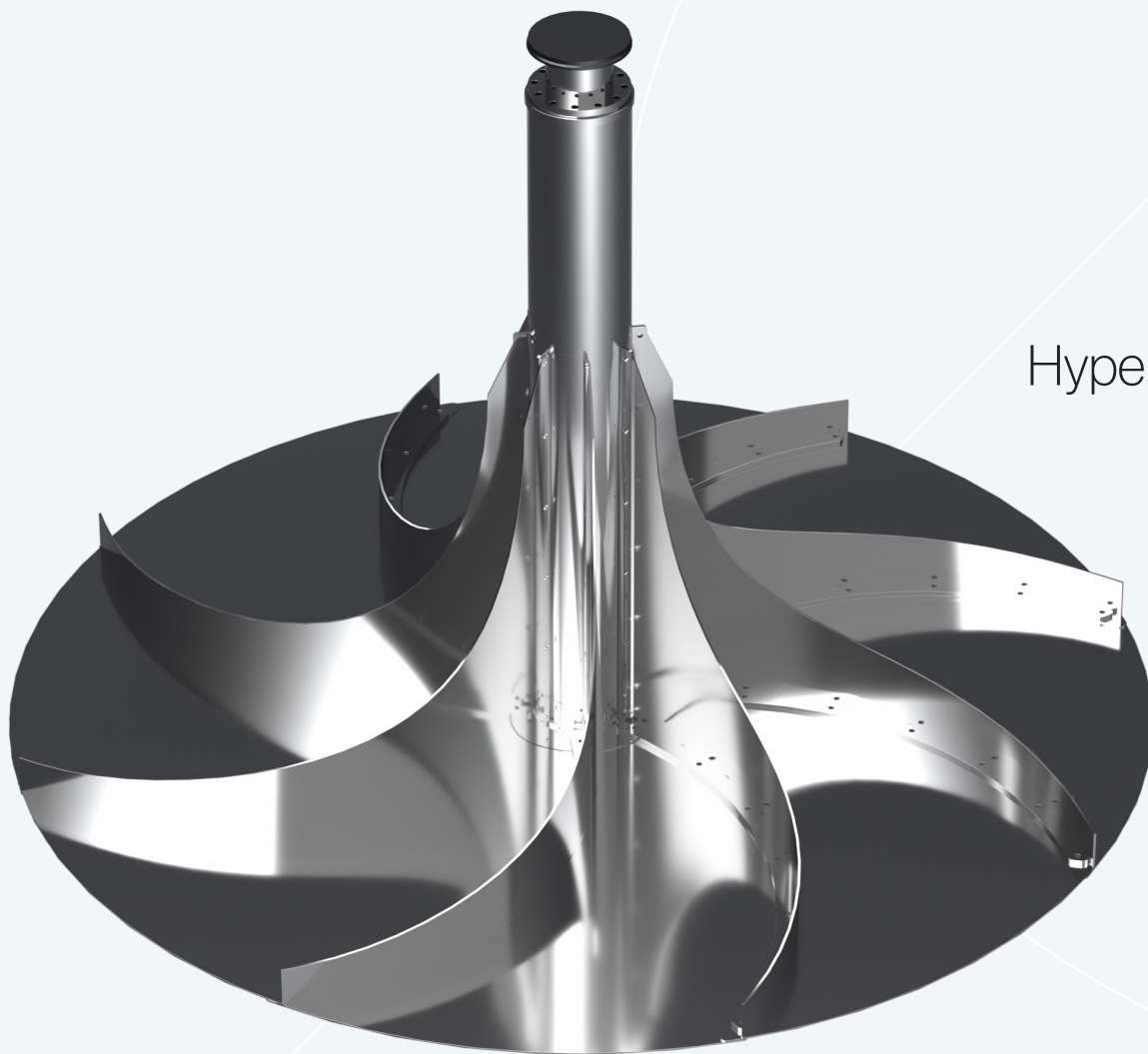


DBS[®] MANUFACTURING

ENGINEERED FIRSTS | BUILT TO LAST



Hyperbolic | Mixer

■ ■ ■ ■

OVERVIEW

High-energy efficiency is crucial in today's world. As energy costs rise and the need to reduce our carbon footprint grows, the DBS Hyperbolic Mixer meets these demands by delivering effective mixing with minimal energy expenditure.

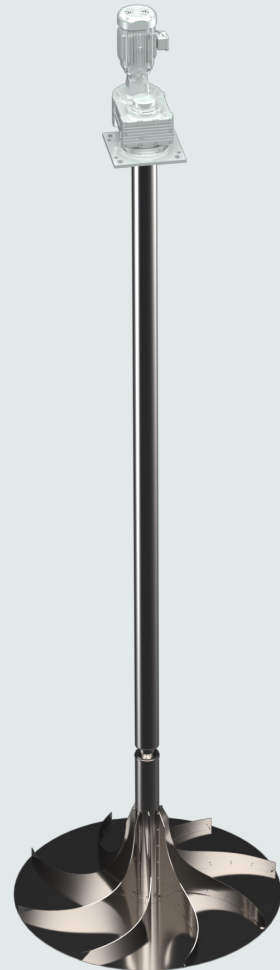
Features

The DBS Hyperbolic Mixer is specially designed for industrial process mixing applications such as flocculation, suspension, homogenization, and sub-surface aeration. The rotor operates at the bottom of the mixing basin, efficiently drawing water down and discharging it horizontally. This induced flow circulates the water from the bottom to the top of the tank, maintaining all solids in suspension.

The high-efficiency design of the speed reducer minimizes parasitic power losses and maximizes power transfer to the water. The speed reducer is selected with high service factors, ensuring a calculated lifespan exceeding 100,000 hours.

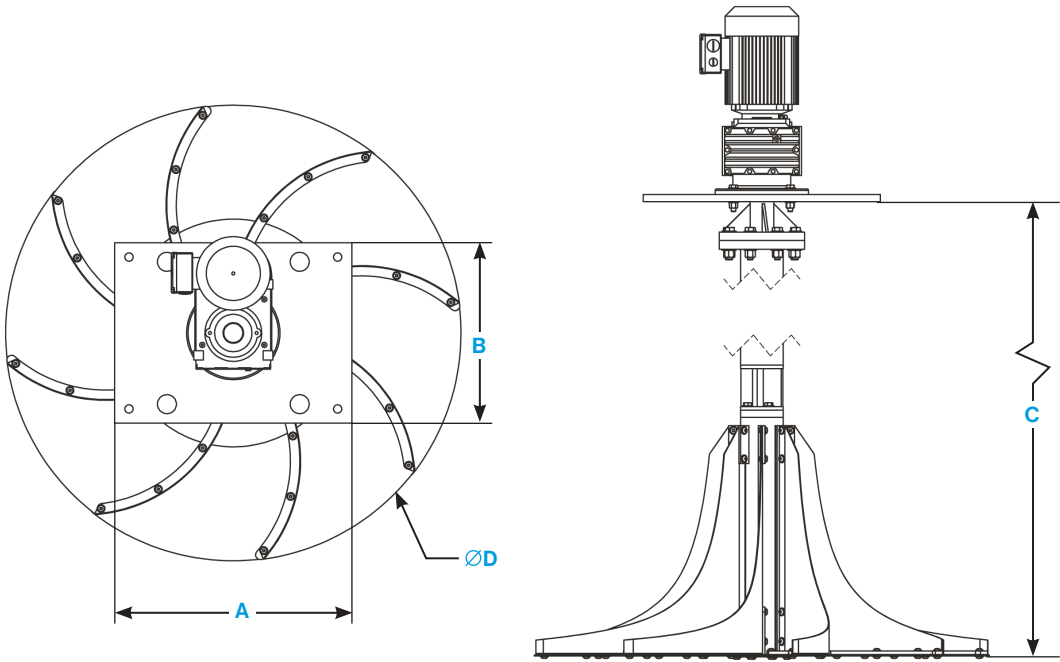
Heavy-duty output-bearings provide robust support against all loads imposed by the rotor, eliminating the need for a lower guide-bearing. The oversized drive shaft and sturdy mounting base minimize rotor deflection and vibrations.

Wetted parts are made from 300 series stainless steel and 5052 marine grade aluminum for enhanced corrosion resistance. Special coatings and materials, such as super duplex stainless steel, can be provided upon customer request for saline or aggressive wastewater.



HYPERBOLIC MIXER DIMENSIONS

Backwards-curved pump blades are specifically shaped and oriented to move the maximum volume of water with minimal power input. Mixers are available in sizes ranging from 1 hp (0.75 kW) to 50 hp (37 kW), in addition to custom hyperbolic mixers for industrial applications.

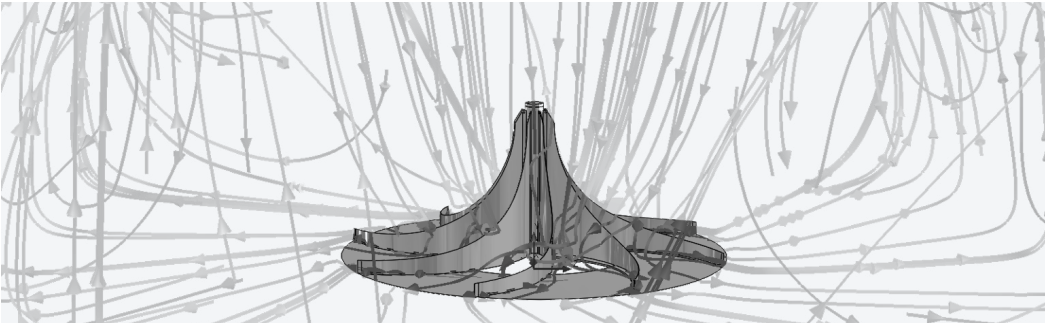


Model	Power		RPM	A		B		Cmax		Ø D	
	hp	kW		in	mm	in	mm	in	mm	in	mm
MH-1500	1-5	0.75-3.7	40-70	18	457	24	610	120	3048	55	1397
MH-2000	2-10	1.5-7.5	32-54	24	610	36	91	180	4572	75	1905
MH-2500	2-50	1.5-3.7	18-50	24	610	36	91	300	7620	102	2591

PERFORMANCE TESTING

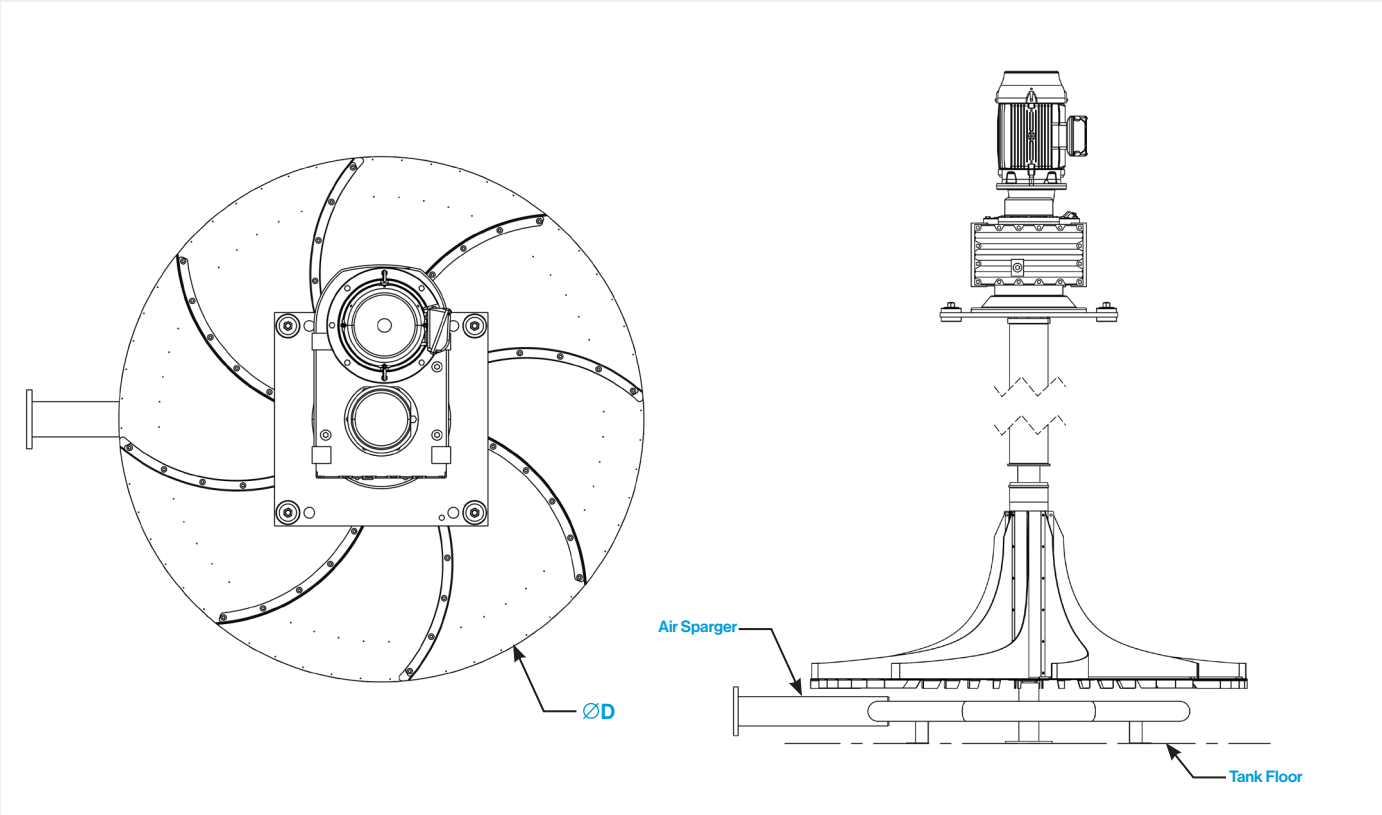
Detailed CFD analysis is used to fine-tune rotor performance.

Analysis of customer’s tank is available upon request.

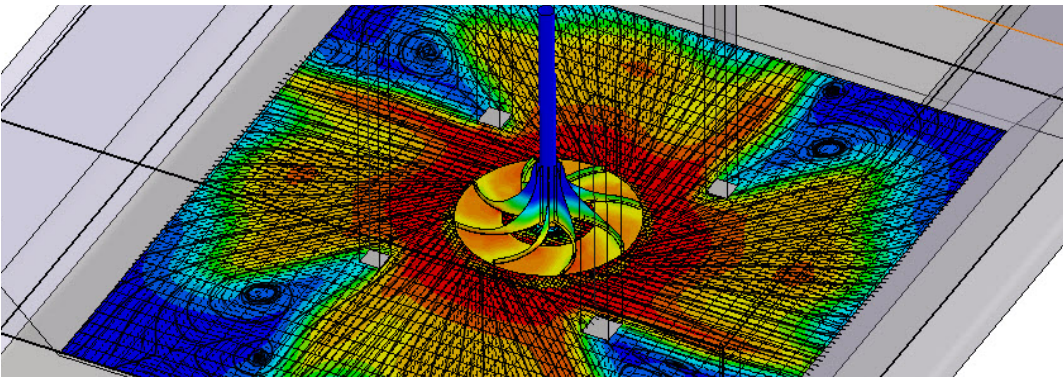


HYPERBOLIC MIXER — AERATOR

The DBS MHA hyperbolic mixer-aerator provides both efficient mixing and subsurface aeration. This system can maintain mixing with the option of cycling aeration on and off as needed. Subsurface aeration is also a benefit in eliminating surface spray and aerosols.



Model	Power		RPM	Ø D	
	hp	kW		in	mm
MHA-2000	2-10	1.5-7.5	32-54	75	1905
MHA-2500	2-50	1.5-3.7	18-50	102	2591



PERFORMANCE TESTING

Detailed CFD analysis is used to fine-tune rotor performance. Analysis of customer’s tank is available upon request.

ROTOR MATERIAL OPTIONS FOR INDUSTRIAL & CORROSIVE APPLICATIONS

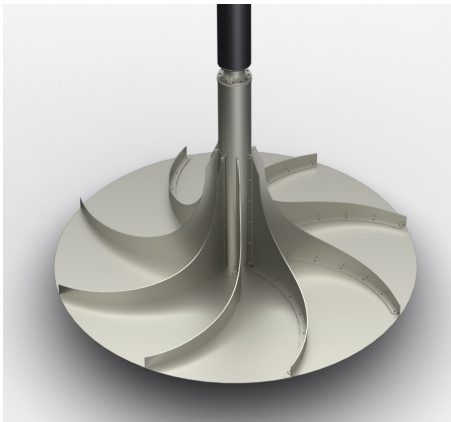
DBS Manufacturing's flexible rotor design accommodates a wide variety of materials. Please inquire if the material required for your project is not listed here.



304/316 STAINLESS STEEL



SUPER DUPLEX STAINLESS



NICKEL/MONEL



5052 ALUMINUM

DBS[®] MANUFACTURING

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



Hyperbolic Mixer | MH-SERIES
MODEL MH-2500

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