

- 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.

On the side connecting the plastic pipe, the coupling has 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.

On the side connecting the metal pipe, the coupling has a different 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. NORMACONNECT® COMBI GRIP E has hollow trunnions (smaller diameters). NORMACONNECT® COMBI GRIP has solid trunnions (larger diameters).

Advantages at a glance

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

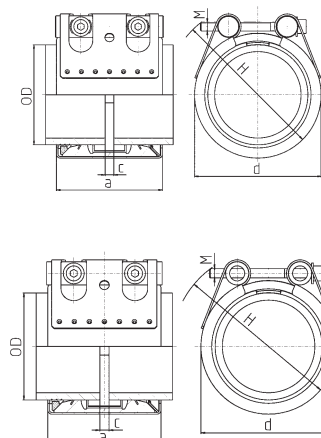
Information

- Sizes: from 38.0/40.0 mm to 400.0/406.0 mm
- Working pressure: 16.0 – 6.0 bar
- Material: AISI 304, AISI 316 Ti
- EPDM:
 - Sizes from 38.0 mm up to 160.0 mm: -30 °C up to +125 °C
 - Sizes > 200.0 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





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



Advantages at a glance



- COMBI GRIP E has hollow trunnions (smaller diameters)
- COMBI GRIP has solid trunnions (larger diameters)

Material

W5

Technical data & Ordering information

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 (approx.)			Weight (approx.) (kg/pc.)	Hex socket locking bolts		W5 Product No.	
		Plastic	Metal				a (mm)	d (mm)	H (mm)		Thread	Tight- ening torque (Nm)	EPDM	NBR
38.0 / 40.0	Combi Grip E 38.0 / 40.0	39.0-40.5	37.5-38.6	10	16	8	62	60	80	0.46	M 8 SW 6	15	0584 9360 038	0584 8660 038
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 9360 042	0584 8660 042
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 9360 048	0584 8660 048
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 9360 054	0584 8660 054
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 9360 060	0584 8660 060
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 9360 076	0584 8660 076
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 9360 088	0584 8660 088
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 9360 108	0584 8660 108
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 9360 110	0584 8660 110
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 9360 139	0584 8660 139
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 9360 159	0584 8660 159

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 (approx.)			Weight (approx.) (kg/pc.)	Hex socket locking bolts		W5 Product No.	
		Plastic	Metal				a (mm)	d (mm)	H (mm)		Thread	Tight- ening torque (Nm)	EPDM	NBR
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 8350 204	0584 8650 204
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 8350 220	0584 8650 220
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 8350 222	0584 8650 222
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 8350 254	0584 8650 254
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 8350 273	0584 8650 273
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 8350 355	0584 8650 355
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 8350 400	0584 8650 400

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