THE YOUNG® INDUSTRIES, INC.

MODEL BT ROTARY VALVE

Now Available
Rotary Valve Calculator App

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STANDARD FEATURES:

- Heavy Duty construction with 15 PSIG internal and differential pressure rating.
- Cast or fabricated construction of iron, carbon steel, or 300 series stainless steel.
- Round or square inlet flanges. Pipe or tubing convey line connections as specified.
- Standard design/operating temperature up to 250°F.
- Outboard-mounted precision ball bearings and packing gland at the rotor shaft using 4- rings of Kevlar impregnated w/ PTFE packing for a tight shaft seal

ADVANCED TECHNOLOGY PROVEN DESIGN

ENGINEERED TO INCREASE PRODUCTIVITY. BUILT TO LAST.

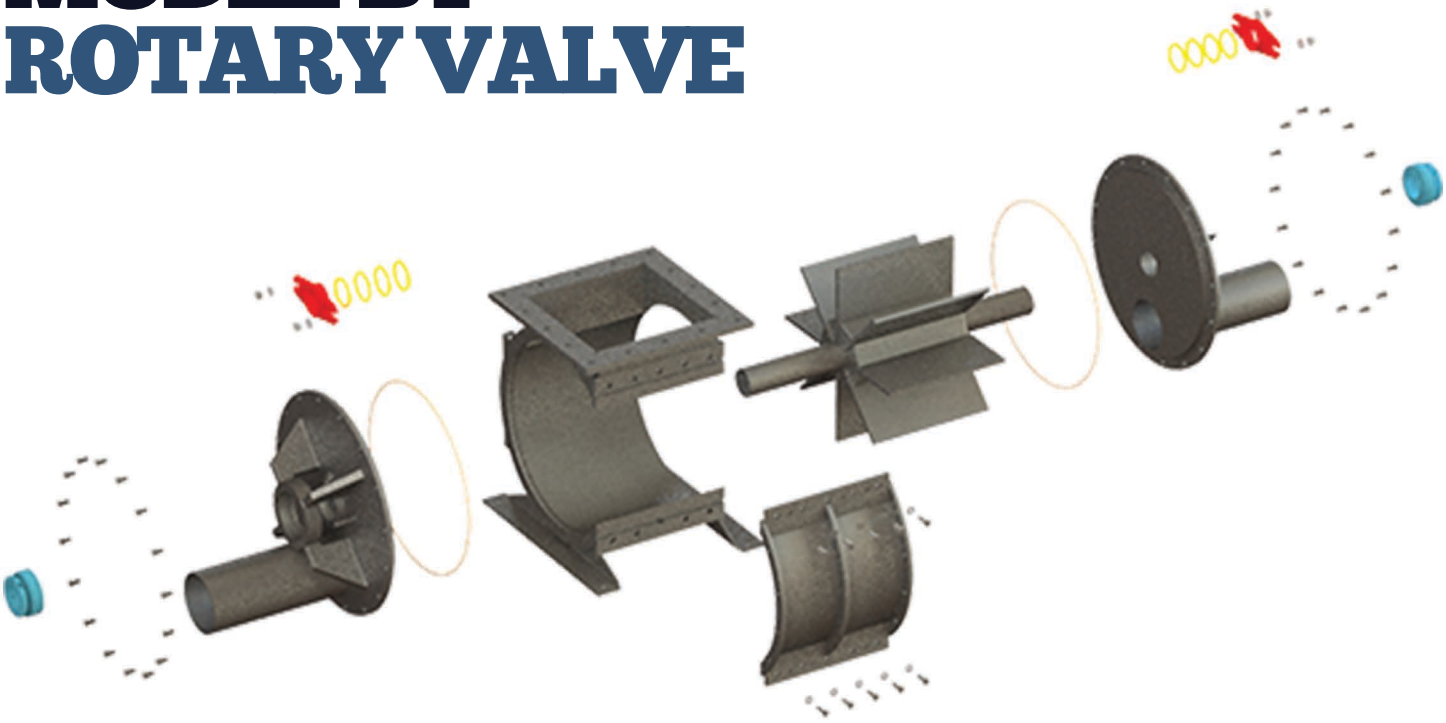
Young Industries Model "BT" Blow-Thru Rotary Valve is a high capacity, Straight Drop-Thru design for feeding powders directly into a pneumatic convey line. The Blow-Thru Rotary Valve becomes a direct component of the pneumatic system since the convey line is attached to the convey line connections in the lower portion of the valve body.

The Blow-Thru Rotary Valve convey line connections are located parallel to the rotor shaft and rotor vanes. The velocity from the convey line is used to sweep powder from the pocket.

The Blow-Thru Rotary Valve is used to handle powders that tend to pack and not discharge from conventional rotary valves with conventional convey line inlet connections. The Model "BT" Blow Thru Rotary Valve is also used in situations where there is minimal headroom to meter powders into a convey system.

The Model "BT" Rotary Valve is available with convey lines from 1 to 6" in pipe or tubing sizes as standard with larger sizes available.

MODEL BT
ROTARY VALVE



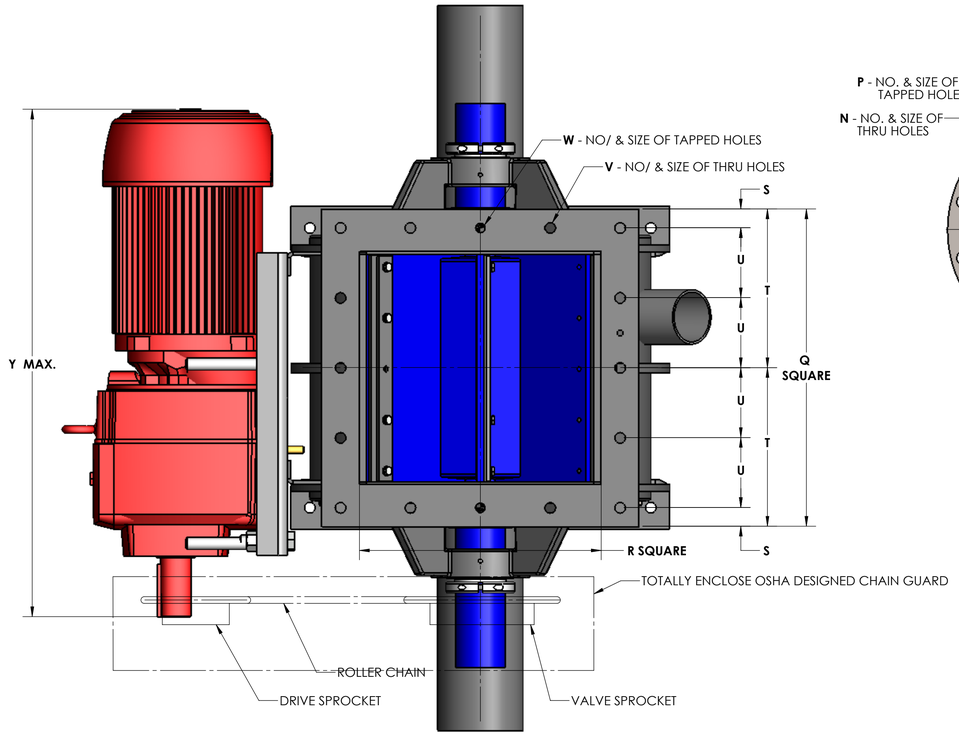
OPTIONAL FEATURES:

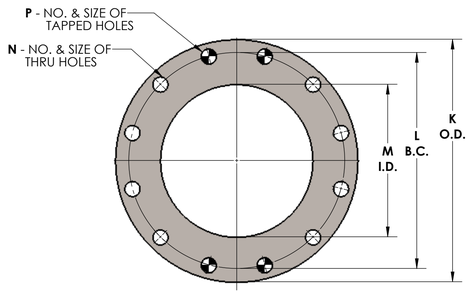
- High internal pressure designs up to 350 PSIG
- High temperature designs up to 1600°F
- Standard convey line sizes from 1" to 6" with larger sizes available
- Roller chain drive with parallel shaft TEFC driven gearmotor is standard with explosion proof motors of any specified manufacturer available
- Special materials of construction including various grades of Stainless Steel, Hastelloy, Titanium, Inconel, or Engineered Plastics
- Interior coating for providing abrasion resistance or material release include: hard chrome plating, nickel plating, tungsten carbide, Stellite, or Teflon
- Transflow® fluidized rotors for the most cohesive powders
- Interior polish or electro-polish per application requirement
- Special packing materials of graphite, food grade PTFE or as needed by process
- Lantern ring with purge connection in the packing gland
- Rotor shaft Mechanical Seals
- Self- adjusting packing follower
- Shaft seal coatings
- Inlet material deflector/baffle for granular products
- Venting thimble for mounting to inlet flange
- Direct venting, with vent installed in the housing
- End plate purges
- Side access/inspection panel for access to the rotor interior
- Rotor tips and edges can be beveled
- Replaceable rotor tips of flexible or abrasion resistant materials
- Exterior painting and coatings to meet customer specifications

THE Young® INDUSTRIES, INC.

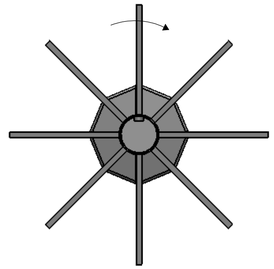
16 PAINTER STREET, MUNCY, PA 17756

(800) 546-3165 | WWW.YOUNGINDS.COM

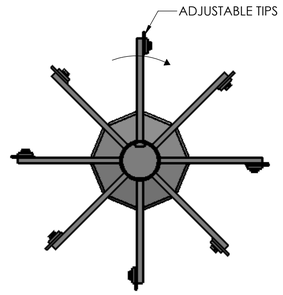




ROUND FLANGE DETAIL
TOP VIEW INLET
(SEE NOTE # 2)



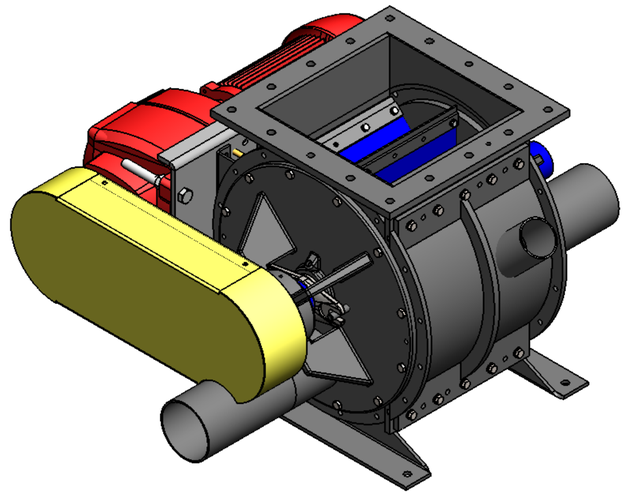
TYPE 'B' ROTOR

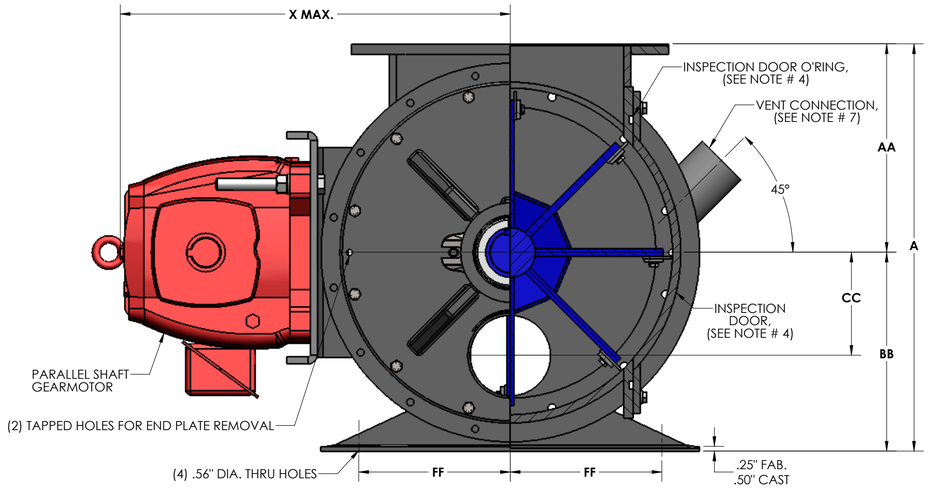


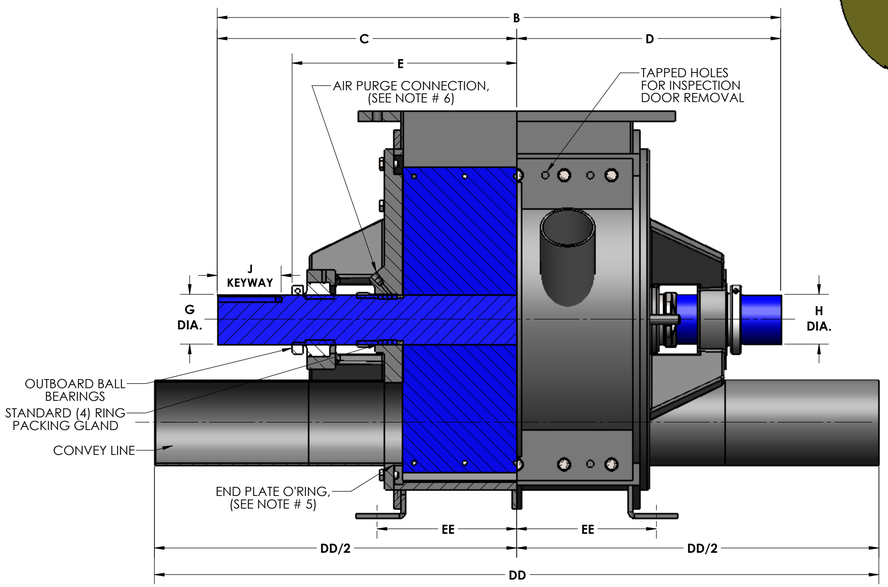
TYPE 'BD' ROTOR

NOTES:

1. VALVE HOUSINGS ARE CAST OF IRON OR ALUMINUM. FABRICATED OF STEEL OR STAINLESS STEEL. ALL ROTORS ARE FABRICATED OF STEEL OR STAINLESS STEEL.
2. VALVE HOUSINGS ARE AVAILABLE WITH EITHER A SQUARE OR ROUND INLET. CONVEY LINES ARE AVAILABLE AS PIPE OR TUBING AND WITH EITHER PLAIN OR FLANGED ENDS. ROUND FLANGES MATCH 150# ANSI DRILLING.
3. STANDARD HOUSINGS ARE DESIGNED FOR 15 PSI (MAX) INTERNAL & DIFFERENTIAL @ 250 DEGREES F.
4. INSPECTION DOOR IS OPTIONAL AND WILL BE FURNISHED ONLY WHEN SPECIFIED.
5. END PLATES AND INSPECTION DOOR O-RINGS ARE OPTIONAL AND WILL BE FURNISHED ONLY WHEN SPECIFIED.
6. AIR PURGE CONNECTIONS WITH BRASS LANTERN RINGS ARE OPTIONAL AND WILL BE FURNISHED ONLY WHEN SPECIFIED.
7. VENT WITH SCH 10 PIPE IS OPTIONAL AND WILL BE FURNISHED ONLY WHEN SPECIFIED. VENT CONNECTION WILL CHANGE ROTOR ROTATION TO COUNTER-CLOCKWISE.







Size	ROTOR DIA x LG.	CONVEY LINE O.D. x WALL	CAP. CU. FT./REV. B	CAP. CU. FT./REV. BD	STD RPM	VENT SIZE	STD HP	A	B	C	D	E	F	G	H	J	K	L	M	N	P	Q	R	S	T	U	V	W	X	Y	AA	BB	CC	DD	EE	FF	WEIGHT C/S
1-BT-4	6 x 4	1.00" x .12"	.0288	.0288	38	1.25	.50	9.75	19.25	10.31	7.69	7.31	.31	1.19	1.00	.25 x .12 x 2.62	9.00	7.50	4.00	(4) .75	(4) .62-11UNC-2B	7.50	4.00	.62	3.12	-	(6) .56	(2) .50-13UNC-2B	13.00	21.00	5.00	4.75	2.75	28.25	3.00	3.00	205
1.25 - BT-4	6 x 4	1.25" x .12"	.0349	.0349	38	1.25	.50	9.75	19.25	10.31	7.69	7.31	.31	1.19	1.00	.25 x .12 x 2.63	9.00	7.50	4.00	(4) .75	(4) .62-11UNC-2B	7.50	4.00	.62	3.12	-	(6) .56	(2) .50-13UNC-2B	13.00	21.00	5.00	4.75	2.62	28.25	3.00	3.00	210
1.50-BT-5	8 x 5	1.50" x .12"	.0762	.0762	38	1.50	.50	11.75	20.50	10.94	8.31	7.94	.44	1.44	1.25	.38 x .19 x 2.62	10.00	8.50	5.00	(4) .88	(4) .75-10UNC-2B	8.50	5.00	.62	3.62	-	(6) .56	(2) .50-13UNC-2B	13.75	21.00	6.00	5.75	3.47	29.25	3.50	4.00	260
2-BT-5	8 x 5	2.00" x .12"	.0942	.0942	38	1.50	.50	11.75	20.50	10.94	8.31	7.94	.44	1.44	1.25	.38 x .19 x 2.63	10.00	8.50	5.00	(4) .88	(4) .75-10UNC-2B	8.50	5.00	.62	3.62	-	(6) .56	(2) .50-13UNC-2B	13.75	21.00	6.00	5.75	3.22	29.25	3.50	4.00	265
2.50-BT-6	10x 6	2.50" x .12"	.1838	.1838	32	1.50	.50	13.75	22.38	11.88	9.25	8.88	.44	1.94	1.75	.50 x .25 x 2.62	11.00	9.50	6.00	(4) .88	(4) .75-10UNC-2B	9.50	6.00	.62	4.12	-	(6) .56	(2) .50-13UNC-2B	14.75	22.00	7.00	6.75	3.97	32.25	4.00	5.00	310
3-BT-8	12x 8	3.00" x .12"	.3464	.3464	32	2.00	.75	16.50	24.38	12.88	10.25	9.88	.44	1.94	1.75	.50 x .25 x 2.63	13.50	11.75	8.00	(4) .88	(4) .75-10UNC-2B	11.50	8.00	.62	5.12	2.56	(14) .56	(2) .50-13UNC-2B	15.88	22.00	8.50	8.00	4.72	34.25	5.00	6.00	385
3.50-BT-8	12x 8	3.50" x .12"	.3796	.3796	32	2.00	.75	16.50	24.38	12.88	10.25	9.88	.44	1.94	1.75	.50 x .25 x 2.64	13.50	11.75	8.00	(4) .88	(4) .75-10UNC-2B	11.50	8.00	.62	5.12	2.56	(14) .56	(2) .50-13UNC-2B	15.88	22.00	8.50	8.00	4.47	34.25	5.00	6.00	390
4-BT-10	15 x 10	4.00" x .12"	.7283	.7283	32	2.50	.75	19.50	26.62	13.88	11.25	10.88	.44	2.19	2.00	.50 x .25 x 2.65	16.00	14.25	10.00	(8) 1.00	(4) .88-9UNC-2B	14.75	10.00	1.00	6.38	3.19	(14) .56	(2) .50-13UNC-2B	17.75	22.00	10.00	9.50	5.72	36.25	6.00	8.00	520
5-BT-12	17 x 12	5.00" x .12"	1.205	1.205	32	2.50	.75	21.50	29.75	15.81	12.44	12.06	.56	2.44	2.25	.62 x .31 x 3.40	19.00	17.00	12.00	(8) 1.00	(4) .88-9UNC-2B	16.75	12.00	1.00	7.38	3.69	(14) .56	(2) .50-13UNC-2B	18.75	22.00	11.00	10.50	6.22	40.25	7.38	9.00	660
6-BT-14	19 x 13	6.00" x .12"	1.688	1.688	32	3.00	.75	23.50	30.75	16.31	12.94	12.56	.56	2.44	2.25	.62 x .31 x 3.41	21.00	18.75	13.00	(8) 1.12	(4) 1.00-8UNC	18.00	13.00	1.00	8.00	4.00	(14) .56	(2) .50-13UNC-2B	19.75	22.00	12.00	11.50	6.72	42.25	7.62	10.00	885

SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTIFICATION

REV. NO.	DESCRIPTION	DATE	BY

REVISIONS

CUSTOMER

CUST. NO.

YOUNG ORDER NO.

TITLE

YOUNG INDUSTRIES MODEL 'BT' ROTARY VALVE, SIZE 1-BT-4 THRU 6-BT-14, CONVEY LINE - TUBING WITH PARALLEL SHAFT DRIVE, STANDARD DIMENSION SHEET

THE YOUNG INDUSTRIES, INC.
MUNCY, PENNSYLVANIA 17756
TELEPHONE: 570-546-3165

GENERAL TOLERANCES

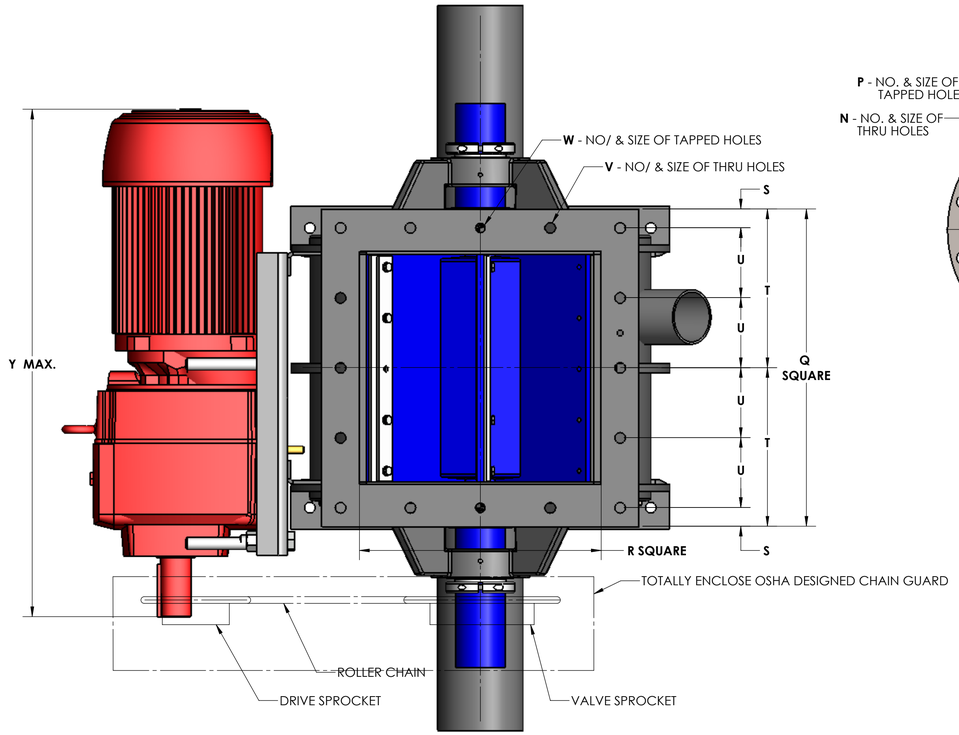
UNLESS OTHERWISE SPECIFIED THE FOLLOWING SHALL APPLY

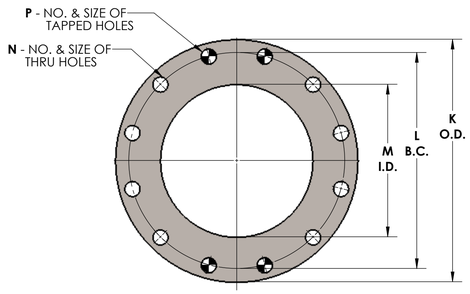
MACHINING - .XX= .02 .XXX= .005 ANGLE= .50°
SURFACE ROUGHNESS HEIGHT 63 MICROINCHES OR LESS

FABRICATION - UNDER 6 6 TO 24 24 TO 60 OVER 60
± .06 ± .12 ± .19 ± .25

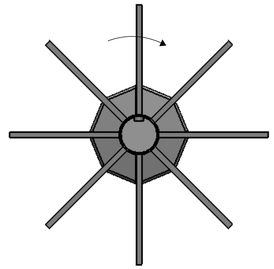
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES

DRAWN BY:	BMF
DATE DRAWN:	3/21/16
CHECKED BY:	
SCALE:	1:4
DRAWING NUMBER	S-4-7630
REV:	

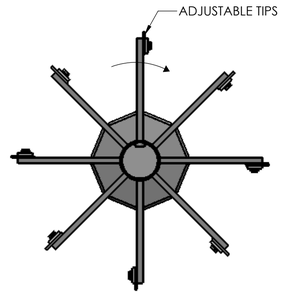




ROUND FLANGE DETAIL
TOP VIEW INLET
(SEE NOTE # 2)



TYPE 'B' ROTOR



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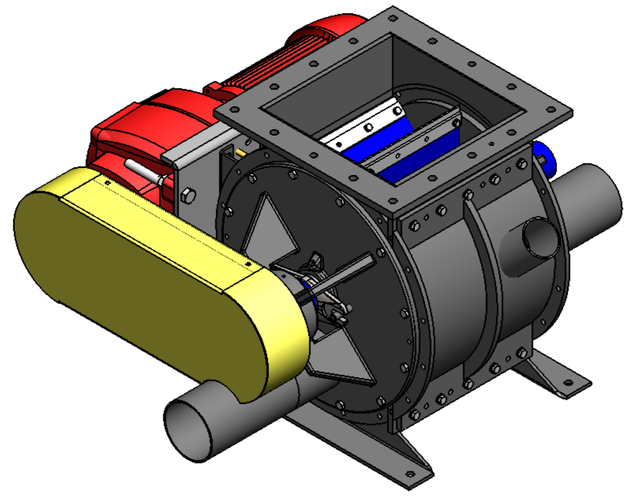

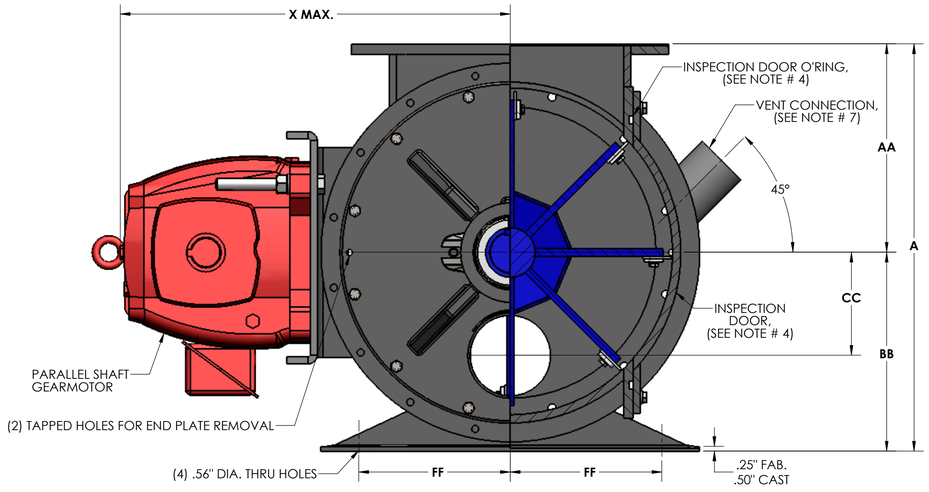

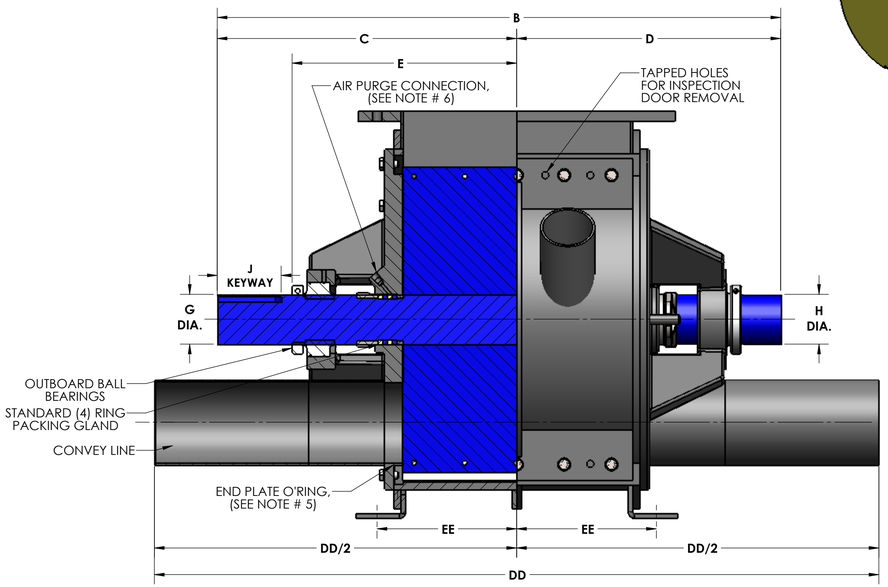

Size	ROTOR DIA x LG.	CONVEY LINE O.D. x WALL	CAP. CU. FT./REV. B	CAP. CU. FT./REV. BD	STD RPM	VENT SIZE	STD HP	A	B	C	D	E	F	G	H	J	K	L	M	N	P	Q	R	S	T	U	V	W	X	Y	AA	BB	CC	DD	EE	FF	WEIGHT C/S
1-BT-4	6 x 4	1.00" x .12"	.0288	.0288	38	1.25	.50	9.75	19.25	10.31	7.69	7.31	.31	1.19	1.00	.25 x .12 x 2.62	9.00	7.50	4.00	(4) .75	(4) .62-11UNC-2B	7.50	4.00	.62	3.12	-	(6) .56	(2) .50-13UNC-2B	13.00	21.00	5.00	4.75	2.75	28.25	3.00	3.00	205
1.25 - BT-4	6 x 4	1.25" x .12"	.0349	.0349	38	1.25	.50	9.75	19.25	10.31	7.69	7.31	.31	1.19	1.00	.25 x .12 x 2.63	9.00	7.50	4.00	(4) .75	(4) .62-11UNC-2B	7.50	4.00	.62	3.12	-	(6) .56	(2) .50-13UNC-2B	13.00	21.00	5.00	4.75	2.62	28.25	3.00	3.00	210
1.50-BT-5	8 x 5	1.50" x .12"	.0762	.0762	38	1.50	.50	11.75	20.50	10.94	8.31	7.94	.44	1.44	1.25	.38 x .19 x 2.62	10.00	8.50	5.00	(4) .88	(4) .75-10UNC-2B	8.50	5.00	.62	3.62	-	(6) .56	(2) .50-13UNC-2B	13.75	21.00	6.00	5.75	3.47	29.25	3.50	4.00	260
2-BT-5	8 x 5	2.00" x .12"	.0942	.0942	38	1.50	.50	11.75	20.50	10.94	8.31	7.94	.44	1.44	1.25	.38 x .19 x 2.63	10.00	8.50	5.00	(4) .88	(4) .75-10UNC-2B	8.50	5.00	.62	3.62	-	(6) .56	(2) .50-13UNC-2B	13.75	21.00	6.00	5.75	3.22	29.25	3.50	4.00	265
2.50-BT-6	10x 6	2.50" x .12"	.1838	.1838	32	1.50	.50	13.75	22.38	11.88	9.25	8.88	.44	1.94	1.75	.50 x .25 x 2.62	11.00	9.50	6.00	(4) .88	(4) .75-10UNC-2B	9.50	6.00	.62	4.12	-	(6) .56	(2) .50-13UNC-2B	14.75	22.00	7.00	6.75	3.97	32.25	4.00	5.00	310
3-BT-8	12x 8	3.00" x .12"	.3464	.3464	32	2.00	.75	16.50	24.38	12.88	10.25	9.88	.44	1.94	1.75	.50 x .25 x 2.63	13.50	11.75	8.00	(4) .88	(4) .75-10UNC-2B	11.50	8.00	.62	5.12	2.56	(14) .56	(2) .50-13UNC-2B	15.88	22.00	8.50	8.00	4.72	34.25	5.00	6.00	385
3.50-BT-8	12x 8	3.50" x .12"	.3796	.3796	32	2.00	.75	16.50	24.38	12.88	10.25	9.88	.44	1.94	1.75	.50 x .25 x 2.64	13.50	11.75	8.00	(4) .88	(4) .75-10UNC-2B	11.50	8.00	.62	5.12	2.56	(14) .56	(2) .50-13UNC-2B	15.88	22.00	8.50	8.00	4.47	34.25	5.00	6.00	390
4-BT-10	15 x 10	4.00" x .12"	.7283	.7283	32	2.50	.75	19.50	26.62	13.88	11.25	10.88	.44	2.19	2.00	.50 x .25 x 2.65	16.00	14.25	10.00	(8) 1.00	(4) .88-9UNC-2B	14.75	10.00	1.00	6.38	3.19	(14) .56	(2) .50-13UNC-2B	17.75	22.00	10.00	9.50	5.72	36.25	6.00	8.00	520
5-BT-12	17 x 12	5.00" x .12"	1.205	1.205	32	2.50	.75	21.50	29.75	15.81	12.44	12.06	.56	2.44	2.25	.62 x .31 x 3.40	19.00	17.00	12.00	(8) 1.00	(4) .88-9UNC-2B	16.75	12.00	1.00	7.38	3.69	(14) .56	(2) .50-13UNC-2B	18.75	22.00	11.00	10.50	6.22	40.25	7.38	9.00	660
6-BT-14	19 x 13	6.00" x .12"	1.688	1.688	32	3.00	.75	23.50	30.75	16.31	12.94	12.56	.56	2.44	2.25	.62 x .31 x 3.41	21.00	18.75	13.00	(8) 1.12	(4) 1.00-8UNC	18.00	13.00	1.00	8.00	4.00	(14) .56	(2) .50-13UNC-2B	19.75	22.00	12.00	11.50	6.72	42.25	7.62	10.00	885

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REV. NO.	DESCRIPTION	DATE	BY

REVISIONS

CUSTOMER

CUST. NO.

YOUNG ORDER NO.

TITLE

YOUNG INDUSTRIES MODEL 'BT' ROTARY VALVE, SIZE 1-BT-4 THRU 6-BT-14, CONVEY LINE - TUBING WITH PARALLEL SHAFT DRIVE, STANDARD DIMENSION SHEET

THE YOUNG INDUSTRIES, INC.
MUNCY, PENNSYLVANIA 17756
TELEPHONE: 570-546-3165

GENERAL TOLERANCES

UNLESS OTHERWISE SPECIFIED THE FOLLOWING SHALL APPLY

MACHINING - .XX= .02 .XXX= .005 ANGLE= .50°
SURFACE ROUGHNESS HEIGHT 63 MICROINCHES OR LESS

FABRICATION - UNDER 6 6 TO 24 24 TO 60 OVER 60
± .06 ± .12 ± .19 ± .25

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES

DRAWN BY:	BMF
DATE DRAWN:	3/21/16
CHECKED BY:	
SCALE:	1:4
DRAWING NUMBER	S-4-7631
REV:	