GROOVED COUPLINGS - STANDARD RIGID

Model 101



The ARGCO Model 101 is an angle-pad design standard rigid coupling for moderate pressure piping services including fire mains, long straight runs and value connections.
The angle-pad design allows the coupling housings to slide along the bolt pads when tightened. The result is an offset clamping action which provides a rigid joint which resists so-called 'snaking' of a long straight run. Support and hanging requirements correspond to ANSI B31.1, B31.9 and NFPA 13. With the removal of only one bolt you can make a fast and easy 'swing-over' installation.

Available Sizes
• 1" through 12" (25 through 300 mm)
Pipe Material
• Carbon steel, Schedule 10, Schedule 40.
For use with alternative materials and wall thicknesses please contact ARGCO.
Maximum Working Pressure
• Up to 300 psi/2517 kPa.
Function
• Joins carbon steel pipe.
• Provides a rigid pipe joint designed to restrict axial or angular movement.
CERTIFICATIONS/LISTINGS
Underwriters Laboratories, Underwriters Laboratories Canada, Factory Mutual.

SPECIFICATIONS - MATERIAL

Housing Sections: Ductile Iron conforming to ASTM A 536, Grade 65-45-12.

Housing Coating:
Standard: Orange Enamel
Available: Hot Dipped Galvanized

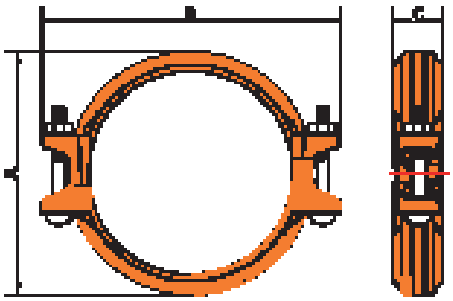
Gasket:
Standard: Grade E EPDM (Type A)
ARGCO's products are listed by Underwriters Laboratories UL Canada and Approved by Factory Mutual for we and dry (oil free air) sprinkler services within the rated working pressure.

Bolts and Nuts
Standard: Carbon Steel oval neck track bolts meeing ASTM A449 and ISO 898-1. Carbon steel hex nuts meet ASTM A563 Grade B.
Nuts and Bolts are zinc electroplated per ASTM B633 NZ/FE5, finish Type III.
Available: Stainless Steel. Meets ASTM F593, Group 2 (316 stainless steel), condition CW.
Hex nuts meets ASTM F594, Group 2 (316 stainless steel), condition CW, with galling-resistant coating.

System No.		Location		Spec Section		Paragraph	
Submitted By		Date		Approved		Date	

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ARGCO Grooved Couplings are suitable for fire protection systems, water supply systems, and other process systems of higher working pressure.

					Dimensions				
Item #	Nominal Size in/mm	Maximum Working Pressure psi/kPa	Maximum End Load lb/N	Axial Displacement in/mm	A inches mm	B inches mm	C inches mm	Bolt inches mm	Weight lb
7010001	1"	300	405	0-0.06	2.17	3.82	1.77	3/8" x1-1/2"	0.81
	25	20	1.80	0-1.6	55	97	45	M10x40	
7010002	1-1/4"	300	656	0-0.06	2.50	4.23	1.77	3/8" x1-3/4"	1.23
	32	20	2.92	0-1.6	63.5	107.5	45	M10x45	
7010003	1-1/2"	300	852	0-0.06	2.72	4.49	1.77	3/8" x1-3/4"	1.32
	40	20	3.79	0-1.6	69	114	45	M10x45	
7010004	2"	300	1327	0-0.06	3.29	4.88	1.81	3/8" x 2-1/8"	1.58
	50	20	5.91	0-1.6	83.6	124	46	M10x55	
7010005	2-1/2"	300	1945	0-0.06	3.86	5.39	1.81	3/8" x 2-1/8"	2.13
	65	20	8.66	0-1.6	98	137	46	M10x55	
7010006	3"	300	2885	0-0.06	4.49	6.14	1.81	3/8" x 2-1/8"	2.70
	80	20	12.84	0-1.6	114	156	46	M10x55	
7010007	4"	300	4258	0-0.16	5.43	7.32	1.97	1/2" x 2-5/8"	2.94
	100	20	18.94	0-4.1	138	186	50	M12x65	
7010008	5"	300	6457	0-0.16	6.46	8.39	1.97	1/2" x 2-5/8"	4.70
	125	20	28.73	0-4.1	164	213	50	M12x65	
7010009	6"	300	9229	0-0.06	7.56	9.61	1.97	1/2" x 2-5/5"	5.50
	150	20	41.06	0-4.1	192	244	50	M12x65	
7010010	8"	300	17079	0-0.16	10.00	13.39	2.44	5/8" x3-1/2 "	11.73
	200	20	75.99	0-4.1	254	340	62	M16x90	
7010011	10"	300	26101	0-0.16	12.32	15.75	2.52	3/4" x3-1/2"	18.08
	250	20	116.13	0-4.1	313	400	64	M20x90	
7010012	12"	300	37031	0-0.16	14.49	18.27	2.52	7/8" x4-1/3"	22.4
	300	20	164.76	0-4.1	368	464	64	M22x110	

- Working Pressure and End Load are total, from all internal and external loads, based on standard weight (ANSI) steel pipe, standard roll or cut grooved in accordance with ARGCO specifications.
- The allowable pipe separation dimension shown is for system layout purposes only. ARGCO couplings are considered rigid connections and will not accommodate expansion or contraction of the piping system.
- When assembling ARGCO couplings onto end caps, take additional care to make certain the end cap is fully seated against the gasket end stop.

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MATERIALS



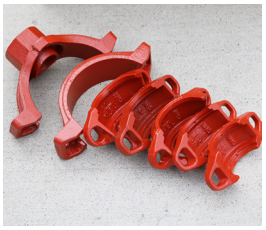
GASKETS

ARGCO gaskets are available in a variety of configurations and compounds to meet your specific requirements. These gaskets have excellent self sealing capabilities and are designed to provide a leak tight seal. During assembly the gasket is first stretched over the pipe ends which forms the initial seal. As the housing segments are installed and secured the pressure responsive gasket is slightly compressed to form a leak-tight joint. The strength of the seal is further enhanced by internal line pressure that creates downward pressure on the lips of the gasket. The gasket also seals well under vacuum conditions up to 10 inHg (254 mmHg) which may occur when a system is drained. Please refer to the ARGCO Gasket Selection Guide for additional details and gasket materials.

STANDARD GASKET: EPDM
Grade: E
Color Code: Green Stripe
Maximum Temperature Range: -29° F (-34° C) to 230° F (110° C)
Recommended Services:
Good for cold & hot water up to +230°F (+110°C). Also good for services for water with acid, water with chlorine, deionized water, seawater and waste water, dilute acids, oil-free air and many chemicals.
Not recommended for petroleum oils, solvents and aromatic hydrocarbons.
Other Gasket Material Available upon request.

HOUSING

The housing segments not only provide significant strength to the joint but they also compress and protect the gasket from exposure, ARGCO coupling housings and components are cast in a variety of materials as shown below.



Ductile Iron: Standard coupling housings and fittings are made of ductile iron conforming to ASTM A536 Gr. 65-45-12. The properties of Grade 65-45-12 ductile iron are as follows; 65,000 psi (448 MPa) tensile strength, 45,000 psi (310 MPa) yield strength and 12% elongation. As an option we also offer ductile iron made to ASTM A395 Gr. 60 40-18, for applications where required or where boiler codes may apply.



NUTS & BOLTS

ARGCO products utilize oval neck track bolts and heavy duty hex nuts, available either in UNC threaded or ISO metric threaded. The oval neck track bolts mate into the oval holes in the housing segments to allow for easy tightening using only a single wrench/spanner. The UNC bolts and nuts are electro zinc plated in a silver chromate color and ISO bolts and nuts in a gold chromate color.
Hot-dip galvanized bolts and nuts are also available upon request. (M10 to M22 only)

Stainless steel track bolts and nuts, type 304 or 316, are supplied with ARGCO stainless steel couplings. Stainless steel track bolts and nuts are molybdenum disulfide (MoS2) coated to inhibit galling.

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