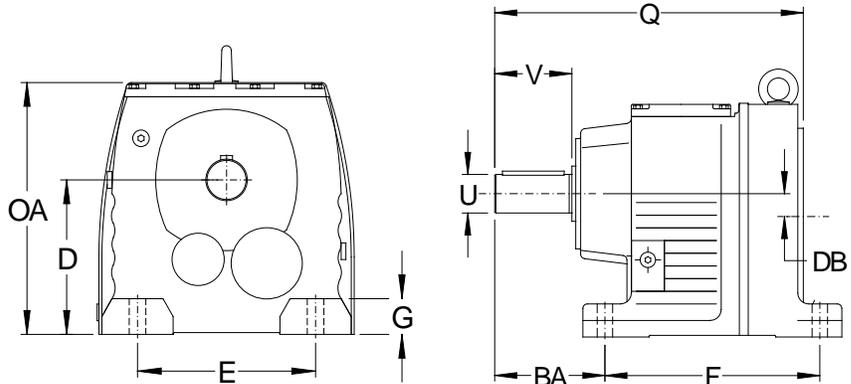


# Technical Note

## R Series – Helical Units

Dimension Comparisons – Foot Mounted

<u>Old</u>		<u>New</u>
R32	⇒	R17
R40	⇒	R27
R42/43	⇒	R37
R60	⇒	R47
R62/63	⇒	R57
		R67
R70/72/73	⇒	R77



Dimensions are millimeters, unless otherwise indicated.

Size (Stages)	Torque Max (lb-in)	Ratio Range	# Ratios	BA	D	DB	E	F	G	OA	Q	U <sup>in</sup> / <sub>mm</sub>	V
R17 (2)	752	3.83 – 25.23	(17)	58	75	-	110	110	12	134	207	0.750"	40
R17 (3)	752	24.07 – 81.64	(12)									20	
R32 (2)	620	3.82 – 24.33	(14)	58	75	-	110	85	12	141	152	0.750"	40
												20	
R27 (2)	1151	3.37 – 28.37	(18)	75	90	3.4	110	130	18	147	193	1.000"	50
R27 (3)	1151	24.47 – 135.09	(16)									25	
R40 (2)	880	3.40 – 21.61	(15)	75	90	-	110	130	20	164	202	1.000"	50
R40 (3)	880	17.45 – 111.16	(15)									25	
R37 (2)	1770	3.41 – 28.32	(17)	75	90	10.09	110	130	18	151	201	1.000"	50
R37 (3)	1770	24.42 – 134.82	(16)									25	
R42 (2)	1280	4.01 – 15.84	(11)	75	90	-	110	130	20	165	202	1.000"	50
R43 (3)	1420	14.36 – 108.32	(16)									25	
R47 (2)	2655	3.83 – 33.79	(21)	90	115	14.01	135	165	24	187	235	1.250"	60
R47 (3)	2655	23.59 – 176.88	(20)									30	
R60 (2)	2120	4.34 – 32.14	(16)	90	115	-	135	165	25	206	249	1.250"	60
R60 (3)	2120	28.93 – 190.84	(16)									30	
*R57 (2)	3983	4.39 – 26.31	(17)	100	115	11.17	135	165	24	187	257	1.375"	70
*R57 (3)	3983	26.97 – 186.89	(19)									35	
R62 (2)	2920	4.34 – 24.24	(14)	90	115	-	135	165	25	206	249	1.250"	60
R63 (3)	3100	16.55 – 155.61	(18)									30	
R67 (2)	5310	4.29 – 28.13	(17)	100	130	20.7	150	195	30	212	280	1.375"	70
R67 (3)	5310	28.83 – 199.81	(19)									35	
R77 (2)	7260	5.31 – 23.37	(14)	115	140	15.9	170	205	30	228	300	1.625"	80
R77 (3)	7260	25.23 – 195.24	(18)									40	
R70 (2)	3540	4.16 – 32.99	(17)	115	140	-	170	205	30	251	300	1.625"	80
R70 (3)	3540	30.36 – 197.39	(16)									40	
R72 (2)	4960	5.15 – 22.95	(12)	115	140	-	170	205	30	251	300	1.625"	80
R73 (3)	5310	22.08 – 168.79	(16)									40	

indicates dimensional change

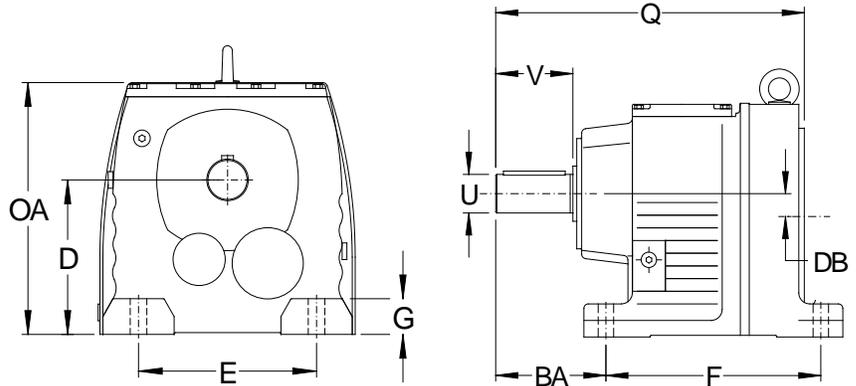
\*R57 is available with 1.25" shaft for replacements.

# Technical Note

## R Series – Helical Units

Dimension Comparisons – Foot Mounted

Old		New
R80/82/83	⇒	R87
R92/93	⇒	R97
R102/103	⇒	R107
R132/133	⇒	R127
R142/143	⇒	R147
R152/162	⇒	R167



Dimensions are millimeters, unless otherwise indicated.

Size (Stages)	Torque Max (lb-in)	Ratio Range	# Ratios	BA	D	DB	E	F	G	OA	Q	U $\frac{\text{in}}{\text{mm}}$	V
<b>R87 (2)</b>	<b>13700</b>	<b>5.30 – 34.40</b>	<b>(16)</b>	<b>140</b>	<b>180</b>	<b>12.6</b>	<b>215</b>	<b>260</b>	<b>45</b>	<b>295</b>	<b>372</b>	<b>2.125"</b>	<b>100</b>
<b>R87 (3)</b>	<b>13700</b>	<b>27.88 – 246.54</b>	<b>(20)</b>									<b>50</b>	
R80 (2)	7080	4.22 – 43.01	(16)	140	180	-	215	260	45	314	375	2.125"	100
R80 (3)	7080	38.42 – 210.17	(15)									50	
R82 (2)	9740	5.04 – 35.95	(14)	140	180	-	215	260	45	316	375	2.125"	100
R83 (3)	10600	24.52 – 213.56	(18)									50	
<b>R97 (2)</b>	<b>26500</b>	<b>4.50 – 32.05</b>	<b>(16)</b>	<b>160</b>	<b>225</b>	<b>10.2</b>	<b>250</b>	<b>310</b>	<b>55</b>	<b>368</b>	<b>440</b>	<b>2.375"</b>	<b>120</b>
<b>R97 (3)</b>	<b>26500</b>	<b>27.58 – 289.74</b>	<b>(21)</b>									<b>60</b>	
R92 (2)	18600	4.80 – 29.66	(13)	160	225	-	250	310	55	386	440	2.375"	120
R93 (3)	20400	19.57 – 277.63	(20)									60	
<b>R107 (2)</b>	<b>38000</b>	<b>4.92 – 30.77</b>	<b>(15)</b>	<b>185</b>	<b>250</b>	<b>20.4</b>	<b>290</b>	<b>370</b>	<b>65</b>	<b>408</b>	<b>495</b>	<b>2.875"</b>	<b>140</b>
<b>R107 (3)</b>	<b>38000</b>	<b>29.49 – 251.15</b>	<b>(19)</b>									<b>70</b>	
R102 (2)	31000	5.53 – 28.49	(13)	185	250	-	290	370	65	437	512	2.875"	140
R103 (3)	35400	20.78 – 201.24	(16)									70	
<b>R127 (2)</b>	<b>53000</b>	<b>5.50 – 32.18</b>	<b>(15)</b>	<b>220</b>	<b>265</b>	<b>41.8</b>	<b>340</b>	<b>370</b>	<b>65</b>	<b>435</b>	<b>531</b>	<b>3.625"</b>	<b>170</b>
<b>R127 (3)</b>	<b>53000</b>	<b>30.84 – 262.65</b>	<b>(20)</b>									<b>90</b>	
R132 (2)	44300	6.00 – 14.83	(8)	220	265	-	340	410	70	482	600	3.625"	170
R133 (3)	53000	16.79 – 128.55	(16)									90	
<b>R147 (2)</b>	<b>115000</b>	<b>5.00 – 20.44</b>	<b>(10)</b>	<b>260</b>	<b>355</b>	<b>33.4</b>	<b>380</b>	<b>500</b>	<b>80</b>	<b>565</b>	<b>695</b>	<b>4.375"</b>	<b>210</b>
<b>R147 (3)</b>	<b>115000</b>	<b>24.19 – 163.31</b>	<b>(15)</b>									<b>110</b>	
R142 (2)	53100	4.58 – 18.78	(8)	260	300	-	380	500	80	548	725	4.000"	210
R143 (3)	88500	15.44 – 107.25	(10)									100	
<b>R167 (2)</b>	<b>159300</b>	<b>10.24 – 46.00</b>	<b>(10)</b>	<b>270</b>	<b>425</b>	<b>59.9</b>	<b>500</b>	<b>580</b>	<b>100</b>	<b>675</b>	<b>790</b>	<b>4.750"</b>	<b>210</b>
<b>R167 (3)</b>	<b>159300</b>	<b>23.71 – 229.71</b>	<b>(18)</b>									<b>120</b>	
R152 (2)	88500	5.98 – 16.77	(6)	270	375	-	500	510	100	672	745	4.750"	210
R163 (3)	141600	19.31 – 162.37	(11)	270	375	-	500	580	100	672	802	120	210

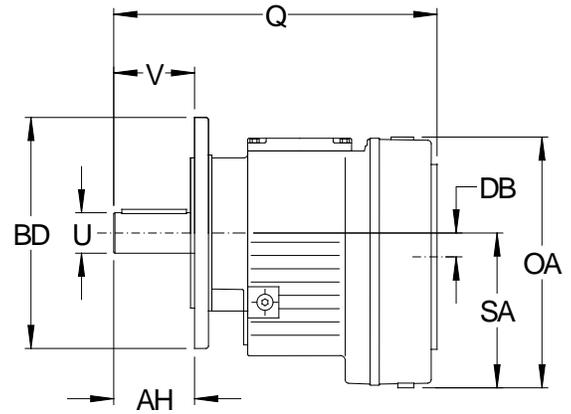
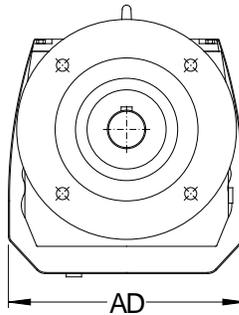
indicates dimensional change

# Technical Note

## R Series – Helical Units

Dimension Comparisons – Flange Mounted

Old		New
RF32	⇒	RF17
RF40	⇒	RF27
RF42/43	⇒	RF37
RF60	⇒	RF47
RF62/63	⇒	RF57
		RF67
RF70/72/73	⇒	RF77



Dimensions are millimeters, unless otherwise indicated.

Size	AD	DB	OA	Q	SA	*AH	BD	U <sup>in</sup> <sub>mm</sub>	V
<b>RF17</b>	<b>140</b>	-	<b>135</b>	<b>215</b>	<b>76</b>	<b>40</b>	<b>120/140</b>	<b>0.750"</b> <b>20</b>	<b>40</b>
RF32	135	-	139	170	73	44	120	0.750" 20	40
<b>RF27</b>	<b>151</b>	<b>3.4</b>	<b>149</b>	<b>199</b>	<b>92</b>	<b>50</b>	<b>120/140/160</b>	<b>1.000"</b> <b>25</b>	<b>50</b>
RF40	138	-	164	222	90	85	200	1.000" 25	50
<b>RF37</b>	<b>161</b>	<b>10.1</b>	<b>155</b>	<b>207</b>	<b>94</b>	<b>50</b>	<b>120/160/200</b>	<b>1.000"</b> <b>25</b>	<b>50</b>
RF42/43	145	-	166	222	91	85	200	1.000" 25	50
<b>RF47</b>	<b>178</b>	<b>14</b>	<b>190</b>	<b>235</b>	<b>118</b>	<b>60</b>	<b>140/160/200</b>	<b>1.250"</b> <b>30</b>	<b>60</b>
RF60	182	-	208	249	119	80	250	1.250" 30	60
<b>**RF57</b>	<b>202</b>	<b>11.2</b>	<b>193</b>	<b>257</b>	<b>121</b>	<b>70</b>	<b>160/200/250</b>	<b>1.375"</b> <b>35</b>	<b>70</b>
RF62/63	190	-	209	249	118	80	250	1.250" 30	60
<b>RF67</b>	<b>215</b>	<b>20.7</b>	<b>216</b>	<b>280</b>	<b>134</b>	<b>70</b>	<b>250/200</b>	<b>1.375"</b> <b>35</b>	<b>70</b>
<b>RF77</b>	<b>235</b>	<b>15.9</b>	<b>232</b>	<b>300</b>	<b>144</b>	<b>80</b>	<b>300/250</b>	<b>1.625"</b> <b>40</b>	<b>80</b>
RF70	225	-	253	318	144	130	300	1.625" 40	80
RF72/73	230	-	253	318	142	130	300	1.625" 40	80

  Indicates dimensional change.

\* An optional shaft is available to match the AH dimension of the Figure I flange of the old series.

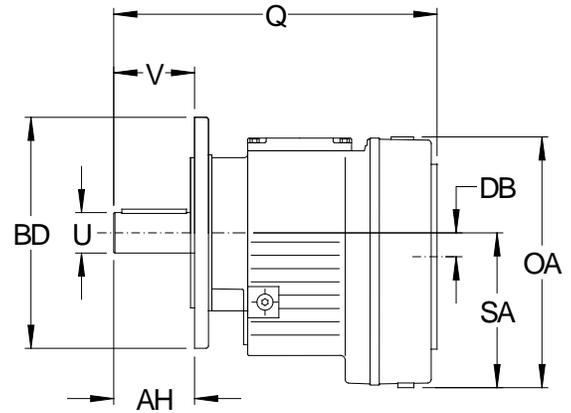
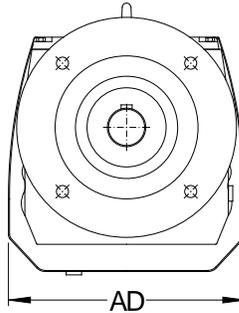
\*\* The RF57 is available with a 1.250" shaft for replacements.

# Technical Note

## R Series – Helical Units

Dimension Comparisons – Flange Mounted

Old		New
RF80/82/83	⇒	RF87
RF92/93	⇒	RF97
RF102/103	⇒	RF107
RF132/133	⇒	RF127
RF142/143	⇒	RF147
RF152/162	⇒	RF167



Dimensions are millimeters, unless otherwise indicated.

Size	AD	DB	OA	Q	SA	*AH	BD	U in mm	V
<b>RF87</b>	<b>297</b>	<b>12.6</b>	<b>299</b>	<b>372</b>	<b>184</b>	<b>100</b>	<b>350/300</b>	<b>2.125"</b> <b>50</b>	<b>100</b>
RF80	285	-	318	395	184	160	350	2.125"	100
RF82/83	290	-	320	395	183	160	350	2.125"	100
						110	300	50	
<b>RF97</b>	<b>348</b>	<b>10.2</b>	<b>374</b>	<b>440</b>	<b>230</b>	<b>120</b>	<b>450/350</b>	<b>2.375"</b> <b>60</b>	<b>120</b>
RF92/93	340	-	386	462	225	190	450	2.375"	120
						130	350	60	
<b>RF107</b>	<b>409</b>	<b>20.4</b>	<b>413</b>	<b>495</b>	<b>255</b>	<b>140</b>	<b>450/350</b>	<b>2.875"</b> <b>70</b>	<b>140</b>
RF102/103	400	-	431	512	244	195	450	2.875"	140
						135	350	70	
<b>RF127</b>	<b>450</b>	<b>41.8</b>	<b>498</b>	<b>531</b>	<b>273</b>	<b>170</b>	<b>450</b>	<b>3.625"</b> <b>90</b>	<b>170</b>
RF132/133	450	-	481	601	264	220	550	3.625"	170
						170	450	90	
<b>RF147</b>	<b>540</b>	<b>33.4</b>	<b>571</b>	<b>695</b>	<b>361</b>	<b>210</b>	<b>550/450</b>	<b>4.375"</b> <b>110</b>	<b>210</b>
RF142/143	500	-	547	725	299	260	550	4.000"	210
						210	450	100	
<b>RF167</b>	<b>670</b>	<b>59.9</b>	<b>680</b>	<b>790</b>	<b>430</b>	<b>210</b>	<b>660/550</b>	<b>4.750"</b> <b>120</b>	<b>210</b>
RF152	600	-	671	745	375	275	660	4.750"	210
						210	550	120	
RF163	600	-	671	802	375	275	660	4.750"	210
						210	550	120	

Indicates dimensional change.

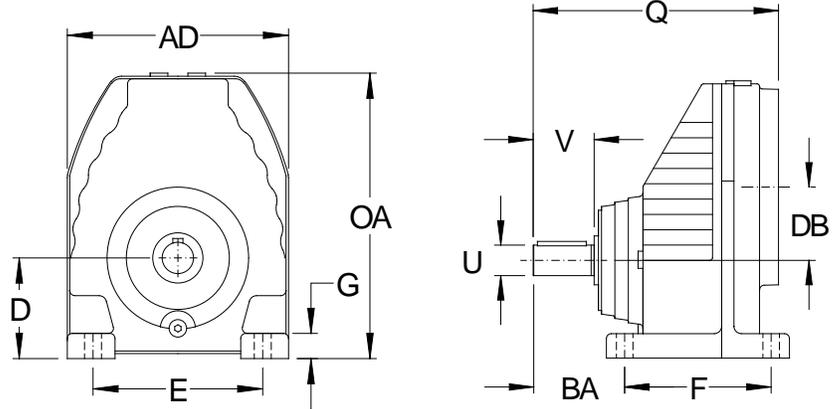
\* An optional shaft is available to match the AH dimension of the Figure I flange of the old series.

# Technical Note

## RX Series – Helical Units (1 Stage)

Dimension Comparisons – Foot Mounted

<u>Old</u>		<u>New</u>
--		RX57
RX61	⇒	RX67
RX71	⇒	RX77
RX81	⇒	RX87
		RX97
RX101	⇒	RX107



Dimensions are millimeters, unless otherwise indicated.

Size	Torque Max (lb-in)	Ratio Range	AD	BA	D	DB	E	F	G	OA	Q	U <sup>in</sup> / <sub>mm</sub>	V
RX57	620	1.30 – 5.50	162	56	63	52	125	110	18	202	174	0.750" 20	40
RX67	1195	1.40 – 6.07	176	75	80	60	135	120	20	226	201	1.000" 25	50
RX61	354	1.52 – 5.93	180	75	80	60	135	120	20	220	170	1.000" 25	50
RX77*	1903	1.42 – 8.00	210	85	90	72	170	150	25	271	227	1.250" 30	60
RX71	708	1.52 – 5.74	230	105	90	74	170	150	25	264	230	1.625" 40	80
RX87*	3584	1.39 – 8.65	272	110	100	93.5	215	160	30	332	269	1.625" 40	80
RX81	1283	1.50 – 6.28	290	120	100	95	215	160	35	320	250	1.750" 45	90
RX97	5266	1.42 – 8.23	328	140	112	116	250	185	35	393	316	2.125" 50	100
RX107	7346	1.44 – 6.63	370	152	140	130	310	210	45	459	364	2.375" 60	120
RX101	2832	1.80 – 6.53	400	152	140	130	310	210	45	445	327	2.375" 60	120

Indicates dimensional change.

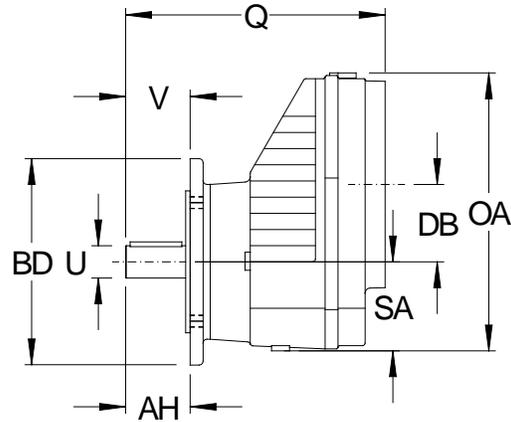
\* The RX77 is available with a 1.625" shaft for replacements. The RX87 is available with a 1.750" shaft for replacements

# Technical Note

## RX Series – Helical Units (1 Stage)

Dimension Comparisons – Foot Mounted

<u>Old</u>		<u>New</u>
--		RXF57
RXF61	⇒	RXF67
RXF71	⇒	RXF77
RXF81	⇒	RXF87
		RXF97
RXF101	⇒	RXF107



Dimensions are millimeters, unless otherwise indicated.

Size	DB	Q	OA	SA	*BD	AH	U in mm	V
RXF57	52	174	201	62	140/160/200	40	0.750" 20	40
RXF67	60	201	217	70	160/200/250	50	1.000" 25	50
RXF61	60	170	209	69	200	65	1.000" 25	50
RXF77**	72	227	259	78	200/250	60	1.250" 30	60
RXF71	74	230	258	84	250	90	1.625" 40	80
RXF87**	93.5	269	330	98	250/300	80	1.625" 40	80
RXF81	95	250	325	105	350	100	1.750" 45	90
RXF97	116	316	399	118	300/350	100	2.125" 50	100
RXF107	130	364	454	135	350/450	120	2.375" 60	120
RXF101	130	327	450	145	450	130	2.375" 60	120

Indicates dimensional change.

\* Customer may choose between two or three flange sizes for every RXF..7 gear unit.

\*\* The RXF77 is available with a 1.625" shaft for replacements. The RXF87 is available with a 1.750" shaft for replacements.