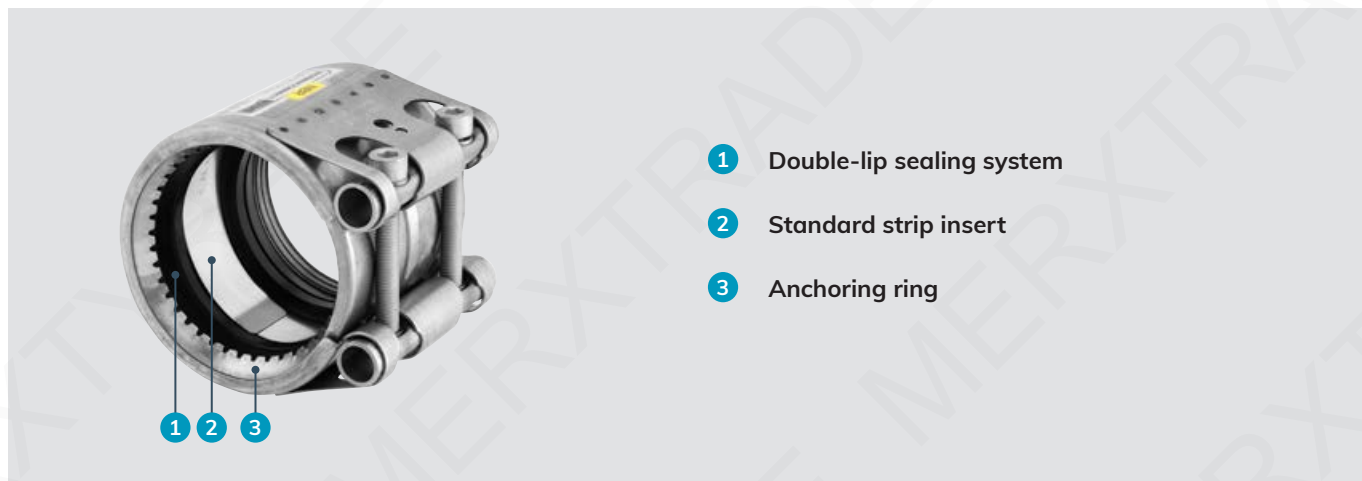




- 1 Double-lip sealing system
- 2 Standard strip insert
- 3 Anchoring ring

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

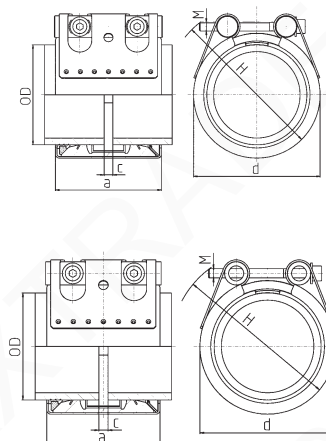
Materials

W1	W2	W3	W4	W5
				x

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

Technical data & Ordering information



FGR COMBI GRIP/COMBI GRIP E



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 Odmín - Odmax (mm)		PN¹	WP²	C max	Dimensions (approx.)			Weight (approx.)	Hex socket locking bolts		W5 Product No.	
		Plastic	Metal			(mm)	a	d	H	(kg/pc.)	Thread	Tight- ening torque (Nm)	EPDM	NBR
				[bar]	[bar]		(mm)	(mm)	(mm)					
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		
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		
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		
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		
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		
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		
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		
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		
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		
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		
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		

NORMACONNECT® FGR COMBI GRIP														
Ø (O.D.)	Designation	Clamping ranges Odmin - Odmax (mm)		PN ¹	WP ²	C max	Dimensions (approx.)			Weight (approx.)	Hex socket locking bolts		W5 Product No.	
		Plastic	Metal			(mm)	a (mm)	d (mm)	H (mm)	(kg/pc.)	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		
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		
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		
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		
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		
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		
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		

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