

Customer Value through Innovation



# NormaConnect®

FGR Pipe Couplings





NORMACONNECT®

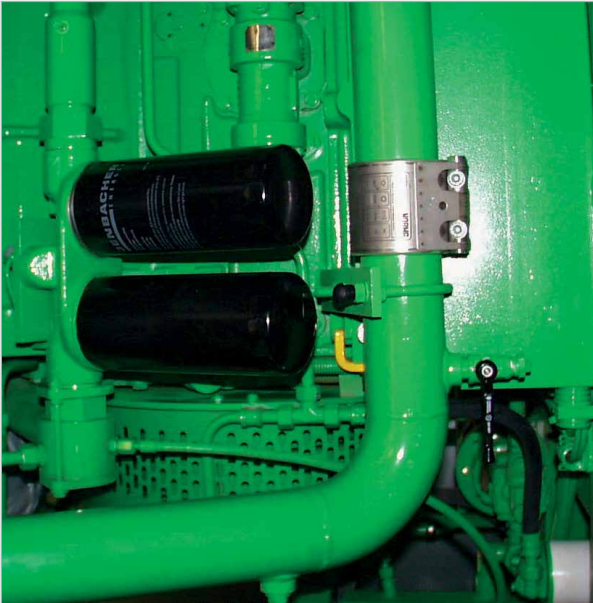


## FGR Pipe Couplings

The NormaConnect® FGR pipe coupling is a connection suitable to safely join thick- and thin-walled plastic and metal pipes and especially pipes made from stainless steel. It connects plain-ended supply pipes as well as exhaust pipes for solid, liquid or gaseous media in a reliable manner.

The connecting elements help to reduce assembly times and costs significantly, because they eliminate the need for additional expenses such as welding, galvanizing or pipe alignment and treatment of pipe ends.

Furthermore, NormaConnect® FGR is light, reusable, can be used in narrow spaces and resists high vibration loads due to its special geometry. NormaConnect® FGR couplings are used in mechanical engineering and construction, shipbuilding, civil engineering and in hydro technology.



FGR pipe couplings are a compact, economical and reliable means for connecting plain-ended pipes. They are suitable to join plastic and metal pipes and especially pipes made from stainless steel. They can be used in mechanical engineering and construction, shipbuilding, civil engineering and in hydro technology.

Supply pipes as well as exhaust pipes for solid, liquid or gaseous media can be joined easily and safely in a very short period of time even in narrow spaces. Thanks to the wide range of various types and sizes they are suitable for use both in standard and specialised applications.

FGR pipe couplings are an economical alternative to conventional pipe joining techniques for both plastic and metal pipes. All plain-ended pipes can be joined easily by hand. The ready-to-fit coupling is pushed over the pipe ends and then aligned and rotated to any fitting position. Tightening the two bolts alternately with a torque wrench is all it takes to make a safe fitting.



## Applications

FGR pipe coupling is a reliable connection for thick- and thin-walled pipes which conforms to the latest DIN Standard 86128. Feed and return lines for liquids, gases and solids (for mechanical engineering and construction, civil engineering, shipbuilding, pipeline construction, power stations, mining, filters, water technology, etc.) are joined quickly, easily and safely using FGR pipe couplings.



- No welding.
- Not necessary for prior pipe alignment or treatment of pipe ends.
- Up to 80% time saving.



- Pipe gaps up to 35 mm possible.
- Axial movements up to 7.5 mm.
- Misalignment up to 3mm.

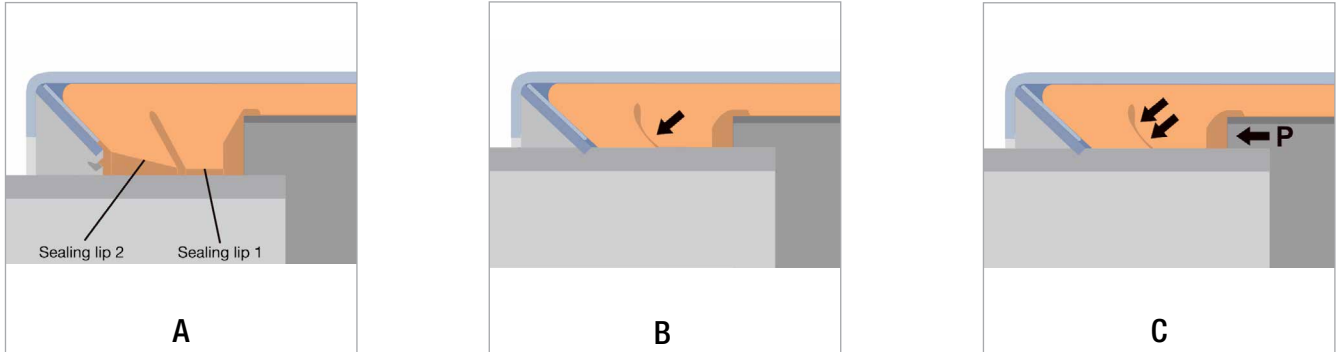


- 70% less weight.



- Angular deflection up to 4° in total.

## Features



### 1. Double-lip sealing system

The patented double-lip sealing system (Fig. A) of the FGR pipe couplings offers double safety. It provides maximum sealability at both low and high operating pressures.

When the bolts of the coupling are tightened, sealing lip 1 is pressed onto sealing lip 2, thus providing a highly reliable seal even under conditions of low pressure, vacuum or extreme loads acting on the joint (Fig. B).

The special sealing lip design means that when the internal pressure (P) increases, the sealing lips are pressed more firmly onto the pipe surface ensuring an even stronger seal (Fig. C).

### 2. Standard strip insert

All FGR pipe couplings are factory equipped with the standard strip insert (2). The strip insert protects the sealing sleeve from increased mechanical and chemical loads. It also prevents the sealing sleeve from moisture expansion and allows larger gaps between the pipe ends to be connected.

Furthermore, it allows larger angular deflections and misalignment. With the strip insert the couplings can also be used for both vacuum and high pressure applications without any problems. The strip inserts are made from plastic material or stainless steel.

### 3. Heavy duty lock bars

For FGR pipe couplings we use lock bars (3) with a larger diameter. Thus the rigidity of the coupling is increased and the engagement of the threaded end of the locking bolts is considerably improved.

### 4. Anchoring ring with conically stamped teeth

The anchoring ring (4) with conically stamped teeth indents into the pipe surface and provides safe and strong axial restraint. Owing to the special design the coupling is able to withstand even high vibration loads.

### 5. Protection ring

The protection ring protects the sealing sleeve from UV rays, fire, etc., and increases the flexural strength of the coupling.



## Approvals

SHIPBUILDING		FLEX / FLEX E / RFP	GRIP / GRIP E / Grip E-FP / RF	CombiGrip / CombiGrip E	PlastGrip / PlastGrip E	Rep E
ABS		•	•	•	•	
Bureau Veritas		•	•	•	•	
DNV/GL		•	•	•	•	
LRS		• <sup>1</sup>	• <sup>1</sup>	•	•	
CLASS NK		•	•	•	•	
RINA		•	•			
RMRS		•	•	•	•	
PRS		• <sup>1</sup>	• <sup>1</sup>			
KRS		•	•	•	•	
<b>WATER SUPPLY &amp; TREATMENT</b>						
KTW/TZW W270		•	•	•	•	•
DVGW					• <sup>2</sup>	
GOST		•	•	•	•	•
NSF		•	•	•	•	
DGS		•	•	•	•	•
<b>GAS</b>						
DVGW / GWI			•			
BAM			•		•	
<b>SPECIAL APPROVALS</b>						
VdS			• <sup>4</sup>			
DiBT / TÜV south. Germany			•			
BWB			• <sup>3</sup>			
FDA		•	•	•	•	

<sup>1</sup> No approvals for RFP

<sup>2</sup> From 40.0 mm up to 160 mm

<sup>3</sup> NATO/OTAN approval according to the German navy

<sup>4</sup> For the following sizes: 33.7 - 42.4 - 48.3 - 60.3 - 76.1 - 88.9 - 114.3 - 139.7

## Coupling Types and Suitable Applications

PIPES TO BE JOINED	SIZE (MM)	FLEX	FLEX E	FLEX 3	REP E FROM 35 MM
Metal + Metal	26.9 to 168.3	70 to 32 bar	70 to 32 bar	-	60 to 32 bar
	180.0 to 1219.2	50 to 7 bar	30 to 4 bar	-	30 to 4 bar
	326.0 to 2032.0	-	-	16.5 to 1.5 bar	-
Plastic + Plastic	26.9 to 168.3	16 bar	16 bar	-	16 bar
	180.0 to 1219.2	16 to 4 bar	16 to 4 bar	-	16 to 4 bar
Metal + Plastic	26.9 to 168.3	16 bar	16 bar	-	-
	180.0 to 1219.2	16 to 7 bar	16 to 7 bar	-	-

PIPES TO BE JOINED	SIZE (MM)	GRIP	GRIP E	COMBI-GRIP E	COMBI-GRIP	PLAST-GRIP E	PLAST-GRIP	GRIP E-FP
Metal + Metal	26.9 to 168.3	70 to 32 bar	70 to 32 bar	-	-	-	-	60 to 32 bar
	180.0 to 419.0	-	20 to 2 bar	-	-	-	-	20 to 65 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 bar	-
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 bar	-	-	-

## Sealing Sleeves Areas of application & temperature resistance:

MATERIAL OF SEAL	EPDM	NBR
Temperature range	-30 °C up to +125 °C OD 26.9 up to 168.3 mm -20 °C up to +80 °C OD > 180 mm	-20 °C up to +80 °C
Media	Drinking water Alcohols Compressed air Solids	Water Oils Gases (combustible) Fuels Hydrocarbon solutions

## Materials

Components and materials in accordance with AISI/BS. FGR pipe couplings are available in the material W5.

NO.	COMPONENT	FLEX/FLEX E	GRIP/GRIP E	COMBI GRIP/ COMBI GRIP E	PLAST GRIP/ PLAST GRIP E	REP E
1	Housing	316Ti/320 S31	316Ti/320 S31	316Ti/320 S31	316Ti/320 S31	316Ti/320 S31
2	Sealing sleeve	EPDM/NBR	EPDM/NBR	EPDM/NBR	EPDM/NBR	EPDM/NBR
3	Strip insert <sup>1)</sup>	316Ti/320 S31/PA-GR	316Ti/320 S31/PA-GR	316Ti/320 S31/PA-GR	316Ti/320 S31/PA-GR	316Ti/320 S31/PA-GR
4 A	Anchoring ring for metal pipes <sup>2)</sup>	-	301/301 S21	301/301 S21 301/301 S21	-	-
4 A	Anchoring ring for plastic pipes <sup>2)</sup>	-	-	PA-GF-NS <sup>3)</sup>	PA-GF-NS <sup>3)</sup>	-
4 B	Protection ring	316Ti/320 S31	-	-	-	-
5 + 6	Solid locking trunnions	316L	316L	316L	316L	316L
5 + 6	Hollow locking trunnions	316Ti/320 S31	316Ti/320 S31	316Ti/320 S31	316Ti/320 S31	316Ti/320 S31
7	Locking bolts	A4-80/316	A4-80/316	A4-80/316	A4-80/316	A4-80/316
8	Washer	A4-80/316	A4-80/316	A4-80/316	A4-80/316	A4-80/316

<sup>1)</sup> PA-GF plastic strip inserts are only for pipe couplings used in shipbuilding applications.

<sup>2)</sup> COMBI GRIP couplings are equipped with two different anchoring rings (1 x for the metal end, 1 x for the plastic end).

<sup>3)</sup> PA-GF: PA reinforced with fiber glass; NS: nickel silver.

## FLEX / FLEX E - the protective pipe coupling

NormaConnect® FLEX /FLEX E pipe couplings are used for connecting restrained pipes, metal pipes, stainless pipes, as well as concrete and plastic pipes. With NormaConnect® FLEX/FLEX E pipe couplings, sealing reliability is also ensured when there are gaps between pipe ends which are compensated.



Features
1. Double-lip sealing system
2. Standard strip insert
3. Heavy duty lock bars
4. Protection ring

### Materials

<b>W5</b>
<b>x</b>

### Advantages at a glance

- Compensation of pipe gaps allows thermal elongation of the pipes.
- Joining all kind of pipe materials is possible, e.g., for steel, plastic, cast iron, etc.

### Information

- Sizes: 26.9 mm - 1219.1 mm.
- Working pressure: 70.0 - 4.0 bar.
- Material: 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.

## REP E - the repair coupling

NormaConnect® REP E are non-restraint repair couplings. They are used to connect and/or seal damaged metal and plastic pipes. They also enable repairs to be carried out easily, quickly and safely without the need to dismantle the pipes.



### Features

1. Double-lip sealing system
2. Standard strip insert

### Materials

<b>W5</b>
<b>x</b>

### Advantages at a glance

- Ensures a reliable, safe, leakage-free connection.
- Enables easy, quick and safe repair without dismantling the pipes.
- Easy to install without special tools.

### Information

- Sizes: from 35.0 mm to 1219.1 mm.
- Working pressure: from 60.0 bar to 4.0 bar.
- Material: 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.



## GRIP / GRIP E - the strong pipe coupling

NormaConnect® GRIP / GRIP E axial restraint pipe couplings are used to connect metal pipes. The anchoring ring with conically stamped teeth indents into the pipe surface (steel, stainless steel or cast iron) and provides safe and strong axial restraint. Owing to the special design, the coupling can withstand even high vibration loads.



### Features

- |  |
|--|
| 1. Double-lip sealing system                   |
| 2. Standard strip insert                       |
| 3. Heavy duty lock bars                        |
| 4. Anchoring ring with conically stamped teeth |

### Materials

W5
x

### Advantages at a glance

- Progressive locking effect ensures a trouble- and maintenance-free connection.
- Reusable.
- Shock resistant.
- Space saving connector.
- Withstand high vibration loads.

### Information

- Sizes: 26.9 mm- 711.2 mm.
- Working pressure: 70.0 bar - 1.5 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: from - 20 °C up to + 80 °C.
- NBR: from - 20 °C up to + 80 °C.

## GRIP E-FP - the fire resistant coupling

NormaConnect® GRIP E-FP pipe couplings with integrated flame protection are used with applications in the marine sector (civil and military) as well as in sprinkler systems. For this purpose the GRIP E type has been equipped with an additional housing made from stainless steel plus a fire-resistant lining which can resist temperatures of up to 850°C.

The pipe coupling meets the newest VdS directives, IACS P2.11 and ISO 19921/22. Pressures and dimensions on request.



### Features

- |                                     |
|-------------------------------------|
| 1. Double-lip sealing system        |
| 2. Standard strip insert            |
| 3. Conically stamped anchoring ring |
| 4. Flame protection housing         |

### Materials

<b>W5</b>
<b>x</b>

### Advantages at a glance

- Dampens absorbing vibrations, pressure surges.
- Weight saving.
- Tension free.
- Ready to install.

### Information

- Sizes: 40.0 mm - 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: from - 20 °C up to + 80 °C.
- NBR: from - 20 °C up to + 80 °C.

## RFP - the flame-protected coupling

The NormaConnect® RFP is a retrofittable flame protection housing that has been specially designed for use with all NormaConnect® FLEX, GRIP and REP pipe couplings. Its low weight and straightforward design allows quick, easy assembly without any tools. The built-in flame resistant mineral fiber mat provides a premium level of flame protection.

The Retrofit Flame Protection (RFP) housing has been extensively tested and is approved by Germanischer Lloyd, Bureau Veritas, American Bureau of Shipping, Det Norske Veritas, Korean Register of Shipping, Russian Maritime Register of Shipping, Polski Rejestr Statkon and Nippon Kaiji Kyokai / Class NK.



Features	
1. Metal housing	Made from AISI 316 Ti.
2. Environmentally friendly	No use of chemicals.
3. Flame protected shoulders	Premium flame protection.

### Materials

<b>W5</b>
<b>x</b>

### Advantages at a glance

- Retrofittable.
- Easy assembly without tooling.
- Low weight.
- Meets updated IACS requirements.
- No chemicals in flame protection mat.
- High flexibility.
- Clear identification whether coupling is flame protected or not.
- Mechanical stress resistant.
- Less warehouse costs.

### Information

- Sizes from 26.9 mm up to 273.0 mm.



Double-locked safeguards prevent dismantling.

## PLAST GRIP / PLAST GRIP E - the coupling for plastic pipes

NormaConnect® 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, engages into the pipe surface without damaging the plastic material. 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.



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

### Materials

<b>W5</b>
<b>X</b>

### Advantages

- No welding.
- No adjustments to the pipes/connectors necessary.
- Usable for weak plastic pipes, PP, PE.

### Information

- Sizes: 40.0 mm - 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: - 20 °C up to + 80 °C.

## COMBI GRIP - 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.



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

### Materials

<b>W5</b>
<b>x</b>

### Advantages

- 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.

## Range

### Axial Non-Restraint Pipe Couplings



### Axial Restraint Pipe Couplings



PIPE SIZE	CLAMPING RANGE	FLEX E - FOR CONNECTING RESTRAINED, METAL, STAINLESS, CONCRETE AND PLASTIC PIPES		GRIP E - FOR CONNECTING METAL PIPES		GRIP E-FP - WITH INTERGRATED FLAME PROTECTION	
		NBR ITEM NO.	EPDM ITEM NO.	NBR ITEM NO.	EPDM ITEM NO.	NBR ITEM NO.	EPDM ITEM NO.
26.9MM Ø	26.4-27.5MM Ø	05828600026	05829300026	05798600026	05799300026	05798670026	05799370026
28.0MM Ø	27.5-28.5MM Ø	05828600028	05829300028	05798600028	05799300028		
30.0MM Ø	29.5-30.6MM Ø	05828600030	05829300030	05798600030	05799300030	05798670030	05799370030
33.7MM Ø	33.0-34.3MM Ø	05828600033	05829300033	05798600033	05799300033	05798670033	05799370033
35.0MM Ø	34.5-35.6MM Ø	05828600035	05829300035	05798600035	05799300035		
38.0MM Ø	37.5-38.6MM Ø	05828600038	05829300038	05798600038	05799300038	05798670038	05799370038
42.4MM Ø	41.7-43.0MM Ø	05828600042	05829300042	05798600042	05799300042	05798670042	05799370042
44.5MM Ø	44.0-45.1MM Ø	05828600044	05829300044	05798600044	05799300044	05798670044	05799370044
48.3MM Ø	47.6-50.5MM Ø	05828600048	05829300048	05798600048	05799300048	05798670048	05799370048
54.0MM Ø	53.3-54.6MM Ø	05828600054	05829300054	05798600054	05799300054	05798670054	05799370054
57.0MM Ø	56.3-57.7MM Ø	05828600057	05829300057	05798600057	05799300057	05798670057	05799370057
60.3MM Ø	59.5-61.0MM Ø	05828600060	05829300060	05798600060	05799300060	05798670060	05799370060
73.0MM Ø	72.1-73.8MM Ø	05828600073	05829300073	05798600073	05799300073	05798670073	05799370073
76.1MM Ø	75.2-77.0MM Ø	05828600076	05829300076	05798600076	05799300076	05798670076	05799370076
80.0MM Ø	79.0-80.8MM Ø			05798600080	05799300080		
84.0MM Ø	83.0-85.0MM Ø	05828600084	05829300084	05798600084	05799300084	05798670084	05799370084
88.9MM Ø	87.0-89.9MM Ø	05828600088	05829300088	05798600088	05799300088	05798670088	05799370088
101.6MM Ø	100.4-102.8MM Ø	05828600101	05829300101	05798600101	05799300101	05798670101	05799370101
104.0MM Ø	102.8-106.1MM Ø	05828600104	05829300104	05798600104	05799300104	05798670104	05799370104
108.0MM Ø	106.8-109.2MM Ø	05828600108	05829300108	05798600108	05799300108	05798670108	05799370108
110.0MM Ø	108.8-111.4MM Ø	05828600110	05829300110	05798600110	05799300110	05798670110	05799370110
114.3MM Ø	113.0-115.5MM Ø	05828600114	05829300114	05798600114	05799300114	05798670114	05799370114
129.0MM Ø	127.6-131.1MM Ø	05828600129	05829300129	05798600129	05799300129	05798670129	05799370129
133.0MM Ø	131.5-134.4MM Ø	05828600133	05829300133	05798600133	05799300133	05798670133	05799370133
139.7MM Ø	138.1-141.6MM Ø	05828600139	05829300139	05798600139	05799300139	05798670139	05799370139
141.3MM Ø	139.6-142.8MM Ø	05828600141	05829300141	05798600141	05799300141	05798670141	05799370141
144.0MM Ø	142.4-145.5MM Ø	05828600144	05829300144	05798600144	05799300144	05798670144	05799370144
154.0MM Ø	152.3-156.1MM Ø	05828600154	05829300154	05798600154	05799300154	05798670154	05799370154
159.0MM Ø	157.3-160.7MM Ø	05828600159	05829300159	05798600159	05799300159	05798670159	05799370159
168.3MM Ø	166.5-170.1MM Ø	05828600168	05829300168	05798600168	05799300168	05798670168	05799370168
219.1MM Ø	216.0-221.0MM Ø			05748600219	05748300219	05748670219	05748370219



**Axial Restraint Pipe Couplings**

**Repair Couplings**

		PLAST GRIP E - FOR CONNECTING PLASTIC PIPES		REP E - CONNECTS AND/OR SEALS DAMAGED METAL AND PLASTIC PIPES (WITHOUT THE NEED TO DISMANTLE PIPES)	
PIPE SIZE	CLAMPING RANGE	NBR ITEM NO.	EPDM ITEM NO.	NBR ITEM NO.	EPDM ITEM NO.
35.0MM Ø	34.5-35.6MM Ø			05728660035	05729360035
38.0MM Ø	37.5-38.6MM Ø			05728660038	05729360038
40.0MM Ø	39.0-40.5MM Ø	05818660040	05819360040		
42.4MM Ø	41.7-43.0MM Ø	05818660042	05819360042	05728660042	05729360042
44.5MM Ø	44.0-45.1MM Ø	05818660044	05819360044	05728660044	05729360044
48.3MM Ø	47.6-50.5MM Ø	05818660048	05819360048	05728660048	05729360048
50.0MM Ø	49.0-50.5MM Ø	05818660050	05819360050		
54.0MM Ø	53.3-54.6MM Ø			05728660054	05729360054
57.0MM Ø	56.3-57.7MM Ø			05728660057	05729360057
60.3MM Ø	59.5-61.0MM Ø	05818660060	05819360060	05728660060	05729360060
63.0MM Ø	62.0-63.5MM Ø	05818660063	05819360063		
70.0MM Ø	69.0-71.0MM Ø			05728660070	05729360070
73.0MM Ø	72.1-73.8MM Ø			05728660073	05729360073
75.0MM Ø	74.0-76.0MM Ø	05818660075	05819360075		
76.0.MM Ø	75.2-77.0MM Ø	05818660076	05819360076		
76.1MM Ø	75.2-77.0MM Ø			05728660076	05729360076
78.0MM Ø	77.1-78.9MM Ø			05728660078	05729360078
80.0MM Ø	79.0-80.8MM Ø			05728660080	05729360080
84.0MM Ø	83.0-85.0MM Ø			05728660084	05729360084
88.9MM Ø	87.0-89.9MM Ø	05818660088	05819360088	05728660088	05729360088
90.0MM Ø	88.0-90.0MM Ø	05818660090	05819360090	05728660098	05729360098
101.6MM Ø	100.4-102.8MM Ø			05728660101	05729360101
104.0MM Ø	102.8-106.1MM Ø			05728660104	05729360104
108.0MM Ø	106.8-109.2MM Ø	05818660108	05819360108	05728660108	05729360108
110.0MM Ø	108.8-111.4MM Ø	05818660110	05819360110	05728660110	05729360110
114.3MM Ø	113.0-115.5MM Ø	05818660114	05819360114	05728660114	05729360114
125.0MM Ø	124.0-126.0MM Ø	05818660125	05819360125		
129.0MM Ø	127.6-131.1MM Ø			05728660129	05729360129
133.0MM Ø	131.5-134.4MM Ø			05728660133	05729360133
139.7MM Ø	138.1-141.6MM Ø			05728660139	05729360139
140.0MM Ø	139.0-141.0MM Ø	05818660140	05819360140		
141.6MM Ø	142.4-145.5MM Ø			05728660141	05729360141
144.0MM Ø	142.4-145.5MM Ø			05728660144	05729360144
154.0MM Ø	152.3-156.1MM Ø			05728660154	05729360154
159.0MM Ø	157.3-160.7MM Ø	05818660159	05819360159	05728660159	05729360159
160.0MM Ø	159.0-162.0MM Ø	05818660160	05819360160		
168.3MM Ø	166.5-170.1MM Ø	05818660168	05819360168	05728660168	05729360168

### Axial Repair Couplings

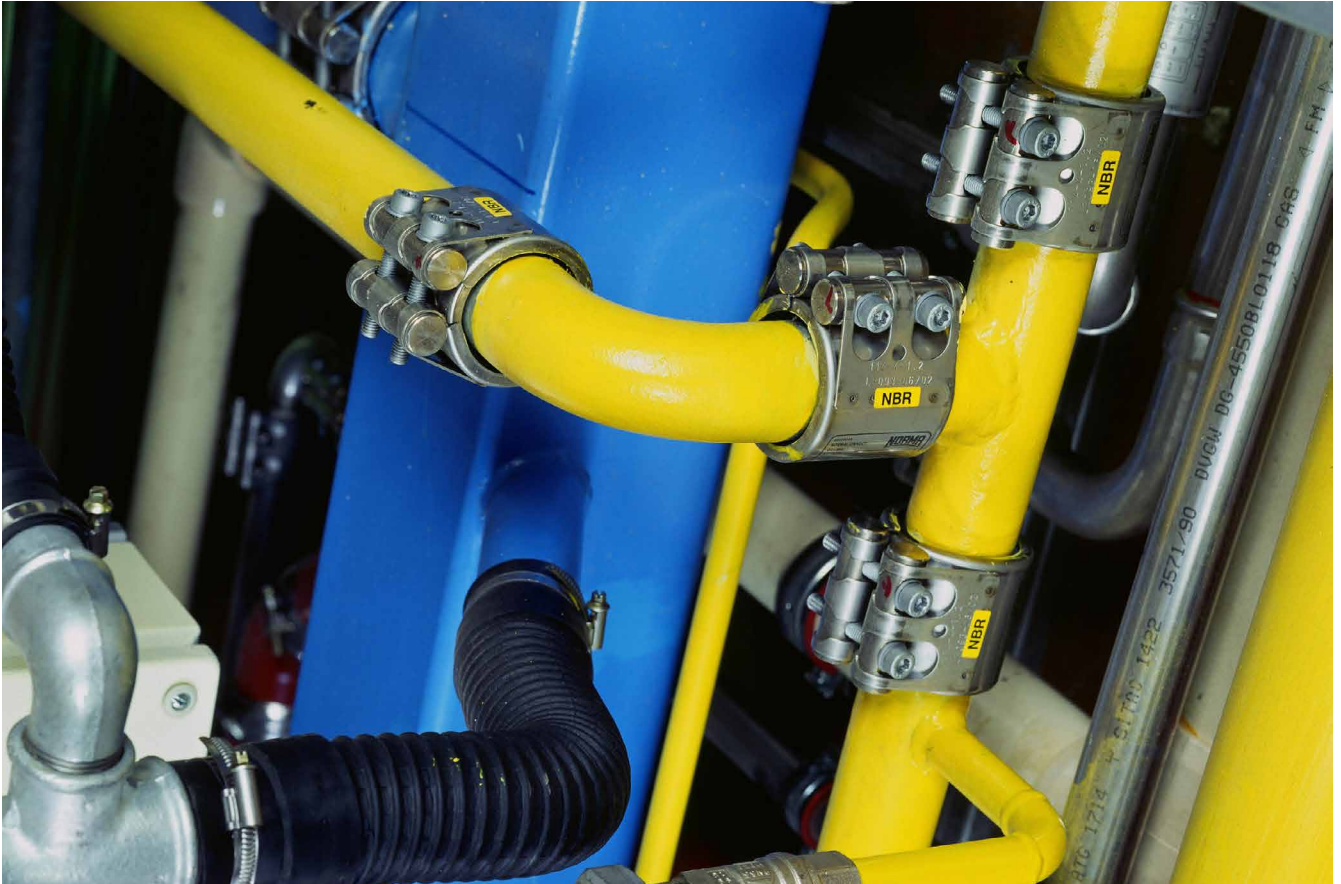


COMBI GRIP E - FOR CONNECTING PLASTIC PIPES WITH METAL PIPES			
CLAMPING RANGE METAL	CLAMPING RANGE PLASTIC	NBR ITEM NO.	EPDM ITEM NO.
37.5–38.6MM Ø	39.0–40.5MM Ø	05848660038	05849360038
41.7–43.0MM Ø	39.0–40.5MM Ø	05848660042	05849360042
41.7–43.0MM Ø	41.7–43.0MM Ø	05848660043	05849360043
47.6–49.5MM Ø	47.6–49.5MM Ø	05848660046	05849360046
47.6–50.5MM Ø	49.0–50.5MM Ø	05848660048	05849360048
59.5–61.0MM Ø	59.5–61.0MM Ø	05848660061	05849360061
59.5–61.0MM Ø	62.0–63.5MM Ø	05848660060	05849360060
75.2–77.0MM Ø	74.0–76.0MM Ø	05848660076	05849360076
75.2–77.0MM Ø	75.2–77.0MM Ø	05848660077	05849360077
87.0–89.9MM Ø	88.0–90.0MM Ø	05848660086	05849360086
87.0–89.9MM Ø	89.0–91.0MM Ø	05848660088	05849360088
106.8–109.2MM Ø	109.0–111.0MM Ø	05848660108	05849360108
109.0–111.0MM Ø	109.0–111.0MM Ø	05848660109	05849360109
113.0–115.5MM Ø	109.0–111.0MM Ø	05848660110	05849360110
113.0–115.5MM Ø	113.0–115.5MM Ø	05848660114	05849360114
127.6–131.1MM Ø	124.0–126.0MM Ø	05848660129	05849360129
138.1–141.6MM Ø	139.0–141.0MM Ø	05848660139	05849360139
157.3–160.7MM Ø	159.0–162.0MM Ø	05848660159	05849360159
166.5–170.1MM Ø	166.5–170.1MM Ø	05848660168	05849360168
166.5–170.1MM Ø	166.5–170.1MM Ø	05848660168	05849360168

RFP - RETROFITABLE FLAME PROTECTION	
COUPLING PIPE SIZE	ITEM NUMBER
26.9MM Ø	05730000026
28.0MM Ø	05730000028
30.0MM Ø	05730000030
33.7MM Ø	05730000033
38.0MM Ø	05730000038
42.4MM Ø	05730000042
44.5MM Ø	05730000044
48.3MM Ø	05730000048
54.0MM Ø	05730000054
57.0MM Ø	05730000057
60.3MM Ø	05730000060
76.1MM Ø	05730000076
88.9MM Ø	05730000088
101.6MM Ø	05730000101
104.0MM Ø	05730000104
108.0MM Ø	05730000108
114.4MM Ø	05730000114
129.0MM Ø	05730000129
133.0MM Ø	05730000133
139.7MM Ø	05730000139
154.0MM Ø	05730000154
159.0MM Ø	05730000159
168.3MM Ø	05730000168
219.1MM Ø	05730000219
273.0MM Ø	05730000273



Customer Value through Innovation



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