

Couplings | Omega® Elastomer Couplings

(English–Metric)



Omega® Elastomeric Couplings

OEM Performance and Coverage

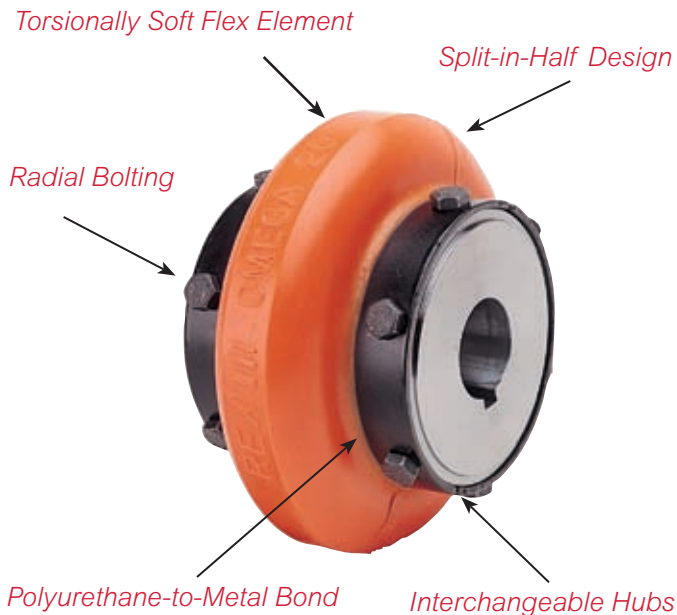
The unique split-in-half flex element and reversible hubs significantly reduce total costs by reducing inventory and assembly time.

Rexnord Omega couplings are non-lubricated, material-flexing couplings utilizing a specially formulated polyurethane material engineered for maximum durability, strength and fatigue resistance.

Rexnord is the leading coupling provider in the industry with a full-line of available solutions supported by trained customer service and application engineering professionals focused only on our coupling product line. For more information, contact your local Rexnord account executive.

Rexnord Omega couplings operate in either horizontal or vertical applications without any additional components.

Ease of installation, ease of maintenance, and visual inspection make these couplings a must for many applications such as this mash cooker in a brewery. Never operate coupling without an OSHA approved guard.



- Split-in-half flex element design for simplified assembly and disassembly
- Interchangeable hubs allow for reduced inventory
- High misalignment capacity accommodates unavoidable misalignment with low reactionary forces
- Torsionally soft flex element cushions shock loads and vibration extending equipment life
- Polyurethane flex element does not require lubrication
- Polyurethane-to-metal bond eliminates assembly and slippage problems associated with mechanically clamped designs
- Our selection software makes choosing the right coupling a snap
- Rexnord field specialists are locally based experts available to support key end-users

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Omega® Elastomeric Couplings – Other Styles

Omega HDY for Increased Ratings

Omega HDY is an option available with the standard Omega product that provides increased torque ratings, increased torsional stiffness and is interchangeable with the standard element. As the standard (orange) and HDY elements are identical in shape - we pigment the HDY element yellow to distinguish it from the standard design, hence the name "Heavy Duty Yellow".



The HDY version is most commonly used to increase the torque rating up to a 25% above the standard element ratings or where an increase of 40% in torsional stiffness is desired for system compatibility issues.

Due to the higher stiffness of the HDY material, the HDY does have lower misalignment ratings than the standard design.

Omega Stainless Steel Wash-Down Couplings

Rexnord Omega stainless steel wash-down couplings are non-lubricated, material-flexing couplings utilizing a specially formulated polyurethane material engineered for maximum durability, strength, and fatigue resistance.



In addition, the elastomeric flex element and stainless steel hardware are resistant to most wash-down chemicals.

Omega HSU for Hot & Humid Conditions

The Omega-HSU coupling is an extension of the Omega product family utilizing Hydrolytically Stable Urethane.

Rexnord engineers have spent many years researching the proper material that combines strength, vibration dampening and hydrolytic stability. The results are the Omega-HSU coupling specifically designed for hot and humid environments.

The Omega-HSU material has been tested for many



years in applications in steel mills, pulp and paper mills, chemical plants, and power generation facilities. This information along with extensive lab tests measuring misalignment capabilities, fatigue resistance, and peak overload, prove the Omega-HSU coupling can withstand challenging environmental applications.

The Omega-HSU coupling is ideal for use in industrial applications such as pumps, screw compressors and blowers.

Omega-HSU couplings lowered maintenance costs by increased operating life on a roll-table drive with high levels of heat and humidity.

How to Select


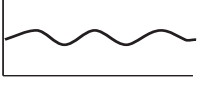


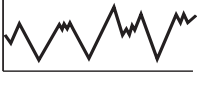

1. Determine kW/RPM.
2. Determine Service Factor:
Select the proper Service Factor from Table on Page 5.
If not listed, see Load Classification Table at right.

Remember to consider both driver and driven equipment and temperature requirements.
3. Multiply kW/RPM by the service factor to get equivalent kW/RPM.
4. Select the Coupling Size:
From the table below, with a rating equal to or greater than the equivalent kW/RPM determined in Step 3.
5. Check Limiting Conditions:
Be sure that the operating speed of the coupling does not exceed maximum RPM listed below.
6. Select Desired Hub Type:
Select desired hub type and check maximum allowable coupling bore below.

OR

1. Determine Operating Torque: $\frac{\text{kW}}{\text{RPM}}$
2. Multiply by Service Factor
Select the proper Service Factor from Table on Page 5.
3. Select the Coupling Size:
Select coupling size from the table below with a capacity equal to or greater than determined in Step 2.
4. Follow Steps 5 & 6 Above

Service Factors – Service Factors are a means of classifying different equipment and applications into various load classifications. Due to variations in application of equipment, service factors are used to adjust equipment ratings to accommodate for variable loading conditions. This is a general guide. More specific factors are given on Page 5.

	Load Classifications	Service Factor
	Continuous service and running loads vary only slightly	1.0
	Torque loading varies during operation of the equipment.	1.5
	Torque loading varies during operation, frequent stop/start cycles are encountered.	2.0
	For shock loading and substantial torque variations.	2.5
	For heavy shock loading or light reversing drives.	3.0
	Reversing torque loads do not necessarily mean reversal of rotation. Depending upon severity of torque reversal, such loads must be classified between "medium" and "extreme."	Contact Rexnord

The service factor adjustment for high temperature is in addition to the service factor consideration for the driver and driven equipment. However, if high temperatures are typical for a specific application, maximum temperature consideration is incorporated into the "typical" service factor listing on page 5, i.e., steel mill runout tables.

Selection Data

Size		Kw / RPM	Torque (Nm)	Max Bore (mm)		Max RPM	
Standard	Spacer			Standard	Taper-Lock Bushing	Standard	Spacer
E2	ES2	0.0023	21.5	28	...	7500	7500
E3	ES3	0.0043	41.2	34	25	7500	7500
E4	ES4	0.0066	62.0	42	25	7500	7500
E5	ES5	0.011	104.5	48	32	7500	7500
E10	ES10	0.017	163.8	55	42	7500	7500
E20	ES20	0.027	260.0	60	42	6600	4800
E30	ES30	0.043	412.0	75	50	5800	4200
E40	ES40	0.066	622.0	85	60	5000	3600
E50	ES50	0.090	864.0	90	60	4200	3100
E60	ES60	0.148	1412.0	105	75	3800	2800
E70	ES70	0.262	2486.0	120	90	3600	2600
E80	ES80	0.467	4463.0	155	100	2000	1800
E100	N/A	1.000	9605.0	171	110	1900	...
E120	N/A	2.000	19221.0	190	125	1800	...
E140	N/A	4.000	38442.0	229	178	1500	...

Service Factors

AGITATORS		Axial		Wire Winding Machine	2.0	Single Acting	
Pure Liquids	1.5	Forced Draft	1.5	MILLS ROTARY TYPE		1 or 2 Cylinders	★
Variable density	2.0	Induced Draft	1.5	Ball	3.0	3 or more Cylinders	★
ALTERNATOR	1.5	Mine Ventilation	2.0	Cement Kilns	2.5	Rotary - Gear, Lobe, Vane	1.5
BLOWERS		Cooling Towers	2.0	Dryers & Coolers	2.0	RUBBER INDUSTRY	
Centrifugal	1.0	Light Duty Blower & Fans	1.0	Kilns	2.5	Mixer - Banbury	3.0
Lobe	1.5	FEEDERS		Pebble	2.0	Rubber Calendar	2.5
Vane	1.5	Light Duty	1.5	Rod	3.0	Rubber Mill (2 or more)	2.5
BRIQUETTER MACHINES	2.0	Heavy Duty	2.5	Tumbling Barrels	2.0	Sheeter	2.0
CAN FILLING MACHINES	1.0	FOOD INDUSTRY		MIXERS		Tire Building Machines	2.5
CANE KNIVES	2.0	Beet Slicer	2.0	Concrete Mixers	2.0	Tire & Tube Press Openers	1.0
CAR DUMPERS	2.0	Cereal Cooker	1.5	Drum Type	2.0	Strainers	2.0
CAR PULLERS	2.0	Dough Mixer	2.0	OIL INDUSTRY		SCREENS	
CLAY WORKING MACHINERY	2.0	Meat Grinders	2.0	Chillers	1.5	Air Washing	1.0
COMPRESSORS		Can Filling Machine	1.0	Oil Well Pumping	2.0	Rotary - Stone or Gravel	1.5
Centrifugal	1.0	Bottling	1.5	Paraffin-Filter-Press	2.0	Traveling Water intake	1.5
Lobe, Vane, Screws	1.5	GENERATORS		Rotary Kilns	2.5	Vibratory	2.5
Reciprocating - Multi-Cylinder	1.5	Non-Welding	1.0	PAPER MILLS		SEWAGE DISPOSAL EQUIPMENT	1.5
Axial	1.0	Welding	3.0	Barker Auxiliaries Hydraulic	2.0	SEWAGE TREATMENT PUMPS	1.5
CONVEYORS		HAMMER MILLS	2.5	Barker Mechanical	2.0	TEXTILE INDUSTRY	
Uniformly loaded or fed	1.5	LUMBER INDUSTRY		Barking Drum (Spur Gear Only)	3.0	Calenders	2.0
Heavy duty - not uniformly fed	3.0	Barkers - Drum Type	2.0	Beater & Pulper	2.0	Card Machines	2.0
CRANES AND HOISTS	2.0	Edger Feed - Live Rolls	2.0	Bleacher	1.0	Cloth - Finishing Machines	2.0
CRUSHERS	3.0	Log Haul - Incline	2.0	Calenders	2.0	(washers, pads, tenters, dryers, calenders, etc.)	2.0
DREDGES		Log Haul - Well Type	2.0	Converting Machines except Cutters	1.5	Dry Cans	2.0
Cable Reels	2.0	Planer Feed Chains	2.0	Couch	2.0	Dryers	1.5
Conveyors	2.0	Planer Tilting Hoist	2.0	Cutters	2.0	Dyeing Machinery	1.0
Cutter Head Drives	3.0	Slab Conveyor	1.5	Cylinders	2.0	Looms	2.0
Jig Drives	3.0	Sorting Table	1.5	Dryers & Coolers	2.0	Mangles	1.5
Maneuvering Winches	2.5	Trimmer Feed	2.0	Felt Stretcher	1.5	Nappers	1.5
Pumps	2.0	MACHINE TOOLS		Felt Whipper	2.0	Soapers	1.5
Screen Drives	2.0	Bending Roll	2.0	Log Haul	2.5	Spinners	2.0
Stackers	2.0	Plate Planer	1.5	Presses	2.5	Tenter - Frames	2.0
Utility Winches	2.0	Punch Press - Gear Driven	2.0	Reel	2.0	Winders (other than Batches)	2.0
ELEVATORS		Tapping Machines	2.5	Suction Roll	2.5	WINDLASS	2.0
Bucket	2.5	Other Machines Tools		Washers and Thickeners	2.0	WOODWORKING MACHINERY	1.5
Centrifugal Discharge	2.5	Main Drives	1.5	Winders	2.0	★ Consult Rexnord engineering.	
Escalators	2.5	Auxiliary Drives	1.5	PRINTING PRESSES	1.5		
Freight	2.0	METAL MILLS		BARGE HAUL	2.0		
Gravity Discharge	2.5	Draw - Bench - Carriage	2.0	PUMPS			
EXTRUDERS		Draw - Bench - Main Drive	2.0	Centrifugal			
Plastic	2.0	Forming Machines	2.5	General Duty (Liquid)			
Metal	2.5	Slitters	2.0	Boiler Feed	1.0		
FANS		Table Conveyor		Slurry (Sewage etc.)	1.5		
Centrifugal		Non-Reversing	3.0	Dredge	2.0		
Forced Draft	1.5	Reversing	4.5	Reciprocating			
Induced Draft	1.5	Wire Drawing & Flattening Machine	2.0	Double Acting	★		

Coding													
	E	2	3	-	4	5	-	6	7	-	8	9	10
2	Version – No code: Standard, S: Spacer												
3	Size – 2, 3, 4, 5, 10, 20, 30, 40, 50, 60, 70, 80, 100, 120, 140												
4	High Speed Ring (Only S version) – No code: without ring, R: with ring. Standard on Sizes 2 to 10												
5	Shoe and Capscrew Material – No code: Standard, SS: Stainless Shoes and Capscrews, SS2: Standard Shoes, Stainless Capscrews												
6	Unit of Measurement – No code: Imperial (Inch), M: Metric												
7	Hub Type – SHRB: Straight Hub, Rough Bore, SHCB: Straight Hub, Custom Bore, HTL: For Magic-Lock Bushing												
8	Hub Material – STD: Cast Iron (Standard), STL: Steel												
9	Extension – No Code: Without Extension, SE: With One Sleeve Extension, 2SE: With Two Sleeve Extensions												
10	Bore and Keyway Specification – No Code: Per ISO R773												
EX	E	S	5	-	R	SS	-	M	SHCB	-	STD	Ø28 mm H7/ Ø30 mm H7	

High Temperature Adjustment

Ambient Temperature	Service Factor S _t ‡
66° C (150° F)	0.25
74° C (165° F)	0.50
82° C (180° F)	0.75
93° C (200° F)	1.00

‡ For relative humidity < 50%
For relative humidity > 50%, consult Factory.

Ambient Element Temperature Range

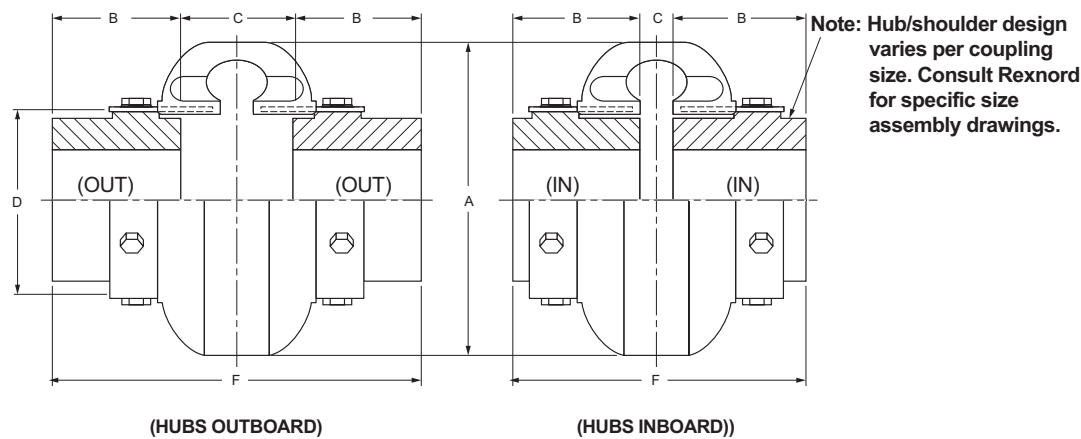
-40° C to +93° C

-40° F to +200° F

Coding Example: Omega complete coupling, spacer version, Size 5, High Speed Ring, Stainless Steel Shoes and Capscrews, Metric Custom Bored, Cast Iron Hubs Ø28mm H7 tolerance and Ø30mm H7 tolerance with Standard Keyways per ISO R773.

Standard Couplings – Straight Bored Hubs

Dimensions – Millimeters



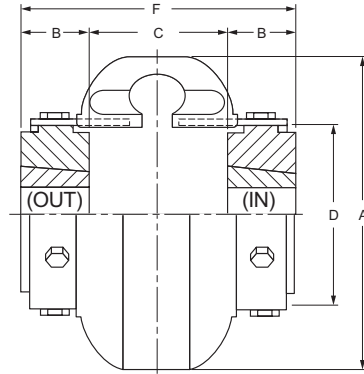
Size	Max Bore	Min Bore	Power Rating (kW)★	Torque Rating (Nm) ★	Max rpm	Dimensions – Millimeters							Weight (Kg)†
						A	B	C–Gap		D	F		
								In	Out		In	Out	
E2-M	28	13	0.0023	21.5	7500	89	24	36	46	47	84	94	0.55
E3-M	34	13	0.0043	41.2	7500	102	38	8	46	59	84	122	1.1
E4-M	42	13	0.0066	62.0	7500	116	38	8	46	66	84	122	1.4
E5-M	48	13	0.011	104.5	7500	137	44	8	59	80	97	147	2.5
E10-M	55	13	0.017	163.8	7500	162	44	8	59	93	97	147	3.7
E20-M	60	21	0.027	260	6600	184	50	13	65	114	113	165	5.9
E30-M	75	21	0.043	412	5800	210	58	12	69	138	125	182	9.6
E40-M	85	26	0.066	622	5000	241	63	8	75	168	135	202	15.9
E50-M	90	26	0.090	864	4200	279	70	11	91	207	151	230	24.5
E60-M	105	31	0.148	1412	3800	318	82	8	97	222	173	262	32.8
E70-M	120	31	0.262	2486	3600	356	85	18	109	235	189	281	39
E80-M	155	31	0.467	4463	2000	406	114	17	149	286	245	377	77
E100-M	171	48	1.000	9605	1900	533	140	44	95	359	324	375	111
E120-M	190	48	2.000	19221	1800	635	152	57	124	448	362	429	193
E140-M	229	48	4.000	38442	1500	762	178	76	127	530	432	483	339

★ Power and Torque ratings are based on a Service Factor of 1.0.

† Weight is based on coupling with maximum bored hubs.

Standard Couplings – Compression Bushed Hubs

Dimensions – Millimeters



Bushings are not included with hubs

Size	Bushing No.	Max Bore (Flat Key)	Power Rating (kW)★	Torque Rating (Nm)★	Max rpm	Dimensions – Millimeters							Weight (Kg)†
						A	B	C–Gap		D	F		
								In	Out		In	Out	
E3-M	1008	25	0.0043	41.2	7500	102	22	43	43	59	87	87	1.0
E4-M	1008	25	0.0066	62.0	7500	116	22	43	43	66	87	87	1.3
E5-M	1210	32	0.011	104.5	7500	137	25	52	52	80	102	102	2.0
E10-M	1610	42●	0.017	163.8	7500	162	25	52	52	93	102	102	2.8
E20-M	1610	42●	0.027	260	6600	184	25	64	64	114	114	114	4.2
E30-M	2012	50●	0.043	412	5800	210	32	65	65	138	129	129	6.4
E40-M	2517	60●	0.066	622	5000	241	45	60	60	168	150	150	10.1
E50-M	2517	60●	0.090	864	4200	279	45	76	76	207	166	166	14.6
E60-M	3020	75	0.148	1412	3800	318	51	84	84	222	186	186	21.4
E70-M	3535	90	0.262	2486	3600	356	89	60	60	235	238	238	31.0
E80-M	4040	100	0.467	4463	2000	406	102	95	95	286	299	299	38.0
E100-M	4545	110	1.000	9605	1900	533	114	38‡	152	359	267‡	381	113.8
E120-M	5050	125	2.000	19221▲	1800	635	127	51‡	181	448	304‡	435	185.8
E140-M	7060*	178*	4.000	38442	1500	762	152	76‡	178	533	381‡	483	294.0

★ Power and Torque ratings are based on a Service Factor of 1.0.

† Weight shown is based on coupling only and does not include the bushing.

‡ Inboard hub mounting as shown on Page 6 require bushing installation from the coupling end. Allow extra space per dimension "B" between coupling ends and connected equipment for bushing assembly/disassembly. Revers taper hubs are available; consult Rexnord.

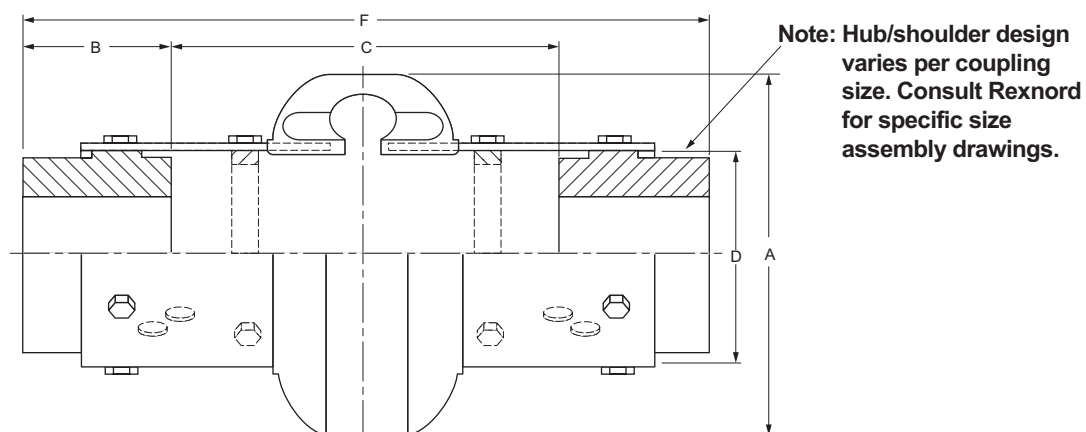
* Bushing size 8065 with a 203mm maximum bore is also available.

▲ This is the maximum bushing rating.

● With Steel bushings.

Standard Spacer Couplings – Straight Bored Hubs

Dimensions – Millimeters



Size*	Max Bore	Min Bore	Power Rating (kW)★	Torque Rating (Nm★)	Max rpm	Dimensions – Millimeters							Weight (Kg)†
						A	B	C●		D	F		
								In	Out		In	Out	
ES2-R-M	28	13	0.0023	21.5	7500	89	24	91	100	47	146	149	1.0
ES3-R-M	34	13	0.0043	41.2	7500	102	38	85	140	59	184	216	1.8
ES4-R-M	42	13	0.0066	62.0	7500	116	38	85	140	66	184	216	2.3
ES5-R-M	48	13	0.011	104.5	7500	137	44	89	140	80	184	228	3.4
ES10-R-M	55	13	0.017	163.8	7500	162	44	89	140	93	184	228	4.7
ES20-M	60	21	0.027	260	4800	184	50	67	180	114	238	280	7.1
ES30-M	75	21	0.043	412	4200	210	58	54	180	138	238	293	11.4
ES40-M	85	26	0.066	622	3600	241	63	41	180	168	238	307	18.2
ES50-M	90	26	0.090	864	3100	279	70	28	180	207	238	319	27.3
ES60-M	105	31	0.148	1412	2800	318	82	66	250	222	318	415	38.2
ES70-M	120	31	0.262	2486	2600	356	85	59	250	235	318	421	46.4
ES80-M	155	31	0.467	4463	1800	406	114	37	250	286	318	478	81.8

* The "R" in sizes ES2 to ES10 designates that the coupling is provided with high speed rings. Rings are standard for these sizes and optional for others.

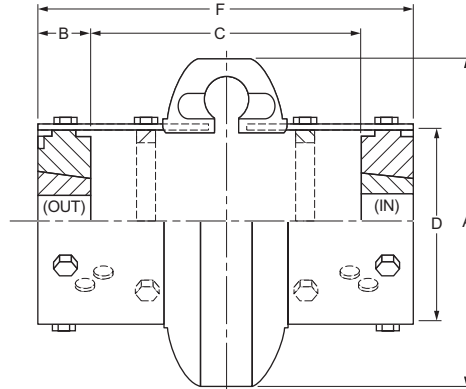
★ Power and Torque ratings are based on a Service Factor of 1.0.

† Weight is based on coupling with maximum bored hubs

● Shaft spacing shown is for hubs flush with end of shaft. See Page 10 for optional spacing.

Standard Spacer Couplings – Compression Bushed Hubs

Dimensions – Millimeters



Bushings are not included with hubs

Size*	Bushing No.	Max Bore	Power Rating (kW)★	Torque Rating (Nm)★	Max rpm	Dimensions – Millimeters							
						A	B	C●		D	F		Weight (Kg)†
								Min	Max		Min	Max	
ES3-R-M	1008	25	0.0043	41.2	7500	102	22	97	137	59	184	184	1.5
ES4-R-M	1008	25	0.0066	62.0	7500	116	22	97	137	66	184	184	2.0
ES5-R-M	1210	32	0.011	104.5	7500	137	25	94	133	80	184	184	3.4
ES10-R-M	1610	42	0.017	163.8	7500	162	25	94	133	93	184	184	3.7
ES20-M	1610	42	0.027	260	4800	184	25	123	172	114	238	238	5.8
ES30-M	2012	50	0.043	412	4200	210	32	117	165	138	238	238	8.8
ES40-M	2517	60	0.066	622	3600	241	45	104	153	168	238	244	13.0
ES50-M	2517	60	0.090	864	3100	279	45	104	153	207	238	244	18.0
ES60-M	3020	75	0.148	1412	2800	318	51	155	223	222	318	326	29.7
ES70-M	3535	90	0.262	2486	2600	356	89	116	185	235	318	364	39.4
ES80-M	4040	100	0.467	4463	1800	406	102	104	172	286	318	377	46.4

* The "R" in sizes ES2 to ES10 designates that the coupling is provided with high speed rings. Rings are standard for these sizes and optional for others.

★ Power and Torque ratings are based on a Service Factor of 1.0.

† Weight is based on coupling with maximum bored hubs

● Shaft spacing shown is for hubs flush with end of shaft. See Page 10 for optional spacing.

Spacer Coupling Adjustability

Shaft Spacing Possibilities Using Straight Bored Hubs

The Omega® spacer coupling design (Pages 8 and 9) provides clear space between hubs. There are no interfering center members or spools which allows shaft spacing as small as 6mm. However, for such small spacing, use of the standard Omega coupling would be recommended. The maximum shaft spacing for each coupling is shown on Pages 8 and 9. Any ANSI, ISO or DIN spacing between 6mm and the maximum listed can be achieved without any additional parts. Hubs can be placed on the shafts as shown below.

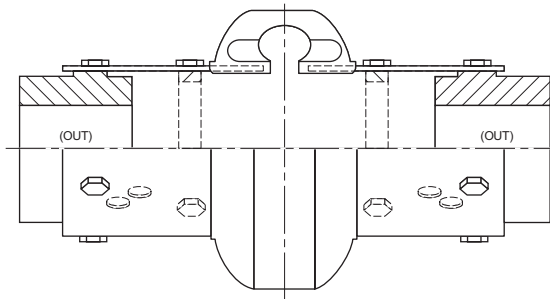


Figure A
Both hubs mounted outboard

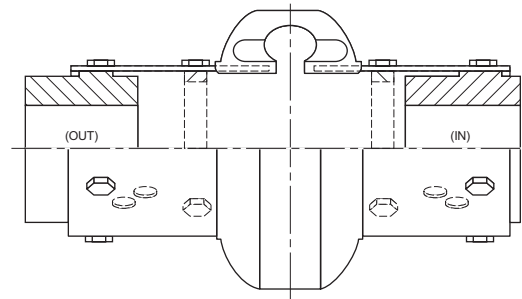


Figure B
One hub mounted inboard
One hub mounted outboard

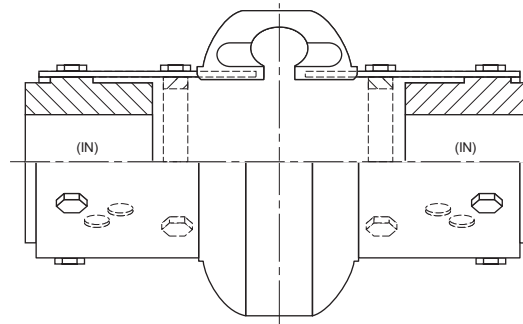


Figure C
Both hubs mounted inboard

Use one half of the flex element to establish shaft spacing and appropriate mounting position. Optional hole mounting positions and reversible hubs allow adjustments as needed. Select the combination which most closely matches the dimensions desired between shafts (Figure D). Drawings with specific mounting positions/dimensions are available from Rexnord.

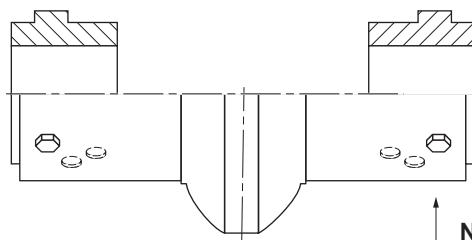


Figure D

Note: Optional capscrew hole mounting positions allow easy on-site adjustment to meet various shaft spacing requirements.

Hubs can be flush with the shaft end (not shown), extended beyond the end of the shaft (Figure E) or recessed behind the shaft end provided there is sufficient keyway engagement (Figure F). Special sleeve extensions (see Page 11) are available for spacing requirements in excess of those listed on pages 8 and 9.

Note: Shaft engagement should be equal to or greater than .8 times shaft diameter. 100% shaft engagement is suggested for compression bushed hubs.

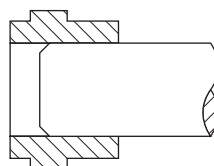


Figure E

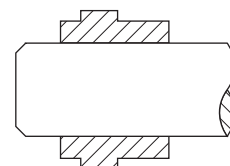


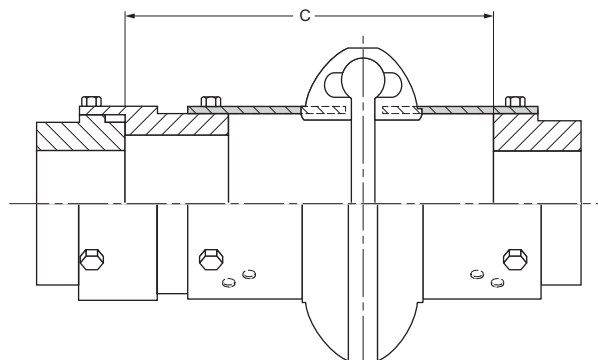
Figure F

Extended Spacer Couplings – Straight Bored Hubs

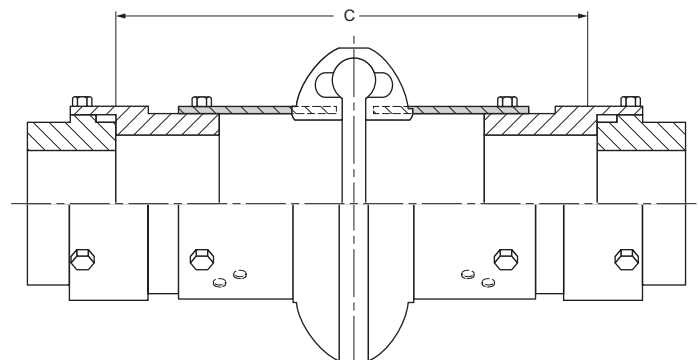
Dimensions – Millimeters

Omega® extended spacer couplings are designed to connect equipment with shaft spacing requirements beyond the Omega standard spacer coupling capabilities. They are ideal for applications with wide non-standard shaft gaps, and can be an economic alternative to floating shaft couplings (i.e. stock pump applications).

Sleeve extensions (“SE”) are furnished in steel. They mount to regular Omega spacer elements (standard elements for sizes E100 & E120) and cast iron or steel hubs – straight bore or compression bushed design. By adjusting the hub/shaft engagement (see figures E & F on page 10) and spacer element mounting position, the Omega extended spacer coupling can be utilized for many shaft spacing requirements.



Single Extension



Double Extension

SIZE*	Max RPM Std.	Max RPM Matched Machined	Maximum Spacing● – Dimension C (Millimeters)						Weight Kg.One SE
			With SHRB / SHRB Hubs			With HTL / HTL Hubs			
			Std Spacing	One SE Spacing	Two SE Spacing	Std Spacing	One SE Spacing	Two SE Spacing	
ES3-R-M	1800	3600	140	190	240	137	187	237	0.55
ES4-R-M	1800	3600	140	190	240	137	187	237	0.84
ES5-R-M	1800	3600	140	190	240	133	183	233	0.68
ES10-R-M	1800	3600	140	190	240	133	183	233	0.73
ES20-M	1800	3600	180	250	320	172	242	312	1.88
ES30-M	1800	3600	180	250	320	165	235	305	2.05
ES40-M	1800	3600	180	250	320	153	223	293	2.41
ES50-M	1800	3600	180	250	320	153	223	293	3.64
ES60-M	1800	3200	250	367	484	223	340	457	9.45
ES70-M	1800	3000	250	386	522	185	321	458	15.73
ES80-M	1800	2000	250	393	536	172	315	458	21.00
E100-M	1500	1800	95	228	361	152	285	418	34.55
E120-M	1500	1800	124	251	378	181	308	435	36.95

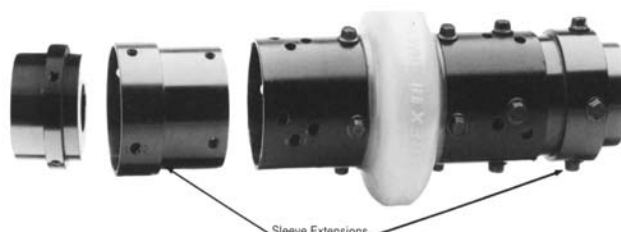
* The “R” in sizes ES3 to ES10 designates that the coupling is provided with high speed rings. Rings are standard for these sizes and optional for others.

● Maximum spacing shown is for hubs mounted outward and flush with shaft ends. Longer custom length extensions are available; Consult Rexnord.

Ordering Information: When ordering, be sure to specify whether one of two sleeve extensions are required. If custom length, specify distance between shaft ends.

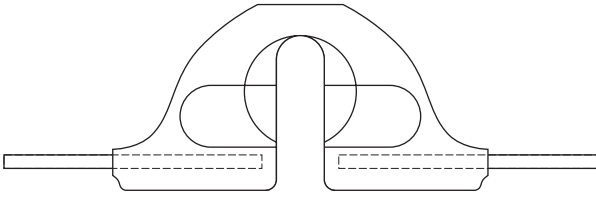
- Optional sleeve extensions (“SE”)

An economical alternative to floating shaft couplings (i.e., stock pump applications).



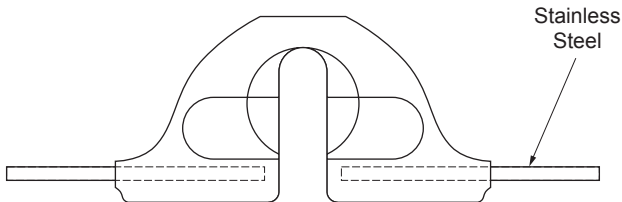
Special Designs

Omega HSU for Hot and Humid Conditions



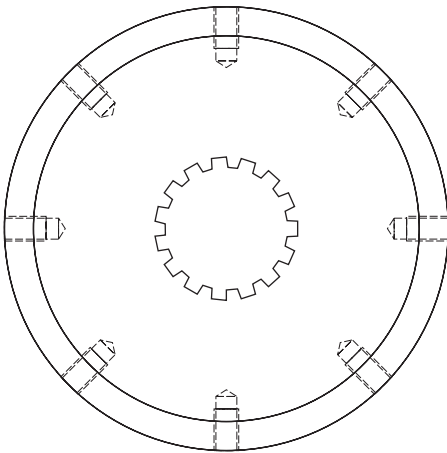
Hydrolytically Stable Urethane for superior resistance to hot and humid conditions in addition to acidic and alkaline environments. The Omega HSU element is interchangeable with existing hubs.

Omega Stainless Steel Element



Corrosion resistant 303/304 stainless steel shoes for severe environments. Stainless steel hubs are also available.

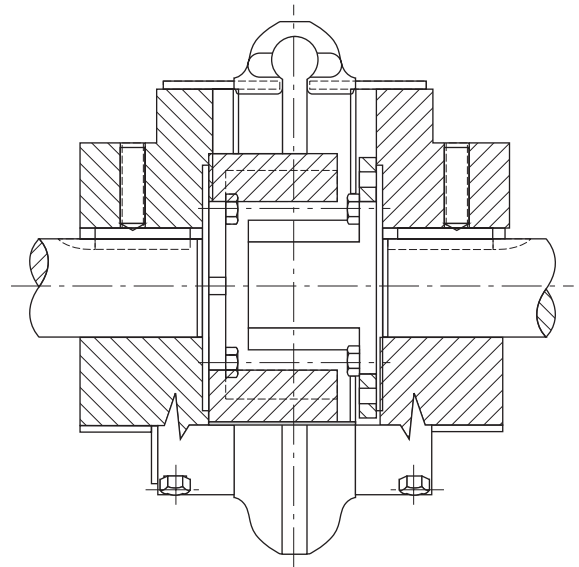
Omega Spline Bore Hub



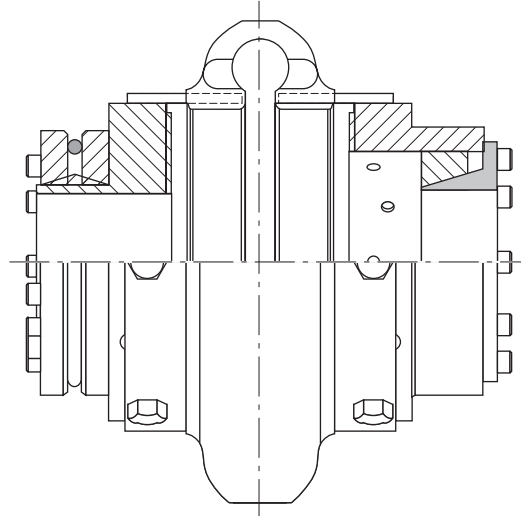
1. Number of Teeth, Example – 14T
2. Pitch Fraction, Example – 12/24 Pitch
3. Pressure Angle – 30° P.A.
4. Type of Tooth Shape, Example – Involute or Straight Side
5. Type of Root, Example – Fillet or Flat Root
6. Tolerance, Example – Class I thru VII
7. Type of Fit, Example – Side Fit or Major Diameter Fit

Omega Positive Drive Coupling

With interlocking drive fail safe requirements



Omega Keyless Hub/Bushing Design



Several optional keyless Hub/Bushing designs are available for increased bore end shaft gap requirements.

Omega Light-Duty Element



Available in size E2LD only. Minimum O.D. (63.5mm) for low profile applications. Max torque rating of 11Nm.

Engineering Data

TABLE 1 – Recommended Commercial Keys for Bores with One Key - Inches & Millimeters

INCHES (Per ANSI B17.1 Standard)											
Shaft Diameter		Key	Shaft Diameter		Key	Shaft Diameter		Key	Shaft Diameter		Key
Over	Through		Over	Through		Over	Through		Over	Through	
.438	.562	.125 x .125	1.750	2.250	.500 x .500	4.500	5.500	1.250 x 1.250	11.000	13.000	3.000 x 2.000
.562	.875	.188 x .188	2.250	2.750	.625 x .625	5.500	6.500	1.500 x 1.500	13.000	15.000	3.500 x 2.500
.875	1.250	.250 x .250	2.750	3.250	.750 x .750	6.500	7.500	1.750 x 1.500	15.000	18.000	4.000 x 3.000
1.250	1.375	.312 x .312	3.250	3.750	.875 x .875	7.500	9.000	2.000 x 1.500	18.000	20.000	5.000 x 3.500
1.375	1.750	.375 x .375	3.750	4.500	1.000 x 1.000	9.000	11.000	2.500 x 1.750	...	...	...

MILLIMETERS (Per ISO R773 Standard)											
6	8	2 x 2	38	44	12 x 8	95	110	28 x 16	260	290	63 x 32
8	10	3 x 3	44	50	14 x 9	110	130	32 x 18	290	330	70 x 36
10	12	4 x 4	50	58	16 x 10	130	150	36 x 20	330	380	80 x 40
12	17	5 x 5	58	65	18 x 11	150	170	40 x 22	380	440	90 x 45
17	22	6 x 6	65	75	20 x 12	170	200	45 x 25	440	500	100 x 50
22	30	8 x 7	75	85	22 x 14	200	230	50 x 28	...	...	...
30	38	10 x 8	85	95	25 x 14	230	260	56 x 32	...	...	...

TABLE 2 – Shaft Diameters & Ratings for NEMA 60 Hertz & 50 Hertz Metric Motors

NEMA 60 HERTZ MOTORS (HP)																													
Frame Size		T Frames																		TS Frames									
		143	145	182	184	213	215	254	256	284	286	324	326	364	365	404	405	444	445	284	286	324	326	364	365	404	405	444	445
Shaft Dia - Inches		0.88	0.88	1.13	1.13	1.38	1.38	1.63	1.63	1.88	1.88	2.13	2.13	2.38	2.38	2.88	2.88	3.38	3.38	1.63	1.63	1.88	1.88	1.88	1.88	2.13	2.13	2.38	2.38
3600 RPM	Drip Proof	1 1/2	2-3	5	7 1/2	10	15	20	25	30	40	50	60	75	100	125	150	200	250	30	40	50	60	75	100	125	150	200	250
	Enclosed	1 1/2	2	3	5	7 1/2	10	15	20	25	30	40	50	60	75	...	100	125	150	25	30	40	50	60	75	...	100	125	150
1800 RPM	Drip Proof	1	1 1/2-2	3	5	7 1/2	10	15	20	25	30	40	50	60	75	100	125	150	200	25	30	40	50	60	75	100	125	150	200
	Enclosed	1	1 1/2-2	3	5	7 1/2	10	15	20	25	30	40	50	60	75	...	100	125	150	25	30	40	50	60	75	...	100	125	150
1200 RPM	Drip Proof & Enclosed	3/4	1	1 1/2	2	3	5	7 1/2	10	15	20	25	30	40	50	60	75	100	125	15	20	25	30	40	50	60	75	100	125
900 RPM	Drip Proof & Enclosed	1/2	3/4	1	1 1/2	2	3	5	7 1/2	10	15	20	25	30	40	50	60	75	100	10	15	20	25	30	40	50	60	75	100
50 HERZ METRIC MOTORS (kW)																													
Frame Size	80	90S	90L	100L	112M	132S	132M	160M	160L	180M	180L	200M/L	225S	225M	250S	250M	280S	280M											
Shaft Dia - mm	19	24	24	28	28	38	38	42	42	48	48	55	45	45	55	55	75	90											
3000 RPM	0,75	1,5	2,2	3,0	4	5,5	...	11	18,5	22	...	30	...	...	...	75	90	110											
	1,10																												
1500 RPM	0,55	1,1	1,5	2,2	4	5,5	7,5	11	15	18,5	22	30	37	45	55	55	75	90											
	0,75																												
1000 RPM	0,37	0,75	1,1	1,5	2,2	3	4	7,5	11	...	15	18,5	30	30	37	37	45	55											
	0,55																												
750 RPM	0,18	0,37	0,55	0,75	1,5	2,2	3	4	7,5	...	11	15	18,5	22	30	30	37	45											
	0,25																												

Engineering Data

TABLE 3 — Recommended Bores for Steel Hubs – Inches ▲

Shaft Dia	Clearance Fit		Interference Fit		Shaft Dia	Clearance Fit		Interference Fit		Shaft Dia	Clearance Fit		Interference Fit		Shaft Dia	Interference Fit	
	Hub Bore	Clearance	Hub Bore	Clearance		Hub Bore	Clearance	Hub Bore	Clearance		Hub Bore	Clearance	Hub Bore	Clearance		Hub Bore	Interference
+.0000 -.0000	+.0010 -.0005	.0000 .0015	+.0005 -.0000	.0000 .0010	+.0000 -.0010	+.0015 -.0000	.0000 .0025	+.0010 -.0000	.0000 .0020	+.0000 -.0010	+.0015 -.0000	.0000 .0025	+.0015 -.0000	.0010 .0035	+.0000 -.0010	+.0015 -.0000	.0015 .0040
.5000	.5000		.4990		2.2500	2.2500		2.2480		4.0625	4.0625		4.0590		6.7500	6.7460	
.5625	.5625		.5615		2.3125	2.3125		2.3105		4.1250	4.1250		4.1215		7.0000	6.9960	
.6250	.6250		.6240		2.3750	2.3750		2.3730		4.1875	4.1875		4.1840		+.0000 -.0010	+.0020 -.0000	.0020 .0050
.6875	.6875		.6865		2.4375	2.4375		2.4355		4.2500	4.2500		4.2465		7.2500	7.2450	
.7500	.7500		.7490		2.5000	2.5000		2.4980		4.3125	4.3125		4.3090		7.5000	7.4950	
.8125	.8125		.8115		2.5625	2.5625		2.5605		4.3750	4.3750		4.3715		7.7500	7.7450	
.8750	.8750		.8740		2.6250	2.6250		2.6230		4.4375	4.4375		4.4340		8.0000	7.9950	
.9375	.9375		.9365		2.6875	2.6875		2.6855		4.5000	4.5000		4.4965		8.2500	8.2445	.0025
1.0000	1.0000		.9990		2.7500	2.7500		2.7480		4.5625	4.5625		4.5590		8.5000	8.4945	.0055
1.0625	1.0625		1.0615		2.8125	2.8125		2.8105		4.6250	4.6250		4.6215		8.7500	8.7445	
1.1250	1.1250		1.1240		2.8750	2.8750		2.8730		4.6875	4.6875		4.6840		9.0000	8.9945	
1.1875	1.1875		1.1865		2.9375	2.9375		2.9355		4.7500	4.7500		4.7465		9.2500	9.2440	.0030
1.2500	1.2500		1.2490		3.0000	3.0000		2.9980		4.8125	4.8125		4.8090		9.5000	9.4940	.0060
1.3125	1.3125		1.3115		+.0000 -.0010	+.0015 -.0000	.0000 .0025	+.0010 -.0000	.0005 .0025	4.8750	4.8750		4.8715		9.7500	9.7440	
1.3750	1.3750		1.3740		3.0625	3.0625		3.0600		4.9375	4.9375		4.9340		10.0000	9.9940	
1.4375	1.4375		1.4365		3.1250	3.1250		3.1225		5.0000	5.0000		4.9965		10.2500	10.2435	.0035
1.5000	1.5000		1.4990		3.1875	3.1875		3.1850		5.0625	5.0625		5.0585	.0010	10.5000	10.4935	.0065
+.0000 -.0010	+.0010 -.0000	.0000 .0020	+.0005 -.0000	.0000 .0015	3.2500	3.2500		3.2475		5.1250	5.1250		5.1210	.0035	10.7500	10.7435	
1.5625	1.5625		1.5610		3.3125	3.3125		3.3100		5.1875	5.1875		5.1835		11.0000	10.9935	
1.6250	1.6250		1.6235		3.3750	3.3750		3.3725		5.2500	5.2500		5.2460		11.2500	11.2430	.0040
1.6875	1.6875		1.6860		3.4375	3.4375		3.4350		5.3125	5.3125		5.3085		11.5000	11.4930	.0070
1.7500	1.7500		1.7485		3.5000	3.5000		3.4975		5.3750	5.3750		5.3710		11.7500	11.7430	
1.8125	1.8125		1.8110		3.5625	3.5625		3.5600		5.4375	5.4375		5.4335		12.0000	11.9930	
1.8750	1.8750		1.8735		3.6250	3.6250		3.6225		5.5000	5.5000		5.4960		12.5000	12.4925	.0045
1.9375	1.9375		1.9360		3.6875	3.6875		3.6850		5.5625	5.5625		5.5585		13.0000	12.9925	.0075
2.0000	2.0000		1.9985		3.7500	3.7500		3.7475		5.6250	5.6250		5.6210		13.5000	13.4920	.0050
+.0000 -.0010	+.0015 -.0000	.0000 .0025	+.0005 -.0000	.0000 .0015	3.8125	3.8125		3.8100		5.6875	5.6875		5.6835		14.0000	13.9920	.0080
2.0625	2.0625		2.0610		3.8750	3.8750		3.8725		5.7500	5.7500		5.7460		14.5000	14.4915	.0055
2.1250	2.1250		2.1235		3.9375	3.9375		3.9350		5.8125	5.8125		5.8085		15.0000	14.9915	.0085
2.1875	2.1875		2.1860		4.0000	4.0000		3.9975		5.8750	5.8750		5.8710		+.0000 -.0010	+.0025 -.0000	.0055 .0090
										5.9375	5.9375		5.9335		15.5000	15.4910	
										6.0000	6.0000		5.9960		16.0000	15.9910	
										6.2500	6.2500		6.2460		16.5000	16.4905	.0060
										6.5000	6.5000		6.4960		17.0000	16.9905	.0095

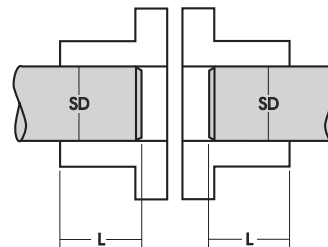
★ For shaft diameters larger than 17.000", use an average interference fit of .0005" per inch of shaft diameter within the following bore tolerances:
+.0025, -.0000 for over 17" to 20" dia. incl.
+.003, -.000 for over 20" to 30" dia. incl.
+.004, -.000 for over 30" to 40" dia. incl.
Tolerances and fits comply with, or are within, AGMA 9002 standard (Class 1 clearance fit).

▲ Viva rebored hubs provided with AGMA 9002 Class 1 clearance fit unless otherwise specified.

OVERHANGING HUBS—Hubs may be overhung on the shafting provided there is more than one shaft diameter of hub/shaft engagement for clearance fits, or more than 0.75 times shaft diameter hub/shaft engagement for interference fits. If hub engagement is less than what is required, use a standard long hub listed in Table 23 on Page 42, or submit application details to the Factory.

Dimension L must be equal to or greater than Dimension SD for clearance fits, or greater than Dimension SD times .75 for interference fits. Example: SD = 4"; then L must be 4" or more for clearance fits or 3" or more for interference fits.

CAUTION: The effect of open keyways on coupling balance should always be considered.



Engineering Data

**TABLE 4 — Recommended Bore Tolerances
Steel Coupling Hubs — Millimeters**

Shaft Diameter (ISO/R775-1969)		Bore Diameter Tolerance		
Nominal	Tolerance	Clearance	Transitional	Interference
6 to 30	j6 / k6 †	F7	H7	M6
Over 30 to 50	k6	F7	H7	K6
Over 50 to 80	m6	F7	H7	K7
Over 80 to 100	m6	F7	H7	M7
Over 100 to 200	m6	F7	H7	P7
Over 200 to 355	m6	F7	H7	R7
Over 355 to 500	m6	F7	H7	R8

† Per DIN 748 — Differs from ISO/R775.

TABLE 5 — Recommended Hub Keyway Dimensions (mm ‡)

Cylindrical Shaft Diameter, <i>d</i>		Nominal Key Size <i>b</i> x <i>h</i>	Hub Keyway						
Over	To (incl.)		Width, <i>b</i>			Depth, <i>t</i> ₂		Radius, <i>r</i>	
			Nominal	Normal Keyway Width Tolerance (Js9) ▲	Close Keyway Width Tolerance (P9)	Nominal	Tolerance	Maximum	Minimum
10	12	4 x 4	4			1.8	+0.1 / -0.0	0.16	0.08
12	17	5 x 5	5	+0.0150 /	-0.012 /	2.3		0.25	0.16
17	22	6 x 6	6	-0.0150	-0.042	2.8			
22	30	8 x 7	8	+0.0180 /	+0.015 /	3.3	+0.25 / -0.0 ‡	0.40	0.25
30	38	10 x 8	10	-0.0180	-0.051	3.3			
38	44	12 x 8	12			3.3			
44	50	14 x 9	14	+0.0215 /	+0.018 /	3.8		0.60	.040
50	58	16 x 10	16	-0.0215	-0.061	4.3			
58	65	18 x 11	18			4.4			
65	75	20 x 12	20			4.9		1.00	0.70
75	85	22 x 14	22	+0.0260 /	+0.022 /	5.4			
85	95	25 x 14	25	-0.0260	-0.074	5.4			
95	110	28 x 16	28			6.4	1.60	1.20	
110	130	32 x 18	32			7.4			
130	150	36 x 20	36	+0.0310 /	+0.026 /	8.4	+0.3 / -0.0	2.50	2.00
150	170	40 x 22	40	-0.0310	-0.088	9.4			
170	200	45 x 25	45			10.4			
200	230	50 x 28	50			11.4	+0.3 / -0.0	1.60	1.20
230	260	56 x 32	56			12.4			
260	290	63 x 32	63	+0.0370 /	+0.032 /	12.4		2.50	2.00
290	330	70 x 36	70	-0.0370	-0.0106	14.4			
330	380	80 x 40	80			15.4			
380	440	90 x 45	90	+0.0435 /	+0.037 /	17.4		2.50	2.00
440	500	100 x 50	100	-0.0435	-0.124	19.5			

‡ NOTE: Taken from ISO R773: 1969 except for *t*₂ tolerance, which is similar to that used in ANSI/AGMA 9002-B04, and approximately equal to the k12 tolerance (ISO 286-2:1988) based on key height.

▲ Viva hubs provided with Js9 keyway width tolerance unless otherwise specified.

Engineering Data

TABLE 6 — Recommended Bores for Metric Shafts per ISO/R775-1969 (Millimeters)

	Shaft Diameter	Clearance Fit		Transitional Fit ▲		Interference Fit	
		Hub Bore	Fit ★	Hub Bore	Fit ★	Hub Bore	Fit ★
mm	j6 0.008 / – 0.003	F7 0.016 / 0.034	0.008 0.037	H7 0.000 / 0.018	– 0.008 0.021	M6 – 0.015 / 0.064	– 0.023 – 0.001
12	12.008 / 11.997	12.016 / 12.034		12.000 / 12.018		11.985 / 11.996	
14	14.008 / 13.997	14.016 / 14.034		14.000 / 14.018		13.985 / 13.996	
16	16.008 / 15.997	16.016 / 16.034		16.000 / 16.018		15.985 / 15.996	
18	18.008 / 17.997	18.016 / 18.034		18.000 / 18.018		17.985 / 17.996	
mm	j6 0.009 / – 0.004	F7 0.020 / 0.041	0.011 0.045	H7 0.000 / 0.021	– 0.009 0.025	M6 – 0.017 / – 0.004	– 0.026 0.000
19	19.009 / 18.996	19.020 / 19.041		19.000 / 19.021		18.983 / 18.996	
20	20.009 / 19.996	20.020 / 20.041		20.000 / 20.021		19.983 / 19.996	
22	22.009 / 21.996	22.020 / 22.041		22.000 / 22.021		21.983 / 21.996	
24	24.009 / 23.996	24.020 / 24.041		24.000 / 24.021		23.983 / 23.996	
25	25.009 / 24.996	25.020 / 25.041		25.000 / 25.021		24.983 / 24.996	
28	28.009 / 27.996	28.020 / 28.041		28.000 / 28.021		27.983 / 27.996	
30	30.009 / 29.996	30.020 / 30.041		30.000 / 30.021		29.983 / 29.996	
>30 mm	k6 0.018 / 0.002	F7 0.025 / 0.050	0.007 0.048	H7 0.000 / 0.025	– 0.018 0.023	K6 – 0.013 / 0.003	– 0.031 0.001
32	32.018 / 32.000	32.025 / 32.050		32.000 / 32.025		31.987 / 32.003	
35	35.018 / 35.002	35.025 / 35.050		35.000 / 35.025		34.987 / 35.003	
38	38.018 / 38.002	38.025 / 38.050		38.000 / 38.025		37.987 / 38.003	
40	40.018 / 40.002	40.025 / 40.050		40.000 / 40.025		39.987 / 40.003	
42	42.018 / 42.002	42.025 / 42.050		42.000 / 42.025		41.987 / 42.003	
45	45.018 / 45.002	45.025 / 45.050		45.000 / 45.025		44.987 / 45.003	
48	48.018 / 48.002	48.025 / 48.050		48.000 / 48.025		47.987 / 48.003	
50	50.018 / 50.002	50.025 / 50.050		50.000 / 50.025		49.987 / 50.003	
> 50 mm	m6 0.030 / 0.011	F7 0.030 / 0.060	0.000 0.049	H7 0.000 / 0.030	– 0.030 0.019	K7 – 0.021 / 0.009	– 0.051 – 0.002
55	55.030 / 55.011	55.030 / 55.060		55.000 / 55.030		54.979 / 55.009	
56	56.030 / 56.011	56.030 / 56.060		56.000 / 56.030		55.979 / 56.009	
60	60.030 / 60.011	60.030 / 60.060		60.000 / 60.030		59.979 / 60.009	
63	63.030 / 63.011	63.030 / 63.060		63.000 / 63.030		62.979 / 63.009	
65	65.030 / 65.011	65.030 / 65.060		65.000 / 65.030		64.979 / 65.009	
70	70.030 / 70.011	70.030 / 70.060		70.000 / 70.030		69.979 / 70.009	
71	71.030 / 71.011	71.030 / 71.060		71.000 / 71.030		70.979 / 71.009	
75	75.030 / 75.011	75.030 / 75.060		75.000 / 75.030		74.979 / 75.009	
80	80.030 / 80.011	80.030 / 80.060		80.000 / 80.030		79.979 / 80.009	
> 80 mm	m6 0.035 / 0.013	F7 0.036 / 0.071	0.001 0.058	H7 0.000 / 0.035	– 0.035 0.022	M7 – 0.035 / 0.000	– 0.070 – 0.013
85	85.035 / 85.013	85.036 / 85.074		85.000 / 85.035		84.965 / 85.000	
90	90.035 / 90.013	90.036 / 90.071		90.000 / 90.035		89.965 / 90.000	
95	95.035 / 95.013	95.036 / 95.071		95.000 / 95.035		94.965 / 95.000	
100	100.035 / 100.013	100.036 / 100.071		100.000 / 100.035		99.965 / 100.000	
> 100 mm	m6 0.035 / 0.013	F7 0.036 / 0.071		H7 0.000 / 0.035		P7 – 0.059 / – 0.024	– 0.097 – 0.037
110	110.035 / 110.013	110.036 / 110.071		110.000 / 110.035		109.941 / 109.976	
120	120.035 / 120.013	120.036 / 120.071		120.000 / 120.035		119.941 / 119.976	
> 120 mm	m6 0.040 / 0.015	F7 0.043 / 0.083	0.003 0.068	H7 0.000 / 0.040	– 0.040 0.025	P7 – 0.068 / – 0.028	– 0.108 – 0.043
125	125.040 / 125.015	125.043 / 125.083		125.000 / 125.040		124.932 / 124.972	
130	130.040 / 130.015	130.043 / 130.083		130.000 / 130.040		129.932 / 129.972	
140	140.040 / 140.015	140.043 / 140.083		140.000 / 140.040		139.932 / 139.972	
150	150.040 / 150.015	150.043 / 150.083		150.000 / 150.040		149.932 / 149.972	
160	160.040 / 160.015	160.043 / 160.083		160.000 / 160.040		159.932 / 159.972	
170	170.040 / 170.015	170.043 / 170.083		170.000 / 170.040		169.932 / 169.972	
180	180.040 / 180.015	180.043 / 180.083		180.000 / 180.040		179.932 / 179.972	
> 180 mm	m6 0.046 / 0.017	F7 0.050 / 0.096	0.004 0.079	H7 0.000 / 0.046	– 0.046 0.029	P7 – 0.079 / – 0.033	– 0.125 – 0.050

★ Positive values are clearance. Negative values are interference.

▲ Viva rebored hubs provided with AGMA 9112 H7 transitional fit unless otherwise specified.

Engineering Data

TABLE 7 – Physical Parameters

Size	Nom. Torque (Nm)	Max Torque (Nm)	Max Speed (rpm)	Moment of Inertia J (Kg·m ²)	Max Axial Misalign (mm)	Max Radial Misalign (mm)	Max Angular Misalign		Static● Torsional Stiffness (Nm/rad)	Static● Axial Stiffness (N/mm)	Static● Radial Stiffness (N/mm)	Static● Angular Stiffness (N/rad)
							Radial	Degree				
E2	21.5	53.8	7500	.000323	4.7	1.6	0.070	4	433	105	226	102
ES2-R	21.5	53.8	7500	.000528	4.7	1.6	0.070	4	433	105	226	102
E3	41.2	103.0	7500	.000733	4.7	1.6	0.070	4	842	114	235	133
ES3-R	41.2	103.0	7500	.001670	4.7	1.6	0.070	4	842	114	235	133
E4	62.0	155.0	7500	.001230	4.7	1.6	0.070	4	777	123	245	175
ES4-R	62.0	155.0	7500	.002670	4.7	1.6	0.070	4	777	123	245	175
E5	104.5	261.3	7500	.003230	6.3	1.6	0.070	4	1490	181	264	264
ES5-R	104.5	261.3	7500	.005860	6.3	1.6	0.070	4	1490	181	264	264
EI 0	163.8	409.5	7500	.006450	6.3	1.6	0.070	4	1750	251	468	654
ES10-R	163.8	409.5	7500	.009970	6.3	1.6	0.070	4	1750	251	468	654
E20	260	650	6600	.016100	6.3	2.4	0.052	3	2460	272	482	822
ES20	260	650	4800	.021100	6.3	2.4	0.052	3	2460	272	482	822
E30	412	1030	5800	.033700	6.3	2.4	0.052	3	4855	280	503	971
ES30	412	1030	4200	.044000	6.3	2.4	0.052	3	4855	280	503	971
E40	622	1555	5000	.080600	6.3	2.4	0.052	3	7315	314	522	1754
ES40	622	1555	3600	.100000	6.3	2.4	0.052	3	7315	314	522	1754
E50	864	2160	4200	.158000	6.3	2.4	0.052	3	15200	409	543	3470
ES50	864	2160	3100	.188000	6.3	2.4	0.052	3	15200	409	543	3470
E60	1412	3530	3800	.267000	9.5	3.2	0.035	2	27200	446	560	6195
ES60	1412	3530	2800	.343000	9.5	3.2	0.035	2	27200	446	560	6195
E70	2486	6215	3600	.366000	9.5	3.2	0.035	2	34300	527	591	6603
ES70	2486	6215	2600	.470000	9.5	3.2	0.035	2	34300	527	591	6603
E80	4463	11158	2000	1.05000	9.5	3.2	0.035	2	45300	883	622	11000
ES80	4463	11158	1800	1.14000	9.5	3.2	0.035	2	45300	883	622	11000
E100	9605	24013	1900	2.20000	15.0	4.8	0.026	1.5	90600	1050	700	CF
E120	19211	48028	1800	2.93000	15.0	4.8	0.026	1.5	194000	1226	762	CF
E140	38442	96105	1500	6.74000	15.0	4.8	0.026	1.5	CF	CF	CF	CF

● Static stiffness values are ±20%.

TABLE 8 – Interchange Data

Omega	Dodge Para-Flex	Lovejoy (Rubber)	TB Woods (Rubber)	Falk Steelflex			Kop-Flex Gear
				1000T	10T	F-Series	
E2	...	L-095	5	1020T	20T	3F	1H
E3	...	L-099 & L-100	6	1030T	30T	4F	1H
E4	...	L-110	7	1040T	40T	4F	1H
E5	50	L-110	8	1040T & 1050T	40T & 50T	5F & 6F	1H & 1-1/2H
E10	60	L-150 & L-190	9	1050T & 1060T	50T & 60T	7F & 8F	1-1/2H
E20	70	L-225	10	1060T & 1070T	60T & 70T	8F & 9F	1-1/2H & 2H
E30	80	L-276	11	1070T & 1080T	70T & 80T	9F & 10F	2H & 2-1/2H
E40	90	...	12	1090T	90T	10F	2-1/2H
E50	110	...	...	1090T	90T	11F	2-1/2H
E60	120	...	13	1090T	90T	11F	2-1/2H
E70	140	...	14	1100T	100T	13F	3H
E80	160	...	16	1110T	110T	14F	3H
E100	200	...	...	1120T	120T	15F	CF
E120	240	...	...	1130T & 1140T	130T & 140T	16F & 17F	CF
E140	280	...	...	1150T	150T	18F	CF

Caution should be applied when using any interchange chart (particularly with respect to gear and grid couplings) since each product has different dimensions, benefits, and service factor recommendations. This interchange is based on typical specifications for centrifugal pump applications at 1750 RPM. For specific applications, consult Rexnord or ask for handy slide selector 429-508. Use this as a general guide.

How to Order & Tapered Bores

How to Order Standard and Spacer Couplings

When ordering a complete coupling, specify size/type of element and hubs (two hubs per complete coupling) options include:

Element

[E2–E140] Standard (close coupled)

[ES2–R–ES80] Spacer

Hub

[2HRB–140HRB] Straight hub-rough bore

[2HSB–60HSB] Straight hub-stock bore (specify bore size from table on page 15)

[2HCB–140HCB] Straight hub-custom bore (specify bore and keyway)

[4HQD–140HQD] Hub-QD (bushing not included)

[3HTL–140HTL] Hub-Taper-Lock (Bushing not included)

Order Example

Complete E50 standard (close coupled) coupling with one finished bore 21/8" hub w/standard keyway and one QD hub less bushing. Order description:

1 ea. E50 element

1 ea. 50HSB – 21/8" – Standard

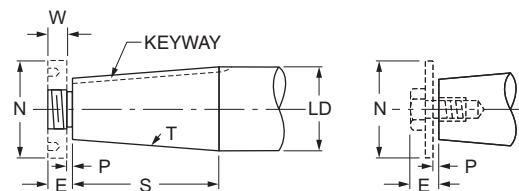
1 ea. 50 HQD – Steel

Tapered Bores – Information Required

1. Drawing of HUB showing complete bore and keyway details.

– OR –

2. Drawing of SHAFT with dimensions shown below, allowing Rexnord to bore hubs to suit.



(LD) Large Diameter, Specify in Decimals.

(S) Length of Taper, Measure parallel to Shaft centerline.

(T) Taper per Foot, Difference in Diameter in one foot length.

(P) Clearance space for drawing Hub up on tapered shaft. Usually 3.1mm or 6.35mm, depending on shaft size and taper.

Keyway: Width, Depth.

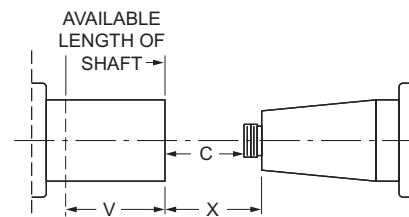
Note: Specify if keyway is parallel to Taper or if parallel to shaft center line.

Specify depth at larger diameter of Taper if keyway is parallel to shaft center line.

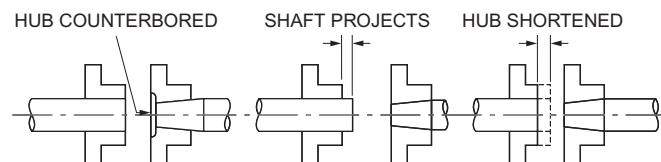
Supplemental Taper Bore Information

With connected equipment in fixed position, the following additional information is necessary:

Dimensions “V” and “X” must be given when one or both connected machines are fixed on their bases. Advise if dimension “X” is fixed, or if variable between what limits.



A fixed “X” dimension may require altered or special coupling hubs. Often the straight bored hub can be positioned on its shaft allowing the use of a standard coupling. See illustrations below.



Consult A.G.M.A. Standard 9002-A86 “Taper Bores for Flexible Couplings” for new applications.

Company _____ Phone _____
 Address _____ Fax _____
 _____ E-Mail _____
 Date _____ Response Req'd By _____
 Submitted By _____

Disc ☐ Grid ☐ Gear ☐ Elastomer ☐ Composite ☐
Horizontally Mounted ☐ Vertically Mounted ☐

Close Coupled ☐ Spacer ☐ Other _____

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