

CVS Controls Ltd.

Series BTE Choke Valves

The CVS Controls Series BTE is an inline choke valve suitable for a wide variety of applications throughout the oil and gas sector.

Typical installations include: Severe Service applications with high pressure drop specifications.

Field Serviceable. May be actuated with either pneumatic, hydraulic or electric actuators.

Available in 2 inch, Ring type Joint (RTJ) Class 2500 and 3 inch RTJ Weld Neck Class 2500 end connection. As well as 2 and 3 inch Class 1500 Raised Face (RF) and Ring Type Joint (RTJ)

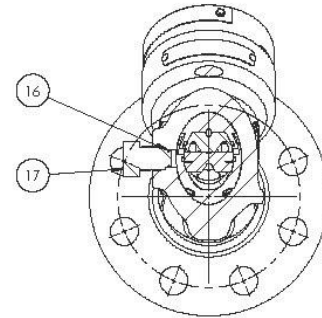
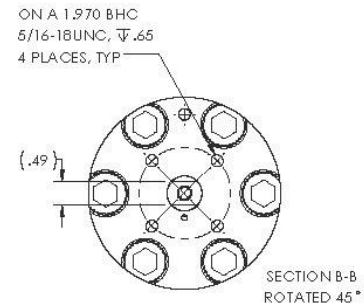
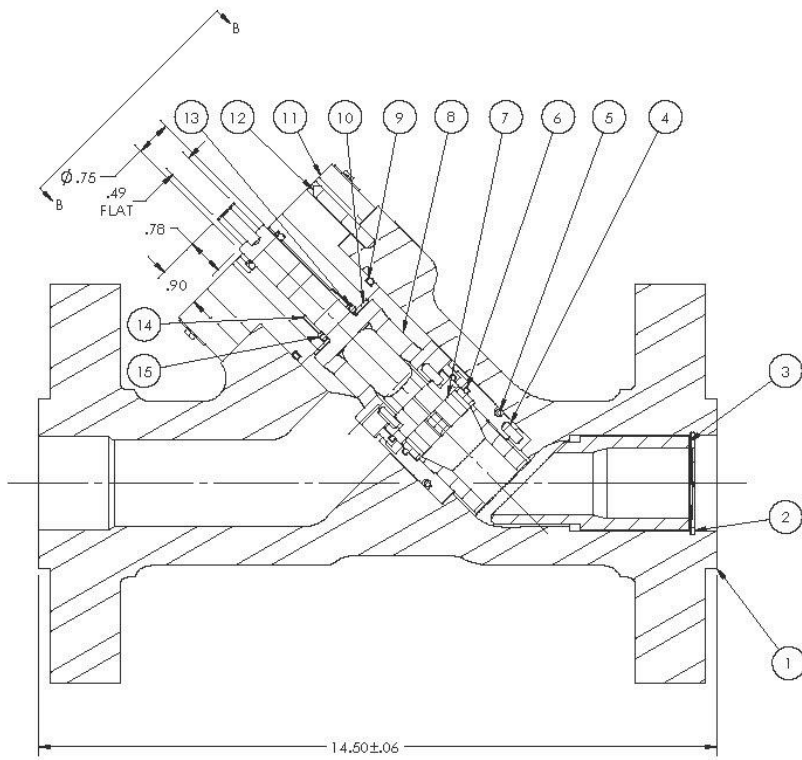
Standard configuration for the CVS Series BTE is A487 Cast Steel Body, Tungsten Carbide Discs, High Saturated Nitrile (HSN) sealing components for sour service. NACE Compliant is standard. Erosion resistant.



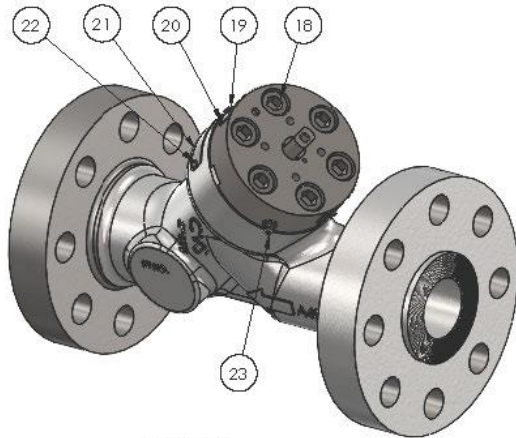
3 Inch CVS Series BTE Choke Valve with CVS 140SR Rack and Pinion Actuator and CVS 3400 Smart Positioner

CRN 0C18465.2

SPECIFICATIONS – 2 Inch Class 1500 RF



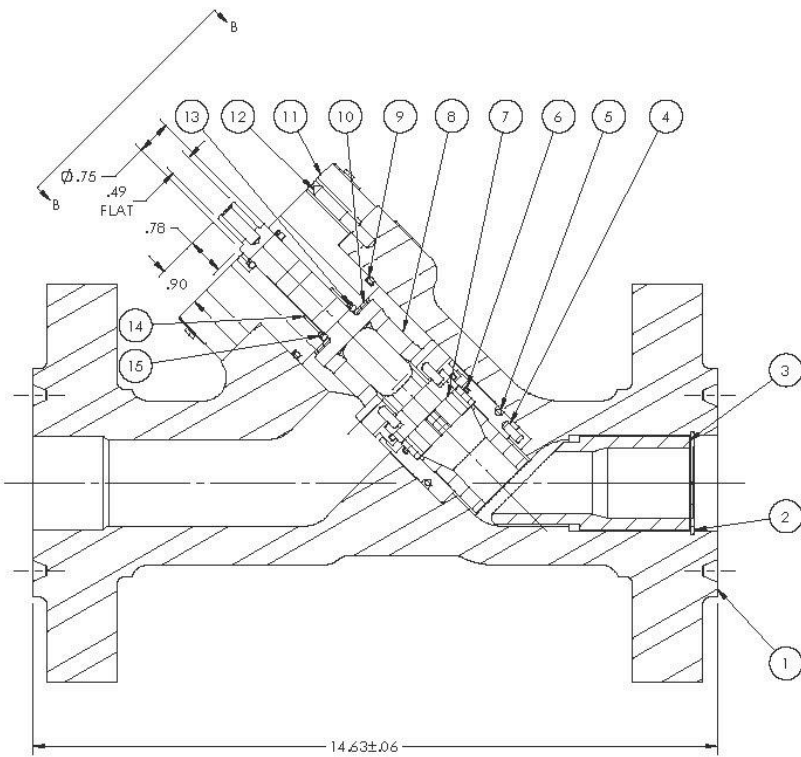
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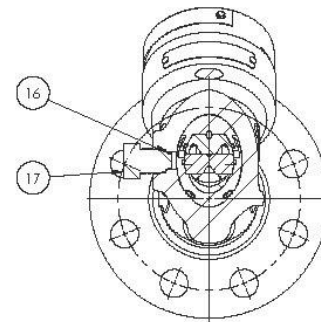
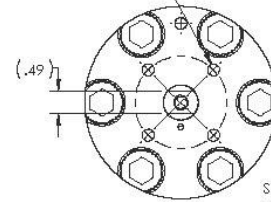
SCALE 1:5

| Item | Part Number | Description | Qty |
|------|-----------------|-------------------------------|-----|
| 1 | CVS 051977320 | Body, 2" 900/1500 CL RF | 1 |
| 2 | WHM-206-S02 | Internal Spiral Ret Ring | 1 |
| 3 | CVS 051976400 | Body Sleeve | 1 |
| 4 | CVS 052070434 | Wear Sleeve Assembly | 1 |
| 5 | CVS WWB226P41 | O-Ring #226 | 1 |
| 6 | CVS WWB132P41 | O-Ring #132 | 2 |
| 7 | CVS 051961340 | Disk, 61/64 Pie | 2 |
| 8 | CVS 051961524 | Turning Fork Assembly | 1 |
| 9 | CVS WWB227P41 | O-Ring #227 | 1 |
| 10 | CVS 051969430 | Thrust Washer | 1 |
| 11 | CVS 052120830 | Bonnet | 1 |
| 12 | CVS 051961000 | Indicator Pin | 1 |
| 13 | CVS WWB210P41 | O-Ring #210 | 2 |
| 14 | CVS GSI-1214-08 | Sleeve Bearing | 1 |
| 15 | CVS WWB210T10 | Backup Ring | 1 |
| 16 | CVS WWB014P41 | O-Ring #014 | 1 |
| 17 | CVS 051988780 | Pressure Relief Plug | 1 |
| 18 | CVS WWG11M1HN | Hex Head, 5/8-11UNC X 1-1/2" | 6 |
| 19 | CVS WWGG0618F | Hex Self Tap #6X32, 1/4" Long | 2 |
| 20 | CVS 051961606 | Indicator Band, 61/64" | 1 |
| 21 | CVS 05196161N | Name Tag | 1 |
| 22 | CVS 1A368228982 | 3/32 Rivet | 2 |
| 23 | CVS WWW00C000 | Grease Fitting | 1 |

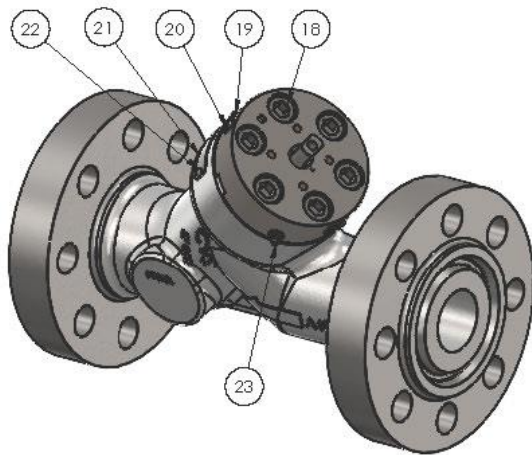
SPECIFICATIONS – 2 Inch Class 1500 RTJ



ON A 1.970 BHC
5/16-18UNC, ∇ .65
4 PLACES, TYP



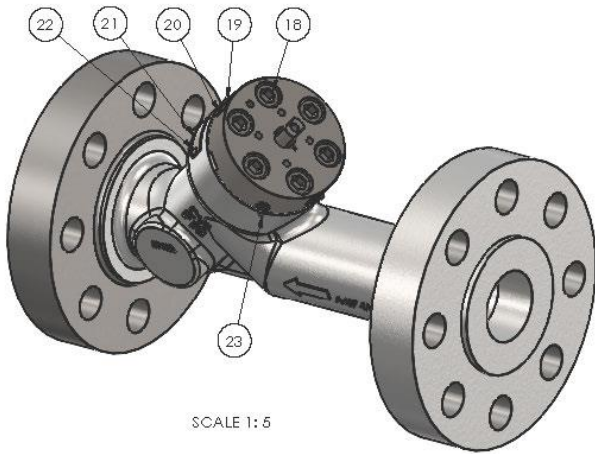
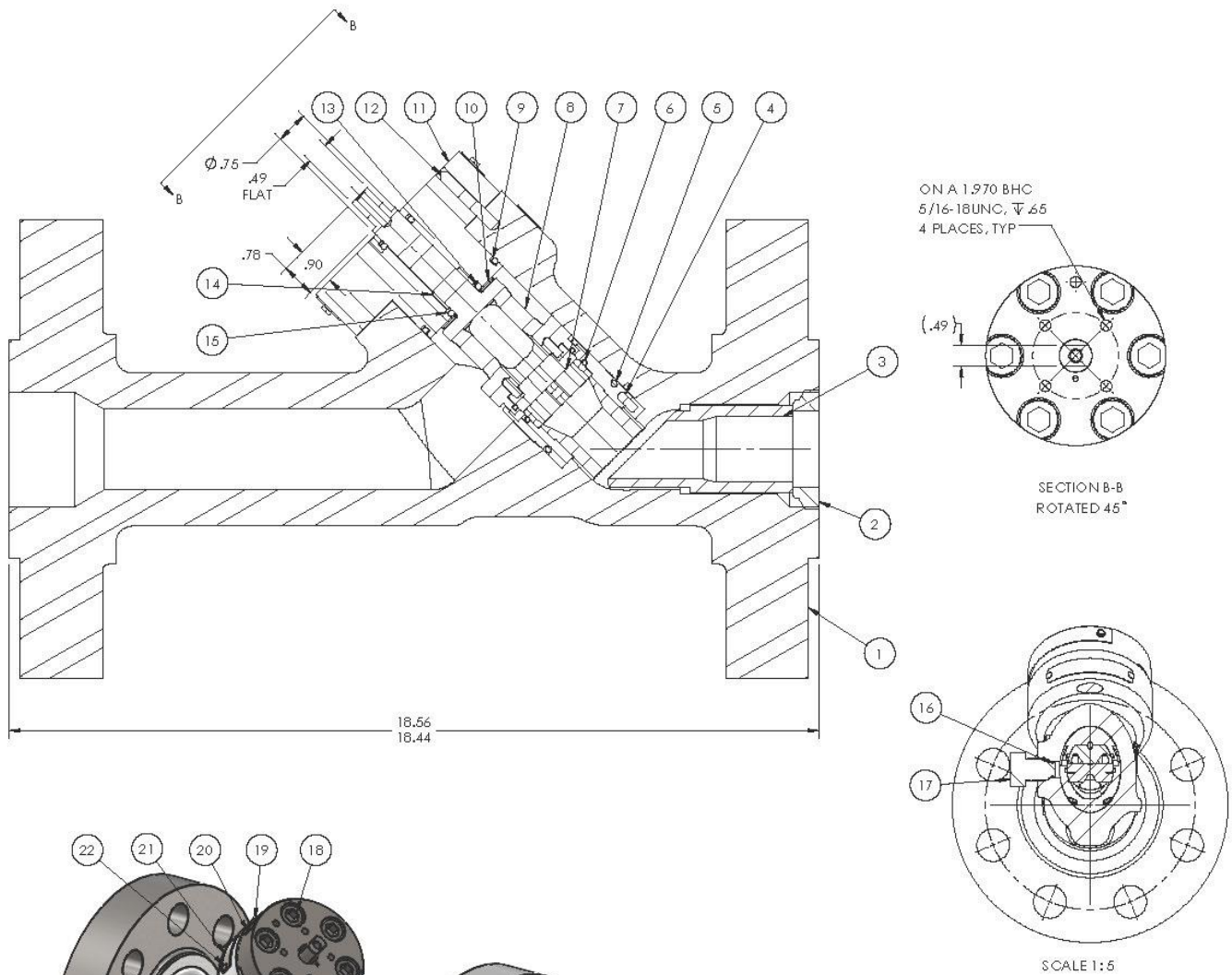
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SCALE 1:5

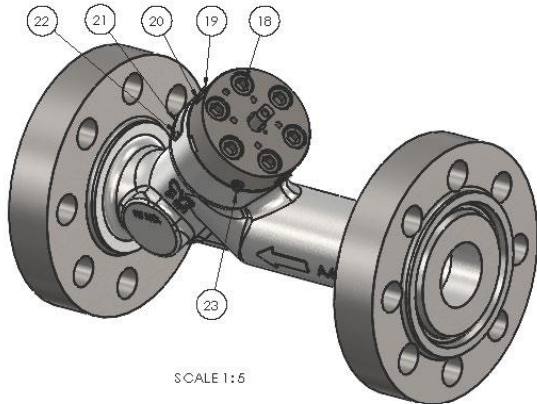
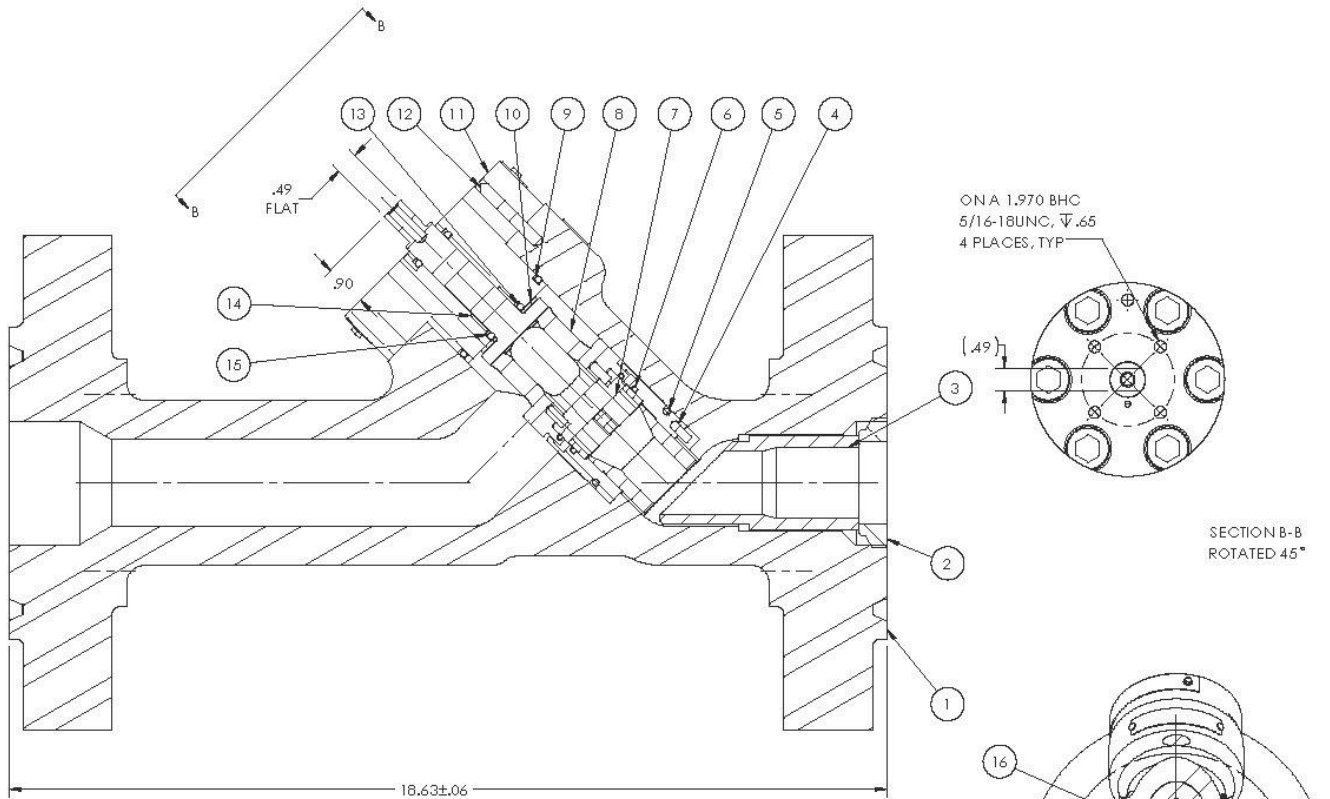
| Item | Part Number | Description | Qty |
|------|-----------------|-------------------------------|-----|
| 1 | CVS 051976520 | Body, 2" 900/1500 CL RTJ | 1 |
| 2 | WHM-206-S02 | Internal Spiral Ret Ring | 1 |
| 3 | CVS 051976400 | Body Sleeve | 1 |
| 4 | CVS 052070434 | Wear Sleeve Assembly | 1 |
| 5 | CVS WWB226P41 | O-Ring #226 | 1 |
| 6 | CVS WWB132P41 | O-Ring #132 | 2 |
| 7 | CVS 051961340 | Disk, 61/64 Pie | 2 |
| 8 | CVS 051961524 | Turning Fork Assembly | 1 |
| 9 | CVS WWB227P41 | O-Ring #227 | 1 |
| 10 | CVS 051969430 | Thrust Washer | 1 |
| 11 | CVS 052120830 | Bonnet | 1 |
| 12 | CVS 051961000 | Indicator Pin | 1 |
| 13 | CVS WWB210P41 | O-Ring #210 | 2 |
| 14 | CVS GSI-1214-08 | Sleeve Bearing | 1 |
| 15 | CVS WWB210T10 | Backup Ring | 1 |
| 16 | CVS WWB014P41 | O-Ring #014 | 1 |
| 17 | CVS 051988780 | Pressure Relief Plug | 1 |
| 18 | CVS WWG11M1HN | Hex Head, 5/8-11UNC X 1-1/2" | 6 |
| 19 | CVS WWGG0618F | Hex Self Tap #6X32, 1/4" Long | 2 |
| 20 | CVS 051961606 | Indicator Band, 61/64" | 1 |
| 21 | CVS 05196161N | Name Tag | 1 |
| 22 | CVS 1A368228982 | 3/32 Rivet | 2 |
| 23 | CVS WWW00C000 | Grease Fitting | 1 |

SPECIFICATIONS – 3 Inch Class 1500 RF



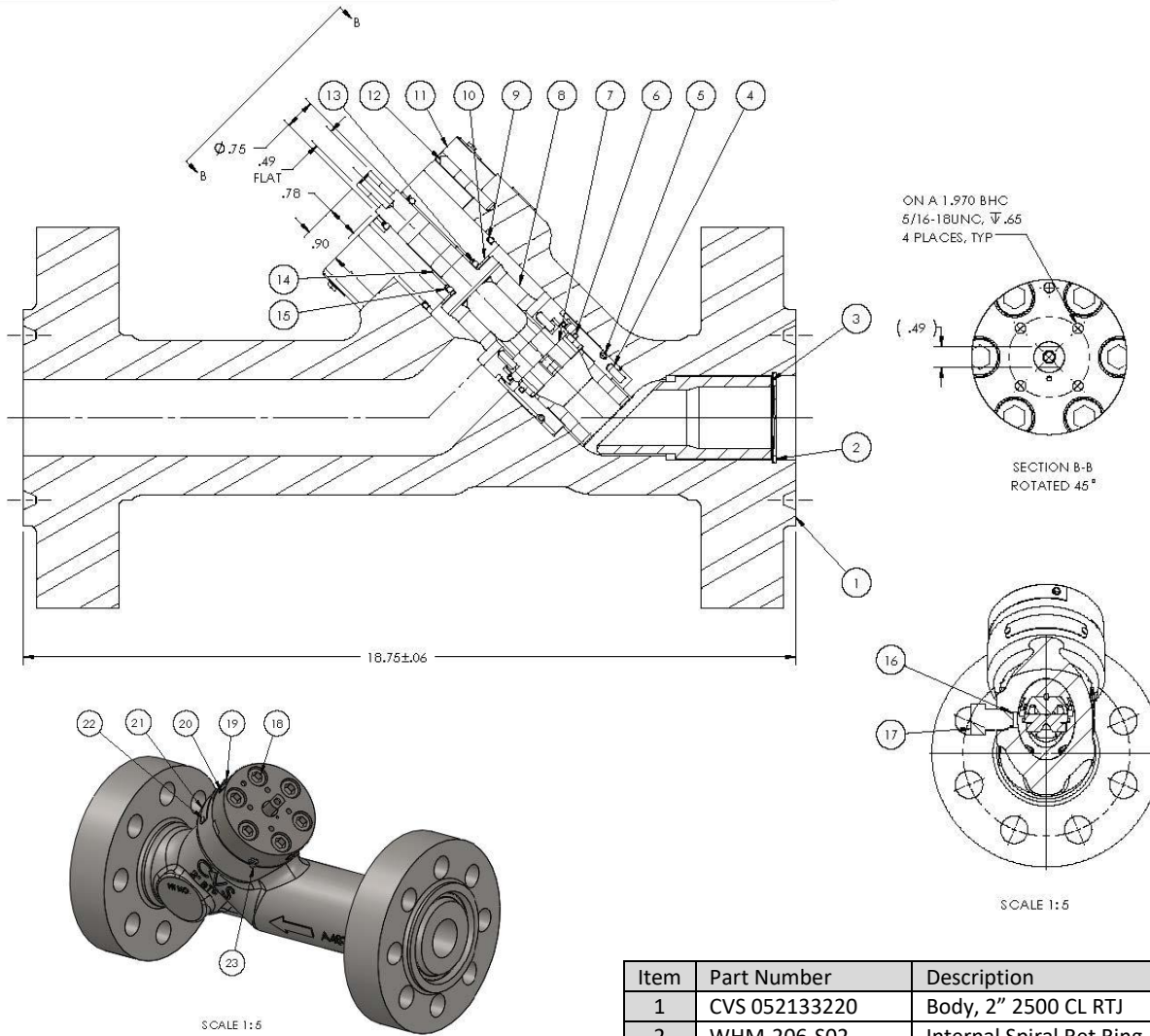
| Item | Part Number | Description | Qty |
|------|-----------------|-------------------------------|-----|
| 1 | CVS 052118020 | Body, 3" 1500 CL RF | 1 |
| 2 | CVS 052137620 | Body Sleeve Retainer | 1 |
| 3 | CVS 051976400 | Body Sleeve | 1 |
| 4 | CVS 052070434 | Wear Sleeve Assembly | 1 |
| 5 | CVS WWB226P41 | O-Ring #226 | 1 |
| 6 | CVS WWB132P41 | O-Ring #132 | 2 |
| 7 | CVS 051961340 | Disk, 61/64 Pie | 2 |
| 8 | CVS 051961524 | Turning Fork Assembly | 1 |
| 9 | CVS WWB227P41 | O-Ring #227 | 1 |
| 10 | CVS 051969430 | Thrust Washer | 1 |
| 11 | CVS 052120830 | Bonnet | 1 |
| 12 | CVS 051961000 | Indicator Pin | 1 |
| 13 | CVS WWB210P41 | O-Ring #210 | 2 |
| 14 | CVS GSI-1214-08 | Sleeve Bearing | 1 |
| 15 | CVS WWB210T10 | Backup Ring | 1 |
| 16 | CVS WWB014P41 | O-Ring #014 | 1 |
| 17 | CVS 051988780 | Pressure Relief Plug | 1 |
| 18 | CVS WWG11M1HN | Hex Head, 5/8-11UNC X 1-1/2" | 6 |
| 19 | CVS WWGG0618F | Hex Self Tap #6X32, 1/4" Long | 2 |
| 20 | CVS 051961606 | Indicator Band, 61/64" | 1 |
| 21 | CVS 05196161N | Name Tag | 1 |
| 22 | CVS 1A368228982 | 3/32 Rivet | 2 |
| 23 | CVS WWW00C000 | Grease Fitting | 1 |

SPECIFICATIONS – 3 Inch Class 1500 RTJ



| Item | Part Number | Description | Qty |
|------|-----------------|-------------------------------|-----|
| 1 | CVS 052118120 | Body, 3" 1500 CL RTJ | 1 |
| 2 | CVS 052137620 | Body Sleeve Retainer | 1 |
| 3 | CVS 051976400 | Body Sleeve | 1 |
| 4 | CVS 052070434 | Wear Sleeve Assembly | 1 |
| 5 | CVS WWB226P41 | O-Ring #226 | 1 |
| 6 | CVS WWB132P41 | O-Ring #132 | 2 |
| 7 | CVS 051961340 | Disk, 61/64 Pie | 2 |
| 8 | CVS 051961524 | Turning Fork Assembly | 1 |
| 9 | CVS WWB227P41 | O-Ring #227 | 1 |
| 10 | CVS 051969430 | Thrust Washer | 1 |
| 11 | CVS 052120830 | Bonnet | 1 |
| 12 | CVS 051961000 | Indicator Pin | 1 |
| 13 | CVS WWB210P41 | O-Ring #210 | 2 |
| 14 | CVS GSI-1214-08 | Sleeve Bearing | 1 |
| 15 | CVS WWB210T10 | Backup Ring | 1 |
| 16 | CVS WWB014P41 | O-Ring #014 | 1 |
| 17 | CVS 051988780 | Pressure Relief Plug | 1 |
| 18 | CVS WWG11M1HN | Hex Head, 5/8-11UNC X 1-1/2" | 6 |
| 19 | CVS WWGG0618F | Hex Self Tap #6X32, 1/4" Long | 2 |
| 20 | CVS 051961606 | Indicator Band, 61/64" | 1 |
| 21 | CVS 05196161N | Name Tag | 1 |
| 22 | CVS 1A368228982 | 3/32 Rivet | 2 |
| 23 | CVS WWW00C000 | Grease Fitting | 1 |

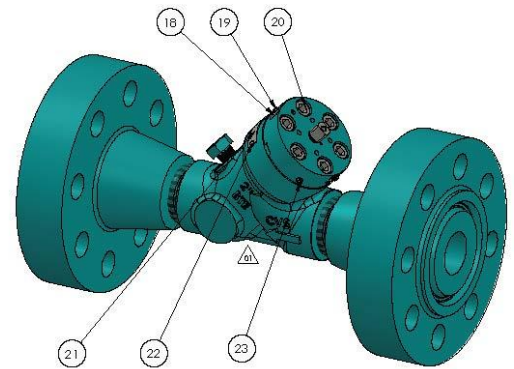
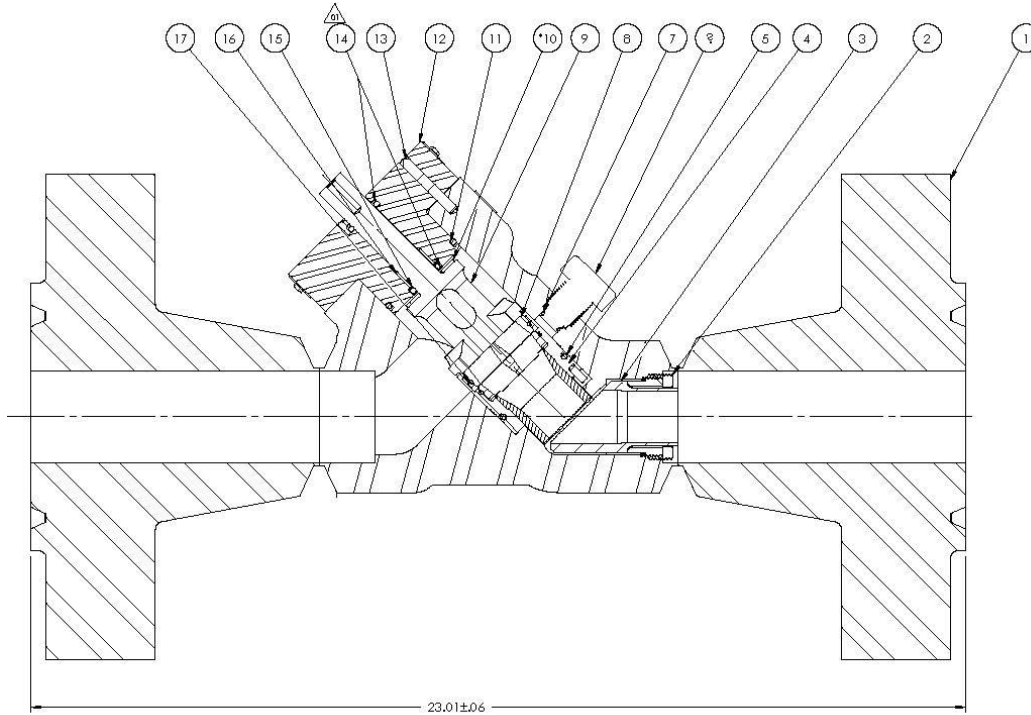
SPECIFICATIONS – 2 Inch Class 2500 RTJ



| Item | Part Number | Description | Qty |
|------|-----------------|-------------------------------|-----|
| 1 | CVS 052133220 | Body, 2" 2500 CL RTJ | 1 |
| 2 | WHM-206-S02 | Internal Spiral Ret Ring | 1 |
| 3 | CVS 051976400 | Body Sleeve | 1 |
| 4 | CVS 052070434 | Wear Sleeve Assembly | 1 |
| 5 | CVS WWB226P41 | O-Ring #226 | 1 |
| 6 | CVS WWB132P41 | O-Ring #132 | 2 |
| 7 | CVS 051961340 | Disk, 61/64 Pie | 2 |
| 8 | CVS 051961524 | Turning Fork Assembly | 1 |
| 9 | CVS WWB227P41 | O-Ring #227 | 1 |
| 10 | CVS 051969430 | Thrust Washer | 1 |
| 11 | CVS 052120830 | Bonnet | 1 |
| 12 | CVS 051961000 | Indicator Pin | 1 |
| 13 | CVS WWB210P41 | O-Ring #210 | 2 |
| 14 | CVS GSI-1214-08 | Sleeve Bearing | 1 |
| 15 | CVS WWB210T10 | Backup Ring | 1 |
| 16 | CVS WWB014P41 | O-Ring #014 | 1 |
| 17 | CVS 051988780 | Pressure Relief Plug | 1 |
| 18 | CVS WWG11M1HN | Hex Head, 5/8-11UNC X 1-1/2" | 6 |
| 19 | CVS WWGG0618F | Hex Self Tap #6X32, 1/4" Long | 2 |
| 20 | CVS 051961606 | Indicator Band, 61/64" | 1 |
| 21 | CVS 05196161N | Name Tag | 1 |
| 22 | CVS 1A368228982 | Drive Screw | 2 |
| 23 | CVS WWW00C000 | Grease Fitting | 1 |

| Item 7 Disc | Part # | Item 20 Indicator Band | Part # |
|----------------|---------------|------------------------------|---------------|
| 1/2 | CVS 051962148 | 1/2 | CVS 051961604 |
| 61/64 | CVS 051961340 | 61/64 | CVS 051961606 |
| 72/64 | CVS 051983640 | 72/64 | CVS 051961613 |

SPECIFICATIONS – 3 Inch Class 2500 RTJ Weld Neck



| Item | Part Number | Description | Qty |
|------|-----------------|-------------------------------|-----|
| 1 | CVS 051994725 | Body Assembly | 1 |
| 2 | CVS 052131320 | Body Sleeve Retainer | 1 |
| 3 | CVS 051975100 | Body Sleeve | 1 |
| 4 | CVS 052118534 | Wear Sleeve, Assembly | 1 |
| 5 | CVS WWB226P41 | O-Ring #226 | 1 |
| 6 | CVS 0519988780 | Pressure Relief Plug | 1 |
| 7 | CVS WWB014P41 | O-Ring #014 | 1 |
| 8 | CVS 051983640 | Disk, 72/64" Pie | 2 |
| 9 | CVS 052118635 | Turning Fork, Assembly | 1 |
| 10 | CVS 051969430 | Thrust Washer | 1 |
| 11 | CVS WWB227P41 | O-Ring #227 | 1 |
| 12 | CVS 052120830 | Bonnet | 1 |
| 13 | CVS 051961000 | Indicator Pin | 1 |
| 14 | CVS WWB210P41 | O-Ring #210 | 2 |
| 15 | CVS WWB210T10 | Backup Ring | 1 |
| 16 | CVS GSI-1214-08 | Sleeve Bearing | 1 |
| 17 | CVS WWB033P41 | O-Ring #033 | 2 |
| 18 | CVS 051961613 | Indicator Band, 72/64" | 1 |
| 19 | CVS WWGG0618F | Hex Self Tap #6X32, 1/4" Long | 2 |
| 20 | CVS WWG11M1HN | Hex Head, 5/8-11UNC X 1-1/2" | 6 |
| 21 | CVS 05196161N | Name Tag | 1 |
| 22 | CVS 1A368228982 | Drive Screw, 302SST | 2 |
| 23 | CVS WWW00C000 | Grease Fitting, 1/8-27 | 1 |

| Item 8 Disc | Part # | Item 18 Indicator Band | Part # |
|----------------|---------------|------------------------------|---------------|
| 1/2 | CVS 051962148 | 1/2 | CVS 051961604 |
| 61/64 | CVS 051961340 | 61/64 | CVS 051961606 |
| 72/64 | CVS 051983640 | 72/64 | CVS 051961613 |

SPECIFICATIONS

| Material – Standard* NACE | |
|--|------------------------------|
| Body | A487 Cast Steel |
| Seals | High Saturated Nitrile - HSN |
| Turning Fork | 17-4 SST |
| Discs | Tungsten Carbide |
| Wear Sleeve | Standard w/carbide insert |
| *Additional materials may be available upon request. Contact CVS Controls Ltd. for more information. | |

| CVS BTE Class1500 / 2500 API Torque Requirements | | |
|--|--------|--------|
| Differential Pressure | In-Lbs | Ft-Lbs |
| 1000 psi | 408 | 34 |
| 2000 psi | 604 | 50 |
| 3000 psi | 799 | 67 |
| 4000 psi | 994 | 83 |
| 5000 psi | 1189 | 99 |



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