

ROTARY DISTRIBUTORS



ENGINEERED FIRSTS | **BUILT TO LAST**

## OVERVIEW

With over 40 years of experience in designing and building for the water and wastewater industry, DBS will provide you with the right solution for every application. Our rotary distributor center mechanisms represent state-of-the-art in reliability and simplicity.



## FEATURES

DBS rotary distributor center mechanisms have one specially designed precision bearing that supports the entire rotating mechanism. The top running bearing is safely away from damaging water and moisture.

In both rotary reaction type (hydraulically driven) or motorized type (motor driven), DBS rotary

distributor center mechanisms are available in 2, 3, 4, or 6 arm configurations.

The motorized rotary distributor turns at a controlled speed regardless of flow, which allows the operator to control the dousing rate.

MODEL	MAX. FLOW RATE <sup>1</sup>		CENTER INFLUENT COLUMN DIAMETER	
	GPM	LPS	IN	MM
<b>RD-8</b>	625	39	8	203
<b>RD-10</b>	979	62	10	254
<b>RD-12</b>	1,410	89	12	305
<b>RD-14</b>	1,719	108	14	356
<b>RD-16</b>	2,428	153	16	406
<b>RD-18</b>	2,914	184	18	457
<b>RD-20</b>	3,818	241	20	508
<b>RD-24</b>	5,522	348	24	610
<b>RD-28</b>	7,270	459	28	711
<b>RD-30</b>	8,376	528	30	762
<b>RD-36</b>	12,185	769	36	914
<b>RD-42</b>	16,460	1,038	42	1,067
<b>RD-48</b>	21,630	1,364	48	1,219

<sup>1</sup> Maximum flow rates are based on a velocity of four feet per second.

# ROTARY DISTRIBUTORS

Designed for all standard influent pipes from 8 inches to 48 inches (200 mm to 1200 mm). Standard models are made from steel pipe and plate, and then hot dip galvanized. Also available in aluminum and stainless steel construction.



## FEATURES

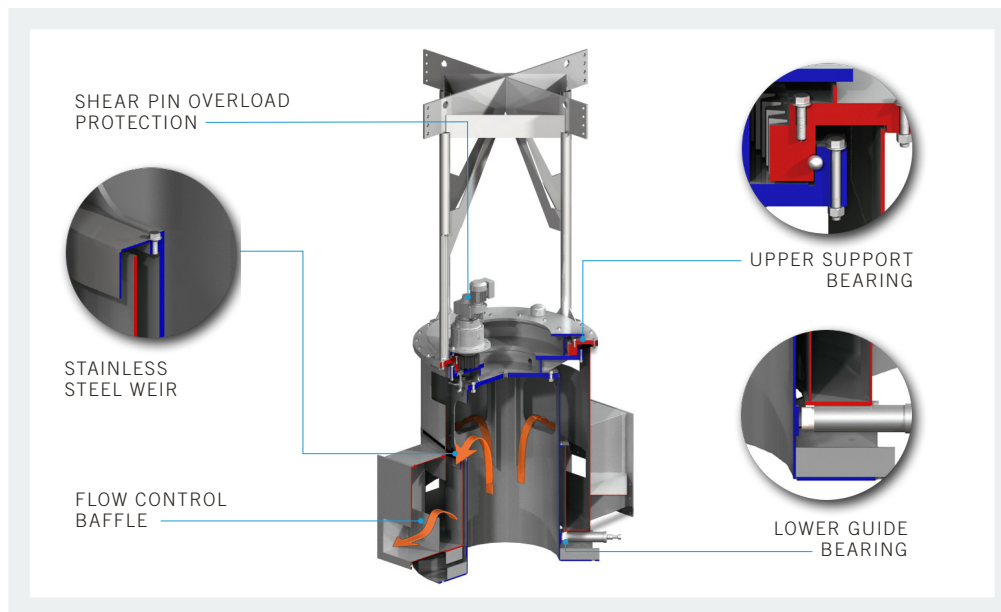
**Seal-Less Design** The DBS seal-less rotary distributor center mechanism reduces maintenance and break-downs. If the arms clog and flow backs up into the rotary distributor, the overflow simply discharges between the distribution manifold and influent column. Access ports are provided for easy maintenance and cleaning.

**Warranty** A 5-year bearing warranty.

**Torque Overload Protection** A shear pin or a slip clutch device protects the entire motorized rotary distributor if and when binding occurs.

**Reversibility—Motorized Models** Motorized rotary distributors can be reversed and back-driven, which is particularly useful during start-up and installation.

**Options** Stainless steel or aluminum construction with high-low flow splitter baffles.



### Upper Support Bearing

Heavy-duty precision bearing for combined thrust, moment, and radial loading. Bearing can be replaced without removing the distribution manifold, arms or influent column.

### Weir

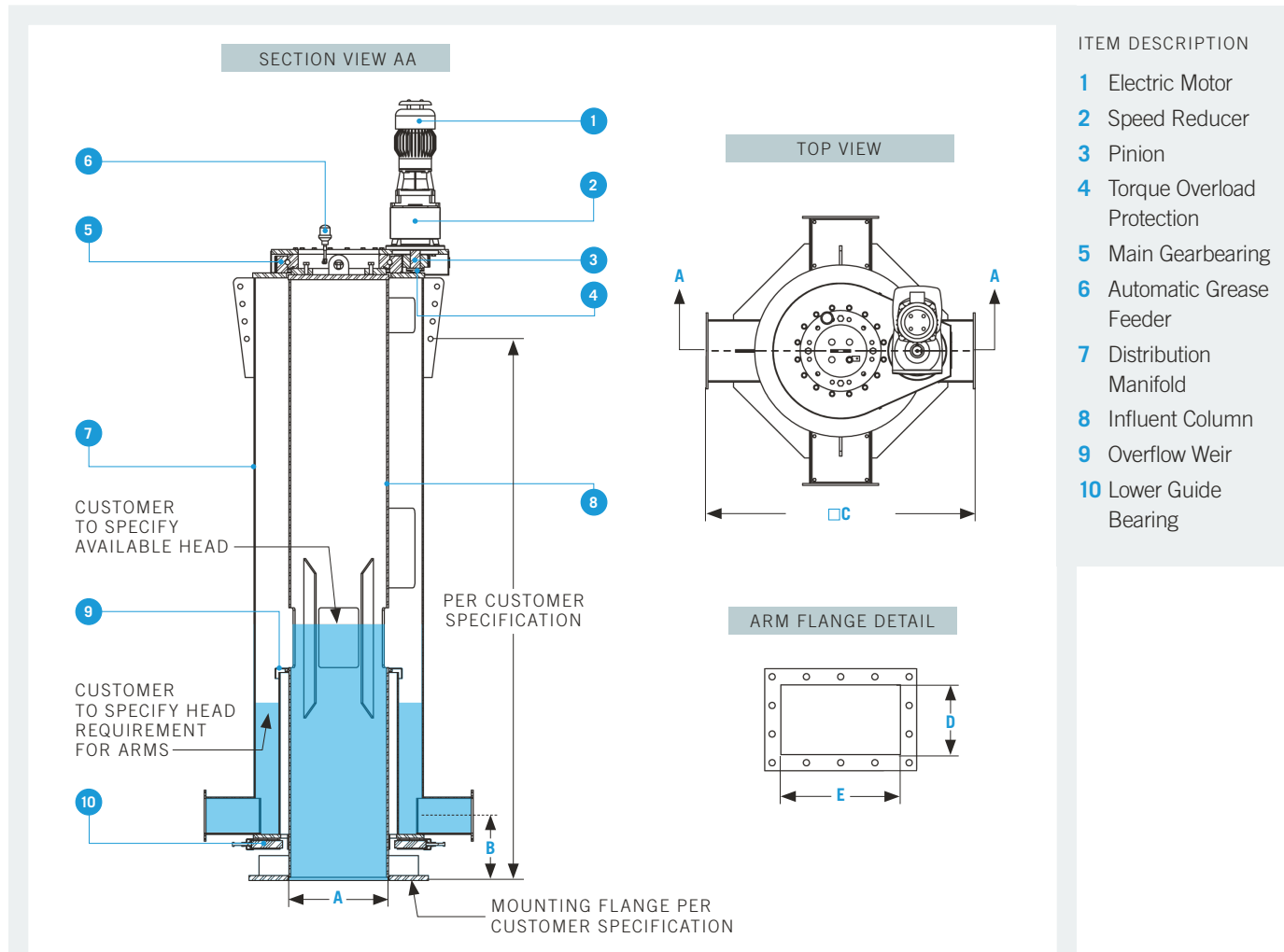
Flow cascades over the stainless steel weir and enters the distribution manifold.

### 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 (200 mm to 508 mm), the rotary distributor features a large grease lubricated main gearbearing to handle thrust, moment, and radial loads.



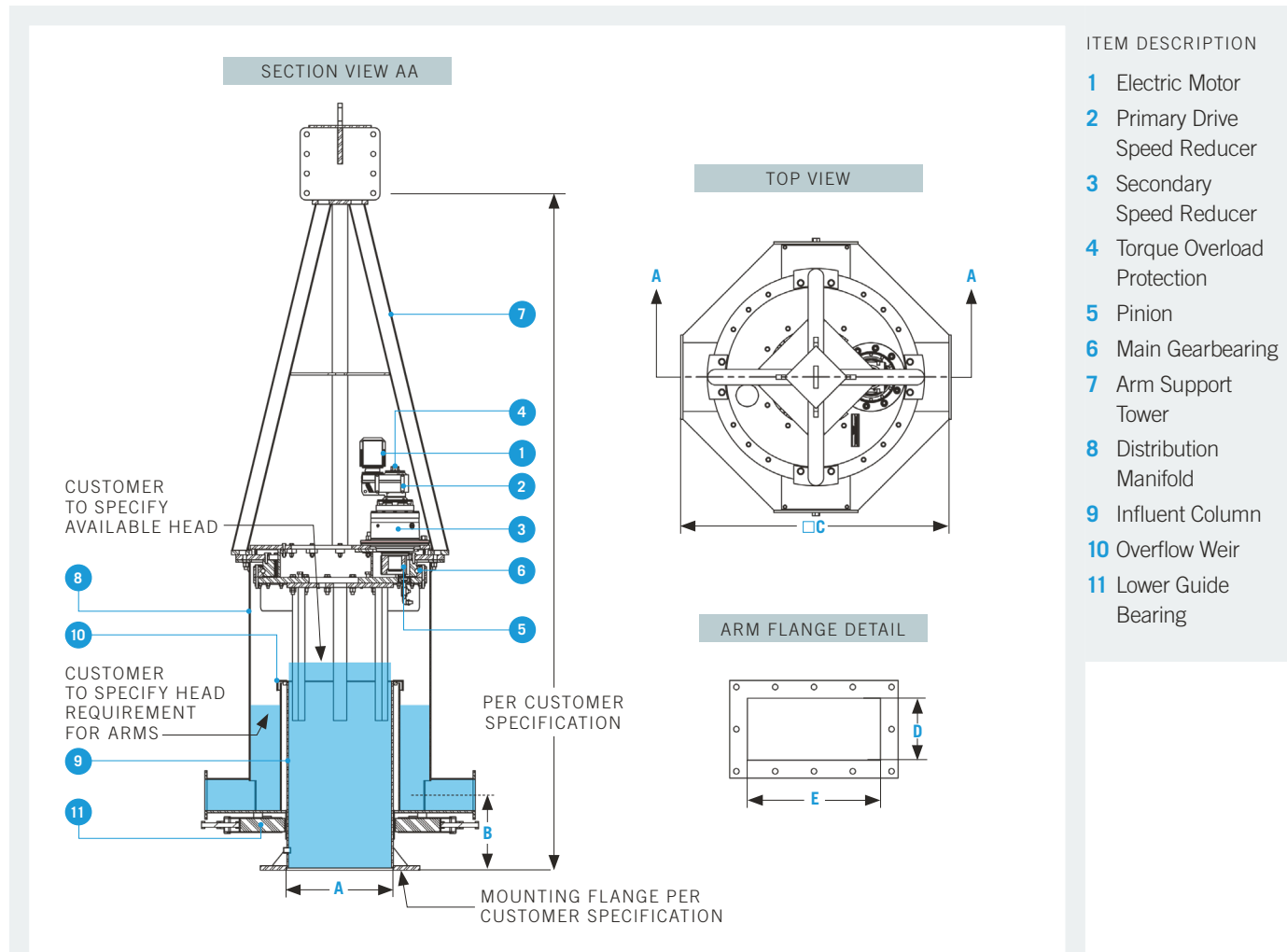
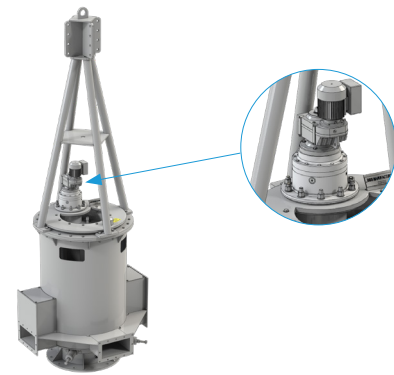
- ITEM DESCRIPTION
- 1 Electric Motor
  - 2 Speed Reducer
  - 3 Pinion
  - 4 Torque Overload Protection
  - 5 Main Gearbearing
  - 6 Automatic Grease Feeder
  - 7 Distribution Manifold
  - 8 Influent Column
  - 9 Overflow Weir
  - 10 Lower Guide Bearing

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

\* Metric flanges are available.

# ROTARY DISTRIBUTOR DIMENSIONS

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



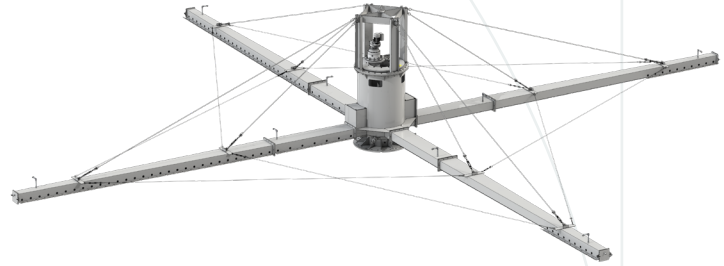
- ITEM DESCRIPTION
- 1 Electric Motor
  - 2 Primary Drive Speed Reducer
  - 3 Secondary Speed Reducer
  - 4 Torque Overload Protection
  - 5 Pinion
  - 6 Main Gearbearing
  - 7 Arm Support Tower
  - 8 Distribution Manifold
  - 9 Influent Column
  - 10 Overflow Weir
  - 11 Lower Guide Bearing

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

\* Metric flanges are available.

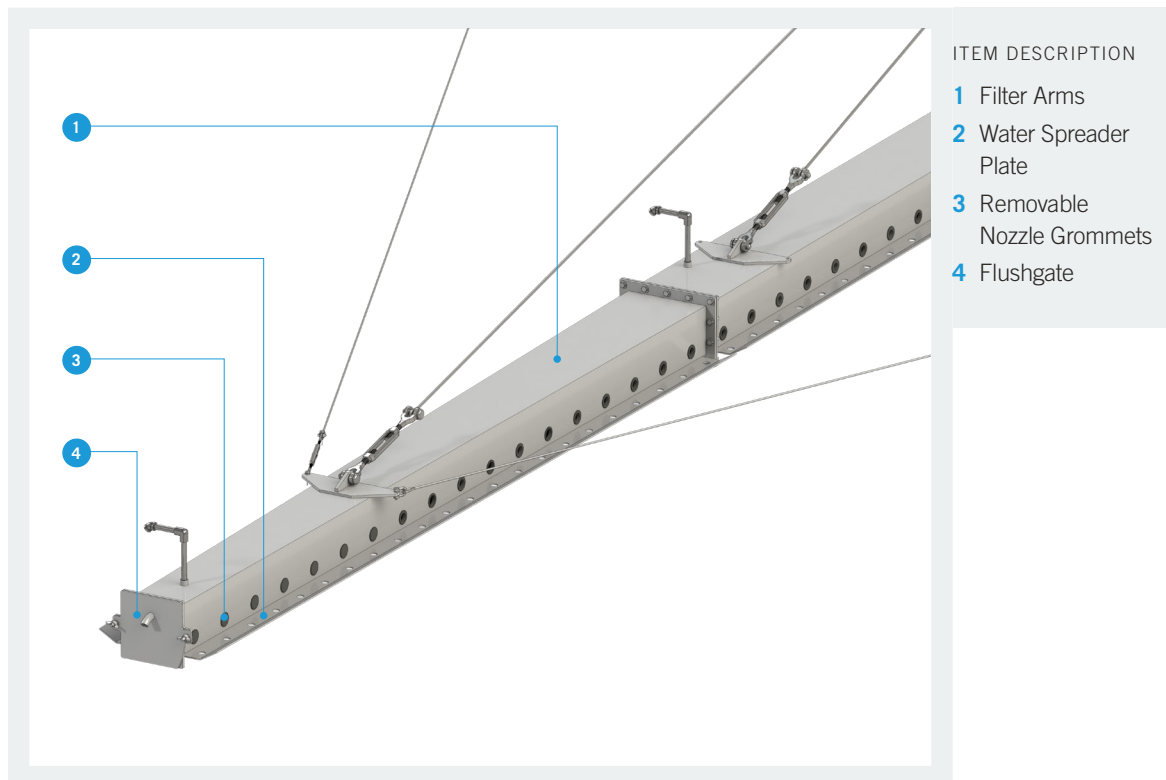
## TRICKLING FILTER ARMS

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 to maintain uniform water velocity while minimizing weight for longer rotary distributor bearing life.
- Flushgate at the end of each arm for easy cleaning.
- Easily removable, UV-resistant, rubber nozzle grommets in a full range of sizes allow for precise flow distribution to evenly dose the trickling filter media.
- Water spreader plate runs continuously along the length of the arm.



## ORDERING INFORMATION

The DBS model number nomenclature is designed to easily identify the rotary distributor size and options. Contact DBS or a DBS representative for assistance in deciding your equipment requirements.



ROTARY DISTRIBUTOR MODEL NUMBER			
Rotary Distributor	MODEL	A	B
		DRIVE UNIT	CONSTRUCTION
	8	Omit (Hydraulically driven)	
	10	M (Motorized)	
	12		
	14		
	16		
	18		
	20		
	22		
	24		
	28		
	30		
	36		
	42		
	48		Omit (HDG Steel)
			SS (Stainless Steel)
			A (Aluminum)

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

## OPTIONAL FEATURES

- Stainless steel or aluminum construction
- High-Low flow splitter. Internal annular baffles for flow restriction to the arms.
- High-Low flow splitter. External flow splitter boxes for flow restriction to the arms.
- 2, 3, or 6 arm design (4 is standard).



**ROTARY DISTRIBUTORS | MODEL RD-24M**

- CLARIFIER & THICKENER DRIVES
- RETROFITS
- LOW-SPEED SURFACE AERATORS
- ROTARY DISTRIBUTOR CENTER MECHANISMS

**DBS MANUFACTURING**

404.768.2131  
engineering@dbsmfg.com  
dbsmfg.com  
45 SouthWoods Parkway  
Atlanta, Georgia. 30354