

Datasheet	A06
Revision	A
Date	12.mar.2018

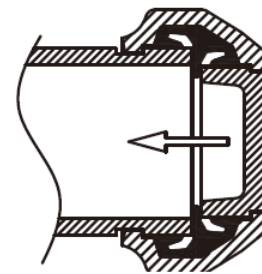
**Style: FC50**  
**Reducing Flexible Coupling**



The Reducing Coupling allows a direct reduction on a piping run and eliminates the need of a concentric reduction and additional couplings. The rubber gasket was specially designed to help preventing the smallest pipe from suffering a telescopic effect and entering the largest pipe during a vertical installation.

**Caution:**

The Reducing Coupling should not be used with a cap because it could be sucked into the pipe by the vacuum generated while draining the system.



Enlarged for better clarity.



**Segments:** the coupling segments are made of ductile cast iron in compliancy with ASTM A536 Grade 65-45-12 or similar.

**Bolts and Nuts:** 8.8 class oval head bolts and nuts made of carbon steel according to AISI 10B21 are used, available with ISO metric thread as well as UNC\* thread. The oval head bolts with partial thread fit into the holes of the segment sections allowing an easy tightening by using just a ratchet wrench or open-end wrench. The bolts and nuts are coated in an electrochemical bath. They can also be hot-dip galvanized on request. (\*Consult us at Alvenius for details).

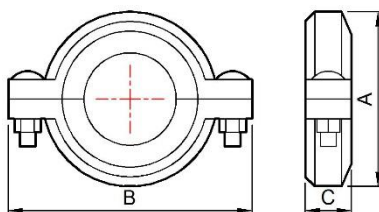
**Rubber Gasket:** Rubber gaskets are available in a variety of configurations and compounds to meet your specific requests. These gaskets have an excellent sealing capacity and are designed to provide a perfect tightness against leakages. Firstly, the gasket is installed onto the piping ends forming an initial seal. While the coupling segments are mounted, they fix and lightly compress the gasket while the bolts are being tightened, thus creating a hermetic seal.



Compound	Grade	Identification	General Recommendations and Services	Max. temperature range
EPDM	E	Green Strip	<p>Suitable for cold and hot water up to +230°F (+110°C). It is also suitable for services of water with acid, water with chlorine, deionized water, sea water and sewer water, diluted acids, oil-less air and other chemical products.</p> <p><b>Not recommended for petrol based oils, mineral oils, solvents and aromatic hydrocarbons.</b></p>	<p>-34°C (-30°F) +110°C (+230°F)</p>
Nitrile	T	Orange Strip	<p>Suitable for petrol based oils, mineral oils, vegetable oils, non-aromatic hydrocarbons, hydraulic and transmission fluids, several acids and water up to +150°F (+65°C).</p>	<p>-29°C (-20°F) +82°C (+180°F)</p>
Silicone	L	White Color	<p>Suitable for services of hot and dry air without hydrocarbons for temperatures up to +177°C (+350°F), and some applications for chemical products at high temperature. Also indicated for food and pharmaceutical products, since they do not modify the odor and taste/texture.</p> <p><b>Not recommended for use with hot water or vapor.</b></p>	<p>-34°C (-30°F) +177°C (+350°F)</p>

\*For other gasket compounds, please consult us at Alvenius.





Pipe OD	Working Pressure	Max. End Load	Axial Displacement	Angular Moment		Dimensions			Bolts		Weight
				Degree per Coupling	Per Pipe	A	B	C	Size mm	n°	
mm / in	Bar / psi	N / lbs	mm / in	°	mm/m in/ft	mm / in	mm / in	mm / in			kg / Lb
60.3 x 48.3	20.7	5,801	0 ~ 1.6		27	90	129	47	M10 x 55	2	0.9
2.375 x 1.900	300	1,305	0 ~ 0.06	1° 31'	0.32	3.543	5.079	1.85	M10 x 55	2	2
73.0 x 48.3	20.7	5,502	0 ~ 1.6		22	101	137	48	M10 x 55	2	1.2
2.874 x 1.900	300	1,913	0 ~ 0.06	1° 15'	0.26	3.976	5.394	1.89	M10 x 55	2	2.6
73.0 x 60.3	20.7	8,502	0 ~ 1.6		22	101	137	48	M10 x 55	2	1.1
2.874 x 2.375	300	1,913	0 ~ 0.06	1° 15'	0.26	3.976	5.394	1.89	M10 x 55	2	2.5
76.1 x 48.3	20.7	9,240	0 ~ 1.6		22	105	140	48	M10 x 55	2	1.2
3.000 x 1.900	300	2,079	0 ~ 0.06	1° 15'	0.26	4.134	5.512	1.89	M10 x 55	2	2.8
76.1 x 60.3	20.7	9,240	0 ~ 1.6		22	105	140	48	M10 x 55	2	1.2
3.000 x 2.375	300	2,079	0 ~ 0.06	1° 15'	0.26	4.134	5.512	1.89	M10 x 55	2	2.6
88.9 x 48.3	20.7	12,609	0 ~ 1.6		18	120	164	48	M12 x 65	2	1.7
3.500 x 1.900	300	2,837	0 ~ 0.06	1° 2'	0.22	4.724	6.457	1.89	M12 x 65	2	3.8
88.9 x 60.3	20.7	12,609	0 ~ 1.6		18	120	164	48	M12 x 65	2	1.7
3.500 x 2.375	300	2,837	0 ~ 0.06	1° 2'	0.22	4.724	6.457	1.89	M12 x 65	2	3.6
88.9 x 73.0	20.7	12,609	0 ~ 1.6		18	120	164	48	M12 x 65	2	1.5
3.500 x 2.874	300	2,837	0 ~ 0.06	1° 2'	0.22	4.724	6.457	1.89	M12 x 65	2	3.3
88.9 x 76.1	20.7	12,609	0 ~ 1.6		18	120	164	48	M12 x 65	2	1.5
3.500 x 3.000	300	2,837	0 ~ 0.06	1° 2'	0.22	4.724	6.457	1.89	M12 x 65	2	3.3
114.3 x 48.3	20.7	20,844	0 ~ 3.2		28	150	195	49	M12 x 65	2	2.1
4.500 x 1.900	300	4,690	0 ~ 0.13	1° 36'	0.34	5.906	7.677	1.929	M12 x 65	2	4.5
114.3 x 60.3	20.7	20,844	0 ~ 3.2		28	150	195	49	M12 x 65	2	2.2
4.500 x 2.375	300	4,690	0 ~ 0.13	1° 36'	0.34	5.906	7.677	1.929	M12 x 65	2	4.7
114.3 x 73.0	20.7	20,844	0 ~ 3.2		28	150	195	49	M12 x 65	2	2.1
4.500 x 2.874	300	4,690	0 ~ 0.13	1° 36'	0.34	5.906	7.677	1.929	M12 x 65	2	4.6
114.3 x 76.1	20.7	20,844	0 ~ 3.2		28	150	195	49	M12 x 65	2	2.1
4.500 x 3.000	300	4,690	0 ~ 0.13	1° 36'	0.34	5.906	7.677	1.929	M12 x 65	2	4.6
114.3 x 88.9	20.7	20,844	0 ~ 3.2		28	150	195	49	M12 x 65	2	1.9
4.500 x 3.500	300	4,690	0 ~ 0.13	1° 36'	0.34	5.906	7.677	1.929	M12 x 65	2	4.2
165.1 x 114.3	20.7	43,489	0 ~ 3.2		19	203	235	50	M12 x 75	2	3.7
6.500 x 4.500	300	9,785	0 ~ 0.13	1° 7'	0.23	7.992	9.252	1.969	M12 x 75	2	8.1
168.3 x 88.9	20.7	45,191	0 ~ 3.2		19	203	235	50	M12 x 75	2	3.4
6.625 x 3.500	300	10,168	0 ~ 0.13	1° 5'	0.23	7.992	9.252	1.969	M12 x 75	2	7.6
168.3 x 114.3	20.7	45,191	0 ~ 3.2		19	203	235	50	M12 x 75	2	3.7
6.625 x 4.500	300	10,168	0 ~ 0.13	1° 5'	0.23	7.992	9.252	1.969	M12 x 75	2	8.2
219.1 x 168.3	20.7	76,590	0 ~ 3.2		15	264	313	60	M16 x 100	2	6.9
8.625 x 6.625	300	17,233	0 ~ 0.13	0° 50'	0.18	10.394	12.323	2.362	M16 x 100	2	15.2

\*The working pressure is according to STD schedule carbon steel pipe with roll or cut grooved ends. For performance of other types of pipes, please consult us at Alvenius.

\*\* The allowed gap for pipe endings and the deflection values show the maximum nominal interval of the movement available at each cut-grooved joint. For roll-grooved pipes, use half of this value. Contact us at Alvenius for further questions.



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### CAUTION:

Depressurize and drain the piping systems before starting the disassembly, adjustment or removal of any piping component.

**Note:** Always refer to the field Installation Manual for correct product handling and operation. Visit the site [www.alvenius.ind.br](http://www.alvenius.ind.br) and download the PDF or ask for Technical Assistance. Alvenius reserves the right to change the specifications, designs and equipment without previous notice and without incurring in any obligations. Consult our technical area for any further questions.

