



# AC-9 Grooved Coupling



AC-9 AWWA Grooved Coupling

### SUBMITTAL INFORMATION

PROJECT NAME:

ENGINEER:

CONTRACTOR:

SPEC. SECTION:



### FEATURES & ADVANTAGES

- Model AC-9 couplings are available in sizes 3" - 36" and are designed for connecting ductile iron pipe. These couplings provide an alternative to flanged piping methods.
- All sizes are furnished with flush gaskets which provide a triple seal.
- Couplings are designed for use on flexible or rigid radius grooved ductile iron pipe per ANSI/AWWA C606.
- 3"-12" sizes are UL, ULC Listed and Factory Mutual Approved.
- Halogenated Butyl Gaskets NSF 61 and NSF 372 Approved.

### MATERIAL SPECIFICATIONS

- Housing: Ductile Iron per ASTM A536 Grade 65-45-12.
- Finish: Rust inhibiting primer.

### BOLT/NUT OPTIONS (Please check one):

Standard: Oval neck track bolt and heavy hex nut per ANSI/ASME B18.10 and B18.2.2.

Optional: Stainless steel hex head bolts per ASTM A 193, grade B8M, class 2, type 316 & stainless steel heavy hex nut per ASTM A 194, grade 8M, type 316.

### GASKET OPTIONS PER ASTM D2000 (Please check one):

Standard: Halogenated Butyl  
Temperature range -20°F to +200°F (-29°C to +93°C). Recommended for water service within the specified temperature range plus a variety of dilute acids, oil-free air and many chemical services. Not recommended for petroleum services.

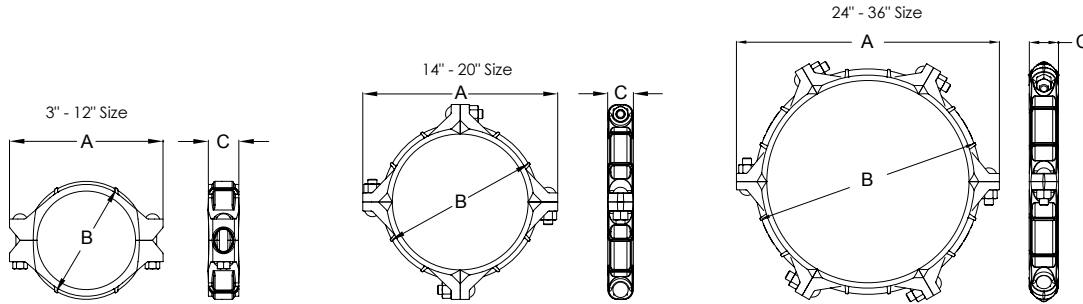
Optional: Nitrile  
Temperature range -20°F to +180°F (-29°C to +82°C). Recommended for petroleum products, air with oil vapors, vegetable and mineral oils within the specified temperature range, not recommended for hot dry air over +140°F and water over +150°F.

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## TECHNICAL INFORMATION



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Please check sizes:

AC-9 AWWA GROOVED COUPLING													
NOM. SIZE	ACTUAL PIPE SIZE	MAX WORKING (PSI)/(kPa)	MAX END LOAD (LBS)/(N)	ALLOW PIPE END SEP.	DEFLECTION		NUTS/BOLTS		DIMENSIONS			APPROX. WT. (LBS)/(KG)	
					DEG. PER COUPLING	PIPE	QTY.	SIZE	A	B	C		
3 80	3.96 100.6	500 3447	6158 27392	0 - 0.09 0 - 2.3	1° - 20'	0.28 23	2	1/2 X 2 3/4	7.20 183	5.38 137	2.26 57	5 2.3	
4 100	4.80 121.9	500 3447	9048 40248	0 - 0.09 0 - 2.3	1° - 6'	0.23 19	2	5/8 X 3 1/4	8.77 223	6.26 159	2.26 57	7 3.1	
6 150	6.90 175.3	400 2758	14957 66532	0 - 0.09 0 - 2.3	0° - 47'	0.16 14	2	5/8 X 3 1/4	10.93 278	8.30 211	2.33 59	8 3.6	
8 200	9.05 229.9	400 2758	25730 114453	0 - 0.09 0 - 2.3	0° - 36'	0.12 10	2	3/4 X 5	13.68 347	10.72 272	2.72 69	16 7.3	
10 250	11.10 281.9	350 2413	33869 150657	0 - 0.16 0 - 4.1	0° - 49'	0.17 14	2	3/4 X 5	15.93 405	12.98 330	2.86 73	21 9.5	
12 300	13.20 335.3	350 2413	47897 213057	0 - 0.16 0 - 4.1	0° - 41'	0.14 12	2	7/8 X 5	18.63 473	15.12 384	2.86 73	30 13.6	
14 350	15.30 388.6	250 1724	45963 204454	0 - 0.16 0 - 4.1	0° - 35'	0.12 10	4	1 X 3 1/2	21.50 546	17.54 446	2.84 72	39 17.7	
16 400	17.40 442.0	250 1724	59447 264433	0 - 0.25 0 - 6.4	0° - 49'	0.17 14	4	1 X 3 1/2	23.68 601	20.24 515	3.61 92	63 28.6	
18 450	19.50 495.3	250 1724	74662 332113	0 - 0.25 0 - 6.4	0° - 44'	0.15 13	4	1 X 3 1/2	26.56 675	22.40 569	3.61 92	80 36.3	
20 500	21.60 548.6	150 1034	54965 244496	0 - 0.25 0 - 6.4	0° - 40'	0.14 12	4	1 1/8 X 4	28.48 622	24.50 622	3.68 93	86 39.0	
24 600	25.80 655.3	150 1034	78419 348825	0 - 0.25 0 - 6.4	0° - 33'	0.11 10	6	1 1/8 X 4	33.06 840	28.70 729	3.68 93	103 46.7	
30 750	32.00 812.8	150 1034	120637 536620	0 - 0.47 0 - 11.9	0° - 51'	0.18 16	6	1 1/8 X 4	39.68 1008	35.36 898	4.44 113	165 74.8	
36 900	38.30 972.8	150 1034	172814 768715	0 - 0.47 0 - 11.9	0° - 47'	0.16 15	6	1 1/8 X 4	46.20 1173	42.00 1067	4.44 113	200 90.7	

\*All dimensions in black text are in inches except where indicated. \*All dimensions in blue text (below number) are in millimeters except where indicated.

- Allowable pipe end separation and deflection figures at each joint are for flexible radius grooved ends. Rigid grooved ends do not allow expansion and contraction
- Working pressure and/or end load are total allowable.
- One time field test pressure may be increased to 1.5 times the figures listed above.





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## COUPLING INSTALLATION INSTRUCTIONS - SIZES 3"-12"



STEP 1

Inspect pipe ends for proper groove dimensions being sure that grooved pipe ends are free from burrs, scores, rust, indentations, etc.



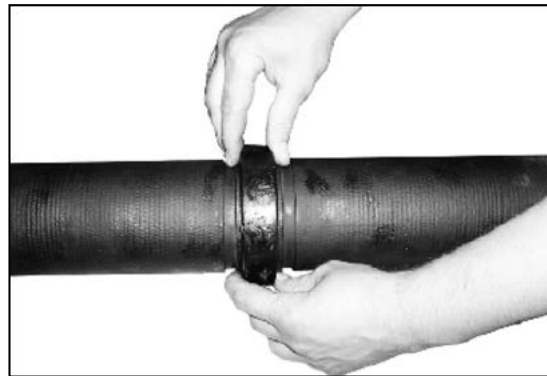
STEP 2

Apply a non - petroleum base, non - toxic gasket lubricant to pipe / fitting ends as well as inside and outside of the gasket itself.



STEP 3

Slip gasket over pipe / fitting end. The lip of the gasket must not overhang the pipe / fitting ends.



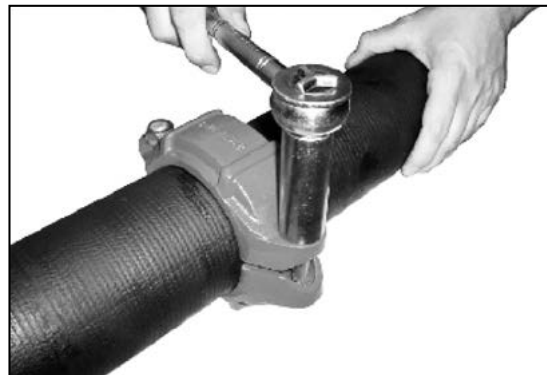
STEP 4

Align second grooved pipe / fitting end until it touches the first. Slide gasket over the second pipe / fitting, so it is centered between the grooves. No portion of the gasket should extend into the grooves.



STEP 5

Assemble both housings over the gasket and assure the housing keys are fully engaged into the grooves. Insert bolts and hand tighten the nuts uniformly.



STEP 6

Be sure that the housing is not pinching the gasket after hand tightening the nuts, then uniformly tighten the nuts until the coupling housings are firmly together, metal to metal.

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# AC-9 Grooved Coupling

## COUPLING INSTALLATION INSTRUCTIONS - SIZES 14"-36"



STEP 1

Inspect pipe end for proper groove dimensions being sure that grooved pipe ends are free from burrs, scores, rust, indentations, etc.



STEP 2

Turn the gasket inside out and slide the gasket completely over one of the pipe ends to reduce the stretching necessary to place the gasket into position.



STEP 3

Pull the two grooved pipes into contact aligning the pipe ends and lubricate the gasket sealing lips by applying a non-petroleum base, non - toxic gasket lubricant.



STEP 4

Working your hands around circumference of pipe, flip gasket towards the mating ends of two grooved pipes so that the sealing lips are contacting the pipe O.D. Position gasket centrally between the grooves of the two pipe ends. No portion of the gasket should extend into the grooves.



STEP 5

Lubricate exterior surface of the gasket or interior gasket pocket surfaces of casting housings.



STEP 6

Place first housing over gasket on top side of the pipe to support the weight of the housing segment making sure the housing keys are fully engaged into the grooves. Assemble the adjacent housing with supplied bolt and nut, then rotate the weight of the housings by balancing the weight of the housings on top of the pipe.



STEP 7

Assemble the remaining housings by following the procedure in step 6, making sure the weight of the housings is balanced on the top of the pipe.



STEP 8

After coupling is in place with all the required bolts and nuts, alternately tighten the nuts uniformly until the coupling housings are firmly together, metal to metal.

### ALTERNATE HOUSING INSTALLATION:

1. Pre assemble housing segments loosely into two equal halves by allowing slight clearance between housing segments.
2. Assemble equal halves over the gasket making sure the housing keys are fully engaged into the grooves. Insert remaining two bolts and hand tighten nuts uniformly.
3. After coupling is in place with all the required bolts and nuts, alternately tighten the nuts uniformly until the coupling housings are firmly together, metal to metal.

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