

INSTALLATION AND MAINTENANCE INSTRUCTIONS

Reverse Acting Rupture Disc Assemblies Rupture Disc Models: SRX, SRL, Axius, ATLAS, AGT Holder Models: SRX, SRL/SRLO, XL/XLO, ATLAS/ATLAS-LO

WARNING

- Read these instructions carefully and completely before attempting to unpack, install or service the rupture disc and holder.
- Do not vent a rupture disc assembly to an area where it would endanger personnel.
- Install the rupture disc assembly in such a way that equipment in the area will not prevent rupture disc from opening or be damaged by system discharge.
- A baffle plate on the outlet end of vent piping does NOT necessarily prevent potentially dangerous discharge.
- Piping should be braced to absorb shock when the rupture disc ruptures.
- Install the enclosed DANGER sign in a conspicuous location near the zone of potential danger.
- 1" (DN25) Axius is not suitable for liquid systems at burst pressures less than 20 PSIG (1.38 BARG) with an inlet piping length greater than 10 IN (25 cm)
- ¾" (DN20) Axius is not suitable for liquid systems at burst pressures less than 30 PISG (2.07 BARG) with an inlet piping length greater than 8 IN (20 cm)
- ATLAS not suitable for liquid systems in sizes 14" and larger.
- Spiral wound gaskets are not suitable for the following sizes and flange ratings:
 - 1" (DN20 & DN25) All flange ratings
 - 1.5" (DN40) 900-2500 ANSI and JIS 40k, 63k
 - 2" (DN50) 900-2500 ANSI and JIS 30k, 40k, 63k
 - 3" (DN80) JIS 30k, 40k, 63k
 - 4" (DN100) JIS 30k, 40k, 63k
- If the rupture disc features a fluoropolymer liner, do not remove this component.

NOTE: Rupture disc specifications and year of manufacture can be found on the rupture disc tag.

Disc	Holder Model											
Model	SRX	SRL/	XL/	ATLAS/								
		SRLO	XLO	ATLAS-LO								
SRX	✓											
SRL		✓	√*									
Axius		√ **	~									
ATLAS				\checkmark								
AGT			~									

- *1.5" SRL disc not compatible with 1.5" XL/XLO holder
- **1.5" Axius disc not compatible with 1.5" SRL/SRLO holder

INSPECTION/PREPARATION A. NEW RUPTURE DISCS

WARNING: Always handle the rupture disc with extreme caution. Nicks, dents, scratches or foreign material may result in leakage or affect the burst pressure. Read the rupture disc tag completely before installing to confirm that the size and type are correct for your system.

1. Carefully remove the rupture disc from its packaging container.

- 2. Inspect the rupture disc for damage. Look for dents, scratches or dings in the seat area or dents in the dome of the rupture disc (See Figure 1).
- 3. If foreign material is present, carefully clean the rupture disc with a solvent that is compatible with your media.





NOTE: Handle rupture disc holders with care. Damage to the rupture disc holder could affect the performance of the rupture disc. Do not install or use a rupture disc that has been damaged!

B. NEW HOLDER

- 1. Carefully take the rupture disc holder apart by removing the sideclips or capscrews and discard the white shipping protector (See Figure 2).
- 2. Inspect the seat area for scratches, dents, nicks or dirt. Flaws may adversely affect sealing and burst pressure.
- 3. If necessary, clean dust or dirt on the seat area with a solvent that is compatible with your media.



Figure 2 - Insert Holder (Top) and Pre-torqueable Holder

C. EXISTING HOLDER

- 1. For insert style holders, carefully remove the rupture disc assembly from piping.
- 2. Separate rupture disc holder components.
- 3. Remove old rupture disc.
- Inspect the seat area of the rupture disc holder. Look for scratches, nicks, corrosion or deposits left from the media.

5. Check to make sure the gasket faces of the assembly are flat by placing a straight edge across the face. If faces are not flat, holder is not suitable for use (See Figure 3).



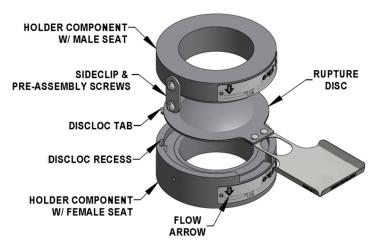
Figure 3 - Measuring for Flatness

6. If necessary, clean the seat area with a solvent that is compatible with your media. If this does not remove dirt, hand polish the seat area with Scotch Brite fine emery cloth or #0000 steel wool. DO NOT MACHINE THE RUPTURE DISC HOLDER! If scratches, nicks, corrosion, or deposits cannot be removed by hand, contact the factory.

ASSEMBLY

WARNING: Before attempting to assemble the rupture disc and rupture disc holder, confirm that the seat area of the rupture disc is designed to fit the rupture disc holder.

1. Place holder component with female seat on a work surface (See Figures 4, 5, & 6).





- 2. If the holder was supplied with an optional o-ring groove, install an o-ring into the groove of the component with the female seat. Note: Use of an o-ring is for improved sealing and is not required for proper function of the rupture disc assembly. Do not install an o-ring unless the holder is designed to accept these components by Fike!
- Place rupture disc into holder component with female seat with flow arrow on tag pointing in the same direction as holder component with female seat flow arrow. DiscLoc[™] tab, if present, must seat properly in recess.
- 4. If the holder was supplied with an optional o-ring groove, install an o-ring into the groove of the component with the male seat. Note: Use of an o-ring is for improved sealing and is not required for proper function of the rupture disc assembly. Do not install an o-ring unless the holder is designed to accept these components by Fike!
- 5. Carefully align and place holder component with male seat onto rupture disc with flow arrow in the same direction as disc and holder component with female seat flow arrows.

CAUTION: Be careful to not allow the male seat component to strike or damage the dome of the rupture disc!

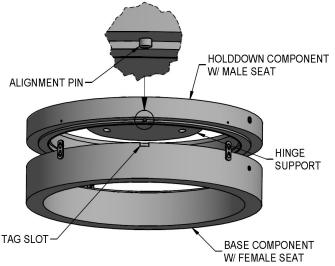


Figure 5 – Alignment pin fitting in tag slot. (ATLAS sizes 14" and larger")

WARNING: For ATLAS sizes 14" and larger, ensure that the alignment pin in the holddown fits into the tag slot of base (see Figure 5) and check the gap (see Figure 7). Fragmentation or leaking can occur if this feature is not aligned properly.

- 6. Rotate component with male seat to align sideclip holes.
- 7. If holder configuration is Insert, install sideclips and tighten securely.
- If holder configuration is TQ, turn assembly over to access capscrew holes (depending on design).
 Note: It may be beneficial to move/tilt or support the holder to first install a few capscrews evenly around the perimeter before turning the assembly over.
- If holder configuration is TQ or TQ+, lubricate uncoated capscrews with a light oil such as SAE grade 20. Lubricate both the threads and the underside of the head. Install lubricated capscrews and tighten until recessed and snug in the holder (see Figure 6).

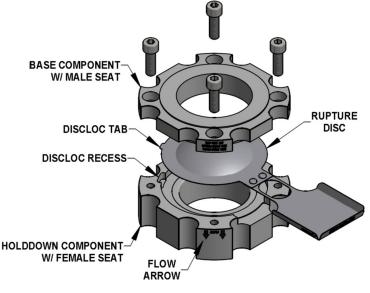


Figure 6 – Pre-torqueable Holder (TQ+ configuration shown)

10. Check gap between base and holddown. The gap must be the same size on all sides of the assembly. This can be assured by measuring the distance between the holddown and base at various places around the circumference of the assembly. Adjust pre-assembly screws if necessary to provide an even gap (See Figure 7).



Figure 7 - Gap Inspection

 If holder configuration is TQ or TQ+, torque capscrews to values shown in Table 2 using crisscross pattern in 20% increments until the full torque is achieved on all capscrews.

Capscrew	Tor	que
Size	ft-lb	N-m
1/4"	4	5
5/16"	8	11
3/8"	12	16
7/16"	20	27
1/2"	30	41
5/8"	60	81
3/4"	100	136
7/8"	160	217
M8	10	14
M10	17	23
M12	29	39
M24	221	300

Table 2 –	TQ &	TQ+	Capscrew	Torque
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Note: Torque values are based on a nut factor, K = 0.20.

12. If holder configuration is TQ or TQ+, reconfirm the gap per step 10 after the capscrews are torqued per Table 2.

INSTALLATION

- Place gaskets on top and bottom of assembly. Gaskets subject to relaxation or cold flow are not recommended for use with the holder assembly. Spiral wound gaskets are not suitable for certain sizes and flange ratings. Reference warning notes on page 1.
- 2. Carefully slide rupture disc assembly between companion flanges.

WARNING: For installations directly under a pressure relief valve that utilize a spool/spacer, ensure spool/spacer is installed between the outlet of the holder and inlet of the pressure relief valve. SRLO, XLO, and ATLAS-LO holder sizes 12" and smaller are not suitable for direct-coupling to a pressure relief valve; they must utilize a high-profile holddown, spool, or a suitable spacer. Atlas holders 14" and larger require a spool piece if under a pressure relief valve. Refer to Fike Technical Bulletin TB8105 for code requirements.

WARNING: Double check the orientation of the rupture disc. Verify flow arrows on the holder and disc tag are pointed in the same direction as process flow.

- If necessary, clean threads on studs and nuts. Wire brushing is usually sufficient. Oil studs with a light oil such as SAE grade 20. Do not use studs and nuts that show evidence of galling.
- 4. Finger-tighten flange studs and nuts.
- Refer to Appendix A to obtain torque value. Locate nominal disc size and flange rating. This is the recommended torque value.
- 6. Using the crisscross pattern shown in Figure 8, apply torque in 4 steps of 25% increments. For example, if the torque required from Appendix A is 100 ft-lb, the torque should be applied in 25 ft-lb increments. Apply 25 ft-lb to each nut, then 50 ft-lb, then 75 ft-lb, etc. For larger quantities of bolts than shown below, use a similar crisscross pattern.

NOTE: Follow the torque instructions in this document unless a specific torque requirements is stated on the Rupture Disc and/or Rupture Disc Holder Tag.

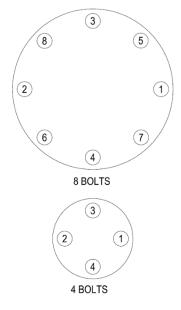


Figure 8 - Bolt Tightening Sequence

7. After recommended torque has been achieved, perform a final tightening in a clockwise bolt-to-bolt fashion to ensure that all studs have equal loading.

CHECK GAP BETWEEN BASE AND HOLDDOWN AFTER EACH TORQUE STEP. MAINTAIN AN EQUAL DISTANCE BETWEEN COMPANION FLANGE FACES ON ALL SIDES.

8. Experience has shown that, in some installation conditions, it may be necessary to re-torque the flange bolting after the system has operated through normal pressure and temperature cycles. Under normal operating conditions, the rupture disc is recommended to be replaced yearly. Severe operating conditions may require that the rupture disc be replaced more often.

Appendix A – Stud Torque Values

Nominal Pipe Size	Torque by Flange Rating (ft-lb [N-m])											
(in)	150 ANSI	300 ANSI	600 ANSI	900 ANSI	1500 ANSI	2500 ANSI						
.75	30 [41]	60 [81]	60 [81]	N/A	N/A	N/A						
1"	30 [41]	60 [81]	60 [81]	160 [217]	160 [217]	160 [217]						
1.5	30 [41]	100 [136]	100 [136]	245 [332]	245 [332]	355 [481]						
2	60 [81]	60 [81]	60 [81]	160 [217]	160 [217]	245 [332]						
3	60 [81]	100 [136]	100 [136]	160 [217]	355 [481]	500 [678]						
4	60 [81]	100 [136]	160 [217]	355 [481]	500 [678]	800 [1,085]						
6	100 [136]	100 [136]	245 [332]	355 [481]	680 [922]	2,200 [2,983]						
8	100 [136]	160 [217]	355 [481]	680 [922]	1,100 [1,491]	2,200 [2,983]						
10	160 [217]	245 [332]	500 [678]	680 [922]	2,000 [2712]	4,400 [5,966]						
12	160 [217]	355 [481]	500 [678]	680 [922]	2,200 [2,983]	5,920 [8,026]						
14	245 [332]	355 [481]	680 [922]	800 [1,085]	3,180 [4,312]	N/A						
16	245 [332]	500 [678]	800 [1085]	1,100 [1,491]	4,400 [5,966]	N/A						
18	355 [481]	500 [678]	1100 [1491]	2,000 [2712]	5,920 [8,026]	N/A						
20	355 [481]	500 [678]	1100 [1491]	2,200 [2,983]	7,720 [10,467]	N/A						
24	500 [678]	800 [1085]	2000 [2712]	4,400 [5,966]	11,651 [15,797]	N/A						

Table 1 – Stud Torque Values – ASME (SRX, SRL/SRLO, XL/XLO)

Table 2 – Stud Torque Values – EN/ISO/DIN (SRX, SRL/SRLO, XL/XLO)

Nominal		Torque by Flange Rating											
Pipe Size		(ft-lb [N-m])											
(in [mm])	PN 6	PN 10	PN 16	ISO PN 20	PN 25	PN 40	ISO PN 50	DIN PN 63/64	DIN PN 100	ISO PN 100/110			
.75 [DN20]	23 [31]	28 [37]	28 [37]	32 [44]	45 [61]	45 [61]	60 [82]	N/A	N/A	60 [82]			
1" [DN 25]	23 [31]	28 [37]	28 [37]	32 [44]	45 [61]	45 [61]	60 [82]	60 [82]	60 [82]	60 [82]			
1.5 [DN 40]	28 [37]	37 [50]	37 [50]	32 [44]	84 [114]	84 [114]	105 [142]	105 [142]	105 [142]	105 [142]			
2 [DN 50]	45 [61]	60 [82]	60 [82]	60 [82]	121 [164]	121 [164]	60 [82]	151 [205]	181 [246]	60 [82]			
3 [DN 80]	60 [82]	30 [41]	30 [41]	60 [82]	84 [114]	84 [114]	105 [142]	105 [142]	126 [171]	105 [142]			
4 [DN 100]	121 [164]	60 [82]	60 [82]	60 [82]	105 [142]	105 [142]	105 [142]	173 [235]	195 [264]	173 [235]			
6 [DN 150]	84 [114]	105 [142]	105 [142]	105 [142]	189 [256]	189 [256]	105 [142]	433 [587]	289 [391]	260 [352]			
8 [DN 200]	84 [114]	105 [142]	70 [95]	105 [142]	173 [235]	195 [264]	173 [235]	410 [555]	410 [555]	372 [505]			
10 [DN 250]	115 [157]	144 [196]	173 [235]	173 [235]	347 [470]	385 [523]	260 [353]	693 [939]	756 [1,025]	520 [705]			
12 [DN 300]	144 [196]	144 [196]	173 [235]	173 [235]	336 [455]	373 [505]	373 [505]	650 [881]	768 [1,041]	520 [705]			
14 [DN 350]	192 [261]	144 [196]	173 [235]	260 [352]	466 [632]	513 [695]	372 [504]	875 [1,187]	1,094 [1,484]	700 [950]			
16 [DN 400]	192 [261]	231 [314]	260 [353]	260 [353]	650 [881]	709 [961]	520 [705]	1,024 [1,388]	N/A	819 [1,110]			
18 [DN 450]	249 [337]	239 [323]	268 [364]	373 [505]	624 [846]	680 [922]	520 [705]	N/A	N/A	1,119 [1,517]			
20 [DN 500]	249 [337]	298 [405]	373 [506]	372 [504]	624 [846]	737 [999]	520 [705]	N/A	N/A	1,120 [1,518]			
24 [DN 600]	378 [512]	425 [576]	520 [705]	520 [705]	907 [1,230]	1,134 [1,537]	819 [1,110]	N/A	N/A	2,016 [2,733]			

Table 3 – Stud Torque Values – JIS (SRX, SRL/SRLO, XL/XLO)

Nominal Pipe Size (in [mm])	Torque by Flange Rating (ft-lb [N-m])										
Size (in [mm])	JIS 5	JIS 10	JIS 16	JIS 20	JIS 30	JIS 40	JIS 63				
.75 [DN20]	N/A	28 [37]	28 [37]	60 [82]	N/A	N/A	N/A				
1" [DN 25]	23 [31]	37 [50]	37 [50]	60 [82]	60 [82]	60 [82]	75 [102]				
1.5 [DN 40]	28 [37]	37 [50]	37 [50]	84 [114]	105 [142]	105 [142]	115 [157]				
2 [DN 50]	45 [61]	60 [82]	60 [82]	60 [82]	60 [82]	60 [82]	75 [102]				
3 [DN 80]	60 [82]	30 [41]	30 [41]	105 [142]	105 [142]	105 [142]	115 [157]				
4 [DN 100]	60 [82]	60 [82]	75 [102]	105 [142]	115 [157	115 [157]	173 [235]				
6 [DN 150]	84 [114]	105 [142]	77 [104]	115 [157]	126 [171]	157 [214]	289 [391]]				
8 [DN 200]	105 [142]	70 [95]	77 [104]	159 [215]	173 [235]	217 [294]	372 [505]				
10 [DN 250]	144 [196]	159 [215]	173 [235]	308 [418]	385 [523]	385 [523]	756 [1,025]				
12 [DN 300]	144 [196]	119 [161]	130 [176]	298 [404]	373 [505]	447 [607]	709 [961]				
14 [DN 350]	212 [287]	159 [215]	217 [294]	465 [631]	465 [631]]	558 [757]	1,021 [1,385]				
16 [DN 400]	212 [287]	231 [314]	289 [392]	591 [801]	709 [961]	709 [961]	1,102 [1,495]				
18 [DN 450]	273 [370]	239 [323]	298 [404]	567 [769]	N/A	N/A	N/A				
20 [DN 500]	273 [370]	298 [404]	372 [504]	567 [769]	N/A	N/A	N/A				
24 [DN 600]	378 [512]	394 [534]	472 [641]	756 [1,025]	N/A	N/A	N/A				

NOTE: Torque values in Appendix A are based on a nut factor K= 0.2. Adjustment to the torque should be considered if the installation utilizes bolting/lubrication with a nut factor other than K= 0.2. The following expression may be used for correction:

Equation 1: $T_2 = (T_1/K_1)^*K_2$ where T_1 and K_1 are the Fike default torque and nut factor values.

NOTE: Torque values in Tables 1 to 3 are recommended values, but may be increased up to 50% to achieve an increased gasket seal. If the torque values are unsatisfactory, consult factory.

Nominal					Tor	que by Flang	ge Rating						
Pipe		(ft-lb [N-m])											
Size (in)	150 ANSI	300 ANSI	600 ANSI	900 ANSI	1500 ANSI	2500 ANSI	Series B 75	Series B 150	Series B 300	Series A 150	Series A 300		
1"	30 [41]	60 [81]	60 [81]	160 [217]	160 [217]	160 [217]	N/A	N/A	N/A	N/A	N/A		
1.5	30 [41]	100 [136]	100 [136]	245 [332]	245 [332]	355 [481]	N/A	N/A	N/A	N/A	N/A		
2	60 [81]	60 [81]	60 [81]	160 [217]	160 [217]	245 [332]	N/A	N/A	N/A	N/A	N/A		
3	60 [81]	100 [136]	100 [136]	160 [217]	355 [481]	500 [678]	N/A	N/A	N/A	N/A	N/A		
4	60 [81]	100 [136]	160 [217]	355 [481]	500 [678]	800 [1,085]	N/A	N/A	N/A	N/A	N/A		
14	459 [622]	682 [925]	1,323 [1,794]	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A		
16	459 [622]	968 [1,312]	1,581 [2,144]	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A		
18	682 [925]	968 [1,312]	2,275 [3,084]	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A		
20	682 [925]	968 [1,312]	1,593 [2,160]	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A		
24	968 [1,312]	984 [1,334]	1,947 [2,640]	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A		
26	N/A	N/A	N/A	N/A	N/A	N/A	N/A	189 [256]	871 [1,181]	484 [656]	1,365 [1,851]		
28	N/A	N/A	N/A	N/A	N/A	N/A	N/A	159 [216]	527 [715]	419 [568]	1,493 [2,024]		
30	N/A	N/A	N/A	N/A	N/A	N/A	N/A	154 [209]	722 [979]	418 [567]	1,556 [2,110]		
32	N/A	N/A	N/A	N/A	N/A	N/A	N/A	150 [203]	958 [1,299]	703 [953]	1,968 [2,668]		
36	N/A	N/A	N/A	N/A	N/A	N/A	N/A	260 [353]	1,365 [1,851]	703 [953]	2,652 [3,596]		
42	N/A	N/A	N/A	N/A	N/A	N/A	N/A	321 [435]	2,020 [2,739]	703 [953]	1,593 [2,160]		

Table 4 – Stud Torque Values – ASME (ATLAS/ATLAS-LO)

Table 5 – Stud Torque Values – EN/ISO/DIN (ATLAS/ATLAS-LO)

Nominal Pipe Size	Torque by Flange Rating (ft-lb [N-m])											
(in [mm])	PN 1, 2 & 6	PN 10	PN 16	ISO PN 20	PN 25	PN 40	ISO PN 50	DIN PN 63/64	DIN PN 100	ISO PN 100/110		
1" [DN 25]	23 [31]	28 [37]	28 [37]	32 [44]	45 [61]	45 [61]	60 [82]	60 [82]	60 [82]	60 [82]		
1.5 [DN 40]	28 [37]	37 [50]	37 [50]	32 [44]	84 [114]	84 [114]	105 [142]	105 [142]	105 [142]	105 [142]		
2 [DN 50]	45 [61]	60 [82]	60 [82]	60 [82]	121 [164]	121 [164]	60 [82]	151 [205]	181 [246]	60 [82]		
3 [DN 80]	60 [82]	30 [41]	30 [41]	60 [82]	84 [114]	84 [114]	105 [142]	105 [142]	126 [171]	105 [142]		
4 [DN 100]	121 [164]	60 [82]	60 [82]	60 [82]	105 [142]	105 [142]	105 [142]	173 [235]	195 [264]	173 [235]		
14 [DN 350]	N/A	224 [304]	349 [473]	575 [780]	612 [830]	893 [1,211]	816 [1,106]	1,259 [1,707]	2,126 [2,882]	1,333 [1,807]		
16 [DN 400]	N/A	310 [420]	460 [624]	575 [780]	781 [1,059]	963 [1,306]	1,116 [1,513]	1,646 [2,232]	N/A	1,646 [2,232]		
18 [DN 450]	N/A	240 [325]	288 [390]	816 [1,106]	670 [908]	815 [1,105]	1,116 [1,513]	N/A	N/A	2,313 [3,136]		
20 [DN 500]	N/A	277 [376]	354 [480]	816 [1,106]	608 [824]	1,058 [1,434]	1,116 [1,513]	N/A	N/A	1,948 [2,641]		
24 [DN 600]	N/A	374 [507]	460 [624]	1,116 [1,513]	807 [1,094]	1,326 [1,798]	1,085 [1,471]	N/A	N/A	1,864 [2,527]		
28 [DN 700]	N/A	N/A	483 [655]	N/A	775 [1,051]	N/A	N/A	N/A	N/A	N/A		
32 [DN 800]	N/A	N/A	593 [804]	N/A	N/A	N/A	N/A	N/A	N/A	N/A		
36 [DN 900]	N/A	N/A	593 [804]	N/A	N/A	N/A	N/A	N/A	N/A	N/A		

Table 6 – Stud Torque Values – JIS (ATLAS/ATLAS-LO)

Nominal Pipe Size (in [mm])	Torque by Flange Rating (ft-lb [N-m])											
	JIS 2	JIS 5	JIS 10	JIS 16	JIS 20	JIS 30	JIS 40	JIS 63				
1" [DN 25]	N/A	23 [31]	37 [50]	37 [50]	60 [82]	60 [82]	60 [82]	75 [102]				
1.5 [DN 40]	N/A	28 [37]	37 [50]	37 [50]	84 [114]	105 [142]	105 [142]	115 [157]				
2 [DN 50]	N/A	45 [61]	60 [82]	30 [41]	60 [82]	60 [82]	60 [82]	75 [102]				
3 [DN 80]	N/A	60 [82]	30 [41]	38 [51]	105 [142]	105 [142]	105 [142]	115 [157]				
4 [DN 100]	N/A	60 [82]	60 [82]	75 [102]	105 [142]	115 [157]	115 [157]	173 [235]				
14 [DN 350]	N/A	N/A	309 [419]	612 [830]	816 [1,106]	N/A	N/A	N/A				
16 [DN 400]	N/A	N/A	387 [525]	816 [1,106]	816 [1,106]	N/A	N/A	N/A				
18 [DN 450]	N/A	N/A	387 [525]	735 [997]	735 [997]	N/A	N/A	N/A				
20 [DN 500]	N/A	N/A	387 [525]	816 [1,106]	816 [1,106]	N/A	N/A	N/A				
24 [DN 600]	N/A	N/A	571 [774]	1,111 [1,506]	1,185 [1,607]	N/A	N/A	N/A				
26 [DN 650]	N/A	N/A	775 [1,051]	N/A	N/A	N/A	N/A	N/A				
28 [DN 700]	N/A	N/A	735 [997]	N/A	N/A	N/A	N/A	N/A				
30 [DN 750]	N/A	N/A	816 [1,106]	N/A	N/A	N/A	N/A	N/A				
32 [DN 800]	N/A	N/A	735 [997]	N/A	N/A	N/A	N/A	N/A				
36 [DN 900]	N/A	N/A	775 [1,051]	N/A	N/A	N/A	N/A	N/A				

NOTE: Torque values for Atlas sizes 14" and larger in Tables 4 to 6 were determined by considering ASME PCC-1 and ASME Section VIII Division 1 Mandatory Appendix II guidelines. Torque values in Appendix A are based on a nut factor K= 0.2. Adjustment to the torque should be considered if the installation utilizes bolting/lubrication with a nut factor other than K= 0.2. The following expression may be used for correction:

Equation 1: $T_2 = (T_1/K_1)^*K_2$ where T_1 and K_1 are the Fike default torque and nut factor values.