SELECTION PROCEDURES

1. Determine Operating Torque: $\left(\frac{63{,}025 \times HP}{RPM}\right)$

2. Multiply by Service Factor:

Select the proper Service Factor from Table on **page 5**.

3. Select the Coupling Size:

Select coupling size from **Table 1** with a capacity equal to or greater than determined in Step 2.

4. Follow steps 5 & 6 below.

— OR —

1. Determine HP/100 RPM: $\left(\text{HP/100 RPM} = \frac{\text{Horsepower} \times 100}{RPM}\right)$

2. Determine Service Factor:

Select the proper Service Factor from Table on **page 5**. If not listed, see Load Classification Table on **page 5**. Remember to consider both driver and driven equipment and temperature requirements.

3. Multiply HP/100 by the service factor to get equivalent HP/100 RPM.

4. Select the Coupling Size:

From **Table 1**, with a rating equal to or greater than the HP/100 RPM determined in Step 3.

5. Check Maximum Speed:

Be sure that the operating speed of the coupling does not exceed maximum RPM listed on **pages 6-10**.

6. Select Desired Hub Type:

Select hub type and check maximum allowable bore.

7. Select Element Design:

Select element design to meet shaft gap requirement.

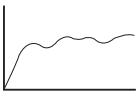
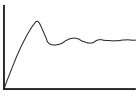
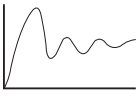
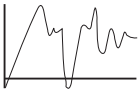
Table 1

Size		Continuous Torque (lb-in)	HP/100 RPM
Standard	Spacer		
E2	ES2	190	0.3
E3	ES3	365	0.58
E4	ES4	550	0.88
E5	ES5	925	1.48
E10	ES10	1,450	2.3
E15	ES15	1,800	2.86
E20	ES20	2,300	3.65
E30	ES30	3,650	5.79
E40	ES40	5,500	8.85
E50	ES50	7,650	12.14
E60	ES60	12,500	19.84
E70	ES70	22,125	35.12
E80	ES80	39,500	62.7
E100	N/A	85,050	135
E120	N/A	170,100	270
E140	N/A	340,200	540

Peak torque capacity of coupling is 250% of above continuous ratings.

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 Factors
	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."	Consult Regal Rexnord™

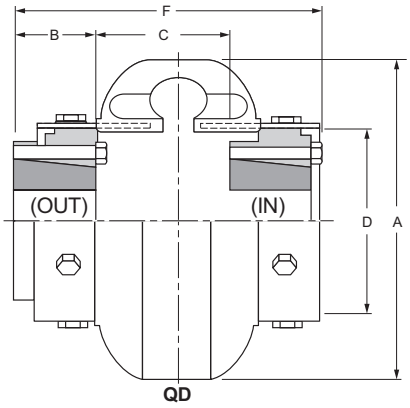
Omega™ Element Temperature Range (Ambient) ①	
-40° F	-40° C
to	
+200° F	+93° C

High Temperature Service Factor Adjustment ①	
Ambient Temp.	S.F. Adjust.
+150° F (66° C)	0.25
+165° F (74° C)	0.50
+180° F (82° C)	0.75
+200° F (93° C)	1

① Added to application service factor.

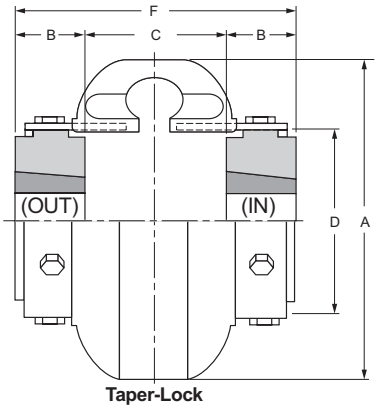
The service factor adjustment for high temperature is in addition to the service factor consideration for the driver and driven equipment. However, if high temperatures are typical for a specific application, maximum temperature consideration is incorporated into the "typical" service factor listing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

OMEGA™ CLOSE-COUPLED DESIGN WITH COMPRESSION BUSHED HUBS



QD

NOTE: Bushings are NOT included with hubs



Taper-Lock

Specification Data with QD Hubs

Coupling Size	QD Bush. No.	Recom. Maximum Bore ①	Continuous HP/100 RPM	Continuous Torque (lb-in)	Maximum RPM	Dimensions (in)							Weight (lb) ③
						A	B	C		D	F		
								(In) ④	(Out)		(In) ④	(Out)	
E4	JA	1.19	0.88	550	6600	4.56	1.00	1.22	1.88	2.60	3.22	3.88	2.1
E5	SH	1.63	1.48	925	6600	5.38	1.25	1.75	1.88	3.13	4.25	4.50	3.6
E10	SDS	1.94	2.30	1450	6600	6.38	1.31	1.19	2.31	3.65	3.81	4.94	4.8
E15	SDS	1.94	2.86	1800	6600	6.38	1.31	1.19	2.31	3.65	4.24	4.94	4.9
E20	SK	2.50	3.65	2300	6600	7.25	1.88	0.62	2.62	4.48	4.25	6.38	8.5
E30	SF	2.94	5.79	3650	5800	8.25	2.00	1.44	2.19	5.42	5.44	6.19	14.0
E40	E	3.50	8.85	5500	5000	9.50	2.63	1.25	1.75	6.63	6.50	7.00	23.8
E50	E	3.50	12.14	7650	4200	11.00	2.63	1.37	2.88	8.13	6.63	8.13	37.6
E60	F	3.94	19.84	12,500	3800	12.50	3.63	1.50	1.89	8.75	8.75	9.13	45.5
E70	J	4.50	35.12	22,125	3600	14.00	4.50	1.31	1.43	9.25	13.31	10.43	68.1
E80	M	5.50	62.70	39,500	2000	16.00	6.75	0.75	1.25	11.25	14.25	14.75	140
E100	M	5.50	135	85,050	1900	21.00	6.80	1.75	1.16	14.13	15.34	14.75	250
E120	N	6.00	238 ⑥	150,000 ⑥	1800	25.00	8.12	1.74	1.16	17.63	17.96	16.88	475
E140	P	7.00	396 ⑥	250,000 ⑥	1500	30.00	9.36	0.30	3.00	20.88	19.00	21.78	782

NOTE: Dimensions may vary depending on bushing manufacturer.

Specification Data with Taper-Lock®* Hubs

Coupling Size	TL Bush. No.	Recom. Maximum Bore ①	Continuous HP/100 RPM ②	Continuous Torque (lb-in) ②	Maximum RPM	Dimensions (in)							Weight (lb) ③
						A	B	C		D	F		
E3	1008	1.00	0.58	365	6600	4.00	0.88	1.68		2.32	3.44		1.8
E4	1008	1.00	0.88	550	6600	4.56	0.88	1.68		2.60	3.44		2.6
E5	1108	1.13	1.48	925	6600	5.38	0.88	2.19		3.13	3.94		4.0
E10	1310	1.44 ⑦	2.30	1450	6600	6.38	1.00	2.06		3.65	4.06		6.0
E15	1310	1.44 ⑦	2.86	1800	6600	6.38	1.00	2.06		3.65	4.24		6.1
E20	1610	1.69 ⑦	3.65	2300	6600	7.25	1.00	2.50		4.48	4.50		9.0
E30	2012	2.12 ⑦	5.79	3650	5800	8.25	1.25	2.56		5.42	5.06		13.6
E40	2517	2.69 ⑦	8.85	5500	5000	9.50	1.75	2.38		6.63	5.88		21.8
E50	2517	2.69 ⑦	12.14	7650	4200	11.00	1.75	3.00		8.13	6.50		31.5
E60	3020	3.25 ⑦	19.84	12,500	3800	12.50	2.00	3.31		8.75	7.31		46.6
E70	3535	3.94	35.12	22,125	3600	14.00	3.50	2.38		9.25	9.38		66.7
E80	4040	4.44	62.70	39,500	2000	16.00	4.00	3.75		11.25	11.75		82
								(In)④	(Out)		(In)④	(Out)	
E100	4545	4.94	135	85,050	1900	21.00	4.50	1.50	6.00	14.13	10.50	15.00	250
E120	5050	5.00	238 ⑥	126,000 ⑥	1800	25.00	5.00	2.00	7.13	17.63	12.00	17.13	408
E140	7060 ⑤	7.00 ⑤	540	340,200	1500	30.00	6.00	3.00	7.00	20.88	15.00	19.00	660

① With shallow keyway.
② This rating may be limited by the bushing rating if severe service conditions exist. Consult bushing manufacturer.
③ Without compression bushings.
④ Inboard hub mounting (see drawing on **page 6**) requires bushing installation from coupling ends. Allow space (extra "B" dimension) between coupling ends and equipment for bushing assembly/disassembly. Reverse taper hubs are available; consult Regal Rexnord™.
⑤ An 8065 bushing hub with 8.00" max bore is also available. Consult Regal Rexnord.
⑥ Maximum bushing rating.
⑦ With steel bushings.

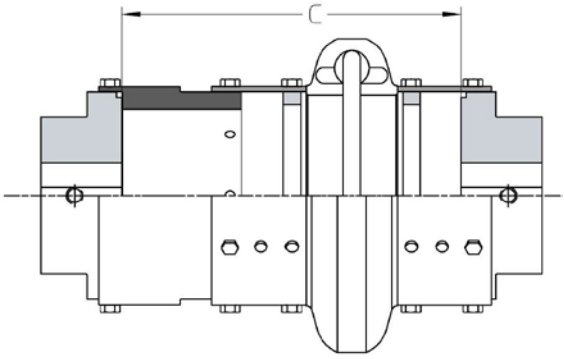
* See back cover.

NOTE: Dimensions subject to change. Certified dimensions of ordered material furnished on request.

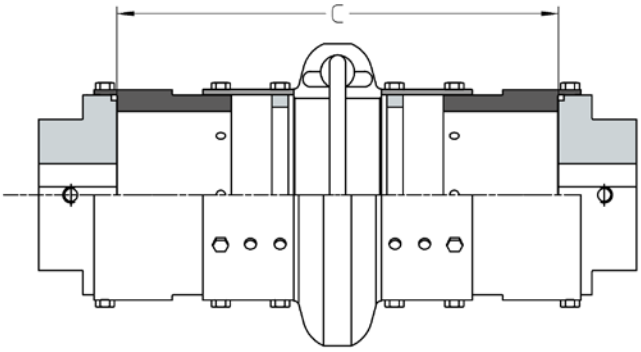
OMEGA™ EXTENDED SPACER COUPLING

Rexnord™ Omega Extended Spacer Couplings are designed to connect equipment with shaft spacing requirements beyond the Omega Spacer Coupling capabilities. The extended spacer design 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 and all Omega Coupling Hubs. Sleeve Extensions can also be used to extend shaft gap capacity of larger size close coupled E100-E140 elements.



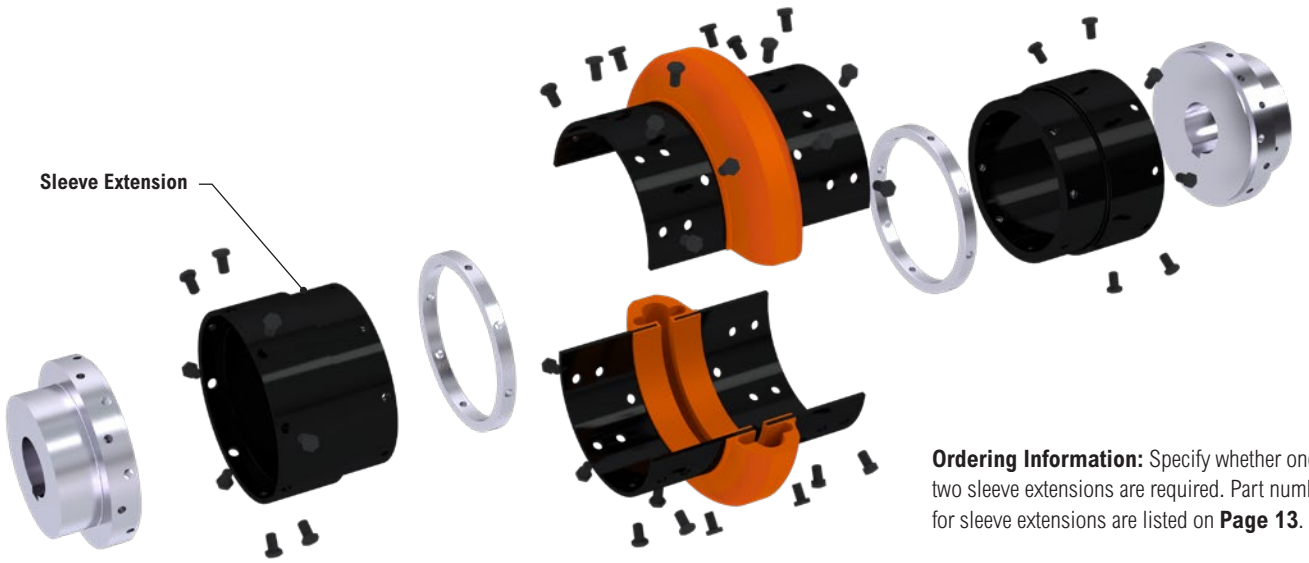
SINGLE EXTENSION



DOUBLE EXTENSION

Spacer Size	Maximum RPM Standard	Maximum RPM Matched Assembly ②	Maximum Spacing ① – "C" Dimension (in)									Weight (lb) One SE
			With SHRB Hubs			With HQD Hubs			With HTL Hubs			
			Maximum Without SE	One SE	Two SE	Maximum Without SE	One SE	Two SE	Maximum Without SE	One SE	Two SE	
ES3-R	1800	3600	5.00	7.00	9.00	–	–	–	5.38	7.38	9.38	1.2
ES4-R	1800	3600	5.00	7.00	9.00	5.56	7.56	9.56	5.38	7.38	9.38	1.4
ES5-R	1800	3600	5.00	7.00	9.00	5.06	7.06	9.06	5.38	7.38	9.38	1.5
ES10-R	1800	3600	5.00	7.00	9.00	5.49	7.49	9.49	5.25	7.25	9.25	1.6
ES15-R	1800	3600	5.00	7.00	9.00	5.49	7.49	9.49	5.25	7.25	9.25	1.6
ES20	1800	3600	7.00	9.75	12.50	6.96	9.71	12.46	6.75	9.50	12.25	3.7
ES30	1800	3600	7.00	9.75	12.50	6.44	8.97	11.72	6.50	9.25	12.00	4.5
ES40	1800	3600	7.00	9.75	12.50	5.74	8.23	10.98	6.00	8.75	11.50	5.3
ES50	1800	3100	7.00	9.75	12.50	6.24	8.73	11.48	6.00	8.75	11.50	8.0
ES60	1800	2800	9.75	14.38	19.00	7.68	12.31	16.93	8.75	13.38	18.00	20.8
ES70	1800	2600	9.75	15.13	20.50	6.72	12.10	17.47	7.34	12.72	18.09	34.6
ES80	1500	1800	9.75	15.38	21.00	4.76	10.39	16.01	6.84	12.37	18.00	46.2
E100	1500	1800	3.75	8.75	13.75	1.75	7.00	12.25	6.00	11.25	16.50	76.0
E120	1500	1800	4.88	10.13	15.38	1.74	6.74	11.74	7.13	12.13	17.13	81.3
E140	1200	1500	5.00	10.50	22.00	3.00	8.50	14.00	7.00	12.50	18.00	122.0

① Maximum spacings shown are with hubs mounted outboard and flush with shaft ends. Longer custom length extensions are available; consult Regal Rexnord™.
② Hub/sleeve extension assembly precisely machined and matched to obtain higher speed rating. Specify "Matched Assembly" when ordering.



Ordering Information: Specify whether one or two sleeve extensions are required. Part numbers for sleeve extensions are listed on **Page 13**.

ELEMENT & HUB PART NUMBERS

Omega™ Coupling Element Part Numbers

Size	Omega Coupling Elements					
	Close Coupled E	Spacer ES	Close Coupled HSU	Spacer HSU	Close Coupled HDY	Spacer HDY
E2	10287330	10287346	10287700	10287811	10287699	10287810
E3	10287331	10287347	10287707	10287818	10287706	10287817
E4	10287332	10287348	10287714	10287825	10287713	10287824
E5	10287333	10287349	10287721	10287832	10287720	10287831
E10	10287334	10287350	10287728	10287839	10287727	10287838
E15	10287335	10287351	10287735	10287846	10287734	10287845
E20	10287336	10287352	10287742	10287853	10287741	10287852
E30	10287337	10287353	10287749	10287860	10287748	10287859
E40	10287338	10287354	10287756	10287867	10287755	10287866
E50	10287339	10287355	10287763	10287874	10287762	10287873
E60	10287340	10287356	10287770	10287881	10287769	10287880
E70	10287341	10287357	10287777	10287888	10287776	10287887
E80	10287342	10287358	10287783	10287895	10287782	10287894
E100	10287343	...	10287790	···	10287789	···
E120	10287344	···	10287797	···	10287796	···
E140	10287345	···	10287804	···	10287803	···

Omega Coupling Hub and Accessory Part Numbers

Size	Omega Hubs		Accessories				
	Rough Stock Bore Carbon Steel	Taper-Lock®* Hub	Sleeve Extension	High Speed Rings ①	Carbon Steel Capscrew Kit	Stainless Steel Capscrew Kit	Capscrew Quantity and Size
2	10287359	···	···	10316477	10287681	10287682	Qty. 8 + 8 ② - 1/4-20 X 3/8"
3	10287365	10287464	10287525	10313251	10314073	10287684	Qty. 8 + 8 ② - 1/4-20 X 1/2"
4	10287373	10287465	10287526	10313158	10314073	10287684	Qty. 8 + 8 ② - 1/4-20 X 1/2"
5	10287386	10287466	10287527	10312876	10314073	10287684	Qty. 8 + 8 ② - 1/4-20 X 1/2"
10	10287403	10287467	10287528	10313758	10313938	10287686	12 + 8 ② - 1/4-20 X 1/2"
15	10287416	10288104	10287524	10378907	10467602	10287687	12 + 8 ② - 5/16-18 X 1/2"
20	10287418	10287468	10287529	10287498	10316221	10287689	Qty. 12 - 3/8-16 X 5/8"
30	10287427	10287469	10287530	10287499	10316221	10287689	Qty. 12 - 3/8-16 X 5/8"
40	10287437	10287470	10287531	10287500	10315342	10287691	Qty. 16 - 3/8-16 X 5/8"
50	10287447	10287471	10287532	10287501	10315342	10287691	Qty. 16 - 3/8-16 X 5/8"
60	10287454	10287472	10287533	10287502	10313041	10287693	Qty. 16 - 1/2-13 X 7/8"
70	10287459	10287473	10287534	10287503	10313041	10287693	Qty. 16 -1/2-13 X 7/8"
80	10287460	10287474	10287535	10287504	10313041	10287693	Qty. 16 - 1/2-13 X 7/8"
100	10287461	10287475	10287536	···	10315236	10287695	Qty. 20 - 3/4-10 X 1-1/2"
120	10287462	10287476	10287537	···	10312654	10287965	Qty. 24 - 3/4-10 X 1-1/2"
140	10287463	10287477	10287538	···	10318864	10287698	Qty. 32 - 1.0-8 X 1-1/2"

① High Speed Rings are furnished standard for sizes ES2-R to ES15-R, optional for sizes ES20 to ES80.
② Extra capscrews are provided for spacer couplings with rings.

* See back cover.

NOTE: Dimensions subject to change. Certified dimensions of ordered material furnished on request.