



Hyperspin™ High Speed Spindles





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Hyperspin™ Overview



Base Spindle

Revolve offers a line of synchronous and asynchronous spindles, all of which take advantage of the inherent benefits of the magnetic bearing technology:

No contact, i.e. high reliability and very high speed
Low vibration
No contamination
Efficiency

Your payload attaches directly to the Hyperspin™ shaft transforming for your application. Revolve's Hyperspines™ are being used in turbomolecular pumps, neutron choppers, hydrogen circulators, grinding spindles and more.



Turbomolecular Pump
Base Spindle: 300DC43/500DC34



Neutron Chopper
Base Spindle: 800DC36



Hydrogen Circulator
Base Spindle: 900DC60



Grinding Spindle
Base Spindle: AS10/50

Revolve's Hyperspines™ are available in a variety of frame sizes, speeds and power ratings. In addition, Revolve can customize a spindle to suit your requirements.

View [standard spindles](#), [shaft interface](#) and [spindle accessories](#) below.

[Contact us](#) for more information on Hyperspin™ Spindles.



Hyperspin™ Synchronous Spindles

Model Number	Max Speed (RPM)	Shaft Diameter (mm)	Housing Diameter (mm)	Overall Length (mm)	Power Output (W)	Cooling	Radial Brg Capacity (N)	Axial Brg Capacity (N)	Casing Vibration (m)	MB Controller	Current Application	Hermetically Sealed
300DC43	43000	21.4	89	219	300	Optional	54	205	<0.01	MB240 or MB350	TMP	Yes
500DC34	33600	30	105	216	500	Optional	98	356	<0.01	MB240	TMP	Yes
900DC36	36000	30	170	315	900	Optional	267	222	<0.01	MB350PC	Neutron Chopper	Yes
900DC60	60000	29.5	170	315	900	Optional	267	222	<0.01	MB350PC	Hydrogen Circulator	Yes

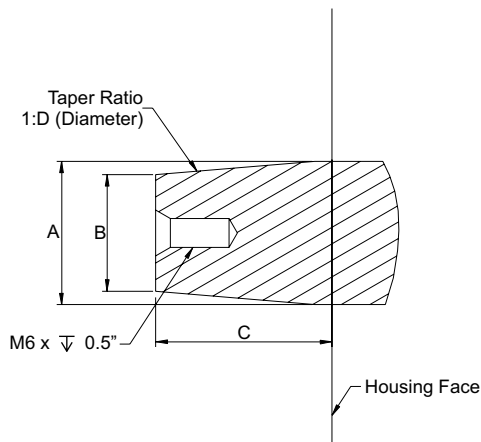
Hyperspin™ Asynchronous Spindles

Model Number	Max Speed (RPM)	Shaft Diameter (mm)	Housing Diameter (mm)	Overall Length (mm)	Power Output (kW)	Cooling	Radial Brg Capacity (N)	Axial Brg Capacity (N)	Casing Vibration (mm)	MB Controller	Current Application	Hermetically Sealed
AS10/10	50000	30	178	410	10	Liquid	Front:780 Rear: 390	500	<0.01	MB870	Grinding Spindle	No
AS40/50	40000	45	232	587	40	Liquid	Front:4000 Rear: 2000	1000	<0.01	MB15300	High Speed Milling Spindle	No
AS55/24	24000	20.6	340	710	55	Optional	1320	2200	<0.01	MB15300	Refrigeration Compressor	No



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Shaft Taper Interface



Spindle Model Number	A (mm)	B (mm)	C (mm)	D
300DC43	21.4	17.4	23.9	6
500DC34	30	24.5	36.6	6
900DC36	30	24.5	36.6	6
900DC60	29.5	24.0	36.6	6
AS10/10	30	24.5	36.6	6
AS40/50	45	39.5	36.6	6
AS55/24	20.6	16.6	36.6	6

In addition to the standard taper interface, Revolve offers customized shaft extensions to suit other attachment methods such as welding, interference fits, and tapered locking elements.

Accessories

Revolve offers the following accessories with all Hyperspin spindles:

MB Controller – this is the control system that provides the power and control electronics for the magnetic bearings and motor

MBScope™ – this is a software suite of easy-to-use graphical tools providing access to a tremendous amount of diagnostic information

Machine Cable – this is an integrated cable for carrying power and signals between the spindle and the control system

How to Build a Hyperspin™

Step 1 – Select base spindle from Hyperspin tables based on your power and speed requirements

Step 2 – Select cooling method

Step 3 – Select cable length between spindle and control system

Step 4 – Contact us with your payload specifications