel band insert AISI 316 Ti
- Gaskets NBR or EPDM
- Temperature range: with EPDM gasket Ø <170 mm -30°C – 125°C and Ø >180 mm -20°C – 80°C; with NBR gasket -20°C – 80°C
- EPDM for: water, Aqueous acids, alkaline solutions, alcohols, compressed air
- NBR for: water, sea water, mineral oils, lubricants, fuels, gas, compressed air
- Nominal pressure (PN) is meant for ship building purposes; Operating pressure P max is meant for industrial purposes
- Other dimensions available on request

d [mm]	Range [mm]	PN [bar]	Operating pressure P max. [bar]	NBR W2 Code	EPDM W2 Code	NBR W5 Code
254.0	250.0 - 256.0	12.0	19.2	779 101 073	779 104 073	779 109 073
267.0	264.0 - 269.0	12.0	19.2	779 101 076	779 104 076	779 109 076
273.0	270.0 - 275.0	12.0	19.2	779 101 078	779 104 078	779 109 078
306.0	302.0 - 308.0	9.0	14.4	779 101 085	779 104 085	779 109 085
323.9	320.0 - 327.0	9.0	14.4	779 101 091	779 104 091	779 109 091
326.0	322.0 - 329.0	9.0	14.4	779 101 092	779 104 092	779 109 092
355.6	352.0 - 359.0	9.0	14.4	779 101 102	779 104 102	779 109 102
406.4	402.0 - 410.0	7.5	12.0	779 101 116	779 104 116	779 109 116
429.0	426.0 - 431.0	5.5	8.8	779 101 124	779 104 124	779 109 124
457.2	454.0 - 459.0	5.5	8.8	779 101 131	779 104 131	779 109 131
508.0	505.0 - 510.0	5.5	8.8	779 101 145	779 104 145	779 109 145
531.0	528.0 - 534.0	5.0	8.0	779 101 152	779 104 152	779 109 152
558.8	556.0 - 562.0	5.0	8.0	779 101 159	779 104 159	779 109 159
609.6	606.0 - 613.0	3.5	5.6	779 101 172	779 104 172	779 109 172
634.0	631.0 - 637.0	3.5	5.6	779 101 179	779 104 179	779 109 179
711.2	707.0 - 715.0	3.5	5.6	779 101 197	779 104 197	779 109 197
762.0	758.0 - 766.0	3.0	4.8	779 101 210	779 104 210	779 109 210
813.0	808.0 - 817.0	3.0	4.8	779 101 223	779 104 223	779 109 223
914.4	909.0 - 919.0	2.0	3.2	779 101 245	779 104 245	779 109 245
1016.0	1013.0 - 1019.0	2.0	3.2	779 101 271	779 104 271	779 109 271

table continued next page



d [mm]	Range [mm]	PN [bar]	Operating pressure P max. [bar]	EPDM W5 Code	kg	
254.0	250.0 - 256.0	12.0	19.2	779 112 073	4.300	
267.0	264.0 - 269.0	12.0	19.2	779 112 076	4.500	
273.0	270.0 - 275.0	12.0	19.2	779 112 078	4.600	
306.0	302.0 - 308.0	9.0	14.4	779 112 085	4.800	
323.9	320.0 - 327.0	9.0	14.4	779 112 091	5.100	
326.0	322.0 - 329.0	9.0	14.4	779 112 092	1.000	
355.6	352.0 - 359.0	9.0	14.4	779 112 102	5.200	
406.4	402.0 - 410.0	7.5	12.0	779 112 116	5.800	
429.0	426.0 - 431.0	5.5	8.8	779 112 124	6.000	
457.2	454.0 - 459.0	5.5	8.8	779 112 131	6.500	
508.0	505.0 - 510.0	5.5	8.8	779 112 145	7.200	
531.0	528.0 - 534.0	5.0	8.0	779 112 152	7.900	
558.8	556.0 - 562.0	5.0	8.0	779 112 159	7.200	
609.6	606.0 - 613.0	3.5	5.6	779 112 172	7.800	
634.0	631.0 - 637.0	3.5	5.6	779 112 179	8.000	
711.2	707.0 - 715.0	3.5	5.6	779 112 197	8.900	
762.0	758.0 - 766.0	3.0	4.8	779 112 210	1.000	
813.0	808.0 - 817.0	3.0	4.8	779 112 223	9.900	
914.4	909.0 - 919.0	2.0	3.2	779 112 245	1.000	
1016.0	1013.0 - 1019.0	2.0	3.2	779 112 271	1.000	

d [mm]	a [mm]	C max. [mm]	d [mm]	H [mm]	
254.0	139	35	285	315	
267.0	139	35	300	330	
273.0	139	35	305	335	
306.0	139	35	340	370	
323.9	139	35	355	385	
326.0	139	35	355	390	
355.6	139	35	390	420	
406.4	139	35	440	470	
429.0	139	35	460	490	
457.2	139	35	490	520	
508.0	139	35	540	570	
531.0	139	35	565	595	
558.8	139	35	590	620	
609.6	139	35	640	670	
634.0	139	35	665	695	
711.2	139	35	745	775	
762.0	139	35	795	825	
813.0	139	35	845	935	
914.4	139	35	945	1035	
1016.0	139	35	1050	1140	

PF 1 54 500 122



Flex d180 up to d406

Model:

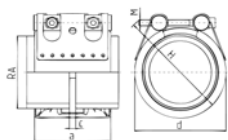
- All metal parts W2 quality: housing AISI 304, bolts AISI 4140H, lock bars AISI 12 L 14, protection ring AISI 301, steel band insert AISI 316 Ti
- All metal parts W5 quality: housing AISI 316 Ti, bolts AISI 316 L, lock bars AISI 316, protection ring AISI 316 Ti, steel band insert AISI 316 Ti
- Gaskets NBR or EPDM
- Temperature range: with EPDM gasket Ø <170 mm -30°C – 125°C and Ø >180 mm -20°C – 80°C; with NBR gasket -20°C – 80°C
- EPDM for: water, Aqueous acids, alkaline solutions, alcohols, compressed air
- NBR for: water, sea water, mineral oils, lubricants, fuels, gas, compressed air
- Nominal pressure (PN) is meant for ship building purposes; Operating pressure P max is meant for industrial purposes
- Other dimensions available on request

d [mm]	Range [mm]	PN [bar]	Operating pressure P max. [bar]	NBR W2 Code	EPDM W2 Code	NBR W5 Code
180.0	178.0 - 182.0	21.5	34.4	779 054 054	779 056 054	779 062 054
206.0	204.0 - 208.0	21.5	34.4	779 054 060	779 056 060	779 062 060
219.1	216.0 - 221.0	21.5	34.4	779 054 063	779 056 063	779 062 063
225.0	222.0 - 227.0	17.0	27.2	779 054 065	779 056 065	779 062 065
229.9	228.0 - 232.0	17.0	27.2	779 054 066	779 056 066	779 062 066
244.5	242.0 - 247.0	17.0	27.2	779 054 070	779 056 070	779 062 070
254.0	250.0 - 256.0	17.0	27.2	779 054 073	779 056 073	779 062 073
267.0	264.0 - 269.0	17.0	27.2	779 054 076	779 056 076	779 062 076
273.0	270.0 - 275.0	17.0	27.0	779 054 078	779 056 078	779 062 078
306.0	302.0 - 308.0	15.0	24.0	779 054 085	779 056 085	779 062 085
323.9	320.0 - 327.0	15.0	24.0	779 054 091	779 056 091	779 062 091
326.0	322.0 - 329.0	13.2	21.1	779 054 092	779 056 092	779 062 092
355.6	352.0 - 359.0	13.2	21.1	779 054 102	779 056 102	779 062 102
406.4	402.0 - 410.0	12.3	19.7	779 054 116	779 056 116	779 062 116

d [mm]	Range [mm]	PN [bar]	Operating pressure P max. [bar]	EPDM W5 Code	kg
180.0	178.0 - 182.0	21.5	34.4	779 064 054	4.000
206.0	204.0 - 208.0	21.5	34.4	779 064 060	5.100
219.1	216.0 - 221.0	21.5	34.4	779 064 063	5.100
225.0	222.0 - 227.0	17.0	27.2	779 064 065	1.000
229.9	228.0 - 232.0	17.0	27.2	779 064 066	1.000
244.5	242.0 - 247.0	17.0	27.2	779 064 070	6.000
254.0	250.0 - 256.0	17.0	27.2	779 064 073	1.000
267.0	264.0 - 269.0	17.0	27.2	779 064 076	6.000
273.0	270.0 - 275.0	17.0	27.0	779 064 078	6.000
306.0	302.0 - 308.0	15.0	24.0	779 064 085	6.500
323.9	320.0 - 327.0	15.0	24.0	779 064 091	6.500
326.0	322.0 - 329.0	13.2	21.1	779 064 092	1.000
355.6	352.0 - 359.0	13.2	21.1	779 064 102	7.000
406.4	402.0 - 410.0	12.3	19.7	779 064 116	7.700

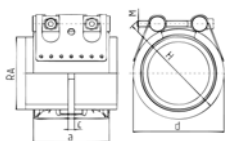
d [mm]	a [mm]	C max. [mm]	d [mm]	H [mm]
180.0	141	35	210	240
206.0	141	35	240	270
219.1	141	35	250	280
225.0	141	35	255	285
229.9	141	35	260	290
244.5	141	35	275	305
254.0	141	35	285	315
267.0	141	35	300	330
273.0	141	35	305	335
306.0	141	35	340	370

table continued next page



PF 1 54 500 112

d [mm]	a [mm]	C max. [mm]	d [mm]	H [mm]	
323.9	141	35	355	385	
326.0	141	35	360	390	
355.6	141	35	390	420	
406.4	141	35	440	470	



Flex d429 up to d1016

Model:

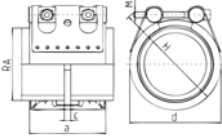
- All metal parts W2 quality: housing AISI 304, bolts AISI 4140H, lock bars AISI 12 L 14, protection ring AISI 301, steel band insert AISI 316 Ti
- All metal parts W5 quality: housing AISI 316 Ti, bolts AISI 316 L, lock bars AISI 316, protection ring AISI 316 Ti, steel band insert AISI 316 Ti
- Gaskets NBR or EPDM
- Temperature range: with EPDM gasket Ø <170 mm -30°C – 125°C and Ø >180 mm -20°C – 80°C; with NBR gasket -20°C – 80°C
- EPDM for: water, Aqueous acids, alkaline solutions, alcohols, compressed air
- NBR for: water, sea water, mineral oils, lubricants, fuels, gas, compressed air
- Nominal pressure (PN) is meant for ship building purposes; Operating pressure P max is meant for industrial purposes
- Other dimensions available on request

d [mm]	Range [mm]	PN [bar]	Operating pressure P max. [bar]	NBR W2 Code	EPDM W2 Code	NBR W5 Code	
429.0	426.0 - 431.0	7.5	12.0	779 054 124	779 056 124	779 062 124	
457.2	454.0 - 459.0	7.5	12.0	779 054 131	779 056 131	779 062 131	
508.0	505.0 - 510.0	7.5	12.0	779 054 145	779 056 145	779 062 145	
531.0	528.0 - 534.0	7.5	12.0	779 054 152	779 056 152	779 062 152	
558.8	556.0 - 562.0	7.5	12.0	779 054 159	779 056 159	779 062 159	
609.6	606.0 - 613.0	5.0	8.0	779 054 172	779 056 172	779 062 172	
634.0	631.0 - 637.0	5.0	8.0	779 054 179	779 056 179	779 062 179	
711.2	707.0 - 715.0	5.0	8.0	779 054 197	779 056 197	779 062 197	
762.0	758.0 - 766.0	4.5	7.2	779 054 210	779 056 210	779 062 210	
812.8	808.0 - 817.0	4.5	7.2	779 054 223	779 056 223	779 062 223	
914.4	909.0 - 919.0	3.3	5.3	779 054 245	779 056 245	779 062 245	
1016.0	1013.0 - 1019.0	3.3	5.3	779 054 271	779 056 271	779 062 271	

d [mm]	Range [mm]	PN [bar]	Operating pressure P max. [bar]	EPDM W5 Code	kg	
429.0	426.0 - 431.0	7.5	12.0	779 064 124	9.000	
457.2	454.0 - 459.0	7.5	12.0	779 064 131	9.000	
508.0	505.0 - 510.0	7.5	12.0	779 064 145	9.000	
531.0	528.0 - 534.0	7.5	12.0	779 064 152	10.200	
558.8	556.0 - 562.0	7.5	12.0	779 064 159	11.000	
609.6	606.0 - 613.0	5.0	8.0	779 064 172	1.000	
634.0	631.0 - 637.0	5.0	8.0	779 064 179	1.000	
711.2	707.0 - 715.0	5.0	8.0	779 064 197	1.000	
762.0	758.0 - 766.0	4.5	7.2	779 064 210	1.000	
812.8	808.0 - 817.0	4.5	7.2	779 064 223	1.000	
914.4	909.0 - 919.0	3.3	5.3	779 064 245	1.000	
1016.0	1013.0 - 1019.0	3.3	5.3	779 064 271	1.000	

d [mm]	a [mm]	C max. [mm]	d [mm]	H [mm]	
429.0	141	35	210	240	
457.2	141	35	240	270	
508.0	141	35	250	280	
531.0	141	35	255	285	
558.8	141	35	260	290	
609.6	141	35	275	305	
634.0	141	35	285	315	
711.2	141	35	300	330	
762.0	141	35	305	335	
812.8	141	35	340	370	
914.4	141	35	355	385	
1016.0	141	35	360	390	

PF 1 54 500 112



Flex U d326 up to d1016

Model:

- All metal parts W5 quality: housing AISI 316 Ti, bolts AISI 316 L, lock bars AISI 316, protection ring AISI 316 Ti, steel band insert AISI 316 Ti
- Gaskets NBR or EPDM
- Temperature range: with EPDM gasket Ø <170 mm -30°C – 125°C and Ø >180 mm -20°C – 80°C; with NBR gasket -20°C – 80°C
- EPDM for: water, Aqueous acids, alkaline solutions, alcohols, compressed air
- NBR for: water, sea water, mineral oils, lubricants, fuels, gas, compressed air
- Nominal pressure (PN) is meant for ship building purposes; Operating pressure P max is meant for industrial purposes
- Other dimensions available on request

d [mm]	Range [mm]	PN* [bar]	Operating pressure P max. [bar]	NBR W5 Code	EPDM W5 Code	kg	
326.0	320.0 - 329.0	16.5	21.5	779 074 092	779 076 092	1.000	
355.6	352.0 - 359.0	13.5	17.0	779 074 102	779 076 102	1.000	
406.4	402.0 - 410.0	13.5	17.0	779 074 116	779 076 116	1.000	
429.0	426.0 - 431.0	12.5	16.0	779 074 124	779 076 124	1.000	
457.2	454.0 - 459.0	12.0	15.0	779 074 131	779 076 131	1.000	
508.0	505.0 - 510.0	10.5	13.5	779 074 145	779 076 145	1.000	
531.0	499.0 - 534.0	10.0	13.0	779 074 152	779 076 152	1.000	
558.8	556.0 - 562.0	9.5	12.5	779 074 159	779 076 159	1.000	
609.6	606.0 - 613.0	9.0	11.5	779 074 172	779 076 172	1.000	
634.0	631.0 - 637.0	8.5	11.0	779 074 179	779 076 179	1.000	
711.2	707.0 - 715.0	7.5	9.5	779 074 197	779 076 197	1.000	
762.0	758.0 - 766.0	7.0	9.0	779 074 210	779 076 210	1.000	
813.0	808.0 - 817.0	6.5	8.5	779 074 223	779 076 223	1.000	
914.4	909.0 - 919.0	6.0	7.5	779 074 245	779 076 245	1.000	
1016.0	1013.0 - 1019.0	5.0	6.5	779 074 271	779 076 271	1.000	

d [mm]	a [mm]	C max. [mm]	d [mm]	H [mm]	
326.0	211	65	365	405	
355.6	211	65	395	435	
406.4	211	65	445	485	
429.0	211	65	465	505	
457.2	211	65	495	535	
508.0	211	65	545	585	
531.0	211	65	570	610	
558.8	211	65	595	635	
609.6	211	65	645	685	
634.0	211	65	670	710	
711.2	211	65	750	790	
762.0	211	65	800	840	
813.0	211	65	850	890	
914.4	211	65	950	990	
1016.0	211	65	1055	1095	

PF 1 54 500 145



Grip E d26 up to d100

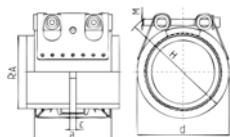
Model:

- All metal parts W2 quality: housing AISI 304, bolts AISI 4140H, lock bars AISI 12 L 14, anchoring ring for metal pipes AISI 301, steel band insert AISI 316 Ti
- All metal parts W5 quality: housing AISI 316 Ti, bolts AISI 316 L, lock bars AISI 316, anchoring ring for metal pipes AISI 301, steel band insert AISI 316 Ti
- Gaskets NBR or EPDM
- Temperature range: with EPDM gasket Ø <170 mm -30°C – 125°C and Ø >180 mm -20°C – 80°C; with NBR gasket -20°C – 80°C
- EPDM for: water, Aqueous acids, alkaline solutions, alcohols, compressed air
- NBR for: water, sea water, mineral oils, lubricants, fuels, gas, compressed air
- Nominal pressure (PN) is meant for ship building purposes; Operating pressure P max is meant for industrial purposes
- Other dimensions available on request

d [mm]	Range [mm]	PN [bar]	Operating pressure P max. [bar]	NBR W2 Code	EPDM W2 Code	NBR W5 Code	
26.9	26.4 - 27.5	16.0	64.0	779 413 001	779 416 001	779 421 001	
28.0	27.5 - 28.5	16.0	64.0	779 413 002	779 416 002	779 421 002	
30.0	29.5 - 30.6	16.0	64.0	779 413 003	779 416 003	779 421 003	
33.7	33.0 - 34.3	16.0	64.0	779 413 005	779 416 005	779 421 005	
35.0	34.5 - 35.6	16.0	40.0	779 413 006	779 416 006	779 421 006	
38.0	37.5 - 38.6	16.0	40.0	779 413 007	779 416 007	779 421 007	
42.4	41.7 - 43.0	16.0	40.0	779 413 009	779 416 009	779 421 009	
44.5	44.0 - 45.1	16.0	40.0	779 413 010	779 416 010	779 421 010	
48.3	47.6 - 50.5	16.0	40.0	779 413 011	779 416 011	779 421 011	
54.0	53.3 - 54.6	16.0	40.0	779 413 014	779 416 014	779 421 014	
57.0	56.3 - 57.7	16.0	40.0	779 413 015	779 416 015	779 421 015	
60.3	59.5 - 61.0	16.0	40.0	779 413 016	779 416 016	779 421 016	
63.0	62.2 - 63.9	16.0	36.0	779 413 017	779 416 017	779 421 017	
70.0	69.0 - 71.0	16.0	36.0	779 413 018	779 416 018	779 421 018	
73.0	72.1 - 73.8	16.0	36.0	779 413 019	779 416 019	779 421 019	
76.1	75.2 - 77.0	16.0	36.0	779 413 020	779 416 020	779 421 020	
78.0	77.1 - 78.9	16.0	36.0	779 413 021	779 416 021	779 421 021	
80.0	79.0 - 80.8	16.0	32.0	779 413 022	779 416 022	779 421 022	
84.0	83.0 - 85.0	16.0	32.0	779 413 024	779 416 024	779 421 024	
88.9	87.0 - 89.9	16.0	32.0	779 413 025	779 416 025	779 421 025	
98.0	96.9 - 99.0	16.0	30.0	779 413 028	779 416 028	779 421 028	

d [mm]	Range [mm]	PN [bar]	Operating pressure P max. [bar]	EPDM W5 Code	kg	
26.9	26.4 - 27.5	16.0	64.0	779 424 001	0.320	
28.0	27.5 - 28.5	16.0	64.0	779 424 002	0.160	
30.0	29.5 - 30.6	16.0	64.0	779 424 003	0.180	
33.7	33.0 - 34.3	16.0	64.0	779 424 005	0.320	
35.0	34.5 - 35.6	16.0	40.0	779 424 006	0.430	
38.0	37.5 - 38.6	16.0	40.0	779 424 007	0.430	
42.4	41.7 - 43.0	16.0	40.0	779 424 009	0.440	
44.5	44.0 - 45.1	16.0	40.0	779 424 010	0.460	
48.3	47.6 - 50.5	16.0	40.0	779 424 011	0.470	
54.0	53.3 - 54.6	16.0	40.0	779 424 014	0.610	
57.0	56.3 - 57.7	16.0	40.0	779 424 015	0.620	
60.3	59.5 - 61.0	16.0	40.0	779 424 016	0.630	
63.0	62.2 - 63.9	16.0	36.0	779 424 017	0.800	
70.0	69.0 - 71.0	16.0	36.0	779 424 018	1.000	
73.0	72.1 - 73.8	16.0	36.0	779 424 019	1.250	
76.1	75.2 - 77.0	16.0	36.0	779 424 020	1.250	
78.0	77.1 - 78.9	16.0	36.0	779 424 021	1.250	
80.0	79.0 - 80.8	16.0	32.0	779 424 022	1.250	
84.0	83.0 - 85.0	16.0	32.0	779 424 024	1.270	
88.9	87.0 - 89.9	16.0	32.0	779 424 025	1.290	
98.0	96.9 - 99.0	16.0	30.0	779 424 028	1.450	

table continued next page



d [mm]	a [mm]	C max. [mm]	d [mm]	H [mm]	
26.9	67	3	50	70	
28.0	67	3	50	70	
30.0	67	3	50	70	
33.7	67	3	55	75	
35.0	63	8	55	75	
38.0	63	8	60	80	
42.4	63	8	65	85	
44.5	63	8	65	85	
48.3	63	8	70	90	
54.0	78	17	75	95	
57.0	78	17	80	100	
60.3	78	17	85	105	
63.0	78	17	85	105	
70.0	98	25	90	110	
73.0	98	25	95	115	
76.1	98	25	100	120	
78.0	98	25	100	120	
80.0	98	25	100	120	
84.0	98	25	105	125	
88.9	98	25	110	130	
98.0	98	25	120	140	

PF 1 54 507 122



Grip E d101 up to d250

Model:

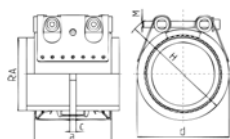
- All metal parts W2 quality: housing AISI 304, bolts AISI 4140H, lock bars AISI 12 L 14, anchoring ring for metal pipes AISI 301, steel band insert AISI 316 Ti
- All metal parts W5 quality: housing AISI 316 Ti, bolts AISI 316 L, lock bars AISI 316, anchoring ring for metal pipes AISI 301, steel band insert AISI 316 Ti
- Gaskets NBR or EPDM
- Temperature range: with EPDM gasket Ø <170 mm -30°C – 125°C and Ø >180 mm -20°C – 80°C; with NBR gasket -20°C – 80°C
- EPDM for: water, Aqueous acids, alkaline solutions, alcohols, compressed air
- NBR for: water, sea water, mineral oils, lubricants, fuels, gas, compressed air
- Nominal pressure (PN) is meant for ship building purposes; Operating pressure P max is meant for industrial purposes
- Other dimensions available on request

d [mm]	Range [mm]	PN [bar]	Operating pressure P max. [bar]	NBR W2 Code	EPDM W2 Code	NBR W5 Code
101.6	100.4 - 102.8	16.0	30.0	779 413 029	779 416 029	779 421 029
104.0	102.8 - 106.1	16.0	30.0	779 413 030	779 416 030	779 421 030
108.0	106.8 - 109.2	16.0	30.0	779 413 032	779 416 032	779 421 032
110.0	108.8 - 111.4	16.0	30.0	779 413 328	779 416 328	779 421 328
114.3	113.0 - 115.5	16.0	30.0	779 413 033	779 416 033	779 421 033
129.0	127.6 - 131.1	16.0	30.0	779 413 038	779 416 038	779 421 038
133.0	131.5 - 134.4	16.0	30.0	779 413 039	779 416 039	779 421 039
139.7	138.1 - 141.6	16.0	30.0	779 413 040	779 416 040	779 421 040
141.3	139.6 - 142.8	16.0	30.0	779 413 041	779 416 041	779 421 041
154.0	152.3 - 156.1	16.0	20.0	779 413 045	779 416 045	779 421 045
159.0	157.3 - 160.7	16.0	20.0	779 413 046	779 416 046	779 421 046
168.3	166.5 - 170.1	16.0	20.0	779 413 050	779 416 050	779 421 050
206.0	202.0 - 208.0	10.0	16.0	779 413 060	779 416 060	779 421 060
219.1	216.0 - 221.0	10.0	16.0	779 413 063	779 416 063	779 421 063
225.0	222.0 - 227.0	10.0	16.0	779 413 065	779 416 065	779 421 065
229.9	228.0 - 232.0	10.0	16.0	779 413 066	779 416 066	779 421 066
244.5	242.0 - 247.0	5.5	8.8	779 413 070	779 416 070	779 421 070

d [mm]	Range [mm]	PN [bar]	Operating pressure P max. [bar]	EPDM W5 Code	kg
101.6	100.4 - 102.8	16.0	30.0	779 424 029	1.450
104.0	102.8 - 106.1	16.0	30.0	779 424 030	1.450
108.0	106.8 - 109.2	16.0	30.0	779 424 032	1.460
110.0	108.8 - 111.4	16.0	30.0	779 424 328	1.300
114.3	113.0 - 115.5	16.0	30.0	779 424 033	1.500
129.0	127.6 - 131.1	16.0	30.0	779 424 038	2.220
133.0	131.5 - 134.4	16.0	30.0	779 424 039	2.240
139.7	138.1 - 141.6	16.0	30.0	779 424 040	2.260
141.3	139.6 - 142.8	16.0	30.0	779 424 041	2.260
154.0	152.3 - 156.1	16.0	20.0	779 424 045	2.440
159.0	157.3 - 160.7	16.0	20.0	779 424 046	2.530
168.3	166.5 - 170.1	16.0	20.0	779 424 050	2.580
206.0	202.0 - 208.0	10.0	16.0	779 424 060	4.600
219.1	216.0 - 221.0	10.0	16.0	779 424 063	5.100
225.0	222.0 - 227.0	10.0	16.0	779 424 065	1.000
229.9	228.0 - 232.0	10.0	16.0	779 424 066	1.000
244.5	242.0 - 247.0	5.5	8.8	779 424 070	4.300

d [mm]	a [mm]	C max. [mm]	d [mm]	H [mm]
101.6	98	25	125	145
104.0	98	25	125	145
108.0	98	25	130	150
110.0	98	25	130	150
114.3	98	25	135	155

table continued next page



d [mm]	a [mm]	C max. [mm]	d [mm]	H [mm]	
129.0	115	35	155	185	
133.0	115	35	160	190	
139.7	115	35	165	195	
141.3	115	35	170	200	
154.0	115	35	180	210	
159.0	115	35	185	215	
168.3	115	35	195	225	
206.0	141	35	240	270	
219.1	141	35	250	280	
225.0	140	35	255	285	
229.9	140	35	260	290	
244.5	140	35	275	305	

PF 1 54 507 122



Grip E d251 up to d613

Model:

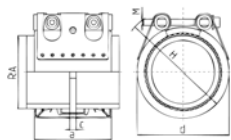
- All metal parts W2 quality: housing AISI 304, bolts AISI 4140H, lock bars AISI 12 L 14, anchoring ring for metal pipes AISI 301, steel band insert AISI 316 Ti
- All metal parts W5 quality: housing AISI 316 Ti, bolts AISI 316 L, lock bars AISI 316, anchoring ring for metal pipes AISI 301, steel band insert AISI 316 Ti
- Gaskets NBR or EPDM
- Temperature range: with EPDM gasket Ø <170 mm -30°C – 125°C and Ø >180 mm -20°C – 80°C; with NBR gasket -20°C – 80°C
- EPDM for: water, Aqueous acids, alkaline solutions, alcohols, compressed air
- NBR for: water, sea water, mineral oils, lubricants, fuels, gas, compressed air
- Nominal pressure (PN) is meant for ship building purposes; Operating pressure P max is meant for industrial purposes
- Other dimensions available on request

d [mm]	Range [mm]	PN [bar]	Operating pressure P max. [bar]	NBR W2 Code	EPDM W2 Code	NBR W5 Code
254.0	250.0 - 256.0	5.5	8.8	779 413 073	779 416 073	779 421 073
267.0	264.0 - 269.0	5.5	8.8	779 413 076	779 416 076	779 421 076
273.0	270.0 - 275.0	5.5	8.8	779 413 078	779 416 078	779 421 078
306.0	302.0 - 308.0	5.5	8.8	779 413 085	779 416 085	779 421 085
323.9	320.0 - 327.0	3.0	4.8	779 413 091	779 416 091	779 421 091
326.0	322.0 - 329.0	3.0	4.8	779 413 092	779 416 092	779 421 092
355.6	352.0 - 359.0	2.7	4.3	779 413 102	779 416 102	779 421 102
406.4	402.0 - 410.0	2.5	4.0	779 413 116	779 416 116	779 421 116
429.0	426.0 - 431.0	2.5	4.0	779 413 124	779 416 124	779 421 124
457.2	454.0 - 459.0	2.5	4.0	779 413 131	779 416 131	779 421 131
508.0	505.0 - 510.0	2.0	3.2	779 413 145	779 416 145	779 421 145
531.0	528.0 - 534.0	1.5	2.4	779 413 152	779 416 152	779 421 152
558.8	556.0 - 562.0	1.5	2.4	779 413 159	779 416 159	779 421 159
609.6	606.0 - 613.0	1.0	1.6	779 413 172	779 416 172	779 421 172

d [mm]	Range [mm]	PN [bar]	Operating pressure P max. [bar]	EPDM W5 Code	kg
254.0	250.0 - 256.0	5.5	8.8	779 424 073	5.500
267.0	264.0 - 269.0	5.5	8.8	779 424 076	5.600
273.0	270.0 - 275.0	5.5	8.8	779 424 078	5.800
306.0	302.0 - 308.0	5.5	8.8	779 424 085	16.900
323.9	320.0 - 327.0	3.0	4.8	779 424 091	6.100
326.0	322.0 - 329.0	3.0	4.8	779 424 092	1.000
355.6	352.0 - 359.0	2.7	4.3	779 424 102	6.600
406.4	402.0 - 410.0	2.5	4.0	779 424 116	7.100
429.0	426.0 - 431.0	2.5	4.0	779 424 124	1.000
457.2	454.0 - 459.0	2.5	4.0	779 424 131	8.200
508.0	505.0 - 510.0	2.0	3.2	779 424 145	8.800
531.0	528.0 - 534.0	1.5	2.4	779 424 152	1.000
558.8	556.0 - 562.0	1.5	2.4	779 424 159	1.000
609.6	606.0 - 613.0	1.0	1.6	779 424 172	10.900

d [mm]	a [mm]	C max. [mm]	d [mm]	H [mm]
254.0	140	35	285	315
267.0	140	35	300	330
273.0	140	35	305	335
306.0	140	35	340	370
323.9	140	35	355	385
326.0	140	35	360	390
355.6	140	35	390	420
406.4	140	35	440	470
429.0	140	35	460	490
457.2	140	35	490	520

table continued next page



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d [mm]	a [mm]	C max. [mm]	d [mm]	H [mm]	
508.0	140	35	540	570	
531.0	140	35	565	595	
558.8	140	35	590	620	
609.6	140	35	640	670	



Grip d26 up to d100

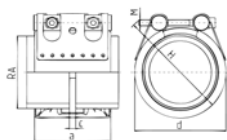
Model:

- All metal parts W2 quality: housing AISI 304, bolts AISI 4140H, lock bars AISI 12 L 14, anchoring ring for metal pipes AISI 301, steel band insert AISI 316 Ti
- All metal parts W5 quality: housing AISI 316 Ti, bolts AISI 316 L, lock bars AISI 316, anchoring ring for metal pipes AISI 301, steel band insert AISI 316 Ti
- Gaskets NBR or EPDM
- Temperature range: with EPDM gasket Ø <170 mm -30°C – 125°C and Ø >180 mm -20°C – 80°C; with NBR gasket -20°C – 80°C
- EPDM for: water, Aqueous acids, alkaline solutions, alcohols, compressed air
- NBR for: water, sea water, mineral oils, lubricants, fuels, gas, compressed air
- Nominal pressure (PN) is meant for ship building purposes; Operating pressure P max is meant for industrial purposes
- Other dimensions available on request

d [mm]	Range [mm]	PN [bar]	Operating pressure P max. [bar]	NBR W2 Code	EPDM W2 Code	NBR W5 Code
26.9	26.5 - 27.5	16.0	64.0	779 401 001	779 404 001	779 409 001
28.0	27.5 - 28.5	16.0	64.0	779 401 002	779 404 002	779 409 002
30.0	29.5 - 30.6	16.0	64.0	779 401 003	779 404 003	779 409 003
33.7	33.0 - 34.3	16.0	64.0	779 401 005	779 404 005	779 409 005
35.0	34.5 - 35.6	16.0	40.0	779 401 006	779 404 006	779 409 006
38.0	37.5 - 38.6	16.0	40.0	779 401 007	779 404 007	779 409 007
42.4	41.7 - 43.0	16.0	40.0	779 401 009	779 404 009	779 409 009
44.5	44.0 - 45.1	16.0	40.0	779 401 010	779 404 010	779 409 010
48.3	47.6 - 50.5	16.0	40.0	779 401 011	779 404 011	779 409 011
54.0	53.3 - 54.6	16.0	40.0	779 401 014	779 404 014	779 409 014
57.0	56.3 - 57.7	16.0	40.0	779 401 015	779 404 015	779 409 015
60.3	59.5 - 61.0	16.0	40.0	779 401 016	779 404 016	779 409 016
63.0	62.2 - 63.9	16.0	36.0	779 401 017	779 404 017	779 409 017
70.0	69.0 - 71.0	16.0	36.0	779 401 018	779 404 018	779 409 018
73.0	72.1 - 73.8	16.0	36.0	779 401 019	779 404 019	779 409 019
76.1	75.2 - 77.0	16.0	36.0	779 401 020	779 404 020	779 409 020
78.0	77.1 - 78.9	16.0	36.0	779 401 021	779 404 021	779 409 021
80.0	79.0 - 80.8	16.0	32.0	779 401 022	779 404 022	779 409 022
84.0	83.0 - 85.0	16.0	32.0	779 401 024	779 404 024	779 409 024
88.9	87.0 - 89.9	16.0	32.0	779 401 025	779 404 025	779 409 025
98.0	96.9 - 99.0	16.0	30.0	779 401 028	779 404 028	779 409 028

d [mm]	Range [mm]	PN [bar]	Operating pressure P max. [bar]	EPDM W5 Code	kg
26.9	26.5 - 27.5	16.0	64.0	779 412 001	0.400
28.0	27.5 - 28.5	16.0	64.0	779 412 002	0.400
30.0	29.5 - 30.6	16.0	64.0	779 412 003	0.400
33.7	33.0 - 34.3	16.0	64.0	779 412 005	0.400
35.0	34.5 - 35.6	16.0	40.0	779 412 006	0.540
38.0	37.5 - 38.6	16.0	40.0	779 412 007	0.540
42.4	41.7 - 43.0	16.0	40.0	779 412 009	0.550
44.5	44.0 - 45.1	16.0	40.0	779 412 010	0.560
48.3	47.6 - 50.5	16.0	40.0	779 412 011	0.580
54.0	53.3 - 54.6	16.0	40.0	779 412 014	0.750
57.0	56.3 - 57.7	16.0	40.0	779 412 015	0.760
60.3	59.5 - 61.0	16.0	40.0	779 412 016	0.770
63.0	62.2 - 63.9	16.0	36.0	779 412 017	1.000
70.0	69.0 - 71.0	16.0	36.0	779 412 018	1.000
73.0	72.1 - 73.8	16.0	36.0	779 412 019	1.400
76.1	75.2 - 77.0	16.0	36.0	779 412 020	1.400
78.0	77.1 - 78.9	16.0	36.0	779 412 021	1.400
80.0	79.0 - 80.8	16.0	32.0	779 412 022	1.000
84.0	83.0 - 85.0	16.0	32.0	779 412 024	1.460
88.9	87.0 - 89.9	16.0	32.0	779 412 025	1.480
98.0	96.9 - 99.0	16.0	30.0	779 412 028	1.600

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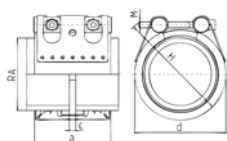
d [mm]	a [mm]	C max. [mm]	d [mm]	H [mm]
26.9	67	3	50	70
28.0	67	3	50	70
30.0	67	3	50	70
33.7	67	3	55	75
35.0	63	8	55	75
38.0	63	8	60	80
42.4	63	8	65	85
44.5	63	8	65	85
48.3	63	8	70	90
54.0	78	17	75	95
57.0	78	17	80	100
60.3	78	17	85	105
63.0				
70.0				
73.0	98	25	95	115
76.1	98	25	100	120
78.0	98	25	100	120
80.0				
84.0	98	25	105	125
88.9	98	25	110	130
98.0	98	25	120	140

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Grip d101 up to d250

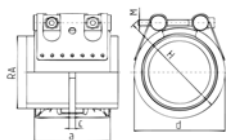
Model:

- All metal parts W2 quality: housing AISI 304, bolts AISI 4140H, lock bars AISI 12 L 14, anchoring ring for metal pipes AISI 301, steel band insert AISI 316 Ti
- All metal parts W5 quality: housing AISI 316 Ti, bolts AISI 316 L, lock bars AISI 316, anchoring ring for metal pipes AISI 301, steel band insert AISI 316 Ti
- Gaskets NBR or EPDM
- Temperature range: with EPDM gasket Ø <170 mm -30°C – 125°C and Ø >180 mm -20°C – 80°C; with NBR gasket -20°C – 80°C
- EPDM for: water, Aqueous acids, alkaline solutions, alcohols, compressed air
- NBR for: water, sea water, mineral oils, lubricants, fuels, gas, compressed air
- Nominal pressure (PN) is meant for ship building purposes; Operating pressure P max is meant for industrial purposes
- Other dimensions available on request



d [mm]	Range [mm]	PN [bar]	Operating pressure P max. [bar]	NBR W2 Code	EPDM W2 Code	NBR W5 Code
101.6	100.4 - 102.8	16.0	30.0	779 401 029	779 404 029	779 409 029
104.0	102.8 - 106.1	16.0	30.0	779 401 030	779 404 030	779 409 030
108.0	106.8 - 109.2	13.0	30.0	779 401 032	779 404 032	779 409 032
110.0	108.8 - 111.4	16.0	30.0	779 401 328	779 404 328	779 409 328
114.3	113.0 - 115.5	16.0	30.0	779 401 033	779 404 033	779 409 033
129.0	127.6 - 131.1	16.0	30.0	779 401 038	779 404 038	779 409 038
133.0	131.5 - 134.4	16.0	30.0	779 401 039	779 404 039	779 409 039
139.7	138.1 - 141.6	16.0	30.0	779 401 040	779 404 040	779 409 040
141.3	139.6 - 142.8	16.0	30.0	779 401 041	779 404 041	779 409 041
154.0	152.3 - 156.1	16.0	20.0	779 401 045	779 404 045	779 409 045
159.0	157.3 - 160.7	16.0	20.0	779 401 046	779 404 046	779 409 046
168.3	166.5 - 170.1	16.0	20.0	779 401 050	779 404 050	779 409 050
206.0	202.0 - 208.0	16.0	22.0	779 401 060	779 404 060	779 409 060
219.1	216.0 - 221.0	16.0	20.0	779 401 063	779 404 063	779 409 063
225.0	222.0 - 228.0	13.0	21.0	779 401 065	779 404 065	779 409 065
229.9	227.0 - 232.0	11.5	18.0	779 401 066	779 404 066	779 409 066
244.5	242.0 - 247.0	11.5	18.0	779 401 070	779 404 070	779 409 070

table continued next page



d [mm]	Range [mm]	PN [bar]	Operating pressure P max. [bar]	EPDM W5 Code	kg	
101.6	100.4 - 102.8	16.0	30.0	779 412 029	1.600	
104.0	102.8 - 106.1	16.0	30.0	779 412 030	1.630	
108.0	106.8 - 109.2	13.0	30.0	779 412 032	1.650	
110.0	108.8 - 111.4	16.0	30.0	779 412 328	1.000	
114.3	113.0 - 115.5	16.0	30.0	779 412 033	1.700	
129.0	127.6 - 131.1	16.0	30.0	779 412 038	2.410	
133.0	131.5 - 134.4	16.0	30.0	779 412 039	2.440	
139.7	138.1 - 141.6	16.0	30.0	779 412 040	2.450	
141.3	139.6 - 142.8	16.0	30.0	779 412 041	2.450	
154.0	152.3 - 156.1	16.0	20.0	779 412 045	2.640	
159.0	157.3 - 160.7	16.0	20.0	779 412 046	2.690	
168.3	166.5 - 170.1	16.0	20.0	779 412 050	2.750	
206.0	202.0 - 208.0	16.0	22.0	779 412 060	6.500	
219.1	216.0 - 221.0	16.0	20.0	779 412 063	6.500	
225.0	222.0 - 228.0	13.0	21.0	779 412 065	1.000	
229.9	227.0 - 232.0	11.5	18.0	779 412 066	1.000	
244.5	242.0 - 247.0	11.5	18.0	779 412 070	1.000	

d [mm]	a [mm]	C max. [mm]	d [mm]	H [mm]	
101.6	98	25	125	145	
104.0	98	25	125	145	
108.0	98	25	130	150	
110.0	98	25	130	150	
114.3	98	25	135	155	
129.0	115	35	155	185	
133.0	115	35	160	190	
139.7	115	35	165	195	
141.3	115	35	170	200	
154.0	115	35	180	210	
159.0	115	35	185	215	
168.3	115	35	195	225	
206.0	142	35	240	270	
219.1	142	35	250	280	
225.0	142	35	255	285	
229.9	142	35	260	290	
244.5	142	35	275	305	

PF 1 54 507 112

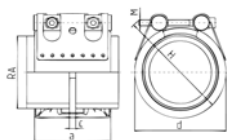
Grip d251 up to d711

Model:

- All metal parts W2 quality: housing AISI 304, bolts AISI 4140H, lock bars AISI 12 L 14, anchoring ring for metal pipes AISI 301, steel band insert AISI 316 Ti
- All metal parts W5 quality: housing AISI 316 Ti, bolts AISI 316 L, lock bars AISI 316, anchoring ring for metal pipes AISI 301, steel band insert AISI 316 Ti
- Gaskets NBR or EPDM
- Temperature range: with EPDM gasket Ø <170 mm -30°C – 125°C and Ø >180 mm -20°C – 80°C; with NBR gasket -20°C – 80°C
- EPDM for: water, Aqueous acids, alkaline solutions, alcohols, compressed air
- NBR for: water, sea water, mineral oils, lubricants, fuels, gas, compressed air
- Nominal pressure (PN) is meant for ship building purposes; Operating pressure P max is meant for industrial purposes
- Other dimensions available on request

d [mm]	Range [mm]	PN [bar]	Operating pressure P max. [bar]	NBR W2 Code	EPDM W2 Code	NBR W5 Code	
252.5	250.0 - 256.0	10.5	17.5	779 401 073	779 404 073	779 409 073	
267.0	264.0 - 269.0	10.5	17.5	779 401 076	779 404 076	779 409 076	
273.0	270.0 - 275.0	10.0	16.0	779 401 078	779 404 078	779 409 078	
306.0	302.0 - 308.0	8.0	13.0	779 401 085	779 404 085	779 409 085	
323.9	320.0 - 327.0	7.0	11.0	779 401 091	779 404 091	779 409 091	

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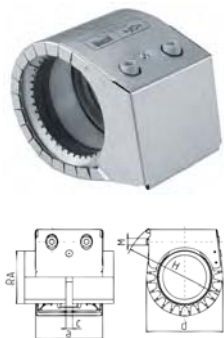


d [mm]	Range [mm]	PN [bar]	Operating pressure P max. [bar]	NBR W2 Code	EPDM W2 Code	NBR W5 Code	
326.0	322.0 - 329.0	7.0	11.0	779 401 092	779 404 092	779 409 092	
355.6	352.0 - 359.0	5.5	9.0	779 401 102	779 404 102	779 409 102	
406.4	402.0 - 410.0	4.5	7.2	779 401 116	779 404 116	779 409 116	
429.0	426.0 - 431.0	4.5	7.2	779 401 124	779 404 124	779 409 124	
457.2	454.0 - 459.0	3.5	5.6	779 401 131	779 404 131	779 409 131	
508.0	505.0 - 510.0	3.5	5.6	779 401 145	779 404 145	779 409 145	
531.0	528.0 - 534.0	3.5	5.6	779 401 152	779 404 152	779 409 152	
558.8	556.0 - 562.0	3.0	4.8	779 401 159	779 404 159	779 409 159	
609.6	606.0 - 613.0	3.0	4.8	779 401 172	779 404 172	779 409 172	
634.0	631.0 - 637.0	3.0	4.8	779 401 179	779 404 179	779 409 179	
711.2	707.0 - 715.0	2.5	4.0	779 401 197	779 404 197	779 409 197	

d [mm]	Range [mm]	PN [bar]	Operating pressure P max. [bar]	EPDM W5 Code	kg	
252.5	250.0 - 256.0	10.5	17.5	779 412 073	1.000	
267.0	264.0 - 269.0	10.5	17.5	779 412 076	7.900	
273.0	270.0 - 275.0	10.0	16.0	779 412 078	8.000	
306.0	302.0 - 308.0	8.0	13.0	779 412 085	10.000	
323.9	320.0 - 327.0	7.0	11.0	779 412 091	9.500	
326.0	322.0 - 329.0	7.0	11.0	779 412 092	1.000	
355.6	352.0 - 359.0	5.5	9.0	779 412 102	10.800	
406.4	402.0 - 410.0	4.5	7.2	779 412 116	12.000	
429.0	426.0 - 431.0	4.5	7.2	779 412 124	12.700	
457.2	454.0 - 459.0	3.5	5.6	779 412 131	8.100	
508.0	505.0 - 510.0	3.5	5.6	779 412 145	15.000	
531.0	528.0 - 534.0	3.5	5.6	779 412 152	15.700	
558.8	556.0 - 562.0	3.0	4.8	779 412 159	1.000	
609.6	606.0 - 613.0	3.0	4.8	779 412 172	9.800	
634.0	631.0 - 637.0	3.0	4.8	779 412 179	1.000	
711.2	707.0 - 715.0	2.5	4.0	779 412 197	21.000	

d [mm]	a [mm]	C max. [mm]	d [mm]	H [mm]	
252.5	142	35	285	315	
267.0	142	35	300	330	
273.0	142	35	305	335	
306.0	142	35	340	370	
323.9	142	35	355	385	
326.0	142	35	360	390	
355.6	142	35	390	420	
406.4	142	35	440	470	
429.0	142	35	460	490	
457.2	142	35	490	520	
508.0	142	35	540	570	
531.0	142	35	565	595	
558.8	142	35	590	620	
609.6	142	35	640	670	
634.0	142	35	665	695	
711.2	142	35	745	775	

PF 1 54 507 112



Grip FP E d35 up to d168

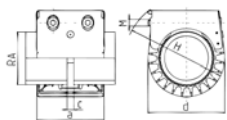
Model:

- All metal parts W5 quality: housing AISI 316 Ti, bolts AISI 316 L, lock bars AISI 316, anchoring ring for metal pipes AISI 301, steel band insert AISI 316 Ti
- Gaskets NBR or EPDM
- Temperature range: with EPDM gasket Ø <170 mm -30°C – 125°C and Ø >180 mm -20°C – 80°C; with NBR gasket -20°C – 80°C
- EPDM for: water, Aqueous acids, alkaline solutions, alcohols, compressed air
- NBR for: water, sea water, mineral oils, lubricants, fuels, gas, compressed air
- Nominal pressure (PN) is meant for ship building purposes; Operating pressure P max is meant for industrial purposes
- Other dimensions available on request

d [mm]	Range [mm]	PN [bar]	Operating pressure P max. [bar]	NBR W5 Code	EPDM W5 Code	kg
35.0	34.5 - 35.6	10.0	35.0	779 570 006	779 573 006	0.430
38.0	37.5 - 38.6	10.0	35.0	779 570 007	779 573 007	0.430
42.4	41.7 - 43.0	10.0	35.0	779 570 009	779 573 009	0.440
44.5	44.0 - 45.1	10.0	35.0	779 570 010	779 573 010	0.460
48.3	47.6 - 50.5	10.0	35.0	779 570 011	779 573 011	0.470
54.0	53.3 - 54.6	16.0	50.0	779 570 014	779 573 014	0.610
57.0	56.3 - 57.7	16.0	50.0	779 570 015	779 573 015	0.620
60.3	59.5 - 61.0	16.0	40.0	779 570 016	779 573 016	0.770
63.0	62.2 - 63.9	16.0	40.0	779 570 017	779 573 017	1.000
73.0	72.1 - 73.8	16.0	40.0	779 570 019	779 573 019	1.250
76.1	75.2 - 77.0	16.0	35.0	779 570 020	779 573 020	1.400
84.0	83.0 - 85.0	16.0	35.0	779 570 024	779 573 024	1.270
88.9	87.0 - 89.9	16.0	35.0	779 570 025	779 573 025	1.480
98.0	96.6 - 99.0	16.0	35.0	779 570 028	779 573 028	1.450
101.6	100.4 - 102.8	16.0	35.0	779 570 029	779 573 029	1.450
104.0	102.8 - 106.1	16.0	35.0	779 570 030	779 573 030	1.430
108.0	106.8 - 109.2	16.0	35.0	779 570 032	779 573 032	1.650
114.3	113.0 - 115.5	16.0	35.0	779 570 033	779 573 033	1.700
129.0	127.6 - 131.1	16.0	32.0	779 570 038	779 573 038	2.220
133.0	131.5 - 134.4	16.0	32.0	779 570 039	779 573 039	2.240
139.7	138.1 - 141.6	16.0	32.0	779 570 040	779 573 040	2.450
141.3	139.6 - 142.8	16.0	32.0	779 570 041	779 573 041	2.260
154.0	152.3 - 156.1	16.0	32.0	779 570 045	779 573 045	2.440
159.0	157.3 - 160.7	16.0	32.0	779 570 046	779 573 046	2.530
168.3	166.5 - 170.1	16.0	32.0	779 570 050	779 573 050	2.580

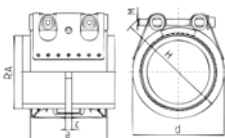
d [mm]	a [mm]	C max. [mm]	d [mm]	H [mm]
35.0	75	8	65	115
38.0	75	8	70	120
42.4	75	8	75	125
44.5	75	8	75	125
48.3	75	8	80	130
54.0	90	17	85	135
57.0	90	17	90	140
60.3	90	17	95	145
63.0	90	17	95	145
73.0	110	25	105	155
76.1	110	25	110	160
84.0	110	25	115	165
88.9	110	25	120	170
98.0	110	25	130	180
101.6	110	25	135	185
104.0	110	25	135	185
108.0	110	25	140	190
114.3	110	25	145	195
129.0	125	35	165	215
133.0	125	35	170	220

table continued next page



PF 1 54 507 185

d [mm]	a [mm]	C max. [mm]	d [mm]	H [mm]	
139.7	125	35	175	225	
141.3	125	35	180	230	
154.0	125	35	190	240	
159.0	125	35	195	245	
168.3	125	35	205	255	



Combi Grip E d40 up to d160

Model:

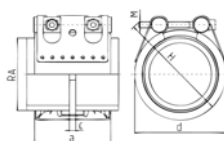
- All metal parts W5 quality: housing AISI 316 Ti, bolts AISI 316 L, lock bars AISI 316, anchoring ring for metal pipes AISI 301, anchoring ring for plastic pipes PA-GF brass, steel band insert AISI 316 Ti
- Gaskets NBR or EPDM
- Temperature range: with EPDM gasket Ø <170 mm -30°C – 125°C and Ø >180 mm -20°C – 80°C; with NBR gasket -20°C – 80°C
- EPDM for: water, Aqueous acids, alkaline solutions, alcohols, compressed air
- NBR for: water, sea water, mineral oils, lubricants, fuels, gas, compressed air
- Nominal pressure (PN) is meant for ship building purposes; Operating pressure P max is meant for industrial purposes
- For all plastic pipes, the use of an insert stiffener (see accessories) is advised or in some cases mandatory, check our technical information.
- Other dimensions available on request

d [mm]	Range plastic [mm]	d [mm]	Range metal [mm]	PN [bar]	Operating pressure P max. [bar]	NBR W5 Code	
40.0	39.0 - 40.5	38.0	37.5 - 38.6	16.0	20.0	779 537 007	
40.0	39.0 - 40.5	42.4	41.7 - 43.0	16.0	20.0	779 537 009	
50.0	49.0 - 50.5	48.3	47.6 - 50.5	16.0	20.0	779 537 011	
63.0	62.0 - 63.5	60.3	59.5 - 61.0	16.0	20.0	779 537 016	
75.0	74.0 - 76.0	76.1	75.2 - 77.0	16.0	20.0	779 537 020	
90.0	89.0 - 91.0	88.9	87.0 - 89.9	16.0	20.0	779 537 025	
110.0	108.0 - 111.0	108.0	107.0 - 109.0	16.0	20.0	779 537 032	
110.0	108.0 - 111.0	114.3	113.0 - 116.0	16.0	20.0	779 537 501	
114.3	113.0 - 115.5	114.3	113.0 - 115.5	16.0	20.0	779 537 033	
125.0	123.0 - 126.0	129.0	127.0 - 131.0	16.0	20.0	779 537 038	
140.0	138.0 - 142.0	139.7	138.0 - 141.0	16.0	20.0	779 537 040	
160.0	158.0 - 162.0	159.0	158.0 - 161.0	16.0	20.0	779 537 046	

d [mm]	Range plastic [mm]	d [mm]	Range metal [mm]	PN [bar]	Operating pressure P max. [bar]	EPDM W5 Code	kg	
40.0	39.0 - 40.5	38.0	37.5 - 38.6	16.0	20.0	779 540 007	0.480	
40.0	39.0 - 40.5	42.4	41.7 - 43.0	16.0	20.0	779 540 009	0.480	
50.0	49.0 - 50.5	48.3	47.6 - 50.5	16.0	20.0	779 540 011	0.530	
63.0	62.0 - 63.5	60.3	59.5 - 61.0	16.0	20.0	779 540 016	0.670	
75.0	74.0 - 76.0	76.1	75.2 - 77.0	16.0	20.0	779 540 020	1.300	
90.0	89.0 - 91.0	88.9	87.0 - 89.9	16.0	20.0	779 540 025	1.400	
110.0	108.0 - 111.0	108.0	107.0 - 109.0	16.0	20.0	779 540 032	1.600	
110.0	108.0 - 111.0	114.3	113.0 - 116.0	16.0	20.0	779 540 501	1.600	
114.3	113.0 - 115.5	114.3	113.0 - 115.5	16.0	20.0	779 540 033	1.000	
125.0	123.0 - 126.0	129.0	127.0 - 131.0	16.0	20.0	779 540 038	3.000	
140.0	138.0 - 142.0	139.7	138.0 - 141.0	16.0	20.0	779 540 040	3.200	
160.0	158.0 - 162.0	159.0	158.0 - 161.0	16.0	20.0	779 540 046	3.500	

d [mm]	Range plastic [mm]	a [mm]	C max. [mm]	d [mm]	H [mm]	
40.0	39.0 - 40.5	62	8	60	80	
40.0	39.0 - 40.5	62	8	65	85	
50.0	49.0 - 50.5	62	8	70	90	
63.0	62.0 - 63.5	78	17	85	105	
75.0	74.0 - 76.0	98	25	100	120	
90.0	89.0 - 91.0	98	25	110	130	
110.0	108.0 - 111.0	98	25	130	150	
110.0	108.0 - 111.0	98	25	135	155	
114.3	113.0 - 115.5	98	25	135	155	
125.0	123.0 - 126.0	115	35	150	170	
140.0	138.0 - 142.0	115	35	160	180	
160.0	158.0 - 162.0	115	35	180	210	

PF 1 54 507 145



Combi Grip d40 up to d400

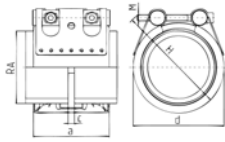
Model:

- All metal parts W2 quality: housing AISI 304, bolts AISI 4140H, lock bars AISI 12 L 14, anchoring rings for metal or plastic pipes PA-GF brass, steel band insert AISI 316 Ti
- All metal parts W5 quality: housing AISI 316 Ti, bolts AISI 316 L, lock bars AISI 316, anchoring ring for metal pipes AISI 301, anchoring ring for plastic pipes PA-GF brass, steel band insert AISI 316 Ti
- Gaskets NBR or EPDM
- Temperature range: with EPDM gasket Ø <170 mm -30°C – 125°C and Ø >180 mm -20°C – 80°C; with NBR gasket -20°C – 80°C
- EPDM for: water, Aqueous acids, alkaline solutions, alcohols, compressed air
- NBR for: water, sea water, mineral oils, lubricants, fuels, gas, compressed air
- Nominal pressure (PN) is meant for ship building purposes; Operating pressure P max is meant for industrial purposes
- Other dimensions available on request

d [mm]	Range plastic [mm]	d [mm]	Range metal [mm]	PN [bar]	Operating pressure P max. [bar]	NBR W2 Code	EPDM W2 Code
40.0	39.0 - 40.5	39.0	37.5 - 38.6	16.0	20.0	779 513 007	779 516 007
40.0	39.0 - 40.5	42.4	41.7 - 43.0	16.0	20.0	779 513 009	779 516 009
50.0	49.0 - 50.5	48.3	47.6 - 50.5	16.0	20.0	779 513 011	779 516 011
63.0	62.0 - 63.5	60.3	59.5 - 61.0	16.0	20.0	779 513 016	779 516 016
75.0	74.0 - 76.0	76.1	75.2 - 77.0	16.0	20.0	779 513 020	779 516 020
90.0	89.0 - 91.0	88.9	87.0 - 89.9	16.0	20.0	779 513 025	779 516 025
110.0	109.0 - 111.0	108.0	106.8 - 109.2	16.0	20.0	779 513 032	779 516 032
110.0	109.0 - 111.0	114.3	113.0 - 115.5	16.0	20.0	779 513 501	779 516 501
114.3	113.0 - 115.5	114.3	113.0 - 115.5	16.0	20.0	779 513 033	779 516 033
125.0	123.0 - 126.0	129.0	127.6 - 131.1	16.0	20.0	779 513 038	779 516 038
140.0	138.0 - 142.0	139.7	138.1 - 141.6	16.0	20.0	779 513 040	779 516 040
160.0	158.0 - 162.0	159.0	157.3 - 160.7	16.0	20.0	779 513 046	779 516 046
200.0	198.0 - 202.0	204.0	202.0 - 206.0	16.0	20.0	779 513 329	779 516 329
225.0	222.0 - 227.0	219.1	216.0 - 221.0	10.0	16.0	779 513 064	779 516 064
250.0	247.0 - 253.0	254.0	250.0 - 256.0	10.0	15.0	779 513 073	779 516 073
280.0	277.0 - 283.0	273.0	270.0 - 275.0	10.0	13.0	779 513 079	779 516 079
355.0	351.0 - 359.0	355.6	352.0 - 359.0	6.0	7.0	779 513 102	779 516 102
400.0	396.0 - 404.0	406.4	402.0 - 410.0	6.0	7.0	779 513 116	779 516 116

d [mm]	Range plastic [mm]	d [mm]	Range metal [mm]	PN [bar]	Operating pressure P max. [bar]	NBR W5 Code	
40.0	39.0 - 40.5	39.0	37.5 - 38.6	16.0	20.0	779 522 007	
40.0	39.0 - 40.5	42.4	41.7 - 43.0	16.0	20.0	779 522 009	
50.0	49.0 - 50.5	48.3	47.6 - 50.5	16.0	20.0	779 522 011	
63.0	62.0 - 63.5	60.3	59.5 - 61.0	16.0	20.0	779 522 016	
75.0	74.0 - 76.0	76.1	75.2 - 77.0	16.0	20.0	779 522 020	
90.0	89.0 - 91.0	88.9	87.0 - 89.9	16.0	20.0	779 522 025	
110.0	109.0 - 111.0	108.0	106.8 - 109.2	16.0	20.0	779 522 032	
110.0	109.0 - 111.0	114.3	113.0 - 115.5	16.0	20.0	779 522 501	
114.3	113.0 - 115.5	114.3	113.0 - 115.5	16.0	20.0	779 522 033	
125.0	123.0 - 126.0	129.0	127.6 - 131.1	16.0	20.0	779 522 038	
140.0	138.0 - 142.0	139.7	138.1 - 141.6	16.0	20.0	779 522 040	
160.0	158.0 - 162.0	159.0	157.3 - 160.7	16.0	20.0	779 522 046	
200.0	198.0 - 202.0	204.0	202.0 - 206.0	16.0	20.0	779 522 329	
225.0	222.0 - 227.0	219.1	216.0 - 221.0	10.0	16.0	779 522 064	
250.0	247.0 - 253.0	254.0	250.0 - 256.0	10.0	15.0	779 522 073	
280.0	277.0 - 283.0	273.0	270.0 - 275.0	10.0	13.0	779 522 079	
355.0	351.0 - 359.0	355.6	352.0 - 359.0	6.0	7.0	779 522 102	
400.0	396.0 - 404.0	406.4	402.0 - 410.0	6.0	7.0	779 522 116	

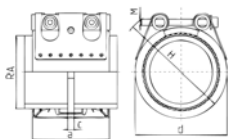
table continued next page



d [mm]	Range plastic [mm]	d [mm]	Range metal [mm]	PN [bar]	Operating pressure P max. [bar]	EPDM W5 Code	kg
40.0	39.0 - 40.5	39.0	37.5 - 38.6	16.0	20.0	779 524 007	1.000
40.0	39.0 - 40.5	42.4	41.7 - 43.0	16.0	20.0	779 524 009	1.000
50.0	49.0 - 50.5	48.3	47.6 - 50.5	16.0	20.0	779 524 011	1.000
63.0	62.0 - 63.5	60.3	59.5 - 61.0	16.0	20.0	779 524 016	1.000
75.0	74.0 - 76.0	76.1	75.2 - 77.0	16.0	20.0	779 524 020	1.000
90.0	89.0 - 91.0	88.9	87.0 - 89.9	16.0	20.0	779 524 025	1.000
110.0	109.0 - 111.0	108.0	106.8 - 109.2	16.0	20.0	779 524 032	1.000
110.0	109.0 - 111.0	114.3	113.0 - 115.5	16.0	20.0	779 524 501	1.000
114.3	113.0 - 115.5	114.3	113.0 - 115.5	16.0	20.0	779 524 033	1.000
125.0	123.0 - 126.0	129.0	127.6 - 131.1	16.0	20.0	779 524 038	1.000
140.0	138.0 - 142.0	139.7	138.1 - 141.6	16.0	20.0	779 524 040	1.000
160.0	158.0 - 162.0	159.0	157.3 - 160.7	16.0	20.0	779 524 046	1.000
200.0	198.0 - 202.0	204.0	202.0 - 206.0	16.0	20.0	779 524 329	6.300
225.0	222.0 - 227.0	219.1	216.0 - 221.0	10.0	16.0	779 524 064	6.800
250.0	247.0 - 253.0	254.0	250.0 - 256.0	10.0	15.0	779 524 073	1.000
280.0	277.0 - 283.0	273.0	270.0 - 275.0	10.0	13.0	779 524 079	8.500
355.0	351.0 - 359.0	355.6	352.0 - 359.0	6.0	7.0	779 524 102	10.800
400.0	396.0 - 404.0	406.4	402.0 - 410.0	6.0	7.0	779 524 116	1.000

d [mm]	a [mm]	C max. [mm]	d [mm]	H [mm]
40.0	62	8	60	80
40.0	62	8	60	80
50.0	62	8	70	90
63.0	77	17	85	105
75.0	98	25	95	115
90.0	98	25	110	130
110.0	98	25	130	150
110.0	98	25	135	155
114.3	98	25	135	155
125.0	115	25	150	170
140.0	115	25	160	180
160.0	115	35	180	200
200.0	142	35	235	265
225.0	142	35	255	285
250.0	142	35	285	315
280.0	142	35	310	340
355.0	142	35	390	420
400.0	142	35	440	470

PF 1 54 507 132



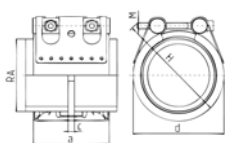
Plast Grip E d40 up to d160

Model:

- All metal parts W5 quality: housing AISI 316 Ti, bolts AISI 316 L, lock bars AISI 316, anchoring ring for plastic pipes PA-GF brass, steel band insert AISI 316 Ti
- Gaskets NBR or EPDM
- Temperature range: with EPDM gasket $\varnothing < 170$ mm $-30^{\circ}\text{C} - 125^{\circ}\text{C}$ and $\varnothing > 180$ mm $-20^{\circ}\text{C} - 80^{\circ}\text{C}$; with NBR gasket $-20^{\circ}\text{C} - 80^{\circ}\text{C}$
- EPDM for: water, Aqueous acids, alkaline solutions, alcohols, compressed air
- NBR for: water, sea water, mineral oils, lubricants, fuels, gas, compressed air
- Nominal pressure (PN) is meant for ship building purposes; Operating pressure P max is meant for industrial purposes
- For all plastic pipes, the use of an insert stiffener (see accessories) is advised or in some cases mandatory, check our technical information.
- Other dimensions available on request

d [mm]	Range [mm]	PN [bar]	NBR W5 Code	EPDM W5 Code	kg	a [mm]	C max. [mm]	d [mm]	H [mm]
40.0	39.0 - 40.5	16.0	779 529 008	779 532 008	0.480	62	8	60	80
50.0	49.0 - 50.5	16.0	779 529 012	779 532 012	0.530	62	8	70	90
60.3	59.5 - 61.0	16.0	779 529 016	779 532 016	0.670	78	17	85	105
63.0	62.0 - 63.5	16.0	779 529 017	779 532 017	0.670	78	17	85	105
75.0	74.0 - 76.0	16.0	779 529 020	779 532 020	1.300	98	25	100	120
90.0	89.0 - 91.0	16.0	779 529 025	779 532 025	1.400	98	25	110	130
110.0	109.0 - 111.0	16.0	779 529 032	779 532 032	1.600	98	25	130	150
114.3	113.0 - 115.5	16.0	779 529 033	779 532 033	1.000	98	25	135	155
125.0	124.0 - 126.0	16.0	779 529 037	779 532 037	3.000	115	35	150	170
140.0	139.0 - 141.0	16.0	779 529 040	779 532 040	3.200	115	35	160	180
160.0	159.0 - 162.0	16.0	779 529 046	779 532 046	3.500	115	35	180	200

PF 1 54 507 165



Plast Grip d40 up to d140

Model:

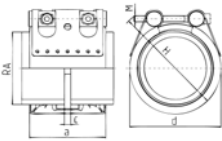
- All metal parts W2 quality: housing AISI 304, bolts AISI 4140H, lock bars AISI 12 L 14, anchoring rings for metal or plastic pipes PA-GF brass, steel band insert AISI 316 Ti
- All metal parts W5 quality: housing AISI 316 Ti, bolts AISI 316 L, lock bars AISI 316, anchoring ring for plastic pipes PA-GF brass, steel band insert AISI 316 Ti
- Gaskets NBR or EPDM
- Temperature range: with EPDM gasket Ø <170 mm -30°C – 125°C and Ø >180 mm -20°C – 80°C; with NBR gasket -20°C – 80°C
- EPDM for: water, Aqueous acids, alkaline solutions, alcohols, compressed air
- NBR for: water, sea water, mineral oils, lubricants, fuels, gas, compressed air
- Nominal pressure (PN) is meant for ship building purposes; Operating pressure P max is meant for industrial purposes
- Other dimensions available on request

d [mm]	Range [mm]	PN [bar]	Operating pressure P max. [bar]	NBR W2 Code	EPDM W2 Code	NBR W5 Code	
40.0	39.0 - 40.5	16.0	20.0	779 501 008	779 504 008	779 509 008	
50.0	49.0 - 50.5	16.0	20.0	779 501 012	779 504 012	779 509 012	
63.0	62.0 - 63.5	16.0	20.0	779 501 017	779 504 017	779 509 017	
75.0	74.0 - 76.0	16.0	20.0	779 501 020	779 504 020	779 509 020	
90.0	89.0 - 91.0	16.0	20.0	779 501 025	779 504 025	779 509 025	
110.0	109.0 - 111.0	16.0	20.0	779 501 032	779 504 032	779 509 032	
125.0	124.0 - 126.0	16.0	20.0	779 501 037	779 504 037	779 509 037	
140.0	139.0 - 141.0	16.0	20.0	779 501 040	779 504 040	779 509 040	

d [mm]	Range [mm]	PN [bar]	Operating pressure P max. [bar]	EPDM W5 Code	kg	
40.0	39.0 - 40.5	16.0	20.0	779 512 008	1.000	
50.0	49.0 - 50.5	16.0	20.0	779 512 012	1.000	
63.0	62.0 - 63.5	16.0	20.0	779 512 017	0.670	
75.0	74.0 - 76.0	16.0	20.0	779 512 020	1.000	
90.0	89.0 - 91.0	16.0	20.0	779 512 025	1.000	
110.0	109.0 - 111.0	16.0	20.0	779 512 032	1.500	
125.0	124.0 - 126.0	16.0	20.0	779 512 037	1.000	
140.0	139.0 - 141.0	16.0	20.0	779 512 040	1.000	

d [mm]	a [mm]	C max. [mm]	d [mm]	H [mm]	
40.0	62	8	60	80	
50.0	62	8	70	90	
63.0	78	17	85	105	
75.0	98	25	100	120	
90.0	98	25	110	130	
110.0	98	25	130	150	
125.0	115	35	150	170	
140.0	115	35	160	180	

PF 1 54 507 152



Plast Grip **d160 up to d400**

Model:

- All metal parts W2 quality: housing AISI 304, bolts AISI 4140H, lock bars AISI 12 L 14, anchoring rings for metal or plastic pipes PA-GF brass, steel band insert AISI 316 Ti
- All metal parts W5 quality: housing AISI 316 Ti, bolts AISI 316 L, lock bars AISI 316, anchoring ring for plastic pipes PA-GF brass, steel band insert AISI 316 Ti
- Gaskets NBR or EPDM
- Temperature range: with EPDM gasket Ø <170 mm -30°C – 125°C and Ø >180 mm -20°C – 80°C; with NBR gasket -20°C – 80°C
- EPDM for: water, Aqueous acids, alkaline solutions, alcohols, compressed air
- NBR for: water, sea water, mineral oils, lubricants, fuels, gas, compressed air
- Nominal pressure (PN) is meant for ship building purposes; Operating pressure P max is meant for industrial purposes
- Other dimensions available on request

d [mm]	Range [mm]	PN [bar]	Operating pressure P max. [bar]	NBR W2 Code	EPDM W2 Code	NBR W5 Code	
160.0	159.0 - 162.0	16.0	20.0	779 501 046	779 504 046	779 509 046	
180.0	178.0 - 182.0	16.0	20.0	779 501 054	779 504 054	779 509 054	
200.0	198.0 - 202.0	16.0	20.0	779 501 059	779 504 059	779 509 059	
225.0	222.0 - 227.0	10.0	16.0	779 501 065	779 504 065	779 509 065	
250.0	247.0 - 253.0	10.0	15.0	779 501 071	779 504 071	779 509 071	
280.0	277.0 - 283.0	10.0	13.0	779 501 079	779 504 079	779 509 079	
315.0	311.0 - 318.0	6.0	9.0	779 501 088	779 504 088	779 509 088	
355.0	352.0 - 359.0	6.0	7.0	779 501 102	779 504 102	779 509 102	
400.0	396.0 - 404.0	6.0	7.0	779 501 114	779 504 114	779 509 114	

d [mm]	Range [mm]	PN [bar]	Operating pressure P max. [bar]	EPDM W5 Code	kg	
160.0	159.0 - 162.0	16.0	20.0	779 512 046	1.000	
180.0	178.0 - 182.0	16.0	20.0	779 512 054	6.200	
200.0	198.0 - 202.0	16.0	20.0	779 512 059	6.600	
225.0	222.0 - 227.0	10.0	16.0	779 512 065	7.200	
250.0	247.0 - 253.0	10.0	15.0	779 512 071	7.700	
280.0	277.0 - 283.0	10.0	13.0	779 512 079	9.000	
315.0	311.0 - 318.0	6.0	9.0	779 512 088	10.000	
355.0	352.0 - 359.0	6.0	7.0	779 512 102	10.800	
400.0	396.0 - 404.0	6.0	7.0	779 512 114	11.100	

d [mm]	a [mm]	C max. [mm]	d [mm]	H [mm]	
160.0	115	35	180	200	
180.0	142	35	210	240	
200.0	142	35	230	260	
225.0	142	35	255	285	
250.0	142	35	280	310	
280.0	142	35	310	340	
315.0	142	35	345	375	
355.0	142	35	385	415	
400.0	142	35	430	460	

PF 1 54 507 152



Rep E d35 up to d110

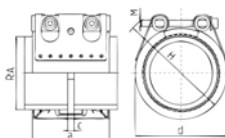
Model:

- All metal parts W5 quality: housing AISI 316 Ti, bolts AISI 316 L, lock bars AISI 316, steel band insert AISI 316 Ti
- Gaskets NBR or EPDM
- Temperature range: with EPDM gasket Ø <170 mm -30°C – 125°C and Ø >180 mm -20°C – 80°C; with NBR gasket -20°C – 80°C
- EPDM for: water, Aqueous acids, alkaline solutions, alcohols, compressed air
- NBR for: water, sea water, mineral oils, lubricants, fuels, gas, compressed air
- Nominal pressure (PN) is meant for ship building purposes; Operating pressure P max is meant for industrial purposes
- Other dimensions available on request

d [mm]	Range [mm]	PN* [bar]	Operating pressure P max. [bar]	NBR W5 Code	EPDM W5 Code	kg
35.0	34.5 - 35.6	16.0	48.0	779 309 006	779 312 006	0.500
38.0	37.5 - 38.6	16.0	48.0	779 309 007	779 312 007	0.430
42.4	41.7 - 43.0	16.0	48.0	779 309 009	779 312 009	0.550
44.5	44.0 - 45.1	16.0	40.0	779 309 010	779 312 010	0.460
48.3	47.6 - 50.0	16.0	40.0	779 309 011	779 312 011	0.580
54.0	53.3 - 54.6	16.0	40.0	779 309 014	779 312 014	0.750
57.0	56.3 - 57.7	16.0	40.0	779 309 015	779 312 015	0.760
60.3	59.5 - 61.0	16.0	40.0	779 309 016	779 312 016	0.770
63.0	62.2 - 63.9	16.0	36.0	779 309 017	779 312 017	1.000
70.0	69.0 - 71.0	16.0	36.0	779 309 018	779 312 018	1.000
73.0	72.1 - 73.8	16.0	36.0	779 309 019	779 312 019	1.250
76.1	75.2 - 77.0	16.0	36.0	779 309 020	779 312 020	1.400
78.0	77.1 - 78.9	16.0	32.0	779 309 021	779 312 021	1.250
80.0	79.0 - 80.8	16.0	32.0	779 309 022	779 312 022	1.000
84.0	83.0 - 85.0	16.0	32.0	779 309 024	779 312 024	1.460
88.9	87.0 - 89.9	16.0	32.0	779 309 025	779 312 025	1.480
98.0	96.9 - 99.0	16.0	30.0	779 309 028	779 312 028	1.450
101.6	100.4 - 102.8	16.0	30.0	779 309 029	779 312 029	1.450
104.0	102.8 - 106.1	16.0	30.0	779 309 030	779 312 030	1.630
108.0	106.8 - 109.2	16.0	30.0	779 309 032	779 312 032	1.650
110.0	108.8 - 111.4	16.0	30.0	779 309 328	779 312 328	1.460

d [mm]	a [mm]	C max. [mm]	d [mm]	H [mm]
35.0	63	8	55	75
38.0	63	8	60	80
42.4	63	8	65	85
44.5	63	8	65	85
48.3	63	8	70	90
54.0	78	17	75	95
57.0	78	17	80	100
60.3	78	17	85	100
63.0	78	17	85	105
70.0	98	25	90	110
73.0	98	25	95	115
76.1	98	25	100	120
78.0	98	25	100	120
80.0	98	25	100	120
84.0	98	25	105	125
88.9	98	25	110	130
98.0	98	25	120	145
101.6	98	25	125	145
104.0	98	25	125	145
108.0	98	25	130	150
110.0	98	25	130	150

PF 1 54 505 115



Rep E d114 up to d245

Model:

- All metal parts W5 quality: housing AISI 316 Ti, bolts AISI 316 L, lock bars AISI 316, steel band insert AISI 316 Ti
- Gaskets NBR or EPDM
- Temperature range: with EPDM gasket Ø <170 mm -30°C – 125°C and Ø >180 mm -20°C – 80°C; with NBR gasket -20°C – 80°C
- EPDM for: water, Aqueous acids, alkaline solutions, alcohols, compressed air
- NBR for: water, sea water, mineral oils, lubricants, fuels, gas, compressed air
- Nominal pressure (PN) is meant for ship building purposes; Operating pressure P max is meant for industrial purposes
- Other dimensions available on request

d [mm]	Range [mm]	PN* [bar]	Operating pressure P max. [bar]	NBR W5 Code	EPDM W5 Code	kg
114.3	113.0 - 115.5	16.0	30.0	779 309 033	779 312 033	1.700
125.0	123.6 - 126.5	16.0	30.0	779 309 037	779 312 037	1.750
129.0	127.6 - 131.1	16.0	30.0	779 309 038	779 312 038	2.410
133.0	131.5 - 134.4	16.0	30.0	779 309 039	779 312 039	2.440
139.7	138.1 - 141.6	16.0	30.0	779 309 040	779 312 040	2.450
141.3	139.6 - 142.8	16.0	30.0	779 309 041	779 312 041	2.450
154.0	152.3 - 156.1	16.0	25.0	779 309 045	779 312 045	2.640
159.0	157.3 - 160.7	16.0	25.0	779 309 046	779 312 046	2.690
168.3	166.5 - 170.1	16.0	25.0	779 309 050	779 312 050	2.750
180.0	178.0 - 182.0	13.7	21.9	779 309 054	779 312 054	3.700
206.0	202.0 - 208.0	13.7	21.9	779 309 060	779 312 060	1.000
219.1	216.0 - 221.0	13.7	21.9	779 309 063	779 312 063	3.900
225.0	222.0 - 227.0	12.0	19.2	779 309 065	779 312 065	4.000
229.9	228.0 - 232.0	12.0	19.2	779 309 066	779 312 066	1.000
244.5	242.0 - 247.0	12.0	19.2	779 309 070	779 312 070	4.300

d [mm]	a [mm]	C max. [mm]	d [mm]	H [mm]
114.3	98	25	135	155
125.0	113	35	145	165
129.0	113	35	155	185
133.0	113	35	160	190
139.7	113	35	165	195
141.3	113	35	170	200
154.0	113	35	180	210
159.0	113	35	185	215
168.3	113	35	195	225
180.0	139	35	210	240
206.0	139	35	240	270
219.1	139	35	250	280
225.0	139	35	255	285
229.9	139	35	260	290
244.5	139	35	275	305

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Rep E d254 up to d1016

Model:

- All metal parts W5 quality: housing AISI 316 Ti, bolts AISI 316 L, lock bars AISI 316, steel band insert AISI 316 Ti
- Gaskets NBR or EPDM
- Temperature range: with EPDM gasket Ø <170 mm -30°C – 125°C and Ø >180 mm -20°C – 80°C; with NBR gasket -20°C – 80°C
- EPDM for: water, Aqueous acids, alkaline solutions, alcohols, compressed air
- NBR for: water, sea water, mineral oils, lubricants, fuels, gas, compressed air
- Nominal pressure (PN) is meant for ship building purposes; Operating pressure P max is meant for industrial purposes
- Other dimensions available on request

d [mm]	Range [mm]	PN* [bar]	Operating pressure P max. [bar]	NBR W5 Code	EPDM W5 Code	kg	
254.0	250.0 - 256.0	12.0	19.2	779 309 073	779 312 073	4.300	
267.0	264.0 - 269.0	12.0	19.2	779 309 076	779 312 076	7.900	
273.0	270.0 - 275.0	12.0	19.2	779 309 078	779 312 078	4.600	
306.0	302.0 - 308.0	9.0	14.4	779 309 085	779 312 085	4.800	
323.9	320.0 - 327.0	9.0	14.4	779 309 091	779 312 091	5.100	
326.0	322.0 - 329.0	9.0	14.4	779 309 092	779 312 092	1.000	
355.6	352.0 - 359.0	9.0	14.4	779 309 102	779 312 102	5.600	
406.4	402.0 - 410.0	7.5	12.0	779 309 116	779 312 116	4.800	
429.0	426.0 - 431.0	5.5	8.8	779 309 124	779 312 124	1.000	
457.2	454.0 - 459.0	5.5	8.8	779 309 131	779 312 131	6.500	
508.0	505.0 - 510.0	5.5	8.8	779 309 145	779 312 145	7.200	
531.0	528.0 - 534.0	5.0	8.0	779 309 152	779 312 152	5.400	
558.8	556.0 - 562.0	5.0	8.0	779 309 159	779 312 159	7.200	
609.6	606.0 - 613.0	3.5	5.6	779 309 172	779 312 172	7.800	
634.0	631.0 - 637.0	3.5	5.6	779 309 179	779 312 179	1.000	
711.2	707.0 - 715.0	3.5	5.6	779 309 197	779 312 197	8.900	
762.0	758.0 - 766.0	3.0	4.8	779 309 210	779 312 210	1.000	
813.0	808.0 - 817.0	3.0	4.8	779 309 223	779 312 223	9.900	
914.4	909.0 - 919.0	2.0	3.2	779 309 245	779 312 245	10.100	
1016.0	1013.0 - 1019.0	2.0	3.2	779 309 271	779 312 271	1.000	

d [mm]	a [mm]	C max. [mm]	d [mm]	H [mm]	
254.0	139	35	285	315	
267.0	139	35	300	330	
273.0	139	35	305	335	
306.0	139	35	340	370	
323.9	139	35	355	385	
326.0	139	35	360	390	
355.6	139	35	390	420	
406.4	139	35	440	470	
429.0	139	35	460	490	
457.2	139	35	490	520	
508.0	139	35	540	570	
531.0	139	35	565	595	
558.8	139	35	590	620	
609.6	139	35	640	670	
634.0	139	35	665	695	
711.2	139	35	745	775	
762.0	139	35	795	825	
813.0	139	35	845	875	
914.4	139	35	945	975	
1016.0	139	35	1050	1080	

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Plastic street covers

→ Your benefits

- Light weight
- Easy on site handling
- Durable

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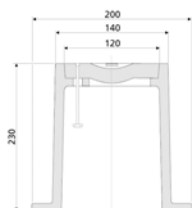
Plastic Street Covers

DP-140-230

square street cover for valves in distribution lines or house connection valves

Model:

- Material housing: Glass Reinforced Polyester
- Material lid: cast iron GJL 200 according to EN 1561
- Finish lid: black painted (40-80 micron according to ISO 8062)
- Lid contains 2 text inlays: +GF+ and 1 optional (€ 0,48 per piece)
- Max. temperature: -20°C - +180°C
- Static load: 82,5 kN / 70 hours (NEN 7057)
- Drop test: no damages after 1 meter vertical drop



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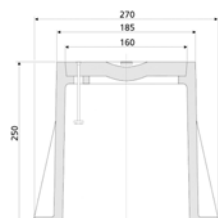
Type	Description	Code	
black street cover with black lid	with black inlay without text	200 005 047	
Type	Size		
black street cover with black lid	140 x 140 x 230 (LxWxH)		

VP-185-250

square street cover for valves in distribution and main lines

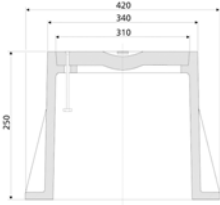
Model:

- Material housing: Glass Reinforced Polyester
- Material lid: cast iron GJL 200 according to EN 1561
- Finish lid: black painted (40-80 micron according to ISO 8062)
- Lid contains 2 text inlays: +GF+ and 1 optional (€ 0,48 per piece)
- Max. temperature: -20°C - +180°C
- Static load: 82,5 kN / 70 hours (NEN 7057)
- Drop test: no damages after 1 meter vertical drop



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Type	Description	Code	
black street cover with black lid BP-350-350 base plate	with black inlay without text for steady positioning	200 005 102 200 005 091	
Type	Size		
black street cover with black lid BP-350-350 base plate	185 x 185 x 250 (LxWxH) outside 350x350 mm, inside 185x185 mm		



BP 240-340-250

street cover for fire hydrants and valves in distribution and main lines

Model:

- Material housing: Glass Reinforced Polyester
- Material lid: cast iron GJL 200 according to EN 1561
- Finish lid: black painted (40-80 micron according to ISO 8062)
- Lid contains 2 text inlays: +GF+ and 1 optional (€ 0,48 per piece)
- Max. temperature: -20°C - +180°C
- Static load: 82,5 kN / 70 hours (NEN 7057)
- Drop test: no damages after 1 meter vertical drop

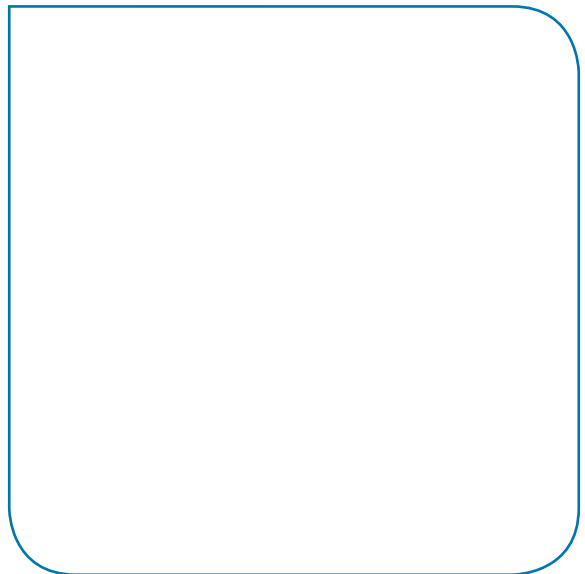
Type	Description	Code	
black street cover with black lid BP-350-350 base plate OR 240-340-80	with black inlay without text for steady positioning stackable mounting base	200 005 130 200 005 137 200 005 138	

Type	Size	
black street cover with black lid BP-350-350 base plate OR 240-340-80	240 x 340 x 250 (LxWxH) outside 350x350 mm, inside 185x185 mm	

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Technical
information



Terms and definitions

Terms and definitions used throughout this technical manual comply (as much as possible) with the latest terms and definitions used in the European standards.

Allowable operating pressure (PFA)

Internal pressure, exclusive of surge that a component can safely withstand in permanent service (see EN 805), often referred to as working pressure.

Allowable test pressure (PEA)

Maximum hydrostatic pressure that a newly installed component can withstand for a relatively short duration, when either fixed above ground level or laid and backfilled underground in order to measure the integrity and tightness of the pipeline (see EN 805), often referred to as test pressure.

Note:

This test pressure is different from the system test pressure (STP), which is related to the design pressure of the pipeline, and is intended to ensure the integrity and leak tightness of a certain fitting installed.

Nominal pressure (PN)

Numerical designation expressed by a number, which is used for reference purposes.

Nominal size (DN diameter nominal)

Numerical designation of size, which is common to all components in a piping system. It is a convenient round number for reference purposes and is only loosely related to manufacturing dimensions (see EN ISO 6708).

Outside diameter (OD)

Outside diameter of the pipe(s) to be connected.

Depth of engagement

Minimum distance between any point of the spigot end and the internal face of the joint gasket.

Ductile iron

Cast iron used for pipes, fittings and accessories in which graphite is present, mainly in spheroidal form.

Fitting

Casting other than a pipe, which allows pipeline deviation, change of direction or bore. In addition flanged socket pieces, flanged spigot pieces and collars are also classified as fittings.

Flange

Flat circular end of a fitting or pipe extending perpendicular to its axis, with bolt holes equally spaced in a circle.

Flexible joint

Joint which permits significant angular deflection both during and after installation and which can accept a slight offset of the centreline.

Gasket

Sealing component of a joint.

Joint

Connection between the ends of two pipes and/or fittings in which a gasket is used to effect a seal.

Joint angular deflection

Angle between the axis of two connected pipe components, which a flexible joint can accommodate.

Joint gap

Maximum axial distance between any point of the spigot ends of the pipes to be connected (coupling), or, maximum axial distance between any point of the spigot end of the pipe and the flange face (flange adaptor).

Large tolerance coupling

Fitting intended for use with pipes of various materials which:

- is used in a pipeline to make the connection between two spigots of pipes, fittings or valves
- allows for radial and axial displacements in order to facilitate easy assembly.

Large tolerance flange adaptor

Fitting intended for use with pipes of various materials which:

- is used in a pipeline to make the connection with a spigot of a pipe or a fitting and the flange of another component of the pipeline (e.g. pipe, fitting, valve)
- allows for radial and axial displacements in order to facilitate easy assembly.

Large tolerance stepped or reducer coupling

Large tolerance coupling intended for use with pipe components of different nominal sizes.

Performance test

Proof of design test, which is done once and is repeated only after changing the design.

Restraint flexible joint

Flexible joint in which a means is provided to prevent separation of the assembled joint.

Dimensions and units

All dimensions used in this catalogue or other documentation are indicated in mm and/or inches and are specified as nominal or standard sizes. We reserve the right to alter design of fittings.

Conversion table

To convert →		to →	multiple by
Area			
0.1550	sq. inch (in ²)	sq. centimetre (cm ²)	6.4516
10.764	sq. feet (ft ²)	sq. metre (m ²)	0.09290
Density			
0.062428	pound/foot (UK)	kilogram/metre ³ (kg/m ³)	16.0185
0.010022	pound/gal (UK)	kilogram/metre ³ (kg/m ³)	99.776
10-3	gram/centimetre ³ (g/cm ³)	kilogram/ metre ³ (kg/m ³)	1000
0.160544	pound/gal (UK)	pound/foot ³ (lb/ft ³)	6.22884
Dynamic viscosity			
103	centipoises (cP)	Pascal second (Pa s)	10-3
2.419	pound/ft hr (lb/ft h)	centipoises (cP)	0.4134
1.000	gram/metre sec (g/m s)	centipoises (cP)	1.000
Length			
0.0393701	inch (in)	millimetre (mm)	25.40
0.28084	feet (ft)	metre (m)	0.3048
1.090361	yard (yd)	metre (m)	0.914400
1010	angstrom (A)	metre (m)	10-10
Mass			
0.035274	ounce (oz)	gram (g)	28.3495
2.20462	pound (lb)	kilogram (kg)	0.453592
0.96207	ton UK (long ton)	tonne (t)	1.01605
Pressure and stress			
9.869*10-3	atmosphere (atm)	kilopascal (kPa)	101.30
0.1450	pound-force/in ² (psi)	kilopascal (kPa)	6.89476
0.01020	kilogram force/cm ² (kgf/cm ²)	kilopascal (kPa)	98.0665
0.06804	atmosphere (atm)	pound-force/in ² (psi)	14.70
20.89	pound-force/ft ² (lbf/ft ²)	kilopascal (kPa)	0.04788
10.000	milibar (mbar)	kilopascal (kPa)	0.1000
33.86	milibar (mbar)	inches mercury (in Hg)	0.02953
68.95	milibar (mbar)	pound-force/in ² (psi)	0.01450
4.015	inches water (in H ₂ O)	kilopascal (kPa)	0.2491
Torque			
0.7376	lb/feet	Nm	1.35
Multiply by ←		to ←	convert

Pipe outside diameters

Coupling DN	Steel	Steel	PVC/PE metric	PVC/PE imp.	Ductile iron cl. 18	Grey cast iron British	AC cl. 6/12
50	60.3	60.3/66	63	60.3	66	68	-
65	76.1	76.1	75	76.1	82	-	-
80	88.9	88.9	90	88.9	98	95	-
100	114.3	108	110/125	114.3	118	122	124
125	139.7	133	140	139.7	144	148	149/151
150	168.3	159	160/180	168.3	170	174	174
200	219.1	211/216	225	219.1	222	228	228
225	244.5	241	250	244.5	248	257	-
250	273	267	280	273	274	284	268/280
300	323.9	316/318	315/355	323.9	326	337	334
350	355.6	368	355	355.6	378	-	-
400	406.4	419	400	406.4	429	-	-
450	457	464/470	-	457	480	-	-
500	508	514/521	500	508	532	-	-
550	559	559	-	-	558	548	550
600	609.6	622	630	609.0	632	635	-

Coupling DN	AC cl. 10	AC cl. 10 rough approx.	AC cl. 12	AC cl. 12 rough approx.	AC cl. 18	AC cl. 24	
50	68	-	-	-	-	-	
65	-	72	74	78	86	86	
80	98	102	104	-	-	-	
100	120	124	124	108/128	106/126	106/126	
125	145	149	149	153	153	-	
150	176	180	180	184	178	157/184	
200	-	-	-	-	-	-	
225	232	236	238	242	234	244	
250	284	288	292	296	288	296	
300	340	346	350	356	344	354	
350	-	-	350	356	-	354	
400	-	402	410	416	402	414	
450	452	460	468	476	456	468	
500	510	518	522	530	508	522	
550	568	576	580	-	564	578	
600	-	-	-	-	-	-	

Material specifications

GGG 40 ductile cast iron

Conforming to DIN 1693 (ISO R 1083).
General description: cast iron (used for pipes, fittings and accessories) in which graphite is present mainly in spheroidal form.

Mechanical properties GGG 40	DIN 1693	ISO R 1083
Hardness, Brinell	140-190 HB	150-200 HB
Tensile strength, ultimate	min. 400 N/mm ²	min. 420 N/mm ²
Tensile strength, yield	250 N/mm ²	280 N/mm ²
Elongation at break	minimum	minimum
Modulus of elasticity	15%	12%
	-	GPa typical for steel

GGG 45 ductile cast iron

Conforming to EN-GJS-450-10 HB200. General description: cast iron (used for pipes, fittings and accessories) in which graphite is present mainly in spheroidal form.

MULTI/JOINT®

Mechanical properties GGG45	EN 1563:1997
Symbol	EN-GJS-450-10 HB 200
Number	EN-JS1040
Tensile strength R _m	min. 450 N/mm ²
0,2% Proof Stress R _{p0,2}	min. 310 N/mm ²
Elongation at break	min. 10%
Modulus at elasticity	169 GN/mm ²
Predominant structure	Ferrite

Steel 37-2, ASTM A108

Conforming to DIN 1.0112, BS 970 080A17. General description: medium low-carbon steel with a good weldability and slightly better machine-ability.

Mechanical properties	ISO R 1083
Hardness, Brinell	126
Tensile strength, ultimate	140 N/mm ²
Tensile strength, yield	370 N/mm ²
Elongation at break	15% in 50 mm
Modulus of elasticity	205 GPa typical for steel

Stainless steel AISI 304, A2 quality X 5CrNi 189

Conforming to DIN 1.4301, ISO 683/13 11. General description: austenitic CR-Ni stainless steel. High ductility, excellent drawing, forming and spinning properties. Essentially non-magnetic, becomes slightly magnetic when cold worked. Chemical resistance: resists most oxidizing acids and salt spray. Low carbon content means less carbide precipitation in the heat-affected zone during welding and a lower susceptibility to intergranular corrosion.

Mechanical properties AISI 304	
Hardness, Brinell	123 converted from Rockwell B hardness
Tensile strength, ultimate	565 N/mm ²
Tensile strength, yield	310 N/mm ²
Elongation at break	70% in 50 mm

Thermal properties	
CTE, linear 20 °C	17.3 µm/m- °C from 0-100 °C
Modulus of elasticity	193-200 GPa

Stainless steel AISI 316, A4 quality X 5CrNiMo 17122

Conforming to DIN 1.4401, ISO 6931. General description: molybdenum content increases resistance to marine environments. High creep strength at elevated temperatures and good heat resistance. Biocompatible. Fabrication characteristics are similar to types 304.

Mechanical properties AISI 316	
Hardness, Brinell	190
Tensile strength, ultimate	620 N/mm ²
Tensile strength, yield	415 N/mm ²
Elongation at break	45% in 50 mm
Modulus of elasticity	193 GPa

Thermal properties	
CTE, linear 20 °C	17.3 µm/m- °C from 0-100 °C

Rubber

Rubbers are available in many shapes and qualities. Rubbers are an essential component of fittings and valves in pipeline constructions. Depending on the transported media and temperature, a choice has to be made for a sealing material. All the different materials have their own specific quality and applications.

The basic understandings

There still exists some confusion regarding the material rubber and the methods by which products are manufactured of it. Natural or synthetic rubber is combined with several chemicals through mixing and rolling, resulting in the so-called non-vulcanised rubber mixture. The added chemicals are often more important than the rubber raw material, for characteristics of the final product. Such a rubber mixture, a viscous, plastic mass, will be processed further into the required product, by a variety of methods. To form the product to its final shape, moulds are required to shape the material either by transfer moulding machines or compression presses. The rubber mixture is introduced in the mould under pressure, at a temperature of about 150 °C, resulting in a chemical reaction, which transforms the mixture into a formed, elastic product. One should be fully aware of the required quality standard, in order to decide on the compound to be used.

NBR

Nitrile Butadiene Rubber. Rubber seals should conform to certain requirements, such as:

NEN 5601	Hardness with shore A
NEN-ISO 37	Determination tension and stress properties
NEN-ISO 48	Hardness with 1 RHD
NEN-ISO 188	Tests for accelerated ageing
NEN-ISO 815	Determination of permanent

	deformation
NEN-ISO 816	Determination of abrasion strength
NEN-ISO 1431	Determination of ozone resistance
EN-ISO 1817	Determination of resistance against fluids
NEN-ISO 2285	Determination of permanent stretch at temperature

NBR rubber is eminently resistant against gas, oil, grease, petrol and solvents. The resistance is strongly dependent on the Acrylonitril percentage; the best results are achieved with high percentages. However the elasticity, the resistance against permanent transformation and the low temperature resistance will decrease. The material is sensitive to corrosion by ozone. At lower temperatures, NBR will stiffen. Depending on the mixture, the maximum temperature for use can be up to around 90 °C. By complete immersion in for example oil, NBR can be used up to around 120 °C. NBR is also suitable for use in drinking- and waste water systems. All NBR seals used by Georg Fischer Waga N.V. meet the requirements of EN 682 GB (DIN 3535/3) for gas applications, and are suitable for use in drinking water systems.

Application NBR	Gas-, drinking- and waste water systems
Temperature	-5 °C to +50 °C
Hardness	60 to 70 IRHD

EPDM

Ethylene-propylene-diene-monomer rubber. By co-polymerisation of ethane and propane, an elastomer arises without double bindings, that can only be vulcanised with peroxides. If with polymerisation a third monomer is built in, the elastomer can be vulcanised with sulphur (EPDM). EPDM is very well resistant against weather influences in general and ozone

especially. Besides that, the material is excellently resistant against high temperatures, hardly sensitive to corrosion, and resistant against free-basing, acid and solvents. Depending on the mixture and type of vulcanisation, the maximum temperature for use of EPDM is around 120 °C. All EPDM seals used by Georg Fischer Waga N.V. meet the requirements of BS 2494/W and EN 681-1/ WA.

Application NBR	Drinking water
Temperature	0 °C to +50 °C
Hardness	70 IRHD

Perbunan

All Perbunan seals used by Georg Fischer Waga N.V. meet the requirements of EN 682 (DIN 3535/3) for gas applications and are suitable for use in drinking water systems.

Application Perbunan	Gas-, drinking- and waste water systems
Temperature	-30 °C to +100 °C
Hardness	approx. 60 shore A

Guidance on storage of rubber seals

In case there is any doubt about the suitability of the rubber sealing for certain applications, please contact us. The rubber seals should:

- have a storage temperature below 25 °C and preferably below 15 °C,
- be protected from light, in particular strong sunlight and artificial light with a high UV content,
- not be stored in a room with any equipment capable of generating ozone, e.g. Mercury vapour lamps, high voltage electrical equipment, which may give rise to electrical sparks or silent electrical discharges,
- be stored in a relaxed condition free from tension, compression or other deformation,
- be maintained in a clean condition.

Coatings and lubricants

Coating for corrosion protection

To ensure a durable, high quality corrosion protection of castings (and other metals), coatings must be resistant to temperature changes and the effects of weather and other environmental influences such as moisture, industrial gases etc., which stress the casting. The coating must ensure a completely sealed surface without porous areas. A protective coating prevents corrosion and the formation of corrosion products which, when carried along the pipeline, could lead to disruption at other points. A smooth surface reduces friction between the transported medium and the fitting. Encrustation by salts or organic materials is avoided.

Epoxy coatings

Coatings on the basis of epoxy resin are the best way of protecting castings. Epoxy powder coatings offer long-term reliability. The coating protects the entire surface area, with a film thickness of minimum 250 µm. It has no pinholes, tested with 3 kV. The epoxy resin technology uses less energy compared to other coating processes, as the parts are only heated up to approximately 200 °C. The application processes of epoxy coatings, Fluidised Bed Coating or Electro-static Spray Application, allow automatic manufacturing processes and result in a homogeneous layer thickness inside and outside of the fittings, formed by one material without discontinuity. Consequently it offers excellent edge coverage. We were one of the first coupling manufacturers who started to have their product protected with an epoxy coating ever. Since we introduced the epoxy-coated couplings in the beginning of 1987, we have built up a lot of experience and know-how. Within the European Standard work groups, the tendency

is very clearly towards epoxy coatings instead of other coatings. As a member of GSK, Georg Fischer Waga N.V. contributes to lifting the standards for epoxy coating used in the (utility) market.

GSK

The GSK, Quality Association for Heavy Duty Corrosion Protection of Powder Coated Valves and Fittings, was founded in 1993 in order to fulfil the growing quality requirements for pipelines in many European countries. Today the GSK has 27 members, all leading European manufacturers of fittings and valves, engineering companies and producers of fusion bonded epoxy powder coatings. The epoxy powder coating of valves and fittings is the ideal technology for long-term corrosion protection and involves the highest levels of quality control in their manufacture. GSK is recognised by RAL (German Institute for Quality Assurance and Quality Marks) and sets the quality and testing standards for machinery, materials, processes and quality assurance in the epoxy coatings technology. The regulations of the GSK not only meet the requirements of the relevant national and international standards (e.g. DIN, ISO) but also exceed them. The fixed quality level serves as a reliable standard for builders, engineers, construction workers and manufacturers. A safe and consistent quality fulfils high demands. The quality is controlled by an independent test laboratory: MPA Germany.

RESICOAT® RT 9000 R4 (red)

RESICOAT® has a very high durability. It shows very high impact resistance and offers a good electrical insulation. Values measured on blast cleaned cast iron.

RESICOAT® technical data	
Minimum thickness	250 µm
Colour	according to GSK
	Dark red, RAL 3003
Basis	Epoxy resin
Impact resistant	20 joule at 23 °C according to DIN 30671
Porosity	0 (zero) 3 kV test
Elasticity	5% at 23 °C according to DIN 30671 and DIN 30677-25
Flexibility	11% at 23 °C according to ASTM 522
Pressure resistance	100 µ at 90 °C according to DIN 30671
Hardness	Shore D 98 / > 100 according to EN ISO 2815
Adhesion	> 20 N/mm ² according to DIN 53232 and > 16 MPa according to DIN ISO 4624
Salt spray test	> 720 hours according to ASTM B 117
Maximum temperature	135 °C according to VDE 0368
Edge coverage	Excellent
CD-properties	Excellent at 30 days, 23 °C
Chemical resistance	pH 2 up to pH 13
Breakdown voltage	> 3 kV at 250 µm according to ISO 8130-2
Water absorption	100 days, 23 °C < 2% according to DIN 53495
	100 days, 65 °C < 3% according to DIN 53495
Water immersion (5 y.)	no blisters ISO 7253
Cathodic disbandment test	at 23 °C < 10 mm DIN 30677-2

Approvals

A wide range of approvals assures the suitability in contact with gas and drinking water. The tests include water purity and bacterial attack. Furthermore the coating meets the requirements specified for use in waste water and gas pipe systems. The coating also meets the requirements of Kest SFW 2.0. The RESICOAT® R4 epoxy resin carries over 80 drinking water approvals. Some of these include: Belgaqua (Belgium), DGS (France), KWT (Germany), KIWA (the Netherlands), NSF Standard 61 (USA), WRAS (United Kingdom) as well as drinking water approvals in Austria, Switzerland and the Czech Republic. And last but not least the RESICOAT® R4 meets the requirements of DIN 30677, 30677 T1 + T2, DIN 3476 and passes the GSK standard.

Coating application process

Before the fittings are coated, they are cleaned, and then grid-blasted according to class SA 2 ½. Both application techniques, Fluidised Bed Coating or Electrostatic Spray Application, are used to apply the coating to our fittings.

Fluidized bed coating

The powder melts onto the pre-heated grid-blasted fitting and

excessive powder falls off, helped by movement of the coated part.

Electrostatic spray application

The powder is applied by an electrostatic spray gun, either manually or by a robot.

Anti Friction coating

Galling or fretting is a severe form of adhesive wear, which occurs during sliding contact of one surface relative to another. Clumps of one part may stick to the mating part and break away from the surface. This is also the case with stainless steel. To prevent this problem, anti friction coatings can be used. Blue coloured coating indicates that the bolts are stainless steel A2 and black coloured coating indicates that the bolts are stainless steel A4.

Teflon coating (PTFE)

In order to prevent friction, the stainless steel bolts are spray-coated with fluorocarbon coating, a low friction coating applied to threads. This anti friction coating is a dry lubricant consisting of suspensions of the solid lubricant PTFE. This coating has the property of reducing the torque-tension scatter during tightening. This type of coating is also used to prevent problems caused by weld splatter obstructing the threads

of weld nuts during their placement and it eliminates the need for masking or cleaning when painted, since paint will not adhere to the coating. The Teflon coating can be supplied in a wide variety of different colours.

Passivated nuts

Another anti friction measure is the use of passivated nuts. Here, another zinc layer lubricates the thread reducing friction.

Anti-Seize Compounds

Anti-seize compounds are used on the threads of fasteners. It prevents galling of mating surfaces on especially the stainless steel fasteners. Furthermore it can provide a barrier to water penetration since the threads are sealed by use of the compound. On the steel fasteners it therefore also improves the corrosion resistance to allow the parts to be subsequently disassembled even under adverse environmental conditions. We advise to use a lubricant containing molybdenum disulphide or copper, such as Molykote Cu-7439 plus copper past or equivalent. This solid lubricant acts as a high pressure resistant film. It can be used by itself as a dry lubricant as well as in other solid lubricants and in oils and greases.

Molykote copper paste



GSK logo



Technical specifications flanges

Flanged connections are one of the oldest methods of connecting pipes and/or fitting together. One of the first flanged connections dates from the 17th century and was described in a standard for the first time in 1882. In 1926 the first material independent standard for mating dimension of flanges was published. These standard sizes made it possible to connect two flanges, independent of type, within the same DN (nominal size) and PN (pressure class) together regardless the material of which the flange was made from.

Flange mating dimensions

The mating dimensions describe the interchangeability between flanges within the same DN and PN. The mating dimensions are described by:

- diameter of bolt circle (pitch circle),

- number of bolts (pitch),
- diameter of bolt hole (bolt size).

The mating dimensions, which are used in our products, are standard PN 10 or PN 16 according EN 1092-2, ISO 2531, DIN 2501, DIN 28604 / 28605 and other EN-ISO-DIN orientated standards. This secures the interchangeability with BS 4504: Section 3.2:1989 up to DN 300.

Drilling patterns

(E.g. mating dimensions) of other standards can be supplied as long as they are allowed within the physical dimensions of the flange.

Physical dimensions

Other physical dimensions of the flange determine the strength of the flange. This strength is depending on the type of material of which the flange

is made of. Physical dimensions are:

- the flange diameter,
- the flange thickness,
- the diameter and height of possible flange facing,
- concentrically grooves.

The flanges used in our products are all dimensioned type B (raised face) according to EN 1092-2.

Flange facing

All flange facings in our cast iron product lines are standard equipped with concentrically grooves. These grooves, opposite to flat facings, give a ring tightening force to the flange gasket rather than a faced tightening. This ensures a heavy-duty performance with high life expectancy in combination with rubber flange gasket

Flange mating dimensions overview (most common PN10 + PN16 see below)

DN	PN 10					PN 16				
	D	K	L	M	N	D	K	L	M	N
50	165	125	18	M16	4	165	125	18	M16	4
65	185	145	18	M16	4	185	145	18	M16	4
80	200	160	18	M16	8	200	160	18	M16	8
100	220	180	18	M16	8	220	180	18	M16	8
125	250	210	18	M16	8	250	210	18	M16	8
150	285	240	22	M20	8	285	240	22	M20	8
200	340	295	22	M20	8	340	295	22	M20	12
250	395	350	22	M20	12	405	355	26	M24	12
300	445	400	22	M20	12	450	410	26	M24	12
350	505	460	22	M20	16	520	470	26	M24	16
400	565	515	26	M24	16	580	525	30	M27	16
450	645	565	26	M24	20	640	585	30	M27	20
500	670	620	26	M24	20	715	650	33	M30	20
600	780	725	30	M27	20	840	770	36	M33	20
700	895	840	30	M27	24	910	840	36	M33	24
800	1015	950	33	M30	24	1025	950	39	M36	24
900	1115	1050	33	M30	28	1125	1050	39	M36	28
1000	1230	1160	36	M33	28	1255	1170	42	M39	28
1200	1455	1380	39	M36	32	1485	1390	48	M45	32
1400	1675	1590	42	M39	36	1685	1590	48	M45	36
1600	1915	1820	48	M45	40	1930	1820	56	M52	40
1800	2115	2020	48	M45	44	2130	2020	56	M52	44
2000	2325	2230	48	M45	48	2345	2230	62	M56	48

DN: Nominal Diameter (mm)
D: Flange Diameter (mm)
K: Diameter of Bolt Circle (mm)
L: Diameter of Bolt Hole (mm)
M: Bolt Size (mm)
N: Number of Bolt Hole (mm)

		DN (mm)																								
PN6		40	50	60	65	80	100	125	150	200	225	250	300	350		400	450	500		600	700		800	900	1000	1200
Outside diameter flange	D	130	140	150	160	190	210	240	265	320		375	440	490		540		645		755	860		975	1075	1175	1405
Diameter of bolt circle	K	100	110	120	130	150	170	200	225	280		335	385	445		495		600		705	810		920	1020	1120	1340
Number of bolts	N	4	4	4	4	4	4	8	8	8		12	12	12		16		20		20	24		24	24	28	32
Diameter of bolt hole	L	14	14	14	14	19	19	19	19	19		19	23	23		23		23		28	28		31	31	31	34
Nominal size bolts		M12	M12	M12	M12	M16	M16	M16	M16	M16		M16	M20	M20		M20		M20		M24	M24		M27	M27	M27	M30

		DN (mm)																									
PN10		40	50	60	65	80	100	125	150	200	225	250	300	350		400	450	500		600	700		800	900	1000	1200	
Outside diameter flange	D	See PN 16									340		395	445	505		585		670		780	895		1015	1115	1230	1455
Diameter of bolt circle	K										295		350	400	460		515		620		725	840		950	1050	1180	1380
Number of bolts	N										8		12	12	16		16		20		20	24		24	28	28	32
Diameter of bolt hole	L										23		23	23	23		28		28		31	31		34	34	37	41
Nominal size bolts											M20		M20	M20	M20		M24		M24		M27	M27		M30	M30	M33	M36

		DN (mm)																								
PN16		40	50	60	65	80	100	125	150	200	225	250	300	350		400	450	500		600	700		800	900	1000	1200
Outside diameter flange	D	See PN 40		175	185	200	220	250	285	340		405	460	520		580		715		840	910		1025	1125	1255	1485
Diameter of bolt circle	K			135	145	160	180	210	240	295		355	410	470		525		650		770	840		950	1050	1170	1390
Number of bolts	N			4	4	8	8	8	8	12		12	12	16		16		20		20	24		24	28	28	32
Diameter of bolt hole	L			19	19	19	19	19	23	23		28	28	28		31		34		37	37		41	41	44	50
Nominal size bolts				M16	M16	M16	M16	M16	M20	M20		M24	M24	M24		M27		M30		M33	M33		M36	M36	M39	M45

		DN (mm)																											
PN25		40	50	60	65	80	100	125	150	200	225	250	300	350		400	450	500		600	700		800	900	1000	1200			
Outside diameter flange	D	See PN 40									270	300	360		425	485	555		620		730		845	960		1085	1185	1320	1530
Diameter of bolt circle	K										220	250	310		370	430	490		550		660		770	875		990	1090	1210	1420
Number of bolts	N										8	8	12		12	16	16		16		20		20	24		24	28	28	32
Diameter of bolt hole	L										26	26	28		31	31	34		37		37		41	44		50	50	57	57
Nominal size bolts											M24	M24	M24		M27	M27	M30		M33		M36	M36		M45	M45	M52	M52		

		DN (mm)																								
PN40		40	50	60	65	80	100	125	150	200	225	250	300	350		400	450	500		600	700		800	900	1000	1200
Outside diameter flange	D	150	165	175	185	200	235	270	300	375		450	515	580		660		755		890	995		1140	1250	1360	1575
Diameter of bolt circle	K	110	125	135	145	160	190	220	250	320		385	450	510		585		670		765	900		1030	1140	1250	1460
Number of bolts	N	4	4	8	8	8	8	8	8	12		12	16	16		16		20		20	24		24	28	28	32
Diameter of bolt hole	L	19	19	19	19	19	23	28	28	31		34	34	37		41		44		50	50		57	57	57	62
Nominal size bolts		M16	M16	M16	M16	M16	M20	M24	M24	M27		M30	M30	M33		M36		M39		M45	M45		M52	M52	M52	M56

		DN (mm)																									
DIN 1882		40	50	60	65	80	100	125	150	200	225	250	300	350		400	450	500		600	700		800	900	1000	1200	
Outside diameter flange	D	160					200		230	260	290	350	400		450	520	575		630	680	790						
Diameter of bolt circle	K	125					160		180	210	240	310	350		400	485	520		570	625	725						
Number of bolts	N	4					4		4	4	6	6	8		8	10	10		12	12	16						
Diameter of bolt hole	L	18					18		18	22	22	22	22		22	25	25		25	26	30						
Nominal size bolts		M16					M16		M16	M20	M20	M20	M20		M20	M24	M24		M24	M24	M27						

		DN (mm)																								
AS4087 standard pressure		40	50	60	65	80	100	125	150	200	225	250	300	350	375	400	450	500	525	600	700	750	800	900	1000	1200
Outside diameter flange	D	150					165		185	215	255	280	335	370	405	455	525	550	580	640	705	735	825	910	995	
Diameter of bolt circle	K	114					127		146	178	210	235	292	324	358	406	470	495	521	584	641	673	758	845	927	
Number of bolts	N	4					4		4	4	8	8	8	8	8	12	12	12	12	16	16	16	20	20		
Diameter of bolt hole	L	18					18		18	18	18	18	18	18	22	22	26	26	26	26	26	26	30	30	33	
Nominal size bolts		M16					M16		M16	M16	M16	M16	M16	M16	M20	M20	M24	M24	M24	M24	M24	M24	M27	M27	M30	

		DN (mm)																								
AS4087 high pressure		40	50	60	65	80	100	125	150	200	225	250	300	350	375	400	450	500	525	600	700	750	800	900	1000	1200
Outside diameter flange	D	165					185		205	230	305		370	405	430	480	550	580	610	675	735	760	850	1015		
Diameter of bolt circle	K	127					146		165	191	260		324	356	381	438	495	552	610	673	699	781	674			
Number of bolts	N	4					8		8	8	12		12	12	12	12	16	20	20	24	24	24	26			
Diameter of bolt hole	L	18					18		18	18	22		22	26	26	26	26	26	30	33	33	33	36	36		
Nominal size bolts		M16					M16		M16	M16	M20		M20	M24	M24	M24	M27	M27	M27	M30	M30	M30	M33	M33		

		DN (mm)																								
Table E/ BS 10-1962 Table E		40	50	60	65	80	100	125	150	200	225	250	300	350	375	400	450	500	525	600	700	750	800	900	1000	1200
Outside diameter flange	D	150					165		185	215	255	280	335	370	405	455	525	550	580	640	705	735	825	910	995	
Diameter of bolt circle	K	114					127		146	178	210	235	292	324	356	406	470	495	521	584	641	673	756	848	927	
Number of bolts	N	4					4		8	8	8	8	8	12	12	12	12	12	12	16	16	16	16	20	20	
Diameter of bolt hole	L	18					18		18	18	18	22	22	22	22	26	26	26	26	26	26	30	33	33	36	
Nominal size bolts		M16					M16		M16	M16	M16	M20	M20	M20	M20	M24	M24	M24	M24	M24	M24	M27	M30	M30	M33	

		DN (mm)																								
ANSI B 16.1 125 LB/ AWWA C-1		40	50	60	65	80	100	125	160	200	225	250	300	350	375	400	450	500	525	600	700	750	800	900	1000	1200
Outside diameter flange	D	152					178		191	229	255	280	343	405		483	533	597		635	699	813		984		
Diameter of bolt circle	K	121					140		152	191	216	241	298	362		432	476	540		578	635	749		914		
Number of bolts	N	4					4		4	8	8	8	8	12		12	12	16		16	20	20		28		
Diameter of bolt hole	L	19					19		19	19	22	22	22	25		25	29	29		32	32	35		35		
Nominal size bolts		M16					M16		M16	M16	M20	M20	M20	M22		M25	M25		M29	M29	M32		M32			

		DN (mm)																								
ISO 7005 PN16		40	50	60	65	80	100	125	150	200	225	250	300	350	375	400	450	500	525	600	700	750	800	900	1000	1200
Outside diameter flange	D	165					185		200	220	250	285	340	405		460	520	580		640	715	840		910		
Diameter of bolt circle	K	125					145		160	180	210	240	295	355		410	470	525		585	650	770		840		
Number of bolts	N	4					4		8	8	8	8	12	12		12	16	16		20	20	20		24		
Diameter of bolt hole	L	18					18		18	18	18	22	22	27		27	27	30		30	33	36		36		
Nominal size bolts		M16					M16		M16	M16	M16	M20	M20	M24		M24	M24	M27		M27	M33	M33		M33		

Insert stiffeners

In this chapter, the need of using insert stiffeners (also called support liners) in general is explained. Also the specific guideline of using inserts in combination with the Georg Fischer Waga N.V. products is mentioned.

Mechanical joints on plastic pipes

Plastic materials suffer from material relaxation, resulting in a change of shape over time. This phenomenon is known as stress relaxation. Especially when installing a mechanical coupling on plastic pipes, tightening of the bolts results in an increased surface pressure of the joint onto the plastic pipe wall. This extra pressure in most cases leads to a deformation of the pipe wall (picture 1), enhancing the relaxation process. In case of restraint mechanical joints, such as the MULTI/JOINT® 3007 Plus, the forces of the restraining mechanism brought onto the pipe are often much higher than the forces of the sealing mechanism. These higher stress levels will therefore result in a higher creep deformation and might cause a higher risk of joint failure.

By inserting a stainless steel insert stiffener into the plastic pipe end, the pipe is reinforced from the inside, ensuring that the pipe wall cannot be deformed (picture 2). This will result in the best possible connection on plastic pipes.

Bending torques

Another reason for using the stainless

steel insert stiffeners is to avoid bending torques. A plastic pipe always tends to knick exactly at the spot of the sealing area when bending torques act on the pipe (picture 3.). This might result in leakages of the fitting. When using an insert stiffener, the bending point is diverted away from the sealing area, resulting in a longlasting leak free connection (picture 4.)

Use of insert stiffeners

In order to guarantee the best possible performance of the Georg Fischer Waga N.V. fittings on plastic pipes, we set the following directive:

Use of an insert stiffener (approved by Georg Fischer Waga N.V.) is mandatory on all plastic pipes, both for restraint and non restraint connections, both for permanent and temporary connections.

Exceptions:

No insert stiffeners need to be used for temporary (< 5 years) non-restraint connections on:

- PP-B, PB and HD-PE (80/100) pipes with SDR-class 11 or smaller
- PVC pipes with SDR-class 21 or smaller

Note:

In theory, the pressure inside the pipe is an important factor to determine if an insert stiffener is required or not. The inside pressure could take over the function of

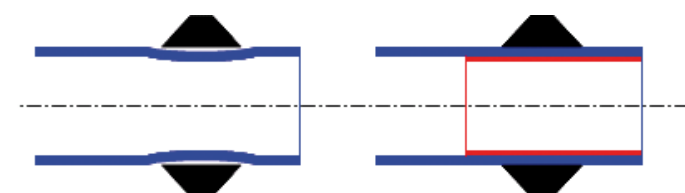
an insert stiffener, but only when this pressure would be constantly present and never drop. In practice, a constantly present pressure is never the case. Therefore, Georg Fischer Waga N.V. always requires the use of insert stiffeners according to the above.

Design and properties

Georg Fischer Waga N.V. offers two types of insert stiffeners for different applications. Depending on the application the right choice has to be made. To guarantee the correct support to the spigot, insert stiffeners must be designed according the intended use for plastic piping systems. Therefore insert stiffeners must conform to the following properties to guarantee its function. The insert stiffener must:

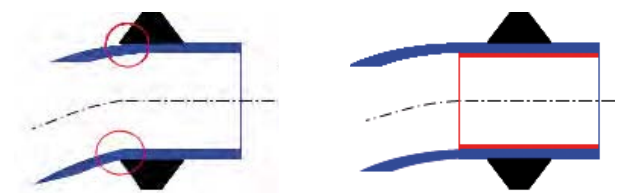
- be axially secured to stay in place inside the spigot
- not be oversized to reduce residual stress due to installation
- not be too small in order to guarantee sufficient support
- have the appropriate length to support at least
- the joint area plus $0,2 \times$ the outside diameter
- be ridged to at least withstand the forces brought on by the sealing and restraining mechanism
- be easy to install
- be free of corrosion
- not affect the content of the pipe system

Mechanical pipe joints



1.

Residual stress and bending torques



3.

4.

Insert Economy

The Insert Economy is designed for (PE, PB, PVC etc.) pipes dimensioned according to DIN 8074. The insert can be installed in these pipes as long as they are within the allowed production tolerances. In order to secure a sufficient support to the pipe, the (nominal) diameter of the insert is just below the nominal inside diameter of the pipe. This means that when the pipe is produced at its biggest tolerance, it "falls in", supported by the dimples. When the pipe is produced at its

lowest tolerance, you need some extra force to put in the insert. But this extra force should be no more than can be achieved with a hammer. The Insert Economy is available for various SDR-sizes. To guarantee the correct working of the insert, the use is limited to pipes up to DN300. Above this dimension, the production tolerances become such, that sufficient support is no longer guaranteed. For inserts bigger than DN300, we offer the inserts with wedge.

Insert with wedge

The insert with wedge is intended for pipes with larger production tolerances and pipes produced according to unknown standards, and is available up to DN800. The wedge construction offers a small tolerance, overcoming minor dimension differences of the pipe. After positioning the insert, the wedge is hammered in, to fix the insert. After that the top end of the remaining wedge has to be sawed off.

Insert Economy



Insert with wedge



MULTI/JOINT® 3000 Plus principle

Proven quality

The MULTI/JOINT® 3000 Plus system comprises wide range fittings, flange adaptors, reduction pieces, bends, duck feet bends, end caps and T-pieces of ductile cast iron in the ranges DN50 - DN400. Thanks to the unique wide range sealing system all fittings can be made restraint as long as the nominal diameters are the same. All you need to know is the outer diameter of the pipe, the medium and the working pressure. The MULTI/JOINT® 3000 Plus system has a range up to 43 mm and connects pipes from 46 - 433 mm (stepless to 310 mm). The high quality restraint fittings are suitable for applications in water pipes up to 16 bar and gas pipes up to 8 bar. The MULTI/JOINT® system has earned its reputation for quality on the international market over the past 20 years.

Unique sealing system

When the quality standard is high, you need a reliable connection. The MULTI/JOINT® 3000 Plus system meets the demands and is suitable for applications in water and gas. The uniqueness of the system lies in the sealing which consists of a flexible ring (Uni/Fleks® ring or Uni/Fiks® ring) which consists of plastic segments and a rubber sealing ring (EPDM or NBR). The Uni/Fiks® version is supplied with metal grippers which make the MULTI/JOINT® 3000 Plus restraint on all types of pipe materials.

Uni/Fleks® ring

The Uni/Fleks® ring is a combination of a plastic ring, consisting of plastic segments, with a thin rubber sealing (Varioseal®). This rubber sealing (available both in EPDM and NBR) is a reliable solution for both water and gas applications. The Uni/Fleks® ring is non restraint.

Uni/Fiks® ring

When metal grippers (Uni/Fiksers®) are placed in the Uni/Fleks® ring, the sealing system is restraint. The Uni/Fiks® ring with the Uni/Fiksers® makes a restraint connection up to an impressive 16 bar for water and 8 bar for gas, both on rigid pipes and plastic pipes.

Segments

The plastic segments in the rings DN150 – DN400 consist of two parts; the wedge and the topple. The wedge is made of POM and is in contact with the pipe material. The topple, made of polyamide, ensures the integrity of the ring. This combination results in a progressive sealing and gripping mechanism. The plastic segments in the ring sizes DN50 – DN125 consist of one part, made of POM. Furthermore the design of the ring enables large range coverage in outside diameters.

Uni/Fiksers®

The Uni/Fiksers® ensure optimal restraint both on rigid pipe materials and on plastic pipes, without compromise.

Body and gland

The length of the body determines the insertions depth or joint gap possible. Because the insertion depth complies, and even exceeds, the dimensions given in EN-14525, large joint gaps can be covered. Secondly the design of the body and gland are such that losses in tension, which will occur in time, are compensated by the flexibility of the ears.

Pressure/Performance

See table in the user manual of the MULTI/JOINT® 3000 Plus.

Joint gap

Maximum axial distance between

any point of the spigot ends of the pipes to be connected (coupling), or, maximum axial distance between any point of the spigot end of the pipe and the flange face (flange adaptor).

Depth of engagement

Minimum distance between any point of the spigot end and the internal face of the joint gasket. The manufacturer shall declare the maximum joint gap, and it should be not less than the values given in the table below.

Joint gap values

Maximum OD or DN to be connected		Coupling	Flange adaptor
OD (mm)	DN	(mm)	(mm)
OD≤110	DN≤100	25	20
110<OD	100<DN	35	30
≤225	≤200		
225<OD	200<DN	50	40
≤315	≤300		
315<OD	300<DN	70	50
≤400	≤400		
400<OD	400<DN	90	60
≤630	≤600		

Note:

Care must be taken to ensure that manufacturer's declared maximum joint gap is not exceeded due to pipe contraction or expansion as a result of temperature or pressure change.



Angularity

The MULTI/JOINT® 3000 Plus family has on each side a nominal angularity at installation of 8° on a flexible connection and approximately 8° on a restraint connection.

Temperature

The MULTI/JOINT® 3000 Plus has

different parts, which resist different temperatures.

	NBR	EPDM
Maximum allowable temperature for joint	-5 °C up to +50 °C	0 °C up to +50 °C

Certified quality

The MULTI/JOINT® 3000 Plus family is both tested internally as well as externally by independent laboratories. All performed tests comply with the international standard requirements such as ISO 2531 and EN-14525. For more detailed information please contact us.

Defintition and table of dimensions (DN50 - DN300)

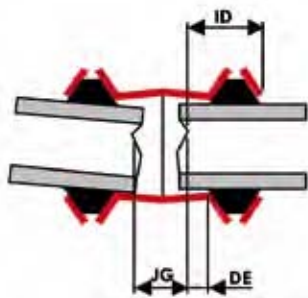
			Small OD				Large OD										
	Size	DE		JG	ID			JG	ID								
					min	max			min	max							
Type 3000	50	20		88	79	103		110	84	108							
	65	20		96	79	107		110	83	111							
	80	20		116	78	116		134	84	122							
	100	25		116	85	118		138	90	123							
	125	25		128	85	124		148	93	132							
	150	25		130	82	122		164	93	133							
	200	30		170	88	143		202	99	154							
	225	30		200	96	166		236	110	180							
	250	30		214	97	174		254	112	189							
300	30		222	96	177		264	110	191								
	Size	DE	JGW	JG	ID		JGW	JG	ID								
					min	max			min	max							
Type 3050	50	20	44	113	79	108	55	124	79	119							
	65	20	62	131	79	125	69	138	83	132							
	80	20	58	124	78	122	67	133	84	131							
	100	25	58	124	85	123	69	135	90	134							
	125	25	64	137	85	132	74	147	93	142							
	150	25	65	138	82	133	82	155	93	150							
	200	30	86	161	88	155	102	177	99	171							
	250	30	106	183	97	188	124	201	110	206							
	300	30	138	217	96	218	159	238	110	239							
	Size	DE	JGW	JG	ID		JGW	JG	ID								
					min	max			min	max							
Type 3150	50 x 40	20	44	113	79	177	55	124	79	188							
	65 x 80	20	52	121	79	184	69	138	79	201							
	100 x 80	25	58	127	85	192	69	138	85	203							
	125 x 100	25	64	138	85	206	74	148	85	216							
	125 x 150	25	64	138	85	206	74	148	85	216							
	225 x 200	25	132	207	137	207	150	225	155	225							
	225 x 250	30	70	145	75	145	88	163	93	163							
	Size	DE	JGW		ID		JGW		ID								
					min	max			min	max							
Type 3200	50	20	44		79	103	55		84	108							
	65	20	62		79	121	55		83	125							
	80	20	58		78	116	67		84	122							
	100	25	58		85	118	69		90	123							
	125	25	64		85	124	74		93	132							
	150	25	65		82	122	82		93	133							
	200	30	85		88	143	101		99	154							
	225	30	100		96	166	118		110	180							
	250	30	107		97	174	127		112	189							
	300	30	112		96	178	132		110	192							
	Size	DE		JGW		JG	ID				JGW		JG	ID			
		DN1	DN2	DN1	DN2		DN1		DN2		DN1	DN2		DN1		DN2	
							min	max	min	max				min	max	min	max
Type 3100	80 x 65	20	20	58	68	126	78	116	83	126	67	75	142	78	130	78	138
	100 x 80	25	20	58	68	126	85	118	84	128	69	77	146	85	153	80	141
	125 x 100	25	25	60	62	122	85	120	90	122	70	73	143	85	147	85	138
	150 x 100	25	25	60	68	128	82	117	90	125	77	79	156	82	150	82	144
	150 x 125	25	25	63	70	133	82	120	93	127	80	80	160	82	152	82	148
	200 x 150	30	25	80	73	153	88	138	93	131	96	109	205	88	161	83	177
	225 x 200	30	30	98	106	204	96	164	99	172	116	139	255	96	202	96	208
	250 x 225	30	30	107	106	213	97	174	110	173	127	133	260	97	203	97	213
300 x 250	30	30	111	112	223	96	177	112	178	132	137	269	96	208	96	219	

Note:

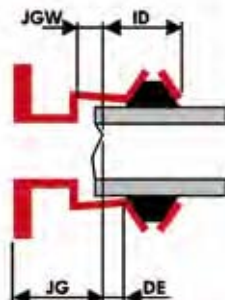
For bend and duckfoot use the same JG & JGW as for the flange adaptors

Depth of engagement

MULTI/JOINT® 3000 Plus

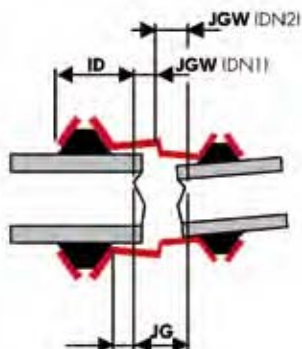


MULTI/JOINT® 3050 / 3150 Plus

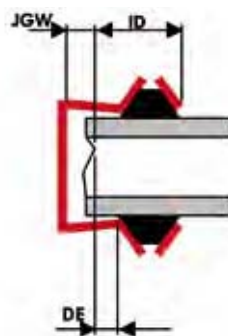


JG: Joint Gap (according to TC 203/WG 1 N 217)
 DE: Depth of engagement (according to TC 203/WG 1 N 217)
 ID: Insertion depth (according to ISO 2531)
 JGW: Joint Gap "Waga"
 For reference purposes.

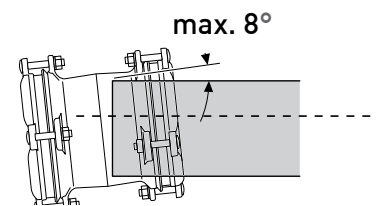
MULTI/JOINT® 3100 Plus



MULTI/JOINT® 3200 Plus



Nominal angularity



The angularity is based on the middle of the coupling range.

MULTI/JOINT® 3000 Plus, the original

Coupling



Flange adaptor



Spigot-end
(+ reduction)



Duckfoot
(+ reduction)



Reduction coupling



Reduction flange



End cap
(blind and threaded)



Bend



PE adaptor



T-piece



MULTI/JOINT® XL principle

For bigger pipes from DN300 up to and including DN600, our MULTI/JOINT® XL fittings offer a large tolerance solution with ranges up to 32 mm. This, combined with a huge insertion depth and the fact that the MULTI/JOINT® fittings are completely made of ductile cast iron, makes MULTI/JOINT® XL fittings the obvious choice when you are looking for longlasting quality and reliability.

Sealing rings

The rubber gasket for the MULTI/JOINT® XL fittings has a double conical shape with a triple radius feature, reducing the amount of stress on the gasket. Next to that, the MULTI/JOINT® XL has a middlerange sealing system, meaning that when in resting position, the gasket dimension is exactly in the middle of the coupling range. When the

pipe to be connected has an outside diameter which is in the upper or lower part of the range, the gasket is slightly stretched, respectively slightly compressed. These unique features assure a minimum of stress on the gasket, resulting in an expected life expectancy of 50 years.

Body and gland

The length of the body determines the insertions depth or joint gap possible. Because the insertion depth complies, and even exceeds, the dimensions given in EN-14525, large joint gaps can be covered. Secondly the design of the body and gland are such that losses in tension, which will occur in time, are compensated by the flexibility of the ears. The high modulus of GGG 45 ductile cast iron guarantees a sufficient, durable pressure on the rubber ring.

Pressure/performance

PFA water: 10 bar, PFA gas: 4 bar.

Insertion depth

For all sizes 200 mm per socket.

Angularity

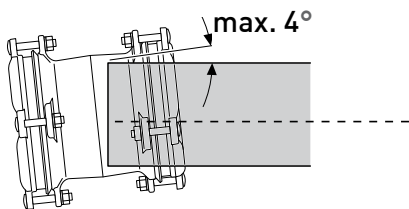
The MULTI/JOINT® XL has on each size a nominal angularity of 4°.

Temperature

The MULTI/JOINT® XL has different parts, which resist different temperatures.

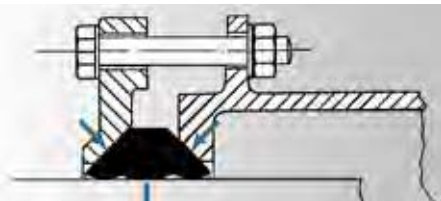
	NBR	EPDM
Maximum allowable temperature for joint	-5 °C up to +50 °C	0 °C up to +25 °C

Nominal angularity



The angularity is based on the middle of the coupling range.

Gasket



MULTI/JOINT® XL

Coupling



Flange adaptor



Reduction coupling



Reduction flange



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118-138L300N	115	700 610 832	87	709 007 610	60
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143-163L400N	116	700 610 856	87	709 008 062	61
143-163L500N	116	700 610 858	87	709 008 063	61
160-180L200N	115	700 610 860	87	709 008 064	59
160-180L300N	115	700 610 862	87	709 008 065	59
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180-200L300N	115	700 618 916	86	709 008 071	59
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GEORG FISCHER WAGA N.V. CONDITIONS OF SALE

Article I - General

- In case of any difference of opinion regarding the contents, purport and intention of any provision in these general conditions of sale, the most obvious interpretation, based on the Dutch version of this document, shall prevail. Any reference by principal to his own general conditions in any phase of making the agreement with us is explicitly rejected. Insofar as our conditions are conflicting with principal's conditions of purchase or tender or other conditions, our conditions shall prevail, except in case that and insofar as principal's conditions have been explicitly accepted by us in writing.
- In these general conditions the following terms shall be understood to mean the following:
"We"/"us": any natural person or legal entity who purchases products from us or to whom we submit offers.
"Principal" or "us": contractor who has received an order from principal or has entered into an agreement with the latter or he who refers to these general conditions in his offer.
"Products": all objects which are the subject of an agreement, including all results of services rendered by us, such as contracting work, mounting, installation, advice, etc.

Article II - Offers: creation of agreements

- All our offers or quotations are free of engagement, unless explicitly stated otherwise in writing. Each offer or quotation from us is based on the assumption that we can carry out the order in normal conditions and during regular working hours. An agreement shall only be created if and insofar as we accept an order from principal in writing or if we commence carrying out an order. The date on which the agreement is created shall be the date of despatch of our written confirmation of the order respectively the first day on which we actually commence carrying out the order.
- If at principal's request we make any performance prior to the agreement being created, we shall have the right to demand payment for such performance in conformity with the rates then applied by us, unless explicitly otherwise agreed upon in writing.
- In case of acceptance by us in writing, we shall have no further obligations than those accepted by us in writing. Principal shall be deemed to be bound by his order, for as long as the order has not been refused by us.
- Stipulations in the order which are not in conformity with or deviating from our offer or quotation shall at all times only be binding for us if and insofar as such stipulations have been explicitly accepted by us in writing.
- All specifications of figures, measurements, weights and/or other descriptions of the products have been drawn up with due care, but we cannot guarantee that no deviations will occur. Samples, drawings or models, etc. shown or provided shall at all times only be indications of the relevant products.

Article III - Prices

- Unless explicitly otherwise agreed upon in writing, our prices shall be ex works, which means excluding transport and/or forwarding, packaging, insurance, etc., and excluding duties and taxes and other levies, if any, imposed by the public authorities as well as any costs related to objects made available by principal in the scope of the execution of the order. If delivery free domicile has been agreed upon, expenses involved in special or express transport shall nevertheless be charged to principal separately.
- In addition, we shall have the right to charge a small-order surcharge to principal in case of small deliveries.
- In case that the prices of materials, equipment, components, raw materials, wages, salaries, social security contributions and levies imposed by the public authorities are increased after the date when the agreement was created in conformity with article II clause 1 and before the order has been fully executed, we shall have the right to increase our prices accordingly.
- We shall have the right to invoice additional work carried out by us separately, also when the additional work has not been ordered in writing and/or the price thereof has not been agreed upon in advance. For calculating the price for additional work, the provisions in the preceding clauses of this article shall be analogously applicable. Applicability of 7a: 1646 Dutch Civil Code is explicitly excluded.
- If mounting or installation of products delivered is explicitly included in our confirmation of the order and is therefore part of the agreement entered into with principal, the price thereof shall be included in the calculation so as to include mounting or installation of the products and completing the products ready for operation at the location specified in the agreement. The costs and financial consequences of obligations of principal referred to separately in article VI shall not be included in this price, except if and insofar as they have been explicitly included in our confirmation of the order.

Article IV - Packaging

- Unless explicitly otherwise agreed upon in writing, the products shall be provided with a type of packaging - if necessary and at our exclusive discretion - in which they are customarily sold, duly observing the provision in article III clause 1. Unless otherwise agreed upon in writing with principal, we shall not take back the packaging materials.

Article V - Documents, appliances and advice

- Cost estimates, plans, drawings, statements of measurements and weights or other documents as well as appliances such as models, moulds, stamps, dies and tools pertaining to offers or deliveries drawn up, manufactured or made available shall remain our property at all times - also if the cost of manufacturing has been charged to principal - and shall be returned to us at our first request.
- Except when we have given our consent in writing, principal undertakes that the documents, appliances and information provided by us as referred to in the preceding clause shall not be copied or imitated or made available for inspection to or put at the disposal of third parties, whether for reusing them or not. We shall have the right to demand from principal that he gives his operation to signing a declaration of secrecy submitted to him by us.
- Duly observing the provision in article II, clause 5 we shall only be bound by any advice, calculation, information and specification provided by us regarding capacities, results and/or performance to be expected of products to be supplied by us or operations to be carried out by us, if and insofar as such particulars have been included in our written confirmation of the order or form part of the written agreement entered into separately by us and principal.

Article VI - Mounting: installation

- Principal shall ensure that necessary facilities, provisions and conditions for the mounting or installation operations to be carried out by us have been or are complied with timely and properly. Such facilities and other activities to be conducted in this scope shall be for the account and at the risk of principal at all times.
- Principal shall ensure for his account and at the risk that our engineers are enabled to carry out their operations. He provides the appliances required, duly observing necessary safety regulations and other precautions and gives the assistance required, either personally or by helpers made available by him. Principal shall ensure that suitable accommodation and other personal facilities are available to our engineers.
- Travelling expenses shall be included in the price of the operation in deviation from the provision in article III, clause 4, we reserve the right to charge additional labour costs in case that in our opinion, in deviation from the assumption referred to in article II, clause 1, we are necessitated to carry out the operations outside regular working hours and/or in special conditions.
- The provision in article VII regarding the period of delivery is analogously applicable to the mounting or installation period agreed upon. A period during which machineries, installations, etc. are running in is not included in the mounting or installation period agreed upon with us.
- Duly observing the provision in this article that which has been provided in the relevant articles of these conditions shall be applicable to price, delivery, risk and warranty in respect of mounting or installation.

Article VII - Period of delivery

- The period of delivery, which is also understood to be the period for the operations to be carried out by us, shall commence on the day stated in our written confirmation of the order. If certain details, drawings, etc. are needed or certain formalities are required to be fulfilled for the execution of the order, the period of delivery shall commence on a later date, being the date on which all details, drawings, etc. are in our possession or the date at which the formalities required have been fulfilled. In case that an advance payment is demanded by us when the order is placed, the period of delivery shall commence on a later date than the date of the written acceptance of the order or the date of receipt of said documents, this later date being the date on which we receive said payment.
- Periods of delivery shall not constitute a deadline and are always free of engagement. Solely expiration thereof does not result in our being in default. We shall make every effort to observe the periods of delivery stated as exactly as possible. Except for wilfulness or gross negligence, our exceeding the period of delivery does not give principal the right to demand compensation, to refuse to take receipt of the product or to full or partial rescission of the agreement.

Article VIII - Force majeure

- Force majeure on our part shall be understood to mean: any circumstance independent from our will due to which fulfilment of our obligations to principal is fully or partly prevented or due to which fulfilment of our obligations cannot be demanded from us in reason, irrespective of whether this circumstance was foreseeable at the time when the agreement was entered into. We shall notify principal of a situation constituting force majeure as soon as possible.
- In any case all situations constituting force majeure, such as war, threat of war, civil war, riot, taking of hostages, war risk, fire, damage caused by water and flooding, strike, occupation of the company, lock-out, lack of labour or raw materials, defects in machines or installations, disruptions in energy supply, all and any both in our company and in that of third parties from whom we have to buy or use the materials or raw materials as well as during storage or transport, whether executed by ourselves or not, and furthermore due to all other causes that have arisen for which we cannot be blamed or which have arisen through no action of ours, shall relieve us from any obligation to fulfil our obligations, including the period of delivery, for as long as the situation preventing us from doing so continues to exist. Claims for compensation shall not constitute a deadline and are always free of engagement.
- When the situation constituting force majeure has continued for two months, we shall have the right to rescind the agreement in part or in full. In such case principal shall not be entitled to any compensation.

Article IX - Delivery

When the relevant products have left our factory or when we have notified principal in writing that the products are ready to be despatched, they shall be deemed to have been delivered, without prejudice to the provision in article XI and irrespective of our obligation, if any, to fulfil mounting and/or installation obligations. Consequently, the place of delivery is our factory, even if delivery free domicile and/or free transport has been agreed upon by us. In case that the order is delivered in parts, the separate batches as such shall be deemed to have been delivered.

Article X - Risk

- The risk shall be transferred to principal at the time of delivery in the sense of article IX. In case of damage to products caused by destruction of the packaging, too, the provision in the preceding sentence shall be in full force and effect.
- If the products are not, not timely or not properly taken by principal, principal shall be in default without any notice of default being required. We shall then have the right to store the products for the account and at the risk of principal or to sell them to a third party. The selling price, increased by the interest and all expenses, shall remain payable by principal; however, as the case arises, the net proceeds of the sale to a third party shall be deducted.
- Unless otherwise agreed upon with principal in writing, despatch and/or transport of the products, if such operations are arranged by us, shall be for the account and at the risk of principal and the products shall not be insured against transport risks by us. Even if we have given a declaration to the carrier that any damage during transport shall be for our account, transport risks shall nevertheless be for the account of principal and we are not obliged to take steps to recover any damage, if desired, we may transfer drawing rights in respect of the carrier to principal.
- Except in case that such has been explicitly otherwise agreed upon in writing, products which have been provided to us for treatment, repair or inspection shall be held by us at the risk of principal. We undertake to hold and treat the products provided to us by principal with due care.

Article XI - Reservation of ownership

- The ownership of the products shall only be transferred to principal when he has fulfilled all obligations ensuing from the relevant agreement or from any agreement related thereto. Obligations shall be understood to include, in addition to payment of the purchase price, the operations conducted or to be conducted in respect of the products as well as payment of all surcharges, interest rates, taxes and costs, etc. in respect thereof pursuant to the agreement.
- It shall not be permitted to principal to alienate, raise a loan on or pledge the products or contribute the products to a mortgage or to transfer the products to a third party or to permit the products to be permitted to principal to treat, process or use the products in the scope of his normal business operations.
- Principal shall immediately enable us to take back the products, without any notice of default or legal intervention being required. Without prejudice to the other rights to which we are entitled, we are irrevocably authorised by principal now, in case the occasion arises, to dismount and take into our possession the products supplied by us and fixed to movable or immovable objects, in the event that principal does not, not timely or not properly fulfil his (financial) obligations contracted to us, without any notice of default or legal intervention being required.
- Principal shall be obliged to notify without delay of the fact that third parties (possibly) exercise rights on the products on which our reservation of ownership is resting. In the event that principal appears not to have complied with this obligation, he shall forfeit a penalty of 15% of the unpaid part of the amounts payable by him to which the reservation of ownership is applicable, without prejudice to the other rights in respect of said amounts payable by him to which we are entitled.

- Each payment we receive from principal shall in the first instance serve as payment of amounts receivable by us from principal regarding which a reservation of ownership in the sense of clause 1 of this article is not applicable (any longer).

Article XII - Credit surcharge

The invoice amount may be increased by us by a credit surcharge which is stated separately on the invoice. When the invoice amount is paid within thirty days from the invoice date, said surcharge does not have to be included in the payment.

Article XIII - Payment

- Unless otherwise agreed upon in writing, payment of the purchase price and/or the price agreed upon for operations to be carried out or carried out by us shall be made, at our discretion, either cash on delivery or within thirty days from the date of delivery in accordance with the provision in article IX. All payments shall be made without any deduction of debts or of amounts receivable from us. In case that principal holds the view that he may have any claims, in whatever form, in respect of the delivery or the execution of the order, this shall not relieve him from the obligation to pay in the manner agreed upon and he shall not have the right to defer his obligation to pay.
- Payment of additional work shall be effected as soon as we have invoiced such work to principal.
- We shall have the right, if at any time we entertain reasonable doubts about principal's creditworthiness, to demand, before proceeding with (any further) performance, full or partial prepayment of the purchase price or that principal gives adequate security, for example by means of a bank guarantee or secret pledging of products supplied by us. In such case we shall also have the right to despatch products exclusively subject to the condition cash on delivery.
- In case that we have agreed with principal that payment shall be effected through a bank or when security is given by means of documentary credit or bank guarantees, principal undertakes that such transaction shall take place through a first-class bank at all times. If we hold reasonable doubts about said qualification, we shall have the right to reject the bank proposed and to designate another bank.
- Solely due to any term of payment having expired, principal shall be in default by the operation of the law. In that case all amounts payable by principal to us shall fall fully and immediately due, without prejudice to the other rights to which we are entitled.
- On all amounts which have not been paid on the last day of the term of payment at the latest, interest shall be payable by principal, without any notice of default being required, as from that day, equal to the legal interest rate then applicable in The Netherlands increased by a 2% surcharge. Every time, after expiration of a year the amount on which interest is charged is increased by the interest payable for that year. If principal has not paid the amount and interest payable after expiration of another term of payment stated in writing, principal shall be obliged to compensate us for all expenses incurred in and out of court, which are determined at 15% minimum of the outstanding amount payable and will amount to 250,- minimum excluding VAT at all times.
- Where principal has not paid the amount and interest payable after expiration of another term of payment stated in writing, principal shall be obliged to compensate us for all expenses incurred in and out of court, which are determined at 15% minimum of the outstanding amount payable and will amount to 250,- minimum excluding VAT at all times.

Article XIV - Rescission

- In case that principal does not, not timely or not properly fulfil any of his obligations ensuing from the agreement entered into with us, he shall be in default and we shall have the right, without any notice of default or legal intervention being required, to:
- suspend performance of the agreement and the agreements directly related thereto until adequate security has been given for payment; and/or
- to rescind fully or partly the agreement and the agreements directly related thereto; all and any without prejudice to the other rights to which we are entitled and without our being obliged to give any compensation.
- In case of bankruptcy or a moratorium of principal's business or his business being shut down or liquidated, all agreements with principal shall be rescinded by the operation of the law, unless we notify principal within a reasonable period of time that we wish (part of) the relevant agreement(s) to be performed, in which case we shall have the right, without any notice of default being required:
- to suspend performance of the relevant agreements until adequate security has been given for payment; and/or
- to suspend all our financial obligations, if any, on whatever account to principal, all and any without prejudice to the other rights to which we are entitled and without our being obliged to give any compensation.
- If an event occurs as referred to in clause 1 or clause 2 of this article, all amounts payable by principal to us shall fall immediately and fully due and we shall have the right to take back the products involved. In that case we shall have the right to enter the sites and buildings of principal for the purpose of taking the products into our possession. Principal shall be obliged to take the measures required for providing the opportunity to us to exercise our rights.

Article XV - Cancellation

- If principal wishes to cancel the order placed with us and we have agreed thereto in writing, principal shall be obliged - except for a written agreement reading otherwise - to take over from us the materials and raw materials bought by us, together with the tools, equipment and appliances used, and to compensate us for such losses as loss of profit by paying 15% of the price agreed upon; all and any without prejudice to any other rights to which we are entitled. In case that we have entered into a currency coverage contract with a bank or a third party, principal shall also be obliged to compensate us for the exchange losses incurred.
- Principal shall be obliged at all times to indemnify us against claims of third parties ensuing from the cancellation of the order.

Article XVI - Inspection and complaints

- Principal shall be obliged to inspect the products or cause the products to be inspected carefully immediately after their arrival at the place of destination or after completion of the operations carried out by us or - if this happens earlier - after receipt by principal of the products or after completion of the operations carried out by us. If principal has the right, owing to defects in materials or manufacture, as well as deviations as regards quantity, weight, composition or quality between the products delivered and the description previously provided in the confirmation of the order and/or the invoices, shall be notified to us in writing within fourteen days from the date of arrival of the products or completion of the operations, without prejudice to the provision in clause 3 of this article. However, if a test or inspection has been conducted at our factory, complaints shall be submitted during such test or inspection and confirmed in writing.
- If defects which in reason cannot be established within the period stipulated hereinbefore shall be notified to us in writing immediately when they have been established but within the applicable warranty period at the latest.
Complaints about invoices shall exclusively be submitted in writing within fourteen days from the date of receipt of the invoices, the date of receipt being determined as being the day following the date of the relevant invoice.
- In case of deviations between the delivered products and the description previously provided in the confirmation of the order, principal shall be obliged to inspect the products or cause the products to be inspected carefully immediately after their arrival at the place of destination or after completion of the operations carried out by us or - if this happens earlier - after receipt by principal of the products or after completion of the operations, without prejudice to the provision in clause 3 of this article. However, if a test or inspection has been conducted at our factory, complaints shall be submitted during such test or inspection and confirmed in writing.
- If complaints are not submitted within the periods stipulated in this article, any claim of principal pertaining to such defects shall be null and void.
- If principal discovers any defect, he shall be obliged to discontinue the application, treatment, processing or installation of the relevant products immediately and he shall give his full co-operation required by us for investigating the complaint, which includes giving us the opportunity to conduct an on-site investigation into the conditions of treatment, processing, installation and/or use of the relevant products.
- Principal shall not have the right to complain about products in respect of which we cannot verify the complaint. Principal shall not be free to return the products before we have agreed thereto in writing.

Article XVII - Warranty

- We grant warranty on defects in materials and manufacture for twelve months from delivery by principal to the end user, however, for eighteen months maximum from delivery in the sense of article IX. Our warranty comprises our repairing the defects at our expense or - at our exclusive discretion - taking back the relevant products fully or partly and replacing them by new products or parts. If we replace (component(s) of) products supplied so as to fulfil our warranty obligations, the replaced (components of) products shall become our property. All expenses exceeding the obligation referred to hereinbefore in this article shall be for the account of principal, such expenses including carrying, travelling expenses and the costs of dismounting and mounting. In case that we carry out repairs to products supplied to fulfil our warranty obligations, the relevant products shall fully remain at the risk of principal.
- Our warranty shall not be effective:
A. if the defects have resulted from injudicious application or from causes other than defective materials or manufacture;
B. if we deliver used materials or used products in accordance with the order;
C. if the cause of the defects cannot be clearly demonstrated;
D. if not all instructions provided for using the products and other specifically applicable warranty instructions have been complied with strictly and fully.
- If products are provided for treatment, repair, etc., warranty shall only be granted for the good quality of the execution of the treatment, repair, etc. On components which we do not manufacture ourselves, warranty shall be restricted to the warranty granted to us by our suppliers.
If we have undertaken to mount or install the products, our warranty obligation in respect thereof shall only be applicable in case of defective mounting or installation. In such case the warranty granted by us shall commence on the day on which the products are delivered to the end user, or, on the understanding that in that case the warranty period shall expire in any case nine months from delivery in the sense of article IX.
- Our warranty shall be null and void, if:
A. the relevant defects are the result of regulations issued by public authorities related to the quality or the nature of the materials used or to manufacture;
B. principal makes modifications and/or repairs to the products supplied, or causes modifications and/or repairs to be made, at his own initiative during the warranty period;
C. principal does not, not timely or not properly fulfil any obligation ensuing from this agreement or any other agreement related thereto, such as the obligations regarding inspection and complaints stipulated in these conditions.
- Unless explicitly otherwise agreed upon, we shall be exclusively obliged to comply with the warranty obligations stipulated in this article within The Netherlands.

Article XVIII - Liability

- Our liability shall be limited to complying with the warranty obligation described in article XVII.
- Except in case of our own wilfulness or gross negligence and except for our warranty obligations, we shall at no time be liable for any damage suffered by principal, including consequential damage, emotional injury, loss of profits or damage to the environment or damage resulting from third parties.
- In the event that and insofar as we are still held liable in any case by the competent court, despite the provision in clauses 1 and 2 of this article, our liability to principal on whatever account shall be limited for each event (in which a related series of events shall be considered to be one event) in all cases to the size of the relevant contract price excluding VAT.
- Principal shall be obliged to indemnify us and compensate us for all expenses, losses and interests which might have arisen for us as a direct consequence of claims of third parties on us in respect of events, acts or omissions during or in the scope of the execution of the order for which, pursuant to these conditions, we are not liable to principal.
- We shall not be liable for the death or personal injury of third parties or for other rights of third parties by using information which has been made available to us by or on behalf of principal for the execution of the order. If in the written agreement entered into with principal or in our confirmation of the order we refer to technical, safety, quality and/or other regulations pertaining to the products, principal shall be deemed to be acquainted with such regulations, unless he notifies us of the contrary without delay. We shall then give him full and complete information on said regulations. Principal undertakes to inform his customers in writing of said regulations at all times.

Article XIX - Applicable law; competent court

- Dutch law shall be applicable to all agreements entered into with us, of which these conditions are a part, either in full or in part. Parties shall be deemed to elect domicile at the place where we are established.
- Any disputes arising from agreements entered into with us or these general conditions shall be subjected, insofar as not laid down otherwise by the parties, to the decision of the competent court whose jurisdiction includes the place where we are established, unless explicitly otherwise agreed upon by parties.
- The applicability of the Viennese Contract of Sale is excluded, unless parties have explicitly otherwise agreed upon.

Article XX - Filing

These General Terms and Conditions are filed at the Chamber of Commerce at Zutphen dated 1st January 1994 under no. 1935.

Article XXI Registration

Georg Fischer Waga NV +GF+ has been registered under the Business Names Act with the Chamber of Commerce at Zutphen under no. 58749.

Georg Fischer Waga N.V. → worldwide at home



Our solutions

MULTI/JOINT® 3000 Plus wide-range fittings restraint - non-restraint DN50 - DN400 (2" - 16")				
MULTI/JOINT® XL wide-range fittings non-restraint DN300 - DN600 (12" - 24")				
ST-System dedicated couplings and flange adaptors with or without reduction - non-restraint DN40 - DN2800 (1½" - 112")				
FGR stainless steel couplings restraint - non-restraint DN25 - DN2000 (1" - 80")				
Plast/Join® mechanical connection for plastic pipes restraint - non-restraint d63 - d315				
Multi/Clamp stainless steel repair clamps, tapping tees and saddles DN25 - DN1000 (1" - 40")				
Multi/Saddle Plus wide-range tapping saddle with or without shut-off mechanism pipes: DN60 - DN300 (2½" - 12")				
Others W400/W410 drilling device WALV leak clamp DN80 - DN700 (3" - 28") MULTI/JOINT® PE adaptor DN65 - DN300 (2½" - 12")				

Our expertise

Georg Fischer Waga N.V. is the joining technology specialist, offering a complete range of products that have been used in the water & gas market for many years. No matter how complicated your connection problem is, we can offer you a solution.

- Innovator and market leader in connection technology
- Extensive application know-how and know-why
- Decades of experience
- Long-term system solutions
- "One stop" shopping
- Local support worldwide

Adding Quality to People's Lives

The technical data are not binding and not expressly warranted characteristics of the goods. They are subject to change. Please consult our General Conditions of Supply.

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2012, produced in the Netherlands



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