

Donaldson®  
Torit®

**ROTARY VALVES**



# PUTTING DUST IN ITS PLACE

A high performance Donaldson® Torit® dust collector is only the first step in getting rid of dust efficiently and effectively. Integrate a Donaldson Torit rotary valve with the collector to create a complete system that automatically and continuously transfers dust from the hopper to the conveying system or collection container.

A rotary valve is one middleman it doesn't pay to eliminate. A Donaldson Torit rotary valve reduces downtime and labor by taking dust disposal out of employees' hands. And all Donaldson Torit rotary valves are designed with a precise seal that keeps air out of the hopper and safeguards the performance of the collector.

Whether disposing of dust, using it in other processes or selling it to other manufacturers, a Donaldson Torit rotary valve is the most economical, productive and efficient way to put dust in its place.

## DONALDSON TORIT ROTARY VALVES FEATURE:

- Fast, efficient automated dust collection and disposal
- Continuous dust disposal that keeps hopper and collector operating at peak performance
- Reduced dust collector maintenance time and cost
- Trustworthy, high quality technology from the leader in industrial air filtration
- One-year warranty

**AUTOMATED  
DUST DISPOSAL  
FROM START TO FINISH**



AN Flex Tip  
Rotary Valve

# AUTOMATED, INNOVATIVE DUST DISPOSAL

Rely on a Donaldson Torit rotary valve to handle the dirty work of dust disposal with ease.

## COMPREHENSIVE

A full line of rotary valves are available in models and sizes to fit most any application from nuisance dust to more challenging sticky and abrasive particles.

## EFFICIENT

A Donaldson Torit rotary valve allows complete automation of a dust collection system from start to finish, continuously depositing dust from the collector to the end-of-the-line material handling system.

## INNOVATIVE

A precise seal eliminates dust build-up in the hopper and prevents air from entering the hopper discharge, which can seriously compromise filter life and impede the collector performance.

## HIGH PERFORMANCE

Rotor blade and stationary housings are designed to very high tolerances for reliable, high quality performance and air seal integrity.

## COST EFFECTIVE

A proprietary straight line throat design allows a smaller Donaldson Torit valve to do the job of other manufacturers' larger valves, which can reduce the cost of dust disposal.

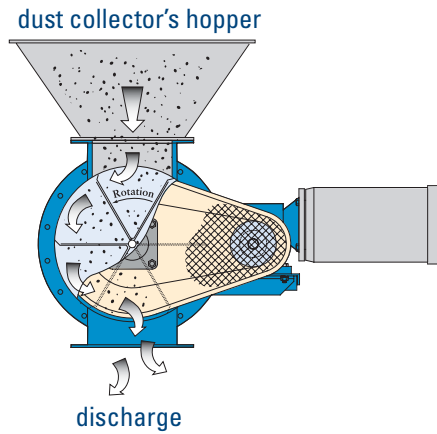


CI Cast Iron  
Rotary Valve



F-Series Feeder  
Rotary Valve

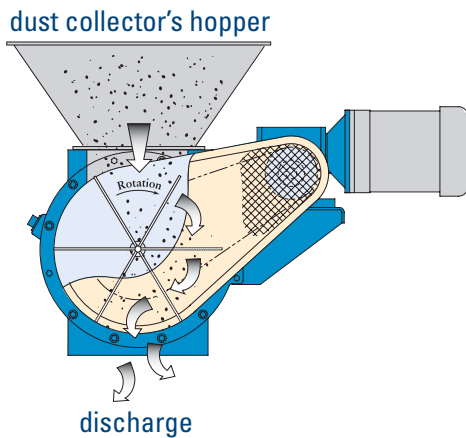
# SIZES & OPERATIONS



**Normal Operations For AN Rotary Valves**

## AN ROTARY VALVES

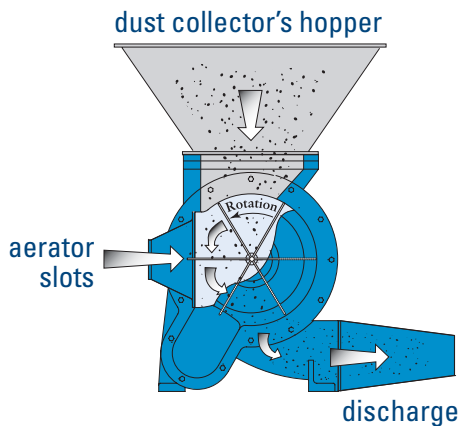
- Economical solution for automated handling of most discharge dust
- Rugged one-piece design features a double wiper rotor for a precise seal in low air pressure applications
- Extended length wipers allow larger chunks to pass on models 8-16 AN
- Eight sizes: 6", 8", 10", 12", 16", 20", 24" and 30"



**Normal Operations For CI Rotary Valves**

## CI ROTARY VALVES

- Designed to handle wood, grain and solid chemicals. Adaptable for use with difficult dust including sugar, clay and calcium carbonate
- Well-suited for high pressure pneumatic conveying systems
- Machined and flexible tip rotor models available
- Handles 3-4 times more material than other valves with the same inlet opening.
- Change bearings without disassembling the entire valve
- Six sizes: 6", 8", 10" and 12"



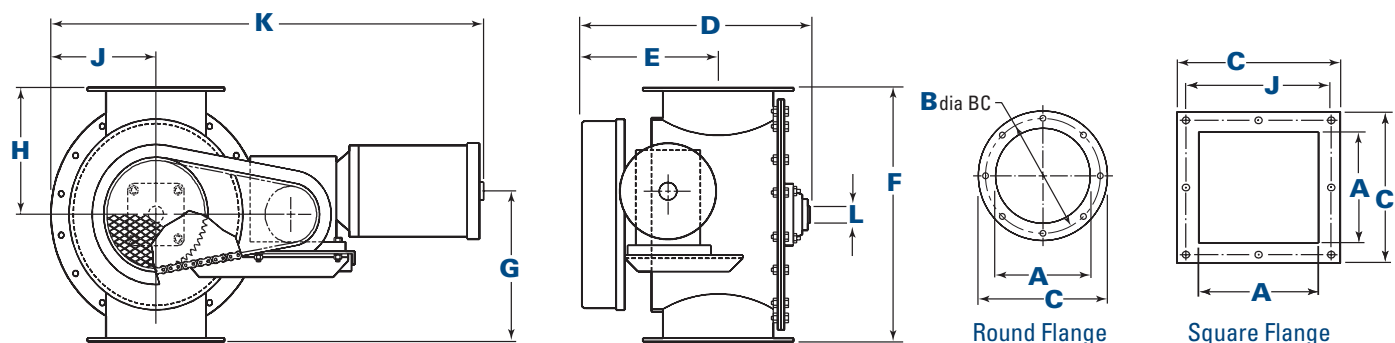
**Normal Operations For F - Series Rotary Valves**

## F - SERIES ROTARY VALVES

- Heavy duty design for use with a pneumatic conveying system operating at pressures up to 15 psi
- Features exclusive Air Swept design that uses air from the conveying blower to aerate material moving through the valve to eliminate pocket buildup from hygroscopic dusts
- Heavy-duty machined feeder valve construction of a cast body and endplates, with a welded machined 12 plain blade rotor
- Five sizes: FS-A, FS-B, FS-C, FS-D and F-E

# DIMENSIONS & SPECIFICATIONS

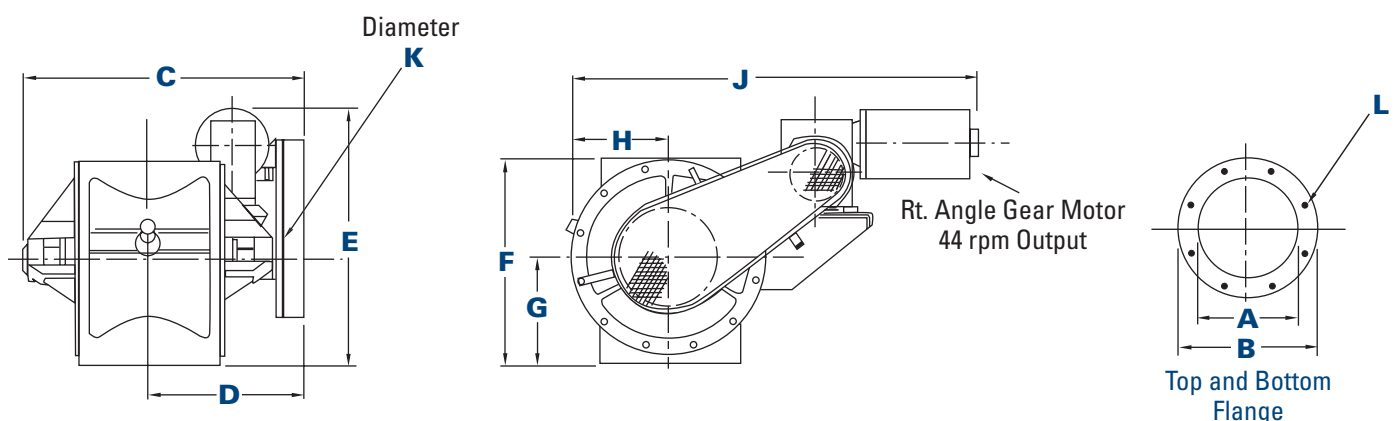
## AN ROTARY VALVES



Size	No. of Holes		Valve (rpm)	Valve Capacity*		Drive Motor (hp)	Approx. Shipping Weight†		Dimensions																			
	rnd	sq		ft³/rev	m³/rev		lb	kg	A'	B	C	D	E	F	G	H	J	K'	L''									
									in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm				
6	8	8	22	0.2	0.01	1/3,1/2	145	65.8	—	8.0	203.2	9.3	236.2	14.3	363.2	8.8	223.5	15.0	381.0	9.3	236.2	7.5	190.5	6.8	172.7	—	1.2	30.5
8	8	12	22	0.6	0.02	1/2,3/4	195	88.5	—	10.0	254.0	11.3	287.0	17.1	434.3	10.2	259.1	19.0	482.6	11.3	287.0	9.5	241.3	8.6	218.4	—	1.3	33.0
10	12	16	22	1.3	0.04	1/2,3/4,1	290	131.5	—	12.0	304.8	13.3	337.8	19.0	482.6	11.2	284.5	23.0	584.2	13.3	337.8	11.5	292.1	10.6	269.2	—	1.4	35.6
12	12	16	22	2.5	0.07	3/4,1,1.5	380	172.4	—	14.0	355.6	15.3	388.6	21.2	538.5	12.3	312.4	27.0	685.8	16.1	408.9	13.5	342.9	12.6	320.0	—	1.4	35.6
16	16	20	22	6.2	0.18	1,1.5,2	600	272.2	—	18.0	457.2	19.3	490.2	25.6	650.2	14.6	370.8	35.0	889.0	20.1	510.5	17.5	444.5	16.6	421.6	—	1.7	43.2
20	24	24	20	12.6	0.36	1.5,2	935	424.1	—	22.0	558.8	23.4	594.4	31.0	787.4	17.5	444.5	43.4	1102.4	24.3	617.2	21.7	551.2	20.7	525.8	—	2.2	55.9
24	24	28	18	21.0	0.59	1.5,2	1300	589.7	—	26.1	662.9	27.5	698.5	35.0	889.0	19.4	492.8	49.5	1257.3	27.4	696.0	24.8	629.9	23.8	604.5	—	2.2	55.9
30	32	32	15	43.0	1.22	3,5	2000	907.2	—	32.1	815.3	33.5	850.9	41.0	1041.4	22.4	569.0	61.5	1562.1	34.5	876.3	30.8	782.3	29.8	756.9	—	2.2	55.9

\* Volumetric displacement is 100% as listed. Capacity selection is from 40% to 60%. Maximum recommended speed is 30 rpm.  
 \*\* Shipping weight includes complete valve with gear motor drives. \*\*\* Valve shaft diameter. † Varies per motor ordered. Contact home office for dimensions.

## CI ROTARY VALVES



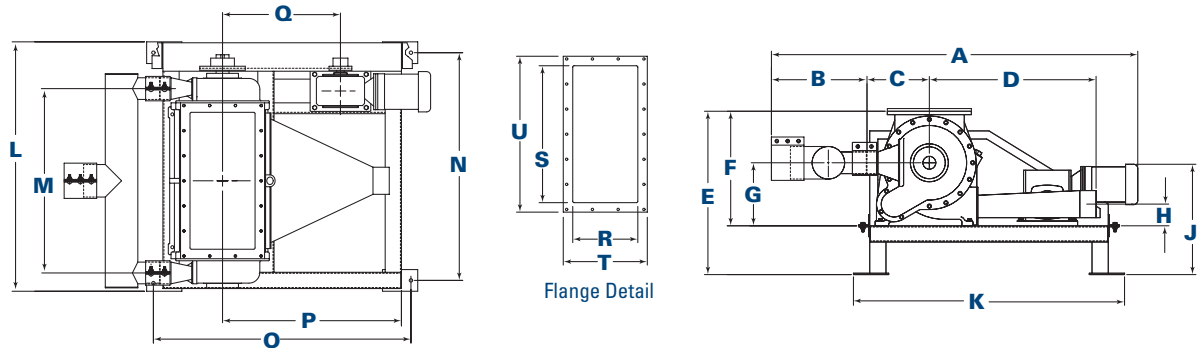
Size	No. of Holes		Valve Capacity*		Drive Motor (hp)	Approx. Shipping Weight†		Dimensions																		
	ft³/rev	m³/rev	lb	kg		A	B	C	D	E'	F	G	H	J'	K	L										
6	8	0.3	0.01	1/2	325	147.4	6.0	152.4	9.3	236.2	22.1	561.3	12.9	327.7	—	12.0	304.8	6.3	160.0	6.3	160.0	—	1.2	30.5	0.4	10.2
8	8	0.8	0.02	1/2	375	170.1	8.0	203.2	11.3	287.0	24.3	617.2	14.1	358.1	—	16.5	419.1	8.5	215.9	8.1	205.7	—	1.2	30.5	0.4	10.2
10	12	1.6	0.05	3/4	525	238.1	10.0	254.0	13.3	337.8	26.9	683.3	15.2	386.1	—	20.8	528.3	10.8	274.3	10.1	256.5	—	1.9	48.3	0.4	10.2
12	12	2.4	0.07	1	960	435.4	12.0	304.8	15.3	388.6	28.6	726.4	16.0	406.4	—	25.0	635.0	13.0	330.2	12.0	304.8	—	1.9	48.3	0.4	10.2

\* Volumetric displacement is 100% as listed. Capacity selection is from 40% to 60%. Maximum recommended speed is 30 rpm.  
 \*\* Shipping weight includes complete valve with gear motor drives. † Varies per motor ordered. Contact home office for dimensions.

# DIMENSIONS & SPECIFICATIONS

## F - SERIES ROTARY VALVES

\*Models: FS-A, FS-B, FS-C, FS-D



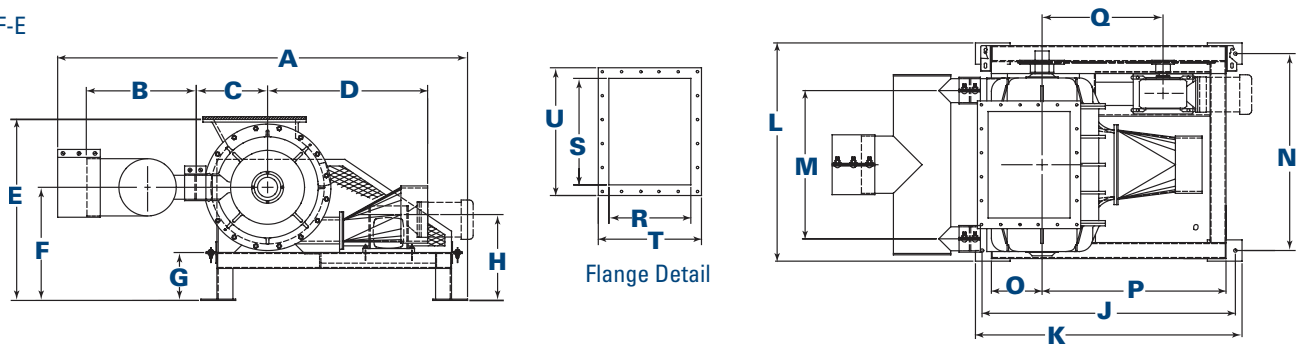
Size	Valve Capacity**		Drive Motor (hp)	Approx. Shipping Weight**		Dimensions												
	ft <sup>3</sup> /rev	m <sup>3</sup> /rev		lb	kg	A'	B		C		D		E		F		G	
						in	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm
FS-A	0.3	0.01	3/4	420	190.5	—	15.1	383.5	9.6	243.8	14.6	370.8	25.5	647.7	17.5	444.5	10.0	254.0
FS-B	0.6	0.02	3/4	575	260.8	—	15.9	403.9	9.6	243.8	17.8	452.1	25.5	647.7	17.5	444.5	10.0	254.0
FS-C	1.3	0.04	1	850	385.6	—	17.5	444.5	11.5	292.1	20.1	510.5	30.1	764.5	21.1	535.9	11.6	294.6
FS-D	2.3	0.07	1	1300	589.7	—	17.5	444.5	11.5	292.1	30.8	782.3	30.1	764.5	21.1	535.9	11.6	294.6

Size	Dimensions																									
	H		J'		K		L		M		N		O		P		Q		R		S		T		U	
	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm
FS-A	2.6	66.0	—	36.0	914.4	24.0	609.6	12.3	312.4	21.0	533.4	33.5	850.9	22.6	574.0	15.8	401.3	6.8	172.7	6.8	172.7	10.3	261.6	11.3	287.0	
FS-B	3.1	78.7	—	41.5	1054.1	31.0	787.4	19.1	485.1	28.0	711.2	39.0	990.6	28.1	713.7	20.3	515.6	6.8	172.7	13.5	342.9	10.3	261.6	18.0	457.2	
FS-C	3.6	91.4	—	50.0	1270.0	35.0	889.0	22.5	571.5	31.0	787.4	47.5	1206.5	33.0	838.2	22.5	571.5	12.0	304.8	13.8	350.5	15.5	393.7	17.3	439.4	
FS-D	4.0	101.6	—	50.0	1270.0	46.0	1168.4	34.0	863.6	42.0	1066.8	47.5	1206.5	33.0	838.2	21.8	553.7	12.0	304.8	25.3	642.6	15.5	393.7	28.8	731.5	

\* Floor base shown, housing drive bracket also available. \*\* Volumetric displacement is 100% as listed. Capacity selection is from 40% to 60%. Maximum recommended speed is 30 rpm.  
 \*\*\* Shipping weights include drive and floor base. † Varies per motor ordered. Contact home office for dimensions.

## F - SERIES ROTARY VALVES

\*Model: F-E



Size	Valve Capacity**		Drive Motor (hp)	Approx. Shipping Weight**		Dimensions													
	ft <sup>3</sup> /rev	m <sup>3</sup> /rev		lb	kg	A		B		C		D		E		F		G	
						in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm
F-E	3.5	0.1	3	1600	725.7	76.9	1953.3	20.5	520.7	13.4	340.4	30.0	762.0	34.0	863.6	21.3	541.0	9.0	228.6

Size	Dimensions																									
	H		J		K		L		M		N		O		P		Q		R		S		T		U	
	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm
F-E	16.1	408.9	50.0	1270.0	47.5	1206.5	41.0	1041.4	27.9	708.7	37.0	939.8	9.5	241.3	34.5	876.3	22.7	576.6	15.4	391.2	20.0	508.0	19.4	492.8	24.0	609.6

\* Floor base shown, housing drive bracket also available. \*\* Volumetric displacement is 100% as listed. Capacity selection is from 40% to 60%. Maximum recommended speed is 30 rpm.  
 \*\*\* Shipping weights include drive and floor base.



# STANDARD FEATURES AND AVAILABLE OPTIONS

## AN MODEL

STANDARD	OPTIONAL
6-blade, double wiper rotor, black neoprene flexible wipers	EPDM and polyurethane materials available for flex tip rotors to handle material characteristics and process conditions such as temperature, humidity, food grade, etc.
Available with round or square flanged inlets and outlets, ranging from 6"-30" (152.4 - 762.0 mm)	Extended clearance wipers available for models 8-16
Maximum operating pressure of 17" wg	Extended shaft option allows valve and conveyor to be driven from a common drive
Drive combination includes motor, gear reducer, sprockets, chain and OSHA guard for standard equipment speeds of 17-22 rpm	5-16 rpm rotation speed can be custom-designed

## CI FLEXIBLE TIP MODEL

STANDARD	OPTIONAL
6-blade fabricated rotor, cast iron body and endplates, with black neoprene flexible blades	EPDM and polyurethane materials available for flex tip rotors to handle material characteristics and process conditions such as temperature, humidity, food grade, etc.
Round inlets & outlets, ranging in size from 6"-12" ID (152.4-304.8 mm)	5-16 rpm rotation speed can be custom-designed
Handles differential pressures up to 1 PSI (6.89 kPa)	
Drive combination includes motor, gear reducer, sprockets, chain and OSHA guard for standard equipment speeds of 17-22 rpm	

## CI MACHINED MODEL

STANDARD	OPTIONAL
10-blade, machined mild steel rotor with cast iron housing, bearing and endplate	Available in 8- and 12-blade rotor models
Seal area has 1/8" (3.2 mm) pipe tap connection with plug for pressure purge connection; housing has air bleed connection	Nickel or chrome-plated rotor, body and endplates
Handles differential pressures up to 12 PSI (82.74 kPa)	Special design available for sugar applications
Round inlets & outlets, ranging in size from 6"-12" ID (152.4-304.8 mm)	Blade options include stellite tipped, cutter blade, beveled blade, machined adjustable tips with 1/4" rubber wipers and Teflon <sup>®*</sup> coated pockets
Drive combination includes motor, gear reducer, sprockets, chain and OSHA guard for standard equipment speeds of 17-22 rpm	5-16 rpm rotation speed can be custom-designed

## F-SERIES

STANDARD	OPTIONAL
12-blade, mild steel rotor with cast iron housing with air bleed connection, two air intake fittings and product discharge connection	Nickel-plated rotor, body and endplates
Handles differential pressures up to 15 PSI	Alternative blades available, including cutter, beveled, brass tipped, stellite tipped and Teflon <sup>®*</sup> coated pockets
Drive combination includes motor, gear reducer, sprockets, chain and OSHA guard for standard equipment speeds of 17-22 rpm	Special design available for sugar applications
	5-16 rpm rotation speed can be custom-designed

\* Teflon is a registered trademark of E.I. DuPont de Nemours & Co., Inc.

## Industry-Leading Technology

- Advanced filtration technology for optimal performance
- Reduced energy consumption and cost of ownership
- Advanced design and testing capabilities

## The Most Filters and Parts

- For every brand and style of collector
- Wide range of filtration media for any application
- 90,000 filters and parts in stock and ready to ship

## Unparalleled Support

- Live technical specialists
- Comprehensive pre- and post-sale support
- 40 manufacturing plants and 14 distribution centers worldwide

Significantly improve the performance of your collector with genuine Donaldson Torit replacement filters and parts. **Call Donaldson Torit at 800-365-1331.**

### Important Notice

Many factors beyond the control of Donaldson can affect the use and performance of Donaldson products in a particular application, including the conditions under which the product is used. Since these factors are uniquely within the user's knowledge and control, it is essential the user evaluate the products to determine whether the product is fit for the particular purpose and suitable for the user's application. All products, product specifications, availability and data are subject to change without notice, and may vary by region or country.



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