

TEEKAY

the pipe coupling



two pipes... two screws... two minutes

www.teekaycouplings.com

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The contents of this brochure give general information about the products we make. It is not intended to be a piping manual. Piping system design should only be undertaken by independent professionals or specialists.

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This brochure was originally written in the English language and, in the event of any conflict, inconsistency or discrepancy between the English language version and any translation the English language version shall apply.

Introducing the Teekay Pipe Coupling System



Teekay Pipe Couplings allow pipes to be joined without the need for flanging, grooving, threading or welding. By simply butting two pipes together and connecting with a Teekay Pipe Coupling, space, weight, time and cost savings are achieved with every installation.



Teekay Couplings have been sold for over three decades to more than 85 countries worldwide for civil, water, oil & gas, marine, building service, process, automotive and countless other industrial projects for pipes between 3/4" and 180" in diameter.



Mechanical & Sealing Concepts

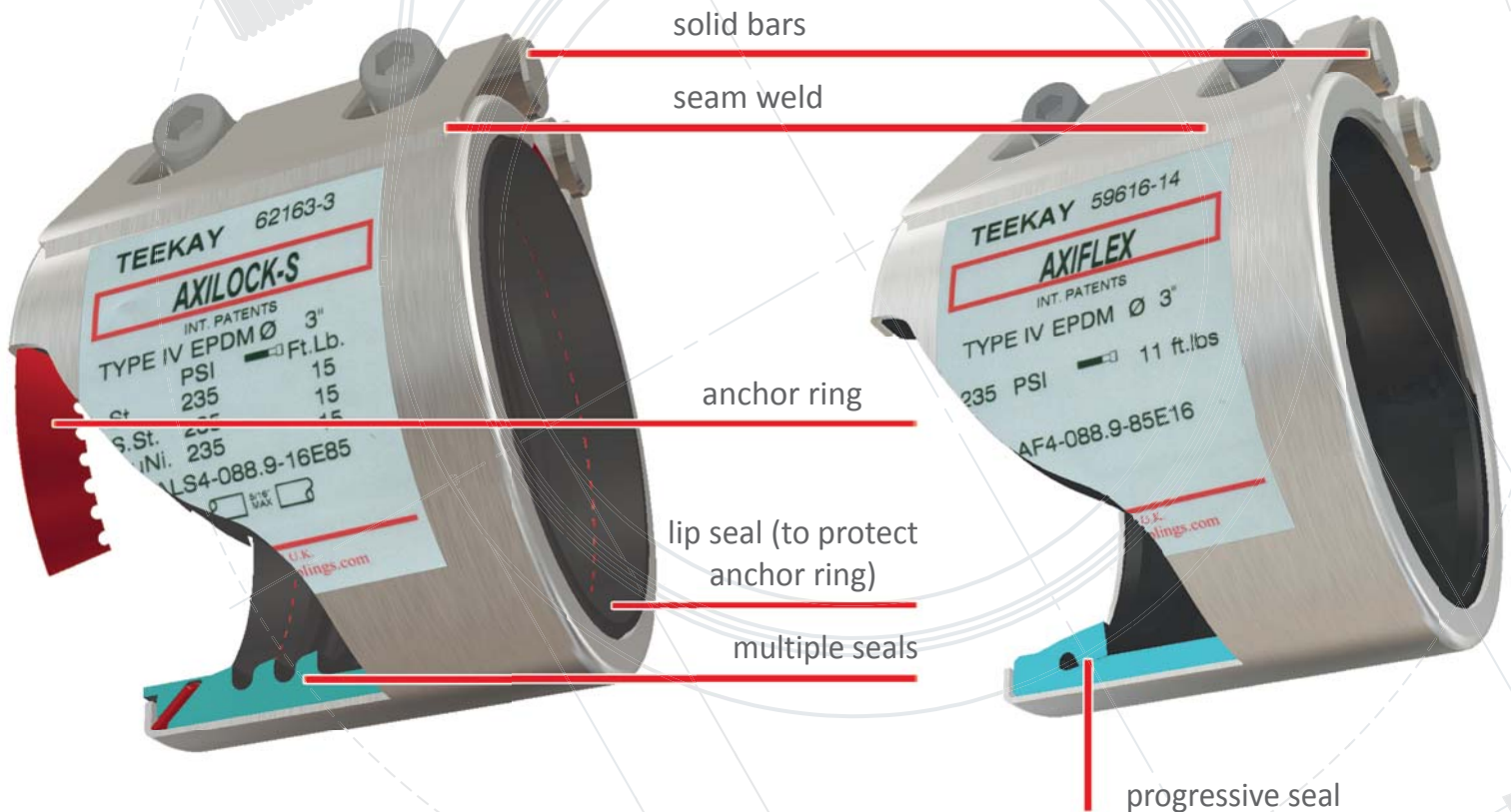
Teekay Couplings are available in two configurations, **Axilock** and **Axiflex**:

Teekay **Axilock** (axially restrained)

The Teekay Axilock has two metallic anchor rings that dig into the pipe wall when the coupling is installed. This prevents the two pipes from pushing apart under pressure or pulling away under end-load.

Teekay **Axiflex** (non axially restrained)

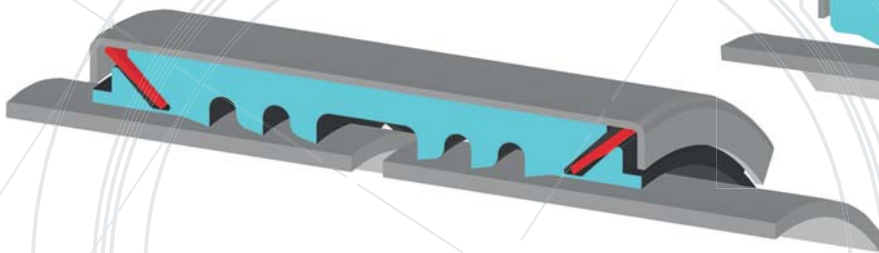
The Teekay Axiflex does not contain anchor rings and therefore allows for greater expansion and contraction. The pipes should be restrained to prevent them from pushing or pulling apart. Therefore diameters up to 180" are possible with this design. The coupling can be placed over the pipe ends or supplied in a wrap-around version.



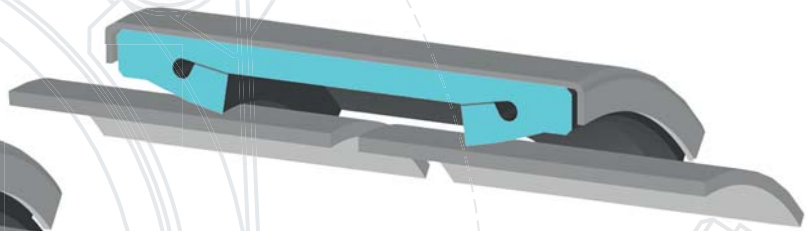


Each coupling (whether **Axilock** or **Axiflex**) consists of a casing, a gasket and a lockpart. The purpose of the casing is to house the gasket and to press it onto the pipe surface when the lockpart is closed. The lockpart is designed to pull the two ends of the casing together circumferentially around the pipe. In order to achieve this, the coupling is labelled clearly with a torque figure which ensures that the gasket is compressed sufficiently against the pipe surface.

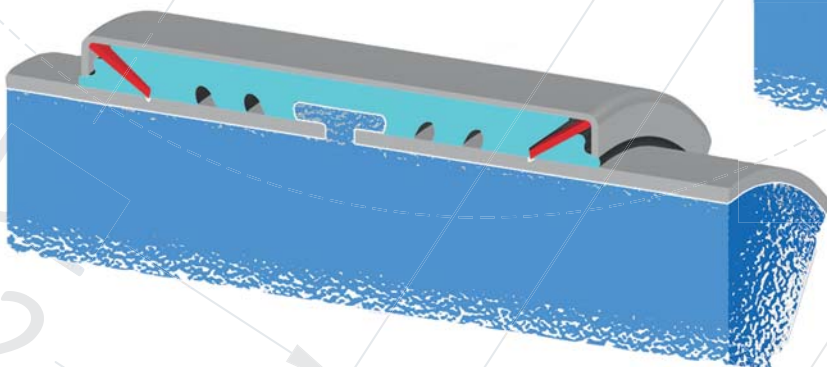
The **Axilock** has two anchor rings which are placed adjacent to, but separate from, the sealing mechanism.



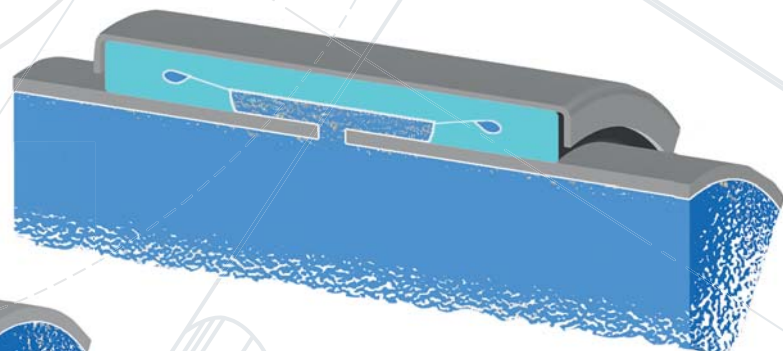
The **Axiflex** has two thick sealing lips which allow for pipe expansion and contraction.



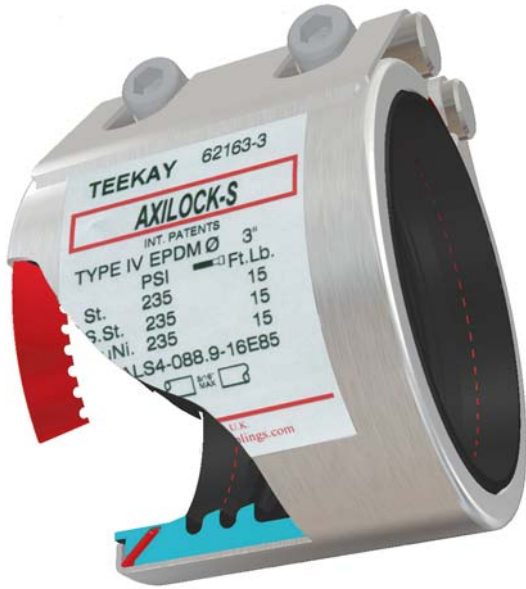
As the lockpart is tightened the sealing lips are pressed against the pipe surface to form a seal. At the same time the anchor rings penetrate the rubber, bite into the two pipes and prevent them from pulling apart, whether by external loading or internal pressure. The end seal is also pressed against the pipe surface, which protects both the anchor ring and the section of the pipe where the anchor rings have bitten, from any possible external corrosion.



The sealing lips press against the pipe surface and form lip seals. The lip seals are designed to resist the internal pressure in the pipes. As the pressure increases, the lip seals swell to seal more tightly against the pipe surface.



Axilock-S and Axilock



The Teekay Axilock range is designed to replace the need for flanging, welding, pipe grooving and pipe threading by providing a quick and easy solution to joining plain-end pipe. Incorporating grip rings at each end of the fitting, the Teekay Axilock offers high levels of security by locking the pipes together under pressure. Each coupling is 100% rubber-lined, ensuring that high levels of corrosion resistance are maintained throughout the life of the coupling.

Available in single (Axilock-S) and double (Axilock) casing versions depending on pressure and diameter.

Both models are suitable for new installations and retro-fit, whether on a ship, building or process plant. The Teekay Axilock range offers a versatile pipe coupling system that accommodates angulation, vibration and vacuum.

Material Selection

Type I

Casing: AISI 304 / DIN 1.4301
Fasteners: Alloy Steel, Coated
Gasket: EPDM/NBR/H-NBR/FKM/VMQ

Type II

Casing: AISI 304 / DIN 1.4301
Fasteners: AISI 316 / 316L
Gasket: EPDM/NBR/H-NBR/FKM/VMQ

Type IV

Casing: AISI 316L / DIN 1.4404
Fasteners: AISI 316 / 316L
Gasket: EPDM/NBR/H-NBR/FKM/VMQ

1.4462 Duplex casings and fasteners available on request.

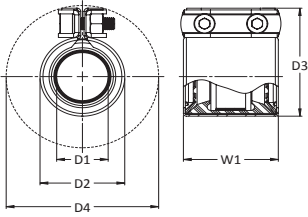
Sizes: 3/4" to 28"

Gaskets: EPDM -40 °F to +212 °F, NBR -4 °F to +176 °F, HNBR -4 °F to +266 °F, FKM -4 °F to +356 °F, VMQ -94 °F to +392 °F (*water*), -94 °F to +356 °F (*steam*)

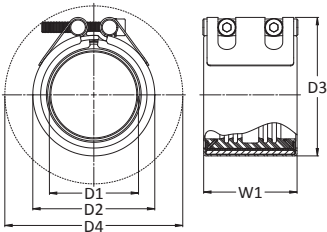
Pipe Materials: Carbon steel, stainless steel, copper, cunifer, cast and ductile iron, GRP, most plastics & other materials (see page 36).



Axilock-S Dimensions

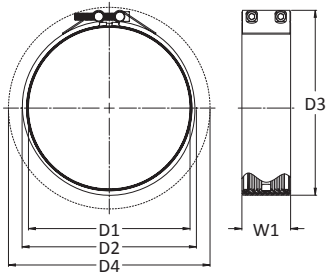




Pipe NB	Pipe ND	D1 Pipe O.D.	O.D. Tolerance	Working Pressure		Axial Pull	W1	D2	D3	D4	Screw Size	Hex Socket Adaptor	Weight	Box Qty
(in)	(mm)	(in)	(in)	(psi)	(psi)	(lbf)	(in)	(in)	(in)	(in)		(mm)	(lb)	
½	15	0.84	0.83 / 0.85	232	600	1282	1.77	1.34	1.97	3.03	2 x M6	5	0.33	24
¾	20	1.06	1.05 / 1.07	232	600	1917	1.77	1.54	2.20	3.27	2 x M6	5	0.35	24
1	20	1.10	1.09 / 1.12	232	600	2022	1.77	1.57	2.24	3.31	2 x M6	5	0.35	24
1 ¼	20	1.18	1.17 / 1.20	232	600	2226	1.77	1.65	2.32	3.39	2 x M6	5	0.37	24
1 ½	25	1.33	1.31 / 1.34	232	600	2608	1.77	1.81	2.48	3.54	2 x M6	5	0.37	24
2	25	1.38	1.37 / 1.39	232	600	2705	1.77	1.85	2.52	3.58	2 x M6	5	0.40	24



Pipe NB	Pipe ND	D1 Pipe O.D.	O.D. Tolerance	Working Pressure		Axial Pull	W1	D2	D3	D4	Screw Size	Hex Socket Adaptor	Weight	Box Qty
(in)	(mm)	(in)	(in)	(psi)	(psi)	(lbf)	(in)	(in)	(in)	(in)		(mm)	(lb)	
1 ¼	32	1.50	1.64 / 1.54	232	600	3163	2.56	2.17	2.64	5.12	2 x M8	6	0.93	12
1 ½	32	1.67	1.63 / 1.71	232	600	3811	2.56	2.36	2.80	5.20	2 x M8	6	0.95	12
1 ¾	40	1.75	1.71 / 1.79	232	600	4127	2.56	2.44	2.87	5.28	2 x M8	6	0.99	12
2	40	1.90	1.86 / 1.94	232	600	4780	2.56	2.60	3.03	5.35	2 x M8	6	1.04	12
2 ¼	50	2.13	2.09 / 2.17	232	600	5724	3.46	2.80	3.43	5.43	2 x M8	6	1.59	12
2 ½	50	2.24	2.20 / 2.28	232	600	6198	3.46	2.91	3.54	5.51	2 x M8	6	1.87	12
2 ¾	50	2.37	2.32 / 2.44	232	600	6936	3.46	3.07	3.66	5.63	2 x M8	6	1.92	12
3	50	2.48	2.44 / 2.56	232	600	7291	3.46	3.15	3.78	5.71	2 x M8	6	1.98	12
3 ¼	50	2.64	2.60 / 2.72	232	600	7929	3.46	3.31	3.94	5.79	2 x M8	6	1.98	12
3 ½	65	2.76	2.72 / 2.83	232	600	8222	3.46	3.43	4.06	5.91	2 x M8	6	2.01	12
3 ¾	65	2.87	2.83 / 2.95	232	600	8001	3.46	3.54	4.17	5.98	2 x M8	6	2.05	12
4	65	3.00	2.95 / 3.07	232	600	8388	3.46	3.70	4.29	7.28	2 x M10	8	2.09	12
4 ¼	65	3.25	3.21 / 3.33	232	600	9738	3.46	3.98	4.57	7.44	2 x M10	8	2.20	12
4 ½	80	3.31	3.27 / 3.39	232	600	9808	3.46	4.02	4.65	7.48	2 x M10	8	2.25	12
4 ¾	80	3.50	3.46 / 3.58	232	600	9971	3.46	4.21	4.84	7.60	2 x M10	8	2.31	12
5	80	3.86	3.82 / 3.94	232	600	13402	3.46	4.57	5.20	7.87	2 x M10	8	2.76	12
5 ¼	90	4.00	3.96 / 4.07	232	600	14222	3.46	4.72	5.35	7.95	2 x M10	8	2.82	12
5 ½	100	4.09	4.06 / 4.17	232	600	14788	3.46	4.80	5.43	8.03	2 x M10	8	2.89	12
5 ¾	100	4.25	4.21 / 4.33	232	600	15658	3.46	4.96	5.59	8.15	2 x M10	8	2.98	12
6	100	4.33	4.29 / 4.41	232	600	16243	3.46	5.04	5.67	8.19	2 x M10	8	3.11	12
6 ¼	100	4.50	4.45 / 4.57	232	600	17307	3.50	5.24	5.87	8.31	2 x M10	8	3.31	12
6 ½	100	4.65	4.61 / 4.72	232	600	17954	3.50	5.39	6.06	8.43	2 x M10	8	3.48	5
6 ¾	100	5.00	4.96 / 5.08	232	600	19658	3.50	5.75	6.42	8.70	2 x M10	8	3.86	5
7	125	5.08	5.04 / 5.16	232	600	20134	3.50	5.83	6.50	8.78	2 x M10	8	4.08	5
7 ¼	125	5.24	5.20 / 5.31	232	600	21247	4.49	5.98	6.97	9.29	2 x M12	10	5.42	5
7 ½	125	5.50	5.47 / 5.59	232	600	22752	4.49	6.26	7.24	9.49	2 x M12	10	5.84	5
7 ¾	125	5.56	5.53 / 5.65	189	500	22923	4.53	6.38	7.36	9.57	2 x M12	10	6.17	5
8	125	5.67	5.63 / 5.75	189	500	23441	4.53	6.46	7.48	9.65	2 x M12	10	6.39	4
8 ¼	150	6.06	6.02 / 6.14	189	500	25184	4.53	6.85	7.87	9.96	2 x M12	10	6.72	4
8 ½	150	6.26	6.22 / 6.34	189	500	26346	4.53	7.05	8.07	10.12	2 x M12	10	6.94	4
8 ¾	150	6.50	6.46 / 6.57	189	500	27892	4.53	7.28	8.31	10.31	2 x M12	10	7.17	4
9	150	6.63	6.57 / 6.69	189	500	28518	4.53	7.44	8.43	10.43	2 x M12	10	7.50	4
9 ¼	150	6.69	6.65 / 6.77	189	500	29097	4.53	7.48	8.50	10.47	2 x M12	10	7.52	4

Axilock Dimensions



Pipe NB	Pipe ND	D1 Pipe O.D.	O.D. Tolerance	Working Pressure		Axial Pull	W1	D2	D3	D4	Screw Size	Hex Socket Adaptor	Weight	Box Qty
				 (psi)	 (psi)									
(in)	(mm)	(in)	(in)	(psi)	(psi)	(lbf)	(in)	(in)	(in)	(in)		(mm)	(lb)	
5	125	5.56	5.53 / 5.65	232	600	22569	4.57	6.50	7.44	9.61	2 x M12	10	9.70	5
5	125	5.67	5.63 / 5.75	232	600	23440	4.57	6.57	7.56	9.69	2 x M12	10	9.70	4
6	150	6.06	6.02 / 6.14	232	600	26809	4.57	6.97	7.95	10.04	2 x M12	10	9.92	4
6	150	6.26	6.22 / 6.34	232	600	28578	4.65	7.24	8.27	11.30	2 x M16	14	10.14	4
6	150	6.50	6.46 / 6.57	232	600	30775	4.65	7.48	8.50	11.50	2 x M16	14	10.36	4
6	150	6.63	6.57 / 6.69	232	600	32018	4.65	7.64	8.62	11.57	2 x M16	14	10.58	4
6	150	6.69	6.65 / 6.77	232	600	32669	4.65	7.68	8.70	11.65	2 x M16	14	10.58	4
7	175	7.63	7.60 / 7.72	232	600	42457	4.69	8.66	9.69	12.40	2 x M16	14	14.33	2
8	200	8.63	8.58 / 8.70	232	600	54265	4.72	9.65	10.71	13.27	2 x M16	14	15.21	2
8	200	8.74	8.70 / 8.82	232	600	55711	4.72	9.76	10.83	13.35	2 x M16	14	15.21	2
9	225	9.63	9.59 / 9.70	127	335	36955	4.72	10.67	11.69	14.09	2 x M16	14	15.87	*
10	250	10.51	10.47 / 10.59	127	335	44070	4.72	11.54	12.60	14.88	2 x M16	14	16.53	*
10	250	10.75	10.71 / 10.83	127	335	46073	4.72	11.77	12.83	15.08	2 x M16	14	16.98	*
12	300	12.75	12.72 / 12.83	109	275	55590	4.72	13.78	14.84	16.89	2 x M16	14	20.94	*
12	300	12.83	12.80 / 12.91	109	275	56313	4.72	13.86	14.92	16.97	2 x M16	14	20.94	*
14	350	14.00	13.96 / 14.07	87	225	53603	4.72	15.04	16.10	18.03	2 x M16	14	22.60	*
14	350	14.88	14.84 / 14.96	87	225	60569	4.72	15.91	16.97	18.86	2 x M16	14	23.15	*
16	400	16.00	15.94 / 16.06	87	225	70012	4.72	17.05	18.11	19.92	2 x M16	14	26.46	*
16	400	16.89	16.85 / 16.97	73	225	65013	4.72	17.91	18.98	20.75	2 x M16	14	27.56	*
18	450	18.00	17.95 / 18.07		36	36920	4.72	19.09	20.16	21.81	2 x M16	14	29.32	*
20	500	20.00	19.96 / 20.08		36	45581	4.72	21.06	22.17	23.74	2 x M16	14	32.41	*
22	550	22.00	21.97 / 22.09		36	55153	4.72	23.07	24.13	25.67	2 x M16	14	35.71	*
24	600	24.00	23.96 / 24.07		22	39382	4.72	25.08	26.14	27.60	2 x M16	14	39.02	*
26	650	26.00	25.96 / 26.08		22	46219	4.72	27.09	28.15	29.53	2 x M16	14	42.33	*
28	700	28.00	27.95 / 28.07		22	53603	4.72	29.09	30.16	31.46	2 x M16	14	45.64	*

NOTES:

The prior tables are guides to the most common sizes. Couplings to suit specific outside diameters not listed may be manufactured to order. Please contact us for further details.

Working Pressure and Axial Pull figures are independent of each other and cannot be combined.



Working pressure for marine applications. Minimum burst is 4 times working pressure. Figures are based on typical values for standard wall carbon steel pipe. For use on thin or soft pipe materials such as thin wall stainless, copper alloy or plastic (by way of example only) please check with us first.



Working pressure for industrial and land-based applications. Minimum burst is 1.5 times working pressure. Figures are based on typical values for standard wall carbon steel pipe. For use on thin or soft pipe materials such as thin wall stainless, copper alloy or plastic (by way of example only) please check with us first.

Applicable Standards: DIN 86128 Form G (axial restrained)
ASTM F1476 Type II, Class 2 (flexible and restrained)

Box Quantity: Where marked * the couplings are packed according to quantity ordered.

Axilock-S & Axilock Applications



Engine installations



Ship systems



Water industry



Building services

Axilock-FP and Axilock-FP Ultra



The Teekay Axilock-FP represents the ultimate in high security fire protected mechanical pipe couplings. With its unique internal fire sleeve and double casing design it is plain to see why this coupling is the primary pipe connection of choice in the marine and naval market sectors. The Axilock-FP has been tested to military standards for shock and fire resistance and is fully compliant with current IACS regulations.



Material Selection

Type I

Casing: AISI 304 / DIN 1.4301
Fasteners: Alloy Steel, Coated
Gasket: EPDM/NBR/H-NBR/FKM/VMQ

Type II

Casing: AISI 304 / DIN 1.4301
Fasteners: AISI 316 / 316L
Gasket: EPDM/NBR/H-NBR/FKM/VMQ

Type IV

Casing: AISI 316L / DIN 1.4404
Fasteners: AISI 316 / 316L
Gasket: EPDM/NBR/H-NBR/FKM/VMQ

1.4462 Duplex casings and fasteners available on request.



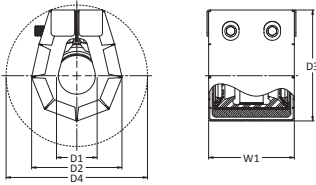
- Type Approved by all the major marine classification bodies.
- Internal fire sleeve. No external "wraps." (Patented design).
- Robust design. Resistant to shock, vibration and fire (to Naval standards).
- Compliant with current IACS regulations, including pressure pulsation, vibration and minimum burst requirements.
- Fire tested to ISO 19921/19922
- Non-Combustible in accordance with ISO 1182
- Tested in accordance with FTP-Code A0
- VdS certificated.

Sizes: Axilock-FP: 3/4" to 8" Axilock-FP Ultra: 8¾" to 16"

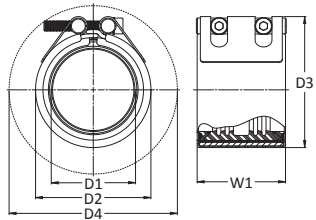
Gaskets: EPDM -40 °F to +212 °F, NBR -4 °F to +176 °F, HNBR -4 °F to +266 °F, FKM -4 °F to +356 °F, VMQ -94 °F to +392 °F (*water*), -94 °F to +356 °F (*steam*)

Pipe Materials: Carbon steel, stainless steel, copper, cunifer, GRE.

Axilock-FP Dimensions

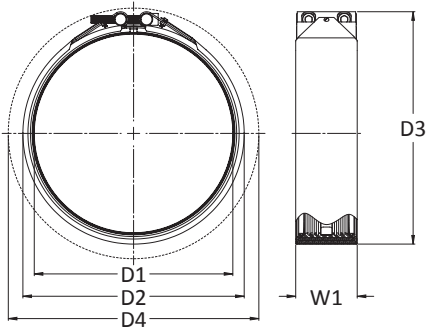




Pipe NB	Pipe ND	D1 Pipe O.D.	O.D. Tolerance	Working Pressure		Axial Pull	W1	D2	D3	D4	Screw Size	Hex Socket Adaptor	Weight	Box Qty
(in)	(mm)	(in)	(in)	(psi)	(psi)	(lbf)	(in)	(in)	(in)	(in)		(mm)	(lb)	
½	15	0.84	0.83 / 0.85	232	600	513	2.13	1.81	2.56	3.03	2 x M6	5	0.44	24
¾	20	1.06	1.05 / 1.07	232	600	818	2.13	2.05	2.76	3.15	2 x M6	5	0.55	24
¾	20	1.10	1.09 / 1.12	232	600	886	2.13	2.09	2.83	3.19	2 x M6	5	0.57	24
1	25	1.18	1.17 / 1.20	232	600	1017	2.13	2.17	2.91	3.23	2 x M6	5	0.57	24
1	25	1.33	1.31 / 1.34	232	600	1284	2.13	2.28	3.03	3.31	2 x M6	5	0.60	24
1	25	1.38	1.37 / 1.39	232	600	1385	2.13	2.36	3.11	3.35	2 x M6	5	0.62	24



Pipe NB	Pipe ND	D1 Pipe O.D.	O.D. Tolerance	Working Pressure		Axial Pull	W1	D2	D3	D4	Screw Size	Hex Socket Adaptor	Weight	Box Qty
(in)	(mm)	(in)	(in)	(psi)	(psi)	(lbf)	(in)	(in)	(in)	(in)		(mm)	(lb)	
1¼	32	1.50	1.46 / 1.54	232	600	1632	3.43	2.64	3.23	5.94	2 x M8	6	1.76	12
1¼	32	1.67	1.63 / 1.71	232	600	2032	3.43	2.80	3.39	6.06	2 x M8	6	1.98	12
1½	40	1.75	1.71 / 1.79	232	600	2238	3.43	2.87	3.50	6.10	2 x M8	6	1.98	12
1½	40	1.90	1.86 / 1.94	232	600	2637	3.43	3.03	3.62	6.18	2 x M8	6	2.20	12
2	50	2.13	2.09 / 2.17	232	600	3296	3.43	3.27	3.86	6.34	2 x M8	6	2.20	12
2	50	2.24	2.20 / 2.28	232	600	3673	3.43	3.39	3.98	6.42	2 x M8	6	2.20	12
2	50	2.37	2.32 / 2.44	232	600	4110	3.43	3.50	4.13	6.50	2 x M8	6	2.65	10
2	50	2.48	2.44 / 2.56	232	600	4486	3.43	3.62	4.25	6.57	2 x M8	6	2.65	10
2	50	2.64	2.60 / 2.72	232	600	5074	3.43	3.78	4.37	6.69	2 x M8	6	2.65	10
2½	65	2.76	2.72 / 2.83	232	600	5539	3.43	3.94	4.57	6.77	2 x M8	6	2.65	10
2½	65	2.87	2.83 / 2.95	232	600	6024	3.43	3.98	4.61	6.81	2 x M8	6	2.87	10
2½	65	3.00	2.95 / 3.07	232	600	6546	3.46	4.09	4.84	7.40	2 x M10	8	2.87	10
2½	65	3.25	3.21 / 3.33	232	600	7694	3.46	4.37	5.08	7.60	2 x M10	8	2.87	10
3	80	3.31	3.27 / 3.39	232	600	8037	3.46	4.41	5.16	7.64	2 x M10	8	2.87	10
3	80	3.50	3.46 / 3.58	232	600	8934	3.46	4.61	5.35	7.80	2 x M10	8	3.09	10
3	80	3.86	3.82 / 3.94	232	600	10856	3.46	4.92	5.67	8.11	2 x M10	8	3.97	10
3½	90	4.00	3.96 / 4.07	232	600	11669	4.49	5.04	5.79	8.50	2 x M10	8	5.07	10
4	100	4.09	4.06 / 4.17	232	600	12226	4.49	5.16	5.87	8.58	2 x M10	8	5.07	10
4	100	4.25	4.21 / 4.33	232	600	13185	4.49	5.28	6.02	8.70	2 x M10	8	5.29	10
4	100	4.33	4.29 / 4.41	232	600	13678	4.49	5.35	6.14	8.78	2 x M10	8	5.51	10
4	100	4.50	4.45 / 4.57	232	600	14768	4.49	5.55	6.26	8.90	2 x M10	8	5.51	8
4	100	4.65	4.61 / 4.72	232	600	15740	4.49	5.71	6.42	9.06	2 x M10	8	5.73	8
4	100	5.00	4.96 / 5.08	232	600	18232	4.49	6.10	6.89	9.29	2 x M10	8	5.95	4
5	125	5.08	5.04 / 5.16	232	600	18811	4.49	6.18	6.97	9.37	2 x M12	10	8.38	4
5	125	5.24	5.20 / 5.31	232	600	19996	4.53	6.34	7.32	9.49	2 x M12	10	8.60	4
5	125	5.50	5.47 / 5.59	232	600	22061	4.53	6.61	7.60	9.72	2 x M12	10	8.82	4
5	125	5.56	5.53 / 5.65	232	600	22569	4.53	6.69	7.64	9.76	2 x M12	10	8.82	4
5	125	5.67	5.63 / 5.75	232	600	23440	4.53	6.81	7.76	9.88	2 x M12	10	8.82	4
6	150	6.06	6.02 / 6.14	232	600	26809	4.53	7.20	8.15	10.28	2 x M12	10	9.26	4
6	150	6.26	6.22 / 6.34	232	600	28578	4.61	7.44	8.46	11.46	2 x M16	14	11.02	4
6	150	6.50	6.46 / 6.57	232	600	30775	4.61	7.68	8.70	11.65	2 x M16	14	11.24	4
6	150	6.63	6.57 / 6.69	232	600	32018	4.61	7.83	8.82	11.73	2 x M16	14	11.46	4
6	150	6.69	6.65 / 6.77	232	600	32669	4.61	7.91	8.90	11.81	2 x M16	14	11.46	4
7	175	7.63	7.60 / 7.72	174	450	31809	4.72	8.86	9.88	12.56	2 x M16	14	14.33	2
8	200	8.63	8.58 / 8.70	174	450	40699	4.72	9.88	10.91	13.43	2 x M16	14	14.99	2

Axilock-FP Ultra Dimensions



Pipe NB	Pipe ND	D1 Pipe O.D.	O.D. Tolerance	Working Pressure		Axial Pull	W1	D2	D3	D4	Screw Size	Hex Socket Adaptor	Weight	Box Qty
				 (psi)	 (psi)									
(in)	(mm)	(in)	(in)	(psi)	(psi)	(lbf)	(in)	(in)	(in)	(in)		(mm)	(lb)	
8	200	8.75	8.70 / 8.82	174	450	41896	4.90	10.39	11.30	13.54	2 x M16	14	17.64	*
9	225	9.63	9.59 / 9.70	127	335	36955	4.90	11.30	12.17	14.41	2 x M16	14	18.74	*
10	250	10.51	10.47 / 10.55	127	335	44070	4.90	12.17	12.99	19.25	2 x M16	14	19.84	*
10	250	10.75	10.71 / 10.83	109	275	39491	4.90	12.40	13.31	15.55	2 x M16	14	20.94	*
12	300	12.75	12.72 / 12.83	109	275	55590	4.90	14.41	15.31	17.56	2 x M16	14	22.05	*
12	300	12.83	12.80 / 12.91	87	225	45050	4.90	14.49	15.39	17.64	2 x M16	14	23.15	*
14	350	14.00	13.96 / 14.07	87	225	53603	4.90	15.65	16.57	18.82	2 x M16	14	24.25	*
14	350	14.88	14.84 / 14.96	87	225	60569	4.90	16.54	17.44	19.69	2 x M16	14	25.35	*
16	400	16.00	15.94 / 16.06	73	190	58298	4.90	17.64	18.54	20.79	2 x M16	14	26.46	*

NOTES:

The prior tables are guides to the most common sizes. Couplings to suit specific outside diameters not listed may be manufactured to order. Please contact us for further details.

Working Pressure and Axial Pull figures are independent of each other and cannot be combined.



Working pressure for marine applications. Minimum burst is 4 times working pressure. Figures are based on typical values for standard wall carbon steel pipe. For use on thin or soft pipe materials such as thin wall stainless, copper alloy or plastic (by way of example only) please check with us first.



Working pressure for industrial and land-based applications. Minimum burst is 1.5 times working pressure. Figures are based on typical values for standard wall carbon steel pipe. For use on thin or soft pipe materials such as thin wall stainless, copper alloy or plastic (by way of example only) please check with us first.

Applicable Standards: DIN 86128 Form G (axial restrained)
ASTM F1476 Type II, Class 2 (flexible and restrained)

Box Quantity: Where marked * the couplings are packed according to quantity ordered.



For data values of VdS approved Axilock-FP couplings, please contact us.

Axilock-S or Axilock-FP

marine application guide



Marine applications guide to the use of Axilock-S / Axilock couplings and Axilock-FP / Axilock-FP Ultra

Ship System	Axilock-S & Axilock	Axilock-FP & Axilock-FP Ultra	Notes
Flammable Fluids (Flash Point ≤ 140 °F)			
Cargo Oil Lines	✓	✓	Axilock-FP must be used in pump rooms and on open decks.
Crude Oil Washing Lines	✓	✓	Axilock-FP must be used in pump rooms and on open decks.
Vent Lines	x	✓	
Inert Gas			
Water Seal Effluent Lines	✓	✓	
Scrubber Effluent Lines	✓	✓	
Main Lines	✓	✓	Neither type permitted in Category A machinery spaces or accommodation spaces. Other machinery spaces may be acceptable providing couplings are in easily visible and accessible locations. Axilock-FP must be used in pump rooms and on open decks.
Distribution Lines	✓	✓	Axilock-FP must be used in pump rooms and on open decks.
Flammable Fluids (Flash Point > 140 °F)			
Cargo Oil Lines	✓	✓	Axilock-FP must be used in pump rooms and on open decks.
Fuel Oil Lines	x	✓	Only Axilock-FP permitted but not in Category A machinery spaces or accommodation spaces. Other machinery spaces may be acceptable providing couplings are in easily visible and accessible locations.
Lubricating Oil Lines	x	✓	Only Axilock-FP permitted but not in Category A machinery spaces or accommodation spaces. Other machinery spaces may be acceptable providing couplings are in easily visible and accessible locations.
Hydraulic Oil	x	✓	Only Axilock-FP permitted but not in Category A machinery spaces or accommodation spaces. Other machinery spaces may be acceptable providing couplings are in easily visible and accessible locations.
Thermal Oil	x	✓	Only Axilock-FP permitted but not in Category A machinery spaces or accommodation spaces. Other machinery spaces may be acceptable providing couplings are in easily visible and accessible locations.
Seawater			
Bilge Lines	✓	✓	Inside Category A machinery spaces only Axilock-FP is permitted (except LR – special rules apply).
Fire Main & Water Spray	x	✓	
Foam System	x	✓	
Sprinkler System	x	✓	
Ballast System	✓	✓	Inside Category A machinery spaces only Axilock-FP is permitted.
Cooling Water System	✓	✓	Inside Category A machinery spaces only Axilock-FP is permitted.
Tank Cleaning Services	✓	✓	
Non-Essential Systems	✓	✓	
Fresh Water			
Cooling Water Systems	✓	✓	Inside Category A machinery spaces only Axilock-FP is permitted.
Condensate Return	✓	✓	Inside Category A machinery spaces only Axilock-FP is permitted.
Non-Essential System	✓	✓	
Sanitary / Drains / Scuppers			
Deck Drains (Internal)	✓	✓	Use of couplings allowed only above freeboard deck.
Sanitary Drains	✓	✓	
Sounding / Vent			
Water Tanks / Dry Spaces	✓	✓	
Oil Tanks (flash point > 140°F)	x	✓	Only Axilock-FP permitted but not in Category A machinery spaces or accommodation spaces. Other machinery spaces may be acceptable providing couplings are in easily visible and accessible locations.
Miscellaneous			
Service Air (Non-Essential)	✓	✓	
Brine	✓	✓	
Steam	✓	✓	Couplings must be restrained on the pipes and may be used on deck with a design pressure of 10 bar or less.

The above table is for guidance only. For full details and more information on allowances and limitations on marine installations see IACS UR P2 Table 7, available as a download from www.iacs.org.uk or from the individual classification societies.

Torque Tables

Please consult the table below for torque ratings on Axilock-S, Axilock and Axilock-FP couplings. All couplings have the torque rating printed on the label. Torques are based on standard pipe properties. Torques may be adjusted up or down according to wall thickness and/or material hardness.

Pipe NB	Pipe ND	D1 Pipe O.D.	Axilock-S Torque (lb-ft)			Axilock Torque (lb-ft)			Axilock-FP Torque (lb-ft)			
			Steel	Stainless Steel	CuNi	Steel	Stainless Steel	CuNi	Steel	Stainless Steel	CuNi	Vds
½	15	0.84	6	6	6				6	6	6	
¾	20	1.06	6	6	6				6	6	6	
¾	20	1.10	6	6	6				6	6	6	
¾	20	1.18	6	6	6				6	6	6	
1	25	1.33	6	6	6				6	6	6	
1	25	1.38	6	6	6				6	6	6	
1¼	32	1.50	7.5	11	11				11	11	7.5	30
1¼	32	1.67	7.5	11	11				11	11	7.5	
1½	40	1.75	7.5	11	11				11	11	7.5	
1½	40	1.90	7.5	11	11				11	11	7.5	30
2	50	2.13	7.5	11	11				11	11	7.5	
2	50	2.24	7.5	11	11				11	11	7.5	
2	50	2.37	11	11	11				15	15	15	30
2	50	2.48	11	11	11				15	15	15	
2	50	2.64	11	11	11				15	15	15	
2½	65	2.76	11	11	11				15	15	15	
2½	65	2.87	11	11	11				15	15	15	
2½	65	3.00	15	15	15				22	22	18.5	30
2½	65	3.25	15	15	15				22	22	18.5	
3	80	3.31	15	15	15				22	22	18.5	
3	80	3.50	15	15	15				22	22	18.5	45
3	80	3.86	18.5	18.5	18.5				22	22	18.5	
3½	90	4.00	18.5	18.5	18.5				33	33	22	
4	100	4.09	18.5	18.5	18.5				33	33	22	
4	100	4.25	18.5	18.5	18.5				33	33	22	80
4	100	4.33	18.5	18.5	18.5				33	33	22	
4	100	4.50	22	22	22				33	33	22	80
4	100	4.65	22	22	22				33	33	22	
4	100	5.00	22	22	22				33	33	22	
5	125	5.08	22	22	22				48	48	22	
5	125	5.24	26	26	26				48	48	26	120
5	125	5.50	26	26	26				48	48	26	120
5	125	5.56	26	26	26	48	48	26	48	48	26	
5	125	5.67	26	26	26	48	48	26	48	48	26	
6	150	6.06	37	37	26	48	48	26	48	48	26	
6	150	6.26	37	37	26	63	63	26	63	63	26	150
6	150	6.50	37	37	26	63	63	26	63	63	26	
6	150	6.63	37	37	26	63	63	26	63	63	26	150
6	150	6.69	37	37	26	63	63	26	63	63	26	
7	175	7.63				66.5	66.5	37	66.5	66.5	37	
8	200	8.63				74	74	37	74	74	37	
8	200	8.74				74	74	48				
9	225	9.63				74	74	48				
10	250	10.51				74	74	48				
10	250	10.75				81	81	48				
12	300	12.75				81	81	48				
12	300	12.83				81	81	48				
14	350	14.00				88.5	88.5	48				
14	350	14.88				88.5	88.5	48				
16	400	16.00				103	103	48				



The Teekay Axiflex is a high performance coupling that allows generous pipe angulation and expansion/contraction. The Axiflex is a popular choice of coupling with water authorities, civil engineers and building contractors and is available in sizes up to 180" in diameter.

The stainless steel and high strength steel designs ensure significant weight savings are achieved over cast iron couplings. The result is less manpower, quicker installation times and massive cost savings.

Material Selection

Type I

Casing: AISI 304 / DIN 1.4301
Fasteners: Alloy Steel, Coated
Gasket: EPDM/NBR/H-NBR/FKM/VMQ

Type II

Casing: AISI 304 / DIN 1.4301
Fasteners: AISI 316 / 316L
Gasket: EPDM/NBR/H-NBR/FKM/VMQ

Type IV

Casing: AISI 316L / DIN 1.4404
Fasteners: AISI 316 / 316L
Gasket: EPDM/NBR/H-NBR/FKM/VMQ

Type V

Casing: High strength steel
Coating: Rilsan/PVC/
 Epoxy/Galvanized
Fasteners: Alloy Steel, Coated
Gasket: EPDM/NBR/H-NBR/FKM/VMQ

Type VI

Casing: High strength steel
Coating: Rilsan/PVC/
 Epoxy/Galvanized
Fasteners: AISI 316 / 316L
Gasket: EPDM/NBR/H-NBR/FKM/VMQ



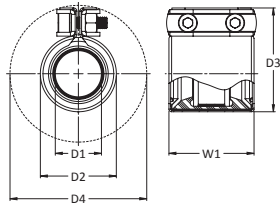
Sizes: 3/4" to 180"

Gaskets: EPDM -40 °F to +212 °F, NBR -4 °F to +176 °F, HNBR -4 °F to +266 °F, FKM -4 °F to +356 °F, VMQ -94 °F to +392 °F (*water*), -94 °F to +356 °F (*steam*)

Pipe Materials: Carbon steel, cast and ductile iron, stainless steel, copper, cunifer, GRP, asbestos cement, HDPE, MDPE, PVC, uPVC, ABS

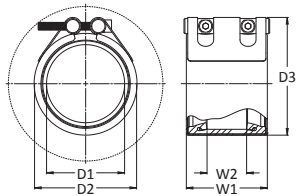
1.4462 Duplex casings and fasteners available on request.

Axiflex Dimensions



1 3/4" wide

Pipe NB	Pipe ND	D1 Pipe O.D.	O.D. Tolerance	Working Pressure Available in the following psi ratings:	W1	D2	D3	D4	Screw Size	Hex Socket Adaptor	Weight
(in)	(mm)	(in)	(in)		(in)	(in)	(in)	(in)		(mm)	(lb)
1/2	15	0.84	0.83 / 0.85	235 / 350 / 600	1.8	1.34	1.97	3.03	2 x M6	5	0.33
3/4	20	1.06	1.05 / 1.07	235 / 350 / 600	1.8	1.54	2.20	3.27	2 x M6	5	0.35
1	20	1.10	1.09 / 1.12	235 / 350 / 600	1.8	1.61	2.24	3.31	2 x M6	5	0.35
1	20	1.18	1.17 / 1.20	235 / 350 / 600	1.8	1.65	2.32	3.39	2 x M6	5	0.37
1	25	1.33	1.31 / 1.34	235 / 350 / 600	1.8	1.81	2.48	3.54	2 x M6	5	0.37
1	25	1.38	1.37 / 1.394	235 / 350 / 600	1.8	1.89	2.52	3.58	2 x M6	5	0.40

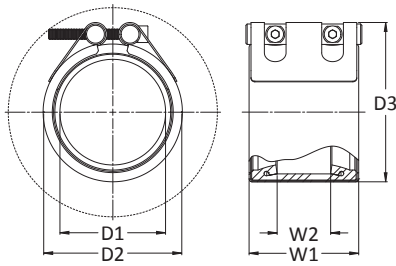


2 1/2" wide

Pipe NB	Pipe ND	D1 Pipe O.D.	O.D. Tolerance	Working Pressure Available in the following psi ratings:	W1	W2	D2	D3	Screw Size	Hex Socket Adaptor	Weight
(in)	(mm)	(in)	(in)		(in)	(in)	(in)	(in)		(mm)	(lb)
1 1/4	32	1.50	1.46 / 1.54	235 / 350 / 600	2.5	0.39	2.24	2.76	2 x M8	6	0.88
1 1/4	32	1.67	1.63 / 1.71	235 / 350 / 600	2.5	0.39	2.48	2.95	2 x M8	6	0.88
1 1/4	40	1.75	1.71 / 1.79	235 / 350 / 600	2.5	0.39	2.56	3.03	2 x M8	6	0.88

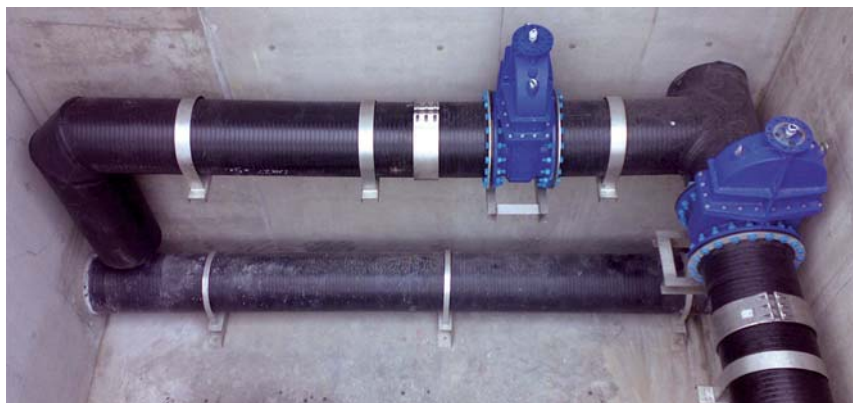
3 1/3" wide

Pipe NB	Pipe ND	D1 Pipe O.D.	O.D. Tolerance	Working Pressure Available in the following psi ratings:	W1	W2	D2	D3	Screw Size	Hex Socket Adaptor	Weight
(in)	(mm)	(in)	(in)		(in)	(in)	(in)	(in)		(mm)	(lb)
1 1/2	40	1.90	1.85 / 1.97	235 / 350 / 600	3.3	1.65	2.76	3.43	2 x M8	6	2.20
2	50	2.13	2.07 / 2.19	235 / 350 / 600	3.3	1.65	2.91	3.66	2 x M8	6	2.20
2	50	2.24	2.19 / 2.30	235 / 350 / 600	3.3	1.65	3.03	3.78	2 x M8	6	2.43
2	50	2.37	2.32 / 2.44	235 / 350 / 600	3.3	1.65	3.15	3.90	2 x M8	6	2.43
2	50	2.48	2.44 / 2.56	235 / 350 / 600	3.3	1.65	3.27	4.02	2 x M8	6	2.43
2	50	2.64	2.58 / 2.70	235 / 350 / 600	3.3	1.65	3.43	4.17	2 x M8	6	2.65
2 1/2	65	2.76	2.70 / 2.81	235 / 350 / 600	3.3	1.65	3.54	4.29	2 x M8	6	2.65
2 1/2	65	2.87	2.81 / 2.93	235 / 350 / 600	3.3	1.65	3.66	4.41	2 x M8	6	2.87
2 1/2	65	3.00	2.91 / 3.07	235 / 350 / 600	3.3	1.65	3.78	4.53	2 x M8	6	2.87
2 1/2	65	3.25	3.17 / 3.33	235 / 350 / 600	3.3	1.65	4.06	4.80	2 x M8	6	3.09
3	80	3.31	3.23 / 3.39	235 / 350 / 600	3.3	1.65	4.09	4.84	2 x M8	6	3.09
3	80	3.50	3.43 / 3.58	235 / 350 / 600	3.3	1.65	4.29	5.04	2 x M8	6	3.31
3	80	3.86	3.78 / 3.94	235 / 350 / 600	3.3	1.65	4.65	5.39	2 x M8	6	3.31
3 1/2	90	4.00	3.94 / 4.09	235 / 350 / 600	3.3	1.65	4.80	5.55	2 x M8	6	3.53
4	100	4.09	4.02 / 4.17	235 / 350 / 600	3.3	1.65	4.88	5.63	2 x M8	6	3.53
4	100	4.25	4.17 / 4.33	235 / 350 / 600	3.3	1.65	5.04	5.79	2 x M8	6	3.53
4	100	4.33	4.25 / 4.41	235 / 350 / 600	3.3	1.65	5.12	5.87	2 x M8	6	3.53
4	100	4.50	4.41 / 4.57	235 / 350 / 600	3.3	1.65	5.28	6.02	2 x M8	6	3.53
4	100	4.65	4.57 / 4.72	235 / 350 / 600	3.3	1.65	5.43	6.18	2 x M8	6	3.75



4 1/3" wide

Pipe NB	Pipe ND	D1 Pipe O.D.	O.D. Tolerance	Working Pressure Available in the following psi ratings:	W1	W2	D2	D3	Screw Size	Hex Socket Adaptor	Weight
(in)	(mm)	(in)	(in)		(in)	(in)	(in)	(in)		(mm)	(lb)
3	80	3.50	3.43 / 3.58	235 / 350 / 600	4.3	2.64	4.37	5.24	2 x M10	8	4.41
3	80	3.86	3.78 / 3.94	235 / 350 / 600	4.3	2.64	4.72	5.59	2 x M10	8	4.41
3 1/2	90	4.00	3.94 / 4.09	235 / 350 / 600	4.3	2.64	4.88	5.75	2 x M10	8	4.41
4	100	4.09	4.02 / 4.17	235 / 350 / 600	4.3	2.64	4.96	5.83	2 x M10	8	4.41
4	100	4.25	4.17 / 4.33	235 / 350 / 600	4.3	2.64	5.12	5.98	2 x M10	8	4.41
4	100	4.33	4.25 / 4.41	235 / 350 / 600	4.3	2.64	5.20	6.06	2 x M10	8	4.41
4	100	4.50	4.41 / 4.57	235 / 350 / 600	4.3	2.64	5.35	6.22	2 x M10	8	4.41
4	100	4.65	4.57 / 4.72	235 / 350 / 600	4.3	2.64	5.51	6.38	2 x M10	8	4.41
4	100	5.00	4.92 / 5.08	235 / 350 / 600	4.3	2.64	5.87	6.73	2 x M10	8	4.85
5	125	5.08	5.00 / 5.16	235 / 350 / 600	4.3	2.64	5.94	6.81	2 x M10	8	4.85
5	125	5.24	5.16 / 5.31	235 / 350 / 600	4.3	2.64	6.10	6.97	2 x M10	8	5.07
5	125	5.50	5.43 / 5.59	235 / 350 / 600	4.3	2.64	6.38	7.24	2 x M10	8	5.07
5	125	5.56	5.47 / 5.63	235 / 350 / 600	4.3	2.64	6.42	7.32	2 x M10	8	5.07
5	125	5.67	5.59 / 5.75	235 / 350 / 600	4.3	2.64	6.54	7.40	2 x M10	8	5.07
6	150	6.06	5.94 / 6.14	235 / 350 / 600	4.3	2.64	6.93	7.80	2 x M10	8	5.29
6	150	6.26	6.14 / 6.34	235 / 350 / 600	4.3	2.64	7.13	7.99	2 x M10	8	5.51
6	150	6.50	6.38 / 6.57	235 / 350 / 600	4.3	2.64	7.36	8.23	2 x M10	8	5.51
6	150	6.63	6.50 / 6.69	235 / 350 / 600	4.3	2.64	7.48	8.35	2 x M10	8	5.51
6	150	6.69	6.57 / 6.77	235 / 350 / 600	4.3	2.64	7.56	8.43	2 x M10	8	5.51
7	175	7.63	7.52 / 7.76	235 / 350 / 600	4.3	2.64	8.50	9.37	2 x M10	8	6.17
8	200	8.63	8.50 / 8.74	235 / 350 / 600	4.3	2.64	9.53	10.35	2 x M10	8	7.05
8	200	8.74	8.58 / 8.82	235 / 350 / 600	4.3	2.64	9.61	10.47	2 x M10	8	7.05
9	225	9.63	9.49 / 9.72	235 / 350 / 600	4.3	2.64	10.51	11.38	2 x M10	8	7.28
10	250	10.51	10.39 / 10.63	235 / 350 / 600	4.3	2.64	11.38	12.24	2 x M10	8	7.72
10	250	10.75	10.63 / 10.87	235 / 350 / 600	4.3	2.64	11.61	12.48	2 x M10	8	7.72
12	300	12.75	12.64 / 12.87	235 / 350 / 600	4.3	2.64	13.62	14.49	2 x M10	8	8.38
12	300	12.83	12.68 / 12.91	235 / 350 / 600	4.3	2.64	13.70	14.57	2 x M10	8	8.38

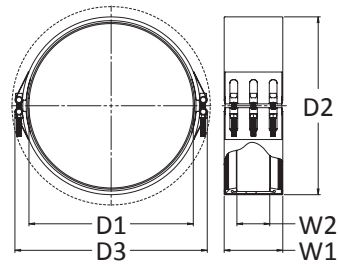
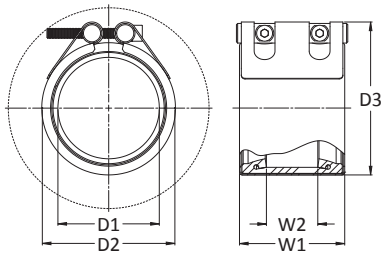


Axiflex Dimensions

5½", 8¼", 12¼", 16¼" wide

D1 Pipe O.D.	Pipe Nominal Bore	Available Coupling Widths: W1				Working Pressure Available in the following psi ratings:	W2	D2 Coupling O.D. = D1 (in) + the following:
		(in)	5.5"	8.3"	12.2"			
Teekay Axiflex couplings are available to suit any pipe O.D. up to 168". Please contact us with OD prior to order placement.	6	●				235 / 350 / 600	3.1	0.9
	8	●	●			235 / 350 / 600	3.1 / 4.7	0.9 / 1.7
	10	●	●			235 / 350 / 600	3.1 / 4.7	0.9 / 1.7
	12	●	●	●	●	235 / 350 / 600	3.1 / 4.7 / 8.7 / 12.6	1.1 / 1.7 / 1.7 / 1.7
	14	●	●	●	●	235 / 350 / 600	3.1 / 4.7 / 8.7 / 12.6	1.1 / 1.7 / 1.7 / 1.7
	16	●	●	●	●	150 / 235 / 350	3.1 / 4.7 / 8.7 / 12.6	1.1 / 1.7 / 1.7 / 1.7
	18	●	●	●	●	150 / 235 / 350	3.1 / 4.7 / 8.7 / 12.6	1.1 / 1.7 / 1.7 / 1.7
	20	●	●	●	●	150 / 235 / 350	3.1 / 4.7 / 8.7 / 12.6	1.1 / 1.7 / 1.7 / 1.7
	24	●	●	●	●	150 / 235 / 350	3.1 / 4.7 / 8.7 / 12.6	1.1 / 1.7 / 1.7 / 1.7
	28	●	●	●	●	150 / 235 / 350	3.1 / 4.7 / 8.7 / 12.6	1.1 / 1.7 / 1.7 / 1.7
	32	●	●	●	●	150 / 235 / 350	3.1 / 4.7 / 8.7 / 12.6	1.1 / 1.7 / 1.7 / 1.7
	36	●	●	●	●	90 / 150 / 235	3.1 / 4.7 / 8.7 / 12.6	1.1 / 1.7 / 1.7 / 1.7
	40	●	●	●	●	90 / 150 / 235	3.1 / 4.7 / 8.7 / 12.6	1.1 / 1.7 / 1.7 / 1.7
	44	●	●	●	●	90 / 150 / 235	3.1 / 4.7 / 8.7 / 12.6	1.1 / 1.7 / 1.7 / 1.7
	48	●	●	●	●	90 / 150 / 235	3.1 / 4.7 / 8.7 / 12.6	1.1 / 1.7 / 1.7 / 1.7
	52		●	●	●	90 / 150 / 235	4.7 / 8.7 / 12.6	1.7 / 1.7 / 1.7
	56		●	●	●	90 / 150 / 235	4.7 / 8.7 / 12.6	1.7 / 1.7 / 1.7
	60		●	●	●	40 / 90 / 150	4.7 / 8.7 / 12.6	1.7 / 1.7 / 1.7
	64		●	●	●	40 / 90 / 150	4.7 / 8.7 / 12.6	1.7 / 1.7 / 1.7
	68		●	●	●	40 / 90 / 150	4.7 / 8.7 / 12.6	1.7 / 1.7 / 1.7
	72		●	●	●	40 / 90 / 150	4.7 / 8.7 / 12.6	1.7 / 1.7 / 1.7
	76		●	●	●	40 / 90 / 150	4.7 / 8.7 / 12.6	1.7 / 1.7 / 1.7
	80		●	●	●	40 / 90 / 150	4.7 / 8.7 / 12.6	1.7 / 1.7 / 1.7
	84		●	●	●	40 / 90	4.7 / 8.7 / 12.6	1.7 / 1.7 / 1.7
	88		●	●	●	40 / 90	4.7 / 8.7 / 12.6	1.7 / 1.7 / 1.7
	92		●	●	●	40 / 90	4.7 / 8.7 / 12.6	1.7 / 1.7 / 1.7
	96		●	●	●	40 / 90	4.7 / 8.7 / 12.6	1.7 / 1.7 / 1.7
	100		●	●	●	40 / 90	4.7 / 8.7 / 12.6	1.7 / 1.7 / 1.7
	104		●	●	●	40 / 90	4.7 / 8.7 / 12.6	1.7 / 1.7 / 1.7
	108		●	●	●	40 / 75	4.7 / 8.7 / 12.6	1.7 / 1.7 / 1.7
112		●	●	●	40 / 75	4.7 / 8.7 / 12.6	1.7 / 1.7 / 1.7	
116		●	●	●	40 / 75	4.7 / 8.7 / 12.6	1.7 / 1.7 / 1.7	
120		●	●	●	40 / 75	4.7 / 8.7 / 12.6	1.7 / 1.7 / 1.7	
128		●	●	●	40 / 75	4.7 / 8.7 / 12.6	1.7 / 1.7 / 1.7	
136		●	●	●	40 / 60	4.7 / 8.7 / 12.6	1.7 / 1.7 / 1.7	
144		●	●	●	40 / 60	4.7 / 8.7 / 12.6	1.7 / 1.7 / 1.7	
152		●	●	●	40 / 60	4.7 / 8.7 / 12.6	1.7 / 1.7 / 1.7	
160		●	●	●	40 / 60	4.7 / 8.7 / 12.6	1.7 / 1.7 / 1.7	
168		●	●	●	40	4.7 / 8.7 / 12.6	1.7 / 1.7 / 1.7	

NOTES: The above tables are guides to the most common sizes. Couplings to suit specific outside diameters not listed may be manufactured to order. Please contact us for further details. Minimum burst is 1.5 times working pressure. Figures are based on typical values for standard wall carbon steel pipe. For use on thin or soft pipe materials such as thin wall stainless, copper alloy or plastic (by way of example only) please check with us first.



D3 Overall Coupling O.D. = D1 (in) + the following:	Number of Screws	Approximate Weight	Maximal Allowable Tolerance on Pipe O.D. +/-	Pipe Nominal Bore	D1 Pipe O.D.
(in)		(lb)	(in)	(in)	
1.7	2	9	0.1	6	Teekay Axiflex couplings are available to suit any pipe O.D. up to 168in. Please contact us with OD prior to order placement.
1.7 / 2.8	2 / 2 / 3	10 / 17	0.1 / 0.1	8	
1.7 / 2.8	2 / 2 / 3	11 / 19	0.1 / 0.1	10	
2.3 / 2.8 / 2.8 / 2.8	2 / 2 / 3 / 4 / 6	13 / 21 / 38 / 49	0.2 / 0.2 / 0.2 / 0.2	12	
2.3 / 2.8 / 2.8 / 2.8	2 / 2 / 3 / 4 / 6	16 / 24 / 41 / 53	0.2 / 0.2 / 0.2 / 0.2	14	
2.3 / 2.8 / 2.8 / 2.8	2 / 2 / 3 / 4 / 6	18 / 28 / 44 / 57	0.2 / 0.2 / 0.2 / 0.2	16	
2.3 / 2.8 / 2.8 / 2.8	2 / 2 / 3 / 4 / 6	20 / 31 / 48 / 64	0.2 / 0.2 / 0.2 / 0.2	16	
2.3 / 2.8 / 2.8 / 2.8	2 / 2 / 3 / 4 / 6	21 / 36 / 59 / 71	0.2 / 0.2 / 0.2 / 0.2	20	
2.3 / 2.8 / 2.8 / 2.8	2 / 2 / 3 / 4 / 6	24 / 38 / 67 / 86	0.2 / 0.2 / 0.2 / 0.2	24	
2.3 / 2.8 / 2.8 / 2.8	2 / 3 / 4 / 6	28 / 50 / 76 / 97	0.2 / 0.2 / 0.2 / 0.2	28	
2.3 / 2.8 / 2.8 / 2.8	2 / 3 / 4 / 6	32 / 55 / 85 / 108	0.2 / 0.2 / 0.2 / 0.2	32	
2.3 / 2.8 / 2.8 / 2.8	2 / 3 / 4 / 6	35 / 61 / 93 / 121	0.2 / 0.2 / 0.2 / 0.2	36	
2.3 / 2.8 / 2.8 / 2.8	2 / 3 / 4 / 6	37 / 67 / 102 / 132	0.2 / 0.2 / 0.2 / 0.2	40	
2.3 / 2.8 / 2.8 / 2.8	2 / 3 / 4 / 6	40 / 84 / 111 / 143	0.2 / 0.2 / 0.2 / 0.2	44	
2.3 / 2.8 / 2.8 / 2.8	2 / 3 / 4 / 6	43 / 91 / 119 / 154	0.2 / 0.2 / 0.2 / 0.2	48	
4.0 / 4.0 / 4.0	6 / 8 / 12	105 / 141 / 183	0.4 / 0.4 / 0.4	52	
4.0 / 4.0 / 4.0	6 / 8 / 12	111 / 150 / 194	0.4 / 0.4 / 0.4	56	
4.0 / 4.0 / 4.0	6 / 8 / 12	117 / 158 / 205	0.4 / 0.4 / 0.4	60	
4.0 / 4.0 / 4.0	6 / 8 / 12	125 / 167 / 216	0.4 / 0.4 / 0.4	64	
4.0 / 4.0 / 4.0	6 / 8 / 12	132 / 176 / 227	0.4 / 0.4 / 0.4	68	
4.0 / 4.0 / 4.0	6 / 8 / 12	137 / 184 / 238	0.4 / 0.4 / 0.4	72	
4.0 / 4.0 / 4.0	12 / 16 / 24	141 / 187 / 249	0.4 / 0.4 / 0.4	76	
4.0 / 4.0 / 4.0	12 / 16 / 24	144 / 193 / 260	0.4 / 0.4 / 0.4	80	
4.0 / 4.0 / 4.0	12 / 16 / 24	150 / 202 / 304	0.4 / 0.4 / 0.8	84	
4.0 / 4.0 / 4.0	12 / 16 / 24	156 / 210 / 318	0.4 / 0.4 / 0.8	88	
4.0 / 4.0 / 4.0	12 / 16 / 24	163 / 219 / 326	0.4 / 0.4 / 0.8	92	
4.0 / 4.0 / 4.0	12 / 16 / 24	167 / 227 / 337	0.4 / 0.4 / 0.8	96	
4.0 / 4.0 / 4.0	12 / 16 / 24	176 / 261 / 344	0.4 / 0.4 / 0.8	100	
4.0 / 4.0 / 4.0	12 / 16 / 24	193 / 270 / 362	0.4 / 0.4 / 0.8	104	
4.0 / 4.0 / 4.0	12 / 16 / 24	205 / 278 / 373	0.4 / 0.4 / 0.8	108	
4.0 / 4.0 / 4.0	12 / 16 / 24	212 / 287 / 384	0.4 / 0.4 / 0.8	112	
4.0 / 4.0 / 4.0	12 / 16 / 24	218 / 296 / 395	0.4 / 0.4 / 0.8	116	
4.0 / 4.0 / 4.0	12 / 16 / 24	242 / 304 / 408	0.4 / 0.4 / 0.8	120	
4.0 / 4.0 / 4.0	12 / 16 / 24	282 / 362 / 450	0.4 / 0.8 / 0.8	128	
4.0 / 4.0 / 4.0	12 / 16 / 24	298 / 379 / 476	0.4 / 0.8 / 0.8	136	
4.0 / 4.0 / 4.0	18 / 24 / 36	326 / 321 / 520	0.4 / 0.8 / 0.8	144	
4.0 / 4.0 / 4.0	18 / 24 / 36	337 / 441 / 538	0.4 / 0.8 / 0.8	152	
4.0 / 4.0 / 4.0	18 / 24 / 36	351 / 456 / 560	0.4 / 0.8 / 0.8	160	
4.0 / 4.0 / 4.0	18 / 24 / 36	366 / 476 / 584	0.4 / 0.8 / 0.8	168	

Applicable Standards: DIN 86128 Form F (non axial restrained)
ASTM F1476 Type II, Class 3 (flexible and unrestrained)

Repair Clamp



The Teekay Repair Clamp is the budget repair coupling of choice. Featuring “cut flanges” on the underside of the fitting, this type of coupling can be easily pulled around a leaking pipe to seal a fracture. Once wrapped around the pipe, the fitter then goes about installing the coupling in the same manner as any other Teekay coupling.

Suitable for emergency repairs in buildings and industrial units to avoid costly reinstatement work caused by water damage. The Teekay Repair Clamp represents excellent value for money both at point of order and at point of use, as significant installation time savings can be achieved with the light-weight stainless steel design.

Material Selection

Type I

Casing: AISI 304 / DIN 1.4301
Fasteners: Alloy Steel, Coated
Gasket: EPDM/NBR/H-NBR/FKM/VMQ

Type II

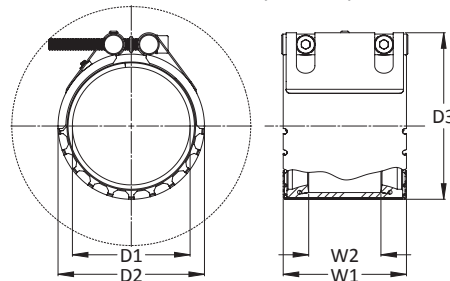
Casing: AISI 304 / DIN 1.4301
Fasteners: AISI 316 / 316L
Gasket: EPDM/NBR/H-NBR/FKM/VMQ

Type IV

Casing: AISI 316L / DIN 1.4404
Fasteners: AISI 316 / 316L
Gasket: EPDM/NBR/H-NBR/FKM/VMQ

1.4462 Duplex casings and fasteners available on request.

- Sizes:** 1½" to 12"
Gaskets: EPDM -40 °F to +212 °F, NBR -4 °F to +176 °F, HNBR -4 °F to +266 °F, FKM -4 °F to +356 °F, VMQ -94 °F to +392 °F (*water*), -94 °F to +356 °F (*steam*)
Pipe Materials: Carbon steel, cast and ductile iron, stainless steel, copper, cunifer, GRP, asbestos cement, HDPE, MDPE, PVC, uPVC, ABS



NOTES:

The table below is a guide to the most common sizes. Couplings to suit specific outside diameters not listed may be manufactured to order. Please contact us for further details.

Minimum burst is 1.5 times working pressure. Figures are based on typical values for standard wall carbon steel pipe. For use on thin or soft pipe materials such as thin wall stainless, copper alloy or plastic (by way of example only) please check with us first.

D1 Pipe O.D.	Pipe Nominal Bore	Working Pressure (psi)	W1 (in)	W2 (in)	D2 Coupling O.D. = D1 + the following:	D3 Overall Coupling O.D. = D1 + the following:	No. of Screws	Approximate Weight (lb)	Maximum Allowable Tolerance on Pipe O.D. +/- (in)
					(in)	(in)			
Teekay Repair Clamps are available to suit any pipe O.D. from 1.90 in up to 12.75 in. Please contact us with O.D. prior to order placement.	1½	235	3.3	1.65	0.79	1.54	2 x M8	2.20	0.04
	2	235	3.3	1.65	0.79	1.54	2 x M8	2.43	0.04
	2½	235	3.3	1.65	0.79	1.54	2 x M8	2.87	0.04
	3	235	3.3	1.65	0.79	1.54	2 x M8	3.31	0.04
	4	235	3.3	1.65	0.79	1.54	2 x M8	3.53	0.04
	6	235	4.3	2.64	0.87	1.73	2 x M10	5.51	0.08
	8	175	4.3	2.64	0.87	1.73	2 x M10	7.05	0.08
	10	90	4.3	2.64	0.87	1.73	2 x M10	7.72	0.08
	12	90	4.3	2.64	0.87	1.73	2 x M10	8.38	0.08



The Teekay Repair Coupling is ideal for all situations where you need to make a permanent repair under pressure. Simply open up the coupling, wrap it around the pipe and fasten – you have repaired the pipeline in minutes and avoided the need for costly downtime.

The Repair Coupling comes with no loose parts and features our standard gasket which actively seals onto the pipe. The range is available up to 120" OD and in widths up to 16" wide. The Teekay Repair Coupling is used throughout the water, process, oil & gas and marine industries.

Material Selection

Type I

Casing: AISI 304 / DIN 1.4301
Fasteners: Alloy Steel, Coated
Gasket: EPDM/NBR/H-NBR/FKM/VMQ

Type II

Casing: AISI 304 / DIN 1.4301
Fasteners: AISI 316 / 316L
Gasket: EPDM/NBR/H-NBR/FKM/VMQ

Type IV

Casing: AISI 316L / DIN 1.4404
Fasteners: AISI 316 / 316L
Gasket: EPDM/NBR/H-NBR/FKM/VMQ

Type V

Casing: High strength steel
Coating: Rilsan/PVC/
 Epoxy/Galvanized
Fasteners: Alloy Steel, Coated
Gasket: EPDM/NBR/H-NBR/FKM/VMQ

Type VI

Casing: High strength steel
Coating: Rilsan/PVC/
 Epoxy/Galvanized
Fasteners: AISI 316 / 316L
Gasket: EPDM/NBR/H-NBR/FKM/VMQ



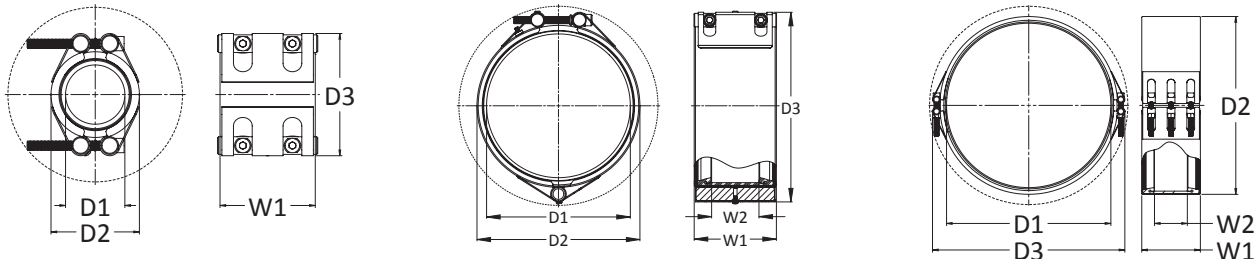
Sizes: 1½" to 120"

Gaskets: EPDM -40 °F to +212 °F, NBR -4 °F to +176 °F, HNBR -4 °F to +266 °F, FKM -4 °F to +356 °F, VMQ -94 °F to +392 °F (water), -94 °F to +356 °F (steam)

Pipe Materials: Carbon steel, cast and ductile iron, stainless steel, copper, cunifer, GRP, asbestos cement, HDPE, MDPE, PVC, uPVC, ABS

1.4462 Duplex casings and fasteners available on request.

Repair Coupling Dimensions



D1 Pipe O.D.	Pipe Nominal Bore	Available Coupling Widths:						Working Pressure Available in the following psi ratings:	W2	D2 Coupling O.D. = D1 (in) + the following:
		(in)	3.3 in	4.3 in	5.5 in	8.3 in	12.2 in			
Teekay Repair Couplings are available to suit any pipe O.D. up to 120 in. Please contact us with OD prior to order placement.	1½	●						230 / 350 / 600	1.7	0.8
	2	●						230 / 350 / 600	1.7	0.8
	2½		●					230 / 350 / 600	2.6	0.9
	3		●					230 / 350 / 600	2.6	0.9
	4		●					230 / 350 / 600	2.6	0.9
	6		●	●				230 / 350 / 600	2.6 / 3.1	0.9 / 1.1
	8		●	●	●			230 / 350 / 600	2.6 / 3.1 / 4.7	0.9 / 1.1 / 1.7
	10		●	●	●			230 / 350 / 600	2.6 / 3.1 / 4.7	0.9 / 1.1 / 1.7
	12		●	●	●	●	●	230 / 350 / 600	2.6 / 3.1 / 4.7 / 8.7 / 12.6	0.9 / 1.1 / 1.7 / 1.7 / 1.7
	14			●	●	●	●	150 / 230 / 350	3.1 / 4.7 / 8.7 / 12.6	1.1 / 1.7 / 1.7 / 1.7
	16			●	●	●	●	150 / 230 / 350	3.1 / 4.7 / 8.7 / 12.6	1.1 / 1.7 / 1.7 / 1.7
	18			●	●	●	●	150 / 230 / 350	3.1 / 4.7 / 8.7 / 12.6	1.1 / 1.7 / 1.7 / 1.7
	20			●	●	●	●	150 / 230 / 350	3.1 / 4.7 / 8.7 / 12.6	1.1 / 1.7 / 1.7 / 1.7
	24			●	●	●	●	90 / 150 / 230	3.1 / 4.7 / 8.7 / 12.6	1.1 / 1.7 / 1.7 / 1.7
	28			●	●	●	●	90 / 150 / 230	3.1 / 4.7 / 8.7 / 12.6	1.1 / 1.7 / 1.7 / 1.7
	32			●	●	●	●	90 / 150 / 230	3.1 / 4.7 / 8.7 / 12.6	1.1 / 1.7 / 1.7 / 1.7
	36			●	●	●	●	90 / 150 / 230	3.1 / 4.7 / 8.7 / 12.6	1.1 / 1.7 / 1.7 / 1.7
	40			●	●	●	●	40 / 90 / 150	3.1 / 4.7 / 8.7 / 12.6	1.1 / 1.7 / 1.7 / 1.7
	44			●	●	●	●	40 / 90 / 150	3.1 / 4.7 / 8.7 / 12.6	1.1 / 1.7 / 1.7 / 1.7
	48			●	●	●	●	40 / 90 / 150	3.1 / 4.7 / 8.7 / 12.6	1.1 / 1.7 / 1.7 / 1.7
	52			●	●	●	●	40 / 90 / 150	3.1 / 4.7 / 8.7 / 12.6	1.1 / 1.7 / 1.7 / 1.7
	56			●	●	●	●	40 / 90	3.1 / 4.7 / 8.7 / 12.6	1.1 / 1.7 / 1.7 / 1.7
	60			●	●	●	●	40 / 90	3.1 / 4.7 / 8.7 / 12.6	1.1 / 1.7 / 1.7 / 1.7
	64				●	●	●	40 / 90	4.7 / 8.7 / 12.6	1.7 / 1.7 / 1.7
68				●	●	●	40 / 90	4.7 / 8.7 / 12.6	1.7 / 1.7 / 1.7	
72				●	●	●	40 / 90	4.7 / 8.7 / 12.6	1.7 / 1.7 / 1.7	
76				●	●	●	40 / 90	4.7 / 8.7 / 12.6	1.7 / 1.7 / 1.7	
80				●	●	●	40 / 90	4.7 / 8.7 / 12.6	1.7 / 1.7 / 1.7	
84				●	●	●	40 / 90	4.7 / 8.7 / 12.6	1.7 / 1.7 / 1.7	
88				●	●	●	40	4.7 / 8.7 / 12.6	1.7 / 1.7 / 1.7	
92				●	●	●	40	4.7 / 8.7 / 12.6	1.7 / 1.7 / 1.7	
96				●	●	●	40	4.7 / 8.7 / 12.6	1.7 / 1.7 / 1.7	
100				●	●	●	40	4.7 / 8.7 / 12.6	1.7 / 1.7 / 1.7	
104				●	●	●	40	4.7 / 8.7 / 12.6	1.7 / 1.7 / 1.7	
108				●	●	●	40	4.7 / 8.7 / 12.6	1.7 / 1.7 / 1.7	
112				●	●	●	40	4.7 / 8.7 / 12.6	1.7 / 1.7 / 1.7	
116				●	●	●	40	4.7 / 8.7 / 12.6	1.7 / 1.7 / 1.7	
120				●	●	●	40	4.7 / 8.7 / 12.6	1.7 / 1.7 / 1.7	

As illustrated above, Teekay Repair Couplings can be supplied in hinged or double lockpart versions to suit applications where tolerance or accessibility may be critical.



D3 Overall Coupling O.D. = D1 (in) + the following:	Number of Screws	Approximate Weight	Maximum Allowable Tolerance on Pipe O.D. +/-	Pipe Nominal Bore	D1 Pipe O.D.
(in)		(lb)	(in)	(in)	
2.3	4	4.8	0.08	1½	Teekay Repair Couplings are available to suit any pipe O.D. up to 120 in. Please contact us with OD prior to order placement.
2.3	4	5.7	0.08	2	
2.6	4	6.0	0.08	2½	
2.6	2 / 4	7	0.1	3	
2.6	2 / 4	7	0.1	4	
2.6 / 3.3	2 / 4	9 / 11	0.1 / 0.1	6	
2.6 / 3.3 / 4.0	2 / 2 / 2	9 / 13 / 22	0.13 / 0.13 / 0.13	8	
2.6 / 3.3 / 4.0	2 / 2 / 2	11 / 13 / 22	0.13 / 0.13 / 0.13	10	
2.6 / 3.3 / 4.0 / 4.0 / 4.0	2 / 2 / 2 / 4 / 6	11 / 15 / 24 / 46 / 60	0.13 / 0.16 / 0.16 / 0.16 / 0.16	12	
3.3 / 4.0 / 4.0 / 4.0	2 / 3 / 4 / 6	18 / 29 / 49 / 68	0.16 / 0.16 / 0.16 / 0.16	14	
3.3 / 4.0 / 4.0 / 4.0	2 / 3 / 4 / 6	20 / 33 / 53 / 68	0.16 / 0.16 / 0.16 / 0.16	16	
3.3 / 4.0 / 4.0 / 4.0	2 / 3 / 4 / 6	24 / 35 / 57 / 75	0.16 / 0.16 / 0.16 / 0.16	18	
3.3 / 4.0 / 4.0 / 4.0	2 / 3 / 4 / 6	24 / 40 / 68 / 84	0.16 / 0.16 / 0.16 / 0.16	20	
3.3 / 4.0 / 4.0 / 4.0	2 / 3 / 4 / 6	29 / 44 / 77 / 99	0.16 / 0.2 / 0.2 / 0.2	24	
3.3 / 4.0 / 4.0 / 4.0	2 / 3 / 4 / 6	31 / 55 / 86 / 110	0.16 / 0.2 / 0.2 / 0.2	28	
3.3 / 4.0 / 4.0 / 4.0	2 / 3 / 4 / 6	35 / 60 / 95 / 121	0.16 / 0.2 / 0.2 / 0.2	32	
3.3 / 4.0 / 4.0 / 4.0	2 / 3 / 4 / 6	40 / 66 / 101 / 134	0.16 / 0.2 / 0.2 / 0.2	36	
3.3 / 4.0 / 4.0 / 4.0	2 / 3 / 4 / 6	42 / 73 / 110 / 146	0.16 / 0.2 / 0.2 / 0.2	40	
3.3 / 4.0 / 4.0 / 4.0	2 / 3 / 4 / 6	44 / 90 / 119 / 157	0.16 / 0.2 / 0.2 / 0.2	44	
3.3 / 4.0 / 4.0 / 4.0	2 / 3 / 4 / 6	49 / 97 / 128 / 168	0.16 / 0.2 / 0.2 / 0.2	48	
3.3 / 4.0 / 4.0 / 4.0	4 / 6 / 8 / 12	60 / 106 / 141 / 183	0.16 / 0.25 / 0.25 / 0.25	52	
3.3 / 4.0 / 4.0 / 4.0	4 / 6 / 8 / 12	64 / 112 / 150 / 198	0.16 / 0.25 / 0.25 / 0.25	56	
3.3 / 4.0 / 4.0 / 4.0	4 / 6 / 8 / 12	71 / 117 / 159 / 209	0.16 / 0.25 / 0.25 / 0.25	60	
4.0 / 4.0 / 4.0	4 / 6 / 8 / 12	126 / 168 / 220	0.25 / 0.25 / 0.25	64	
4.0 / 4.0 / 4.0	4 / 6 / 8 / 12	132 / 176 / 231	0.25 / 0.25 / 0.25	68	
4.0 / 4.0 / 4.0	4 / 6 / 8 / 12	137 / 185 / 254	0.25 / 0.25 / 0.25	72	
4.0 / 4.0 / 4.0	4 / 6 / 8 / 12	143 / 194 / 265	0.25 / 0.25 / 0.25	76	
4.0 / 4.0 / 4.0	4 / 6 / 8 / 24	150 / 201 / 313	0.25 / 0.25 / 0.25	80	
4.0 / 4.0 / 4.0	12 / 16 / 24	159 / 209 / 326	0.25 / 0.25 / 0.25	84	
4.0 / 4.0 / 4.0	12 / 16 / 24	165 / 218 / 335	0.25 / 0.25 / 0.25	88	
4.0 / 4.0 / 4.0	12 / 16 / 24	172 / 227 / 346	0.25 / 0.25 / 0.25	92	
4.0 / 4.0 / 4.0	12 / 16 / 24	196 / 260 / 353	0.4 / 0.5 / 0.5	96	
4.0 / 4.0 / 4.0	12 / 16 / 24	203 / 269 / 370	0.4 / 0.5 / 0.5	100	
4.0 / 4.0 / 4.0	12 / 16 / 24	209 / 278 / 381	0.4 / 0.5 / 0.5	104	
4.0 / 4.0 / 4.0	12 / 16 / 24	216 / 287 / 392	0.4 / 0.5 / 0.5	108	
4.0 / 4.0 / 4.0	12 / 16 / 24	220 / 290 / 398	0.4 / 0.5 / 0.5	112	
4.0 / 4.0 / 4.0	12 / 16 / 24	222 / 295 / 403	0.4 / 0.5 / 0.5	116	
4.0 / 4.0 / 4.0	12 / 16 / 24	229 / 304 / 416	0.4 / 0.5 / 0.5	120	

NOTES: The above tables are guides to the most common sizes. Couplings to suit specific outside diameters not listed may be manufactured to order. Please contact us for further details. Minimum burst is 1.5 times working pressure. Figures are based on typical values for standard wall carbon steel pipe. For use on thin or soft pipe materials such as thin wall stainless, copper alloy or plastic (by way of example only) please check with us first.

Stepped Coupling



The Teekay Stepped coupling is a “problem-solver” on any site with the ability to join pipes of different ODs and different materials.

Typical applications:

- refurbishments (where the contractor is connecting a piping system back into the original layout)
- repairs to old water mains (where the pipe is so corroded it needs to be replaced with a new material in metric size)
- chamber connections
- pipe material transitions
- joining metallic pipe to plastic pipe

Material Selection

Type I

Casing: AISI 304 / DIN 1.4301
Fasteners: Alloy Steel, Coated
Gasket: EPDM/NBR/H-NBR/FKM/VMQ

Type II

Casing: AISI 304 / DIN 1.4301
Fasteners: AISI 316 / 316L
Gasket: EPDM/NBR/H-NBR/FKM/VMQ

Type IV

Casing: AISI 316L / DIN 1.4404
Fasteners: AISI 316 / 316L
Gasket: EPDM/NBR/H-NBR/FKM/VMQ

Type V

Casing: High strength steel
Coating: Rilsan/PVC/
Epoxy/Galvanized
Fasteners: Alloy Steel, Coated
Gasket: EPDM/NBR/H-NBR/FKM/VMQ

Type VI

Casing: High strength steel
Coating: Rilsan/PVC/
Epoxy/Galvanized
Fasteners: AISI 316 / 316L
Gasket: EPDM/NBR/H-NBR/FKM/VMQ



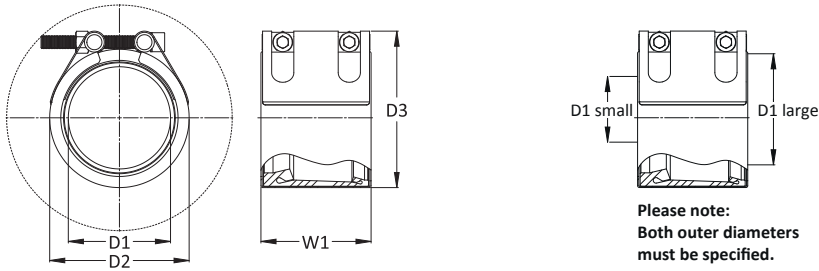
Sizes: 1½" to 120"

Gaskets: EPDM -40 °F to +212 °F, NBR -4 °F to +176 °F, HNBR -4 °F to +266 °F, FKM -4 °F to +356 °F, VMQ -94 °F to +392 °F (*water*), -94 °F to +356 °F (*steam*)

Pipe Materials: Carbon steel, cast and ductile iron, stainless steel, copper, cupifer, GRP, asbestos cement, HDPE, MDPE, PVC, uPVC, ABS

1.4462 Duplex casings and fasteners available on request.

Stepped Coupling Dimensions



Pipe Sizes NB	Available Coupling Widths				Maximum Step (in)	Maximum Pressure Rating (psi)	No. of Screws	Screw Size	Approximate Weight (lb)
	2.5 in	3.3 in	4.5 in	8.3 in					
1½	●				0.2	250	2	M8	2.25
2	●				0.2	250	2	M8	2.25
2½	●				0.2	250	2	M8	2.25
3		●			0.5	250	2	M10	4.5
4		●			0.5	250	2	M10	4.5
5		●			0.5	250	2	M10	5.5
6		●	●		0.5 / 1.0	250 / 250	2	M10 / 16	5.5 / 8.75
8		●	●		0.5 / 1.0	250 / 250	2 / 2	M10 / 16	6.5 / 8.75
10		●	●	●	0.5 / 1.0 / 1.0	250 / 250 / 250	2 / 2	M10 / 16	7.75 / 11 / 18.5
12		●			0.5	150	2	M10	8.75
12			●	●	1.0 / 1.0	250 / 250	2 / 3	16 / 16	13.25 / 22
14			●	●	1.0 / 1.0	230 / 230	2 / 3	16 / 16	15.5 / 24.25
16			●	●	1.0 / 1.0	230 / 230	2	M10	17.5 / 24.25
18			●	●	1.0 / 1.0	150 / 230 / 150 / 230	2 / 3	M16 / 16	19.75 / 30.75
20			●	●	1.0 / 1.0	150 / 230 / 150 / 230	2 / 3	M16 / 16	21 / 35.25
24			●	●	1.0 / 1.5	150 / 230 / 150 / 230	2 / 3	M16 / 16	24.25 / 38.5
28			●	●	1.0 / 1.5	90 / 230 / 90 / 230	2 / 3	M16 / 16	27.5 / 49.5
32			●	●	1.0 / 1.5	90 / 230 / 90 / 230	2 / 3	M16 / 16	30.75 / 55
36			●	●	1.0 / 1.5	90 / 150 / 90 / 230	2 / 3	M16 / 16	35.25 / 61.5
40			●	●	1.0 / 1.5	90 / 90	2 / 3	M16 / 16	37.5 / 66
44			●	●	1.0 / 1.5	90 / 90	2 / 3	M16 / 16	39.5 / 83.5
48			●	●	1.0 / 1.5	35 / 90 / 35 / 90	2 / 3	M16 / 16	44 / 90.25
52				●	1.5	35 / 90	3	M16	105.5
56				●	1.5	35 / 90	3	M16	111
60				●	1.5	35 / 90	3	M16	116.5
64				●	1.5	35 / 90	6	M16	124.25
68				●	1.5	35 / 90	6	M16	132
72				●	1.5	35 / 75	6	M16	137.5
76				●	1.5	35 / 75	6	M16	143
80				●	1.5	35 / 75	6	M16	149.5
84				●	1.5	35 / 60	12	M16	156
88				●	1.5	35 / 60	12	M16	163
92				●	1.5	35 / 60	12	M16	167
96				●	1.5	35 / 45	12	M16	176
100				●	1.5	35 / 45	12	M16	193
104				●	1.5	35 / 45	12	M16	205
108				●	1.5	35 / 45	12	M16	211
112				●	1.5	35 / 45	12	M16	218
116				●	1.5	30 / 45	12	M16	242
120				●	1.5	30 / 45	12	M16	266

NOTES: See Notes page 18.
The Teekay Stepped Coupling is a non-axial restraint pipe coupling type.

Reducer and Flanged Reducer



Have you got two pipes to join with a large difference in outside diameters? Use a Teekay reducer to make the connection!

Teekay reducers can be fabricated to suit any pipe O.D. and are available in both concentric and eccentric configurations. Two pipe couplings are supplied, one on either end of the reducer, with a choice of Axiflex or Axilock (depending on diameter and pressure).

Teekay also manufactures Flanged Reducers for connecting flanged pieces of equipment to plain end sections of pipe of a different size.

Please contact Teekay for further details.

Coupling Material Selection

Type I

Casing: AISI 304 / DIN 1.4301
Fasteners: Alloy Steel, Coated
Gasket: EPDM/NBR/H-NBR/FKM/VMQ

Type II

Casing: AISI 304 / DIN 1.4301
Fasteners: AISI 316 / 316L
Gasket: EPDM/NBR/H-NBR/FKM/VMQ

Type IV

Casing: AISI 316L / DIN 1.4404
Fasteners: AISI 316 / 316L
Gasket: EPDM/NBR/H-NBR/FKM/VMQ

Type V

Casing: High strength steel
Coating: Rilsan/PVC/
Epoxy/Galvanized
Fasteners: Alloy Steel, Coated
Gasket: EPDM/NBR/H-NBR/FKM/VMQ

Type VI

Casing: High strength steel
Coating: Rilsan/PVC/
Epoxy/Galvanized
Fasteners: AISI 316 / 316L
Gasket: EPDM/NBR/H-NBR/FKM/VMQ



Sizes: Smallest OD = 1", Largest OD = 164".

Reducer Materials: Stainless Steel Options = AISI 304 / AISI 316L.
Coated Steel Options = Galvanized / Rilsan / PVC / Epoxy

Gaskets: EPDM -40 °F to +212 °F, NBR -4 °F to +176 °F,
HNBR -4 °F to +266 °F, FKM -4 °F to +356 °F,
VMQ -94 °F to +392 °F (*water*), -94 °F to +356 °F (*steam*)

Pipe Materials: Carbon steel, cast and ductile iron, stainless steel,
copper, unifer, GRP, concrete, asbestos cement,
HDPE



Teekay Flange Adaptors make the installation of pumps and valves quicker and easier. Simply bolt the flange adaptor on to the existing flange and fasten the coupling over the joint between the flange adaptor and plain end pipe. This creates a useful maintenance point in the future: undo the bolts on the coupling rather than the nuts on the flange adaptor and lift out the piece of equipment!

Teekay Flange Adaptors can be fabricated to any pipe O.D. and are available in standard and non-standard drillings. Choose an Axiflex coupling to accommodate expansion and contraction or an Axilock for a fully anchored solution (depending on diameter and pressure).

Coupling Material Selection

Type I

Casing: AISI 304 / DIN 1.4301
Fasteners: Alloy Steel, Coated
Gasket: EPDM/NBR/H-NBR/FKM/VMQ

Type II

Casing: AISI 304 / DIN 1.4301
Fasteners: AISI 316 / 316L
Gasket: EPDM/NBR/H-NBR/FKM/VMQ

Type IV

Casing: AISI 316L / DIN 1.4404
Fasteners: AISI 316 / 316L
Gasket: EPDM/NBR/H-NBR/FKM/VMQ

Type V

Casing: High strength steel
Coating: Rilsan/PVC/
Epoxy/Galvanized
Fasteners: Alloy Steel, Coated
Gasket: EPDM/NBR/H-NBR/FKM/VMQ

Type VI

Casing: High strength steel
Coating: Rilsan/PVC/
Epoxy/Galvanized
Fasteners: AISI 316 / 316L
Gasket: EPDM/NBR/H-NBR/FKM/VMQ



Sizes: Smallest OD = 1½", Largest OD = 164".

Flange Adaptor materials: Stainless Steel Options = AISI 304 / AISI 316L.
Coated Steel = Galvanized / Rilsan / PVC / Epoxy

Gaskets: EPDM -40 °F to +212 °F, NBR -4 °F to +176 °F,
HNBR -4 °F to +266 °F, FKM -4 °F to +356 °F,
VMQ -94 °F to +392 °F (water), -94 °F to +356 °F (steam)

Pipe Materials: Carbon steel, cast and ductile iron, stainless steel,
copper, cupifer, GRP

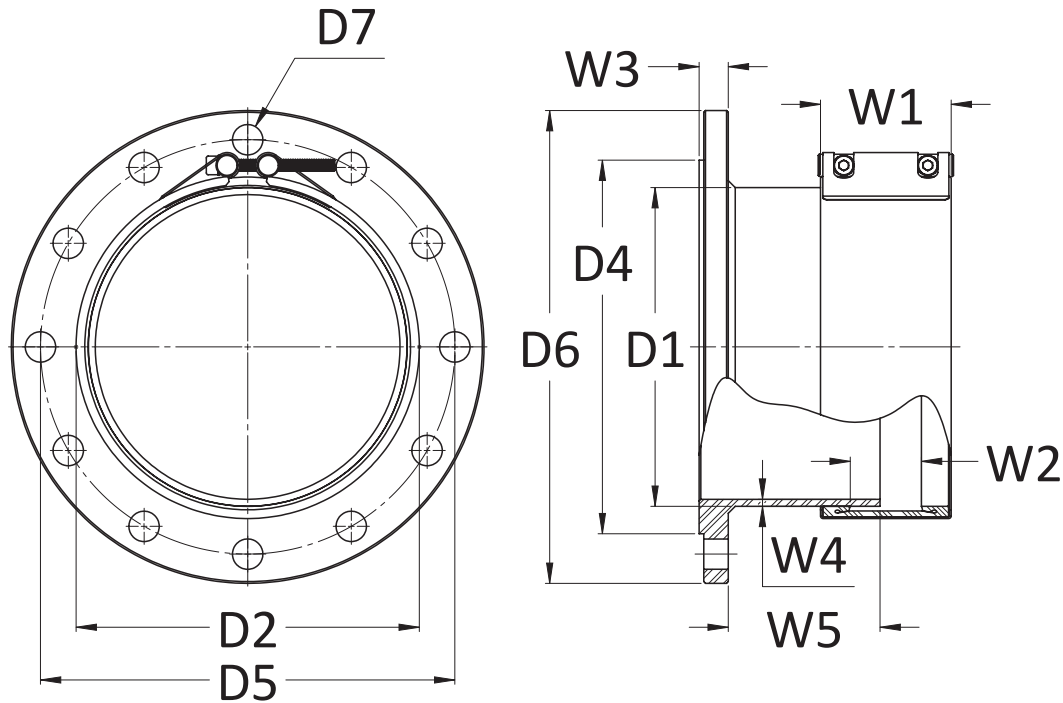
1.4462 Duplex casings and fasteners available on request.

Flange Adaptor

Flange Adaptor

ANSI 150LB & AWWA C207-01 D

Pipe Details		Coupling Details				Working Pressure	Spigot Details		Flange Details						Approx. Weight
Nom. Pipe Size (in)	D2 Coupling OD= (D1+D2) (in)	W1 Coupling Width (in)	W2 Gap Between Sealing Lips (in)	No. of Screws	Working Pressure (psi)	W5 Length of Spigot (in)	W4 Spigot Thickness (in)	D5 Pitch Circle Diameter (in)	D6 Flange OD (in)	W3 Flange Thickness (in)	No. of Bolts	D7 Bolt Hole Diameter (in)	Bolt Diameter (in)	Weight (lb)	
1½	0.8	3.3	1.7	2	175	3.75	0.25	2.875	5.00	0.50	4	0.625	0.5	7.50	
2	0.8	3.3	1.7	2	175	3.75	0.25	3.625	6.00	0.50	4	0.750	0.625	9.25	
2½	0.8	3.3	1.7	2	175	3.75	0.25	4.125	7.00	0.50	4	0.750	0.625	10.25	
3	0.8	3.3	1.7	2	175	3.75	0.25	5.000	7.50	0.50	4	0.750	0.625	15.00	
4	0.8	3.3	1.7	2	175	3.75	0.25	7.500	9.00	0.50	8	0.750	0.625	17.25	
5	0.9	4.3	2.6	2	175	4.75	0.25	8.500	10.00	0.50	8	0.875	0.750	21.25	
6	0.9	4.3	2.6	2	175	4.75	0.25	9.500	11.00	0.50	8	0.875	0.750	27.25	
8	0.9	4.3	2.6	2	175	4.75	0.25	11.750	13.50	0.75	8	0.875	0.750	35.00	
10	0.9	4.3	2.6	2	175	5.12	0.25	14.250	16.00	0.75	12	1.000	0.875	41.25	
12	0.9	4.3	2.6	2	175	5.12	0.25	17.000	19.00	0.75	12	1.000	0.875	48.00	
14	1.1	5.5	3.1	2	150	5.12	0.25	18.750	21.00	1.00	12	1.125	1.000	74.75	
16	1.1	5.5	3.1	2	150	6.30	0.25	21.250	23.50	1.00	16	1.125	1.000	88.00	
18	1.1	5.5	3.1	2	150	6.30	0.25	22.750	25.00	1.00	16	1.250	1.125	99.50	
20	1.1	5.5	3.1	2	150	6.30	0.25	25.000	27.50	1.00	20	1.250	1.125	110.00	
24	1.1	5.5	3.1	2	150	6.30	0.25	29.500	32.00	1.00	20	1.375	1.250	138.00	
28	1.6	8.3	4.7	3	150	9.06	0.25	34.000	36.50	1.00	28	1.375	1.250	189.50	
30	1.6	8.3	4.7	3	150	9.06	0.25	36.000	38.75	1.00	28	1.375	1.250	221.50	
32	1.6	8.3	4.7	3	150	9.06	0.30	38.500	41.75	1.00	28	1.625	1.500	253.50	
36	1.6	8.3	4.7	3	150	9.06	0.30	42.750	46.00	1.00	32	1.625	1.500	280.50	
40	1.6	8.3	4.7	3	150	9.06	0.40	47.250	50.75	1.00	36	1.625	1.500	319.00	
44	1.6	8.3	4.7	3	150	9.06	0.40	51.750	55.25	1.00	40	1.625	1.500	412.00	
48	1.6	8.3	4.7	3	150	9.64	0.40	56.000	59.50	1.50	44	1.625	1.500	505.50	
52	1.6	8.3	4.7	6	90	9.64	0.40	60.50	64.00	1.50	44	1.875	1.750	746.00	
54	1.6	8.3	4.7	6	90	9.64	0.40	62.75	66.25	1.50	44	1.875	1.750	786.00	
60	1.6	8.3	4.7	6	90	9.64	0.40	69.25	73.00	1.50	52	1.875	1.750	893.00	
66	1.6	8.3	4.7	6	90	9.64	0.40	76.00	80.00	2.36	52	1.875	1.750	1036.00	
72	1.6	8.3	4.7	6	90	9.64	0.60	82.50	86.50	2.36	60	1.875	1.750	1758.00	
78	1.6	8.3	4.7	6	90	9.64	0.60	89.00	93.00	2.36	64	2.125	2.000	1852.00	
84	4.0	8.3	4.7	12	90	9.64	0.60	95.50	99.75	2.36	64	2.125	2.000	2086.00	
90	4.0	8.3	4.7	12	60	9.64	0.60	102.00	106.50	2.36	68	2.438	2.250	2273.00	
96	4.0	8.3	4.7	12	60	9.64	0.60	108.50	113.25	2.36	68	2.438	2.250	2508.00	
102	4.0	8.3	4.7	12	60	9.64	0.60	114.50	120.00	2.36	72	2.688	2.500	2708.00	
108	4.0	8.3	4.7	12	60	9.64	0.60	120.75	126.75	2.36	72	2.688	2.500	2959.00	
114	4.0	8.3	4.7	12	60	9.64	0.60	126.75	133.50	2.36	78	2.938	2.750	3175.00	
120	4.0	8.3	4.7	12	60	9.64	0.60	132.75	140.25	2.36	78	2.938	2.750	3478.00	



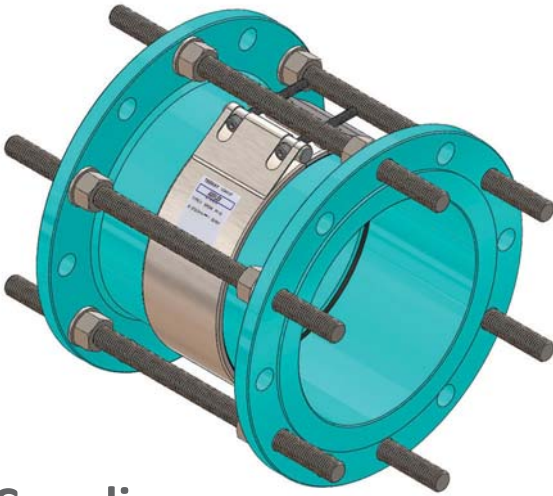
Flange Adaptor

ANSI 300LB & AWWA C207-01 F

Pipe Details	Coupling Details				Spigot Details		Flange Details						Approx. Weight
Norm. Pipe Size (in)	D2 Coupling OD= (D1+D2) (in)	W1 Coupling Width (in)	W2 Gap Between Sealing Lips (in)	No. of Screws	W5 Length of Spigot (in)	W4 Spigot Thickness (in)	D5 Pitch Circle Diameter (in)	D6 Flange OD (in)	W3 Flange Thickness (in)	No. of Bolts	D7 Bolt Hole Diameter (in)	Bolt Diameter (in)	Weight (lb)
1½	0.8	3.3	1.7	2	3.75	0.25	4.500	6.125	0.50	4	0.750	0.625	7.7
2	0.8	3.3	1.7	2	3.75	0.25	5.000	6.500	0.50	8	0.750	0.625	8.1
2½	0.8	3.3	1.7	2	3.75	0.25	5.875	7.500	0.50	8	0.750	0.625	10.8
3	0.8	3.3	1.7	2	3.75	0.25	6.625	8.250	0.50	8	0.750	0.625	11.5
4	0.9	4.3	2.6	2	4.75	0.25	7.875	10.000	0.50	8	0.875	0.750	16.5
5	0.9	4.3	2.6	2	4.75	0.25	9.250	11.000	0.75	8	0.875	0.750	25.7
6	0.9	4.3	2.6	2	4.75	0.25	10.625	12.500	0.75	12	0.875	0.750	30.8
8	0.9	4.3	2.6	2	4.75	0.25	13.000	15.000	0.75	12	1.000	0.875	42.0
10	1.1	5.5	3.1	2	6.30	0.25	15.250	17.500	1.00	16	1.125	1.000	69.3
12	1.1	5.5	3.1	2	6.30	0.25	17.750	20.500	1.00	16	1.250	0.875	90.2
14	1.1	5.5	3.1	2	6.30	0.25	20.250	23.000	1.00	20	1.250	1.125	123.2
16	1.1	5.5	3.1	2	6.30	0.25	22.500	25.500	1.00	20	1.375	1.250	151.8
18	1.1	8.3	4.7	3	9.06	0.25	24.750	28.000	1.00	24	1.375	1.250	172.3
20	1.1	8.3	4.7	3	9.06	0.25	27.000	30.500	1.00	24	1.375	1.250	210.5
24	1.1	8.3	4.7	3	9.06	0.25	32.000	36.000	1.00	24	1.625	1.500	248.6

Applications





Teekay Dismantling Joints facilitate the easy access and removal of equipment when it comes to long-term maintenance of piping systems. Rather than moving large sections of fixed pipework, use the Dismantling Joint to create space and easy access to pumps, valves and flowmeters.

Teekay Dismantling Joints enable up to 4" of longitudinal adjustment. Each joint comes with a Teekay Axiflex coupling and axial restraint is provided by the high tensile steel tie bars.

Coupling Material Selection

Type I

Casing: AISI 304 / DIN 1.4301
Fasteners: Alloy Steel, Coated
Gasket: EPDM/NBR/H-NBR/FKM/VMQ

Type II

Casing: AISI 304 / DIN 1.4301
Fasteners: AISI 316 / 316L
Gasket: EPDM/NBR/H-NBR/FKM/VMQ

Type IV

Casing: AISI 316L / DIN 1.4404
Fasteners: AISI 316 / 316L
Gasket: EPDM/NBR/H-NBR/FKM/VMQ

Type V

Casing: High strength steel
Coating: Rilsan/PVC/
 Epoxy/Galvanized
Fasteners: Alloy Steel, Coated
Gasket: EPDM/NBR/H-NBR/FKM/VMQ

Type VI

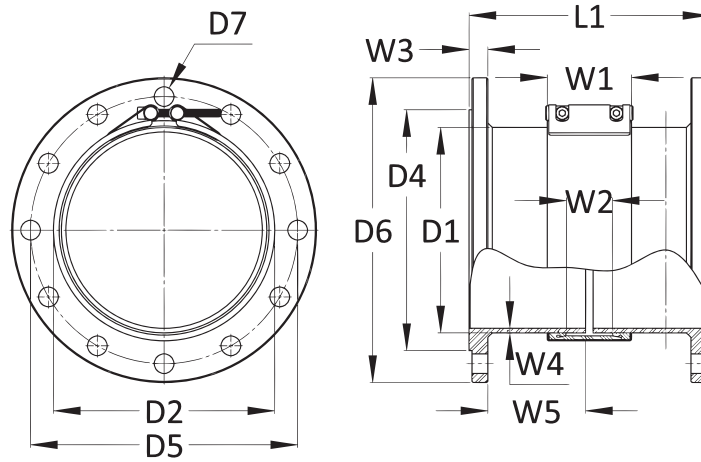
Casing: High strength steel
Coating: Rilsan/PVC/
 Epoxy/Galvanized
Fasteners: AISI 316 / 316L
Gasket: EPDM/NBR/H-NBR/FKM/VMQ



- Sizes:** Smallest OD = 1½", Largest OD = 164".
- Dismantling Joint materials:** Stainless Steel Options = AISI 304 / AISI 316L.
Coated Steel Options = Galvanized / Rilsan / PVC / Epoxy
- Gaskets:** EPDM -40 °F to +212 °F, NBR -4 °F to +176 °F, HNBR -4 °F to +266 °F, FKM -4 °F to +356 °F, VMQ -94 °F to +392 °F (*water*), -94 °F to +356 °F (*steam*)
- Pipe Materials:** Carbon steel, cast and ductile iron, stainless steel, copper, cunifer, GRP

1.4462 Duplex casings and fasteners available on request.

Dismantling Joint Dimensions



Dismantling Joint ANSI 150LB & AWWA C207-01 D

Size	Overall Length		Coupling Details			Working Pressure	Tie Bar Details			Flange Details					Approx. Weight
	NB (in)	L1 (minimum) (in)	L1 (maximum) (in)	W1 Coupling Width (in)	No. of Screws		Screw Size	Working Pressure (psi)	No. of Tie Bars	Diameter (in)	Length (in)	D5 Pitch Circle Diameter (in)	D6 Flange O.D. (in)	D7 Bolt Hole Diameter (in)	
1½	4.00	5.75	3.3	2	M8	175	4	0.500	11.75	2.875	5.00	0.625	0.500	4	19.5
2	4.00	5.75	3.3	2	M8	175	4	0.625	11.75	3.625	6.00	0.750	0.500	4	22.0
2½	4.00	5.75	3.3	2	M8	175	4	0.625	11.75	4.125	7.00	0.750	0.500	4	26.0
3	5.00	6.75	4.3	2	M10	175	4	0.625	11.75	5.000	7.50	0.750	0.500	4	27.5
4	5.00	6.75	4.3	2	M10	175	4	0.625	11.75	7.500	9.00	0.750	0.500	8	34.2
5	5.00	6.75	4.3	2	M10	175	4	0.750	11.75	8.500	10.00	0.875	0.500	8	44.9
6	5.00	6.75	4.3	2	M10	175	4	0.750	12.00	9.500	11.00	0.875	0.500	8	59.4
8	6.00	7.75	4.3	2	M10	175	4	0.750	12.00	11.750	13.50	0.875	0.750	8	68.2
10	6.00	7.75	4.3	2	M10	175	4	0.875	13.00	14.250	16.00	1.000	0.750	12	74.8
12	7.50	10.00	5.5	2	M10	175	4	0.875	13.00	17.000	19.00	1.000	0.750	12	107.8
14	7.50	10.00	5.5	2	M10	150	4	1.000	18.00	18.750	21.00	1.125	1.000	12	138.6
16	7.50	10.00	5.5	2	M10	150	4	1.000	19.00	21.250	23.50	1.125	1.000	16	169.4
18	7.50	10.00	5.5	2	M16	150	4	1.125	19.00	22.750	25.00	1.250	1.000	16	198.0
20	7.50	10.00	5.5	2	M16	150	4	1.125	20.00	25.000	27.50	1.250	1.000	20	220.0
24	7.50	10.00	5.5	2	M16	150	4	1.250	20.25	29.500	32.00	1.375	1.000	24	257.4
28	10.50	13.75	8.3	3	M16	150	6	1.250	22.25	34.000	36.50	1.375	1.000	28	360.8
30	10.50	13.75	8.3	3	M16	150	6	1.250	22.50	36.000	38.75	1.375	1.000	28	414.7
32	10.50	13.75	8.3	3	M16	150	7	1.500	22.50	38.500	41.75	1.625	1.000	28	468.6
36	10.50	13.75	8.3	3	M16	150	8	1.500	23.10	42.750	46.00	1.625	1.000	32	512.6
40	10.50	13.75	8.3	3	M16	150	9	1.500	24.00	47.250	50.75	1.625	1.000	36	638.0
44	10.50	13.75	8.3	3	M16	150	9	1.500	26.00	51.750	55.25	1.625	1.000	40	797.5
48	12.50	15.75	8.3	3	M16	150	11	1.500	26.00	56.000	59.50	1.625	1.500	44	1051.6
52	12.50	15.75	8.3	6	M16	90	12	1.750	26.00	60.500	64.00	1.875	1.500	44	1178.0
54	12.50	15.75	8.3	6	M16	90	12	1.750	26.00	62.750	66.25	1.875	1.500	44	1241.3
60	12.50	15.75	8.3	6	M16	90	13	1.750	34.25	69.250	73.00	1.875	1.500	52	1501.5
66	12.50	16.50	8.3	6	M16	90	13	1.750	34.25	76.000	80.00	1.875	1.500	52	1698.4
72	12.50	16.50	8.3	6	M16	90	16	1.750	36.00	82.500	86.50	1.875	1.500	60	1889.8
78	12.50	16.50	8.3	6	M16	90	16	2.000	37.75	89.000	93.00	2.125	1.500	64	2103.7
84	15.25	19.25	8.3	12	M16	90	16	2.000	39.25	95.500	99.75	2.125	2.375	64	3091.0
90	15.25	19.25	8.3	12	M16	60	17	2.250	39.25	102.000	106.50	2.438	2.375	68	4085.4
96	15.25	19.25	8.3	12	M16	60	17	2.250	39.25	108.500	113.25	2.438	2.375	68	5306.4

Dismantling Joint

ANSI 300LB & AWWA C207-01 F

Size	Overall Length		Coupling Details			Tie Bar Details			Flange Details					Approx. Weight
NB (in)	L1 (minimum) (in)	L1 (maximum) (in)	W1 Coupling Width (in)	No. of Screws	Screw Size	No. of Tie Bars	Diameter (in)	Length (in)	D5 Pitch Circle Diameter (in)	D6 Flange O.D. (in)	D7 Bolt Hole Diameter (in)	W3 Flange Thickness (in)	No. of Bolts	(lb)
1½	4.0	5.75	3.3	2	M8	4	0.625	11.75	4.500	6.125	0.750	0.50	4	21.5
2	4.0	5.75	3.3	2	M8	4	0.625	11.75	5.000	6.500	0.750	0.50	8	25.0
2½	4.0	5.75	3.3	2	M8	4	0.625	11.75	5.875	7.500	0.750	0.50	8	28.5
3	5.0	6.75	3.3	2	M8	4	0.625	11.75	6.625	8.250	0.750	0.50	8	31.5
4	5.0	6.75	4.3	2	M10	4	0.625	11.75	7.875	10.000	0.875	0.50	8	38.3
5	5.5	7.25	4.3	2	M10	4	0.625	12.50	9.250	11.000	0.875	0.75	8	56.5
6	5.5	7.25	4.3	2	M10	4	0.625	12.50	10.625	12.500	0.875	0.75	12	70.5
8	6.0	7.75	4.3	2	M10	4	0.875	12.50	13.000	15.000	1.000	0.75	12	92.4
10	6.5	8.25	5.5	2	M16	4	1.000	13.50	15.250	17.500	1.125	1.00	16	152.4
12	7.5	10.0	5.5	2	M16	4	1.000	13.50	17.750	20.500	1.125	1.00	16	196.5
14	7.5	10.0	5.5	2	M16	4	1.125	18.00	20.250	23.000	1.250	1.00	20	246.0
16	7.5	10.0	5.5	2	M16	4	1.250	19.00	22.500	25.500	1.375	1.00	20	298.0
18	10.5	13.75	8.3	3	M16	5	1.250	22.75	24.750	28.000	1.375	1.00	24	354.0
20	10.5	13.75	8.3	3	M16	5	1.250	24.00	27.000	30.500	1.375	1.00	24	412.0
24	10.5	13.75	8.3	3	M16	5	1.500	24.00	32.000	36.000	1.625	1.00	24	488.0

NOTE: Actual working pressure for the Dismantling Joints in the table above is 300 psi

NOTES:

The above tables are guides to the most common sizes. Couplings to suit specific outside diameters not listed may be manufactured to order. Please contact us for further details.



Square Coupling

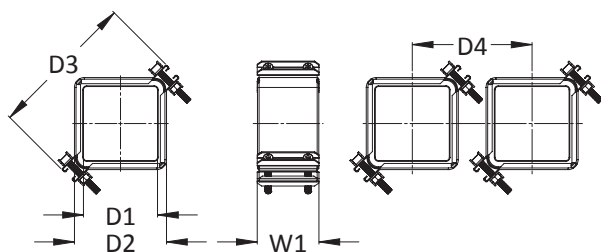
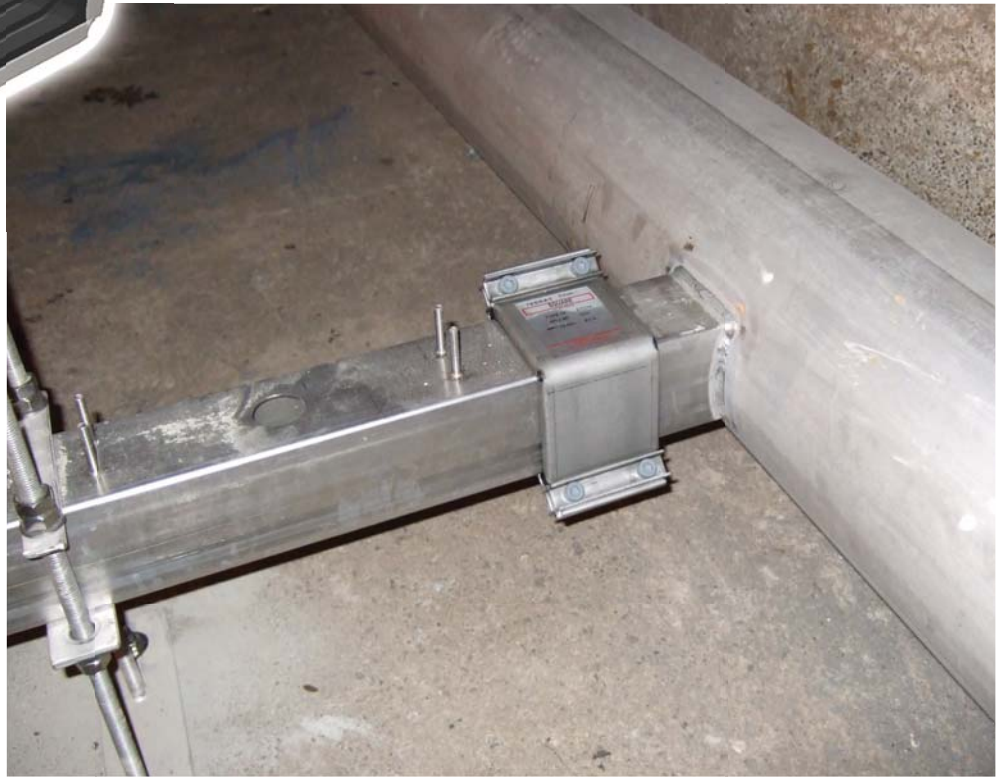


Teekay Square Couplings provide a comprehensive solution to joining box section without the need for hot working onsite. Available in 2.36", 3.15" and 3.94" sizes, the square coupling lends itself to the joining of aeration pipes. Expansion and contraction can also be accommodated as the coupling is supplied as a non-anchoring type. High temperature gasket options are available.

Material Selection

Type IV

Casing: AISI 316L / DIN 1.4404
Fasteners: AISI 316 / 316L
Gasket: EPDM/NBR/H-NBR/FKM/VMQ



Sizes:

2.36", 3.15" and 3.94".

Gaskets:

EPDM -40 °F to +212 °F, NBR -4 °F to +176 °F, HNBR -4 °F to +266 °F, FKM -4 °F to +356 °F, VMQ -94 °F to +392 °F (*water*), -94 °F to +356 °F (*steam*)

Pipe Materials:

Box section

D1 Size	D2 Coupling O.D.	Pipe O.D. Tolerance	D3 Coupling O.A.	D4 Minimum P-P	W1 Width	Weight
(in)	(in)	(in)	(in)	(in)	(in)	(lb)
2.36	3.46	2.28 / 2.44	6.10	5.12	3.35	2.03
3.15	4.25	3.07 / 3.23	6.89	5.71	3.35	2.38
3.94	5.04	3.86 / 4.02	8.07	6.81	3.35	2.76

NOTES:

The above tables are guides to the most common sizes. Couplings to suit specific outside diameters not listed may be manufactured to order. Please contact us for further details.



Whilst the Teekay Pipe Coupling range is easy and simple to install and use onsite, it is necessary to take external forces and environments into account when carrying out any installations. The following pages outline these elements and offer general installation guidelines and principles for good piping practice. Detailed piping system design should only be undertaken by independent professionals or specialists.

Installation Guide

Pipe Materials

Teekay **Axilock** Pipe Couplings are primarily designed to join metallic pipes. Other pipe materials, such as rigid plastics and GRP, can also be joined under certain circumstances. Soft plastic materials, such as PE, must be fitted with internal stiffeners (these should be specifically requested at time of order) but will not resist pull out forces generated by cold creep. Please contact us prior to joining non-metallic pipe materials.

Teekay **Axiflex** Pipe Couplings are suitable for use with the following piping materials:

- Carbon Steel (seamless, longitudinally or spirally welded)
- Stainless Steel (seamless or longitudinally welded), metric thin wall or standard schedule sizes
- Cast or Ductile Iron
- Concrete
- Asbestos Cement
- Glass Reinforced Plastic (GRP)

- Fibre Reinforced Polyester (FRP) centrifugally cast or spirally wound
- PVC and uPVC
- High Density Polyethylene (HDPE) and MDPE
- Polybutylene, Polypropylene and ABS



Angular Misalignment



Maximum angle of deflection for **Axilock** Pipe Couplings:

Pipe Size O.D.	Maximum Angle of Deflection
(in)	
0.84 – 2.37	5°
2.37 – 8.63	4°
8.63 – 16.00	2°
16.00 – 28.00	1°

Maximum angle of deflection for **Axiflex** Pipe Couplings:

Pipe Size ND	Coupling Width	Maximum Angle of Deflection
(in)	(in)	
1½ – 4	3.3	5°
3 – 12	4.3	5°
6 – 20	5.5	5°
24 – 28	5.5	3.5°
32 – 48	5.5	2°
8 – 28	8.3	5°
32 – 48	8.27	3°
52 – 72	8.27	2°
76 – 120	8.27	1°
8 – 32	12.20 / 16.20	5°
36 – 52	12.20 / 16.14	3°
56 – 92	12.20 / 16.14	2°
96 – 120	12.20 / 16.14	1°

Please note: Maximum angle of deflection assumes that the coupling spans the angle evenly.

Allowable pipe diameter tolerances

Type of Teekay Coupling	Pipe Outside Diameter	Coupling Width	Outside Diameter Tolerance
	(in)	(in)	(in)
Axilock-S Axilock Axilock-FP Axilock-FP Ultra	0.84 – 1.38	1.77	+ / - 0.01
	1.50 – 2.24	2.5 / 3.35	+ / - 0.04
	2.37 – 16.89	3.35 / 4.33	+ 0.08 / - 0.04
	16.89 – 27.99	4.33	+ 0.08 / - 0.04
Axiflex Stepped Repair Coupling	0.84 – 1.38	1.8	+ / - 0.01
	1.50 – 1.75	2.5	+ / - 0.04
	1.90 – 3.00	3.3	+ / - 0.06
	3.25 – 4.92	3.3	+ / - 0.08
	3.50 – 5.90	4.3	+ / - 0.08
	6.02 – 7.63	4.3	+ / - 0.10
	7.87 – 12.83	4.3	+ / - 0.12
	6.02 – 7.63	5.5 L	+ / - 0.10
	7.87 – 25.00	5.5 L	+ / - 0.12
	6.63 – 6.69	5.5	+ / - 0.10
	11.46 – 13.60	5.5	+ / - 0.16
	13.98 – 49.41	5.5	+ / - 0.16
	8.63 – 13.60	8.3	+ / - 0.16
	13.98 – 49.41	8.3	+ / - 0.16
	49.45 – 92.52	8.3	+ / - 0.31
	92.56 – 120.08	8.3	+ / - 0.63
	12.40 – 12.83	12.20 / 16.20	+ / - 0.16
	13.14 – 49.41	12.20 / 16.14	+ / - 0.16
	49.45 – 64.21	12.20 / 16.14	+ / - 0.31
	64.25 – 92.52	12.20 / 16.14	+ / - 0.63
92.56 – 120.08	12.20 / 16.14	+ / - 0.63	

Distance between Pipe Ends

For Axilock-S, Axilock, Axilock-FP and Axilock-FP Ultra couplings the optimum distance between pipe ends is 0" to 0.20". This allows for expansion and contraction, suction and vacuum, pipe deflection and a reasonable cutting tolerance.

For Axiflex, Stepped and Repair couplings the recommended gap between pipe ends depends on the width of the coupling and whether or not a vacuum ring is fitted. When the gap is exceeded (or in all vacuum applications) a vacuum insert must be fitted. The table gives the maximum pipe gaps for these couplings:

Coupling Width	Maximum Pipe Gap (without vacuum ring)	Maximum Pipe Gap (with vacuum ring)
(in)	(in)	(in)
3.3	0.20	0.79
4.3	0.20	1.18
5.5	0.39	1.57
8.3	0.79	1.97
12.2	1.18	4.33
16.2	1.18	5.91

- maximum pipe gap without a vacuum ring can be doubled on applications where intrusion of the rubber gasket into the pipe gap is not a problem.
- maximum pipe gap with a vacuum ring is limited by the maximum angle of deflection. If the angle of deflection is less than the maximum allowable angle of deflection, the maximum pipe gap (with vacuum ring) can be increased accordingly.

Installation Guide

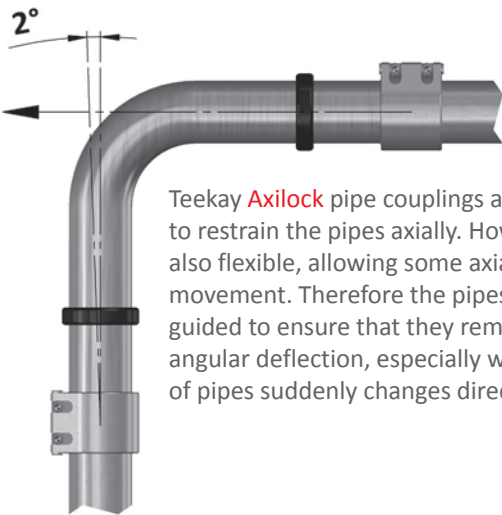
Teekay **Axilock** pipe couplings can accommodate up to 0.24" expansion/contraction in a straight line. At changes in direction make sure that any resultant angular deflection is restricted to a maximum of 2°.

Teekay **Axiflex** couplings can accept thermal expansion or contraction of the pipeline by axial movement through the coupling or by the angulation of two couplings. In either case the pipeline should be adequately restrained. If it is not possible to place the intermediate anchors between the couplings, the Teekay **Axiflex** coupling can be supplied with an integral central register to locate the coupling.

The recommended maximum pipe axial expansion or contraction which can be accepted by one coupling is as follows:

Coupling Width	Pipe Expansion / Contraction
(in)	(in)
3.3	0.10
4.3	0.30
5.5	0.57
8.3	0.98
12.2	1.38
16.2	1.38

Support & Restraint



Teekay **Axilock** pipe couplings are designed to restrain the pipes axially. However, they are also flexible, allowing some axial and angular movement. Therefore the pipes should be guided to ensure that they remain within 2° angular deflection, especially where a long run of pipes suddenly changes direction.

Buried pipelines can generally be restrained by means of thrust blocks at major changes in direction. Straight runs and minor curves are usually restrained by soil friction. The same is largely true of gravity or very low pressure pipelines running along the ground, although with certain thermoplastic piping materials special attention should be given to restraining the forces generated by excessive expansion, contraction and creep.

For above ground applications pipelines should be anchored.

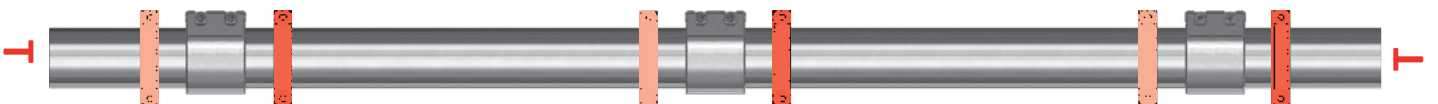
Intermediate anchors should be designed to withstand the forces and movements transferred and imposed upon them by each of the pipe sections to which they are attached, taking into account such forces as friction, wind load, self weight, and changes in fluid momentum.



Above ground pipelines subject to side thrusts, or required to be used to absorb angular deflections or lateral displacements, must be adequately restrained and supported.

Supporting of the pipeline for shear deadweight must be carried out to ensure that no excessive sagging occurs beyond the limits of angular deflection of the coupling. Support pitching will depend on pipe material, diameter, wall thickness and operating temperature.

A simple method of harnessing pipelines is by welding lugs to the pipe and connecting them with tie rods.



Shock, vibration, water hammers

Due to the design of the gasket, Teekay couplings dampen sound, vibration and water hammer. Shock levels to military requirements can also be accommodated. In the case of Teekay Axiflex couplings for applications where excessive vibration might occur, the couplings can be supplied with central registers to locate the pipe coupling in position.

Electrical Conductivity

In Teekay Axilock pipe couplings electrical conductivity is conveyed through the coupling casing by the anchor rings. In Teekay Axiflex pipe couplings stainless steel continuity clips are fitted to prevent the build-up of static electricity. These should be specifically requested at time of order.



Central Register

For above ground applications where there is a possibility that the coupling may move along the pipe due to excessive vibration, expansion and contraction etc. the Teekay Axiflex Pipe Coupling can be supplied with a central register. The central register is a circumferential ridge integral to the gasket and serves to locate the coupling on the pipeline, thereby preventing its movement. (This should be specifically requested at time of order).



Bracketed Couplings

Teekay Bracketed Pipe Couplings can be provided with brackets of various designs welded to the coupling casing which can then be bolted to any convenient support.



Installation Kit

The following are available to purchase separately or as a complete kit:



Pipe lubricant for easier installation of large diameter couplings



Speed brace for taking up the slack on the fasteners prior to tightening the coupling with a torque wrench



Socket adaptors



Soft mallets (to ensure good seating on large diameter couplings)



Torque wrenches

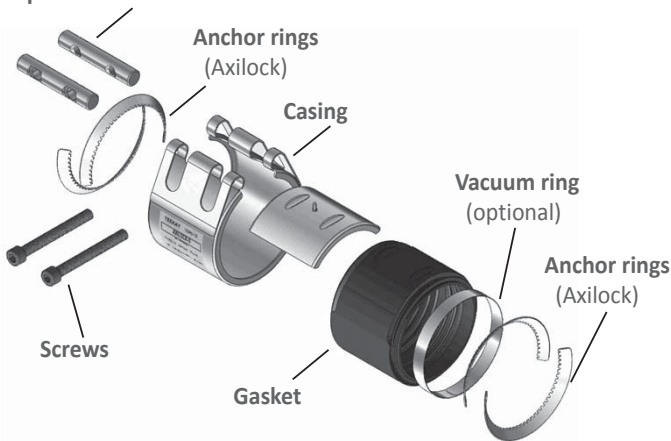
Installation Guide

Please check the following before installation to ensure that your Teekay pipe coupling works perfectly.

1. Handling of Teekay Couplings

- Do not drop the coupling.
- Keep the coupling clean – leave it in its packaging until you are ready to use it.
- Do not dismantle the coupling.
- Check that anchor rings are present on both sides if you are using axially resistant couplings (Axilock) and if you have requested a vacuum ring, please check that it is in place.
- The coupling can be installed up to 10 times according to application.
- After 3 installations the pre-lubricated screws may require further lubrication.

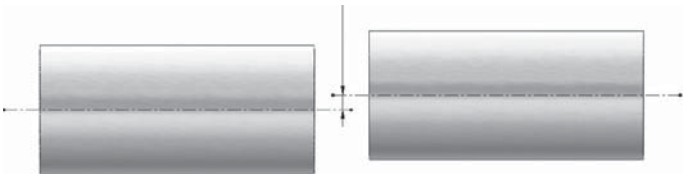
Lockpart with solid bars



2. Pipe Lines

Pipe offset

- Make sure that the pipes are straight. The maximum acceptable pipe offset is 0.12" or 1% of the pipe diameter, whichever is smaller.



Test Pressure

Water is used as the testing medium for Teekay coupling pressure tests. Test pressure = 1.5 x wp. To find out about the pressure resistance when other media are used, please contact us.

Angular Deflection

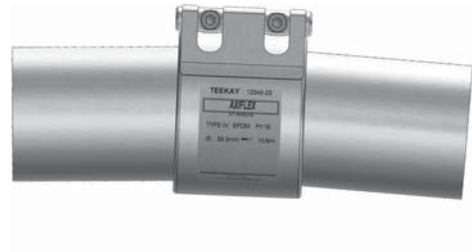
- Maximum angulation for **Axilock Couplings**

Pipe size O.D. (in)	Max. angle of angulation
0.84 – 2.37	5°
2.37 – 8.63	4°
8.63 – 16.00	2°
16.00 – 28.00	1°

- Maximum angulation for **Axiflex Couplings**

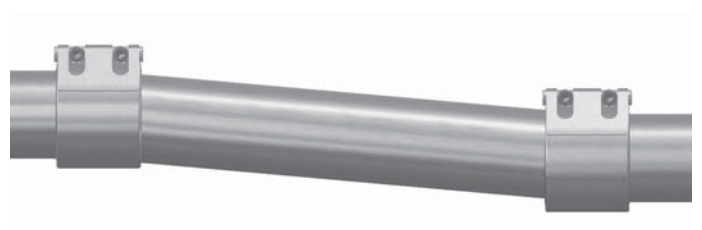
Nominal pipe size (in)	Coupling width (in)	Max. angulation
1½ – 4	3.3	5°
3 – 12	4.3	5°
6 – 20	5.5	5°
24 – 28	5.5	3.5°
32 – 48	5.5	2°
8 – 28	8.3	5°
32 – 48	8.27	3°

See brochure page 36 for other widths.



Lateral Displacement

- Lateral displacement may be accommodated by the use of two Teekay Couplings with an intermediate length of pipe.

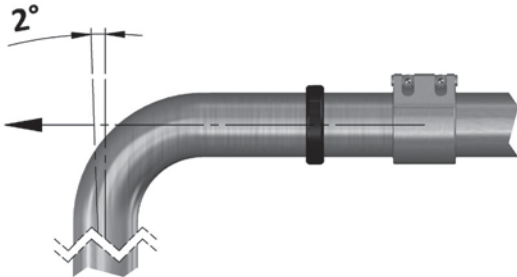


Expansion

- Axilock couplings can accommodate up to 0.24" of expansion, in a straight line.



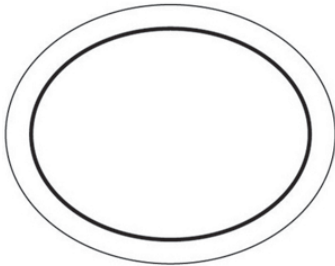
- At changes of direction, any resultant **angulation must not exceed 2°.**



For Axiflex see brochure page 38.

Ovality

- Teekay Axiflex pipe couplings are sufficiently flexible to accept a misshape within the pipe cross section provided the out-of-roundness is fairly evenly distributed around the circumference (oval rather than D shaped). **Depending on application and pipe material, up to 8% ovality may be accommodated.**



Installation

Do not exceed the limits listed in Section 2 and do not add them up. They refer to the static load on radially stiff pipes. A safety factor must be included for dynamic loads such as water hammer, shear forces, etc. (please contact us for information).
Stepped Couplings require anchoring against thrust on the side of the smaller pipe in pressure applications.

3. Installation Examples

For information, please go to Page 44.

Please observe the following instructions prior to, during and after the installation of the coupling.

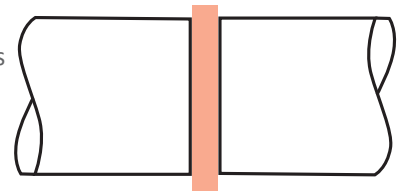
1. Prior to Installation

- The pipe ends should be cut square and all sharp edges and burrs must be removed.
- The pipe surface must be clean and smooth with no loose material in the region of the sealing lips.

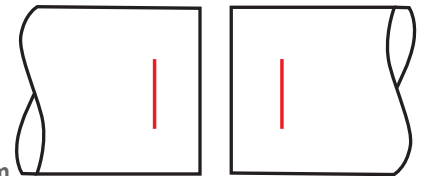
- The optimum **distance between the pipe ends for Axilock couplings is max. 0.20"**.

- Measure half the width of the coupling and deduct 0.1". Mark the pipe ends using this dimension. This will ensure that the pipe ends will not obstruct each other and that the coupling will sit centrally over the pipe ends after installation.

max. 0.20"

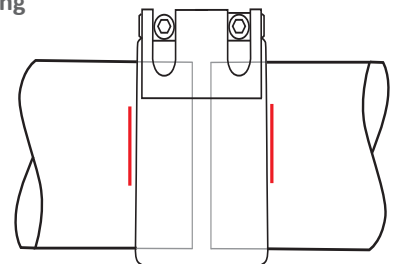


- If you are working with Axiflex couplings, the distance between the pipe ends will depend on the coupling width and **the use of a vacuum ring.** See brochure page 37.

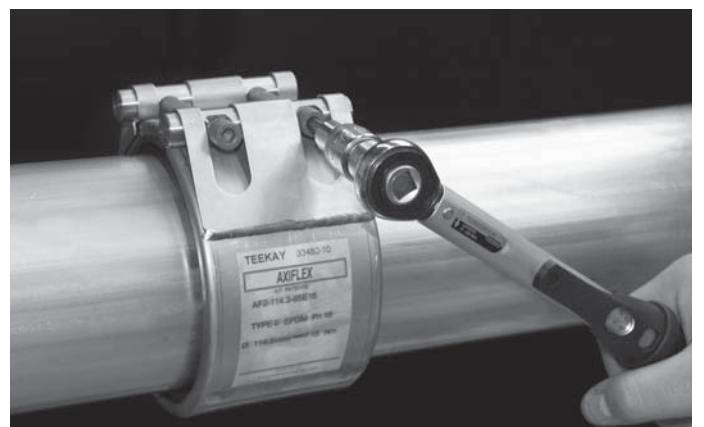


2. Installation of the Coupling

- Slide the coupling over the pipe and align it with the markings on the pipe ends. Tighten the pipe supports before tightening the coupling. Check that the pipes are not misaligned or angulated.



- Using a torque wrench, tighten the screws evenly, alternating from screw to screw until both "click off". **Make sure you comply with the required torque.** (See information on the label, description on Page 45.)



- See Section 4 (After Installation).

Installation Guide

Repair Coupling

Suitable also for permanent use.

3. Repair Coupling Installation

(Axiflex couplings that can be opened and wrapped around the pipe)

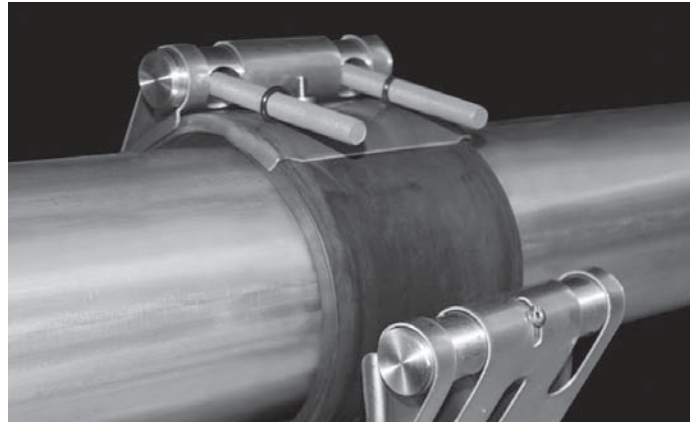
- Loosen the coupling screws.
- Place the opened coupling around the pipe.



- Insert the loose end of the gasket into the "tongue" located on the other side of the coupling.



- Make sure that the two ends of the gasket are flush against each other.



- Using a torque wrench, tighten the screws evenly, alternating from screw to screw until **both** "click off". **Make sure you comply with the required torque.** (See information on the label, description on Page 45.)
- For Axiflex, Repair- & Stepped Couplings > 24" lubricate pipe ends prior to installation.
- Use a soft mallet on the casing during tightening to ensure uniform gasket compression.



4. After Installation

- Check that the lockpart is parallel.
- In the unlikely event of leakage, follow the dismantling instructions on page 43.

Torque

The couplings do not require any maintenance and must not be retightened once the torque has been reached.

Please note: The torque rating is set to allow for reduction to include a factor for gasket settlement.

We recommend you mark the coupling once the screws have been torqued up. This will ensure that you and others know that the screws have been tightened.

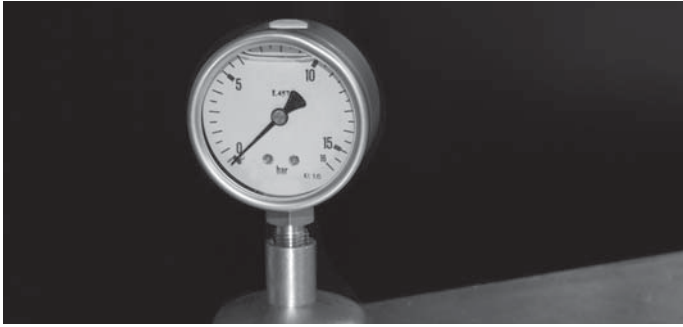
If you are unsure as to whether the screws have already been tightened, loosen the screws completely and repeat the installation from scratch.



Please observe the following instructions prior to, during and after the dismantling of the coupling.

1. Prior to Dismantling

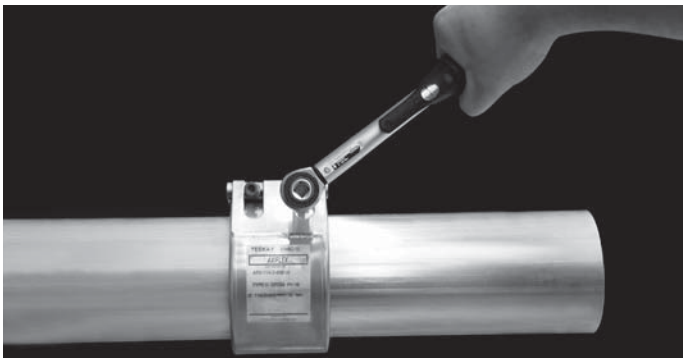
- Ensure that there is no pressure in the pipes at the joint to be removed.



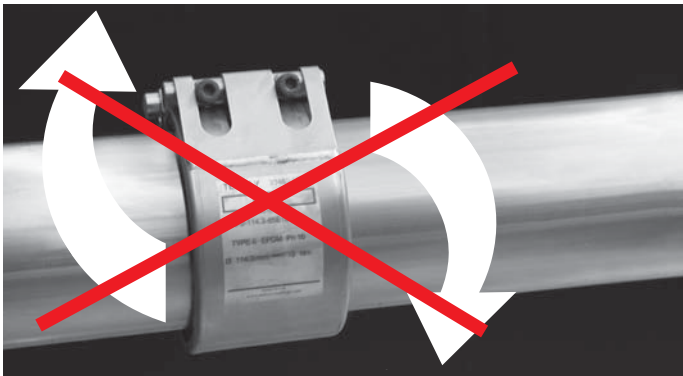
- Protect yourself and equipment from spilling liquid.
- Make sure the pipe coupling is not supporting the pipe ends.

2. Dismantling the Coupling

- Loosen the screws evenly by alternating between them but do not remove completely.

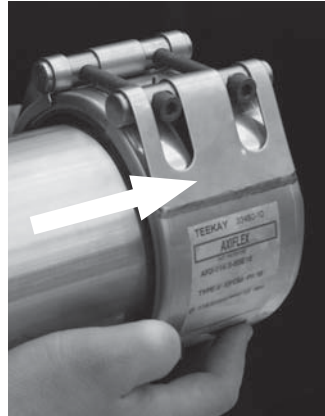


- Do not rotate the pipe coupling on the pipe as long as the anchor teeth are engaged (Axilock only).



Removal of the coupling

Slide the coupling off the pipe cautiously. Make sure that the gasket sealing lips are not damaged in the process.



- Clean the coupling.



Condition of the seal

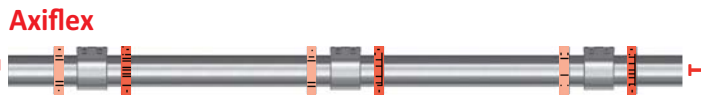
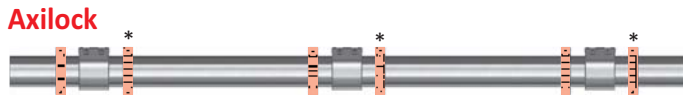
If the end seal of the Axilock coupling is partially severed, you can reinsert it.

(The purpose of the end seal is to protect the anchor ring.)



Installation Guide

Guidelines for pressurised systems (side view)

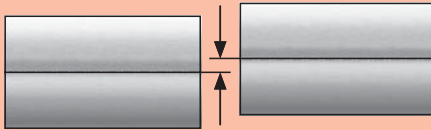


Axiflex pipe couplings are not designed to accept end load pressures. As a result, pipes must generally be anchored against internal pressure at changes in direction, branches, valves and at pipe ends and secured by fixed points and guides.

Shear force

Teekay pipe couplings should not be subjected to excessive shear force. The pipes should be fixed and supported.

Shear Force see Lateral Displacement (Page 40).



Loose guides

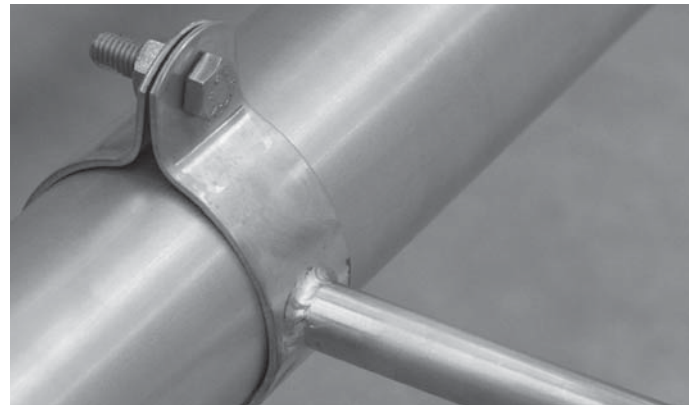
general

* optional

Has to be capable of accommodating the weight of the pipe including its contents e.g. a saddle or pipe support

Fixed point

Must absorb axial forces, e.g. anchored pipe clamp



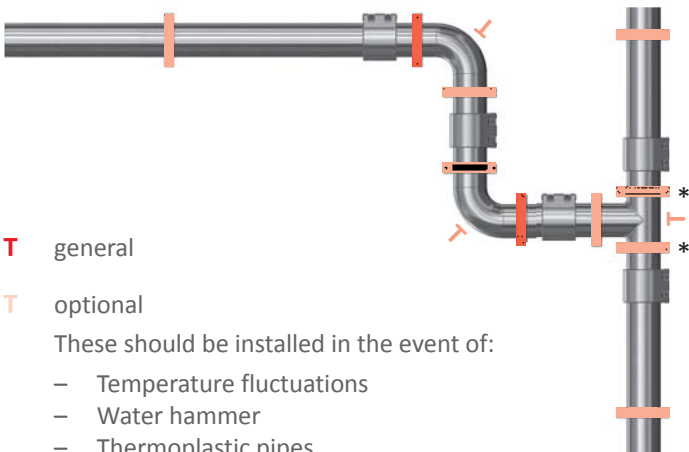
Straight underground pipelines

Straight underground pipelines are usually restrained by soil friction. Changes of direction have to be controlled by means of thrust blocks.

T Thrust block

Its purpose is to prevent pipe movement, e.g. puddle flange, wall penetration or concrete block.

Axilock



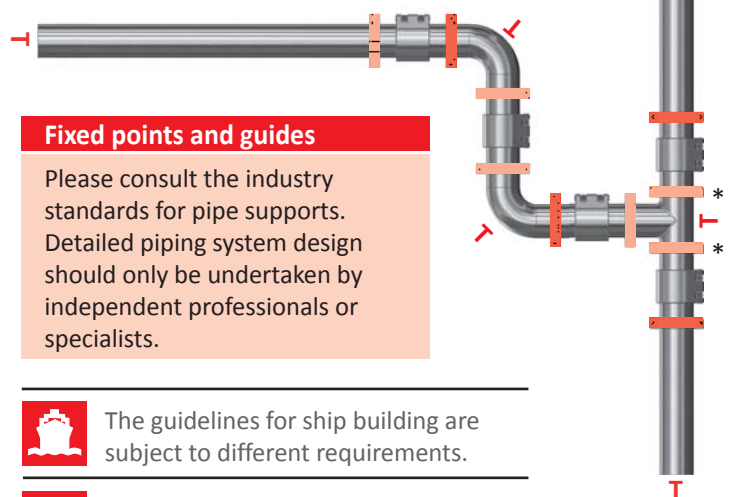
T general

T optional

These should be installed in the event of:

- Temperature fluctuations
- Water hammer
- Thermoplastic pipes
- Stainless steel pipes
- Long pipe runs
- Heavy wall thickness pipes

Axiflex



Fixed points and guides

Please consult the industry standards for pipe supports. Detailed piping system design should only be undertaken by independent professionals or specialists.



The guidelines for ship building are subject to different requirements.

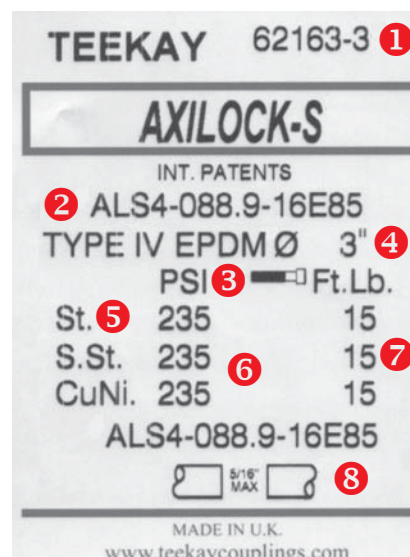
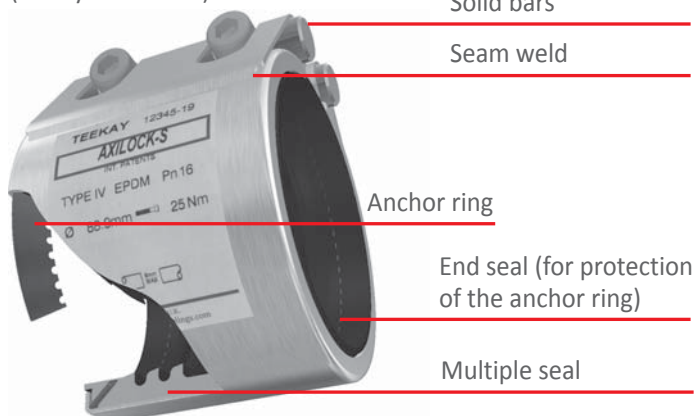


If you have questions regarding coupling installation, please contact us.

Product Description and Label Details

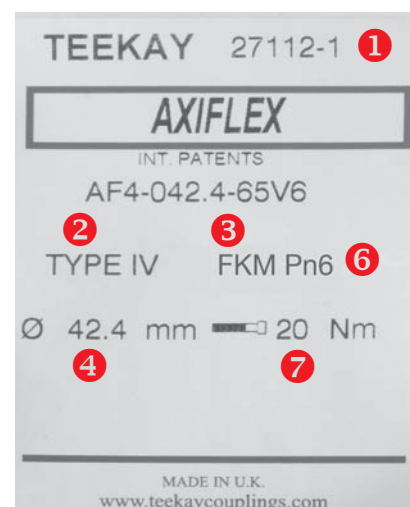
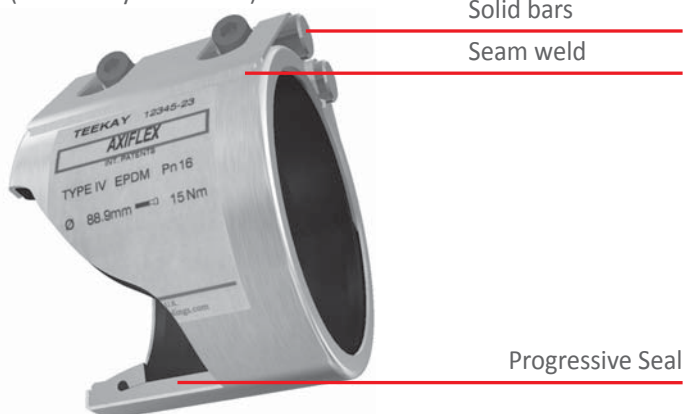
Teekay-Axilock

(axially restrained)



Teekay-Axiflex

(non axially restrained)



1 Traceability number

Please advise when requesting documentation retrospectively.

2 Description of the material

Type I = Casing 304 stainless steel
Lockpart alloy steel coated
Type II = Casing 304 stainless steel
Lockpart 316 stainless steel
Type IV = Casing 316L stainless steel
Lockpart 316 stainless steel

3 Gasket material

EPDM = -40 °F to +212 °F
NBR = - 4 °F to +176 °F
HNBR = - 4 °F to +266 °F
FKM = - 4 °F to +356 °F
VMQ = -94 °F to +392 °F (water),
-94 °F to +356 °F (steam)

4 Pipe outside diameter

5 Pipe material

St = Carbon Steel
St.St. = Stainless steel
CuNi. = Copper nickel

6 Operating pressure – Axilock range

The operating pressure indicated applies to standard wall carbon steel pipes.

For use on thin or soft pipe materials such as thin wall stainless, copper alloy or plastic (by way of example only) please check with us first.

7 Tightening torque for screws

See Page 42 (Torque)

8 Maximum pipe gap

See Page 41 (Prior to Installation)

Build Quality

There are many different types of pipe couplings and pipe connections on the market; stainless steel couplings, cast iron couplings, push-fit couplings, grooved couplings.....

At Teekay we consider build quality to be one of the most important aspects of manufacturing a well-engineered and user-friendly product. We know that good build quality hugely improves the life and performance of the product. Listed below are some features which make the Teekay product range stand out from the rest:

TIG welded seam

When fastening the coupling, the section of the casing that has to withstand the most stress is the area where the "ear" is welded to the outer casing. We TIG weld this section with a strong seam weld and then passivate it so there is no chance of corrosion when exposed to the elements. The seam weld provides uniform strength across the whole width of the casing, ensuring the strongest possible connection. We never spot weld this area of the coupling.



Solid bars and 2 screws on each coupling

Teekay couplings come with solid bars which are spot-faced in order to reduce stress points on the screw head. The solid bar prevents corrosion of the screw thread and provides extra strength in the lockpart. All Teekay couplings are supplied with a minimum of 2 screws. This design feature is crucial to the secure fastening of the coupling across its entire width. The coating on each screw is a dry lubricant which negates the need for greasing the lockpart.



Unique Axilock multi-seal gasket

All Teekay Axilock-S, Axilock, Axilock-FP and Axilock-FP Ultra couplings come with a unique multi-seal gasket design which provides greater sealing security when compared with a single seal design. There is a high volume of material-to-space ratio which ensures long term sealing efficiencies.



Encapsulated anchor rings

All Teekay Axilock-S, Axilock, Axilock-FP and Axilock-FP Ultra couplings come with patented encapsulated anchor rings. This small section of rubber massively increases the life of the coupling by preventing any possible corrosion of the anchor rings. The teeth in the rings bite through the rubber and lock the pipes in place, leaving none of the teeth exposed when the coupling is installed. The rubber seal over the anchor ring also protects users when handling the coupling.



TERMS AND CONDITIONS OF SALE

The following is an extract only from our terms and conditions of sale. For full terms and conditions of sale, please see the Company's website (www.teekaycouplings.com), copies available otherwise upon request. The customer's attention is drawn in particular to the provisions of clauses 6 and 10.

1. **DEFINITIONS** – please see full terms and conditions on our website, copies available otherwise upon request.
 2. **CONSTRUCTION** – please see full terms and conditions on our website, copies available otherwise upon request.
 3. **BASIS OF CONTRACT** – please see full terms and conditions on our website, copies available otherwise upon request.
 - 3.1 These Conditions apply to the Contract to the exclusion of any other terms that the Customer seeks to impose or incorporate, or which are implied by trade, custom, practice or course of dealing...3.5 Any samples, drawings, descriptive matter, or advertising produced by the Company and any descriptions or illustrations contained in the Company's brochures are produced for the sole purpose of giving an approximate idea of the Goods described in them. They shall not form part of the Contract or have any contractual force...
 4. **GOODS** – please see full terms and conditions on our website, copies available otherwise upon request.
 - 4.1 The Goods are described in the Acknowledgment...geometry, dimensions and designs are subject to design and manufacturing changes without notice.
 5. **DELIVERY** – please see full terms and conditions on our website, copies available otherwise upon request.
 6. **QUALITY** – please see full terms and conditions on our website, copies available otherwise upon request.
 - 6.1 The Company warrants that on delivery, and for a period of 12 months from the date of delivery ("warranty period"), the Goods shall conform in all material respects with the details given in the Acknowledgment and be free from material manufacturing defects.
 - 6.2 Subject to clause 10.3, if: the Customer gives notice in writing to the Company during the warranty period within a reasonable time of discovery that some or all of the Goods do not comply with the warranty set out in clause 6.1; and the Company is given a reasonable opportunity of examining such Goods; and the Customer (if asked to do so by the Company) returns such Goods to the Company's place of business; the Company shall, at its option, repair or replace the defective Goods, or refund the price of the defective Goods in full.
 - 6.3 Except as provided in this clause 6, the Company shall have no liability to the Customer in respect of the Goods' failure to comply with the warranty set out in clause 6.1. To the fullest extent permitted by law, the terms implied by sections 13 to 15 of the Sale of Goods Act 1979 are excluded from the Contract and the Company gives no warranty either express or implied of fitness of Goods for any particular purpose (whether known to the Company or not) nor makes any other warranty either express or implied.
 7. **TITLE AND RISK** – please see full terms and conditions on our website, copies available otherwise upon request.
 - 7.1 The risk in the Goods shall pass to the Customer when the Company despatches the Goods from its premises.
 - 7.2 Title to the Goods shall not pass to the Customer until the earlier of:
 - 7.2.1 the Company receives payment in full for the Goods and any other goods that the Company has supplied to the Customer in respect of which payment has become due, in which case title to the Goods shall pass at the time of payment of all such sums; and
 - 7.2.2 the Customer resells the Goods, in which case title to the Goods shall pass to the Customer at the time specified in clause 7.4.
 - 7.3 Until title to the Goods has passed to the Customer, the Customer shall: store the Goods separately from all other goods so that they remain readily identifiable as the Company's property; maintain the Goods in satisfactory condition and keep them insured against all risks from the date of delivery; notify the Company immediately if it becomes subject to any of the events listed in clause 9.1; give the Company such information relating to the Goods as the Company may require from time to time; and not remove, deface or obscure any identifying mark or packaging on or relating to the Goods.
 - 7.4 If the Customer resells the Goods before the Company receives payment for the Goods: it does so as principal and not as the Company's agent; and title to the Goods shall pass from the Company to the Customer immediately before the time at which resale by the Customer occurs.
 - 7.5 If before title to the Goods passes to the Customer the Customer becomes subject to any of the events listed in clause 9.1, then, without limiting any other right or remedy the Company may have: the Customer's right to resell or use the Goods ceases immediately; and the Company may at any time require the Customer to deliver up all Goods in its possession which have not been resold, or irrevocably incorporated into another product, and if the Customer fails to do so promptly, enter any premises of the Customer or of any third party where the Goods are stored in order to recover them.
 8. **PRICE AND PAYMENT** – please see full terms and conditions on our website, copies available otherwise upon request.
 - 8.1 The price of the Goods shall be the price set out in the Acknowledgment.
 - 8.2 The Company may, by giving notice to the Customer at any time before delivery, increase the price of the Goods to reflect any increase in the cost of the Goods that is due to: any factor beyond the Company's control (including foreign exchange fluctuations, increases in taxes and duties, and increases in labour, materials and other manufacturing costs); any request by the Customer to change the delivery date(s), quantities or types of Goods ordered, or any other aspect of the Order; or any delay caused by any instructions of the Customer or failure of the Customer to give the Company adequate or accurate information or instructions.
 - 8.3 The price of the Goods is exclusive of value added tax ("VAT"), any other relevant taxes and the costs and charges of packaging and transport of the Goods, which shall be invoiced to the Customer. The Customer shall, on receipt of a valid VAT invoice from the Company, pay to the Company such additional amounts in respect of VAT as are chargeable on the supply of the Goods.
 - 8.5 Unless otherwise stated in the Acknowledgment the Customer shall pay the Company's invoice in full within 30 days of the date of the invoice to the bank account nominated in writing by the Company. Time of payment is of the essence.
 - 8.6 If the Customer fails to make any payment due to the Company under the Contract by the due date for payment, then the Customer shall pay interest on the overdue amount at the rate of 4% per annum above National Westminster Bank PLC's base rate from time to time, accruing on a daily basis from the due date until actual payment of the overdue amount, whether before or after judgment. The Customer shall pay the interest together with the overdue amount.
 - 8.7 The Customer shall pay all amounts due under the Contract in full without any set-off, counterclaim, deduction or withholding (except for any deduction or withholding required by law). The Company may at any time, without limiting any other rights or remedies it may have, set off any amount owing to it by the Customer against any amount payable by the Company to the Customer.
 9. **TERMINATION AND SUSPENSION** – please see full terms and conditions on our website, copies available otherwise upon request.
 10. **LIMITATION OF LIABILITY** – please see full terms and conditions on our website, copies available otherwise upon request.
 - 10.1 Nothing in these Conditions shall limit or exclude the Company's liability for: death or personal injury caused by its negligence, or the negligence of its employees, agents or subcontractors (as applicable); fraud or fraudulent misrepresentation; breach of the terms implied by section 12 of the Sale of Goods Act 1979; or any matter in respect of which it would be unlawful for the Company to exclude or restrict liability.
 - 10.2 Subject to clause 10.1:
 - 10.2.1 the Company shall under no circumstances whatsoever be liable to the Customer, whether in contract, tort (including negligence), breach of statutory duty, or otherwise, for any loss of profit, or any indirect or consequential loss arising under or in connection with the Contract; and
 - 10.2.2 the Company's total liability to the Customer in respect of all other losses arising under or in connection with the Contract, whether in contract, tort (including negligence), breach of statutory duty, or otherwise, shall in no circumstances exceed the lower of (i) 5 times the price of the Goods and (ii) £10,000.
 - 10.3 Subject to clause 10.1, the Company shall have no liability under the Contract, including for the failure of any Goods to comply with the warranty set out in clause 6.1, if the damage, loss or defect arises:
 - 10.3.1 because the Customer failed to follow the Company's instructions (available at the Company's website www.teekaycouplings.com or on request) as to the storage, commissioning, installation, use and maintenance of the Goods; or
 - 10.3.2 because the Customer failed to install the piping system otherwise than in accordance with best industry practice (the Customer acknowledging that the Company is not a designer of piping systems and that the design of piping systems should be undertaken by persons that are experts in that field, and acknowledging that the Company's installation guide relates to the installation of the Goods only and not of the piping system); or
 - 10.3.3 because of corrosive or abrasive conditions or any working conditions exceeding or differing from those advised by the Company.
 11. **FORCE MAJEURE** – please see full terms and conditions on our website, copies available otherwise upon request.
 12. **GENERAL** – please see full terms and conditions on our website, copies available otherwise upon request.
- ...12.8 **Governing law and Jurisdiction.** The Contract, and any dispute or claim arising out of or in connection with it or its subject matter or formation (including non-contractual disputes or claims), shall be governed by, and construed in accordance with the law of England and Wales. Each party irrevocably agrees that the courts of England and Wales shall have exclusive jurisdiction to settle any dispute or claim arising out of or in connection with this Contract or its subject matter or formation (including non-contractual disputes or claims).

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The contents of this brochure give general information about the products we make. It is not intended to be a piping system design manual. Piping system design should only be undertaken by independent professionals or specialists.

Although we make reasonable efforts to update the information in our brochures, we make no representations warranties or guarantees, whether express or implied, that the content of this brochure is the most accurate, complete or up-to-date version and consequently to the fullest extent permitted by law errors and omissions are excepted.

This brochure was originally written in the English language and, in the event of any conflict inconsistency or discrepancy between the English language version and any translation, the English language version shall apply.

INTERNATIONAL PATENTS AND TRADEMARKS



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