

# PUSH-ON STANDARD RIGID COUPLINGS

## Model 109

ARGCO's PUSH-ON Rigid Coupling is a truly rigid grooved pipe coupling which, unlike other grooved couplings, does not allow for any axial movement, angular movement and or rotational movement under normal service conditions. ARGCO's PUSH-ON Rigid Coupling allows the pipe to move into the couplings directly without losing components.

Support and hanging requirements correspond to ANSI B31.1, B31.9 and NFPA 13.

Caution: Pipe ends must be cut square so that the pipe ends butt together.

### Applications:

- All piping including mechanical rooms where no angular or axial movement is desired
- Dry-System Fire Protection pipelines
- Stainless steel piping for potable water and food industries (epoxy coated housings with NSF61 certified gasket and type 316 bolts and silicone bronze nuts)
- Hot Water Systems

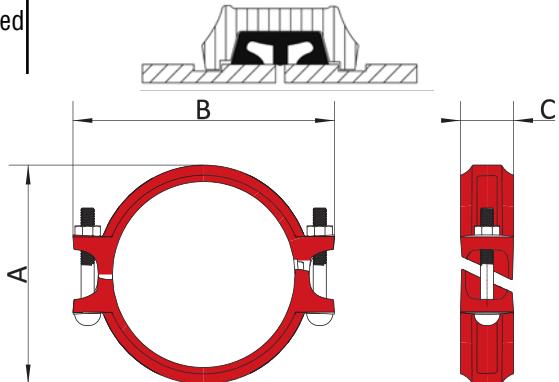
Sizes available: 1-1/4"~8"

Working Pressure: 300 psi



### DRY PIPE AND FREEZER SERVICES

ARGCO recommends the use of GapSeal Grade E gaskets for dry pipe fire protection systems and freezer applications. The GapSeal gasket close off the gap between the pipes or gasket cavity. This will prevent any remaining liquid from entering the cavities and freezing when the temperature drops.



Part Number	Nominal Size mm/in	Pipe O.D. mm/in	Max. Working Pressure Bar/PSI	Max. End Load KN/Lbs	Axial Displacement	Dimensions			Bolts Size mm/in
						mm/in	mm/in	mm/in	
7010802	32	42.4	20	2.92	0-1.6	71.5	112	47	M10x60
	11/4	1.669	300	656	0-0.06	2.81	4.41	1.85	3/8x60
7010803	40	48.3	20	3.79	0-1.6	78	117	47	M10x60
	11/2	1.9	300	852	0-0.06	3.07	4.61	1.85	3/8x60
7010804	50	60.3	20	5.91	0-1.6	90	132	48	M10x60
	2	2.375	300	1327	0-0.06	3.54	5.20	1.89	3/8x60
7010805	65	76.1	20	9.41	0-1.6	106	150	48	M10x70
	21/2	3	300	2114	0-0.06	4.17	5.91	1.89	3/8x70
7010806	80	88.9	20	12.84	0-1.6	121	164	49	M12x75
	3	3.5	300	2885	0-1.7	4.76	6.45	1.93	1/2x75
7010807	100	114.3	20	21.22	0-4.1	147	190	52	M12x75
	4	4.5	300	4769	0-0.16	5.79	7.48	2.05	1/2x75
7010808	125	139.7	20	31.70	0-4.1	174	222	52	M12x80
	5	5.5	300	7124	0-0.16	6.85	8.74	2.05	1/2x80
7010809	150	165.1	20	44.27	0-4.1	204	263	52	M16x85
	6	6.5	300	9950	0-0.16	8.03	10.35	2.05	5/8x3-1/3
7010810	200	219.1	20	77.97	0-4.1	320	252	65	M16x120
	8	8.625	300	17524	0-0.16	12.60	9.92	2.56	5/8x4-3/4

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### BOLT TORQUES

ARGCO couplings are supplied complete with factory bolts and nuts. The bolt and nut torque is primarily a function of the bolt and nut size. The following table shows guidelines for bolt and nut torque and can be used when setting the torque on power drivers.

### Design Bolt Torques:

Bolt Size in/mm	N-m/Lbs - ft
5/16	25 - 30
M8	18 - 22
3/8	60 - 70
M10	45 - 50
1/2	90 - 100
M12	65 - 75
5/8	200 - 230
M16	145 - 170

Bolt Size in/mm	N-m/Lbs - ft
3/4	270 - 300
M20	200 - 220
7/8	270 - 300
M22	200 - 220
1	320 - 340
M24	235 - 250

Do not exceed the design torque guidelines by more than 25%, as excessive torque could lead to joint failure. Always tighten nuts evenly and equally by alternating sides to prevent the gasket from being pinched and always check to make sure the coupling keys are fully engaged in the grooves.

### ANGLE PAD COUPLINGS

The bolt pads on angle-pad rigid couplings and butt-joint rigid couplings have been designed to meet metal to metal when properly installed. In addition as the bolts are tightened the bolt pads will slide against one another creating a slight off-set. This offset should be equal on each side and is your visual indication that the coupling has been installed properly for a rigid connection. Bolt pad gaps, regardless of their size, are not acceptable on angle-pad coupling. The listed values in the table 2 are guideline torque values listed by the coupling size. Please note these are only guidelines and that the actual torque value may be less than those listed to achieve a proper assembly.

### Torque Guidelines for Angle-Pad Rigid Couplings

Size in	1512 N-m/Lbs-ft	GKS N-m/Lbs-ft	XGQT4 N-m/Lbs-ft
1	—	60-70	60-70
1-1/4	—	45-50	45-50
	60-70 45-50	60-70 45-50	60-70 45-50
1-1/2	—	60-70	60-70
	45-50	45-50	45-50
2	60-70	60-70	60-70
	45-50	45-50	45-50
2-1/2	90-100	60-70	60-70
	65-75	45-50	45-50
3	90-100	60-70	90-100
	65-75	45-50	65-75
4	90-100	90-100	90-100
	65-75	65-75	65-75
5	200-230	90-100	90-100
	145-170	65-75	65-75
6	200-230	90-100	200-230
	145-170	65-75	145-170
8	270-300	200-230	200-230
	200-220	145-170	145-170

### SPECIFICATIONS

ARGCO's range of grooved-end fittings are available in a number of styles and configurations to support a variety of applications, and are designed to meet the ASTM F1548-01 and ANSI/AWWA C606-04 requirements. Most fittings are provided in ductile iron conforming to ASTM A536 Gr. 65-45-12.

Fittings are painted orange or red, or as an option can be supplied hot-dip galvanized or epoxy coated. Pressure ratings conform to couplings and/or pipe being used.



### PRE-LUBRICATED GASKETS

All ARGCO EPDM gaskets are pre-lubricated, it allows the gaskets to be installed on the pipe without sparing lubricant. For other gaskets except EPDM, like silicon gasket, lubricant is recommended and to help prevent the gasket from being pinched. The lubricant is applied in a thin coat to the gasket exterior, the gasket lips and/or the housing interiors.



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### GASKET SELECTION GUIDE

ARGCO utilizes the finest gasket materials available in our products. Over the past 50 year great advanced have been made in synthetic elastomer technologies, allowing us to offer a full range of synthetic rubber gasket materials for a wide variety of piping applications. ARGCO gaskets are engineered and designed to meet and exceed standards such as ASTM D2000, AWWA C606, NSF61 and IAPMO. Our own stringent internal laboratory testing confirms this. Our continual research, development and testing are designed to advance the elastomer field and to develop new and better solutions for our ever changing industry.

Chemical resistance is primarily determined by the grade and/or the compound of the gasket. The color coding identifies the gasket grade and or compound. Always verify that the gasket selected is correct for the intended service. Service temperature is controlled by factors including the gasket compound, fluid medium (air, water, oils, etc.), and continuity (continuous or intermittent) of service. Under no circumstances should gaskets be exposed to temperatures below their individual ratings. For additional information or specific applications contact ARGCO for recommendations.

### Standard Gaskets

Compound	Grade	Color Code	Recommended Services	Maximum Temp. Range
EPDM	E	Green Stripe	Good for cold & hot water up to +230°F (+110°C). Also good for services for water with acid, water with chlorine, de-ionized water, seawater and waste water, dilute acids, oil-free air and many chemicals. Not recommended for petroleum oils, solvents and aromatic hydrocarbons.	-29°F (-34°C) to +230°F (+110°C)
Nitrile	T	Orange Stripe	Good for petroleum oils, mineral oils, vegetable oils, aromatic hydrocarbons, many acids and water ≤ +150°F (+65°C).	-20°F (-29°C) to +180°F (+82°C)
White Nitrile	A	White Gasket	Good for oily and greasy food products and processing, as well as pharmaceutical and cosmetics manufacturing. Compounded from FAD approved ingredients (CFR Title 21 Part 177.2600).	-20°F (-7°C) to +180°F (+82°C)
Silicone	L	Red Stripe	Good for dry, hot air without hydrocarbons and some high temperature chemical services. May also be used for fire protection dry systems.	-29°F (-34°C) to +350°F (+177°C)
Fluoro-elastomer (Viton)	Q	Blue Stripe	Good for many oxidizing acids, petroleum oils, halogenated hydrocarbons, lubricants, hydraulic fluids, organic liquids and air with hydrocarbons to +300°F (+149°C).	-20°F (-7°C) to +300°F (+149°C)

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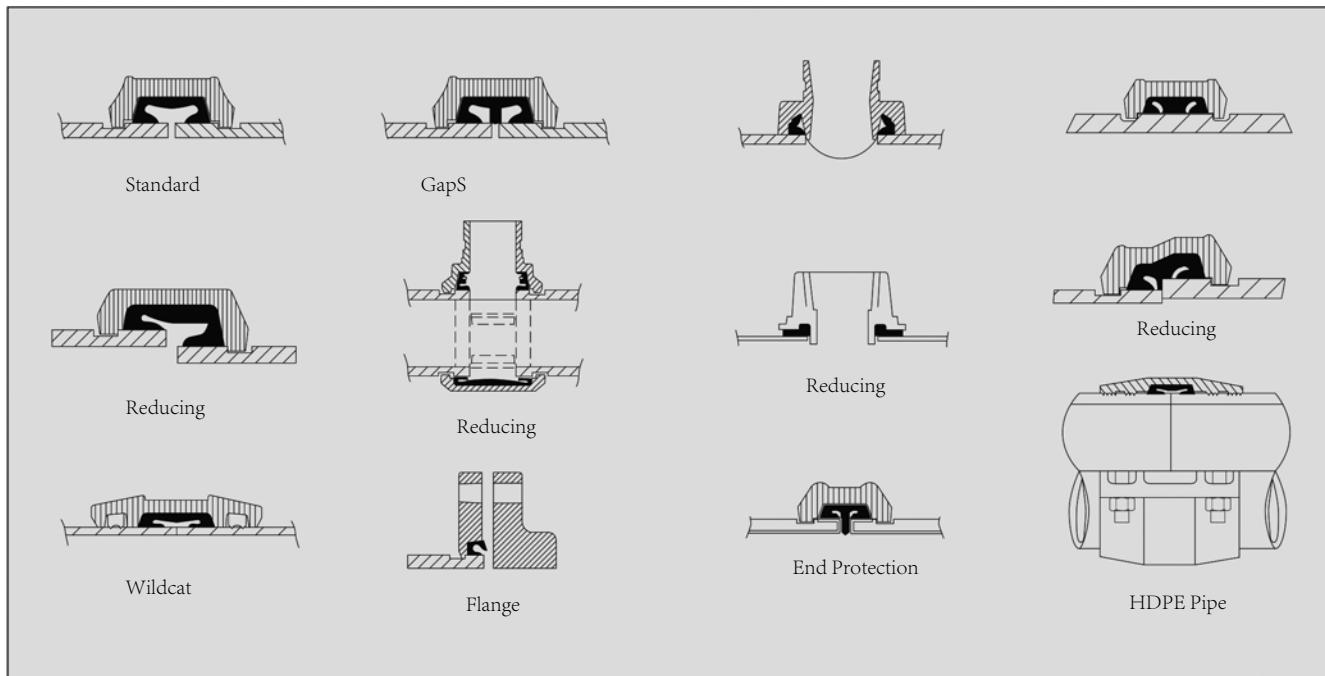


## GASKET STYLES

Due to the number of ARGCO products offered and the variety of service applications, a wide variety of gaskets are available.

Even though the products and gaskets may look

different the sealing principles remain the same. The following are some of the most common gasket styles.



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