



Rexnord™ Omega™ & Viva™ Elastomeric Coupling Downsizing & Interchange Guide

METRIC



This guide outlines where Rexnord™ Omega™ High Density Yellow (HDY) and Viva™ elastomeric couplings could allow for a smaller size selection when compared to competitive couplings from Dodge®*. It also provides a direct interchange table for situations where downsizing is not possible, yet the higher torque density of Omega HDY or Viva is desired.

When properly downsizing to an Omega HDY or Viva coupling is possible, the coupling could still meet the application requirements while being smaller in diameter and lower weight. Typically, these factors result in a lower purchase price. Tables 3 and 4 show the expected weight savings and diameter reduction associated with downsizing a coupling. For more information, please review the Omega and Viva content online for order placement or contact your Regal Rexnord representative for interchanging assistance.

HOW TO USE THIS GUIDE

DOWNSIZING OPTIONS:

1. Using Table 1, select the Rexnord Omega HDY or Viva size that corresponds to the Dodge Raptor®* coupling size.
2. If the "Torque Capacity" notes "CHECK," compare the motor torque multiplied by the driven equipment service factor against the Omega HDY or Viva torque rating listed in Table 2.
3. If the "Bore Capacity" notes "CHECK," verify that the Omega HDY or Viva max bore listed in Table 2 equals or exceeds both shaft sizes of your application.

If torque and bore capacity are both adequate, downsizing to the smaller coupling could be done. If downsizing is not possible, review the Direct Interchange directions listed below.

DIRECT INTERCHANGE:

Review Table 2 and select the Rexnord coupling (Omega STD, Omega HDY, or Viva) size that corresponds to the Dodge Raptor. The Rexnord coupling torque and bore capacity will be equivalent to the Dodge values.

TABLE 1 — Downsizing Options

Dodge Raptor	Rexnord Omega HDY			Rexnord Viva		
	Size	Torque Capacity	Bore Capacity	Size	Torque Capacity	Bore Capacity
E2M	....	....	....	....	....	....
E3M	E2M	CHECK	CHECK	....	....	....
E4M	E3M	CHECK	CHECK	V110	OK	CHECK
E5M	E4M	CHECK	CHECK	V125	OK	OK
E10M	E5M	CHECK	CHECK	V130	OK	OK
E20M	E15M	CHECK	CHECK	V150	CHECK	OK
				V170	OK	OK
E30M	E20M	CHECK	CHECK	V170	CHECK	CHECK
				V190	OK	OK
E40M	E30M	CHECK	CHECK	V215	OK	CHECK
E50M	E40M	CHECK	CHECK	V215	CHECK	CHECK
				V245	OK	OK
E60M	E50M	CHECK	CHECK	V245	CHECK	CHECK
				V290	OK	OK
E70M	E60M	CHECK	CHECK	....	....	....
E80M	E70M	CHECK	CHECK	V365	CHECK	CHECK
E100M	E80M	CHECK	CHECK	V425	CHECK	CHECK
				V460	CHECK	CHECK
E120M	E100M	CHECK	CHECK	....	....	....
E140M	E120M	CHECK	CHECK	....	....	....

Table 2 — Direct Interchange

Dodge Raptor			Rexnord Omega STD			Rexnord Omega HDY			Rexnord Viva		
Size	Torque Rating (Nm) ¹	Max Bore (mm)	Size	Torque Rating (Nm)	Max Bore (mm)	Size	Torque Rating (Nm)	Max Bore (mm)	Size	Torque Rating (Nm)	Max Bore (mm)
E2M	22	28	E2M	21	28	E2M	27	28	V110	62	38
E3M	42	34	E3M	41	34	E3M	52	34	V110	62	38
E4M	63	42	E4M	62	42	E4M	78	42	V110	62	38
E5M	105	48	E5M	105	48	E5M	131	48	V125	105	48
E10M	165	55	E10M	164	55	E10M	205	55	V130	164	55
....	....	....	E15M	203	55	E15M	254	55	V150	251	65
E20M	261	60	E20M	260	60	E20M	325	60	V170	308	65
E30M	413	75	E30M	412	75	E30M	516	75	V190	412	75
E40M	622	85	E40M	621	85	E40M	777	85	V215	659	80
E50M	865	90	E50M	864	90	E50M	1080	90	V245	940	95

1 Torque values listed are the greater of the two competitor's published catalog figures.

continued

* See back cover.

Table 2 — Direct Interchange (Continued)

Dodge® Raptor®*			Rexnord™ Omega™ STD			Rexnord Omega HDY			Rexnord Viva™		
Size	Torque Rating (Nm) ¹	Max Bore (mm)	Size	Torque Rating (Nm)	Max Bore (mm)	Size	Torque Rating (Nm)	Max Bore (mm)	Size	Torque Rating (Nm)	Max Bore (mm)
E60M	1413	105	E60M	1412	105	E60M	1765	105	V290	1416	110
E70M	2501	120	E70M	2500	120	E70M	3125	120	V365	3208	127
E80M	4463	155	E80M	4463	155	E80M	5579	155	V425	5593	155
E100M	9613	171	E100M	9609	171	E100M	12012	171	V460	6284	165
E120M	19227	190	E120M	19219	190	E120M	24024	190	....	....	....
E140M	38453	280	E140M	38438	280	E140M	48047	280	....	....	....

1 Torque values listed are the greater of the two competitor's published catalog figures.

Table 3 — Size and Weight Comparison (vs. Omega HDY Downsize Selection)

Dodge Raptor			Rexnord Omega HDY				
Size	Weight ¹ (kg)	Diameter (mm)	Size	Weight ¹ (kg)	Diameter (mm)	Compared to Raptor	
						Weight Reduction (kg)	Diameter Reduction (mm)
E2M	....	....	....	....	....	....	....
E3M	1,04	102	E2M	0,54	89	-0,50	-13
E4M	1,50	116	E3M	1,09	102	-0,41	-14
E5M	2,45	137	E4M	1,36	116	-1,09	-21
E10M	3,45	162	E5M	2,45	137	-1,00	-25
E20M	5,77	184	E10M	3,72	162	-2,04	-22
			E15M	3,77	162	-2,00	-22
E30M	8,94	210	E20M	5,90	184	-3,04	-25
E40M	15,21	241	E30M	9,53	210	-5,68	-32
E50M	23,11	279	E40M	15,89	241	-7,22	-38
E60M	32,37	318	E50M	24,52	279	-7,85	-38
E70M	37,23	356	E60M	32,69	318	-4,54	-38
E80M	76,91	406	E70M	39,04	356	-37,86	-51
E100M	114,68	533	E80M	77,18	406	-37,50	-127
E120M	190,41	635	E100M	110,78	533	-79,63	-102
E140M	269,40	762	E120M	192,95	635	-76,45	-127

1 Weight values listed are with maximum bore.

Table 4 — Size and Weight Comparison (vs. Viva Downsize Selection)

Dodge Raptor			Rexnord Viva				
Size	Weight ¹ (kg)	Diameter (mm)	Size	Weight ¹ (kg)	Diameter (mm)	Compared to Raptor	
						Weight Reduction (kg)	Diameter Reduction (mm)
E2	....	....	....	....	....	....	....
E3	1,04	102	....	....	....	....	....
E4	1,50	116	V110	1,41	109	-0,09	-7
E5	2,45	137	V125	1,68	119	-0,77	-17
E10	3,45	162	V130	2,09	130	-1,36	-33
E20	5,77	184	V150	4,22	150	-1,54	-34
			V170	4,31	168	-1,45	-17
E30	8,94	210	V170	4,31	168	-4,63	-42
			V190	5,49	191	-3,45	-19
E40	15,21	241	V215	9,62	213	-5,58	-28
E50	23,11	279	V215	9,62	213	-13,48	-66
			V245	14,39	244	-8,72	-36
E60	32,37	318	V245	14,39	244	-17,98	-74
			V290	24,92	290	-7,45	-28
E70	37,23	356	V365	42,04	366	4,81	10
E80	76,91	406	V365	42,04	366	-34,87	-41
E100	114,68	533	V425	85,08	424	-29,60	-109
			V460	93,07	460	-21,61	-74
E120	190,41	635	....	....	....	....	....
E140	269,40	762	....	....	....	....	....

1 Weight values listed are with maximum bore.

* See back cover.

REXNORD™ OMEGA™ AND VIVA™ COUPLING FAMILY

Omega Standard Orange		• General purpose applications requiring the highest misalignment capacity • Available with imperial or metric capscrews
Omega Heavy-Duty Yellow (HDY)		• 25% greater torque capacity over Omega Standard Orange allows for possible downsizing • Available with imperial or metric capscrews
Omega Hydrolytically Stable Urethane Green (HSU)		• Ideal in hot or humid conditions in addition to acidic or alkaline environments • Anti-corrosive shoe coating available (HSU-J) for use in highly caustic environments • Available with imperial or metric capscrews
Viva		• The most torque-dense elastomeric coupling available allows for possible downsizing • Hubs with two rows of radial holes grant more field spacing adjustability • No special hubs or sleeve extensions needed for extra wide shaft gaps (up to 300 mm)

To review an example of how downsizing can offer a reduction in coupling weight, size, and total cost, download the Elastomeric Tire Coupling Whitepaper **Imperial** CP11-001 and **Metric** CP11-001_MA4 at regalrexnordliterature.callmss.com/literature.php.

Competitive coupling data used in this paper was sourced from Dodge® Raptor®* coupling catalog #9AKK2017-106583.



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