

DBS[®] MANUFACTURING

ENGINEERED FIRSTS | BUILT TO LAST



Rotary | Distributors



DBS MANUFACTURING, INC.

With over 50 years of experience in designing and building for the water and wastewater industry, DBS provides you with the right solution for every application. Our rotary distributor center mechanisms represent the state-of-the-art in reliability and simplicity.



Rotary Distributors

DBS rotary distributor center mechanisms feature a specially designed precision bearing that supports the entire rotating mechanism. The top-running bearing is securely positioned away from damaging water and moisture.

Available in both rotary reaction (hydraulically driven) and motorized (motor driven types), DBS rotary distributor center mechanisms come in 2, 3, 4, or 6 arm configurations.

The motorized rotary distributor operates at a controlled speed regardless of flow, allowing the operator to precisely control the dousing rate.

Flow Rate – Rotary Distributor					
Model	Max Flow Rate ¹		Center Influent Column Diameter		
	GPM	LPS	in	mm	
RD-8	625	39	8	203	
RD-10	979	62	10	254	
RD-12	1,410	89	12	305	
RD-14	1,719	108	14	356	
RD-16	2,428	153	16	406	
RD-18	2,914	184	18	457	
RD-20	3,818	241	20	508	
RD-24	5,522	348	24	610	
RD-28	7,270	459	28	711	
RD-30	8,376	528	30	762	
RD-36	12,185	769	36	914	
RD-42	16,460	1,038	42	1,067	
RD-48	21,630	1,364	48	1,219	

¹ Maximum flow rates are based on a velocity of four feet per second.

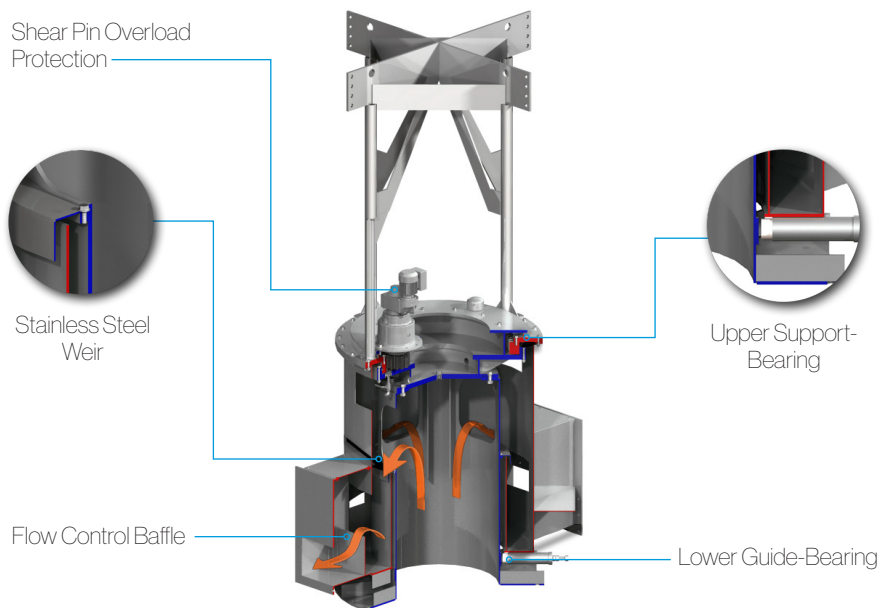
ROTARY DISTRIBUTORS

Designed to accommodate all standard influent pipes from 8 inches to 48 inches (203 millimeters to 1219 millimeters), DBS rotary distributors are available in standard models made from steel pipe and plate, and then hot-dip galvanized. They are also available in aluminum and stainless steel constructions.



Features

- **Seal-less Design** If the arms clog and flow backs up into the rotary distributor, the overflow simply discharges between the distribution manifold and influent column. Access ports are provided for easy maintenance and cleaning. This center mechanism reduces maintenance and breakdowns.
- **Torque Overload Protection** A shear pin or slip clutch device protects the entire motorized rotary distributor if and when binding occurs.
- **Material Options** Stainless steel or aluminum construction with high-flow splitter baffles.
- **Reversibility-Motorized Models** Motorized rotary distributors can be reversed and back-driven, which is particularly useful during start-up and installation.
- **Warranty** A 5-year bearing warranty.



Upper Support-Bearing

A heavy-duty precision bearing for combined thrust, moment, and radial loading. The upper support-bearing can be replaced without removing the distribution manifold, arms or influent column.

Weir

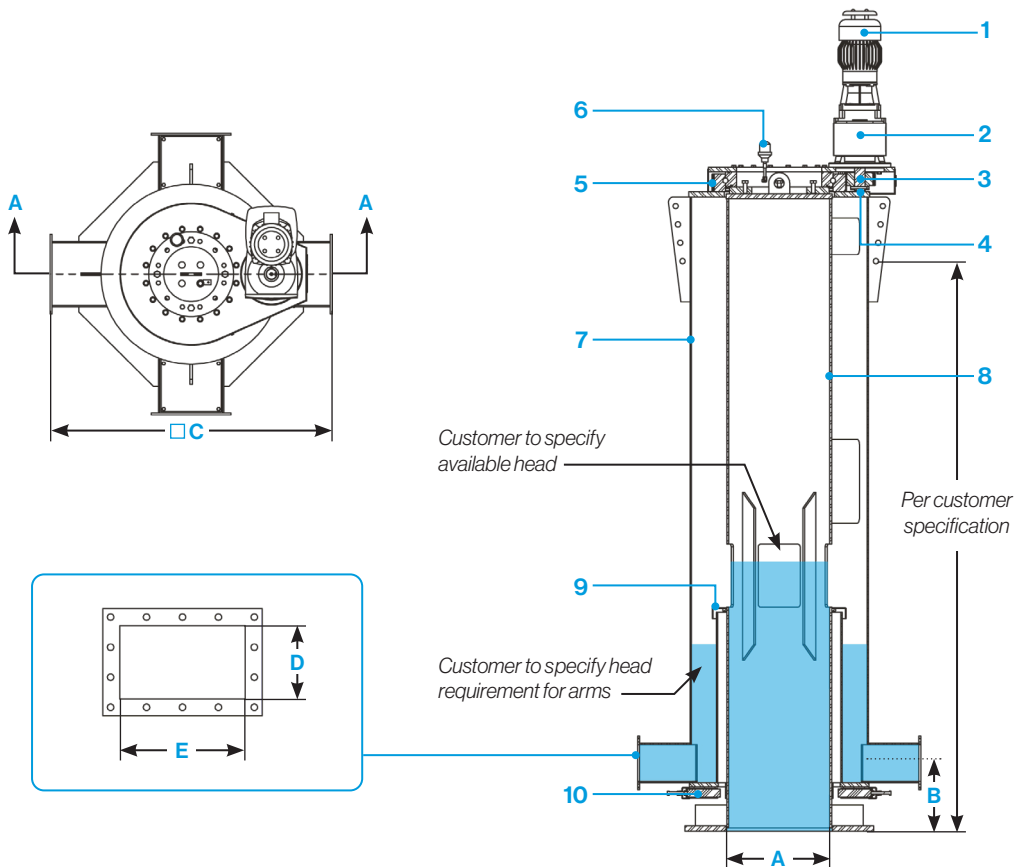
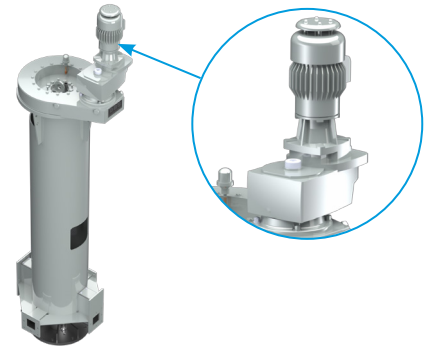
Flow cascades over the stainless steel weir and enters the distribution manifold.

Lower Guide-Bearing

A supplemental bearing prevents the rotary distributor from tipping whenever loads are extremely unbalanced. The bearing is made of high-strength, corrosion-resistant, maintenance-free, ultra-high-molecular-weight (UHMW) material.

ROTARY DISTRIBUTOR DIMENSIONS

Designed for influent pipe sizes from 8 inches to 20 inches (203 millimeters to 508 millimeters), the rotary distributor features a large grease lubricated main gear-bearing to handle thrust, moment, and radial loads.



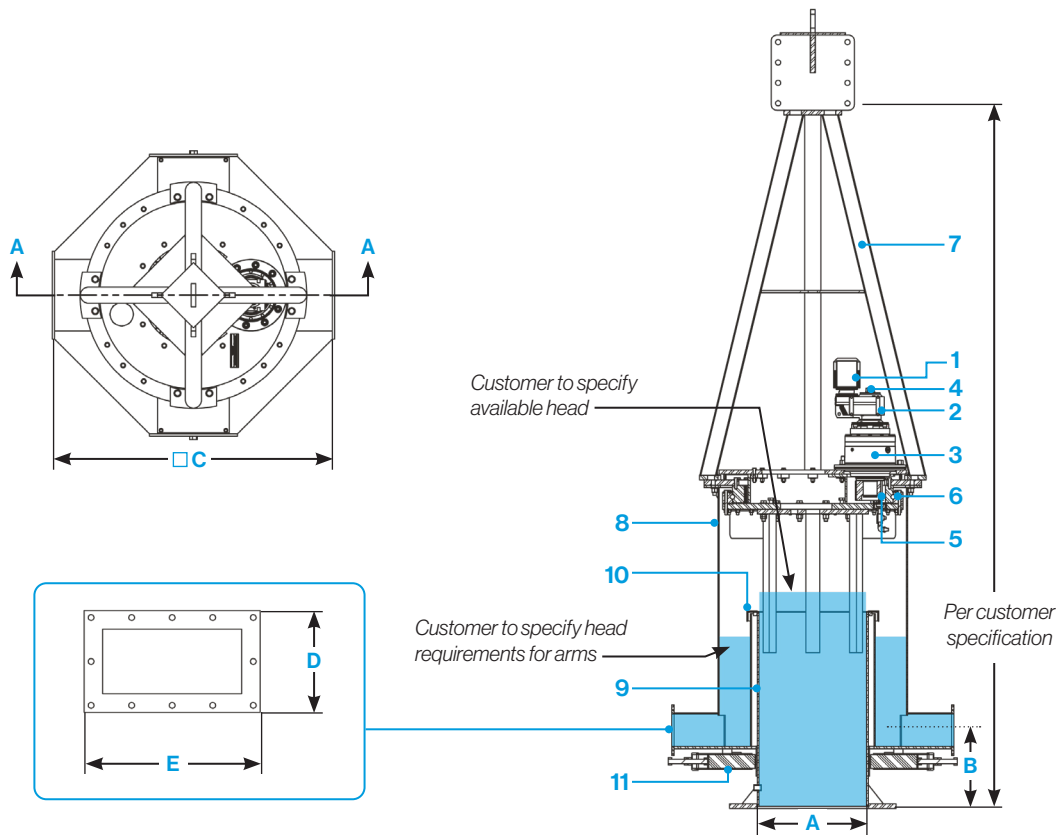
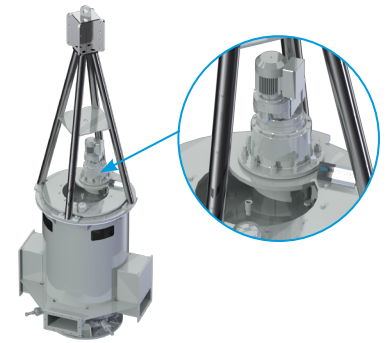
ITEM DESCRIPTION

1. Electric Motor
2. Speed Reducer
3. Pinion
4. Torque Overload Protection
5. Main Gear-Bearing
6. Automatic Grease Feeder
7. Distribution Manifold
8. Influent Column
9. Overflow Weir
10. Lower Guide-Bearing

Model	A		B		C		D		E		Weight	
	in	mm	in	mm	in	mm	in	mm	in	mm	lb	kg
RD-8	8	203	15	381	24	610	4	102	4	102	1,600	726
RD-10	10	254	15	381	28	711	4	102	6	152	2,000	907
RD-12	12	305	16	406	34	864	5	127	7	178	2,700	1,225
RD-14	13	330	16	406	36	914	6	152	7	178	3,200	1,452
RD-16	15	381	16	406	38	965	6	152	9	229	3,600	1,633
RD-18	17	432	18	457	42	1,067	7	178	10	254	4,200	1,905
RD-20	19	483	18	457	46	1,168	7	178	12	305	4,800	2,177

ROTARY DISTRIBUTOR DIMENSIONS

Designed for influent pipe sizes from 24 inches to 48 inches (610 millimeters to 1219 millimeters), the rotary distributor features a large oil lubricated main gear-bearing to handle thrust, moment, and radial loads.



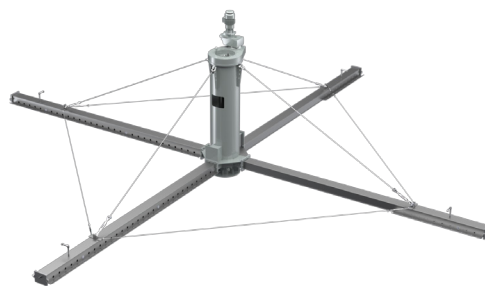
ITEM DESCRIPTION

1. Electric Motor
2. Primary Drive Speed Reducer
3. Secondary Speed Reducer
4. Torque Overload Protection
5. Pinion
6. Main Gear-Bearing
7. Arm Support Tower
8. Distribution Manifold
9. Influent Column
10. Overflow Weir
11. Lower Guide-Bearing

Model	A		B		C		D		E		Weight	
	in	mm	in	mm	in	mm	in	mm	in	mm	lb	kg
RD-24	23	584	16	406	52	1,321	5	127	21	533	5,500	2,495
RD-28	27	686	16	406	56	1,422	7	178	23	584	6,000	2,722
RD-30	29	737	18	457	64	1,626	9	229	25	635	8,000	3,629
RD-36	35	889	18	457	68	1,727	11	279	27	686	9,000	4,082
RD-42	41	1,041	20	508	84	2,134	13	330	29	737	11,000	4,990
RD-48	47	1,194	20	508	86	2,184	15	381	31	787	12,000	5,443

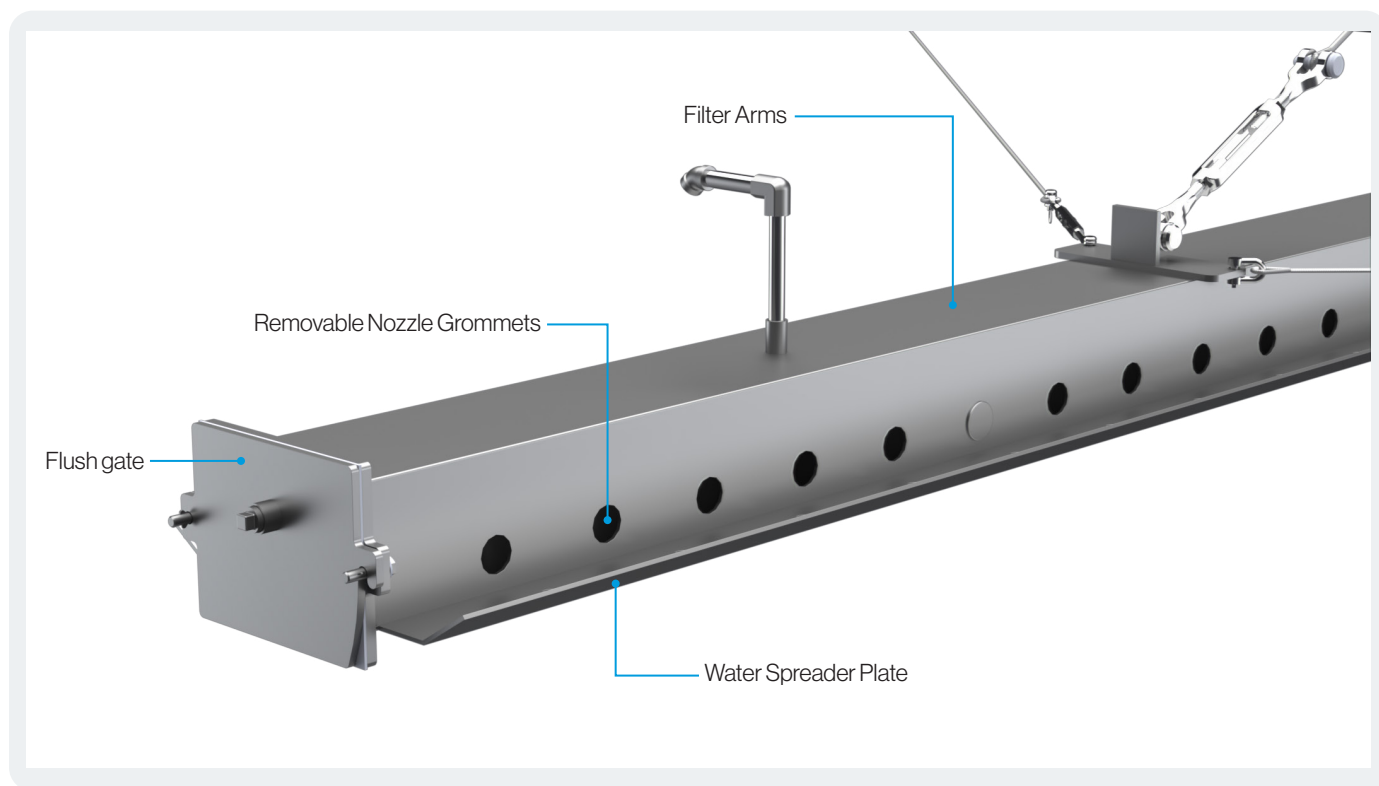
TRICKLING FILTER ARMS

DBS manufactures arms for trickling filter mechanisms that distribute large volumes of water evenly and match each customer's exact requirements.



Features

- **Rectangular Cross Section Arms** Made from HDG carbon steel, stainless steel, or aluminum.
- **Tapered Outer Section** Maintains uniform water velocity while minimizing weight for longer bearing life.
- **Flush Gate** Located at the end of each arm for easy cleaning.
- **Rubber Nozzle Grommets** UV-resistant and easily removable in a full range of sizes for precise flow distribution to evenly dose the trickling media.
- **Water Spreader Plate** Runs continuously along the length of the arm.



ORDERING INFORMATION

Contact DBS or a DBS representative for assistance in deciding your equipment requirements.

DBS MANUFACTURING

dbsmfg.com/contact

404.768.2131

sales@dbsmfg.com

Rotary Distributor Model Number

Series	Model	A	B
		<i>Drive Unit</i>	<i>Construction</i>
RD	8	Omit (Hydraulically Driven) M (Motorized)	Omit (HDG Steel) SS (Stainless Steel) A (Aluminum)
	10		
	12		
	14		
	16		
	18		
	20		
	22		
	24		
	28		
	30		
	36		
	42		
	48		

Example:

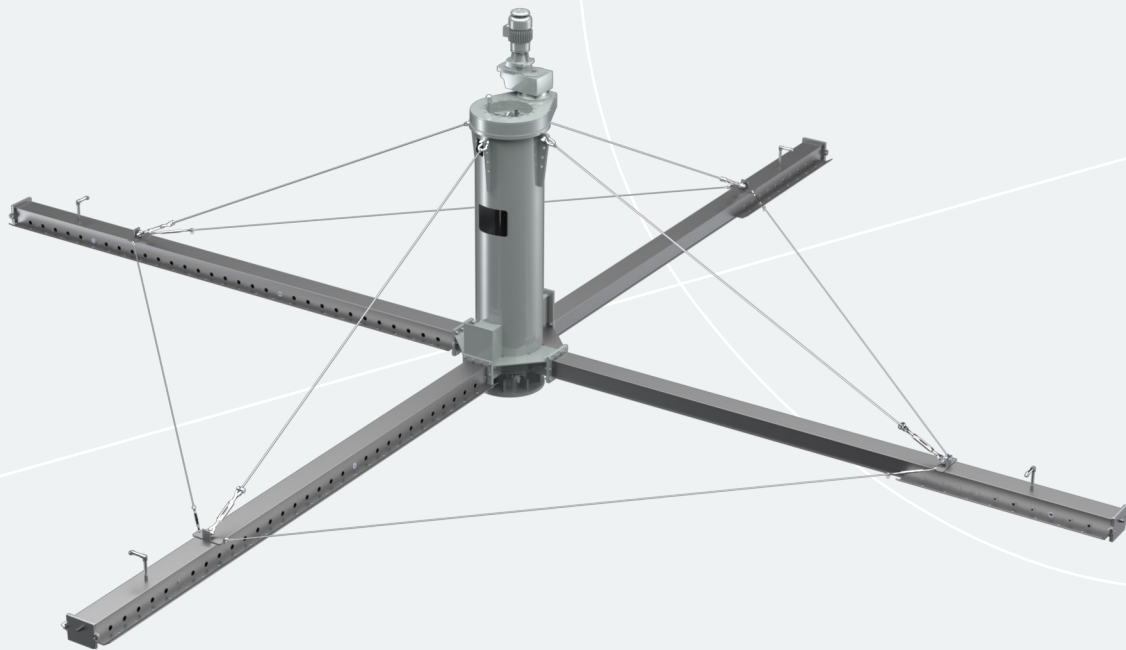
MODEL RD-24M is for a Rotary Distributor with a 24 inch influent pipe, motorized drive unit, and HDG carbon steel construction.

Optional Features

DBS offers a range of optional features, including stainless steel or aluminum construction, high-low flow splitter with internal annular baffles or external flow splitter boxes for flow restriction to the arms, and a two, three, or six arm design, with four being standard.

DBS[®] MANUFACTURING

- Clarifier & Thickener Drives
- Hyperbolic Mixers
- Low-Speed Surface Aerators
- Rotary Distributor Center Mechanisms



Rotary Distributor Mechanism | RD SERIES
MODEL RD-8M

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