

MODEL HC ROTARY VALVE

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Now Available

Rotary Valve Calculator App



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.
- ▶ Standard design/operating temperature up to 250°F.
- ▶ Round or square inlet and discharge flanges.
- ▶ Outboard-mounted precision ball bearings.
- ▶ Packing gland provides a tight rotor shaft seal with four rings of PTFE impregnated Kevlar.
- ▶ Open or shrouded rotors.
- ▶ End plates are piloted to assure concentricity of the housing so that tight internal clearances between rotor and housing is provided.

**ADVANCED
TECHNOLOGY
PROVEN DESIGN**

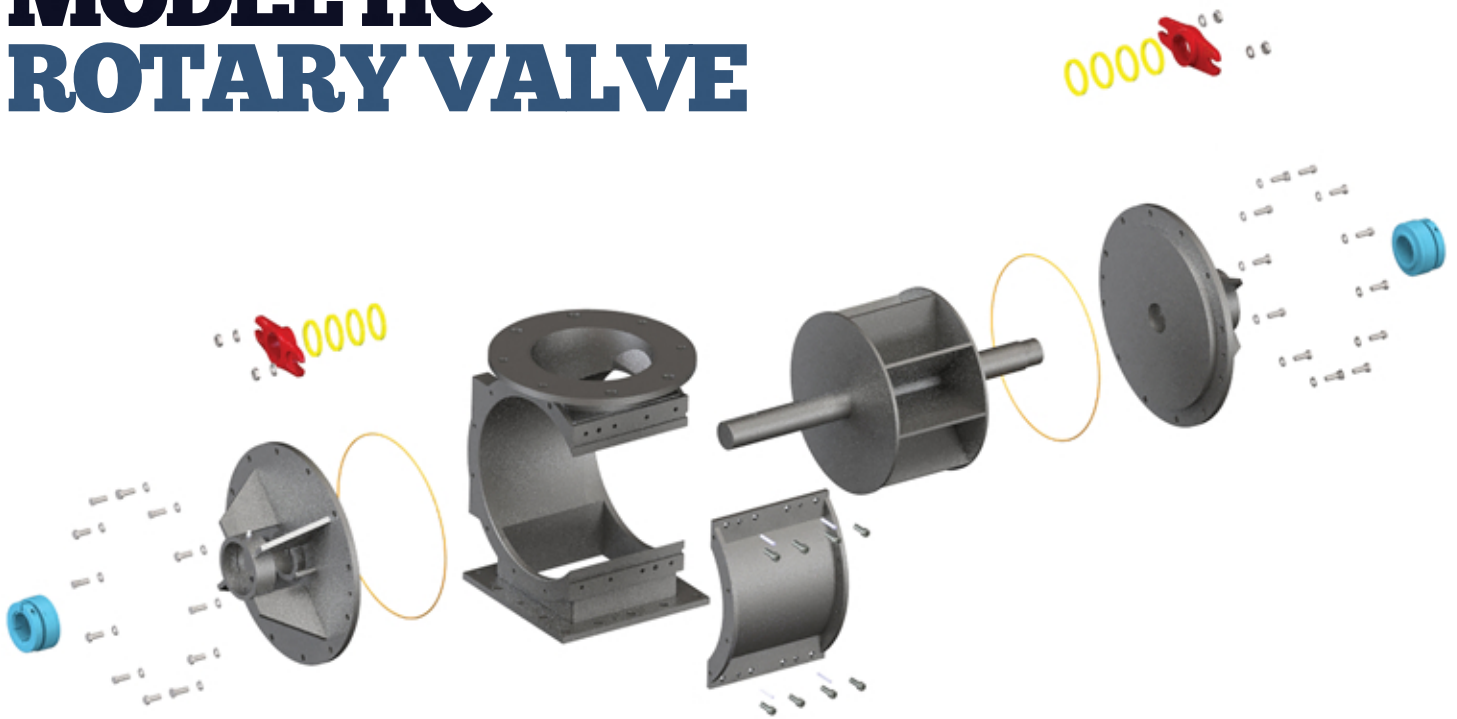
ENGINEERED TO INCREASE PRODUCTIVITY. BUILT TO LAST.

The Young Industries, Inc. Model "HC" (High Capacity) Rotary Valve is a straight drop-thru design for handling all types of powders or granules. These rotary valves have been proven to provide superior performance and reliability in a wide range of bulk material handling applications. The over-all cost of ownership is very low while the service life of the valve is long. These valves can be used for a wide variety of applications involving metering or non-metering/airlock conditions.

The Model "HC" Rotary Valve has a large diameter rotor and vertical inlet and discharge throats to handle those powders that have poor flow characteristics. This proven design is used when metering cohesive and sticky powders that can be problematic in a conventional rotary valves with transitioned inlet and discharge throats.

The rotor is engineered with eight vanes to insure there is always two blades positioned between the inlet and discharge. This two-blade seal and precision machined housing ensures that there is minimum air or gas leakage in those applications where the valve is used to seal between two different pressure or vacuum zones.

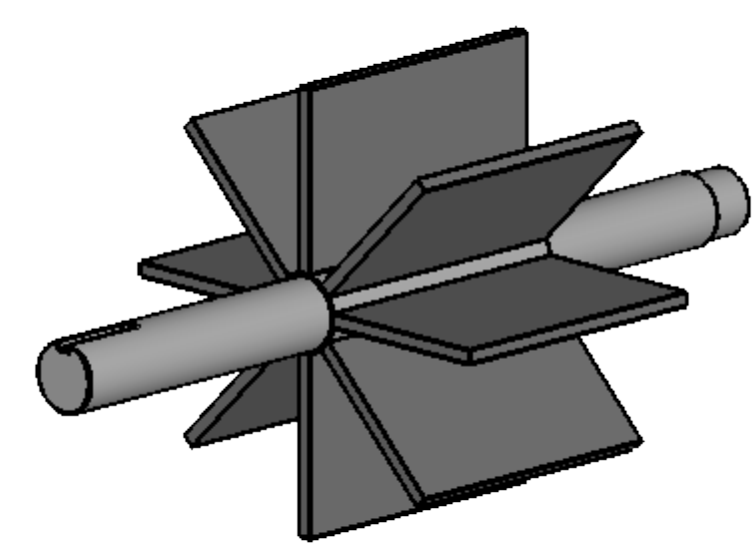
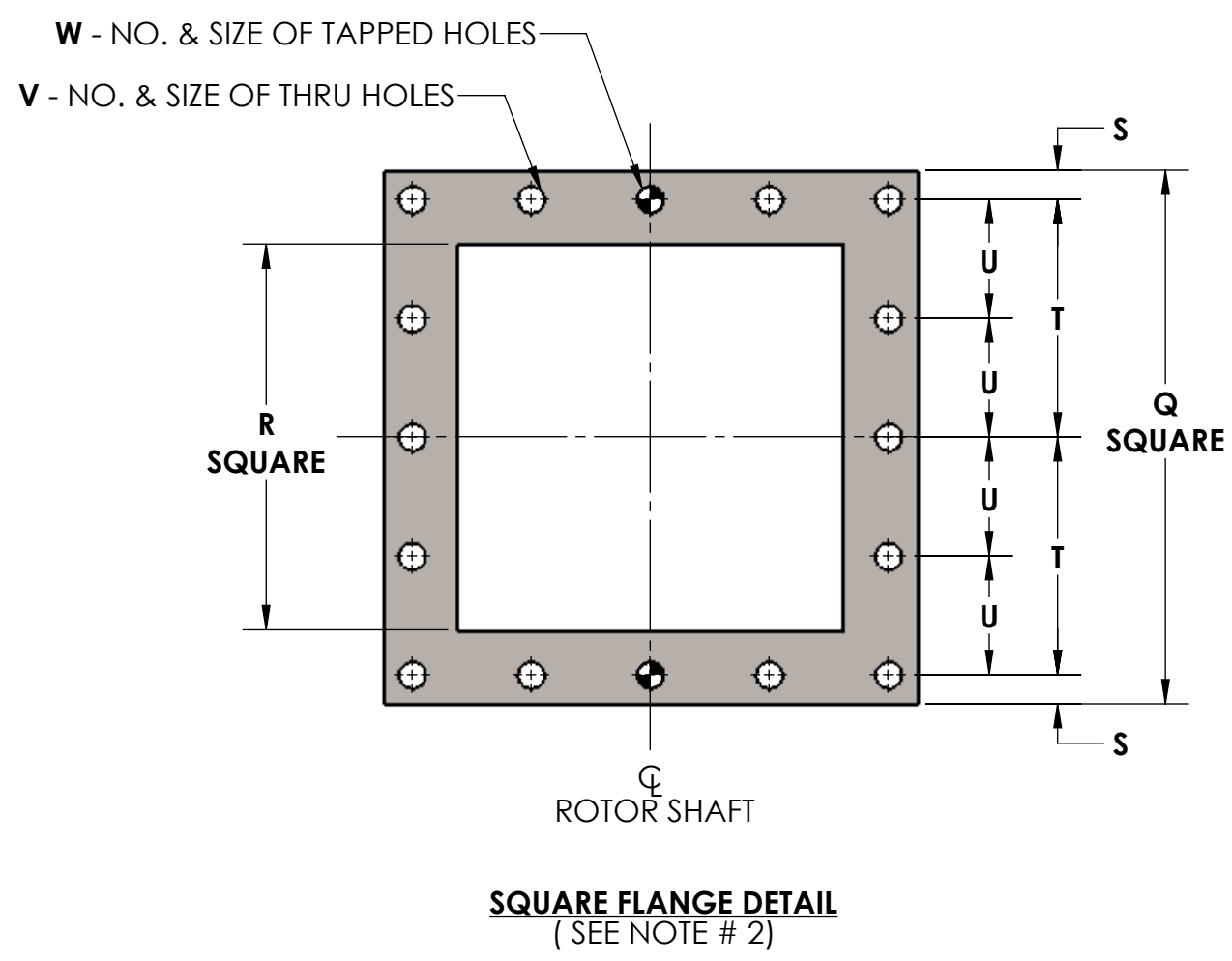
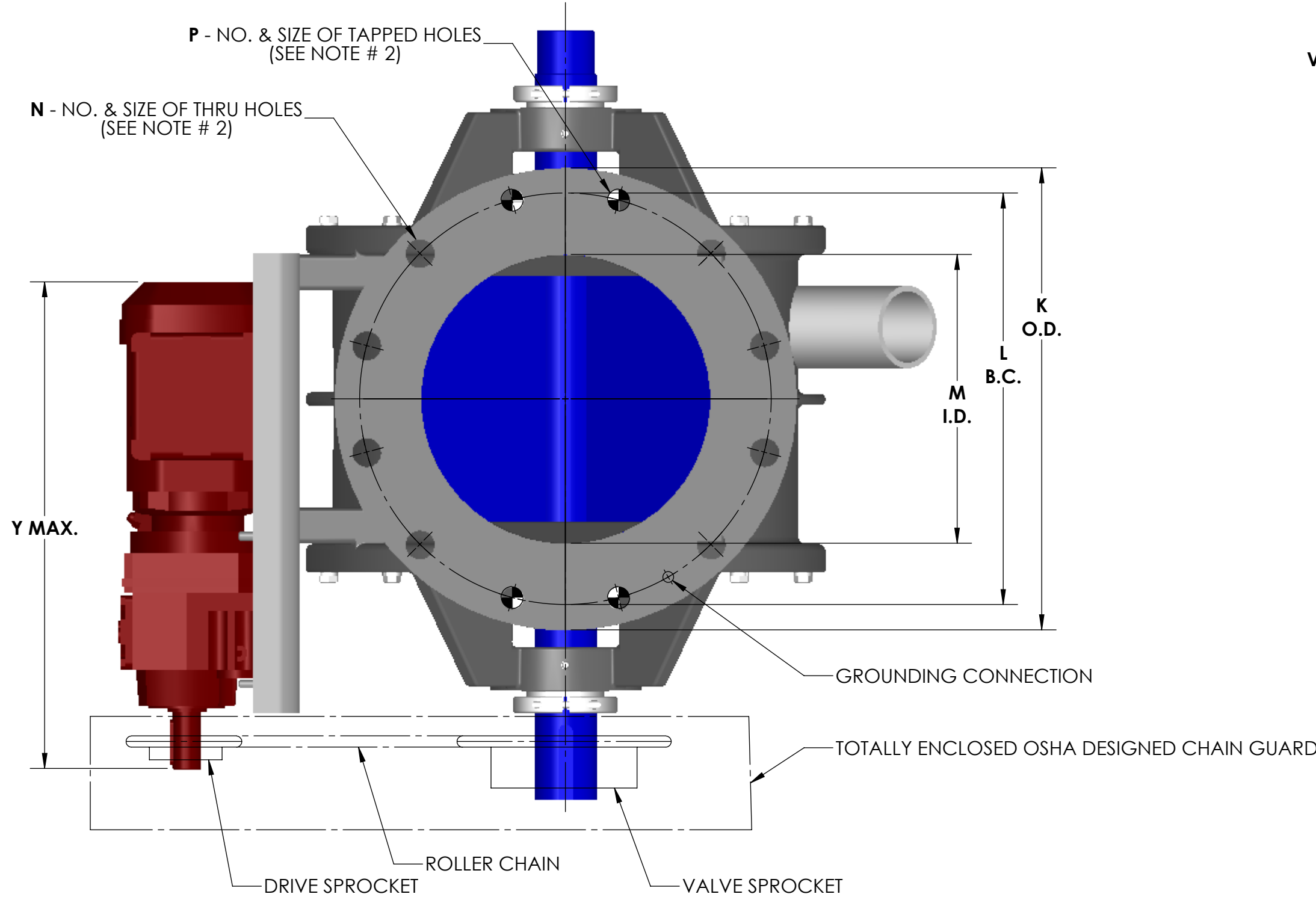
MODEL HC ROTARY VALVE



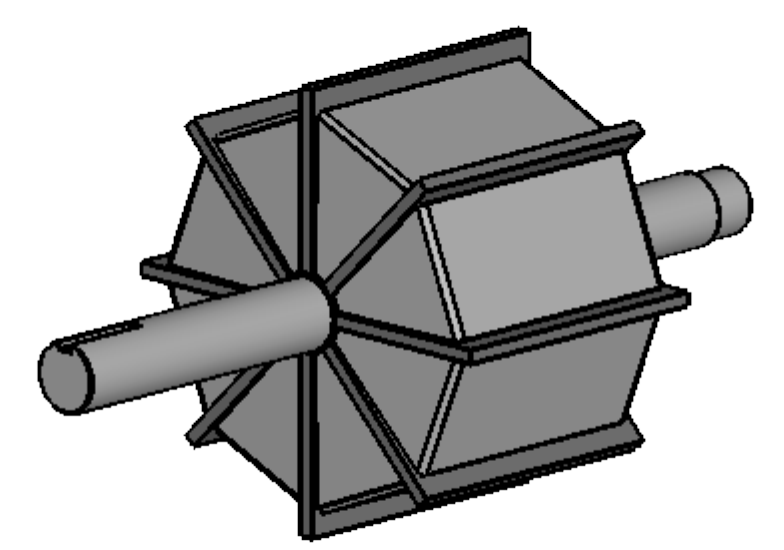
OPTIONAL FEATURES:

- ▶ High internal pressure designs up to 350 PSIG.
- ▶ High temperature designs up to 1500°F.
- ▶ Sizes from 1" up to 36" with double length styles available.
- ▶ Roller chain drive with parallel shaft TEFC driven gearmotor is standard with explosion proof motors of any specified manufacturer available.
- ▶ Shaft mounted drive is available.
- ▶ Special materials of construction including various grades of Stainless Steel, Hastelloy, Titanium, Inconel or Engineered Plastics.
- ▶ Interior polish or electro-polish per application requirement.
- ▶ Special packing materials of graphite, food grade PTFE or as needed by process.
- ▶ Interior coating for providing abrasion resistance or material release include hard chrome plating, nickel plating, tungsten carbide, Stellite, or Teflon.
- ▶ Transflow® fluidized rotors for cohesive powders.
- ▶ 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.
- ▶ 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.

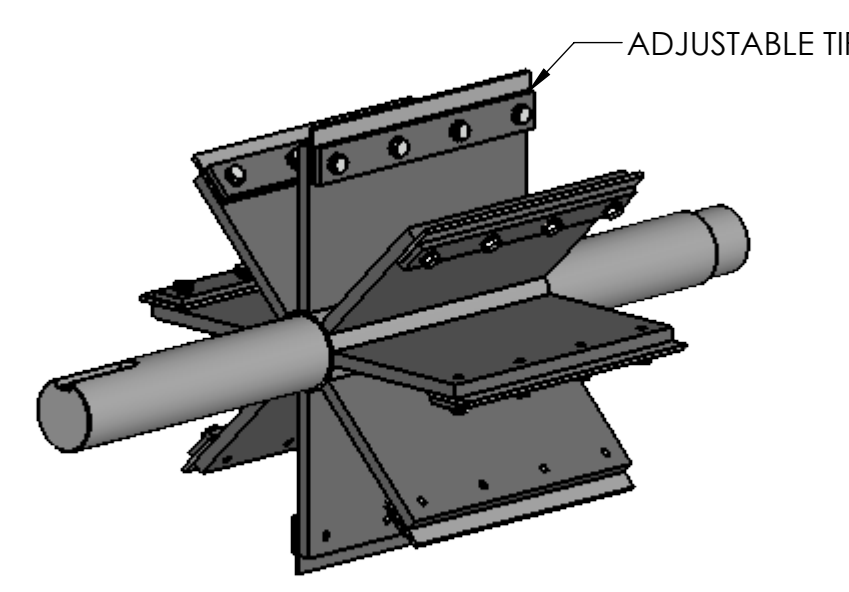




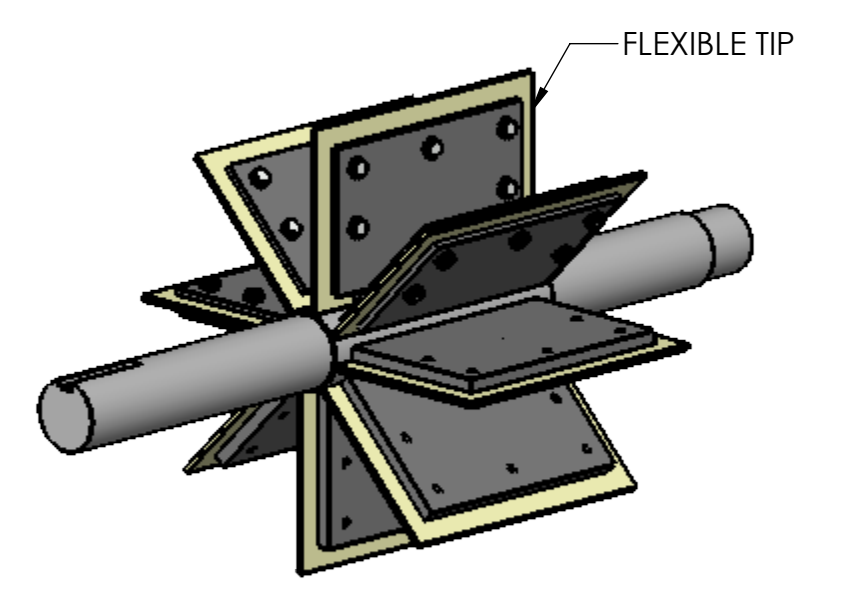
TYPE 'A' ROTOR



TYPE 'B' & 'C' ROTOR

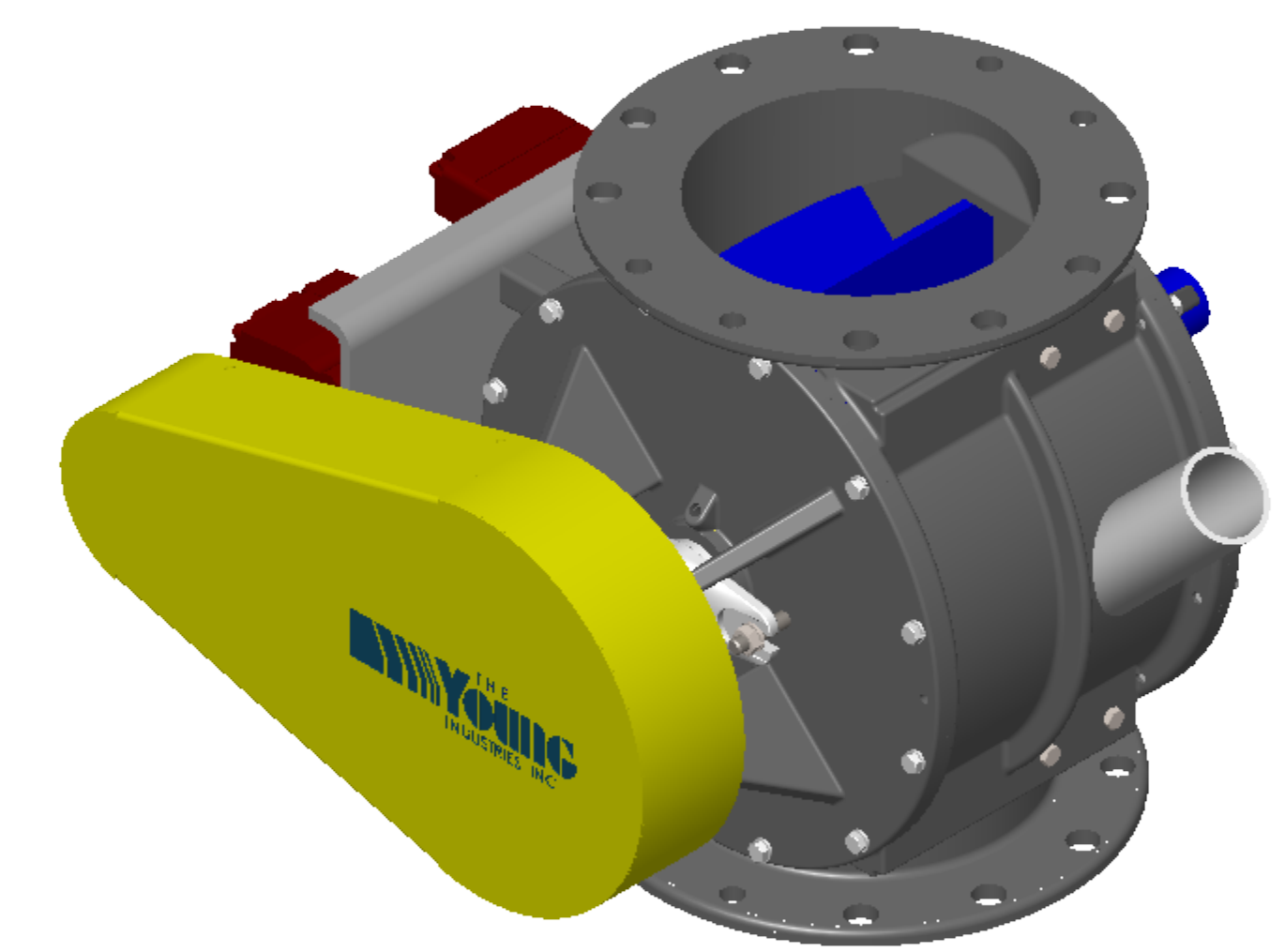
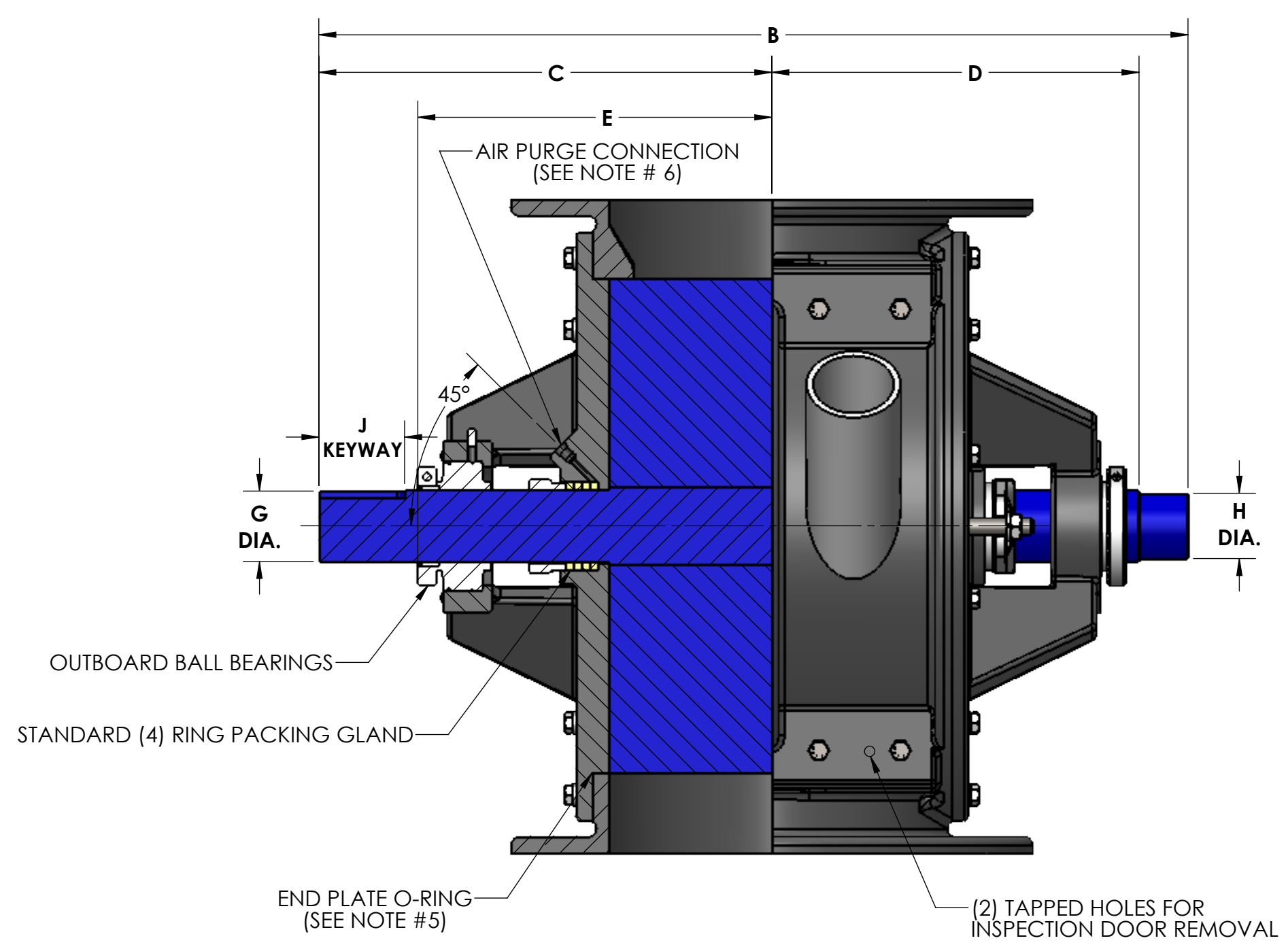
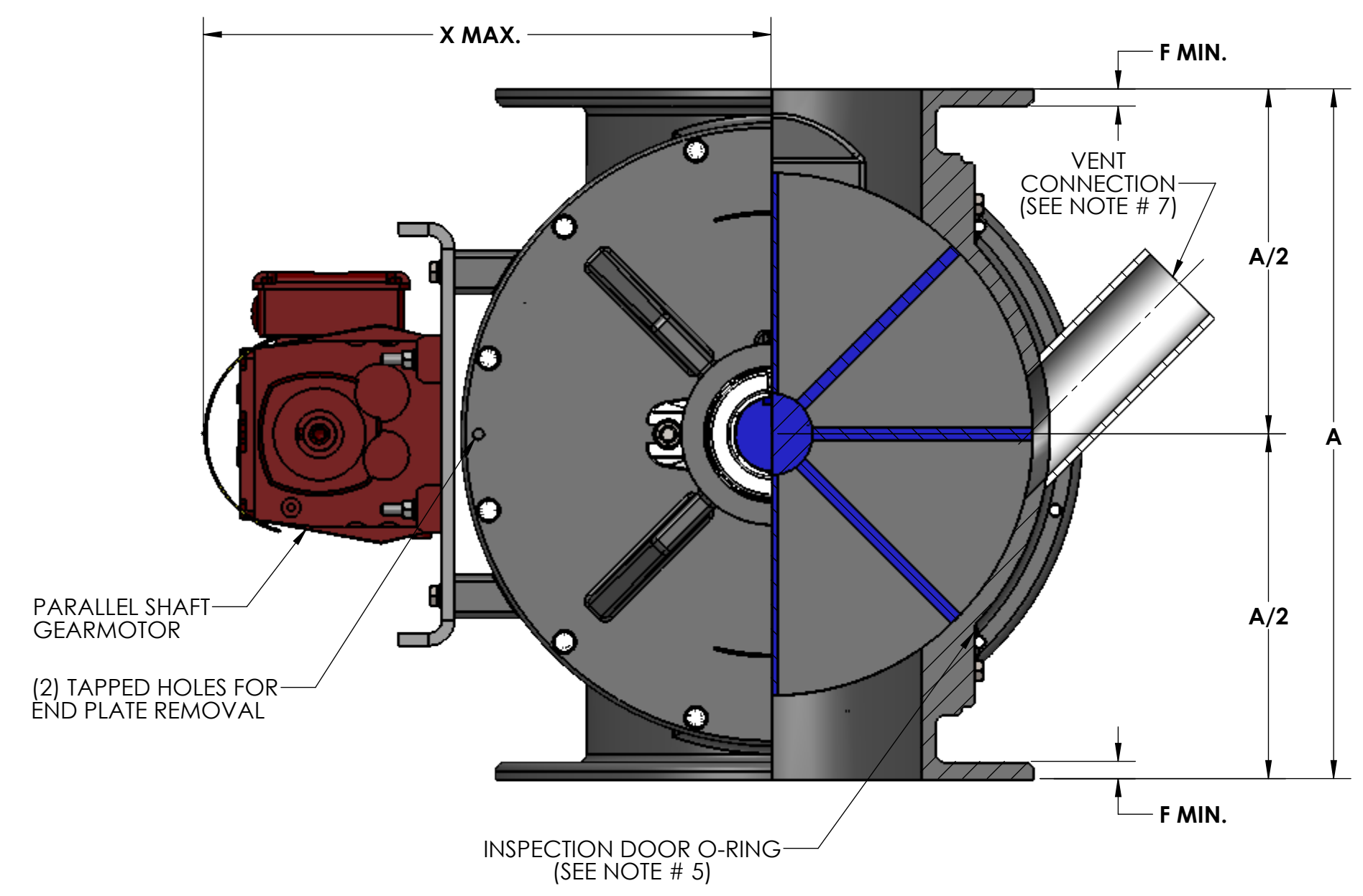


TYPE 'D' ROTOR



TYPE 'D3' ROTOR

ROTOR SIZES: 4" - 12" 8-VANES
14" - 24" 12-VANES



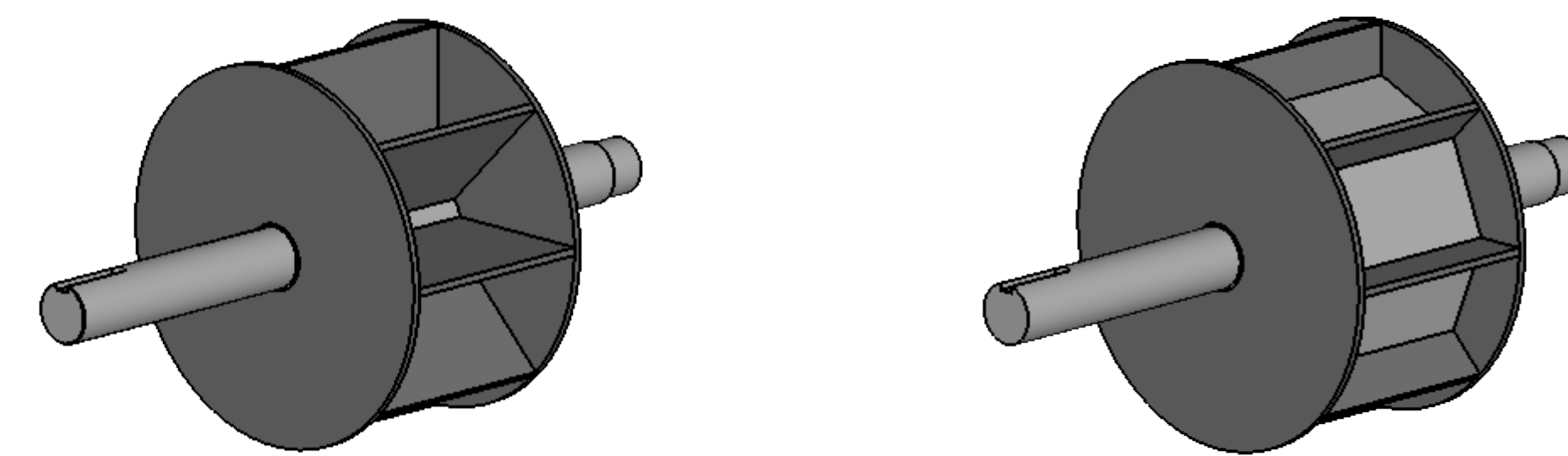
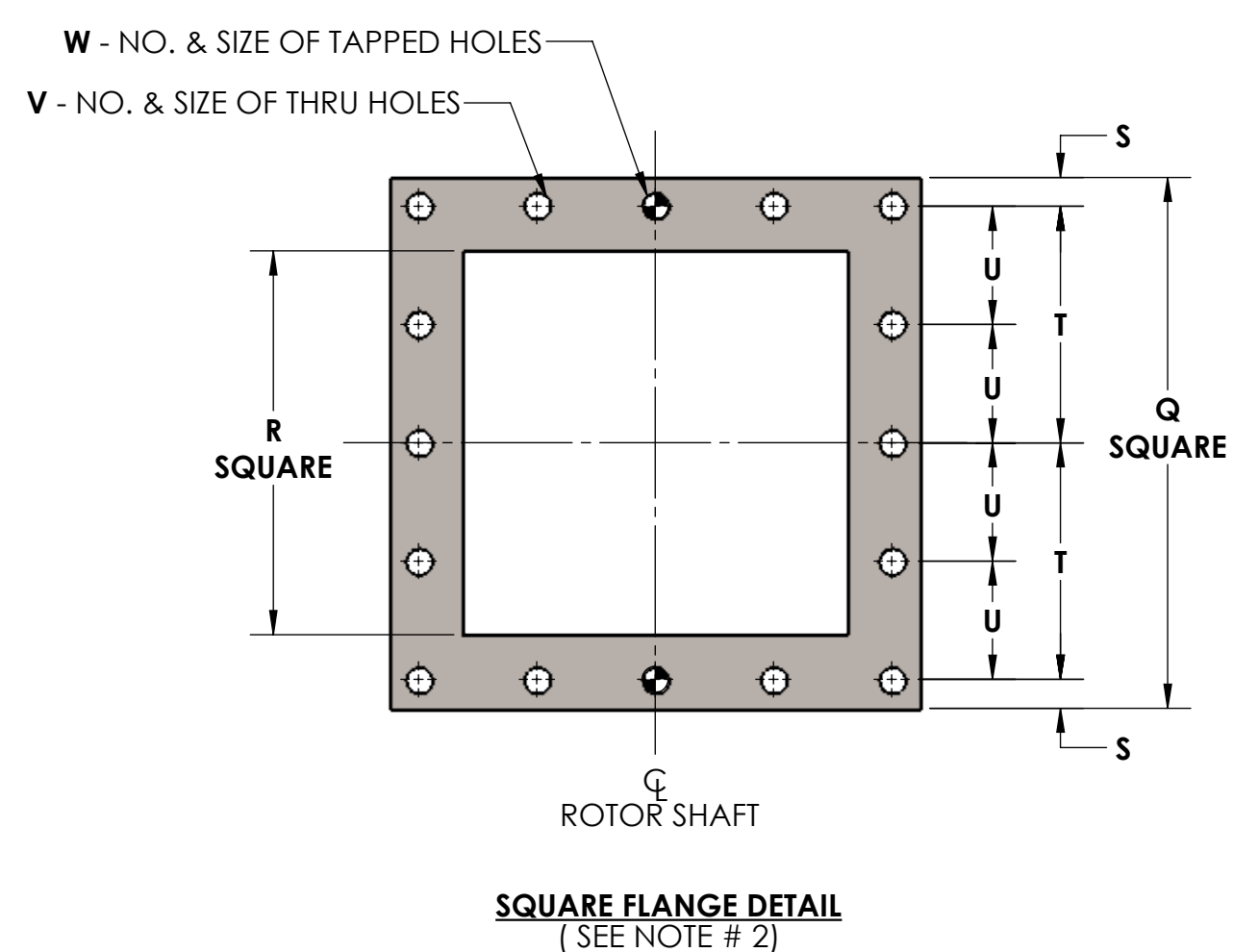
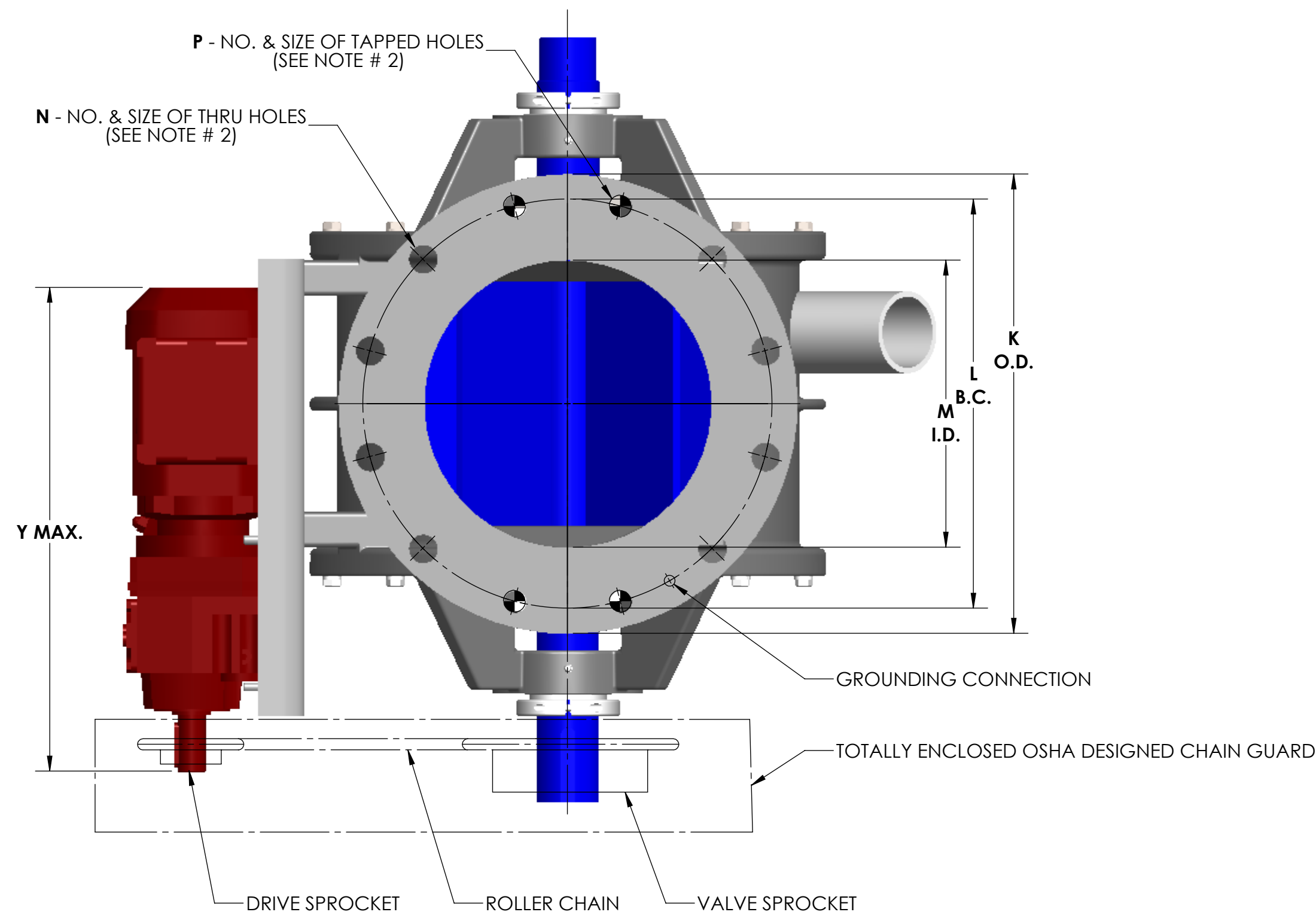
- NOTES:**
1. VALVE HOUSINGS ARE CAST OF IRON, ALUMINUM, STEEL OR STAINLESS STEEL; FABRICATED OF STEEL OR STAINLESS STEEL. ALL ROTORS ARE FABRICATED OF STEEL OR STAINLESS STEEL.
 2. VALVE HOUSINGS ARE AVAILABLE WITH EITHER A SQUARE OR ROUND INLET AND OUTLET. ROUND FLANGES MATCH 150# ANSI DRILLING.
 3. 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.	ROTOR CAPACITY CU. FT. PER REV.					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		WEIGHT
		A	B	C	D3	STD.																										MAX.	C/S	
4	6 x 4	.0528	.0342	.0162	.048	.0488	38	1.25	.50	10.00	19.25	10.31	7.69	7.31	0.31	1.19	1.00	.25 x .12 x 2.62	9.00	7.50	4.00	(8) .75	N/A	7.50	4.00	.62	3.12	N/A	(6) .56	(2) .50-13UNC-2B	13.31	20.38	0.00	205
5	8 x 5	0.123	.0763	.0525	.117	.112	38	1.50	.50	12.00	20.50	10.94	8.31	7.94	0.44	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	N/A	(6) .56	(2) .50-13UNC-2B	14.31	20.38	0.00	260
6	10 x 6	0.237	.142	.092	.230	.218	32	1.50	.50	14.00	22.38	11.88	9.25	8.88	0.44	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	N/A	(6) .56	(2) .50-13UNC-2B	15.38	20.38	0.00	310
8	12 x 8	.441	.244	.132	.434	.412	32	2.00	.75	17.00	24.38	12.88	10.25	9.88	0.44	1.94	1.75	.50 x .25 x 2.62	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	16.38	20.38	0.00	385
10	15 x 10	.893	.563	.172	.884	.838	32	2.50	.75	20.00	26.62	13.88	11.25	10.88	0.44	2.19	2.00	.50 x .25 x 2.62	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	18.00	20.38	0.00	520
12	17 x 12	1.398	.730	.284	1.387	1.316	32	2.50	.75	22.00	29.75	15.81	12.44	12.06	0.56	2.44	2.25	.62 x .31 x 3.38	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	19.00	21.38	0.00	660
14	19 x 13	1.787	1.004	.468	1.769	1.651	32	3.00	.75	24.00	30.75	16.31	12.94	12.56	0.56	2.44	2.25	.62 x .31 x 3.38	21.00	18.75	13.00	(8) 1.12	(4) 1.00-8UNC-2B	18.00	13.00	1.00	8.00	4.00	(14) .56	(2) .50-13UNC-2B	19.94	21.38	0.00	885
16	23 x 15	3.044	1.679	.777	3.008	2.829	30	3.50	1.5	28.00	34.62	18.31	14.81	14.44	0.62	2.94	2.75	.75 x .38 x 3.50	23.50	21.25	15.00	(12) 1.12	(4) 1.00-8UNC-2B	20.00	15.00	1.00	9.00	4.50	(14) .69	(2) .62-11UNC-2B	23.00	25.75	0.00	1,260
18	25 x 17	4.125	2.251	1.064	4.102	3.849	28	3.50	1.5	30.00	36.62	19.31	15.81	15.44	0.62	2.94	2.75	.75 x .38 x 3.50	25.00	22.75	17.00	(12) 1.25	(4) 1.12-7UNC-2B	22.00	17.00	1.00	10.00	5.00	(14) .69	(2) .62-11UNC-2B	24.06	25.75	0.00	1,510
20	28 x 19	5.922	3.234	1.524	5.904	5.572	28	4.00	2.0	36.00	41.38	22.38	17.50	17.12	0.75	3.19	3.25	.75 x .38 x 4.50	27.50	25.00	19.00	(16) 1.25	(4) 1.12-7UNC-2B	25.50	19.00	1.25	11.50	5.75	(14) .81	(2) .75-10UNC-2B	26.62	25.75	0.00	2,200
22	32 x 21	8.691	4.781	2.257	8.672	8.228	26	5.00	2.0	40.00	45.75	24.81	19.44	19.06	0.75	3.69	3.75	.88 x .44 x 5.00	29.75	27.25	21.00	(16) 1.38	(4) 1.25-7UNC-2B	27.50	21.00	1.25	12.50	6.25	(14) .81	(2) .75-10UNC-2B	28.62	25.75	0.00	2,730
24	34 x 23	10.833	5.926	2.751	10.772	10.224	24	5.00	2.0	42.00	47.75	25.81	20.44	20.06	0.75	3.75	3.75	.88 x .44 x 5.00	32.00	29.50	23.00	(16) 1.38	(4) 1.25-7UNC-2B	29.50	23.00	1.25	13.50	6.75	(14) .81	(2) .75-10UNC-2B	29.62	25.75	0.00	3,000

SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTIFICATION

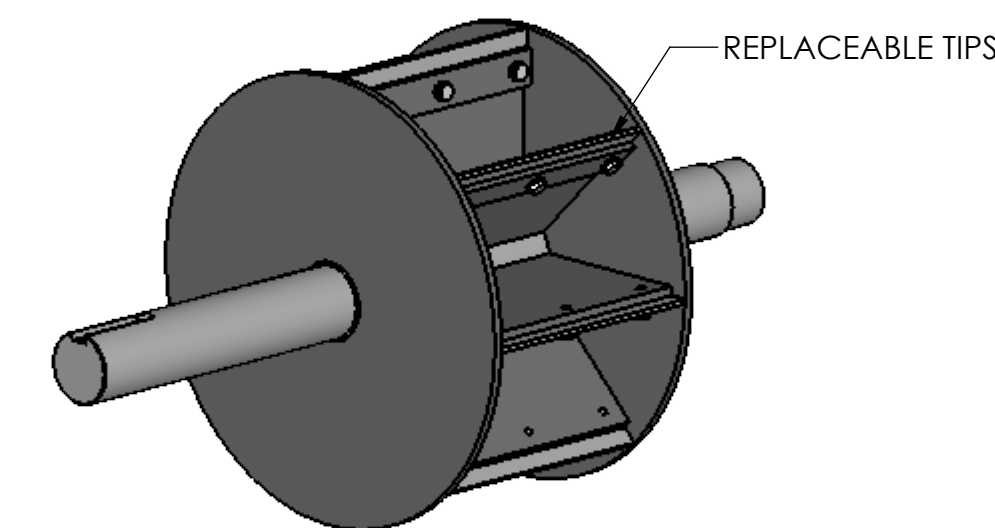
REV. NO.	DESCRIPTION	DATE	BY
REVISIONS			
CUSTOMER			
CUST. NO.			
YOUNG ORDER NO.			
TITLE			
YOUNG INDUSTRIES MODEL 'HC' ROTARY VALVE, SIZE 4" - 24", CLASS 15 WITH PARALLEL SHAFT DRIVE, OPEN ROTOR STANDARD DIMENSION SHEET			
THE YOUNG INDUSTRIES, INC. HUNCY, PENNSYLVANIA 17756 TELEPHONE: 570-546-3165			
DRAWN BY: BMF		DATE DRAWN: 3/21/16	
CHECKED BY:		SCALE: 1:4	
DRAWING NUMBER		REV:	
S-4-6428			

GENERAL TOLERANCES	
UNLESS OTHERWISE SPECIFIED THE FOLLOWING SHALL APPLY	
MACHINING - .XX= .02 XXX= .005 ANGLE= .50°	
SURFACE ROUGHNESS HEIGHT 63 MICRONS OR LESS	
FABRICATION - UNDER 6" 6 TO 24" 24 TO 60" OVER 60"	
± .06 ± .12 ± .19 ± .25	
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES	



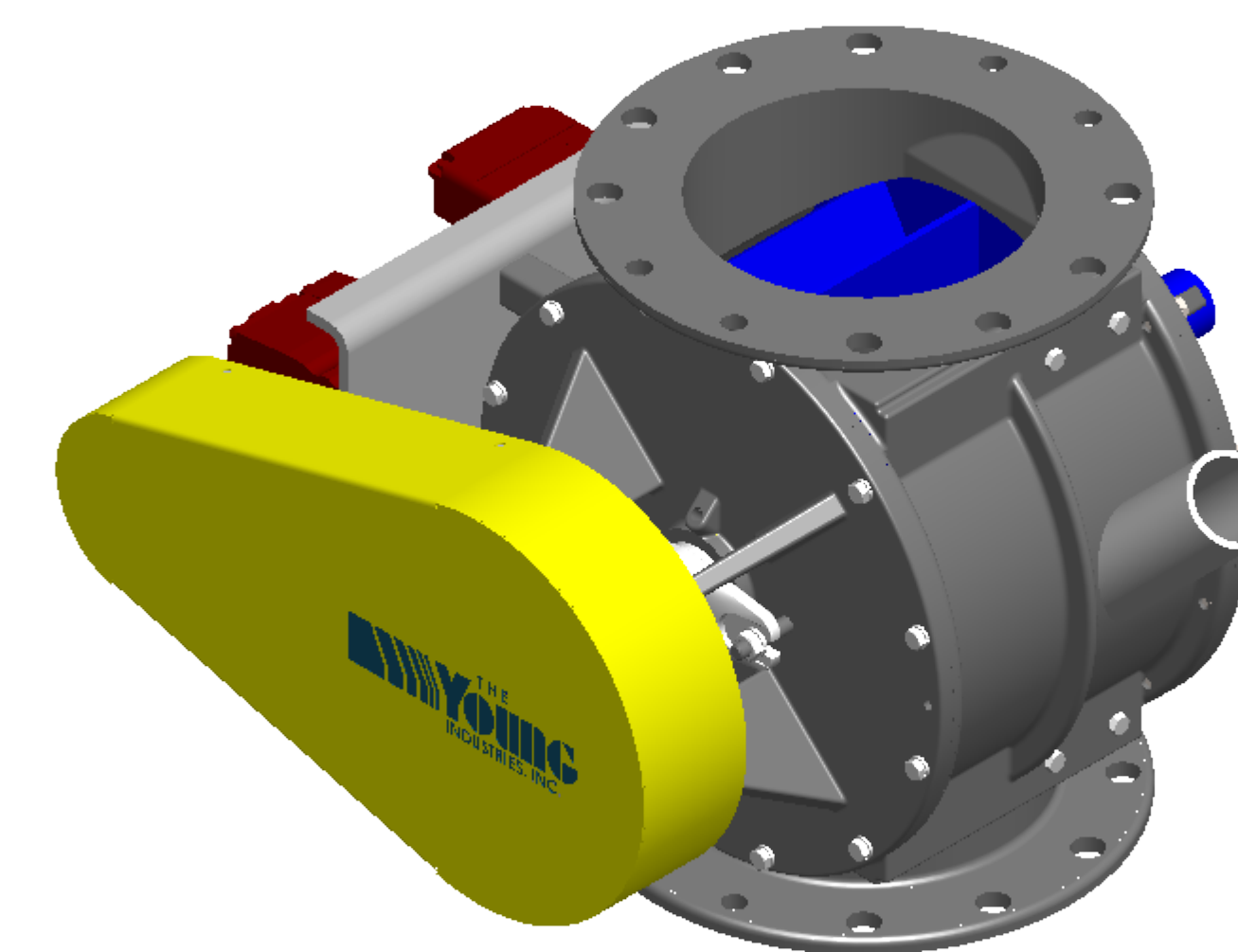
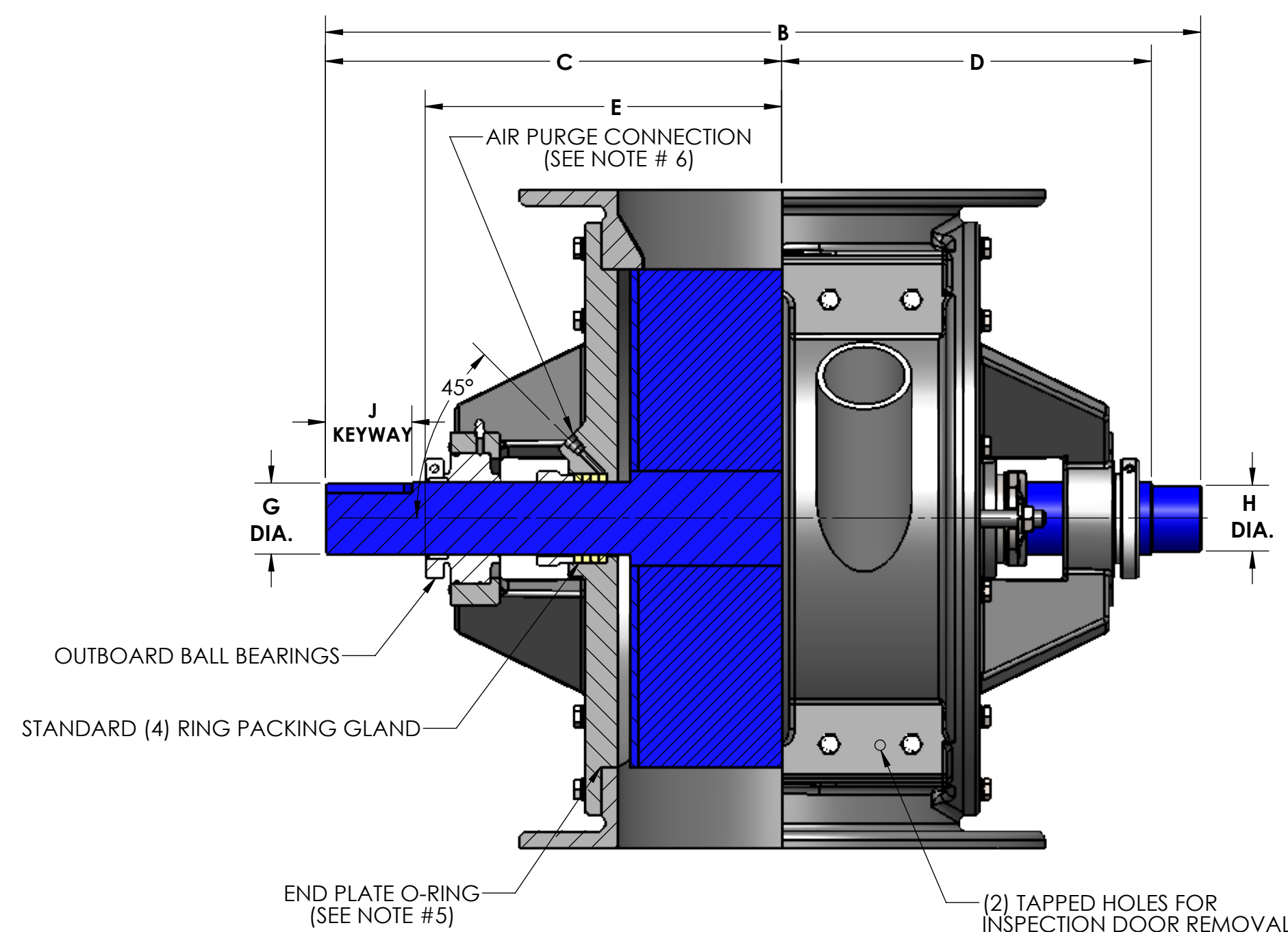
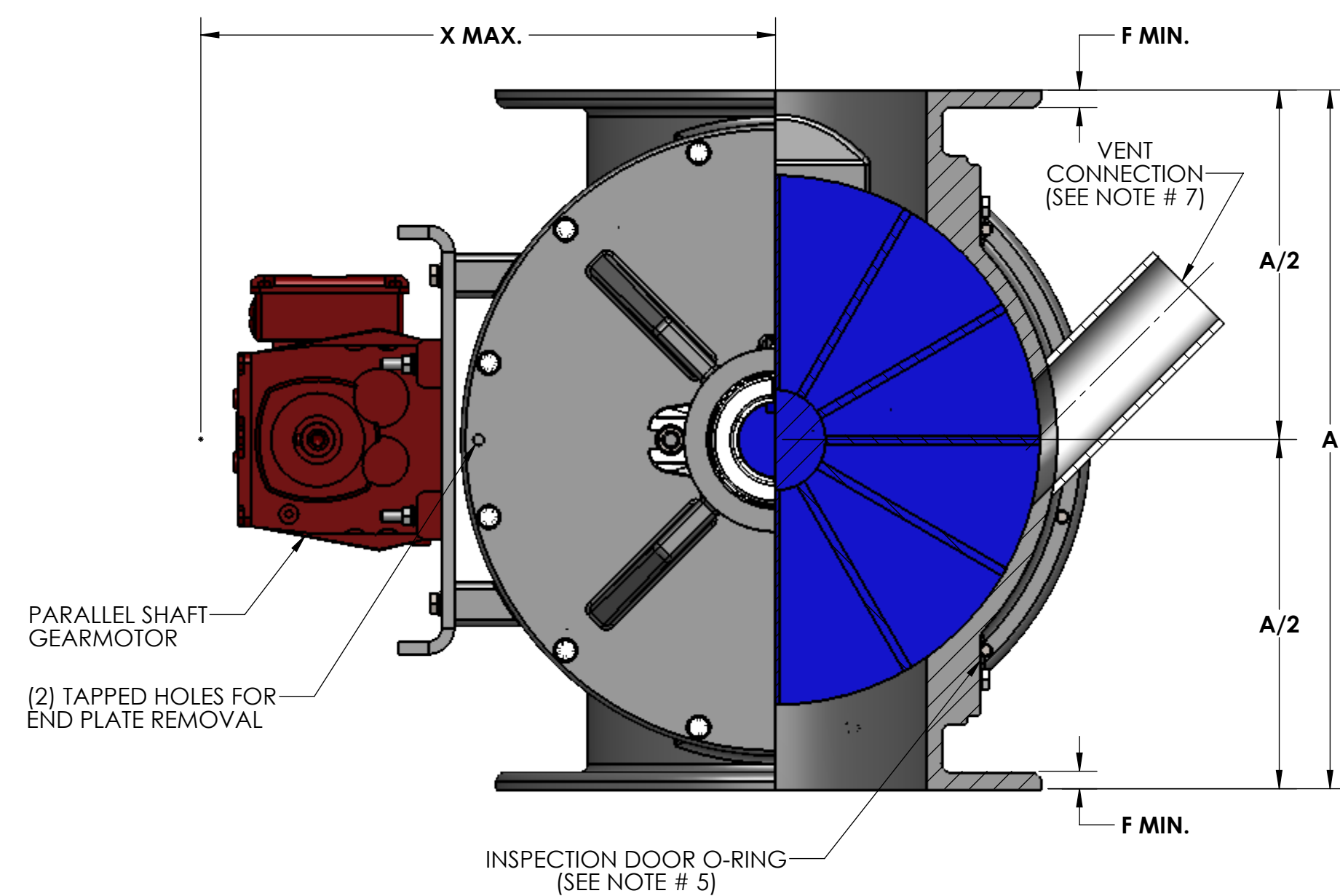
TYPE 'AS' ROTOR

TYPE 'BS' & 'CS' ROTOR



TYPE 'DS' ROTOR

ROTOR SIZES: 4" - 12" 8-VANES
14" - 24" 12-VANES



Size	ROTOR DIA x LG.	ROTOR CAPACITY CU. FT. PER REV.				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			WEIGHT
		AS	BS	CS	DS																										STD.	MAX.	C/S	
4	6 x 4	.0428	.0274	.0129	.0399	38	1.25	.50	10.00	19.25	10.31	7.69	7.31	0.31	1.19	1.00	.25 x 12 x 2.62	9.00	7.50	4.00	(8) .75	N/A	7.50	4.00	.62	3.12	N/A	(6) .56	(2) .50-13UNC-2B	13.31	20.38	0.00	205	
5	8 x 5	.105	.0642	.0440	.101	38	1.50	.50	12.00	20.50	10.94	8.31	7.94	0.44	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	N/A	(6) .56	(2) .50-13UNC-2B	14.31	20.38	0.00	260	
6	10 x 6	.208	.124	.0795	.203	32	1.50	.50	14.00	22.38	11.88	9.25	8.88	0.44	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	N/A	(6) .56	(2) .50-13UNC-2B	15.38	20.38	0.00	310	
8	12 x 8	.393	.214	.115	.389	32	2.00	.75	17.00	24.38	12.88	10.25	9.88	0.44	1.94	1.75	.50 x 25 x 2.62	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	16.38	20.38	0.00	385	
10	15 x 10	.815	.507	.354	.811	32	2.50	.75	20.00	26.62	13.88	11.25	10.88	0.44	2.19	2.00	.50 x 25 x 2.62	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	18.00	20.38	0.00	520	
12	17 x 12	1.30	.670	.459	1.295	32	2.50	.75	22.00	29.75	15.81	12.44	12.06	0.56	2.44	2.25	.62 x 31 x 3.38	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	19.00	21.38	0.00	660	
14	19 x 13	1.715	.940	.638	1.705	32	3.00	.75	24.00	30.75	16.31	12.94	12.56	0.56	2.44	2.25	.62 x 31 x 3.38	21.00	18.75	13.00	(8) 1.12	(4) 1.00-8UNC-2B	18.00	13.00	1.00	8.00	4.00	(14) .56	(2) .50-13UNC-2B	19.94	21.38	0.00	885	
16	23 x 15	2.787	1.518	1.011	2.787	30	3.50	1.5	28.00	34.62	18.31	14.81	14.44	0.62	2.94	2.75	.75 x 38 x 3.50	23.50	21.25	15.00	(12) 1.12	(4) 1.00-8UNC-2B	20.00	15.00	1.00	9.00	4.50	(14) .69	(2) .62-11UNC-2B	23.00	25.75	0.00	1,260	
18	25 x 17	3.819	2.062	1.337	3.818	28	3.50	1.5	30.00	36.62	19.31	15.81	15.44	0.62	2.94	2.75	.75 x 38 x 3.50	25.00	22.75	17.00	(12) 1.25	(4) 1.12-7UNC-2B	22.00	17.00	1.00	10.00	5.00	(14) .69	(2) .62-11UNC-2B	24.06	25.75	0.00	1,510	
20	28 x 19	5.397	2.909	1.969	5.415	28	4.00	2.0	36.00	41.38	22.38	17.50	17.12	0.75	3.19	3.25	.75 x 38 x 4.50	27.50	25.00	19.00	(16) 1.25	(4) 1.12-7UNC-2B	25.50	19.00	1.25	11.50	5.75	(14) .81	(2) .75-10UNC-2B	26.62	25.75	0.00	2,200	
22	32 x 21	7.983	4.343	2.947	8.005	26	5.00	2.0	40.00	45.75	24.81	19.44	19.06	0.75	3.69	3.75	.88 x 44 x 5.00	29.75	27.25	21.00	(16) 1.38	(4) 1.25-7UNC-2B	27.50	21.00	1.25	12.50	6.25	(14) .81	(2) .75-10UNC-2B	28.62	25.75	0.00	2,730	
24	34 x 23	10.037	5.434	3.621	10.033	24	5.00	2.0	42.00	47.75	25.81	20.44	20.06	0.75	3.75	3.75	.88 x 44 x 5.00	32.00	29.50	23.00	(16) 1.38	(4) 1.25-7UNC-2B	29.50	23.00	1.25	13.50	6.75	(14) .81	(2) .75-10UNC-2B	29.62	25.75	0.00	3,000	

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 - END PLATES AND INSPECTION DOOR O-RINGS ARE OPTIONAL AND WILL BE FURNISHED ONLY WHEN SPECIFIED.
 - AIR PURGE CONNECTIONS WITH BRASS LANTERN RINGS ARE OPTIONAL AND WILL BE FURNISHED ONLY WHEN SPECIFIED.
 - VENT WITH SCH 10 PIPE IS OPTIONAL AND WILL BE FURNISHED ONLY WHEN SPECIFIED. VENT CONNECTION WILL CHANGE ROTOR ROTATION TO COUNTER-CLOCKWISE.

GENERAL TOLERANCES		
UNLESS OTHERWISE SPECIFIED THE FOLLOWING SHALL APPLY		
MACHINING - .XX=	.02	.XXX= .005
ANGLE= .50°		
SURFACE ROUGHNESS HEIGHT 63 MICRONS OR LESS		
FABRICATION - UNDER 6	6 TO 24	24 TO 60
	OVER 60	
	± .06	± .12 ± .19 ± .25
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES		

REV. NO.	DESCRIPTION	DATE	BY
REVISIONS			
CUSTOMER			
CUST. NO.			
YOUNG ORDER NO.			
TITLE			
YOUNG INDUSTRIES MODEL 'HC' ROTARY VALVE, SIZE 4" - 24", CLASS 15 WITH PARALLEL SHAFT DRIVE, SHROUDED ROTOR STANDARD DIMENSION SHEET			
YOUNG INDUSTRIES, INC. MUNCY, PENNSYLVANIA 17756 TELEPHONE: 370-546-3165			
DRAWN BY: BMF		DATE DRAWN: 3/21/16	
CHECKED BY:		SCALE: 1:4	
DRAWING NUMBER		REV:	

S-4-6429