

Omega and Viva Elastomeric Coupling Downsizing & Interchange Guide

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® and TB Woods®. 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 & Viva content on-line for order placement or contact your 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 or TB Woods Dura-Flex 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 or TB Woods Dura-Flex size. The Rexnord coupling torque and bore capacity will be equivalent to the Dodge or TB Woods values.

TABLE 1 – Downsizing Options

Dodge Raptor	TB Woods Dura-Flex	Rexnord Omega HDY			Rexnord Viva		
		Size	Torque Capacity	Bore Capacity	Size	Torque Capacity	Bore Capacity
E2M	WE2M	....	....	....	....	....	....
E3M	WE3M	E2M	CHECK	CHECK	....	....	....
E4M	WE4M	E3M	CHECK	CHECK	V110	OK	CHECK
E5M	WE5M	E4M	CHECK	CHECK	V125	OK	OK
E10M	WE10M	E5M	CHECK	CHECK	V130	OK	OK
E20M	WE20M	E15M	CHECK	CHECK	V150	CHECK	OK
					V170	OK	OK
E30M	WE30M	E20M	CHECK	CHECK	V170	CHECK	CHECK
					V190	OK	OK
E40M	WE40M	E30M	CHECK	CHECK	V215	OK	CHECK
E50M	WE50M	E40M	CHECK	CHECK	V215	CHECK	CHECK
					V245	OK	OK
E60M	WE60M	E50M	CHECK	CHECK	V245	CHECK	CHECK
					V290	OK	OK
E70M	WE70M	E60M	CHECK	CHECK	....	....	....
E80M	WE80M	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 / TB Woods			Rexnord Omega STD			Rexnord Omega HDY			Rexnord Viva		
Size ¹	Torque Rating (Nm) ²	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 / WE2M	22	28	E2M	21	28	E2M	27	28	V110	62	38
E3M / WE3M	42	34	E3M	41	34	E3M	52	34	V110	62	38
E4M / WE4M	63	42	E4M	62	42	E4M	78	42	V110	62	38
E5M / WE5M	105	48	E5M	105	48	E5M	131	48	V125	105	48
E10M / WE10M	165	55	E10M	164	55	E10M	205	55	V130	164	55
....	....	....	E15M	203	55	E15M	254	55	V150	251	65
E20M / WE20M	261	60	E20M	260	60	E20M	325	60	V170	308	65
E30M / WE30M	413	75	E30M	412	75	E30M	516	75	V190	412	75
E40M / WE40M	622	85	E40M	621	85	E40M	777	85	V215	659	80
E50M / WE50M	865	90	E50M	864	90	E50M	1080	90	V245	940	95
E60M / WE60M	1413	105	E60M	1412	105	E60M	1765	105	V290	1416	110
E70M / WE70M	2501	120	E70M	2500	120	E70M	3125	120	V365	3208	127
E80M / WE80M	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 Sizes with "E" are Dodge and those with "WE" are TB Woods.

² 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)

Size ¹	Dodge Raptor		TB Woods Dura-Flex		Rexnord Omega HDY						
	Weight ² (kg)	Diameter (mm)	Weight ² (kg)	Diameter (mm)	Size	Weight ² (kg)	Diameter (mm)	Compared to Raptor		Compared to Dura-Flex	
								Weight Reduction (kg)	Diameter Reduction (mm)	Weight Reduction (kg)	Diameter Reduction (mm)
E2M / WE2M	....	....	....	....	....	....	....	....	....	....	....
E3M / WE3M	1,04	102	1,50	108	E2M	0,54	89	-0,50	-13	-0,95	-19
E4M / WE4M	1,50	116	2,00	115	E3M	1,09	102	-0,41	-14	-0,91	-13
E5M / WE5M	2,45	137	3,36	137	E4M	1,36	116	-1,09	-21	-2,00	-21
E10M / WE10M	3,45	162	5,08	165	E5M	2,45	137	-1,00	-25	-2,63	-28
E20M / WE20M	5,77	184	7,40	187	E10M	3,72	162	-2,04	-22	-3,68	-25
					E15M	3,77	162	-2,00	-22	-3,63	-25
E30M / WE30M	8,94	210	12,58	214	E20M	5,90	184	-3,04	-25	-6,67	-29
E40M / WE40M	15,21	241	20,61	247	E30M	9,53	210	-5,68	-32	-11,08	-37
E50M / WE50M	23,11	279	26,79	288	E40M	15,89	241	-7,22	-38	-10,90	-47
E60M / WE60M	32,37	318	37,50	318	E50M	24,52	279	-7,85	-38	-12,98	-39
E70M / WE70M	37,23	356	49,49	356	E60M	32,69	318	-4,54	-38	-16,80	-38
E80M / WE80M	76,91	406	109,87	406	E70M	39,04	356	-37,86	-51	-70,82	-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 Sizes with "E" are Dodge and those with "WE" are TB Woods.

² Weight values listed are with maximum bore.

TABLE 4 – Size and Weight Comparison (vs. Viva Downsize Selection)

Size ¹	Dodge Raptor		TB Woods Dura-Flex		Rexnord Viva							
	Weight ² (kg)	Diameter (mm)	Weight ² (kg)	Diameter (mm)	Size	Weight ² (kg)	Diameter (mm)	Compared to Raptor		Compared to Dura-Flex		
								Weight Reduction (kg)	Diameter Reduction (mm)	Weight Reduction (kg)	Diameter Reduction (mm)	
E2M / WE2M	....	....	....	....	....	....	....	....	....	....	....
E3M / WE3M	1,04	102	1,50	108	....	....	....	....	....	....	....
E4M / WE4M	1,50	116	2,00	115	V110	1,41	109	-0,09	-7	-0,59	-6	
E5M / WE5M	2,45	137	3,36	137	V125	1,68	119	-0,77	-17	-1,68	-18	
E10M / WE10M	3,45	162	5,08	165	V130	2,09	130	-1,36	-33	-3,00	-35	
E20M / WE20M	5,77	184	7,40	187	V150	4,22	150	-1,54	-34	-3,18	-37	
					V170	4,31	168	-1,45	-17	-3,09	-19	
E30M / WE30M	8,94	210	12,58	214	V170	4,31	168	-4,63	-42	-8,26	-46	
					V190	5,49	191	-3,45	-19	-7,08	-23	
E40M / WE40M	15,21	241	20,61	247	V215	9,62	213	-5,58	-28	-10,99	-33	
E50M / WE50M	23,11	279	26,79	288	V215	9,62	213	-13,48	-66	-17,16	-75	
					V245	14,39	244	-8,72	-36	-12,39	-44	
E60M / WE60M	32,37	318	37,50	318	V245	14,39	244	-17,98	-74	-23,11	-74	
					V290	24,92	290	-7,45	-28	-12,58	-29	
E70M / WE70M	37,23	356	49,49	356	V365	42,04	366	4,81	10	-7,45	10	
E80M / WE80M	76,91	406	109,87	406	V365	42,04	366	-34,87	-41	-67,83	-41	
E100M	114,68	533	....	....	V425	85,08	424	-29,60	-109	....	....
					V460	93,07	460	-21,61	-74	....	....
E120M	190,41	635	....	....	....	....	....	....	....	....	....
E140M	269,40	762	....	....	....	....	....	....	....	....	....

¹ Sizes with "E" are Dodge and those with "WE" are TB Woods.

² Weight values listed are with maximum bore.

» **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 300mm)

To review an example of how downsizing can offer a reduction in coupling weight, size, and total cost, download the Elastomeric Tire Coupling Whitepaper **Metric** [CP11-001_MA4](#) and **Imperial** [CP11-001](#) at www.rexnord.com/ekl.

Competitive coupling data used in this paper was sourced from ABB Dodge Raptor coupling catalog #9AKK2017-106583 and TB Wood's flexible coupling catalog #P-1690-TBW.



www.rexnord.com/contact

866-REXNORD/866-739-6673 (Within the U.S.) or 414-643-2366 (Outside the U.S.)



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