

- 1 Double-lip sealing system
- 2 Standard strip insert
- 3 Anchoring ring

The combining pipe coupling

NORMACONNECT® COMBI GRIP/COMBI GRIP E axial restraint pipe couplings are used to connect plastic pipes with metal pipes.

For the plastic pipe the coupling features on one side a special anchoring ring with rows of flat teeth which are pressed into the pipe surface without damaging the material. At the same time the force applied is distributed evenly across the pipe surface.

For the metal pipe the coupling features on the other side an anchoring ring with conically stamped teeth which grip into the pipe surface. Due to the special design of the anchoring ring the coupling can withstand even high vibration loads.

Advantages at a glance

- Corrosion resistant
- No welding
- No special tools necessary
- Installation and working in every kind of weather (hot and cold)
- Reusable

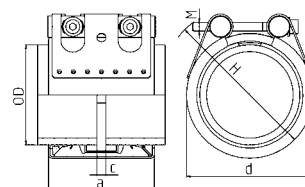
Information

- Sizes: from 38/40.0 mm to 406.0/406.0 mm
- Working pressure: 16.0 - 6.0 bar
- Material: AISI 304, AISI 316 Ti
- EPDM:
 - Sizes from 26.9 mm up to 168.3 mm: - 30 °C up to + 125 °C
 - Sizes > 180.0 mm: - 20 °C up to + 80 °C
- NBR: from - 20 °C up to + 80 °C

Materials

W1	W2	W3	W4	W5
				x

Technical data & Ordering information



Technical data & Ordering information

NORMACONNECT®

NORMACONNECT® FGR COMBI GRIP															
Ø (O.D.)	Designation	Clamping ranges O _{dmin} - O _{dmax} (mm)		PN ¹ [bar]	WP ² [bar]	C max (mm)	Dimensions			Weight approx. (kg/ pc.)	Hex socket locking bolts		W5 Product No.		
		Plastic	Metal				a (mm)	d (mm)	H (mm)		Thread	Tightening torque (Nm)	NBR	EPDM	housing wall thickn.
200.0 / 204.0	COMBI GRIP 200.0 / 204.0	198.0-202.0	202.0-206.0	-	16	35	142	235	265	7.5	M 12 SW 10	60	0584 8650 204	0584 8350 204	3.0 mm
219.1 / 219.1	COMBI GRIP 219.1 / 219.1	217.0-222.0	216.0-221.0	-	16	35	142	250	280	7.9	M 12 SW 10	60	0584 8650 219	0584 8350 219	3.0 mm
225.0 / 219.1	COMBI GRIP 225.0 / 219.1	222.0-227.0	216.0-221.0	-	10	35	142	255	285	8.1	M 12 SW 10	60	0584 8650 220	0584 8350 220	3.0 mm
225.0 / 222.0	COMBI GRIP 225.0 / 222.0	222.0-227.0	220.0-224.0	-	10	35	142	255	285	8.1	M 12 SW 10	60	0584 8650 222	0584 8350 222	3.0 mm
250.0 / 254.0	COMBI GRIP 250.0 / 254.0	247.0-253.0	250.0-256.0	-	10	35	142	285	315	8.6	M 12 SW 10	80	0584 8650 254	0584 8350 254	3.0 mm
273.0 / 273.0	COMBI GRIP 273.0 / 273.0	271.0-276.0	270.0-275.0	-	10	35	142	305	335	9.1	M 16 SW 14	100	0584 8650 272	0584 8350 272	3.0 mm
280.0 / 273.0	COMBI GRIP 280.0 / 273.0	277.0-283.0	270.0-275.0	-	10	35	142	310	340	9.3	M 16 SW 14	100	0584 8650 273	0584 8350 273	3.0 mm
323.9 / 323.9	COMBI GRIP 323.9 / 323.9	320.0-327.0	320.0-327.0	-	6	35	142	355	385	10.2	M 16 SW 14	100	0584 8650 323	0584 8350 323	3.0 mm
355.0 / 355.6	COMBI GRIP 355.0 / 355.6	351.0-359.0	352.0-359.0	-	6	35	142	390	420	10.9	M 16 SW 14	120	0584 8650 355	0584 8350 355	3.0 mm
400.0 / 406.4	COMBI GRIP 400.0 / 406.4	396.0-404.0	402.0-410.0	-	6	35	142	440	470	11.9	M 16 SW 14	120	0584 8650 400	0584 8350 400	3.0 mm
406.0 / 406.4	COMBI GRIP 406.0 / 406.4	396.0-404.0	402.0-410.0	-	6	35	142	440	470	12	M 16 SW 14	120	0584 8650 406	0584 8350 406	3.0 mm

PN¹ (Nominal Pressure) is the max. admissible working pressure in shipbuilding, based on a safety factor of ≥ 4.
 WP² is the max. working pressure in industrial applications, with a safety factor as per NORMA specification.

COMBI GRIP E



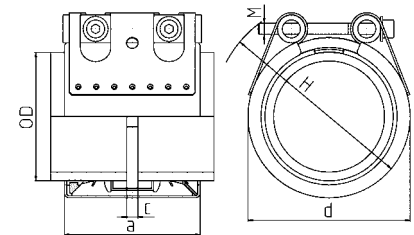
NORMACONNECT® COMBI GRIP E axial restraint pipe couplings are used to connect plastic pipes with metal pipes.

Advantages at a glance

- Hollow trunnion version for smaller diameters

Materials

- W5



NORMACONNECT® FGR COMBI GRIP E																
Ø (O.D.)	Designation	Clamping ranges O _{dmin} - O _{dmax} (mm)		PN ¹ [bar]	WP ² [bar]	C max (mm)	Dimensions			Weight (kg/ pc.)	Hex socket locking bolts		W5 Product No.			housing wall thickn.
		Plastic	Metal				a (mm)	d (mm)	H (mm)		Thread	Tightening torque (Nm)	NBR	EPDM		
40.0 / 38.0	COMBI GRIP E 40.0 / 38.0	39.0-40.5	37.5-38.6	10	16	8	62	60	80	0.46	M 8 SW 6	15	0584 8660 038	0584 9360 038	1.2 mm	
40.0 / 42.4	COMBI GRIP E 40.0 / 42.4	39.0-40.5	41.7-43.0	10	16	8	62	65	85	0.47	M 8 SW 6	15	0584 8660 042	0584 9360 042	1.2 mm	
42.4 / 42.4	COMBI GRIP E 42.4 / 42.4	41.7-43.0	41.7-43.0	10	16	8	62	65	85	0.47	M 8 SW 6	15	0584 8660 043	0584 9360 043	1.2 mm	
48.3 / 48.3	COMBI GRIP E 48.3 / 48.3	47.6-50.5	53.3-54.6	10	16	17	78	70	90	0.5	M 8 SW 6	15	0584 8660 046	0584 9360 046	1.2 mm	
50.0 / 48.3	COMBI GRIP E 50.0 / 48.3	47.6-51.0	47.6-50.5	10	16	8	62	70	90	0.5	M 8 SW 6	15	0584 8660 048	0584 9360 048	1.2 mm	
56.0 / 54.0*	COMBI GRIP E 56.0 / 54.0	55.0-56.5	53.3-54.6	-	5*	17	78	80	100	0.62	M 8 SW 6	15	0584 8660 054	0584 9360 054	1.2 mm	
60.3 / 60.3	COMBI GRIP E 60.3 / 60.3	59.5-61.0	59.5-61.0	10	16	17	78	85	105	0.65	M 8 SW 6	20	0584 8660 061	0584 9360 061	1.2 mm	
63.0 / 60.3	COMBI GRIP E 63.0 / 60.3	62.0-63.5	59.5-61.0	10	16	17	78	85	105	0.65	M 8 SW 6	20	0584 8660 060	0584 9360 060	1.2 mm	
73.0 / 73.0	COMBI GRIP E 73.0 / 73.0	72.0-74.0	72.1-73.8	10	16	25	98	95	115	1.3	M 10 SW 8	30	0584 8660 073	0584 9360 073	1.5 mm	
75.0 / 76.1	COMBI GRIP E 75.0 / 76.1	74.0-76.0	75.2-77.0	10	16	25	98	100	120	1.3	M 10 SW 8	30	0584 8660 076	0584 9360 076	1.5 mm	
88.9 / 88.9	COMBI GRIP E 88.9 / 90.0	88.0-90.0	87.0-89.9	10	16	25	98	110	130	1.39	M 10 SW 8	30	0584 8660 086	0584 9360 086	1.5 mm	
90.0 / 88.9	COMBI GRIP E 90.0 / 88.9	89.0-91.0	87.0-89.9	10	16	25	98	110	130	1.39	M 10 SW 8	30	0584 8660 088	0584 9360 088	1.5 mm	
101.6 / 101.6	COMBI GRIP E 101.6 / 101.6	100.4-102.8	100.4-102.8	10	16	25	98	125	145	1.54	M 10 SW 8	30	0584 8660 101	0584 9360 101	1.5 mm	
110.0 / 108.0	COMBI GRIP E 110.0 / 108.0	109.0-111.0	106.8-109.2	10	16	25	98	130	150	1.58	M 10 SW 8	40	0584 8660 108	0584 9360 108	1.5 mm	
110.0 / 114.3	COMBI GRIP E 110.0 / 114.3	109.0-111.0	113.0-115.5	10	16	25	98	135	155	1.62	M 10 SW 8	40	0584 8660 110	0584 9360 110	1.5 mm	
114.3 / 114.3	COMBI GRIP E 114.3 / 114.3	113.0-115.5	113.0-115.5	10	16	25	98	135	155	1.62	M 12 SW 10	40	0584 8660 114	0584 9360 114	1.5 mm	
140.0 / 139.7	COMBI GRIP E 140.0 / 139.7	139.0-141.0	138.1-141.6	10	16	35	115	160	180	3.14	M 12 SW 10	50	0584 8660 139	0584 9360 139	2.5 mm	
141.3 / 141.3	COMBI GRIP E 141.3 / 141.3	138.1-141.6	139.6-142.8	10	16	25	115	165	185	3.14	M 12 SW 10	50	0584 8660 141	0584 9360 141	2.5 mm	
160.0 / 159.0	COMBI GRIP E 159.0 / 160.0	159.0-162.0	157.3-160.7	10	16	35	115	180	200	3.45	M 12 SW 10	60	0584 8660 159	0584 9360 159	2.5 mm	
168.3 / 168.3	COMBI GRIP E 168.3 / 168.3	166.0-170.1	166.5-170.1	10	16	35	115	190	210	3.48	M 12 SW 10	60	0584 8660 168	0584 9360 168	2.5 mm	

PN¹ (Nominal Pressure) is the max. admissible working pressure in shipbuilding, based on a safety factor of ≥ 4.

WP² is the max. working pressure in industrial applications, with a safety factor as per NORMA specification.

*Special coupling for joining metal pipes with PE-HD drainage pipes