PRODUCT BENEFITS

Benefits of NORMA**CONNECT**® Pipe Couplings

NORMA**CONNECT**® pipe couplings provide the following features:

Simple fitting and quick installation

- Ready to use, no single parts, no disassembling and reassembling
- No preparation time, no pipe-end treatment, no harmonization work
- Offers angular deflection, no precise pipe gap necessary, stress-free pipe joining

Reliable sealing system

- Dynamic sealing effect even with rough pipe surface
- Dampens pressure surges, vibration and shocks
- Axial-restraint (Grip / CombiGrip E / PlastGrip E)
- Allows length variation (Flex)

Durable and economic

- High chemical resistance of stainless steel components and sealing sleeve
- Long-term elasticity of rubber
- Trouble-free and maintenance-free pipe joint
- Couplings are several times re-usable
- No pipe-end treatment, thus cost saving

Universal range of applications

- For pressure, depression or vacuum
- Free choice of pipe material
- Joins same or different pipe materials
- Dampens pressure surges or structure borne noise
- Repairs pipe damage

Benefits for the user

NORMA**CONNECT**® pipe couplings and repair clamps provide benefits for the user with regard

... to

- Industry and industrial applications
- Water supply and water treatment
- Domestic application
- Shipbuilding and ship repair
- Service, repair and maintenance

... to planning

- Simple and cost-reliable planning with ready-to-use pipe joints
- Reproducibility of fitting time, installation according to schedule
- Low weight, handy, compact (shipbuilding, vehicle construction)
- Reduced space requirement thus tight pipe guidance possible
- Enlargement or change of pipeline direction is done quickly and at low cost, due to the re-usability of the pipe couplings

... to installation

- Low weight, handy, compact
- Simple and quick installation due to ready-to-use pipe joints
- No preparation time, no pipe-end treatment, no harmonization work
- Tight-safe and long lasting pipe joint
- Installation of pre-fabricated pipe sections

... to operation

- Reliable through controlled manufacturing quality and high safety reserves
- Dampening of pressure surges, vibration and structure borne noise, protection of integrated gauges, fittings etc.
- Enlargement or change of pipe direction is done quick and at low cost, due to the re-usability of the pipe couplings
- Changes are possible during operation due to parallel guidance of pipes or bypasses

... to down-time, repair or maintenance

- Very quick reaction due to dis-chargeability and re-usability of pipe joints
- Very short down-time due to rapid disconnection and refitting of pipe coupling
- No design constraint, joins same or different pipe materials
- Ready-to-use, no preparation time, no pipe-end treatment, no harmonization work
- No risk of fire, e.g. during welding
- Problem solving during reorganization and reconstruction

NORMA**CONNECT®** PLAST GRIP/PLAST GRIP E

THE COUPLING FOR PLASTIC PIPES

NORMA**CONNECT® PLAST GRIP /PLAST GRIP E** axial restraint pipe couplings are used to connect plastic pipes.
The specially designed anchoring ring featuring flat rows of teeth enganges into the pipe surface without damaging the plastic material. The force applied is distributed evenly across the pipe surface.

NORMA**CONNECT® PLAST GRIP /PLAST GRIP E** Features:

1. Double-lip sealing system*

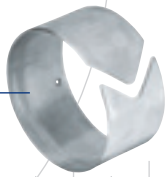
2. Standard strip insert*

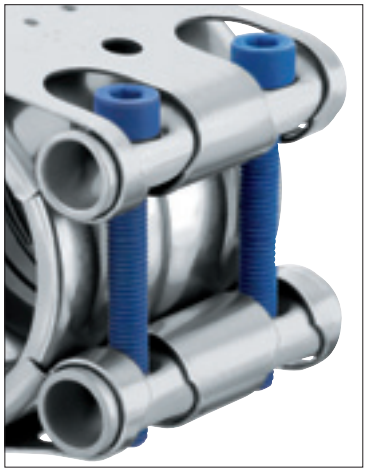
3. Heavy duty lock bars*

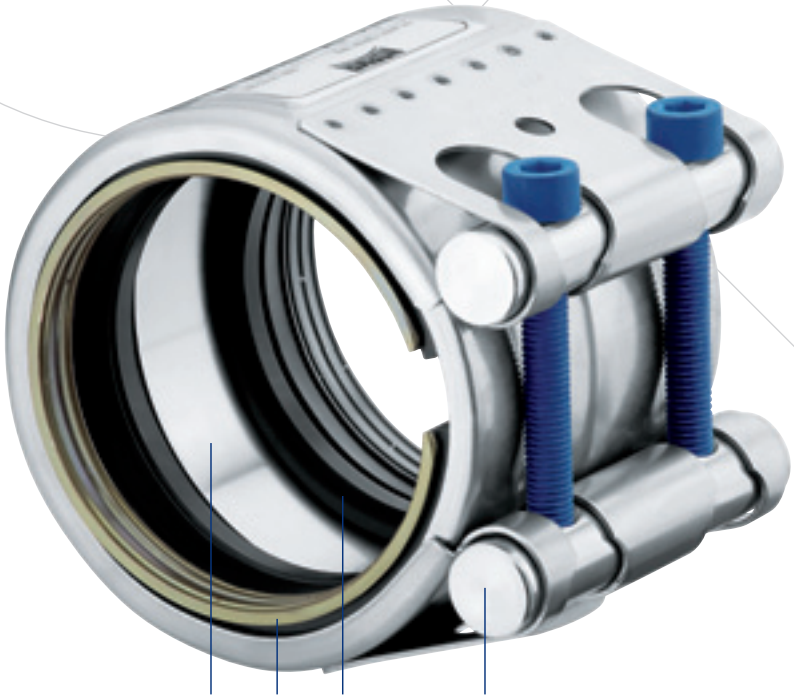
4. Anchoring ring*

* For details refer to Product benefits pages 6–7.

6. Optional support sleeve
When joining plastic pipes made from PE and PP a support sleeve must be used. If the pipes to be joined are made from soft thermoplastic material (e. g. PE) the use of a support sleeve is mandatory. The support sleeve is inserted into the pipe end within the area to be joined and thus protects the pipe from being deformed.







NORMACONNECT® PLAST GRIP E

NORMACONNECT® PLAST GRIP

Enquiries/ordering

When making enquiries or placing orders please indicate: **Example:**

1. The type (PLAST GRIP/PLAST GRIP E) ..... PLAST GRIP
2. The required material **(W2, W5),** (cf. page 10) W5
3. The pipe outside diameter OD, (cf. table) 90
4. The sealing sleeve material (EPDM, NBR) ..... EPDM

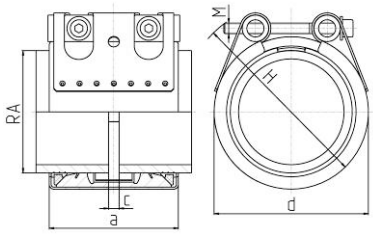
For this example, the order text would read: **NORMACONNECT® PLAST GRIP – W5 – 90 – EPDM**

PlastGrip Series

NORMA**CONNECT® PlastGrip E** (40.0 – 168.3 mm)

Axial restraint pipe coupling for use with plastic pipes

Available in **W2** or **W5** material



Seal: EPDM or NBR
Operating Temperatures: EPDM -30°C to +125°C and NBR -20°C to +80°C
Test Pressure: 1.5 x working pressure (PN or WP)

OD	Clamp. Range	PN[1)]	WP[2)]	C_{max}	Dimensions			Weight	Hex socket locking bolts	
	OD_{min} - OD_{max} Plastic				a	d clamped	H clamped		Thread	Tightening torque
(mm)	(mm)	(bar)	(bar)	(mm)	(mm)	app. (mm)	app. (mm)	approx. (kg/pc.)		(Nm)
40,0	39,0 - 40,5	10	16	8	62	60	80	0,48	M 8 SW 6	15
42,4	41,7 - 43,0	10	16	8	62	65	85	0,48	M 8 SW 6	15
48,3	47,6 - 49,5	10	16	8	62	70	90	0,52	M 8 SW 6	15
50,0	49,0 - 50,5	10	16	8	62	70	90	0,52	M 8 SW 6	15
60,3	59,5 - 61,0	10	16	17	78	85	105	0,67	M 8 SW 6	20
63,0	62,0 - 63,5	10	16	17	78	85	105	0,67	M 8 SW 6	20
73,0	72,0 - 74,0	10	16	25	98	95	115	1,33	M 10 SW 8	30
75,0	74,0 - 76,0	10	16	25	98	100	120	1,33	M 10 SW 8	30
76,0	75,0 - 77,0	10	16	25	98	100	120	1,33	M 10 SW 8	30
88,9	88,0 - 90,0	10	16	25	98	110	130	1,42	M 10 SW 8	30
90,0	89,0 - 91,0	10	16	25	98	110	130	1,42	M 10 SW 8	30
101,6	100,4 - 102,8	10	16	25	98	125	145	1,58	M 10 SW 8	30
110,0	109,0 - 111,0	10	16	25	98	130	150	1,66	M 10 SW 8	30
114,3	113,0 - 115,5	10	16	25	98	135	155	1,66	M 12 SW 10	40
140,0	139,0 - 141,0	10	16	35	115	160	180	3,18	M 12 SW 10	50
141,3	138,1 - 141,6	10	16	25	115	165	185	3,19	M 12 SW 10	50
160,0	159,0 - 162,0	10	16	35	115	180	200	3,45	M 12 SW 10	60
168,3	166,5 - 170,1	10	16	35	115	190	210	3,48	M 12 SW 10	60

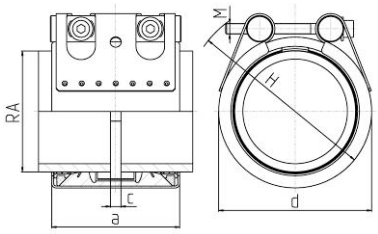
References

Subject to technical changes

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

2.) **WP** is the max. working pressure in industrial applications, with a safety factor as per NORMA specification.

NORMA**CONNECT**® **PlastGrip** (180.0 – 406.4 mm)



Axial restraint Pipe Coupling for use with plastic pipes

Available in **W2** or **W5** material
Seal: EPDM or NBR
Operating Temperatures:
OD 200,0 to OD 406,0 EPDM and NBR -20°C to +80°C
Test Pressure: 1.5 x working pressure (PN or WP)

OD	Clamp. Range	PN[1)]	WP[2)]	C_{max}	Dimensions			Weight	Hex socket locking bolts	
	OD_{min} - OD_{max} Plastic				a	d clamped	H clamped		Thread	Tightening torque
(mm)	(mm)	(bar)	(bar)	(mm)	(mm)	app. (mm)	app. (mm)	approx. (kg/pc.)		(Nm)
180,0	178,0 - 182,0	-	16	35	142	210	240	7,6	M 12 SW 10	60
200,0	198,0 - 202,0	-	16	35	142	230	260	8,1	M 12 SW 10	60
219,1	217,0 - 222,0	-	16	35	142	250	280	8,6	M 12 SW 10	60
225,0	222,0 - 227,0	-	10	35	142	255	285	8,7	M 12 SW 10	60
250,0	247,0 - 253,0	-	10	35	142	280	310	9,4	M 12 SW 10	80
273,0	271,0 - 276,0	-	10	35	142	305	335	9,9	M 16 SW 14	100
280,0	277,0 - 283,0	-	10	35	142	310	340	10,1	M 16 SW 14	100
315,0	311,0 - 318,0	-	10	35	142	345	375	11,0	M 16 SW 14	100
323,9	320,0 - 327,0	-	6	35	142	355	385	11,2	M 16 SW 14	100
355,0	352,0 - 359,0	-	6	35	142	385	415	12,0	M 16 SW 14	120
400,0	396,0 - 404,0	-	6	35	142	430	460	13,1	M 16 SW 14	120
406,4	402,0 - 410,0	-	6	35	142	440	470	13,3	M 16 SW 14	120

References

Subject to technical changes

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

2.) **WP** is the max. working pressure in industrial applications, with a safety factor as per NORMA specification.

pipes to be joined	[mm]	Grip	Grip E	CombiGrip E	CombiGrip	PlastGrip E	PlastGrip
metal + metal	26.9 to 168.3	70 to 32 bar	70 to 32 bar	-		-	-
	180.0 to 419.0	-	20 to 2 bar	-		-	-
	180.0 to 711.2	32 to 2.5 bar	-	-		-	-
plastic + plastic	40.0 to 168.3	-	-	-		16 bar	-
	200.0 to 406.4	-	-	-	-	-	16 to 6
metal + plastic	38/40 to 160/168.3	16 bar	16 bar	16 bar	-	-	-
	200.0/204.0 to 406.0 /406.4	-	-		16 to 6	-	-

Material of seal	EPDM	NBR
Temperature resistance	-30º to +125º -22ºF to 257ºF OD 26.9 - 168.3mm -20ºC to + 80ºC -4ºF to 176ºF OD > 180mm	-20ºC to + 80ºC -4ºF to 176ºF
Media resistance	Potable water alcohols Compressed Air	Water oils / fuels (combustible) gases