

Pressure Ratings and End Loads

DUCTILE IRON GROOVED END COUPLING PERFORMANCE ON ALUMINUM PIPE


Style 07 Zero-Flex® Coupling

Style 77 Flexible Coupling

Style 75 Standard Coupling

Style 741 Vic-Flange® Adapter

Pipe Inches/millimeters					Style 07		Style 77		Style 75		Style 741	
Nominal Size Inches mm	Diameter Inches mm	Wall Thickness	Sched.	R = Roll C = Cut	Maximum		Maximum		Maximum		Maximum	
					Work. * Press. PSI/kPa	End * Load Lbs./N	Work. * Press. PSI/kPa	End * Load Lbs./N	Work. * Press. PSI/kPa	End * Load Lbs./N	Work. * Press. PSI/kPa	End * Load Lbs./N
¾ 20	1.050 26,7	0.154 3,91	80	C	NOT APPLICABLE		1,000 6900	865 3850	NOT APPLICABLE		NOT APPLICABLE	
		0.113 2,87	40	R/C			800 5500	695 3095				
		0.083 2,11	10	R			600 4130	520 2315				
		0.065 1,65	5	R			500 3450	440 1960				
1 25	1.315 33,7	0.179 4,55	80	C	NOT APPLICABLE		1,000 6900	1,360 6050	NOT APPLICABLE		NOT APPLICABLE	
		0.133 3,38	40	R/C			800 5500	1,090 4850				
		0.109 2,77	10	R			600 4130	815 3625				
		0.065 1,65	5	R			500 3450	680 3025				
1¼ 32	1.660 42,4	0.191 4,85	80	C	NOT APPLICABLE		1,000 6900	2,160 9610	NOT APPLICABLE		NOT APPLICABLE	
		0.140 3,56	40	R/C			800 5500	1,730 7700				
		0.109 2,77	10	R			600 4130	1,300 5785				
		0.065 1,65	5	R			500 3450	1,080 4805				
1½ 40	1.900 48,3	0.200 5,08	80	C	750 5175	2,130 9480	1,000 6900	2,835 12615	500 3450	1,420 6320	NOT APPLICABLE	
		0.145 3,56	40	R/C	750 5175	2,130 9480	800 5500	2,270 10100	500 3450	1,420 6320		
		0.109 2,77	10	R	600 4130	1,700 7565	600 4130	1,700 7565	500 3450	1,420 6320		
		0.065 1,65	5	R	500 3450	1,420 6320	500 3450	1,420 6320	500 3450	1,420 6320		
2 50	2.375 60,3	0.218 5,54	80	C	750 5175	3,320 14775	1,000 6900	4,430 19715	500 3450	2,215 9855	250 1725	1,105 4915
		0.154 3,91	40	R/C	750 5175	3,320 14775	800 5500	3,545 15775	500 3450	2,215 9855	250 1725	1,105 4915
		0.109 2,77	10	R	600 4130	2,660 11835	600 4130	2,660 11835	500 3450	2,215 9855	150 1035	665 2970
		0.065 1,65	5	R	500 3450	2,215 9855	500 3450	2,215 9855	500 3450	2,215 9855	150 1035	665 2970

Table continued on page 2.

*Refer to Notes on page 5.

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Style 07 Zero-Flex® Coupling



Style 77 Flexible Coupling



Style 75 Standard Coupling



Style 741 Vic-Flange® Adapter

Pipe Inches/millimeters					Style 07 Maximum		Style 77 Maximum		Style 75 Maximum		Style 741 Maximum	
Nominal Size Inches mm	Diameter Inches mm	Wall Thickness	Sched.	R = Roll C = Cut	Work. * Press. PSI/kPa	End * Load Lbs./N	Work. * Press. PSI/kPa	End * Load Lbs./N	Work. * Press. PSI/kPa	End * Load Lbs./N	Work. * Press. PSI/kPa	End * Load Lbs./N
2½ 65	2.875 73,0	0.276 7,01	80	C	750 5175	4,875 21695	1,000 6900	6,490 28880	500 3450	3,245 14440	250 1725	1,620 7210
		0.203 5,16	40	R/C	750 5175	4,875 21695	800 5500	5,200 23140	500 3450	3,245 14440	250 1725	1,620 7210
		0.120 3,05	10	R	600 4130	3,800 16910	600 4130	3,800 16910	500 3450	3,245 14440	150 1035	975 4340
		0.083 2,11	5	R	500 3450	3,245 14440	500 3450	3,245 14440	500 3450	3,245 14440	150 1035	975 4340
3 O.D.	3.000 76,1	0.250 6,35	–	R/C	NOT APPLICABLE		1,000 6900	7,070 31460	NOT APPLICABLE		250 1725	1,765 7855
		0.200 5,08	–	R			800 5500	5,660 25185			250 1725	1,765 7855
		0.150 3,81	–	R			600 4130	4,240 18870			150 1035	1,060 4715
3 80	3.500 88,9	0.300 7,62	80	C	750 5175	7,225 32150	1,000 6900	9,620 42810	500 3450	4,800 21360	250 1725	2,400 10680
		0.216 5,49	40	R/C	750 5175	7,225 32150	800 5500	7,700 34265	500 3450	4,800 21360	250 1725	2,400 10680
		0.120 3,05	10	R	500 3450	4,800 21360	500 3450	4,800 21360	500 3450	4,800 21360	150 1035	1,440 6410
		0.083 2,11	5	R	400 2750	3,850 17130	400 2750	3,850 17130	400 2750	3,850 17130	150 1035	1,440 6410
3½ 90	4.000 101,6	0.318 8,08	80	C	NOT APPLICABLE		1,000 6900	12,565 55915	500 3450	6,300 28035	NOT APPLICABLE	
		0.226 5,74	40	R/C			800 5500	10,055 44745	500 3450	6,300 28035		
		0.120 3,05	10	R			400 2750	5,025 22360	400 2750	5,025 22360		
		0.083 2,11	5	R			300 2065	3,770 16775	300 2065	3,770 16775		
4 100	4.500 114,3	0.337 8,56	80	C	750 5175	11,930 53090	800 5500	12,720 56605	500 3450	7,950 35380	250 1725	3,975 17690
		0.237 6,02	40	R/C	600 4130	9,540 42455	600 4130	9,540 42455	500 3450	7,950 35380	250 1725	3,975 17690
		0.120 3,05	10	R	350 2410	5,565 24765	350 2410	5,565 24765	350 2410	5,565 24765	150 1035	2,385 10615
		0.083 2,11	5	R	250 1725	3,975 17690	250 1725	3,975 17690	250 1725	3,975 17690	150 1035	2,385 10615
4½ 120	5.000 127,0	0.247 6,27	–	R/C	NOT APPLICABLE				450 3100	8,820 39250	NOT APPLICABLE	
		0.120 3,05	–	R					200 1375	3,920 17445		
		0.095 2,41	–	R					200 1375	3,920 17445		
5 125	5.563 141,3	0.375 9,53	80	C	750 5175	18,225 81100	800 5500	19,445 86530	450 3100	10,935 48660	250 1725	6,075 27035
		0.258 6,55	40	R/C	600 4130	14,585 64905	600 4130	14,585 64905	450 3100	10,935 48660	250 1725	6,075 27035
		0.134 3,40	10	R	300 2065	7,290 32440	300 2065	7,290 32440	300 2065	7,290 32440	150 1035	3,645 16220
		0.109 2,77	5	R	250 1725	6,075 27035	250 1725	6,075 27035	250 1725	6,075 27035	150 1035	3,645 16220
5½ O.D.	5.500 139,7	0.250 6,35	–	R/C	NOT APPLICABLE				450 3100	10,685 47550	NOT APPLICABLE	
		0.200 5,08	–	R					300 2065	3,555 15820		
		0.150 3,81	–	R					200 1375	3,555 15820		

Table continued on page 3.

*Refer to Notes on page 5.



Style 07 Zero-Flex® Coupling



Style 77 Flexible Coupling



Style 75 Standard Coupling



Style 741 Vic-Flange® Adapter

Pipe Inches/millimeters					Style 07 Maximum		Style 77 Maximum		Style 75 Maximum		Style 741 Maximum	
Nominal Size Inches mm	Diameter Inches mm	Wall Thickness	Sched.	R = Roll C = Cut	Work. * Press. PSI/kPa	End * Load Lbs./N	Work. * Press. PSI/kPa	End * Load Lbs./N	Work. * Press. PSI/kPa	End * Load Lbs./N	Work. * Press. PSI/kPa	End * Load Lbs./N
6 O.D.	6.000 152,4	0.250 6,35	–	R/C	NOT APPLICABLE				450 3100	8,490 37780	NOT APPLICABLE	
		0.200 5,08	–	R					300 2065	4,245 18890		
		0.150 3,81	–	R					200 1375	4,245 18890		
6 150	6.625 168,3	0.432 10,97	80	C	600 4130	20,680 92025	600 4130	20,680 92025	450 3100	15,525 69090	250 1725	8,625 38380
		0.280 7,11	40	R/C	600 4130	20,680 92025	600 4130	20,680 92025	450 3100	15,525 69090	250 1725	8,625 38380
		0.134 3,40	10	R	200 1375	6,895 30685	200 1375	6,895 30685	200 1375	6,895 30685	150 1035	5,175 23030
		0.109 2,77	5	R	200 1375	6,895 30685	200 1375	6,895 30685	200 1375	6,895 30685	150 1035	5,175 23030
6½ O.D.	6.500 165,1	0.250 6,35	–	R/C	NOT APPLICABLE		600 4130	19,900 88555	450 3100	14,940 66485	250 1725	8,300 36935
		0.200 5,08	–	R			200 1375	6,640 29550	200 1375	6,640 29550	250 1725	8,300 36935
		0.150 3,81	–	R			200 1375	6,640 29550	200 1375	6,640 29550	150 1035	4,980 22160
8 O.D.	8.000 203,2	0.250 6,35	–	R/C	NOT APPLICABLE				200 1375	10,060 44765	NOT APPLICABLE	
		0.200 5,08	–	R					100 690	5,030 22385		
8 200	8.625 219,1	0.322 8,18	40	R/C	400 2750	23,370 103995	400 2750	23,370 103995	300 2065	17,500 77875	250 1725	14,600 64970
		0.277 7,04	30	R/C	300 2065	17,500 77875	300 2065	17,500 77875	150 1035	8,765 39005	250 1725	14,600 64970
		0.148 3,76	10	R	NOT APPLICABLE		150 1035	8,765 39005	100 690	5,840 25990	150 1035	8,750 38940
		0.109 2,77	5	R			100 690	5,840 25990	100 690	5,840 25990	100 690	5,840 25990
10 O.D.	10.000 254,0	0.250 6,35	–	R/C	NOT APPLICABLE				200 1375	15,700 69865	NOT APPLICABLE	
10 250	10.750 273,0	0.365 9,27	40	R/C	300 2065	27,200 121040	300 2065	27,200 121040	NOT APPLICABLE		250 1725	22,700 101015
		0.307 7,80	30	R/C	200 1375	15,700 69865	200 1375	15,700 69865			250 1,725	22,700 101,015
		0.165 4,19	10	R	NOT APPLICABLE		75 517	6,800 30260			75 517	6,800 30260
		0.134 3,40	5	R			75 517	6,800 30260			75 517	6,800 30260
12 O.D.	12.000 204,8	0.250 6,35	–	R/C	NOT APPLICABLE				200 1375	22,600 100570	NOT APPLICABLE	
12 300	12.750 323,9	0.375 9,53	STD	R/C	300 2065	38,300 170435	300 2065	38,300 170435	NOT APPLICABLE		250 1725	31,900 141955
		0.330 8,38	30	R/C	200 1375	25,500 113475	200 1375	25,500 113475			250 1725	31,900 141955
		0.180 4,57	10	R	NOT APPLICABLE		75 517	9,575 42610			75 517	9,575 42610
		0.156 3,96	5	R			75 517	9,575 42610			75 517	9,575 42610

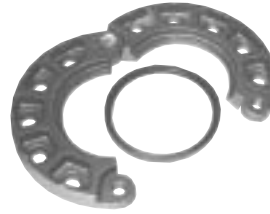
Refer to Notes on page 5.



Style 78 Snap-Joint® Coupling



Style 791 Vic-Boltless® Coupling



Style 743 Vic-Flange® Adapter



Style HP-70 Rigid Coupling

Pipe Inches/millimeters					Style 78 Maximum		Style 791 Maximum		Style 743 Maximum		Style HP-70 Maximum	
Nominal Size Inches mm	Diameter Inches mm	Wall Thickness	Sched.	R = Roll C = Cut	Work. * Press. PSI/kPa	End * Load Lbs./N	Work. * Press. PSI/kPa	End * Load Lbs./N	Work. * Press. PSI/kPa	End * Load Lbs./N	Work. * Press. PSI/kPa	End * Load Lbs./N
1 25	1.315 33,7	0.179 4,55	80	C	300 2065	410 1825	NOT APPLICABLE					
		0.133 3,38	40	R/C	300 2065	410 1825						
		0.109 2,77	10	R	300 2065	410 1825						
		0.065 1,65	5	R	300 2065	410 1825						
1¼ 32	1.660 42,4	0.191 4,85	80	C	300 2065	650 2890	NOT APPLICABLE					
		0.140 3,56	40	R/C	300 2065	650 2890						
		0.109 2,77	10	R	300 2065	650 2890						
		0.065 1,65	5	R	300 2065	650 2890						
1½ 40	1.900 48,3	0.200 5,08	80	C	300 2065	850 3780	NOT APPLICABLE					
		0.145 3,56	40	R/C	300 2065	850 3780						
		0.109 2,77	10	R	300 2065	850 3780						
		0.065 1,65	5	R	300 2065	850 3780						
2 50	2.375 60,3	0.218 5,54	80	C	300 2065	1,330 5920	700 4825	3,100 13795	300 2065	1,330 5920	1,000 6900	4,430 19715
		0.154 3,91	40	R/C	300 2065	1,330 5920	700 4825	3,100 13795	300 2065	1,330 5920	800 5500	3,545 15775
		0.109 2,77	10	R	300 2065	1,330 5920	600 4130	2,660 11835	250 1725	1,105 4915	600 4130	2,660 11835
		0.065 1,65	5	R	300 2065	1,330 5920	500 3450	2,215 9855	250 1725	1,105 4915	500 3450	2,215 9855
2½ 65	2.875 73,0	0.276 7,01	80	C	300 2065	1,950 8680	700 4825	4,540 20200	300 2065	1,950 8680	1,000 6900	6,490 28880
		0.203 5,16	40	R/C	300 2065	1,950 8680	700 4825	4,540 20200	300 2065	1,950 8680	800 5500	5,200 23140
		0.120 3,05	10	R	300 2065	1,950 8680	600 4130	3,800 16910	250 1725	1,620 7210	600 4130	3,900 17355
		0.083 2,11	5	R	300 2065	1,950 8680	500 3450	3,245 14440	250 1725	1,620 7210	500 3450	3,245 14440
3 O.D.	3.000 76,1	0.250 6,35	–	R/C	300 2065	2,120 9435	NOT APPLICABLE					
		0.200 5,08	–	R	300 2065	2,120 9435						
		0.150 3,81	–	R	300 2065	2,120 9435						
3 80	3.500 88,9	0.300 7,62	80	C	300 2065	2,885 12840	700 4825	6,730 29950	300 2065	2,885 12840	1,000 6900	9,620 42810
		0.216 5,49	40	R/C	300 2065	2,885 12840	700 4825	6,730 29950	300 2065	2,885 12840	800 5500	7,700 34265
		0.120 3,05	10	R	300 2065	2,885 12840	500 3450	4,800 21360	250 1725	2,400 10680	500 3450	4,800 21360
		0.083 2,11	5	R	300 2065	2,885 12840	400 2750	3,850 17130	250 1725	2,400 10680	400 2750	3,850 17130
4 100	4.500 114,3	0.337 8,56	80	C	300 2065	4,770 21225	700 4825	11,930 53090	300 2065	4,770 21225	800 5500	12,720 56605
		0.237 6,02	40	R/C	300 2065	4,770 21225	600 4130	9,540 42455	300 2065	4,770 21225	600 4130	9,540 42455
		0.120 3,05	10	R	300 2065	4,770 21225	350 2410	5,565 24765	250 1725	3,975 17690	350 2410	5,565 24765
		0.083 2,11	5	R	250 1725	3,975 17690	250 1725	3,975 17690	250 1725	3,975 17690	250 1725	3,975 17690

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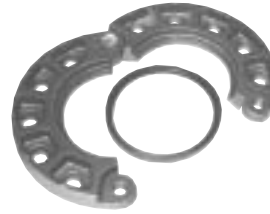
*Refer to Notes on page 5.



Style 78 Snap-Joint® Coupling



Style 791 Vic-Boltless® Coupling



Style 743 Vic-Flange® Adapter



Style HP-70 Rigid Coupling

Pipe Inches/millimeters					Style 78 Maximum		Style 791 Maximum		Style 743 Maximum		Style HP-70 Maximum	
Nominal Size Inches mm	Diameter Inches mm	Wall Thickness	Sched.	R = Roll C = Cut	Work. * Press. PSI/kPa	End * Load Lbs./N	Work. * Press. PSI/kPa	End * Load Lbs./N	Work. * Press. PSI/kPa	End * Load Lbs./N	Work. * Press. PSI/kPa	End * Load Lbs./N
5 125	5.563 141,3	0.375 9,53	80	C	300 2065	7,290 32440	NOT APPLICABLE		300 2065	7,290 32440	NOT APPLICABLE	
		0.258 6,55	40	R/C	300 2065	7,290 32440			300 2065	7,290 32440		
		0.134 3,40	10	R	300 2065	7,290 32440			250 1725	6,075 27035		
		0.109 2,77	5	R	250 1725	6,080 27055			200 1375	4,850 21580		
6 150	6.625 168,3	0.432 10,97	80	C	300 2065	10,350 46055	600 4130	20,680 92025	300 2065	10,350 46055	600 4130	20,700 92115
		0.280 7,11	40	R/C	300 2065	10,350 46055	600 4130	20,680 92025	300 2065	10,350 46055	600 4130	20,700 92115
		0.134 3,40	10	R	200 1375	6,900 30705	200 1375	6,895 30686	200 1375	6,895 30686	200 1375	6,900 30705
		0.109 2,77	5	R	200 1375	6,900 30705	200 1375	6,895 30686	200 1375	6,895 30686	200 1375	6,900 30705
6½ O.D.	6.500 165,1	0.250 6,35	–	–	300 2065	9,960 44320	NOT APPLICABLE					
		0.200 5,08	–	–	200 1375	6,640 29550						
		0.150 3,81	–	–	200 1375	6,640 29550						
8 200	8.625 219,1	0.322 8,18	40	R/C	300 2065	17,500 77875	400 2750	23,370 103995	300 2065	17,500 77875	400 2750	23,370 103995
		0.277 7,04	30	R/C	300 2065	17,500 77875	300 2065	17,500 77875	300 2065	17,500 77875	300 2065	17,500 77875
		0.148 3,76	10	R	150 1035	8,750 38940	150 1035	8,765 39005	150 1035	8,750 38940	150 1035	8,750 38940
		0.109 2,77	5	R	100 690	5,830 25945	100 690	5,840 25990	100 690	5,840 25990	100 690	5,840 25990
10 250	10.750 273,0	0.365 9,27	40	R/C	NOT APPLICABLE				300 2065	27,200 121040	300 2065	27,200 121040
		0.307 7,80	30	R/C					200 1375	15,700 69865	200 1375	15,700 69865
		0.165 4,19	10	R					75 515	6,800 30260	75 515	6,800 30260
		0.134 3,40	5	R					75 515	6,800 30260	75 515	6,800 30260
12 300	12.750 323,9	0.375 9,53	STD	R/C	NOT APPLICABLE				250 1725	31,900 141955	300 2065	38,300 170435
		0.330 8,38	30	R/C					250 1725	31,900 141955	200 1375	25,500 113475
		0.180 4,57	10	R					75 515	9,575 42610	75 515	9,575 42610
		0.156 3,96	5	R					75 515	9,575 42610	75 515	9,575 42610

*Many aluminum pipe manufacturers (extruders) roll groove alloys 6061-T6 and 6063-T6 at the point of manufacture. Roll grooving is done successfully prior to the final T6 tempering of the pipe. Often pipe in the T6 tempered state cracks when roll grooved, depending upon the pipe's mechanical properties, which vary from pipe to pipe. Victaulic has no control over these varying properties and cannot assure that the T6 tempered grades can be successfully roll grooved.

Pressure Ratings and End Loads for cut grooved pipe are based upon tests on pipe prepared in accordance with Victaulic specifications.

Pressure Ratings and End Loads for roll grooved pipe are based upon tests on pipe prepared in accordance with Victaulic specifications using Victaulic Vic-Easy® Roll Grooving Tools. Use of other equipment may adversely affect joint performance.

Aluminum pipe ratings are based on: alloy 6061-T4/6063-T4 – Schedule 80 cut grooved, Schedule 40 roll or cut grooved, Schedule 30 – 8, 10 & 12" roll or cut grooved, Schedule 5, 10 & 20 roll grooved ONLY; or alloy 6061-T6/6063-T6 – Schedule 40/80 cut groove ONLY, Schedule 30 – 8, 10 & 12" cut groove ONLY, Schedule 5, 10 & 20 grooving is NOT RECOMMENDED.