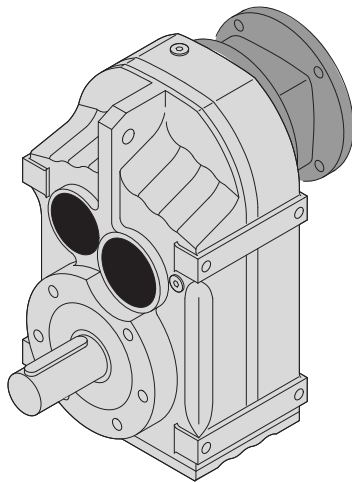
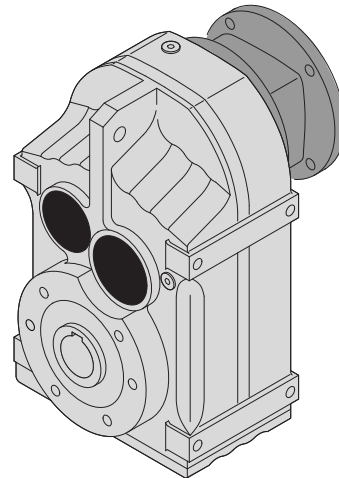


9 F - theSnuggler® Helical

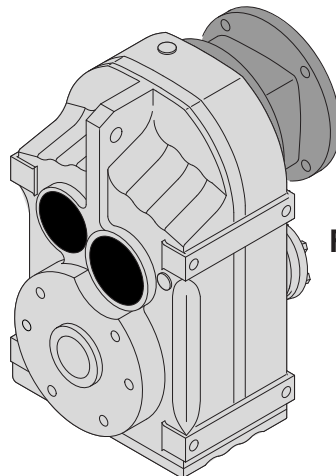
9.1 F.. AM



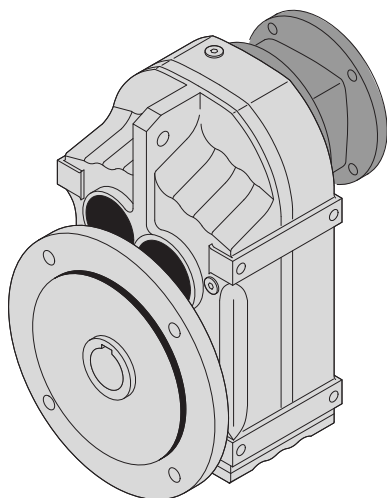
F.. AM..



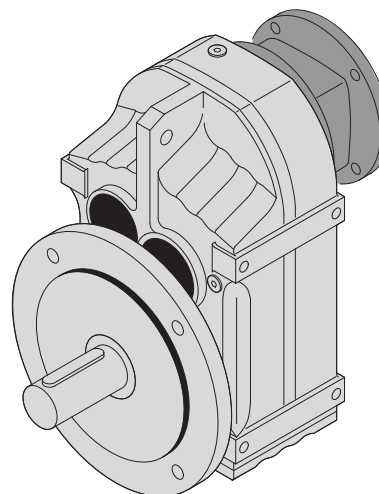
FA..B AM..
FV..B AM..



FH..B AM..



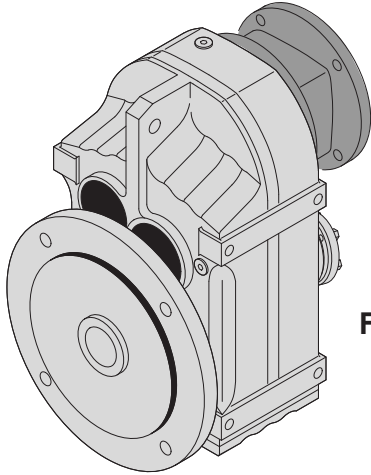
FAF.. AM..
FVF.. AM ..



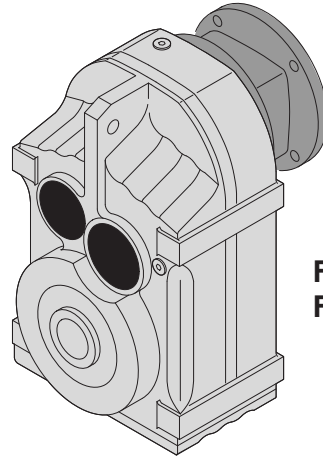
FF.. AM..

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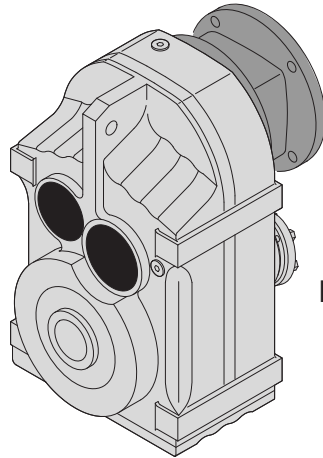
9 F - theSnuggler® Helical
F.. AM



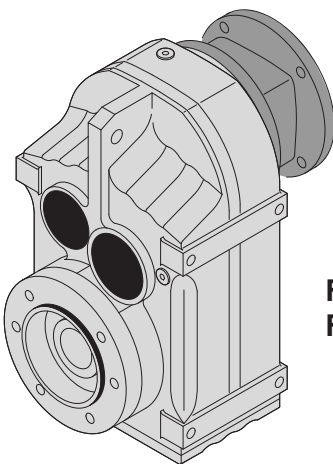
FHF .. AM..



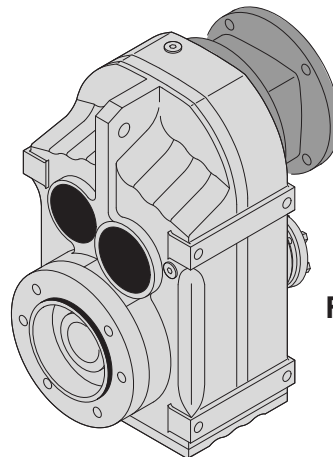
FA.. AM..
FV.. AM..



FH.. AM..





FAZ.. AM..
FVZ.. AM..



FHZ.. AM..

50398AXX

9.1.1 F27

F27, n _e = 1700 rpm						1150 lb-in		
Stages	i [ratio]	n _a [rpm]	T _{a max} [lb-in]	F _{Ra} [lb]	Φ (/R) [']	AM		
						56	143	145
F27  2	4.16	409	765	280	-			
	4.93	345	840	285	-			
	5.27	323	880	290	-			
	6.17	276	960	295	-			
	6.91	246	1000	305	-			
	8.13	209	1080	315	-			
	9.40	181	1150	330	-			
	9.88	172	1150	370	-			
	10.55	161	1150	385	-			
	12.35	138	1150	420	-			
	13.84	123	1150	445	-			
	16.28	104	1150	485	-			
	18.84	90	1150	520	-			
	20.15	84	1150	540	-			
	23.25	73	1150	575	-			
	27.18	63	1150	620	-			
29.56	58	1150	645	-				
F27  3	33.83	50	1150	690	-			
	38.33	44	1150	730	-			
	40.89	42	1150	750	-			
	46.78	36	1150	795	-			
	50.19	34	1150	820	-			
	56.62	30	1150	870	-			
	63.86	27	1150	910	-			
	72.37	23	1150	960	-			
	77.21	22	1150	990	-			
	88.32	19	1150	1010	-			
	94.76	18	1150	1010	-			
	109.90	15	1150	1010	-			
129.09	13	1150	1010	-				
140.74	12	1150	1010	-				

9



Weight [lbs]		Stages	56	AM 143	145
F27	NEMA	2	20	24	24
		3	20	25	25
			71	80	90
	IEC	2	19	24	24
		3	20	25	25

FA27: -1 lb / FAF27: +1 lb / FF27: +2 lbs

9 F - theSnuggler® Helical

F.. AM



9.1.2 F37

F37, n _e = 1700 rpm						1770 lb-in		
Stages	i [ratio]	n _a [rpm]	T _{a max} [lb-in]	F _{Ra} [lb]	Φ (°/R) [']	AM		
						56	143	145
F37  2	3.77	451	920	400	12			
	4.22	403	970	415	11			
	4.90	347	1060	425	11			
	5.21	326	1100	430	10			
	6.05	281	1190	445	10			
	6.74	252	1230	460	10			
	7.44	228	1280	475	10			
	8.01	212	1500	475	7			
	8.97	190	1540	500	7			
	10.42	163	1630	520	7			
	11.08	153	1680	530	7			
	12.87	132	1770	555	7			
	14.33	119	1770	590	6			
	15.81	108	1770	625	6			
	17.03	100	1770	645	6			
	19.27	88	1770	690	6			
	20.57	83	1770	715	6			
23.63	72	1770	765	6				
F37  3	23.88	71	1770	770	8			
	28.09	61	1770	830	8			
	31.69	54	1770	880	8			
	35.91	47	1770	930	8			
	38.31	44	1770	960	8			
	43.83	39	1770	960	8			
	47.02	36	1770	960	8			
	51.70	33	1770	960	7			
	54.54	31	1770	960	8			
	58.32	29	1770	960	7			
	66.09	26	1770	960	7			
	70.50	24	1770	960	7			
	80.65	21	1770	960	7			
	86.53	20	1770	960	7			
	100.36	17	1770	960	7			
117.88	14	1770	960	7				
128.51	13	1770	960	7				

Weight [lbs]		Stages	56	AM 143	145
F37	NEMA	2	33	38	38
		3	34	38	38
			71	80	90
	IEC	2	33	38	38
		3	33	38	38

FA37: -1 lb / FAF37: +2 lbs / FF37: +4 lbs

9.1.3 F47

F47, n _e = 1700 rpm						3530 lb-in		
Stages	i [ratio]	n _a [rpm]	T _a max [lb-in]	F _{Ra} [lb]	Φ (°/R) [']	AM		
						56	143	145
F47  2	4.99	341	2830	450	9			
	5.76	295	3000	465	9			
	6.34	268	3090	485	8			
	7.44	228	3360	490	8			
	7.88	216	3360	515	8			
	8.96	190	2910	650	8			
	10.97	155	3530	685	6			
	12.66	134	3530	750	6			
	13.93	122	3530	795	6			
	16.36	104	3530	870	6			
	17.33	98	3530	900	6			
	19.70	86	3530	970	6			
	21.82	78	3530	1020	6			
	25.72	66	3530	1110	6			
29.32	58	3530	1190	6				
30.86	55	3530	1220	6				
F47  3	28.88	59	3530	1180	7			
	34.29	50	3530	1290	7			
	36.61	46	3530	1330	7			
	42.86	40	3530	1330	7			
	48.00	35	3530	1330	7			
	56.49	30	3530	1330	7			
	65.36	26	3530	1330	7			
	68.09	25	3530	1330	6			
	79.72	21	3530	1330	6			
	89.29	19	3530	1330	6			
	105.09	16	3530	1330	6			
	121.57	14	3530	1330	6			
	130.07	13	3530	1330	6			
	150.06	11	3530	1330	6			
175.38	9.7	3530	1330	6				
190.76	8.9	3530	1330	6				



Weight [lbs]		Stages	56	AM 143	145
F47	NEMA	2	43	48	48
		3	45	50	50
			71	80	90
	IEC	2	43	48	48
		3	44	50	50

FA47: -2 lb / FAF47: +4 lbs / FF47: +7 lbs

9 F - theSnuggler® Helical

F.. AM

9.1.4 F57

F57, n _e = 1700 rpm						5310 lb-in					
Stages	i [ratio]	n _a [rpm]	T _{a max} [lb-in]	F _{Ra} [lb]	Φ (°/R) [']	AM					
						56	143	145	182	184	213/215
F57  2	5.18	328	3670	690	9						
	5.98	284	3710	745	9						
	6.58	258	3710	790	8						
	7.73	220	3710	870	8						
	8.19	208	3710	900	8						
	9.31	183	3710	960	8						
	10.64	160	5310	860	6						
	12.29	138	5310	940	6						
	13.52	126	5310	1000	6						
	15.88	107	5310	1100	6						
	16.81	101	5310	1130	6						
	19.11	89	5310	1220	6						
	21.17	80	5310	1290	6						
	24.96	68	5080	1440	6						
	28.45	60	4730	1590	6						
	29.94	57	4820	1620	6						
34.24	50	4420	1780	6							
40.13	42	2560	2200	6							
F57  3	30.15	56	5220	1560	7						
	35.79	47	5310	1690	7						
	38.21	44	5310	1740	7						
	44.73	38	5310	1880	7						
	50.10	34	5310	1980	7						
	58.97	29	5310	2070	7						
	68.22	25	5310	2070	6						
	72.98	23	5310	2070	6						
	83.46	20	5310	2070	6						
	93.47	18	5310	2070	6						
	110.01	15	5310	2070	6						
	127.27	13	5310	2070	6						
	136.16	12	5310	2070	6						
	157.09	11	5310	2070	6						
	183.60	9.3	5310	2070	6						
	199.70	8.5	5310	2070	6						

Weight [lbs]		Stages	AM					
			56	143	145	182	184	213/215
F57	NEMA	2	59	64	64	72	72	84
		3	61	65	65	73	73	86
			71	80	90	100	112	132S/M
	IEC	2	59	64	64	74	74	89
		3	60	65	65	75	75	91
	FA57: -1 lb / FAF57: +11 lbs / FF57: +14 lbs							

9.1.5 F57R37

F57R37, n _e = 1700 rpm							5310 lb-in		
i [ratio]	n _a [rpm]	T _{a max} [lb-in]	F _{Ra} ¹⁾ [lb]	Stages		φ (/R) [']	AM		
				Lg	Sm		56	143	145
134	13	5310	2070	2	2	-			
152	11	5310	2070	2	2	-			
155	11	5310	2070	3	2	-			
170	10	5310	2070	2	2	-			
181	9.4	5310	2070	3	2	-			
200	8.5	5310	2070	2	2	-			
201	8.5	5310	2070	3	2	-			
226	7.5	5310	2070	2	2	-			
255	6.7	5310	2070	3	2	-			
262	6.5	5310	2070	2	2	-			
298	5.7	5310	2070	2	2	-			
330	5.2	5310	2070	2	2	-			
338	5.0	5310	2070	3	2	-			
382	4.5	5310	2070	2	2	-			
386	4.4	5310	2070	3	2	-			
426	4.0	5310	2070	2	2	-			
452	3.8	5310	2070	3	2	-			
483	3.5	5310	2070	2	3	-			
506	3.4	5310	2070	3	2	-			
549	3.1	5310	2070	2	3	-			
558	3.0	5310	2070	3	2	-			
646	2.6	5310	2070	3	2	-			
658	2.6	5310	2070	2	3	-			
738	2.3	5310	2070	3	2	-			
749	2.3	5310	2070	2	3	-			
851	2.0	5310	2070	3	2	-			
856	2.0	5310	2070	2	3	-			
949	1.8	5310	2070	2	3	-			
967	1.8	5310	2070	3	2	-			
1066	1.6	5310	2070	2	3	-			
1106	1.5	5310	2070	3	2	-			
1238	1.4	5310	2070	3	3	-			
1243	1.4	5310	2070	2	3	-			
1422	1.2	5310	2070	2	3	-			
1439	1.2	5310	2070	3	3	-			
1617	1.1	5310	2070	2	3	-			
1623	1.0	5310	2070	3	3	-			
1791	0.95	5310	2070	2	3	-			
1840	0.92	5310	2070	3	3	-			
2012	0.84	5310	2070	2	3	-			
2131	0.80	5310	2070	3	3	-			
2266	0.75	5310	2070	2	3	-			
2409	0.71	5310	2070	3	3	-			
2576	0.66	5310	2070	2	3	-			
2737	0.62	5310	2070	3	3	-			
2854	0.60	5310	2070	2	3	-			
3161	0.54	5310	2070	3	3	-			
3564	0.48	5310	2070	3	3	-			
4060	0.42	5310	2070	3	3	-			
4654	0.37	5310	2070	3	3	-			
5289	0.32	5310	2070	3	3	-			

9 F - theSnuggler® Helical



F.. AM

F57R37, $n_e = 1700$ rpm							5310 lb-in		
i [ratio]	n_a [rpm]	T_a max [lb-in]	$F_{Ra}^{1)}$ [lb]	Stages		ϕ (/R) [']	AM		
				Lg	Sm		56	143	145
6030	0.28	5310	2070	3	3	-			
6913	0.25	5310	2070	3	3	-			
7908	0.21	5310	2070	3	3	-			
8787	0.19	5310	2070	3	3	-			
9986	0.17	5310	2070	3	3	-			
11252	0.15	5310	2070	3	3	-			
12602	0.13	5310	2070	3	3	-			
13604	0.12	5310	2070	3	3	-			
14832	0.11	5310	2070	3	3	-			

Weight [lbs]		Stages		AM			
		Large	Small	56	143	145	
F57R37	NEMA	2	2	83	87	87	
		2	3	83	88	88	
		3	2	84	88	88	
		3	3	84	89	89	
					71	80	90
	IEC	2	2	82	87	87	
		2	3	82	88	88	
		3	2	83	88	88	
		3	3	84	89	89	

FA57: -1 lb / FAF57: +11 lbs / FF57: +14 lbs

9.1.6 F67

F67, n _e = 1700 rpm						7250 lb-in					
Stages	i [ratio]	n _a [rpm]	T _{a max} [lb-in]	F _{Ra} [lb]	φ (f/R) [']	AM					
						56	143	145	182	184	213/215
F67  2	3.97	428	4420	1740	10						
	4.66	365	4950	1780	9						
	5.25	324	5220	1830	9						
	5.95	286	5390	1910	9						
	6.78	251	5480	2000	9						
	7.53	226	5390	2100	8						
	8.60	198	5040	2270	8						
	9.08	187	4680	2370	8						
	9.66	176	7260	2240	6						
	11.31	150	7260	2320	6						
	12.76	133	7260	2320	6						
	14.46	118	7260	2320	6						
	16.48	103	7260	2320	6						
	18.29	93	7260	2320	6						
	20.90	81	7260	2320	5						
	22.05	77	7260	2320	5						
	25.13	68	7260	2320	5						
	27.41	62	7260	2320	5						
32.08	53	7260	2320	5							
36.30	47	7260	2320	5							
F67  3	34.01	50	7260	2470	6						
	39.26	43	7260	2390	6						
	43.20	39	7260	2320	6						
	50.74	34	7260	2320	6						
	53.73	32	7260	2320	6						
	61.07	28	7260	2320	6						
	67.65	25	7260	2320	6						
	79.76	21	7260	2320	6						
	90.59	19	7260	2320	6						
	95.94	18	7260	2320	6						
	109.04	16	7260	2320	6						
	120.79	14	7260	2320	6						
	142.40	12	7260	2320	6						
	162.31	10	7260	2320	6						
	170.85	10.0	7260	2320	6						
195.39	8.7	7260	2320	6							
228.99	7.4	7260	2320	6							

9

Weight [lbs]		Stages	AM					
			56	143	145	182	184	213/215
F67	NEMA	2	73	77	77	85	85	97
		3	75	79	79	87	88	100
			71	80	90	100	112	132S/M
	IEC	2	72	77	77	87	87	103
		3	74	79	79	90	90	105

FA67: -6 lbs / FAF67: +8 lbs / FF67: +13 lbs

9 F - theSnuggler® Helical

F.. AM

9.1.7 F67R37

F67R37, n _e = 1700 rpm							7260 lb-in		
i [ratio]	n _a [rpm]	T _{a max} [lb-in]	F _{Ra} ¹⁾ [lb]	Stages		Φ (/R) [']	AM		
				Lg	Sm		56	143	145
175	9.7	7260	2320	3	2	-			
176	9.7	7260	2320	2	2	-			
200	8.5	7260	2320	2	2	-			
205	8.3	7260	2320	3	2	-			
231	7.4	7260	2320	3	2	-			
238	7.1	7260	2320	2	2	-			
257	6.6	7260	2320	3	2	-			
261	6.5	7260	2320	2	2	-			
297	5.7	7260	2320	2	2	-			
305	5.6	7260	2320	3	2	-			
333	5.1	7260	2320	2	2	-			
338	5.0	7260	2320	3	2	-			
384	4.4	7260	2320	3	2	-			
392	4.3	7260	2320	2	2	-			
437	3.9	7260	2320	3	2	-			
454	3.7	7260	2320	2	2	-			
500	3.4	7260	2320	2	2	-			
509	3.3	7260	2320	3	2	-			
539	3.2	7260	2320	2	3	-			
572	3.0	7260	2320	3	2	-			
634	2.7	7260	2320	2	3	-			
641	2.7	7260	2320	3	2	-			
722	2.4	7260	2320	2	3	-			
755	2.3	7260	2320	3	2	-			
858	2.0	7260	2320	3	2	-			
864	2.0	7260	2320	2	3	-			
970	1.8	7260	2320	3	2	-			
984	1.7	7260	2320	2	3	-			
1102	1.5	7260	2320	3	2	-			
1126	1.5	7260	2320	2	3	-			
1256	1.4	7260	2320	2	3	-			
1271	1.3	7260	2320	3	2	-			
1429	1.2	7260	2320	3	2	-			
1437	1.2	7260	2320	2	3	-			
1631	1.0	7260	2320	2	3	-			
1635	1.0	7260	2320	3	2	-			
1859	0.91	7260	2320	2	3	-			
1884	0.90	7260	2320	3	2	-			
2106	0.81	7260	2320	3	2	-			
2126	0.80	7260	2320	2	3	-			
2372	0.72	7260	2320	2	3	-			
2439	0.70	7260	2320	3	3	-			
2714	0.63	7260	2320	2	3	-			
2756	0.62	7260	2320	3	3	-			
2912	0.58	7260	2320	2	3	-			
3133	0.54	7260	2320	3	3	-			
3377	0.50	7260	2320	2	3	-			
3574	0.48	7260	2320	3	3	-			
4091	0.42	7260	2320	3	3	-			
4690	0.36	7260	2320	3	3	-			
5341	0.32	7260	2320	3	3	-			

F67R37, $n_e = 1700$ rpm 7260 lb-in

i [ratio]	n_a [rpm]	$T_{a \max}$ [lb-in]	$F_{Ra}^{1)}$ [lb]	Stages		ϕ (/R) [']	56	AM	
				Lg	Sm			143	145
6080	0.28	7260	2320	3	3	-			
7096	0.24	7260	2320	3	3	-			
7940	0.21	7260	2320	3	3	-			
8933	0.19	7260	2320	3	3	-			
10220	0.17	7260	2320	3	3	-			
11480	0.15	7260	2320	3	3	-			
12926	0.13	7260	2320	3	3	-			
14992	0.11	7260	2320	3	3	-			
17610	0.10	7260	2320	3	3	-			
19199	0.09	7260	2320	3	3	-			



Weight [lbs]		Stages		56	AM	
		Large	Small		143	145
F67R37	NEMA	2	2	96	100	100
		2	3	96	101	101
		3	2	98	103	103
		3	3	99	103	103
				71	80	90
	IEC	2	2	95	100	100
		2	3	95	101	101
		3	2	97	103	103
		3	3	98	103	103

FA67: -6 lbs / FAF67: +8 lbs / FF67: +13 lbs

9 F - theSnuggler® Helical

F.. AM

9.1.8 F77

F77, $n_e = 1700$ rpm						13280 lb-in					
Stages	i [ratio]	n_a [rpm]	$T_{a\ max}$ [lb-in]	F_{Ra} [lb]	Φ (/R) [']	AM					
						56	143	145	182	184	213/215
F77  2	4.28	397	8930	2100	8						
	5.16	329	9550	2210	8						
	5.76	295	9550	2320	8						
	6.64	256	9550	2470	8						
	7.39	230	9550	2590	7						
	8.26	206	9550	2720	7						
	9.30	183	9550	2860	7						
	10.93	156	13280	2950	6						
	12.20	139	13280	3090	5						
	14.06	121	13280	3280	5						
	15.64	109	13280	3420	5						
	17.49	97	13280	3530	5						
	19.70	86	13280	3530	5						
	21.43	79	13280	3530	5						
	25.50	67	13280	3530	5						
	28.75	59	12600	3640	5						
	31.51	54	12200	3700	5						
	36.58	46	9820	4010	5						
F77  3	25.54	67	12800	3610	6						
	29.91	57	13280	3530	6						
	33.74	50	13280	3530	6						
	38.23	44	13280	3530	6						
	43.58	39	13280	3530	6						
	48.37	35	13280	3530	6						
	55.27	31	13280	3530	6						
	58.32	29	13280	3530	6						
	66.46	26	13280	3530	6						
	72.50	23	13280	3530	6						
	75.02	23	13280	3530	6						
	85.52	20	13280	3530	6						
	94.93	18	13280	3530	5						
	108.46	16	13280	3530	5						
	114.45	15	13280	3530	5						
	130.42	13	13280	3530	5						
	142.27	12	13280	3530	5						
	166.47	10	13280	3530	5						
	188.40	9.0	13280	3530	5						
	198.31	8.6	13280	3530	5						
225.79	7.5	13280	3530	5							
262.93	6.5	13280	3530	5							
281.71	6.0	13280	3530	5							

Weight [lbs]		Stages	AM					
			56	143	145	182	184	213/215
F77	NEMA	2	125	129	129	136	136	149
		3	127	132	132	139	139	152
			71	80	90	100	112	132S/M
	IEC	2	124	129	129	138	138	154
		3	127	132	132	141	141	157

FA77: -9 lbs / FAF77: +6 lbs / FF77: +23 lbs

9.1.9 F77R37

F77R37, n _e = 1700 rpm							13280 lb-in		
i [ratio]	n _a [rpm]	T _{a max} [lb-in]	F _{Ra} ¹⁾ [lb]	Stages		φ (/R) [']	56	AM	
				Lg	Sm			143	145
199	8.5	13280	3540	3	2	-			
221	7.7	13280	3540	3	2	-			
247	6.9	13280	3540	3	2	-			
280	6.1	13280	3540	3	2	-			
292	5.8	9820	4010	2	2	-			
323	5.3	13280	3540	3	2	-			
346	4.9	9820	4010	2	2	-			
367	4.6	13280	3540	3	2	-			
370	4.6	9820	4010	2	2	-			
413	4.1	13280	3540	3	2	-			
433	3.9	9820	4010	2	2	-			
480	3.5	13280	3540	3	2	-			
485	3.5	9820	4010	2	2	-			
538	3.2	13280	3540	3	2	-			
571	3.0	9820	4010	2	2	-			
615	2.8	13280	3540	3	2	-			
660	2.6	9820	4010	2	2	-			
706	2.4	9820	4010	2	2	-			
710	2.4	13280	3540	3	2	-			
810	2.1	13280	3540	3	2	-			
815	2.1	9820	4010	2	2	-			
893	1.9	9820	4010	2	3	-			
910	1.9	13280	3540	3	2	-			
1051	1.6	9820	4010	2	3	-			
1053	1.6	13280	3540	3	2	-			
1185	1.4	9820	4010	2	3	-			
1200	1.4	13280	3540	3	2	-			
1343	1.3	9820	4010	2	3	-			
1354	1.3	13280	3540	3	2	-			
1433	1.2	9820	4010	2	3	-			
1544	1.1	13280	3540	3	2	-			
1639	1.0	9820	4010	2	3	-			
1728	0.98	13280	3540	3	2	-			
1759	0.97	9820	4010	2	3	-			
2029	0.84	13280	3540	3	3	-			
2039	0.83	9820	4010	2	3	-			
2238	0.76	9820	4010	2	3	-			
2284	0.74	13280	3540	3	3	-			
2536	0.67	9820	4010	2	3	-			
2613	0.65	13280	3540	3	3	-			
2705	0.63	9820	4010	2	3	-			
2978	0.57	13280	3540	3	3	-			
3095	0.55	9820	4010	2	3	-			
3320	0.51	9820	4010	2	3	-			
3381	0.50	13280	3540	3	3	-			
3832	0.44	13280	3540	3	3	-			
3851	0.44	9820	4010	2	3	-			
4435	0.38	13280	3540	3	3	-			
4523	0.38	9820	4010	2	3	-			
4931	0.34	9820	4010	2	3	-			
5026	0.34	13280	3540	3	3	-			

9

9 F - theSnuggler® Helical


F.. AM

F77R37, $n_e = 1700$ rpm							13280 lb-in		
i [ratio]	n_a [rpm]	$T_{a \max}$ [lb-in]	$F_{Ra}^{1)}$ [lb]	Stages		ϕ (/R) [']	56	AM	
				Lg	Sm			143	145
5808	0.29	13280	3540	3	3	-			
6580	0.26	13280	3540	3	3	-			
7520	0.23	13280	3540	3	3	-			
8464	0.20	13280	3540	3	3	-			
9683	0.18	13280	3540	3	3	-			
11035	0.15	13280	3540	3	3	-			
12049	0.14	13280	3540	3	3	-			
13731	0.12	13280	3540	3	3	-			
14978	0.11	13280	3540	3	3	-			
16128	0.11	13280	3540	3	3	-			
17593	0.10	13280	3540	3	3	-			
19180	0.09	13280	3540	3	3	-			

Weight [lbs]		Stages		56	AM		
		Large	Small		143	145	
F77R37	NEMA	2	2	146	151	151	
		2	3	147	151	152	
		3	2	149	154	154	
		3	3	150	154	155	
					71	80	90
	IEC	2	2	146	151	151	
		2	3	146	151	152	
		3	2	149	154	154	
		3	3	149	154	155	

FA77: -9 lbs / FAF77: +6 lbs / FF77: +23 lbs

9.1.10 F87

F87, n _e = 1700 rpm						26600 lb-in						
Stages	i [ratio]	n _a [rpm]	T _{a max} [lb-in]	F _{Ra} [lb]	φ (i/R) [']	AM						
						143	145	182	184	213/215	254/256	284/286
F87  2	4.12	413	12900	1170	7							
	4.92	346	13500	1260	7							
	5.63	302	13500	1390	7							
	6.65	256	13500	1550	7							
	7.35	231	13500	1650	7							
	8.29	205	13500	1780	7							
	9.58	177	25400	910	7							
	11.46	148	26600	1010	7							
	13.12	130	26600	1180	7							
	15.48	110	26600	1390	7							
	17.12	99	26600	1530	7							
	19.31	88	26600	1700	7							
	21.32	80	26600	1840	7							
	23.68	72	26600	2000	7							
	26.50	64	26600	2180	7							
	28.78	59	21600	2790	7							
	33.92	50	23000	2930	7							
29.20	58	22200	2760	8								
35.19	48	23000	2990	8								
39.30	43	24000	3090	8								
45.28	38	24900	3270	8								
50.36	34	26000	3370	7								
56.75	30	26600	3560	7								
68.40	25	26600	3960	7								
76.39	22	26600	4200	7								
88.01	19	26600	4450	7								
97.89	17	26600	4450	7								
109.49	16	26600	4450	7								
123.29	14	26600	4450	7								
134.16	13	26600	4450	7								
159.61	11	26600	4450	7								
179.97	9.4	26600	4450	7								
197.20	8.6	26600	4450	7								
228.93	7.4	26600	4450	7								
255.37	6.7	26600	4450	7								
270.68	6.3	26600	4450	7								

9

Weight [lbs]		Stages	AM						
			143	145	182	184	213/215	254/256	284/286
F87	NEMA	2	215	216	225	225	238	268	272
		3	222	222	231	231	245	274	279
		80	90	100	112	132S/M	160	180	
	IEC	2	215	216	227	227	243	279	279
3		222	222	233	233	249	285	285	

FA87: -13 lbs / FAF87: +15 lbs / FF87: +34 lbs

9 F - theSnuggler® Helical

F.. AM

9.1.11 F87R57

F87R57, n _e = 1700 rpm							26600 lb-in					
i [ratio]	n _a [rpm]	T _{a max} [lb-in]	F _{Ra} ¹⁾ [lb]	Stages		Φ _(/R) [']	AM					
				Lg	Sm		56	143	145	182	184	213/215
211	8.1	26600	4450	2	2	-						
240	7.1	26600	4450	2	2	-						
249	6.8	26600	4450	3	2	-						
281	6.0	26600	4450	2	2	-						
300	5.7	26600	4450	3	2	-						
315	5.4	26600	4450	2	2	-						
345	4.9	26600	4450	3	2	-						
350	4.9	26600	4450	2	2	-						
398	4.3	26600	4450	2	2	-						
452	3.8	26600	4450	3	2	-						
468	3.6	26600	4450	2	2	-						
515	3.3	26600	4450	3	2	-						
519	3.3	26600	4450	2	2	-						
592	2.9	26600	4450	2	2	-						
609	2.8	26600	4450	3	2	-						
662	2.6	26600	4450	2	2	-						
674	2.5	26600	4450	3	2	-						
748	2.3	26600	4450	2	3	-						
780	2.2	26600	4450	3	2	-						
883	1.9	26600	4450	2	3	-						
887	1.9	26600	4450	3	2	-						
988	1.7	26600	4450	2	3	-						
1010	1.7	26600	4450	3	2	-						
1142	1.5	26600	4450	2	3	-						
1148	1.5	26600	4450	3	2	-						
1278	1.3	26600	4450	2	3	-						
1300	1.3	26600	4450	3	2	-						
1476	1.2	26600	4450	2	3	-						
1493	1.1	26600	4450	3	2	-						
1709	0.99	26600	4450	3	2	-						
1717	0.99	26600	4450	2	3	-						
1913	0.89	26600	4450	2	3	-						
1930	0.88	26600	4450	3	2	-						
2134	0.80	26600	4450	2	3	-						
2199	0.77	26600	4450	3	2	-						
2524	0.67	26600	4450	2	3	-						
2576	0.66	26600	4450	3	2	-						
2857	0.60	26600	4450	2	3	-						
2881	0.59	26600	4450	3	2	-						
3196	0.53	26600	4450	2	3	-						
3244	0.52	26600	4450	3	2	-						
3503	0.49	26600	4450	2	3	-						
3721	0.46	26600	4450	3	3	-						
3919	0.43	26600	4450	2	3	-						
4245	0.40	26600	4450	3	3	-						
4562	0.37	26600	4450	2	3	-						
4952	0.34	26600	4450	2	3	-						
4954	0.34	26600	4450	3	3	-						
5510	0.31	26600	4450	3	3	-						
6273	0.27	26600	4450	3	3	-						
7100	0.24	26600	4450	3	3	-						

F87R57, n_e = 1700 rpm 26600 lb-in

i [ratio]	n _a [rpm]	T _{a max} [lb-in]	F _{Ra} ¹⁾ [lb]	Stages		φ (/R) [']	AM					
				Lg	Sm		56	143	145	182	184	213/215
8142	0.21	26600	4450	3	3	-						
9381	0.18	26600	4450	3	3	-						
10433	0.16	26600	4450	3	3	-						
12205	0.14	26600	4450	3	3	-						
14099	0.12	26600	4450	3	3	-						
15877	0.11	26600	4450	3	3	-						
18238	0.09	26600	4450	3	3	-						
20462	0.08	26600	4450	3	3	-						
23042	0.07	26600	4450	3	3	-						



Weight [lbs]		Stages		AM						
		Large	Small	56	143	145	182	184	213/215	
F87R57	NEMA	2	2	262	267	267	275	275	287	
		2	3	264	269	269	277	277	289	
		3	2	269	273	273	281	281	294	
		3	3	271	275	275	283	283	296	
					71	80	90	100	112	132S/M
	IEC	2	2	262	267	267	277	277	293	
		2	3	264	269	269	279	279	295	
		3	2	268	273	273	283	283	299	
		3	3	270	275	275	285	285	301	

FA87: -13 lbs / FAF87: +15 lbs / FF87: +34 lbs

9 F - theSnuggler® Helical

F.. AM

9.1.12 F97

F97, n _e = 1700 rpm						38100 lb-in						
Stages	i [ratio]	n _a [rpm]	T _{a max} [lb-in]	F _{Ra} [lb]	φ (/R) [']	AM						
						182	184	213/215	254/256	284/286	324/326	364/365
F97 	3.87	439	15900	2000	9							
	4.57	372	18100	1980	9							
	5.23	325	19000	2070	9							
	6.17	276	19900	2200	9							
	7.07	240	20800	2300	9							
	8.22	207	20800	2530	8							
	9.06	188	20800	2680	9							
	11.16	152	36200	1910	6							
	12.77	133	38100	1990	6							
	15.06	113	38100	2300	6							
	17.25	99	38100	2560	6							
	20.07	85	38100	2870	6							
	22.11	77	38100	3070	6							
	24.92	68	38100	3340	6							
	27.44	62	38100	3550	6							
	30.39	56	38100	3800	6							
	33.91	50	38100	4060	6							
	36.64	46	27100	5230	6							
43.28	39	27100	5660	6								
F97 	32.50	52	38100	3960	6							
	38.86	44	38100	4410	6							
	44.49	38	38100	4770	6							
	52.49	32	38100	5230	6							
	58.06	29	38100	5520	6							
	65.47	26	38100	5890	6							
	72.29	24	38100	6200	6							
	75.63	22	38100	6350	6							
	80.31	21	38100	6540	6							
	86.59	20	38100	6720	6							
	89.85	19	38100	6720	6							
	97.58	17	38100	6720	6							
	102.16	17	38100	6720	6							
	112.99	15	38100	6720	6							
	127.42	13	38100	6720	6							
	140.71	12	38100	6720	6							
	156.30	11	38100	6720	6							
	174.87	9.7	38100	6720	6							
189.92	9.0	38100	6720	6								
223.88	7.6	38100	6720	6								
253.41	6.7	38100	6720	6								
276.77	6.1	38100	6720	6								

Weight [lbs]		Stages	AM						
			182	184	213/215	254/256	284/286	324/326	364/365
F97	NEMA	2	365	365	376	409	414	452	451
		3	378	378	389	422	427	465	464
			100	112	132S/M	160	180	200	225
	IEC	2	367	367	380	420	420	456	467
3		380	380	393	433	433	469	480	

FA97: -17 lbs / FAF97: +31 lbs / FF97: +72 lbs

9.1.13 F97R57

F97R57, n _e = 1700 rpm							38100 lb-in					
i [ratio]	n _a [rpm]	T _{a max} [lb-in]	F _{Ra} ¹⁾ [lb]	Stages		Φ (/R) [']	AM					
				Lg	Sm		56	143	145	182	184	213/215
195	8.7	38100	6720	3	2	-						
208	8.2	38100	6720	3	2	-						
242	7.0	38100	6720	2	2	-						
245	6.9	38100	6720	3	2	-						
275	6.2	38100	6720	2	2	-						
285	6.0	38100	6720	3	2	-						
317	5.4	38100	6720	2	2	-						
361	4.7	38100	6720	2	2	-						
363	4.7	38100	6720	3	2	-						
403	4.2	38100	6720	2	2	-						
406	4.2	38100	6720	3	2	-						
467	3.6	38100	6720	3	2	-						
473	3.6	38100	6720	2	2	-						
510	3.3	38100	6720	2	2	-						
529	3.2	38100	6720	3	2	-						
569	3.0	38100	6720	2	2	-						
605	2.8	38100	6720	3	2	-						
667	2.5	38100	6720	2	2	-						
690	2.5	38100	6720	3	2	-						
760	2.2	38100	6720	2	2	-						
784	2.2	38100	6720	3	2	-						
892	1.9	38100	6720	2	2	-						
898	1.9	38100	6720	3	2	-						
1022	1.7	38100	6720	3	2	-						
1023	1.7	38100	6720	2	3	-						
1171	1.5	38100	6720	3	2	-						
1189	1.4	38100	6720	2	3	-						
1316	1.3	38100	6720	2	3	-						
1327	1.3	38100	6720	3	2	-						
1468	1.2	38100	6720	2	3	-						
1527	1.1	38100	6720	3	2	-						
1722	0.99	38100	6720	3	2	-						
1741	0.98	38100	6720	2	3	-						
1970	0.86	38100	6720	3	2	-						
1971	0.86	38100	6720	2	3	-						
2199	0.77	38100	6720	2	3	-						
2245	0.76	38100	6720	3	2	-						
2448	0.69	38100	6720	2	3	-						
2553	0.67	38100	6720	3	2	-						
2907	0.58	38100	6720	3	2	-						
3009	0.56	38100	6720	2	3	-						
3352	0.51	38100	6720	3	2	-						
3357	0.51	38100	6720	2	3	-						
3906	0.44	38100	6720	3	2	-						
3914	0.43	38100	6720	2	3	-						
4333	0.39	38100	6720	3	3	-						
4367	0.39	38100	6720	2	3	-						
4961	0.34	38100	6720	3	3	-						
5016	0.34	38100	6720	2	3	-						
5615	0.30	38100	6720	3	3	-						
5680	0.30	38100	6720	2	3	-						

9 F - theSnuggler® Helical



F.. AM

F97R57, n _e = 1700 rpm							38100 lb-in					
i [ratio]	n _a [rpm]	T _a max [lb-in]	F _{Ra} ¹⁾ [lb]	Stages		φ (/R) [']	AM					
				Lg	Sm		56	143	145	182	184	213/215
6338	0.27	38100	6720	2	3	-						
6469	0.26	38100	6720	3	3	-						
7328	0.23	38100	6720	3	3	-						
8318	0.20	38100	6720	3	3	-						
9576	0.18	38100	6720	3	3	-						
10838	0.16	38100	6720	3	3	-						
12324	0.14	38100	6720	3	3	-						
14022	0.12	38100	6720	3	3	-						
15472	0.11	38100	6720	3	3	-						
18119	0.09	38100	6720	3	3	-						
20813	0.08	38100	6720	3	3	-						
23814	0.07	38100	6720	3	3	-						
26911	0.06	38100	6720	3	3	-						
29211	0.06	38100	6720	3	3	-						

Weight [lbs]		Stages		AM					
		Large	Small	56	143	145	182	184	213/215
F97R57	NEMA	2	2	404	408	408	416	416	429
		2	3	406	410	410	418	418	431
		3	2	417	421	421	429	429	442
		3	3	419	423	423	431	431	
				71	80	90	100	112	132S/M
	IEC	2	2	403	408	408	418	418	434
		2	3	405	410	410	420	420	436
		3	2	416	421	421	431	431	447
		3	3	418	423	423	433	433	

FA97: -17 lbs / FAF97: +31 lbs / FF97: +72 lbs

9.1.14 F107

F107, n _e = 1700 rpm						69400 lb-in						
Stages	i [ratio]	n _a [rpm]	T _{a max} [lb-in]	F _{Ra} [lb]	Φ (/R) [']	AM						
						182	184	213/215	254/256	284/286	324/326	364/365
F107  2	5.03	338	40700	3140	7							
	6.22	273	40700	3730	7							
	7.40	230	40700	4220	7							
	8.37	203	42400	4350	7							
	9.69	175	43400	4660	7							
	9.96	171	57500	4180	5							
	12.33	138	61900	4390	5							
	14.67	116	67900	4300	5							
	16.58	103	69400	4600	5							
	19.20	89	69400	5170	5							
	21.76	78	69400	5670	5							
	25.14	68	69400	6260	5							
	27.57	62	69400	6640	5							
33.79	50	65400	7880	5								
F107  3	31.80	53	67900	7390	6							
	37.61	45	67900	8110	6							
	43.03	40	67900	8640	6							
	50.73	34	67900	9300	6							
	58.12	29	67900	9880	6							
	67.62	25	67900	10600	6							
	74.52	23	67900	11000	6							
	83.99	20	67900	11200	6							
	88.49	19	67900	11200	5							
	92.47	18	67900	11200	6							
	101.38	17	67900	11200	5							
	117.94	14	67900	11200	5							
	129.97	13	67900	11200	5							
	146.49	12	67900	11200	5							
	161.28	11	67900	11200	5							
	178.64	9.5	67900	11200	5							
199.31	8.5	67900	11200	5								
215.37	7.9	67900	11200	5								
254.40	6.7	67900	11200	5								

Weight [lbs]		Stages	AM						
			182	184	213/215	254/256	284/286	324/326	364/365
F107	NEMA	2	542	542	546	582	587	625	625
		3	564	564	568	604	609	647	647
			100	112	132S/M	160	180	200	225
	IEC	2	544	545	550	593	593	629	640
3		566	566	572	615	615	651	662	

FA107: -37 lbs / FAF107: +10 lbs / FF107: +60 lbs

9 F - theSnuggler® Helical

F.. AM

9.1.15 F107R77

F107R77, $n_e = 1700$ rpm							69400 lb-in					
i [ratio]	n_a [rpm]	$T_{a \max}$ [lb-in]	$F_{Ra}^{(1)}$ [lb]	Stages		ϕ (/R) [']	AM					
				Lg	Sm		56	143	145	182	184	213/215
190	8.9	67970	11200	3	2	-						
225	7.6	67970	11200	3	2	-						
255	6.7	67970	11200	3	2	-						
266	6.4	69400	11100	2	2	-						
291	5.8	67970	11200	3	2	-						
300	5.7	69400	11100	2	2	-						
333	5.1	67970	11200	3	2	-						
340	5.0	69400	11100	2	2	-						
370	4.6	67970	11200	3	2	-						
387	4.4	69400	11100	2	2	-						
430	4.0	69400	11100	2	2	-						
436	3.9	67970	11200	3	2	-						
489	3.5	67970	11200	3	2	-						
491	3.5	69400	11100	2	2	-						
518	3.3	69400	11100	2	2	-						
560	3.0	67970	11200	3	2	-						
591	2.9	69400	11100	2	2	-						
640	2.7	67970	11200	3	2	-						
644	2.6	69400	11100	2	2	-						
696	2.4	69400	11100	2	3	-						
736	2.3	67970	11200	3	2	-						
800	2.1	69400	11100	2	3	-						
834	2.0	67970	11200	3	2	-						
923	1.8	69400	11100	2	3	-						
950	1.8	67970	11200	3	2	-						
1015	1.7	69400	11100	2	3	-						
1087	1.6	67970	11200	3	2	-						
1193	1.4	69400	11100	2	3	-						
1243	1.4	67970	11200	3	2	-						
1263	1.3	69400	11100	2	3	-						
1401	1.2	67970	11200	3	2	-						
1436	1.2	69400	11100	2	3	-						
1590	1.1	69400	11100	2	3	-						
1597	1.1	67970	11200	3	2	-						
1813	0.94	69400	11100	2	3	-						
1826	0.93	67970	11200	3	2	-						
2068	0.82	67970	11200	3	2	-						
2129	0.80	69400	11100	2	3	-						
2255	0.75	69400	11100	2	3	-						
2369	0.72	67970	11200	3	2	-						
2563	0.66	69400	11100	2	3	-						
2756	0.62	67970	11200	3	2	-						
2839	0.60	69400	11100	2	3	-						
3037	0.56	67970	11200	3	2	-						
3347	0.51	69400	11100	2	3	-						
3521	0.48	67970	11200	3	3	-						
3815	0.45	69400	11100	2	3	-						
3948	0.43	67970	11200	3	3	-						
4016	0.42	69400	11100	2	3	-						
4567	0.37	67970	11200	3	3	-						
4593	0.37	69400	11100	2	3	-						

F107R77, n_e = 1700 rpm 69400 lb-in

i [ratio]	n _a [rpm]	T _{a max} [lb-in]	F _{Ra} ¹⁾ [lb]	Stages		φ (fR) [']	AM					
				Lg	Sm		56	143	145	182	184	213/215
5223	0.33	67970	11200	3	3	-						
5383	0.32	69400	11100	2	3	-						
5954	0.29	67970	11200	3	3	-						
6767	0.25	67970	11200	3	3	-						
7674	0.22	67970	11200	3	3	-						
8548	0.20	67970	11200	3	3	-						
10039	0.17	67970	11200	3	3	-						
11348	0.15	67970	11200	3	3	-						
14767	0.12	67970	11200	3	3	-						
16888	0.10	67970	11200	3	3	-						
18933	0.09	67970	11200	3	3	-						
21652	0.08	67970	11200	3	3	-						
25375	0.07	67970	11200	3	3	-						

Weight [lbs]		Stages		AM						
		Large	Small	56	143	145	182	184	213/215	
F107R77	NEMA	2	2	613	617	618	625	625	638	
		2	3	616	620	620	627	627	641	
		3	2	635	639	639	647	647	660	
		3	3	638	642	642	649	649	662	
					71	80	90	100	112	132S/M
	IEC	2	2	613	617	618	627	627	643	
		2	3	615	620	620	630	630	645	
		3	2	634	639	639	649	649	664	
3		3	637	642	642	651	651	667		



FA107: -37 lbs / FAF107: +10 lbs / FF107: +60 lbs

9 F - theSnuggler® Helical

F.. AM

9.1.16 F127

F127, $n_e = 1700$ rpm 106200 lb-in

Stages	i [ratio]	n_a [rpm]	$T_{a \max}$ [lb-in]	F_{Ra} [lb]	ϕ (/R) [']	AM				
						213/215	254/256	284/286	324/326	364/365
F127  2	4.68	363	53000	6060	7					
	5.52	308	53000	6540	7					
	6.80	250	61900	6610	7					
	7.88	216	53000	7650	6					
	8.86	192	61900	7490	6					
	10.19	167	84000	6060	5					
	12.54	136	88400	6550	5					
	14.55	117	97300	6340	5					
	16.36	104	97300	6930	5					
	18.87	90	97300	7680	5					
	21.38	80	106200	7440	5					
	24.57	69	75200	11000	5					
26.86	63	75200	11500	5						
F127  3	25.30	67	106200	8400	5					
	31.33	54	106200	9660	5					
	37.28	46	106200	10700	5					
	42.15	40	106200	11500	5					
	48.80	35	106200	12500	5					
	55.31	31	106200	13300	5					
	63.91	27	106200	14300	5					
	70.07	24	106200	14900	5					
	75.41	23	106200	15400	5					
	87.31	19	106200	16400	5					
	98.95	17	106200	17200	5					
	114.34	15	106200	18300	5					
	125.37	14	106200	19000	5					
	153.67	11	106200	20200	5					
170.83	10.0	106200	20200	5						

Weight [lbs]		Stages	AM				
			213/215	254/256	284/286	324/326	364/365
F127	NEMA	2	923	946	951	985	984
		3	950	973	978	1011	1011
			132S/M	160/180	200	225	250/280
	IEC	2	928	957	989	1000	1070
		3	954	984	1016	1026	1097

FA127: -80 lbs / FAF127: +2 lbs / FF127: +98 lbs

9.1.17 F127R77

F127R77, n _e = 1700 rpm							106200 lb-in					
i [ratio]	n _a [rpm]	T _{a max} [lb-in]	F _{Ra} ¹⁾ [lb]	Stages		φ (/R) [']	AM					
				Lg	Sm		56	143	145	182	184	213/215
376	4.5	106200	20230	3	2	-						
428	4.0	106200	20230	3	2	-						
495	3.4	106200	20230	3	2	-						
549	3.1	106200	20230	3	2	-						
648	2.6	106200	20230	3	2	-						
727	2.3	106200	20230	3	2	-						
820	2.1	106200	20230	3	2	-						
930	1.8	106200	20230	3	2	-						
1077	1.6	106200	20230	3	2	-						
1220	1.4	106200	20230	3	2	-						
1390	1.2	106200	20230	3	2	-						
1606	1.1	106200	20230	3	2	-						
1784	0.95	106200	20230	3	2	-						
2038	0.83	106200	20230	3	2	-						
2357	0.72	106200	20230	3	2	-						
2672	0.64	106200	20230	3	2	-						
3031	0.56	106200	20230	3	3	-						
3454	0.49	106200	20230	3	3	-						
3926	0.43	106200	20230	3	3	-						
4533	0.38	106200	20230	3	3	-						
5153	0.33	106200	20230	3	3	-						
5925	0.29	106200	20230	3	3	-						
6715	0.25	106200	20230	3	3	-						
7643	0.22	106200	20230	3	3	-						
8831	0.19	106200	20230	3	3	-						
10191	0.17	106200	20230	3	3	-						
11656	0.15	106200	20230	3	3	-						
12912	0.13	106200	20230	3	3	-						
14722	0.12	106200	20230	3	3	-						
16656	0.10	106200	20230	3	3	-						
19048	0.09	106200	20230	3	3	-						
22323	0.08	106200	20230	3	3	-						
24478	0.07	106200	20230	3	3	-						

Weight [lbs]		Stages		AM					
		Large	Small	56	143	145	182	184	213/215
F127R77	NEMA	3	2	1012	1016	1016	1024	1024	1037
		3	3	1014	1019	1019	1026	1026	1039
	IEC			71	80	90	100	112	132S/M
		3	2	1011	1016	1016	1026	1026	1041
		3	3	1014	1019	1019	1028	1028	1044

FA127: -80 lbs / FAF127: +2 lbs / FF127: +98 lbs



9.1.18 F127R87

F127R87, n_e = 1700 rpm							106200 lb-in						
i [ratio]	n _a [rpm]	T _{a max} [lb-in]	F _{Ra} ¹⁾ [lb]	Stages		φ (/R) [']	AM						
				Lg	Sm		143	145	182	184	213/215	254/256	284/286
166	10	106200	20230	3	2	-							
198	8.6	106200	20230	3	2	-							
223	7.6	106200	20230	3	2	-							
259	6.6	106200	20230	3	2	-							
293	5.8	106200	20230	3	2	-							
312	5.4	106200	20230	3	2	-							
374	4.5	106200	20230	3	2	-							
418	4.1	106200	20230	3	2	-							
483	3.5	106200	20230	3	2	-							

Weight [lbs]		Stages		143	145	182	AM			
		Large	Small				184	213/215	254/256	284/286
F127R87	NEMA	3	2	1061	1061	1070	1070	1084	1113	1118
				80	90	100	112	132S/M	160	180
	IEC	3	2	1061	1061	1072	1072	1088	1124	1124

FA127: -80 lbs / FAF127: +2 lbs / FF127: +98 lbs

9.1.19 F157

F157, n _e = 1700 rpm						159300 lb-in			
Stages	i [ratio]	n _a [rpm]	T _a max [lb-in]	F _{Ra} [lb]	Φ (°/R) [']	AM			
						254/256	284/286	324/326	364/365
F157  2	11.92	143	141500	8270	5				
	13.96	122	150400	8570	5				
	16.85	101	159300	9060	5				
	19.77	86	150400	10400	4				
	22.16	77	159300	10500	4				
	25.43	67	132700	12700	4				
	28.60	59	150400	12500	4				
	35.75	48	97300	16500	4				
	43.94	39	88400	18400	4				
	53.55	32	70700	20600	4				
F157  3	27.60	62	159300	11800	5				
	32.55	52	159300	12800	5				
	40.06	42	159300	14100	5				
	46.48	37	159300	15200	5				
	52.24	33	159300	16000	5				
	60.25	28	159300	17000	5				
	68.28	25	159300	18000	5				
	78.46	22	159300	19100	5				
	85.80	20	159300	19800	5				
	96.53	18	159300	20800	5				
	108.49	16	159300	21900	5				
	125.14	14	159300	22500	5				
	141.80	12	159300	22500	5				
	162.96	10	159300	22500	5				
	178.20	9.5	159300	22500	5				
217.62	7.8	159300	22500	5					
267.43	6.4	159300	22500	5					

Weight [lbs]		Stages	AM			
			254/256	284/286	324/326	364/365
F157	NEMA	2	1490	1495	1540	1540
		3	1503	1508	1553	1553
			160/180	200	225	250/280
	IEC	2	1502	1544	1555	1610
		3	1515	1558	1568	1623

FA157: -46 lbs / FAF157: +84 lbs / FF157: +236 lbs

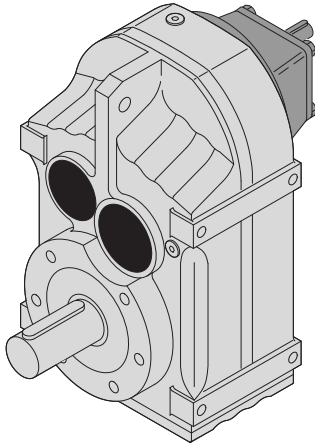
9.1.20 F157R97

F157R97, n_e = 1700 rpm							159300 lb-in						
i [ratio]	n _a [rpm]	T _a max [lb-in]	F _{Ra} ¹⁾ [lb]	Stages		φ (/R) [']	AM						
				Lg	Sm		182	184	213/215	254/256	284/286	324/326	364/365
197	8.6	159300	22540	3	2	-							
202	8.4	159300	22540	3	2	-							
232	7.3	159300	22540	3	2	-							
273	6.2	159300	22540	3	2	-							
302	5.6	159300	22540	3	2	-							
353	4.8	159300	22540	3	2	-							
446	3.8	159300	22540	3	2	-							
503	3.4	159300	22540	3	2	-							
576	3.0	159300	22540	3	2	-							
680	2.5	159300	22540	3	2	-							
764	2.2	159300	22540	3	2	-							
845	2.0	159300	22540	3	2	-							
953	1.8	159300	22540	3	2	-							
1169	1.5	159300	22540	3	2	-							
1308	1.3	159300	22540	3	2	-							
1441	1.2	159300	22540	3	3	-							
1674	1.0	159300	22540	3	2	-							
1944	0.87	159300	22540	3	2	-							
2185	0.78	159300	22540	3	2	-							
2427	0.70	159300	22540	3	2	-							
2780	0.61	159300	22540	3	3	-							
3210	0.53	159300	22540	3	3	-							
3607	0.47	159300	22540	3	3	-							
4130	0.41	159300	22540	3	3	-							
4831	0.35	159300	22540	3	3	-							
5404	0.31	159300	22540	3	3	-							
6295	0.27	159300	22540	3	3	-							
7075	0.24	159300	22540	3	3	-							
8026	0.21	159300	22540	3	3	-							
9021	0.19	159300	22540	3	3	-							
10033	0.17	159300	22540	3	3	-							
12235	0.14	159300	22540	3	3	-							
13751	0.12	159300	22540	3	3	-							
16358	0.10	159300	22540	3	3	-							
17984	0.09	159300	22540	3	3	-							
20212	0.08	159300	22540	3	3	-							
23464	0.07	159300	22540	3	3	-							

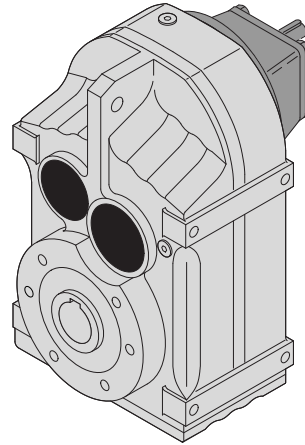
Weight [lbs]		Stages		AM						
		Large	Small	182	184	213/215	254/256	284/286	324/326	364/365
F157R97	NEMA	3	2	1731	1731	1743	1776	1781	1818	1818
		3	3	1738	1738	1750	1783	1787	1825	1825
	IEC			100	112	132S/M	160	180	200	225
		3	2	1734	1734	1747	1787	1787	1823	1834
		3	3	1741	1741	1754	1794	1794	1830	1840

FA157: -46 lbs / FAF157: +84 lbs / FF157: +236 lbs

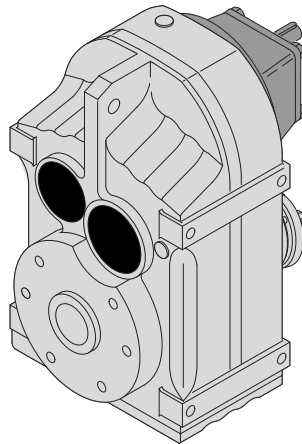
9.2 F.. AD



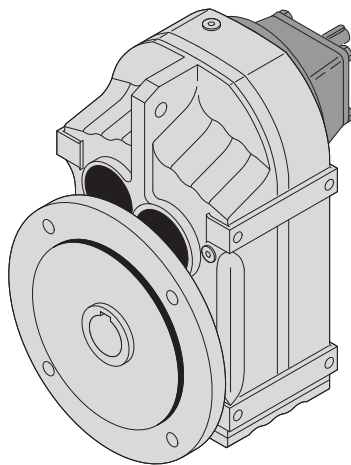
F.. AD..



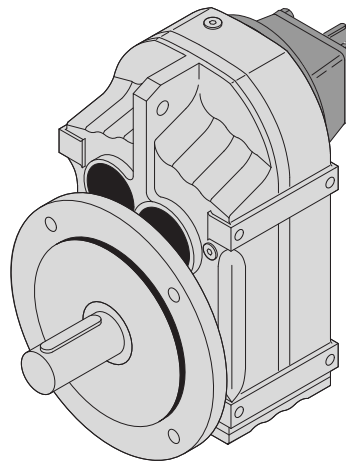
FA..B AD..
FV..B AD..



FH..B AD..



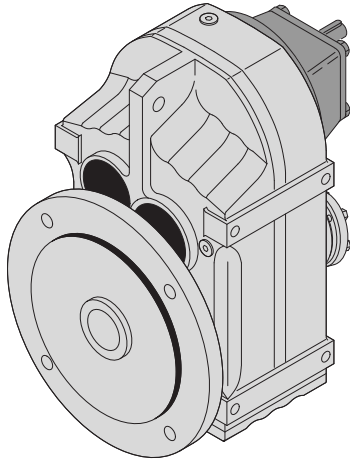
FAF.. AD..
FVF.. AD..



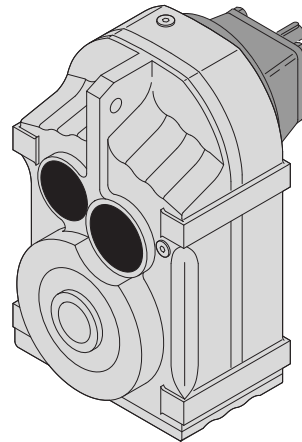
FF.. AD..

50401AXX

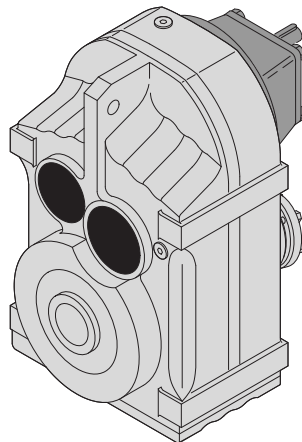
9 F - theSnuggler® Helical
F.. AD



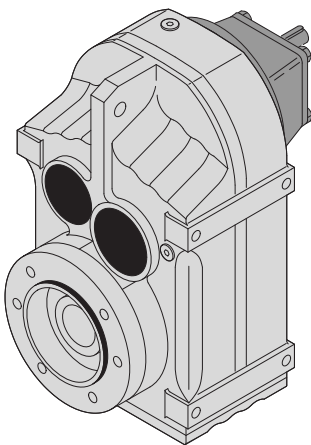
FHF .. AD ..



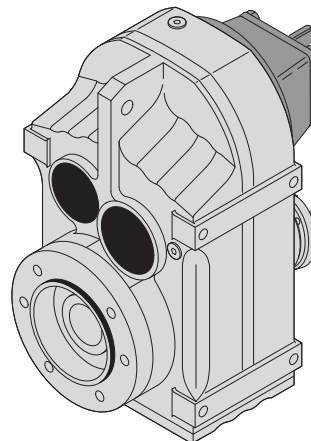
**FA.. AD..
FV.. AD..**



FH.. AD..





**FAZ.. AD..
FVZ.. AD..**



FHZ.. AD..

50402AXX



9.2.1 F27

F27 AD.. , n _e = 1700 rpm										1150 lb-in	
i [ratio]	n _a [rpm]	T _a max [lb-in]	P _e [HP]	F _{RA} ¹⁾ [lb]	F _{Re} [lb]	Stages		φ _(/R) [']			
						Lg	Sm				
33.83	50	1150	0.96	690	100	3	-	-	-		
38.33	44	1150	0.85	730	110	3	-	-	-		
40.89	42	1150	0.79	750	110	3	-	-	-		
46.78	36	1150	0.69	800	110	3	-	-	-		
50.19	34	1150	0.65	820	120	3	-	-	-		
56.62	30	1150	0.57	870	150	3	-	-	-		
63.86	27	1150	0.51	910	150	3	-	-	-		
72.37	23	1150	0.45	960	160	3	-	-	-		
77.21	22	1150	0.42	990	160	3	-	-	-		
88.32	19	1150	0.37	1010	160	3	-	-	-		
94.76	18	1150	0.34	1010	160	3	-	-	-		
109.90	15	1150	0.30	1010	160	3	-	-	-		
129.09	13	1150	0.25	1010	160	3	-	-	-		
140.74	12	1150	0.23	1010	160	3	-	-	-		
4.16	409	770	5.1	280	260	2	-	-	-		
4.93	345	850	4.8	290	260	2	-	-	-		
5.27	323	890	4.7	290	260	2	-	-	-		
6.17	276	960	4.3	300	250	2	-	-	-		
6.91	246	1010	4.1	310	250	2	-	-	-		
8.13	209	1090	3.7	320	250	2	-	-	-		
9.40	181	1150	3.4	330	250	2	-	-	-		
9.88	172	1150	3.2	370	310	2	-	-	-		
10.55	161	1150	3.0	380	310	2	-	-	-		
12.35	138	1150	2.6	420	310	2	-	-	-		
13.84	123	1150	2.3	440	320	2	-	-	-		
16.28	104	1150	2.0	480	320	2	-	-	-		
18.84	90	1150	1.7	520	330	2	-	-	-		
20.15	84	1150	1.6	540	200	2	-	-	-		
23.25	73	1150	1.4	580	210	2	-	-	-		
27.18	63	1150	1.2	620	220	2	-	-	-		
29.56	58	1150	1.1	650	220	2	-	-	-		
33.83	50	1150	0.96	690	360	3	-	-	-		
38.33	44	1150	0.85	730	370	3	-	-	-		
40.89	42	1150	0.79	750	370	3	-	-	-		
46.78	36	1150	0.69	800	370	3	-	-	-		
50.19	34	1150	0.65	820	370	3	-	-	-		
56.62	30	1150	0.57	870	380	3	-	-	-		
63.86	27	1150	0.51	910	380	3	-	-	-		
72.37	23	1150	0.45	960	380	3	-	-	-		
77.21	22	1150	0.42	990	380	3	-	-	-		
88.32	19	1150	0.37	1010	390	3	-	-	-		
94.76	18	1150	0.34	1010	390	3	-	-	-		
109.90	15	1150	0.30	1010	390	3	-	-	-		
129.09	13	1150	0.25	1010	390	3	-	-	-		
140.74	12	1150	0.23	1010	390	3	-	-	-		
Weight [lbs]	Stages		AD1		AD2						
	Large	Small									
FA27	2	-	17		19						
	3	-	18		20						
FA27: -1 lb / FAF27: +1 lb / FF27: +2 lbs											

9 F - theSnuggler® Helical

F.. AD



9.2.2 F37

F37 AD.. , $n_e = 1700$ rpm										1770 lb-in		
i [ratio]	n_a [rpm]	$T_{a \max}$ [lb-in]	P_e [HP]	$F_{Ra}^{(1)}$ [lb]	F_{Re} [lb]	Stages		ϕ (/R) [']			F37	AD1
						Lg	Sm					
51.70	33	1770	0.97	970	110	3	-	7	-			
54.54	31	1770	0.92	970	60	3	-	8	-			
58.32	29	1770	0.86	970	110	3	-	7	-			
66.09	26	1770	0.76	970	120	3	-	7	-			
70.50	24	1770	0.71	970	120	3	-	7	-			
80.65	21	1770	0.62	970	120	3	-	7	-			
86.53	20	1770	0.58	970	130	3	-	7	-			
100.36	17	1770	0.50	970	130	3	-	7	-			
117.88	14	1770	0.42	970	130	3	-	7	-			
128.51	13	1770	0.39	970	130	3	-	7	-			
3.77	451	930	6.9	400	220	2	-	12	-			
4.22	403	970	6.4	410	230	2	-	11	-			
4.90	347	1060	6.0	430	220	2	-	11	-			
5.21	326	1110	5.9	430	220	2	-	10	-			
6.05	281	1190	5.5	440	210	2	-	10	-			
6.74	252	1240	5.1	460	210	2	-	10	-			
7.44	228	1070	4.0	520	240	2	-	10	-			
8.01	212	1500	5.2	480	270	2	-	7	-			
8.97	190	1550	4.8	500	270	2	-	7	-			
10.42	163	1640	4.4	520	270	2	-	7	-			
11.08	153	1680	4.2	530	270	2	-	7	-			
12.87	132	1770	3.8	560	270	2	-	7	-			
14.33	119	1770	3.4	590	280	2	-	7	-			
15.81	108	1770	3.1	620	280	2	-	6	-			
17.03	100	1770	2.9	650	280	2	-	6	-			
19.27	88	1770	2.6	690	290	2	-	6	-			
20.57	83	1770	2.4	710	290	2	-	6	-			
23.63	72	1770	2.1	770	290	2	-	6	-			
23.88	71	1770	2.1	770	340	3	-	8	-			
28.09	61	1770	1.8	830	340	3	-	8	-			
31.69	54	1770	1.6	880	280	3	-	8	-			
35.91	47	1770	1.4	940	290	3	-	8	-			
38.31	44	1770	1.3	960	290	3	-	8	-			
43.83	39	1770	1.1	970	300	3	-	8	-			
47.02	36	1770	1.1	970	300	3	-	8	-			
51.70	33	1770	0.97	970	370	3	-	7	-			
54.54	31	1770	0.92	970	310	3	-	8	-			
58.32	29	1770	0.86	970	370	3	-	7	-			
66.09	26	1770	0.76	970	370	3	-	7	-			
70.50	24	1770	0.71	970	370	3	-	7	-			
80.65	21	1770	0.62	970	370	3	-	7	-			
86.53	20	1770	0.58	970	370	3	-	7	-			
100.36	17	1770	0.50	970	380	3	-	7	-			
117.88	14	1770	0.42	970	380	3	-	7	-			
128.51	13	1770	0.39	970	380	3	-	7	-			

Weight [lbs]	Stages		AD1	AD2
	Large	Small		
F37	2	-	30	33
	3	-	31	34

FA37: -1 lb / FAF37: +2 lbs / FF37: +4 lbs

9.2.3 F47

F47 AD.. , n _e = 1700 rpm										3540 lb-in		
i [ratio]	n _a [rpm]	T _{a max} [lb-in]	P _e [HP]	F _{Ra} ¹⁾ [lb]	F _{Re} [lb]	Stages		φ (/R) [']			F47	AD1
						Lg	Sm					
68.09	25	3540	1.5	1330	80	3	-	6	-			
79.72	21	3540	1.3	1330	80	3	-	6	-			
89.29	19	3540	1.1	1330	90	3	-	6	-			
105.09	16	3540	0.95	1330	90	3	-	6	-			
121.57	14	3540	0.82	1330	100	3	-	6	-		F47	AD1
130.07	13	3540	0.77	1330	100	3	-	6	-			
150.06	11	3540	0.67	1330	100	3	-	6	-			
175.38	9.7	3540	0.57	1330	110	3	-	6	-			
190.76	8.9	3540	0.52	1330	110	3	-	6	-			
4.99	341	1530	8.5	700	200	2	-	9	-			
5.76	295	1690	8.2	720	190	2	-	9	-			
6.34	268	1770	7.8	740	190	2	-	8	-			
7.44	228	1990	7.4	760	180	2	-	8	-			
7.88	216	2040	7.2	770	180	2	-	8	-			
8.96	190	2210	6.9	790	170	2	-	8	-			
10.97	155	3360	8.5	720	200	2	-	6	-			
12.66	134	3540	7.8	750	200	2	-	6	-			
13.93	122	3540	7.1	790	210	2	-	6	-			
16.36	104	3540	6.0	870	220	2	-	6	-			
17.33	98	3540	5.7	900	230	2	-	6	-			
19.70	86	3540	5.0	970	230	2	-	6	-			
21.82	78	3540	4.5	1020	240	2	-	6	-			
25.72	66	3540	3.8	1110	240	2	-	6	-			
28.88	59	3540	3.5	1180	310	3	-	7	-			
29.32	58	3540	3.4	1190	250	2	-	6	-		F47	AD2
30.86	55	3540	3.2	1220	250	2	-	6	-			
34.29	50	3540	2.9	1290	320	3	-	7	-			
36.61	46	3540	2.7	1330	320	3	-	7	-			
42.86	40	3540	2.3	1330	330	3	-	7	-			
48.00	35	3540	2.1	1330	330	3	-	7	-			
56.49	30	3540	1.8	1330	330	3	-	7	-			
65.36	26	3540	1.5	1330	230	3	-	7	-			
68.09	25	3540	1.5	1330	330	3	-	6	-			
79.72	21	3540	1.3	1330	340	3	-	6	-			
89.29	19	3540	1.1	1330	340	3	-	6	-			
105.09	16	3540	0.95	1330	350	3	-	6	-			
121.57	14	3540	0.82	1330	360	3	-	6	-			
130.07	13	3540	0.77	1330	360	3	-	6	-			
150.06	11	3540	0.67	1330	360	3	-	6	-			
175.38	9.7	3540	0.57	1330	370	3	-	6	-			
190.76	8.9	3540	0.52	1330	370	3	-	6	-			



Weight [lbs]	Stages		AD1	AD2
	Large	Small		
F47	2	-	41	44
	3	-	42	45

FA47: -2 lb / FAF47: +4 lbs / FF47: +7 lbs

9 F - theSnuggler® Helical


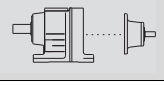
F.. AD

9.2.4 F57

F57 AD.. , $n_e = 1700$ rpm										5310 lb-in		
i [ratio]	n_a [rpm]	$T_{a \max}$ [lb-in]	P_e [HP]	$F_{Ra}^{(1)}$ [lb]	F_{Re} [lb]	Stages		ϕ (/R) [']				
						Lg	Sm					
24.96	68	5090	5.7	1440	160	2	-	6	-			
28.45	60	3630	3.5	1760	240	2	-	6	-			
29.94	57	3670	3.4	1790	240	2	-	6	-			
30.15	56	5220	4.9	1560	270	3	-	7	-			
34.24	50	3890	3.2	1860	230	2	-	6	-			
35.79	47	5310	4.2	1690	280	3	-	7	-			
38.21	44	5310	3.9	1740	280	3	-	7	-			
40.13	42	2350	1.6	2230	100	2	-	6	-			
44.73	38	5310	3.4	1880	290	3	-	7	-			
50.10	34	5310	3.0	1980	290	3	-	7	-			
58.97	29	5310	2.5	2070	300	3	-	7	-		F57	AD2
68.22	25	5310	2.2	2070	300	3	-	6	-			
72.98	23	5310	2.1	2070	300	3	-	6	-			
83.46	20	5310	1.8	2070	340	3	-	6	-			
93.47	18	5310	1.6	2070	270	3	-	6	-			
110.01	15	5310	1.4	2070	280	3	-	6	-			
127.27	13	5310	1.2	2070	290	3	-	6	-			
136.16	12	5310	1.1	2070	290	3	-	6	-			
157.09	11	5310	0.95	2070	300	3	-	6	-			
183.60	9.3	5310	0.82	2070	300	3	-	6	-			
199.70	8.5	5310	0.75	2070	310	3	-	6	-			
5.18	328	2700	14.5	850	270	2	-	9	-			
5.98	284	2960	13.8	870	250	2	-	9	-			
6.58	258	3140	13.3	890	240	2	-	8	-			
7.73	220	3450	12.4	910	210	2	-	8	-			
8.19	208	3540	12.0	930	210	2	-	8	-			
9.31	183	2740	8.2	1130	330	2	-	8	-			
10.64	160	5310	13.9	860	280	2	-	6	-			
12.29	138	5310	12.0	940	300	2	-	6	-			
13.52	126	5310	10.9	1000	310	2	-	6	-			
15.88	107	5310	9.3	1100	330	2	-	6	-			
16.81	101	5310	8.8	1130	340	2	-	6	-			
19.11	89	5310	7.7	1220	350	2	-	6	-		F57	AD3
21.17	80	5310	7.0	1290	360	2	-	6	-			
24.96	68	5090	5.7	1440	380	2	-	6	-			
30.15	56	5220	4.9	1560	480	3	-	7	-			
35.79	47	5310	4.2	1690	490	3	-	7	-			
38.21	44	5310	3.9	1740	500	3	-	7	-			
44.73	38	5310	3.4	1880	500	3	-	7	-			
50.10	34	5310	3.0	1980	510	3	-	7	-			
58.97	29	5310	2.5	2070	510	3	-	7	-			
83.46	20	5310	1.8	2070	550	3	-	6	-			
93.47	18	5310	1.6	2070	560	3	-	6	-			
110.01	15	5310	1.4	2070	560	3	-	6	-			
Weight [lbs]	Stages		AD2		AD3							
	Large	Small										
F57	2	-	59		66							
	3	-	60		67							

FA57: -1 lb / FAF57: +11 lbs / FF57: +14 lbs

9.2.5 F57R37

F57R37 AD.. , n _e = 1700 rpm										5310 lb-in		
i [ratio]	n _a [rpm]	T _a max [lb-in]	P _e [HP]	F _{Ra} ¹⁾ [lb]	F _{Re} [lb]	Stages		φ _(/R) [']				
						Lg	Sm					
134	13	5310	1.1	2070	110	2	2	-	-			
152	11	5310	1.0	2070	130	2	2	-	-			
155	11	5310	1.0	2070	120	3	2	-	-			
170	10	5310	0.90	2070	120	2	2	-	-			
181	9.4	5310	0.85	2070	130	3	2	-	-			
200	8.5	5310	0.76	2070	140	2	2	-	-			
201	8.5	5310	0.77	2070	140	3	2	-	-			
226	7.5	5310	0.67	2070	140	2	2	-	-			
255	6.7	5310	0.61	2070	150	3	2	-	-			
262	6.5	5310	0.58	2070	130	2	2	-	-			
298	5.7	5310	0.51	2070	140	2	2	-	-			
330	5.2	5310	0.46	2070	150	2	2	-	-			
338	5.0	5310	0.46	2070	160	3	2	-	-			
382	4.5	5310	0.40	2070	150	2	2	-	-			
386	4.4	5310	0.40	2070	160	3	2	-	-			
426	4.0	5310	0.36	2070	150	2	2	-	-			
452	3.8	5310	0.34	2070	160	3	2	-	-			
483	3.5	5310	0.32	2070	160	2	3	-	-			
506	3.4	5310	0.31	2070	160	3	2	-	-			
549	3.1	5310	0.28	2070	160	2	3	-	-			
558	3.0	5310	0.28	2070	160	3	2	-	-			
646	2.6	5310	0.24	2070	160	3	2	-	-			
658	2.6	5310	0.23	2070	160	2	3	-	-			
738	2.3	5310	0.21	2070	160	3	2	-	-			
749	2.3	5310	0.21	2070	170	2	3	-	-			
851	2.0	5310	0.18	2070	160	3	2	-	-			
856	2.0	5310	0.18	2070	170	2	3	-	-			
949	1.8	5310	0.16	2070	170	2	3	-	-			
967	1.8	5310	0.16	2070	170	3	2	-	-			
1066	1.6	5310	0.14	2070	170	2	3	-	-			
1106	1.5	5310	0.14	2070	170	3	2	-	-			
1238	1.4	5310	0.13	2070	170	3	3	-	-			
1243	1.4	5310	0.12	2070	170	2	3	-	-			
1422	1.2	5310	0.11	2070	170	2	3	-	-			
1439	1.2	5310	0.11	2070	170	3	3	-	-			
1617	1.1	5310	0.10	2070	170	2	3	-	-			
1623	1.0	5310	0.10	2070	170	3	3	-	-			
1791	0.95	5310	0.09	2070	170	2	3	-	-			
1840	0.92	5310	0.09	2070	170	3	3	-	-			
2012	0.84	5310	0.08	2070	170	2	3	-	-			
2131	0.80	5310	0.07	2070	170	3	3	-	-			
2266	0.75	5310	0.07	2070	170	2	3	-	-			
2409	0.71	5310	0.07	2070	170	3	3	-	-			
2576	0.66	5310	0.06	2070	170	2	3	-	-			
2737	0.62	5310	0.06	2070	170	3	3	-	-			
2854	0.60	5310	0.05	2070	170	2	3	-	-			
3161	0.54	5310	0.05	2070	170	3	3	-	-			
3564	0.48	5310	0.04	2070	170	3	3	-	-			
4060	0.42	5310	0.04	2070	170	3	3	-	-			
4654	0.37	5310	0.03	2070	170	3	3	-	-			
5289	0.32	5310	0.03	2070	170	3	3	-	-			
6030	0.28	5310	0.03	2070	170	3	3	-	-			
6913	0.25	5310	0.02	2070	170	3	3	-	-			
7908	0.21	5310	0.02	2070	170	3	3	-	-			
8787	0.19	5310	0.02	2070	170	3	3	-	-			
9986	0.17	5310	0.02	2070	170	3	3	-	-			
11252	0.15	5310	0.01	2070	170	3	3	-	-			
12602	0.13	5310	0.01	2070	170	3	3	-	-			
13604	0.12	5310	0.01	2070	170	3	3	-	-			
14832	0.11	5310	0.01	2070	170	3	3	-	-			

F57R37


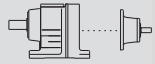
AD1

9 F - theSnuggler® Helical

F.. AD

F57R37 AD.. , $n_e = 1700$ rpm

5310 lb-in



i [ratio]	n_a [rpm]	T_a max [lb-in]	P_e [HP]	$F_{Ra}^{1)}$ [lb]	F_{Re} [lb]	Stages		ϕ (°/R) [']		
						Lg	Sm			
134	13	5310	1.1	2070	370	2	2	-	-	
152	11	5310	1.0	2070	370	2	2	-	-	
155	11	5310	1.0	2070	370	3	2	-	-	
170	10	5310	0.90	2070	370	2	2	-	-	
181	9.4	5310	0.85	2070	380	3	2	-	-	
200	8.5	5310	0.76	2070	380	2	2	-	-	
201	8.5	5310	0.77	2070	380	3	2	-	-	
226	7.5	5310	0.67	2070	380	2	2	-	-	
255	6.7	5310	0.61	2070	380	3	2	-	-	
262	6.5	5310	0.58	2070	380	2	2	-	-	
298	5.7	5310	0.51	2070	380	2	2	-	-	
330	5.2	5310	0.46	2070	380	2	2	-	-	
338	5.0	5310	0.46	2070	390	3	2	-	-	
382	4.5	5310	0.40	2070	380	2	2	-	-	
386	4.4	5310	0.40	2070	390	3	2	-	-	
426	4.0	5310	0.36	2070	380	2	2	-	-	
452	3.8	5310	0.34	2070	390	3	2	-	-	
483	3.5	5310	0.32	2070	390	2	3	-	-	
506	3.4	5310	0.31	2070	390	3	2	-	-	
549	3.1	5310	0.28	2070	390	2	3	-	-	
558	3.0	5310	0.28	2070	390	3	2	-	-	
646	2.6	5310	0.24	2070	390	3	2	-	-	
658	2.6	5310	0.23	2070	390	2	3	-	-	
738	2.3	5310	0.21	2070	390	3	2	-	-	
749	2.3	5310	0.21	2070	390	2	3	-	-	
851	2.0	5310	0.18	2070	390	3	2	-	-	
856	2.0	5310	0.18	2070	390	2	3	-	-	
949	1.8	5310	0.16	2070	390	2	3	-	-	
967	1.8	5310	0.16	2070	390	3	2	-	-	
1066	1.6	5310	0.14	2070	390	2	3	-	-	F57R37
1106	1.5	5310	0.14	2070	400	3	2	-	-	AD2
1238	1.4	5310	0.13	2070	400	3	3	-	-	
1243	1.4	5310	0.12	2070	400	2	3	-	-	
1422	1.2	5310	0.11	2070	400	2	3	-	-	
1439	1.2	5310	0.11	2070	400	3	3	-	-	
1617	1.1	5310	0.10	2070	400	2	3	-	-	
1623	1.0	5310	0.10	2070	400	3	3	-	-	
1791	0.95	5310	0.09	2070	400	2	3	-	-	
1840	0.92	5310	0.09	2070	400	3	3	-	-	
2012	0.84	5310	0.08	2070	400	2	3	-	-	
2131	0.80	5310	0.07	2070	400	3	3	-	-	
2266	0.75	5310	0.07	2070	400	2	3	-	-	
2409	0.71	5310	0.07	2070	400	3	3	-	-	
2576	0.66	5310	0.06	2070	400	2	3	-	-	
2737	0.62	5310	0.06	2070	400	3	3	-	-	
2854	0.60	5310	0.05	2070	400	2	3	-	-	
3161	0.54	5310	0.05	2070	400	3	3	-	-	
3564	0.48	5310	0.04	2070	400	3	3	-	-	
4060	0.42	5310	0.04	2070	400	3	3	-	-	
4654	0.37	5310	0.03	2070	400	3	3	-	-	
5289	0.32	5310	0.03	2070	400	3	3	-	-	
6030	0.28	5310	0.03	2070	400	3	3	-	-	
6913	0.25	5310	0.02	2070	400	3	3	-	-	
7908	0.21	5310	0.02	2070	400	3	3	-	-	
8787	0.19	5310	0.02	2070	400	3	3	-	-	
9986	0.17	5310	0.02	2070	400	3	3	-	-	
11252	0.15	5310	0.01	2070	400	3	3	-	-	
12602	0.13	5310	0.01	2070	400	3	3	-	-	
13604	0.12	5310	0.01	2070	400	3	3	-	-	
14832	0.11	5310	0.01	2070	400	3	3	-	-	

Weight [lbs]	Stages		AD1	AD2
	Large	Small		
F57R37	2	2	80	83
	2	3	81	83
	3	2	82	84
	3	3	82	85
FA57: -1 lb / FAF57: +11 lbs / FF57: +14 lbs				

9 F - theSnuggler® Helical

F.. AD



9.2.6 F67

F67 AD.. , n _e = 1700 rpm										7260 lb-in		
i [ratio]	n _a [rpm]	T _{a max} [lb-in]	P _e [HP]	F _{RA} ¹⁾ [lb]	F _{Re} [lb]	Stages		φ (°/R) [']			F67	AD2
						Lg	Sm					
32.08	53	6810	5.9	2410	140	2	-	5	-			
34.01	50	6550	5.4	2470	270	3	-	6	-			
36.30	47	5220	4.0	2690	220	2	-	5	-			
39.26	43	6900	5.0	2400	280	3	-	6	-			
43.20	39	7260	4.7	2320	270	3	-	6	-			
50.74	34	7260	4.0	2320	280	3	-	6	-			
53.73	32	7260	3.8	2320	290	3	-	6	-			
61.07	28	7260	3.4	2320	290	3	-	6	-			
67.65	25	7260	3.0	2320	290	3	-	6	-			
79.76	21	7260	2.6	2320	300	3	-	6	-		F67	AD2
90.59	19	7260	2.3	2320	330	3	-	6	-			
95.94	18	7260	2.1	2320	340	3	-	6	-			
109.04	16	7260	1.9	2320	340	3	-	6	-			
120.79	14	7260	1.7	2320	340	3	-	6	-			
142.40	12	7260	1.4	2320	260	3	-	6	-			
162.31	10	7260	1.3	2320	270	3	-	6	-			
170.85	10	7260	1.2	2320	270	3	-	6	-			
195.39	8.7	7260	1.0	2320	280	3	-	6	-			
228.99	7.4	7260	0.89	2320	280	3	-	6	-			
3.97	428	2430	17.0	2030	290	2	-	10	M1-6			
4.66	365	2700	16.1	2110	290	2	-	9	M2			
5.25	324	2920	15.5	2170	280	2	-	9	-			
5.95	286	3140	14.7	2240	270	2	-	9	-			
6.78	251	3410	14.0	2310	250	2	-	9	-			
7.53	226	3630	13.4	2360	230	2	-	8	-			
8.60	198	3890	12.6	2440	210	2	-	8	-			
9.08	187	3980	12.2	2480	200	2	-	8	-			
9.66	176	5930	17.1	2400	290	2	-	6	M1-6			
11.31	150	6590	16.2	2460	280	2	-	6	M2			
12.76	133	7080	15.4	2360	280	2	-	6	-			
14.46	118	7260	14.0	2320	290	2	-	6	-			
16.48	103	7260	12.2	2320	300	2	-	6	-			
18.29	93	7260	11.0	2320	320	2	-	6	-			
20.90	81	7260	9.7	2320	330	2	-	5	-			
22.05	77	7260	9.2	2320	330	2	-	5	-		F67	AD3
25.13	68	7260	8.0	2320	340	2	-	5	-			
27.41	62	7260	7.4	2320	350	2	-	5	-			
32.08	53	7260	6.3	2320	360	2	-	5	-			
34.01	50	6550	5.4	2470	490	3	-	6	-			
39.26	43	6900	5.0	2400	490	3	-	6	-			
43.20	39	7260	4.7	2320	490	3	-	6	-			
50.74	34	7260	4.0	2320	500	3	-	6	-			
53.73	32	7260	3.8	2320	500	3	-	6	-			
61.07	28	7260	3.4	2320	500	3	-	6	-			
67.65	25	7260	3.0	2320	510	3	-	6	-			
79.76	21	7260	2.6	2320	510	3	-	6	-			
90.59	19	7260	2.3	2320	550	3	-	6	-			
95.94	18	7260	2.1	2320	550	3	-	6	-			
109.04	16	7260	1.9	2320	550	3	-	6	-			
120.79	14	7260	1.7	2320	550	3	-	6	-			
142.40	12	7260	1.4	2320	560	3	-	6	-			

Weight [lbs]	Stages		AD2	AD3
	Large	Small		
F67	2	-	72	79
	3	-	75	82

FA67: -6 lb / FAF67: +8 lbs / FF67: +13 lbs

9.2.7 F67R37


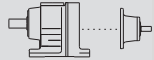
F67R37 AD.. , n _e = 1700 rpm										7260 lb-in	
i [ratio]	n _a [rpm]	T _a max [lb-in]	P _e [HP]	F _{Ra} ¹⁾ [lb]	F _{Re} [lb]	Stages		φ (/R) [']			
						Lg	Sm				
175	9.7	7260	1.2	2320	100	3	2	-	-		
176	9.7	7260	1.2	2320	110	2	2	-	-		
200	8.5	7260	1.0	2320	120	2	2	-	-		
205	8.3	7260	1.0	2320	110	3	2	-	-		
231	7.4	7260	0.91	2320	130	3	2	-	-		
238	7.1	7260	0.87	2320	130	2	2	-	-		
257	6.6	7260	0.82	2320	120	3	2	-	-		
261	6.5	7260	0.80	2320	120	2	2	-	-		
297	5.7	7260	0.70	2320	140	2	2	-	-		
305	5.6	7260	0.69	2320	130	3	2	-	-		
333	5.1	7260	0.62	2320	140	2	2	-	-		
338	5.0	7260	0.62	2320	130	3	2	-	-		
384	4.4	7260	0.55	2320	150	3	2	-	-		
392	4.3	7260	0.53	2320	140	2	2	-	-		
437	3.9	7260	0.48	2320	160	3	2	-	-		
454	3.7	7260	0.46	2320	140	2	2	-	-		
500	3.4	7260	0.42	2320	150	2	2	-	-		
509	3.3	7260	0.41	2320	160	3	2	-	-		
539	3.2	7260	0.39	2320	160	2	3	-	-		
572	3.0	7260	0.37	2320	160	3	2	-	-		
634	2.7	7260	0.33	2320	160	2	3	-	-		
641	2.7	7260	0.33	2320	160	3	2	-	-		
722	2.4	7260	0.29	2320	160	2	3	-	-		
755	2.3	7260	0.28	2320	160	3	2	-	-		
858	2.0	7260	0.25	2320	170	3	2	-	-		
864	2.0	7260	0.24	2320	160	2	3	-	-		
970	1.8	7260	0.22	2320	170	3	2	-	-		
984	1.7	7260	0.21	2320	160	2	3	-	-		
1102	1.5	7260	0.19	2320	170	3	2	-	-		
1126	1.5	7260	0.19	2320	170	2	3	-	-		
1256	1.4	7260	0.17	2320	170	2	3	-	-	F67R37	AD1
1271	1.3	7260	0.17	2320	170	3	2	-	-		
1429	1.2	7260	0.15	2320	170	3	2	-	-		
1437	1.2	7260	0.15	2320	170	2	3	-	-		
1631	1.0	7260	0.13	2320	170	2	3	-	-		
1635	1.0	7260	0.13	2320	170	3	2	-	-		
1859	0.91	7260	0.11	2320	170	2	3	-	-		
1884	0.90	7260	0.11	2320	170	3	2	-	-		
2106	0.81	7260	0.10	2320	170	3	2	-	-		
2126	0.80	7260	0.10	2320	170	2	3	-	-		
2372	0.72	7260	0.09	2320	170	2	3	-	-		
2439	0.70	7260	0.09	2320	170	3	3	-	-		
2714	0.63	7260	0.08	2320	170	2	3	-	-		
2756	0.62	7260	0.08	2320	170	3	3	-	-		
2912	0.58	7260	0.07	2320	170	2	3	-	-		
3133	0.54	7260	0.07	2320	170	3	3	-	-		
3377	0.50	7260	0.06	2320	170	2	3	-	-		
3574	0.48	7260	0.06	2320	170	3	3	-	-		
4091	0.42	7260	0.05	2320	170	3	3	-	-		
4690	0.36	7260	0.05	2320	170	3	3	-	-		
5341	0.32	7260	0.04	2320	170	3	3	-	-		
6080	0.28	7260	0.04	2320	170	3	3	-	-		
7096	0.24	7260	0.03	2320	170	3	3	-	-		
7940	0.21	7260	0.03	2320	170	3	3	-	-		
8933	0.19	7260	0.02	2320	170	3	3	-	-		
10220	0.17	7260	0.02	2320	170	3	3	-	-		
11480	0.15	7260	0.02	2320	170	3	3	-	-		
12926	0.13	7260	0.02	2320	170	3	3	-	-		
14992	0.11	7260	0.01	2320	170	3	3	-	-		
17610	0.10	7260	0.01	2320	170	3	3	-	-		
19199	0.09	7260	0.01	2320	170	3	3	-	-		

9 F - theSnuggler® Helical

F.. AD

F67R37 AD.. , $n_e = 1700$ rpm

7260 lb-in



i [ratio]	n_a [rpm]	T_a max [lb-in]	P_e [HP]	$F_{Ra}^{1)}$ [lb]	F_{Re} [lb]	Stages		ϕ (°/R) [']		
						Lg	Sm			
176	9.7	7260	1.2	2320	370	2	2	-	-	
200	8.5	7260	1.0	2320	370	2	2	-	-	
205	8.3	7260	1.0	2320	370	3	2	-	-	
231	7.4	7260	0.91	2320	380	3	2	-	-	
238	7.1	7260	0.87	2320	370	2	2	-	-	
257	6.6	7260	0.82	2320	370	3	2	-	-	
261	6.5	7260	0.80	2320	370	2	2	-	-	
297	5.7	7260	0.70	2320	380	2	2	-	-	
305	5.6	7260	0.69	2320	380	3	2	-	-	
333	5.1	7260	0.62	2320	380	2	2	-	-	
338	5.0	7260	0.62	2320	380	3	2	-	-	
384	4.4	7260	0.55	2320	380	3	2	-	-	
392	4.3	7260	0.53	2320	380	2	2	-	-	
437	3.9	7260	0.48	2320	390	3	2	-	-	
454	3.7	7260	0.46	2320	380	2	2	-	-	
500	3.4	7260	0.42	2320	380	2	2	-	-	
509	3.3	7260	0.41	2320	390	3	2	-	-	
539	3.2	7260	0.39	2320	390	2	3	-	-	
572	3.0	7260	0.37	2320	390	3	2	-	-	
634	2.7	7260	0.33	2320	390	2	3	-	-	
641	2.7	7260	0.33	2320	390	3	2	-	-	
722	2.4	7260	0.29	2320	390	2	3	-	-	
755	2.3	7260	0.28	2320	390	3	2	-	-	
858	2.0	7260	0.25	2320	390	3	2	-	-	
864	2.0	7260	0.24	2320	390	2	3	-	-	
970	1.8	7260	0.22	2320	390	3	2	-	-	
984	1.7	7260	0.21	2320	390	2	3	-	-	
1102	1.5	7260	0.19	2320	400	3	2	-	-	
1126	1.5	7260	0.19	2320	390	2	3	-	-	
1256	1.4	7260	0.17	2320	390	2	3	-	-	
1271	1.3	7260	0.17	2320	400	3	2	-	-	
1429	1.2	7260	0.15	2320	400	3	2	-	-	
1437	1.2	7260	0.15	2320	390	2	3	-	-	
1631	1.0	7260	0.13	2320	400	2	3	-	-	
1635	1.0	7260	0.13	2320	400	3	2	-	-	
1859	0.91	7260	0.11	2320	400	2	3	-	-	
1884	0.90	7260	0.11	2320	400	3	2	-	-	
2106	0.81	7260	0.10	2320	400	3	2	-	-	
2126	0.80	7260	0.10	2320	400	2	3	-	-	
2372	0.72	7260	0.09	2320	400	2	3	-	-	
2439	0.70	7260	0.09	2320	400	3	3	-	-	
2714	0.63	7260	0.08	2320	400	2	3	-	-	
2756	0.62	7260	0.08	2320	400	3	3	-	-	
2912	0.58	7260	0.07	2320	400	2	3	-	-	
3133	0.54	7260	0.07	2320	400	3	3	-	-	
3377	0.50	7260	0.06	2320	400	2	3	-	-	
3574	0.48	7260	0.06	2320	400	3	3	-	-	
4091	0.42	7260	0.05	2320	400	3	3	-	-	
4690	0.36	7260	0.05	2320	400	3	3	-	-	
5341	0.32	7260	0.04	2320	400	3	3	-	-	
6080	0.28	7260	0.04	2320	400	3	3	-	-	
7096	0.24	7260	0.03	2320	400	3	3	-	-	
7940	0.21	7260	0.03	2320	400	3	3	-	-	
8933	0.19	7260	0.02	2320	400	3	3	-	-	
10220	0.17	7260	0.02	2320	400	3	3	-	-	
11480	0.15	7260	0.02	2320	400	3	3	-	-	
12926	0.13	7260	0.02	2320	400	3	3	-	-	
14992	0.11	7260	0.01	2320	400	3	3	-	-	
17610	0.10	7260	0.01	2320	400	3	3	-	-	
19199	0.09	7260	0.01	2320	400	3	3	-	-	

F67R37



AD2

Weight [lbs]	Stages		AD1	AD2
	Large	Small		
F67R37	2	2	93	96
	2	3	94	96
	3	2	96	98
	3	3	96	99
FA67: -6 lb / FAF67: +8 lbs / FF67: +13 lbs				

9.2.8 F77

F77 AD.. , n _e = 1700 rpm										13280 lb-in		
i [ratio]	n _a [rpm]	T _{a max} [lb-in]	P _e [HP]	F _{Ra} ¹⁾ [lb]	F _{Re} [lb]	Stages		φ (/R) [']			F77	AD2
						Lg	Sm					
48.37	35	13280	7.7	3540	200	3	-	6	-			
55.27	31	13280	6.8	3540	210	3	-	6	-			
58.32	29	13280	6.4	3540	210	3	-	6	-			
66.46	26	13280	5.6	3540	220	3	-	6	-			
72.50	23	13280	5.2	3540	220	3	-	6	-			
75.02	23	13280	5.0	3540	290	3	-	6	-			
85.52	20	13280	4.4	3540	290	3	-	6	-			
94.93	18	13280	3.9	3540	300	3	-	5	-			
108.46	16	13280	3.5	3540	300	3	-	5	-			
114.45	15	13280	3.3	3540	310	3	-	5	-			
130.42	13	13280	2.9	3540	310	3	-	5	-			
142.27	12	13280	2.6	3540	310	3	-	5	-			
166.47	10	13280	2.3	3540	310	3	-	5	-			
188.40	9	13280	2.0	3540	320	3	-	5	-			
198.31	8.6	13280	1.9	3540	320	3	-	5	-			
225.79	7.5	13280	1.7	3540	320	3	-	5	-			
262.93	6.5	13280	1.4	3540	160	3	-	5	-			
281.71	6.0	13280	1.3	3540	160	3	-	5	-			
4.28	397	2880	18.7	2820	320	2	-	8	M2			
5.16	329	3270	17.6	2960	310	2	-	8	-			
5.76	295	3540	17.1	3040	300	2	-	8	-			
6.64	256	3850	16.1	3150	290	2	-	8	-			
7.39	230	4120	15.5	3240	280	2	-	7	-			
8.26	206	4380	14.7	3330	270	2	-	7	-			
9.30	183	4690	14.0	3430	250	2	-	7	-			
10.93	156	6990	17.8	3540	300	2	-	6	-			
12.20	139	7520	17.1	3630	290	2	-	5	-			
14.06	121	8140	16.1	3760	290	2	-	5	-			
15.64	109	8760	15.6	3850	280	2	-	5	-			
17.49	97	9290	14.8	3960	270	2	-	5	-			
19.70	86	9910	14.0	4000	250	2	-	5	-			
21.43	79	10440	13.5	3940	230	2	-	5	-			
25.50	67	11150	12.2	3850	210	2	-	5	-			
25.54	67	12830	14.2	3610	370	3	-	6	-			
28.75	59	10620	10.3	3920	260	2	-	5	-			
29.91	57	13280	12.5	3540	380	3	-	6	-			
31.51	54	9820	8.7	4010	310	2	-	5	-			
33.74	50	13280	11.1	3540	390	3	-	6	-			
36.58	46	9820	7.5	4010	310	2	-	5	-			
38.23	44	13280	9.8	3540	400	3	-	6	-			
43.58	39	13280	8.6	3540	410	3	-	6	-			
48.37	35	13280	7.7	3540	420	3	-	6	-			
55.27	31	13280	6.8	3540	430	3	-	6	-			
58.32	29	13280	6.4	3540	430	3	-	6	-			
66.46	26	13280	5.6	3540	440	3	-	6	-			
72.50	23	13280	5.2	3540	440	3	-	6	-			
75.02	23	13280	5.0	3540	500	3	-	6	-			
85.52	20	13280	4.4	3540	510	3	-	6	-			
94.93	18	13280	3.9	3540	510	3	-	5	-			
108.46	16	13280	3.5	3540	520	3	-	5	-			
114.45	15	13280	3.3	3540	520	3	-	5	-			
130.42	13	13280	2.9	3540	520	3	-	5	-			
142.27	12	13280	2.6	3540	520	3	-	5	-			
166.47	10	13280	2.3	3540	530	3	-	5	-			



F77 AD.. , n_e = 1700 rpm **13280 lb-in**

i [ratio]	n _a [rpm]	T _{a max} [lb-in]	P _e [HP]	F _{Ra} ¹⁾ [lb]	F _{Re} [lb]	Stages		φ _(/R) [']		
						Lg	Sm			
4.28	397	6990	45	2330	230	2	-	8	M1-6	F77 AD4
5.16	329	8320	45	2360	110	2	-	8	M1-6	
5.76	295	9380	45	2340	0	2	-	8	M1-6	
6.64	256	9560	40	2470	40	2	-	8	M1-6	
7.39	230	9560	36	2590	80	2	-	7	M1-6	
8.26	206	9560	32	2720	130	2	-	7	M1-6	
9.30	183	9560	29	2860	170	2	-	7	M1-6	
10.93	156	13280	34	2950	460	2	-	6	M1-6	
12.20	139	13280	30	3090	510	2	-	5	M1-6	
14.06	121	13280	26	3280	540	2	-	5	M1-6	
15.64	109	13280	24	3430	550	2	-	5	M2	
17.49	97	13280	21	3540	570	2	-	5	-	
19.70	86	13280	18.7	3540	580	2	-	5	-	
21.43	79	13280	17.2	3540	600	2	-	5	-	
25.50	67	13280	14.5	3540	610	2	-	5	-	
25.54	67	12830	14.2	3610	780	3	-	6	M2	
29.91	57	13280	12.5	3540	780	3	-	6	-	
33.74	50	13280	11.1	3540	790	3	-	6	-	
38.23	44	13280	9.8	3540	800	3	-	6	-	
43.58	39	13280	8.6	3540	810	3	-	6	-	
48.37	35	13280	7.7	3540	820	3	-	6	-	
55.27	31	13280	6.8	3540	830	3	-	6	-	
58.32	29	13280	6.4	3540	830	3	-	6	-	
75.02	23	13280	5.0	3540	890	3	-	6	-	
85.52	20	13280	4.4	3540	900	3	-	6	-	
94.93	18	13280	3.9	3540	900	3	-	5	-	
108.46	16	13280	3.5	3540	910	3	-	5	-	
114.45	15	13280	3.3	3540	910	3	-	5	-	

Weight [lbs]	Stages		AD2	AD3	AD4
	Large	Small			
F77	2	-	124	132	145
	3	-	127	135	148

FA77: -9 lb / FAF77: +6 lbs / FF77: +23 lbs



9.2.9 F77R37

F77R37 AD.. , n _e = 1700 rpm										13280 lb-in		
i [ratio]	n _a [rpm]	T _{a max} [lb-in]	P _e [HP]	F _{Ra} ¹⁾ [lb]	F _{Re} [lb]	Stages		φ (°/R) [']				
						Lg	Sm					
292	5.8	9820	0.96	4010	130	2	2	-	-			
323	5.3	12390	1.1	3680	70	3	2	-	-			
346	4.9	9820	0.81	4010	130	2	2	-	-			
367	4.6	13280	1.1	3540	100	3	2	-	-			
413	4.1	13280	0.94	3540	120	3	2	-	-			
433	3.9	9820	0.65	4010	140	2	2	-	-			
480	3.5	13280	0.80	3540	120	3	2	-	-			
538	3.2	13280	0.72	3540	130	3	2	-	-			
571	3.0	9820	0.49	4010	150	2	2	-	-			
615	2.8	13280	0.63	3540	140	3	2	-	-			
660	2.6	9820	0.43	4010	150	2	2	-	-			
710	2.4	13280	0.54	3540	160	3	2	-	-			
810	2.1	13280	0.48	3540	160	3	2	-	-			
893	1.9	9820	0.32	4010	160	2	3	-	-			
910	1.9	13280	0.42	3540	150	3	2	-	-			
1053	1.6	13280	0.37	3540	160	3	2	-	-			
1200	1.4	13280	0.32	3540	160	3	2	-	-			
1354	1.3	13280	0.29	3540	160	3	2	-	-			
1433	1.2	9820	0.20	4010	170	2	3	-	-			
1544	1.1	13280	0.25	3540	160	3	2	-	-			
1639	1.0	9820	0.17	4010	170	2	3	-	-			
1728	0.98	13280	0.22	3540	170	3	2	-	-			
1759	0.97	9820	0.16	4010	170	2	3	-	-			
2029	0.84	13280	0.19	3540	170	3	3	-	-			
2238	0.76	9820	0.13	4010	170	2	3	-	-			
2284	0.74	13280	0.17	3540	170	3	3	-	-			
2536	0.67	9820	0.11	4010	170	2	3	-	-			
2613	0.65	13280	0.15	3540	170	3	3	-	-			
2705	0.63	9820	0.11	4010	170	2	3	-	-			
2978	0.57	13280	0.13	3540	170	3	3	-	-			
3095	0.55	9820	0.09	4010	170	2	3	-	-			
3320	0.51	9820	0.09	4010	170	2	3	-	-			
3381	0.50	13280	0.12	3540	170	3	3	-	-			
3832	0.44	13280	0.10	3540	170	3	3	-	-			
4435	0.38	13280	0.09	3540	170	3	3	-	-			
4523	0.38	9820	0.06	4010	170	2	3	-	-			
4931	0.34	9820	0.06	4010	170	2	3	-	-			
5026	0.34	13280	0.08	3540	170	3	3	-	-			
5808	0.29	13280	0.07	3540	170	3	3	-	-			
6580	0.26	13280	0.06	3540	170	3	3	-	-			
7520	0.23	13280	0.05	3540	170	3	3	-	-			
8464	0.20	13280	0.05	3540	170	3	3	-	-			
9683	0.18	13280	0.04	3540	170	3	3	-	-			
11035	0.15	13280	0.04	3540	170	3	3	-	-			
12049	0.14	13280	0.03	3540	170	3	3	-	-			
13731	0.12	13280	0.03	3540	170	3	3	-	-			
14978	0.11	13280	0.03	3540	170	3	3	-	-			
16128	0.11	13280	0.02	3540	170	3	3	-	-			
17593	0.10	13280	0.02	3540	170	3	3	-	-			
19180	0.09	13280	0.02	3540	170	3	3	-	-			
199	8.5	13280	1.9	3540	350	3	2	-	-			
221	7.7	13280	1.7	3540	340	3	2	-	-			
247	6.9	13280	1.6	3540	270	3	2	-	-			
280	6.1	13280	1.4	3540	310	3	2	-	-			
292	5.8	9820	0.96	4010	370	2	2	-	-			
323	5.3	13280	1.2	3540	300	3	2	-	-			
346	4.9	9820	0.81	4010	380	2	2	-	-			
367	4.6	13280	1.1	3540	360	3	2	-	-			

F77R37 AD1

F77R37 AD2

F77R37 AD.. , n_e = 1700 rpm **13280 lb-in**

i [ratio]	n _a [rpm]	T _a max [lb-in]	P _e [HP]	F _{Ra} ¹⁾ [lb]	F _{Re} [lb]	Stages		φ ^(/R) [']		
						Lg	Sm			
413	4.1	13280	0.94	3540	370	3	2	-	-	
433	3.9	9820	0.65	4010	380	2	2	-	-	
480	3.5	13280	0.80	3540	370	3	2	-	-	
538	3.2	13280	0.72	3540	370	3	2	-	-	
571	3.0	9820	0.49	4010	380	2	2	-	-	
615	2.8	13280	0.63	3540	380	3	2	-	-	
660	2.6	9820	0.43	4010	380	2	2	-	-	
710	2.4	13280	0.54	3540	380	3	2	-	-	
810	2.1	13280	0.48	3540	390	3	2	-	-	
815	2.1	9820	0.35	4010	380	2	2	-	-	
893	1.9	9820	0.32	4010	390	2	3	-	-	
910	1.9	13280	0.42	3540	380	3	2	-	-	
1053	1.6	13280	0.37	3540	380	3	2	-	-	
1200	1.4	13280	0.32	3540	390	3	2	-	-	
1354	1.3	13280	0.29	3540	390	3	2	-	-	
1433	1.2	9820	0.20	4010	390	2	3	-	-	
1544	1.1	13280	0.25	3540	390	3	2	-	-	
1639	1.0	9820	0.17	4010	390	2	3	-	-	
1728	0.98	13280	0.22	3540	390	3	2	-	-	
1759	0.97	9820	0.16	4010	390	2	3	-	-	
2029	0.84	13280	0.19	3540	390	3	3	-	-	
2238	0.76	9820	0.13	4010	400	2	3	-	-	
2284	0.74	13280	0.17	3540	390	3	3	-	-	
2536	0.67	9820	0.11	4010	400	2	3	-	-	F77R37
2613	0.65	13280	0.15	3540	390	3	3	-	-	AD2
2705	0.63	9820	0.11	4010	400	2	3	-	-	
2978	0.57	13280	0.13	3540	400	3	3	-	-	
3095	0.55	9820	0.09	4010	400	2	3	-	-	
3320	0.51	9820	0.09	4010	400	2	3	-	-	
3381	0.50	13280	0.12	3540	400	3	3	-	-	
3832	0.44	13280	0.10	3540	400	3	3	-	-	
4435	0.38	13280	0.09	3540	400	3	3	-	-	
4523	0.38	9820	0.06	4010	400	2	3	-	-	
4931	0.34	9820	0.06	4010	400	2	3	-	-	
5026	0.34	13280	0.08	3540	400	3	3	-	-	
5808	0.29	13280	0.07	3540	400	3	3	-	-	
6580	0.26	13280	0.06	3540	400	3	3	-	-	
7520	0.23	13280	0.05	3540	400	3	3	-	-	
8464	0.20	13280	0.05	3540	400	3	3	-	-	
9683	0.18	13280	0.04	3540	400	3	3	-	-	
11035	0.15	13280	0.04	3540	400	3	3	-	-	
12049	0.14	13280	0.03	3540	400	3	3	-	-	
13731	0.12	13280	0.03	3540	400	3	3	-	-	
14978	0.11	13280	0.03	3540	400	3	3	-	-	
16128	0.11	13280	0.02	3540	400	3	3	-	-	
17593	0.10	13280	0.02	3540	400	3	3	-	-	
19180	0.09	13280	0.02	3540	400	3	3	-	-	



Weight [lbs]	Stages		AD1	AD2
	Large	Small		
F77R37	2	2	144	147
	2	3	145	147
	3	2	147	150
	3	3	148	150

FA77: -9 lb / FAF77: +6 lbs / FF77: +23 lbs



9 F - theSnuggler® Helical

F.. AD

9.2.10 F87

F87 AD.. , n _e = 1700 rpm										26550 lb-in		
i [ratio]	n _a [rpm]	T _{a max} [lb-in]	P _e [HP]	F _{Ra} ¹⁾ [lb]	F _{Re} [lb]	Stages		φ (°/R) [']			F87	AD
						Lg	Sm					
76.39	22	26550	9.8	4200	220	3	-	7	-			
88.01	19	26550	8.5	4450	230	3	-	7	-			
97.89	17	26550	7.7	4450	240	3	-	7	-			
109.49	16	26550	6.8	4450	250	3	-	7	-			
123.29	14	26550	6.1	4450	250	3	-	7	-			
134.16	13	26550	5.6	4450	260	3	-	7	-		F87	AD2
159.61	11	26550	4.7	4450	260	3	-	7	-			
179.97	9.4	26550	4.2	4450	270	3	-	7	-			
197.20	8.6	26550	3.8	4450	270	3	-	7	-			
228.93	7.4	26550	3.3	4450	270	3	-	7	-			
255.37	6.7	26550	2.9	4450	280	3	-	7	-			
270.68	6.3	26550	2.8	4450	280	3	-	7	-			
39.30	43	24070	17.3	3090	300	3	-	8	-			
45.28	38	24960	15.6	3270	310	3	-	8	-			
50.36	34	26020	14.6	3370	310	3	-	7	-			
56.75	30	26550	13.2	3560	400	3	-	7	-			
68.40	25	26550	11.0	3960	410	3	-	7	-			
76.39	22	26550	9.8	4200	420	3	-	7	-			
88.01	19	26550	8.5	4450	430	3	-	7	-			
97.89	17	26550	7.7	4450	440	3	-	7	-		F87	AD3
109.49	16	26550	6.8	4450	440	3	-	7	-			
123.29	14	26550	6.1	4450	450	3	-	7	-			
134.16	13	26550	5.6	4450	450	3	-	7	-			
159.61	11	26550	4.7	4450	460	3	-	7	-			
179.97	9.4	26550	4.2	4450	460	3	-	7	-			
197.20	8.6	26550	3.8	4450	460	3	-	7	-			
228.93	7.4	26550	3.3	4450	470	3	-	7	-			
23.68	72	23280	27	2320	340	2	-	7	-			
26.50	64	24340	26	2400	310	2	-	7	-			
28.78	59	21150	20	2840	510	2	-	7	-			
29.20	58	22210	21	2760	710	3	-	8	M2,5-6			
33.92	50	22660	18.6	2970	460	2	-	7	-			
35.19	48	23100	18.5	2990	730	3	-	8	-			
39.30	43	24070	17.3	3090	730	3	-	8	-			
45.28	38	24960	15.6	3270	730	3	-	8	-			
50.36	34	26020	14.6	3370	730	3	-	7	-		F87	AD4
56.75	30	26550	13.2	3560	820	3	-	7	-			
68.40	25	26550	11.0	3960	830	3	-	7	-			
76.39	22	26550	9.8	4200	840	3	-	7	-			
88.01	19	26550	8.5	4450	850	3	-	7	-			
97.89	17	26550	7.7	4450	850	3	-	7	-			
109.49	16	26550	6.8	4450	860	3	-	7	-			
123.29	14	26550	6.1	4450	860	3	-	7	-			
134.16	13	26550	5.6	4450	870	3	-	7	-			
159.61	11	26550	4.7	4450	870	3	-	7	-			


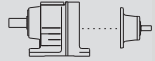
F87 AD.. , n_e = 1700 rpm 26550 lb-in

i [ratio]	n _a [rpm]	T _{a max} [lb-in]	P _e [HP]	F _{Ra} ¹⁾ [lb]	F _{Re} [lb]	Stages		φ _(/R) [']		
						Lg	Sm			
4.12	413	11150	75	1360	840	2	-	7	M1-6	F87 AD5
4.92	346	13360	75	1280	650	2	-	7	M1-6	
5.63	302	13540	67	1390	700	2	-	7	M1-6	
6.65	256	13540	57	1550	820	2	-	7	M1-6	
7.35	231	13540	51	1650	870	2	-	7	M1-6	
8.29	205	13540	45	1780	890	2	-	7	M1-6	
9.58	177	25490	74	910	850	2	-	7	M1-6	
11.46	148	26550	64	1010	880	2	-	7	M1-6	
13.12	130	26550	56	1180	920	2	-	7	M1-6	
15.48	110	26550	48	1390	970	2	-	7	M1-6	
17.12	99	26550	43	1530	990	2	-	7	M1-6	
19.31	88	26550	38	1700	1010	2	-	7	M1-6	
21.32	80	26550	35	1840	1030	2	-	7	-	
23.68	72	26550	31	2000	1040	2	-	7	-	
26.50	64	26550	28	2180	1060	2	-	7	-	
29.20	58	22210	21	2760	1380	3	-	8	M2,5-6	
35.19	48	23100	18.5	2990	1400	3	-	8	-	
39.30	43	24070	17.3	3090	1400	3	-	8	-	
45.28	38	24960	15.6	3270	1400	3	-	8	-	
50.36	34	26020	14.6	3370	1400	3	-	7	-	
56.75	30	26550	13.2	3560	1490	3	-	7	-	
68.40	25	26550	11.0	3960	1500	3	-	7	-	
76.39	22	26550	9.8	4200	1510	3	-	7	-	
88.01	19	26550	8.5	4450	1510	3	-	7	-	
97.89	17	26550	7.7	4450	1520	3	-	7	-	
109.49	16	26550	6.8	4450	1520	3	-	7	-	
123.29	14	26550	6.1	4450	1530	3	-	7	-	



Weight [lbs]	Stages		AD2	AD3	AD3	AD4
	Large	Small				
F87	2	-	211	220	234	267
	3	-	218	227	240	273

FA87: -13 lb / FAF87: +15 lbs / FF87: +34 lbs

9.2.11 F87R57

F87R57 AD.. , n _e = 1700 rpm										26550 lb-in		
i [ratio]	n _a [rpm]	T _a max [lb-in]	P _e [HP]	F _{Ra} ¹⁾ [lb]	F _{Re} [lb]	Stages		φ _(/R) [']			F87R57	AD2
						Lg	Sm					
193	8.8	26550	3.9	4450	270	2	2	-	-			
211	8.1	26550	3.6	4450	290	2	2	-	-			
240	7.1	26550	3.2	4450	300	2	2	-	-			
249	6.8	26550	3.1	4450	340	3	2	-	-			
281	6.0	26550	2.7	4450	330	2	2	-	-			
300	5.7	26550	2.6	4450	350	3	2	-	-			
315	5.4	26550	2.4	4450	330	2	2	-	-			
345	4.9	26550	2.2	4450	350	3	2	-	-			
350	4.9	26550	2.2	4450	340	2	2	-	-			
398	4.3	26550	1.9	4450	340	2	2	-	-			
452	3.8	26550	1.7	4450	350	3	2	-	-			
468	3.6	26550	1.6	4450	240	2	2	-	-			
515	3.3	26550	1.5	4450	330	3	2	-	-			
519	3.3	26550	1.5	4450	270	2	2	-	-			
592	2.9	26550	1.3	4450	280	2	2	-	-			
609	2.8	26550	1.3	4450	350	3	2	-	-			
662	2.6	26550	1.1	4450	300	2	2	-	-			
674	2.5	26550	1.1	4450	370	3	2	-	-			
748	2.3	26550	1.0	4450	370	2	3	-	-			
780	2.2	26550	0.99	4450	370	3	2	-	-			
883	1.9	26550	0.87	4450	370	2	3	-	-			
887	1.9	26550	0.87	4450	370	3	2	-	-			
988	1.7	26550	0.78	4450	380	2	3	-	-			
1010	1.7	26550	0.76	4450	380	3	2	-	-			
1142	1.5	26550	0.68	4450	380	2	3	-	-			
1148	1.5	26550	0.67	4450	380	3	2	-	-			
1278	1.3	26550	0.60	4450	380	2	3	-	-			
1300	1.3	26550	0.59	4450	380	3	2	-	-			
1476	1.2	26550	0.52	4450	380	2	3	-	-			
1493	1.1	26550	0.52	4450	380	3	2	-	-			
1709	1.0	26550	0.45	4450	380	3	2	-	-			
1717	1.0	26550	0.45	4450	390	2	3	-	-			
1913	1.0	26550	0.40	4450	390	2	3	-	-			
1930	0.88	26550	0.40	4450	390	3	2	-	-			
2134	0.80	26550	0.36	4450	390	2	3	-	-			
2199	0.77	26550	0.35	4450	390	3	2	-	-			
2524	0.67	26550	0.31	4450	390	2	3	-	-			
2576	0.66	26550	0.30	4450	390	3	2	-	-			
2857	0.60	26550	0.27	4450	390	2	3	-	-			
2881	0.59	26550	0.27	4450	390	3	2	-	-			
3196	0.53	26550	0.24	4450	390	2	3	-	-			
3244	0.52	26550	0.24	4450	390	3	2	-	-			
3503	0.49	26550	0.22	4450	390	2	3	-	-			
3721	0.46	26550	0.21	4450	400	3	3	-	-			
3919	0.43	26550	0.20	4450	390	2	3	-	-			
4245	0.40	26550	0.18	4450	390	3	3	-	-			
4562	0.37	26550	0.17	4450	390	2	3	-	-			
4952	0.34	26550	0.16	4450	390	2	3	-	-			
4954	0.34	26550	0.16	4450	390	3	3	-	-			
5510	0.31	26550	0.14	4450	400	3	3	-	-			
6273	0.27	26550	0.12	4450	400	3	3	-	-			
7100	0.24	26550	0.11	4450	400	3	3	-	-			
8142	0.21	26550	0.10	4450	400	3	3	-	-			
9381	0.18	26550	0.08	4450	400	3	3	-	-			
10433	0.16	26550	0.08	4450	400	3	3	-	-			
12205	0.14	26550	0.06	4450	400	3	3	-	-			
14099	0.12	26550	0.06	4450	400	3	3	-	-			
15877	0.11	26550	0.05	4450	400	3	3	-	-			



F87R57 AD.. , n_e = 1700 rpm 26550 lb-in

i [ratio]	n _a [rpm]	T _a max [lb-in]	P _e [HP]	F _{Ra} ¹⁾ [lb]	F _{Re} [lb]	Stages		φ _(/R) [']			
						Lg	Sm				
18238	0.09	26550	0.04	4450	400	3	3	-	-	F87R57	
20462	0.08	26550	0.04	4450	400	3	3	-	-		AD2
23042	0.07	26550	0.03	4450	400	3	3	-	-		
193	8.8	26550	3.9	4450	490	2	2	-	-	F87R57	
211	8.1	26550	3.6	4450	510	2	2	-	-		AD3
240	7.1	26550	3.2	4450	510	2	2	-	-		
249	6.8	26550	3.1	4450	550	3	2	-	-		
281	6.0	26550	2.7	4450	540	2	2	-	-		
300	5.7	26550	2.6	4450	560	3	2	-	-		
315	5.4	26550	2.4	4450	540	2	2	-	-		
345	4.9	26550	2.2	4450	560	3	2	-	-		
350	4.9	26550	2.2	4450	550	2	2	-	-		
398	4.3	26550	1.9	4450	550	2	2	-	-		
452	3.8	26550	1.7	4450	560	3	2	-	-		
468	3.6	26550	1.6	4450	550	2	2	-	-		
515	3.3	26550	1.5	4450	570	3	2	-	-		
519	3.3	26550	1.5	4450	560	2	2	-	-		
609	2.8	26550	1.3	4450	580	3	2	-	-		
674	2.5	26550	1.1	4450	580	3	2	-	-		
748	2.3	26550	1.0	4450	580	2	3	-	-		
780	2.2	26550	0.99	4450	580	3	2	-	-		
883	1.9	26550	0.87	4450	590	2	3	-	-		F87R57
887	1.9	26550	0.87	4450	580	3	2	-	-		AD3
988	1.7	26550	0.78	4450	590	2	3	-	-		
1010	1.7	26550	0.76	4450	590	3	2	-	-		
1142	1.5	26550	0.68	4450	590	2	3	-	-		
1148	1.5	26550	0.67	4450	590	3	2	-	-		
1278	1.3	26550	0.60	4450	590	2	3	-	-		
1300	1.3	26550	0.59	4450	600	3	2	-	-		
1717	0.99	26550	0.45	4450	600	2	3	-	-		
1913	0.89	26550	0.40	4450	600	2	3	-	-		
1930	0.88	26550	0.40	4450	600	3	2	-	-		
2134	0.80	26550	0.36	4450	600	2	3	-	-		
2524	0.67	26550	0.31	4450	600	2	3	-	-		
3721	0.46	26550	0.21	4450	610	3	3	-	-		
4245	0.40	26550	0.18	4450	610	3	3	-	-		
5510	0.31	26550	0.14	4450	610	3	3	-	-		
6273	0.27	26550	0.12	4450	610	3	3	-	-		
8142	0.21	26550	0.10	4450	610	3	3	-	-		
9381	0.18	26550	0.08	4450	610	3	3	-	-		
10433	0.16	26550	0.08	4450	610	3	3	-	-		



Weight [lbs]	Stages		AD2	AD3
	Large	Small		
F87R57	2	2	262	269
	2	3	265	271
	3	2	269	276
	3	3	271	278

FA87: -13 lb / FAF87: +15 lbs / FF87: +34 lbs

9.2.12 F97

F97 AD.. , n _e = 1700 rpm										38100 lb-in		
i [ratio]	n _a [rpm]	T _{a max} [lb-in]	P _e [HP]	F _{Ra} ¹⁾ [lb]	F _{Re} [lb]	Stages		φ (°/R) [']				
						Lg	Sm					
72.29	24	38100	14.9	6200	280	3	-	6	-			
75.63	22	38100	14.2	6350	380	3	-	6	-			
80.31	21	38100	13.4	6540	290	3	-	6	-			
86.59	20	38100	12.4	6720	390	3	-	6	-			
89.85	19	38100	12.0	6720	290	3	-	6	-			
97.58	17	38100	11.0	6720	300	3	-	6	-			
102.16	17	38100	10.5	6720	410	3	-	6	-			
112.99	15	38100	9.5	6720	410	3	-	6	-			
127.42	13	38100	8.4	6720	420	3	-	6	-			
140.71	12	38100	7.6	6720	430	3	-	6	-			
156.30	11	38100	6.9	6720	430	3	-	6	-			
174.87	9.7	38100	6.1	6720	440	3	-	6	-			
189.92	9.0	38100	5.7	6720	440	3	-	6	-			
223.88	7.6	38100	4.8	6720	440	3	-	6	-			
253.41	6.7	38100	4.2	6720	450	3	-	6	-			
276.77	6.1	38100	3.9	6720	450	3	-	6	-			
32.50	52	38100	33	3960	610	3	-	6	M1-6			
33.91	50	31330	26	4660	320	2	-	6	-			
36.64	46	27170	21	5230	500	2	-	6	-			
38.86	44	38100	28	4410	640	3	-	6	M2,5-6			
43.28	39	27170	17.5	5660	530	2	-	6	-			
44.49	38	38100	24	4770	660	3	-	6	-			
52.49	32	38100	20	5230	680	3	-	6	-			
58.06	29	38100	18.5	5530	690	3	-	6	-			
65.47	26	38100	16.4	5890	700	3	-	6	-			
72.29	24	38100	14.9	6200	710	3	-	6	-			
75.63	22	38100	14.2	6350	810	3	-	6	-			
80.31	21	38100	13.4	6540	720	3	-	6	-			
86.59	20	38100	12.4	6720	820	3	-	6	-			
89.85	19	38100	12.0	6720	720	3	-	6	-			
97.58	17	38100	11.0	6720	730	3	-	6	-			
102.16	17	38100	10.5	6720	830	3	-	6	-			
112.99	15	38100	9.5	6720	830	3	-	6	-			
127.42	13	38100	8.4	6720	840	3	-	6	-			
140.71	12	38100	7.6	6720	840	3	-	6	-			
156.30	11	38100	6.9	6720	850	3	-	6	-			
174.87	9.7	38100	6.1	6720	850	3	-	6	-			
189.92	9.0	38100	5.7	6720	860	3	-	6	-			
223.88	7.6	38100	4.8	6720	860	3	-	6	-			
3.87	439	10440	75	2560	970	2	-	9	M1-6			
4.57	372	12390	75	2570	890	2	-	9	M1-6			
5.23	325	14160	75	2560	840	2	-	9	M1-6			
6.17	276	16730	75	2530	650	2	-	9	M1-6			
7.07	240	17790	70	2610	610	2	-	9	M1-6			
8.22	207	19030	64	2720	570	2	-	9	M1-6			
9.06	188	19820	61	2790	540	2	-	9	M1-6			
11.16	152	30270	75	2450	890	2	-	6	M1-6			
12.77	133	34690	76	2290	830	2	-	6	M1-6			
15.06	113	38100	70	2300	780	2	-	6	M1-6			
17.25	99	38100	61	2560	850	2	-	6	M1-6			
20.07	85	38100	53	2870	890	2	-	6	M1-6			
22.11	77	38100	48	3070	920	2	-	6	M2			
24.92	68	38100	42	3340	940	2	-	6	-			
27.44	62	38100	39	3560	960	2	-	6	-			
30.39	56	38100	35	3800	980	2	-	6	-			



F97 AD.. , n_e = 1700 rpm 38100 lb-in

i [ratio]	n _a [rpm]	T _{a max} [lb-in]	P _e [HP]	F _{Ra} ¹⁾ [lb]	F _{Re} [lb]	Stages		φ (°/R) [']		
						Lg	Sm			
32.50	52	38100	33	3960	1290	3	-	6	M1-6	F97 AD5
33.91	50	38100	31	4060	1000	2	-	6	-	
38.86	44	38100	28	4410	1320	3	-	6	M2,5-6	
44.49	38	38100	24	4770	1330	3	-	6	-	
52.49	32	38100	20	5230	1350	3	-	6	-	
58.06	29	38100	18.5	5530	1360	3	-	6	-	
65.47	26	38100	16.4	5890	1370	3	-	6	-	
72.29	24	38100	14.9	6200	1380	3	-	6	-	
75.63	22	38100	14.2	6350	1480	3	-	6	-	
80.31	21	38100	13.4	6540	1390	3	-	6	-	
86.59	20	38100	12.4	6720	1490	3	-	6	-	
89.85	19	38100	12.0	6720	1390	3	-	6	-	
102.16	17	38100	10.5	6720	1500	3	-	6	-	
112.99	15	38100	9.5	6720	1500	3	-	6	-	
127.42	13	38100	8.4	6720	1510	3	-	6	-	
140.71	12	38100	7.6	6720	1510	3	-	6	-	
156.30	11	38100	6.9	6720	1510	3	-	6	-	
174.87	9.7	38100	6.1	6720	1520	3	-	6	-	
3.87	439	12660	91	2330	1450	2	-	9	M1-6	F97 AD6
4.57	372	14960	91	2310	1370	2	-	9	M1-6	
5.23	325	17080	91	2270	1310	2	-	9	M1-6	
6.17	276	19910	90	2200	1130	2	-	9	M1-6	
7.07	240	20890	82	2300	1110	2	-	9	M1-6	
8.22	207	20890	71	2530	1220	2	-	9	M1-6	
9.06	188	20890	64	2680	1280	2	-	9	M1-6	
11.16	152	36290	90	1910	1380	2	-	6	M1-6	
12.77	133	38100	83	1990	1390	2	-	6	M1-6	
15.06	113	38100	70	2300	1440	2	-	6	M1-6	
17.25	99	38100	61	2560	1480	2	-	6	M1-6	
20.07	85	38100	53	2870	1520	2	-	6	M1-6	
22.11	77	38100	48	3070	1540	2	-	6	M2	
24.92	68	38100	42	3340	1560	2	-	6	-	
27.44	62	38100	39	3560	1570	2	-	6	-	
32.50	52	38100	33	3960	1890	3	-	6	M1-6	
38.86	44	38100	28	4410	1910	3	-	6	M2,5-6	
44.49	38	38100	24	4770	1930	3	-	6	-	
52.49	32	38100	20	5230	1950	3	-	6	-	
58.06	29	38100	18.5	5530	1960	3	-	6	-	
65.47	26	38100	16.4	5890	1970	3	-	6	-	
72.29	24	38100	14.9	6200	1970	3	-	6	-	
75.63	22	38100	14.2	6350	2060	3	-	6	-	
86.59	20	38100	12.4	6720	2070	3	-	6	-	
102.16	17	38100	10.5	6720	2080	3	-	6	-	
112.99	15	38100	9.5	6720	2090	3	-	6	-	
127.42	13	38100	8.4	6720	2090	3	-	6	-	
140.71	12	38100	7.6	6720	2090	3	-	6	-	



Weight [lbs]	Stages		AD3	AD4	AD5	AD6
	Large	Small				
F97	2	-	360	371	408	438
	3	-	373	385	421	451

FA97: -17 lb / FAF97: +31 lbs / FF97: +72 lbs

9.2.13 F97R57

F97R57 AD.. , n _e = 1700 rpm										38100 lb-in
i [ratio]	n _a [rpm]	T _{a max} [lb-in]	P _e [HP]	F _{Ra} ¹⁾ [lb]	F _{Re} [lb]	Stages		φ _(/R) [']		
						Lg	Sm			
195	8.7	38100	5.7	6720	280	3	2	-	-	
208	8.2	38100	5.3	6720	260	3	2	-	-	
242	7.0	38100	4.5	6720	270	2	2	-	-	
275	6.2	38100	4.0	6720	270	2	2	-	-	
285	6.0	38100	3.9	6720	300	3	2	-	-	
317	5.4	38100	3.4	6720	320	2	2	-	-	
361	4.7	38100	3.0	6720	320	2	2	-	-	
403	4.2	38100	2.7	6720	330	2	2	-	-	
406	4.2	38100	2.7	6720	340	3	2	-	-	
467	3.6	38100	2.4	6720	340	3	2	-	-	
473	3.6	38100	2.3	6720	340	2	2	-	-	
510	3.3	38100	2.1	6720	330	2	2	-	-	
529	3.2	38100	2.1	6720	350	3	2	-	-	
569	3.0	38100	1.9	6720	340	2	2	-	-	
605	2.8	38100	1.8	6720	350	3	2	-	-	
667	2.5	38100	1.6	6720	340	2	2	-	-	
690	2.5	38100	1.6	6720	330	3	2	-	-	
760	2.2	38100	1.4	6720	250	2	2	-	-	
784	2.2	38100	1.4	6720	310	3	2	-	-	
892	1.9	38100	1.2	6720	280	2	2	-	-	
898	1.9	38100	1.2	6720	370	3	2	-	-	
1022	1.7	38100	1.1	6720	300	3	2	-	-	
1023	1.7	38100	1.1	6720	370	2	3	-	-	
1171	1.5	38100	0.95	6720	330	3	2	-	-	
1189	1.4	38100	0.93	6720	370	2	3	-	-	
1316	1.3	38100	0.84	6720	370	2	3	-	-	
1327	1.3	38100	0.83	6720	380	3	2	-	-	
1468	1.2	38100	0.75	6720	380	2	3	-	-	
1527	1.1	38100	0.73	6720	370	3	2	-	-	F97R57
1722	0.99	38100	0.64	6720	370	3	2	-	-	AD2
1741	0.98	38100	0.64	6720	380	2	3	-	-	
1970	0.86	38100	0.56	6720	380	3	2	-	-	
1971	0.86	38100	0.56	6720	380	2	3	-	-	
2199	0.77	38100	0.50	6720	380	2	3	-	-	
2245	0.76	38100	0.49	6720	380	3	2	-	-	
2448	0.69	38100	0.45	6720	390	2	3	-	-	
2553	0.67	38100	0.43	6720	380	3	2	-	-	
2907	0.58	38100	0.38	6720	390	3	2	-	-	
3009	0.56	38100	0.37	6720	390	2	3	-	-	
3352	0.51	38100	0.33	6720	390	3	2	-	-	
3357	0.51	38100	0.33	6720	390	2	3	-	-	
3906	0.44	38100	0.28	6720	390	3	2	-	-	
3914	0.43	38100	0.28	6720	390	2	3	-	-	
4333	0.39	38100	0.26	6720	390	3	3	-	-	
4367	0.39	38100	0.25	6720	390	2	3	-	-	
4961	0.34	38100	0.23	6720	390	3	3	-	-	
5016	0.34	38100	0.22	6720	390	2	3	-	-	
5615	0.30	38100	0.20	6720	390	3	3	-	-	
5680	0.30	38100	0.19	6720	390	2	3	-	-	
6338	0.27	38100	0.17	6720	390	2	3	-	-	
6469	0.26	38100	0.17	6720	400	3	3	-	-	
7328	0.23	38100	0.15	6720	390	3	3	-	-	
8318	0.20	38100	0.14	6720	400	3	3	-	-	
9576	0.18	38100	0.12	6720	400	3	3	-	-	
10838	0.16	38100	0.10	6720	400	3	3	-	-	
12324	0.14	38100	0.09	6720	400	3	3	-	-	
14022	0.12	38100	0.08	6720	400	3	3	-	-	



F97R57 AD.. , n_e = 1700 rpm 38100 lb-in

i [ratio]	n _a [rpm]	T _a max [lb-in]	P _e [HP]	F _{Ra} ¹⁾ [lb]	F _{Re} [lb]	Stages		φ ^(/R) [']		
						Lg	Sm			
15472	0.11	38100	0.07	6720	400	3	3	-	-	F97R57 AD2
18119	0.09	38100	0.06	6720	400	3	3	-	-	
20813	0.08	38100	0.05	6720	400	3	3	-	-	
23814	0.07	38100	0.05	6720	400	3	3	-	-	
26911	0.06	38100	0.04	6720	400	3	3	-	-	
29211	0.06	38100	0.04	6720	400	3	3	-	-	
195	8.7	38100	5.7	6720	500	3	2	-	-	F97R57 AD3
208	8.2	38100	5.3	6720	480	3	2	-	-	
242	7.0	38100	4.5	6720	480	2	2	-	-	
275	6.2	38100	4.0	6720	490	2	2	-	-	
285	6.0	38100	3.9	6720	510	3	2	-	-	
317	5.4	38100	3.4	6720	540	2	2	-	-	
361	4.7	38100	3.0	6720	540	2	2	-	-	
403	4.2	38100	2.7	6720	540	2	2	-	-	
406	4.2	38100	2.7	6720	550	3	2	-	-	
467	3.6	38100	2.4	6720	560	3	2	-	-	
473	3.6	38100	2.3	6720	550	2	2	-	-	
510	3.3	38100	2.1	6720	540	2	2	-	-	
529	3.2	38100	2.1	6720	560	3	2	-	-	
569	3.0	38100	1.9	6720	550	2	2	-	-	
605	2.8	38100	1.8	6720	560	3	2	-	-	
667	2.5	38100	1.6	6720	550	2	2	-	-	
690	2.5	38100	1.6	6720	570	3	2	-	-	
784	2.2	38100	1.4	6720	570	3	2	-	-	
898	1.9	38100	1.2	6720	580	3	2	-	-	
1023	1.7	38100	1.1	6720	580	2	3	-	-	
1189	1.4	38100	0.93	6720	590	2	3	-	-	
1316	1.3	38100	0.84	6720	590	2	3	-	-	
1327	1.3	38100	0.83	6720	590	3	2	-	-	
1468	1.2	38100	0.75	6720	590	2	3	-	-	
1741	0.98	38100	0.64	6720	590	2	3	-	-	
1970	0.86	38100	0.56	6720	590	3	2	-	-	
2448	0.69	38100	0.45	6720	600	2	3	-	-	
2907	0.58	38100	0.38	6720	600	3	2	-	-	
4333	0.39	38100	0.26	6720	600	3	3	-	-	
4961	0.34	38100	0.23	6720	600	3	3	-	-	
6469	0.26	38100	0.17	6720	610	3	3	-	-	
9576	0.18	38100	0.12	6720	610	3	3	-	-	
14022	0.12	38100	0.08	6720	610	3	3	-	-	



Weight [lbs]	Stages		AD2	AD3
	Large	Small		
F97R57	2	2	404	411
	2	3	406	413
	3	2	417	424
	3	3	419	426

FA97: -17 lb / FAF97: +31 lbs / FF97: +72 lbs

9.2.14 F107

F107 AD.. , n _e = 1700 rpm										69400 lb-in	
i [ratio]	n _a [rpm]	T _{a max} [lb-in]	P _e [HP]	F _{Ra} ¹⁾ [lb]	F _{Re} [lb]	Stages		φ (/R) [']			
						Lg	Sm				
117.94	14	67970	16.3	11200	320	3	-	5	-	F107	AD3
129.97	13	67970	14.8	11200	330	3	-	5	-		
146.49	12	67970	13.1	11200	340	3	-	5	-		
161.28	11	67970	11.9	11200	350	3	-	5	-		
178.64	9.5	67970	10.7	11200	360	3	-	5	-		
199.31	8.5	67970	9.6	11200	370	3	-	5	-		
215.37	7.9	67970	8.9	11200	370	3	-	5	-		
254.40	6.7	67970	7.5	11200	380	3	-	5	-		
50.73	34	67970	38	9310	530	3	-	6	M2-6	F107	AD4
58.12	29	67970	33	9890	550	3	-	6	M2,5-6		
67.62	25	67970	28	10560	580	3	-	6	-		
74.52	23	67970	26	11010	590	3	-	6	-		
83.99	20	67970	23	11200	600	3	-	6	-		
88.49	19	67970	22	11200	720	3	-	5	M2		
92.47	18	67970	21	11200	610	3	-	6	-		
101.38	17	67970	18.9	11200	740	3	-	5	-		
117.94	14	67970	16.3	11200	750	3	-	5	-		
129.97	13	67970	14.8	11200	760	3	-	5	-		
146.49	12	67970	13.1	11200	770	3	-	5	-		
161.28	11	67970	11.9	11200	770	3	-	5	-		
178.64	9.5	67970	10.7	11200	780	3	-	5	-		
199.31	8.5	67970	9.6	11200	790	3	-	5	-		
215.37	7.9	67970	8.9	11200	790	3	-	5	-		
254.40	6.7	67970	7.5	11200	800	3	-	5	-		
31.80	53	67970	60	7400	1110	3	-	6	M1-6	F107	AD5
33.79	50	64520	53	7950	490	2	-	5	-		
37.61	45	67970	51	8110	1150	3	-	6	M1-6		
43.03	40	67970	45	8640	1180	3	-	6	M1-6		
50.73	34	67970	38	9310	1210	3	-	6	M2-6		
58.12	29	67970	33	9890	1230	3	-	6	M2,5-6		
67.62	25	67970	28	10560	1250	3	-	6	-		
74.52	23	67970	26	11010	1260	3	-	6	-		
83.99	20	67970	23	11200	1280	3	-	6	-		
88.49	19	67970	22	11200	1400	3	-	5	M2		
92.47	18	67970	21	11200	1290	3	-	6	-		
101.38	17	67970	18.9	11200	1410	3	-	5	-		
117.94	14	67970	16.3	11200	1420	3	-	5	-		
129.97	13	67970	14.8	11200	1430	3	-	5	-		
146.49	12	67970	13.1	11200	1430	3	-	5	-		
161.28	11	67970	11.9	11200	1440	3	-	5	-		
178.64	9.5	67970	10.7	11200	1450	3	-	5	-		
199.31	8.5	67970	9.6	11200	1450	3	-	5	-		



F107 AD.. , n_e = 1700 rpm 69400 lb-in



i [ratio]	n _a [rpm]	T _{a max} [lb-in]	P _e [HP]	F _{Ra} ¹⁾ [lb]	F _{Re} [lb]	Stages		φ (°/R) [']		
						Lg	Sm			
5.03	338	17880	99	5610	1470	2	-	7	M1-6	F107 AD6
6.22	273	20270	91	5890	1460	2	-	7	M1-6	
7.40	230	24160	91	6000	1370	2	-	7	M1-6	
8.37	203	27350	91	6050	1310	2	-	7	M1-6	
9.69	175	31680	91	6060	1090	2	-	7	M1-6	
9.96	171	35400	99	6140	1470	2	-	5	M1-6	
12.33	138	40180	91	6380	1460	2	-	5	M1-6	
14.67	116	47880	91	6340	1370	2	-	5	M1-6	
16.58	103	54160	91	6260	1310	2	-	5	M1-6	
19.20	89	62750	91	5910	1090	2	-	5	M1-6	
21.76	78	69400	89	5670	920	2	-	5	M1-6	
25.14	68	69400	77	6260	1020	2	-	5	M1-6	
27.57	62	69400	70	6640	1070	2	-	5	M1-6	
31.80	53	67970	60	7400	1720	3	-	6	M1-6	
33.79	50	65490	54	7880	1300	2	-	5	-	
37.61	45	67970	51	8110	1760	3	-	6	M1-6	
43.03	40	67970	45	8640	1780	3	-	6	M1-6	
50.73	34	67970	38	9310	1810	3	-	6	M2-6	
58.12	29	67970	33	9890	1830	3	-	6	M2,5-6	
67.62	25	67970	28	10560	1850	3	-	6	-	
74.52	23	67970	26	11010	1860	3	-	6	-	
83.99	20	67970	23	11200	1870	3	-	6	-	
88.49	19	67970	22	11200	1990	3	-	5	M2	
92.47	18	67970	21	11200	1880	3	-	6	-	
101.38	17	67970	18.9	11200	2000	3	-	5	-	
117.94	14	67970	16.3	11200	2010	3	-	5	-	
129.97	13	67970	14.8	11200	2020	3	-	5	-	
146.49	12	67970	13.1	11200	2020	3	-	5	-	
161.28	11	67970	11.9	11200	2030	3	-	5	-	

Weight [lbs]	Stages		AD3	AD4	AD5	AD6
	Large	Small				
F107	2	-	538	552	581	612
	3	-	560	574	603	633

FA107: -37 lb / FAF107: +10 lbs / FF107: +60 lbs

9.2.15 F107R57

F107R57 AD.. , n _e = 1700 rpm										69400 lb-in		
i [ratio]	n _a [rpm]	T _a max [lb-in]	P _e [HP]	F _{RA} ¹⁾ [lb]	F _{Re} [lb]	Stages		φ (/R) [']			F107R77	AD2
						Lg	Sm					
190	8.9	60530	9.3	11690	210	3	2	-	-			
225	7.6	67970	8.8	11200	220	3	2	-	-			
255	6.7	67970	7.8	11200	230	3	2	-	-			
266	6.4	69400	7.5	11100	250	2	2	-	-			
291	5.8	67970	6.8	11200	240	3	2	-	-			
300	5.7	69400	6.6	11100	260	2	2	-	-			
333	5.1	67970	5.9	11200	260	3	2	-	-			
340	5	69400	5.8	11100	270	2	2	-	-			
370	4.6	67970	5.3	11200	260	3	2	-	-			
387	4.4	69400	5.1	11100	280	2	2	-	-			
430	4	69400	4.6	11100	280	2	2	-	-			
436	3.9	67970	4.5	11200	280	3	2	-	-			
491	3.5	69400	4.0	11100	290	2	2	-	-			
518	3.3	69400	3.8	11100	290	2	2	-	-			
560	3	67970	3.5	11200	330	3	2	-	-			
591	2.9	69400	3.4	11100	290	2	2	-	-			
640	2.7	67970	3.1	11200	320	3	2	-	-			
644	2.6	69400	3.1	11100	300	2	2	-	-			
696	2.4	69400	2.9	11100	340	2	3	-	-			
736	2.3	67970	2.7	11200	340	3	2	-	-			
800	2.1	69400	2.5	11100	350	2	3	-	-			
834	2	67970	2.4	11200	350	3	2	-	-			
923	1.8	69400	2.2	11100	350	2	3	-	-			
950	1.8	67970	2.1	11200	350	3	2	-	-			
1015	1.7	69400	2.0	11100	350	2	3	-	-			
1087	1.6	67970	1.8	11200	340	3	2	-	-			
1193	1.4	69400	1.7	11100	360	2	3	-	-			
1243	1.4	67970	1.6	11200	360	3	2	-	-			
1263	1.3	69400	1.6	11100	310	2	3	-	-			
1401	1.2	67970	1.4	11200	330	3	2	-	-			
1436	1.2	69400	1.4	11100	320	2	3	-	-			
1590	1.1	69400	1.3	11100	320	2	3	-	-			
1597	1.1	67970	1.2	11200	340	3	2	-	-			
1813	0.94	69400	1.1	11100	370	2	3	-	-			
1826	0.93	67970	1.1	11200	370	3	2	-	-			
2068	0.82	67970	0.96	11200	360	3	2	-	-			
2129	0.8	69400	0.95	11100	380	2	3	-	-			
2255	0.75	69400	0.90	11100	380	2	3	-	-			
2369	0.72	67970	0.83	11200	370	3	2	-	-			
2563	0.66	69400	0.79	11100	380	2	3	-	-			
2756	0.62	67970	0.72	11200	380	3	2	-	-			
2839	0.6	69400	0.71	11100	380	2	3	-	-			
3037	0.56	67970	0.65	11200	380	3	2	-	-			
3347	0.51	69400	0.60	11100	380	2	3	-	-			
3521	0.48	67970	0.57	11200	380	3	3	-	-			
3815	0.45	69400	0.53	11100	380	2	3	-	-			
3948	0.43	67970	0.51	11200	390	3	3	-	-			
4016	0.42	69400	0.50	11100	380	2	3	-	-			
4567	0.37	67970	0.44	11200	380	3	3	-	-			
4593	0.37	69400	0.44	11100	380	2	3	-	-			
5223	0.33	67970	0.38	11200	390	3	3	-	-			
5383	0.32	69400	0.37	11100	380	2	3	-	-			
5954	0.29	67970	0.34	11200	390	3	3	-	-			
6767	0.25	67970	0.30	11200	390	3	3	-	-			
7674	0.22	67970	0.26	11200	390	3	3	-	-			
8548	0.2	67970	0.23	11200	390	3	3	-	-			
10039	0.17	67970	0.20	11200	400	3	3	-	-			
11348	0.15	67970	0.18	11200	390	3	3	-	-			
14767	0.12	67970	0.14	11200	390	3	3	-	-			



F107R57 AD.. , n _e = 1700 rpm										69400 lb-in	
i [ratio]	n _a [rpm]	T _a max [lb-in]	P _e [HP]	F _{Ra} ¹⁾ [lb]	F _{Re} [lb]	Stages		φ ^(/R) [']			
						Lg	Sm				
16888	0.1	67970	0.12	11200	390	3	3	-	-		
18933	0.09	67970	0.11	11200	400	3	3	-	-		
21652	0.08	67970	0.09	11200	400	3	3	-	-		F107R77 AD2
25375	0.07	67970	0.08	11200	400	3	3	-	-		
190	8.9	67970	10.4	11200	410	3	2	-	-		
225	7.6	67970	8.8	11200	440	3	2	-	-		
255	6.7	67970	7.8	11200	450	3	2	-	-		
266	6.4	69400	7.5	11100	470	2	2	-	-		
291	5.8	67970	6.8	11200	450	3	2	-	-		
300	5.7	69400	6.6	11100	480	2	2	-	-		
333	5.1	67970	5.9	11200	470	3	2	-	-		
340	5	69400	5.8	11100	490	2	2	-	-		
370	4.6	67970	5.3	11200	480	3	2	-	-		
387	4.4	69400	5.1	11100	490	2	2	-	-		
430	4	69400	4.6	11100	500	2	2	-	-		
436	3.9	67970	4.5	11200	500	3	2	-	-		
491	3.5	69400	4.0	11100	500	2	2	-	-		
518	3.3	69400	3.8	11100	500	2	2	-	-		
560	3	67970	3.5	11200	550	3	2	-	-		
591	2.9	69400	3.4	11100	510	2	2	-	-		
640	2.7	67970	3.1	11200	540	3	2	-	-		
644	2.6	69400	3.1	11100	510	2	2	-	-		
696	2.4	69400	2.9	11100	560	2	3	-	-		
736	2.3	67970	2.7	11200	560	3	2	-	-		
800	2.1	69400	2.5	11100	560	2	3	-	-		
834	2	67970	2.4	11200	560	3	2	-	-		
923	1.8	69400	2.2	11100	560	2	3	-	-		
950	1.8	67970	2.1	11200	560	3	2	-	-		
1015	1.7	69400	2.0	11100	560	2	3	-	-		
1087	1.6	67970	1.8	11200	560	3	2	-	-		
1193	1.4	69400	1.7	11100	570	2	3	-	-		F107R77 AD3
1243	1.4	67970	1.6	11200	580	3	2	-	-		
1263	1.3	69400	1.6	11100	570	2	3	-	-		
1401	1.2	67970	1.4	11200	570	3	2	-	-		
1436	1.2	69400	1.4	11100	570	2	3	-	-		
1590	1.1	69400	1.3	11100	570	2	3	-	-		
1597	1.1	67970	1.2	11200	570	3	2	-	-		
1813	0.94	69400	1.1	11100	590	2	3	-	-		
1826	0.93	67970	1.1	11200	590	3	2	-	-		
2068	0.82	67970	0.96	11200	580	3	2	-	-		
2129	0.8	69400	0.95	11100	590	2	3	-	-		
2255	0.75	69400	0.90	11100	590	2	3	-	-		
2369	0.72	67970	0.83	11200	580	3	2	-	-		
2563	0.66	69400	0.79	11100	590	2	3	-	-		
2756	0.62	67970	0.72	11200	590	3	2	-	-		
2839	0.6	69400	0.71	11100	590	2	3	-	-		
3037	0.56	67970	0.65	11200	590	3	2	-	-		
3347	0.51	69400	0.60	11100	590	2	3	-	-		
3521	0.48	67970	0.57	11200	600	3	3	-	-		
3948	0.43	67970	0.51	11200	600	3	3	-	-		
4567	0.37	67970	0.44	11200	600	3	3	-	-		
5223	0.33	67970	0.38	11200	600	3	3	-	-		
5954	0.29	67970	0.34	11200	600	3	3	-	-		
6767	0.25	67970	0.30	11200	600	3	3	-	-		
7674	0.22	67970	0.26	11200	600	3	3	-	-		
8548	0.2	67970	0.23	11200	610	3	3	-	-		
10039	0.17	67970	0.20	11200	610	3	3	-	-		

9 F - theSnuggler® Helical

F.. AD

F107R57 AD.. , $n_e = 1700$ rpm



69400 lb-in

i [ratio]	n_a [rpm]	T_a max [lb-in]	P_e [HP]	$F_{Ra}^{1)}$ [lb]	F_{Re} [lb]	Stages		ϕ (°/R) [']		
						Lg	Sm			
190	8.9	67970	10.4	11200	810	3	2	-	-	
225	7.6	67970	8.8	11200	830	3	2	-	-	
255	6.7	67970	7.8	11200	840	3	2	-	-	
266	6.4	69400	7.5	11100	870	2	2	-	-	
291	5.8	67970	6.8	11200	850	3	2	-	-	
300	5.7	69400	6.6	11100	870	2	2	-	-	
333	5.1	67970	5.9	11200	870	3	2	-	-	
340	5	69400	5.8	11100	880	2	2	-	-	
370	4.6	67970	5.3	11200	870	3	2	-	-	
387	4.4	69400	5.1	11100	880	2	2	-	-	
430	4	69400	4.6	11100	890	2	2	-	-	
436	3.9	67970	4.5	11200	890	3	2	-	-	
491	3.5	69400	4.0	11100	890	2	2	-	-	
518	3.3	69400	3.8	11100	890	2	2	-	-	
560	3	67970	3.5	11200	930	3	2	-	-	
640	2.7	67970	3.1	11200	920	3	2	-	-	
696	2.4	69400	2.9	11100	940	2	3	-	-	
736	2.3	67970	2.7	11200	940	3	2	-	-	
800	2.1	69400	2.5	11100	940	2	3	-	-	F107R77
834	2	67970	2.4	11200	940	3	2	-	-	AD4
923	1.8	69400	2.2	11100	940	2	3	-	-	
950	1.8	67970	2.1	11200	940	3	2	-	-	
1015	1.7	69400	2.0	11100	950	2	3	-	-	
1193	1.4	69400	1.7	11100	950	2	3	-	-	
1243	1.4	67970	1.6	11200	950	3	2	-	-	
1263	1.3	69400	1.6	11100	950	2	3	-	-	
1401	1.2	67970	1.4	11200	950	3	2	-	-	
1813	0.94	69400	1.1	11100	960	2	3	-	-	
1826	0.93	67970	1.1	11200	960	3	2	-	-	
2129	0.8	69400	0.95	11100	970	2	3	-	-	
2255	0.75	69400	0.90	11100	970	2	3	-	-	
3948	0.43	67970	0.51	11200	980	3	3	-	-	
5223	0.33	67970	0.38	11200	980	3	3	-	-	
5954	0.29	67970	0.34	11200	980	3	3	-	-	
8548	0.2	67970	0.23	11200	980	3	3	-	-	
10039	0.17	67970	0.20	11200	980	3	3	-	-	

Weight [lbs]	Stages		AD2	AD3	AD4
	Large	Small			
F107R77	2	2	613	621	634
	2	3	616	623	636
	3	2	635	642	656
	3	3	637	645	658

FA107: -37 lb / FAF107: +10 lbs / FF107: +60 lbs

9.2.16 F127



F127 AD.. , n _e = 1700 rpm										106200 lb-in		
i [ratio]	n _a [rpm]	T _a max [lb-in]	P _e [HP]	F _{Ra} ¹⁾ [lb]	F _{Re} [lb]	Stages		φ (/R) [']			F127	AD
						Lg	Sm					
75.41	23	106200	40	15410	530	3	-	5	M2,5-6	F127	AD4	
87.31	19	106200	34	16390	560	3	-	5	M2			
98.95	17	106200	30	17250	580	3	-	5	-			
114.34	15	106200	26	18300	600	3	-	5	-			
125.37	14	106200	24	18990	610	3	-	5	-			
153.67	11	106200	19.5	20230	640	3	-	5	-			
170.83	10	106200	17.5	20230	640	3	-	5	-			
42.15	40	106200	71	11500	880	3	-	5	M1-6	F127	AD5	
48.80	35	106200	61	12460	920	3	-	5	M1-6			
55.31	31	106200	54	13300	950	3	-	5	M2-3,5-6			
63.91	27	106200	47	14310	980	3	-	5	-			
70.07	24	106200	43	14940	1000	3	-	5	-			
75.41	23	106200	40	15410	1220	3	-	5	M2,5-6			
87.31	19	106200	34	16390	1240	3	-	5	M2			
98.95	17	106200	30	17250	1250	3	-	5	-			
114.34	15	106200	26	18300	1270	3	-	5	-			
125.37	14	106200	24	18990	1280	3	-	5	-			
153.67	11	106200	19.5	20230	1310	3	-	5	-			
170.83	10	106200	17.5	20230	1320	3	-	5	-			
37.28	46	106200	80	10720	1470	3	-	5	M1-6			F127
42.15	40	106200	71	11500	1510	3	-	5	M1-6			
48.80	35	106200	61	12460	1540	3	-	5	M1-6			
55.31	31	106200	54	13300	1570	3	-	5	M2-3,5-6			
63.91	27	106200	47	14310	1600	3	-	5	-			
70.07	24	106200	43	14940	1610	3	-	5	-			
75.41	23	106200	40	15410	1820	3	-	5	M2,5-6			
87.31	19	106200	34	16390	1840	3	-	5	M2			
98.95	17	106200	30	17250	1860	3	-	5	-			
114.34	15	106200	26	18300	1870	3	-	5	-			
125.37	14	106200	24	18990	1880	3	-	5	-			
153.67	11	106200	19.5	20230	1900	3	-	5	-			
14.55	117	74070	142	8650	1800	2	-	5	M1-6	F127	AD7	
16.36	104	83280	142	8340	1290	2	-	5	M1-6			
18.87	90	92930	137	8130	820	2	-	5	M1-6			
21.38	80	96470	125	8440	770	2	-	5	M1-6			
24.57	69	75230	85	11050	2480	2	-	5	M2-3,5-6			
25.30	67	106200	118	8400	3480	3	-	5	M1-6			
26.86	63	75230	78	11470	2570	2	-	5	-			
31.33	54	106200	96	9660	3560	3	-	5	M1-6			
37.28	46	106200	80	10720	3610	3	-	5	M1-6			
42.15	40	106200	71	11500	3650	3	-	5	M1-6			
48.80	35	106200	61	12460	3680	3	-	5	M1-6			
55.31	31	106200	54	13300	3700	3	-	5	M2-3,5-6			
63.91	27	106200	47	14310	3720	3	-	5	-			
70.07	24	106200	43	14940	3740	3	-	5	-			
75.41	23	106200	40	15410	3910	3	-	5	M2,5-6			
87.31	19	106200	34	16390	3930	3	-	5	M2			
98.95	17	106200	30	17250	3940	3	-	5	-			
114.34	15	106200	26	18300	3960	3	-	5	-			
125.37	14	106200	24	18990	3970	3	-	5	-			

9 F - theSnuggler® Helical

F.. AD

F127 AD.. , $n_e = 1700$ rpm



106200 lb-in

i [ratio]	n_a [rpm]	T_a max [lb-in]	P_e [HP]	$F_{Ra}^{1)}$ [lb]	F_{Re} [lb]	Stages		ϕ (/R) [']		
						Lg	Sm			
4.68	363	36730	218	7100	5110	2	-	7	M1-6	F127 AD8
5.52	308	43370	218	7160	4990	2	-	7	M1-6	
6.80	250	53370	218	7160	4830	2	-	7	M1-6	
7.88	216	53100	187	7660	4910	2	-	6	M1-6	
8.86	192	61950	194	7490	4730	2	-	6	M1-6	
10.19	167	80000	218	6480	5000	2	-	5	M1-6	
12.54	136	88500	196	6550	4990	2	-	5	M1-6	
14.55	117	97350	186	6340	4920	2	-	5	M1-6	
16.36	104	97350	165	6940	4980	2	-	5	M1-6	
18.87	90	95580	141	7860	5070	2	-	5	M1-6	
21.38	80	106200	138	7440	4970	2	-	5	M1-6	
25.30	67	106200	118	8400	5600	3	-	5	M1-6	
31.33	54	106200	96	9660	5680	3	-	5	M1-6	
37.28	46	106200	80	10720	5730	3	-	5	M1-6	
42.15	40	106200	71	11500	5760	3	-	5	M1-6	
48.80	35	106200	61	12460	5790	3	-	5	M1-6	
55.31	31	106200	54	13300	5810	3	-	5	M2-3,5-6	
75.41	23	106200	40	15410	6040	3	-	5	M2,5-6	
87.31	19	106200	34	16390	6060	3	-	5	M2	
98.95	17	106200	30	17250	6070	3	-	5	-	

Weight [lbs]	Stages		AD4	AD5	AD6	AD7	AD8
	Large	Small					
F127	2	-	919	945	971	970	1019
	3	-	946	972	998	997	1045

FA127: -80 lb / FAF127: +2 lbs / FF127: +98 lbs

9.2.17 F127R77



F127R77 AD.. , n _e = 1700 rpm										106200 lb-in		
i [ratio]	n _a [rpm]	T _a max [lb-in]	P _e [HP]	F _{Ra} ¹⁾ [lb]	F _{Re} [lb]	Stages		φ (°/R) [']				
						Lg	Sm					
376	4.5	106200	8.2	20230	220	3	2	-	-			
428	4	106200	7.2	20230	230	3	2	-	-			
495	3.4	106200	6.2	20230	250	3	2	-	-			
549	3.1	106200	5.6	20230	260	3	2	-	-			
648	2.6	106200	4.8	20230	280	3	2	-	-			
727	2.3	106200	4.2	20230	320	3	2	-	-			
820	2.1	106200	3.8	20230	320	3	2	-	-			
930	1.8	106200	3.3	20230	330	3	2	-	-			
1077	1.6	106200	2.9	20230	330	3	2	-	-			
1220	1.4	106200	2.5	20230	340	3	2	-	-			
1390	1.2	106200	2.2	20230	350	3	2	-	-			
1606	1.1	106200	1.9	20230	350	3	2	-	-			
1784	0.95	106200	1.7	20230	360	3	2	-	-			
2038	0.83	106200	1.5	20230	330	3	2	-	-			
2357	0.72	106200	1.3	20230	340	3	2	-	-			
2672	0.64	106200	1.2	20230	340	3	2	-	-			
3031	0.56	106200	1.0	20230	370	3	3	-	-		F127R77	AD2
3454	0.49	106200	0.91	20230	380	3	3	-	-			
3926	0.43	106200	0.80	20230	380	3	3	-	-			
4533	0.38	106200	0.69	20230	380	3	3	-	-			
5153	0.33	106200	0.61	20230	380	3	3	-	-			
5925	0.29	106200	0.53	20230	380	3	3	-	-			
6715	0.25	106200	0.47	20230	380	3	3	-	-			
7643	0.22	106200	0.41	20230	390	3	3	-	-			
8831	0.19	106200	0.36	20230	390	3	3	-	-			
10191	0.17	106200	0.31	20230	390	3	3	-	-			
11656	0.15	106200	0.27	20230	390	3	3	-	-			
12912	0.13	106200	0.24	20230	390	3	3	-	-			
14722	0.12	106200	0.21	20230	390	3	3	-	-			
16656	0.1	106200	0.19	20230	390	3	3	-	-			
19048	0.09	106200	0.16	20230	390	3	3	-	-			
22323	0.08	106200	0.14	20230	390	3	3	-	-			
24478	0.07	106200	0.13	20230	390	3	3	-	-			
376	4.5	106200	8.2	20230	440	3	2	-	-			
428	4	106200	7.2	20230	440	3	2	-	-			
495	3.4	106200	6.2	20230	470	3	2	-	-			
549	3.1	106200	5.6	20230	470	3	2	-	-			
648	2.6	106200	4.8	20230	490	3	2	-	-			
727	2.3	106200	4.2	20230	530	3	2	-	-			
820	2.1	106200	3.8	20230	540	3	2	-	-			
930	1.8	106200	3.3	20230	540	3	2	-	-			
1077	1.6	106200	2.9	20230	540	3	2	-	-			
1220	1.4	106200	2.5	20230	560	3	2	-	-			
1390	1.2	106200	2.2	20230	560	3	2	-	-			
1606	1.1	106200	1.9	20230	570	3	2	-	-		F127R77	AD3
1784	0.95	106200	1.7	20230	570	3	2	-	-			
2038	0.83	106200	1.5	20230	570	3	2	-	-			
2357	0.72	106200	1.3	20230	580	3	2	-	-			
2672	0.64	106200	1.2	20230	570	3	2	-	-			
3031	0.56	106200	1.0	20230	590	3	3	-	-			
3454	0.49	106200	0.91	20230	590	3	3	-	-			
3926	0.43	106200	0.80	20230	590	3	3	-	-			
4533	0.38	106200	0.69	20230	590	3	3	-	-			
5153	0.33	106200	0.61	20230	590	3	3	-	-			
5925	0.29	106200	0.53	20230	590	3	3	-	-			
6715	0.25	106200	0.47	20230	600	3	3	-	-			

9 F - theSnuggler® Helical

F.. AD

F127R77 AD.. , $n_e = 1700$ rpm



106200 lb-in

i [ratio]	n_a [rpm]	T_a max [lb-in]	P_e [HP]	$F_{Ra}^{1)}$ [lb]	F_{Re} [lb]	Stages		ϕ (/R) [']		
						Lg	Sm			
7643	0.22	106200	0.41	20230	600	3	3	-	-	F127R77
8831	0.19	106200	0.36	20230	600	3	3	-	-	
10191	0.17	106200	0.31	20230	600	3	3	-	-	
11656	0.15	106200	0.27	20230	600	3	3	-	-	
12912	0.13	106200	0.24	20230	600	3	3	-	-	
376	4.5	106200	8.2	20230	830	3	2	-	-	F127R77
428	4	106200	7.2	20230	840	3	2	-	-	
495	3.4	106200	6.2	20230	860	3	2	-	-	
549	3.1	106200	5.6	20230	870	3	2	-	-	
648	2.6	106200	4.8	20230	890	3	2	-	-	
727	2.3	106200	4.2	20230	920	3	2	-	-	
820	2.1	106200	3.8	20230	920	3	2	-	-	
930	1.8	106200	3.3	20230	920	3	2	-	-	
1077	1.6	106200	2.9	20230	930	3	2	-	-	
1220	1.4	106200	2.5	20230	940	3	2	-	-	
1390	1.2	106200	2.2	20230	940	3	2	-	-	
1606	1.1	106200	1.9	20230	950	3	2	-	-	
1784	0.95	106200	1.7	20230	950	3	2	-	-	
2038	0.83	106200	1.5	20230	950	3	2	-	-	
2357	0.72	106200	1.3	20230	960	3	2	-	-	
3031	0.56	106200	1.0	20230	960	3	3	-	-	
3454	0.49	106200	0.91	20230	970	3	3	-	-	
4533	0.38	106200	0.69	20230	970	3	3	-	-	
7643	0.22	106200	0.41	20230	980	3	3	-	-	
8831	0.19	106200	0.36	20230	980	3	3	-	-	



Weight [lbs]	Stages		AD2	AD3	AD4
	Large	Small			
F127R77	3	2	1012	1019	1033
	3	3	1014	1022	1035

FA127: -80 lb / FAF127: +2 lbs / FF127: +98 lbs



9.2.18 F127R87

F127R87 AD.. , n _e = 1700 rpm										106200 lb-in		
i [ratio]	n _a [rpm]	T _{a max} [lb-in]	P _e [HP]	F _{Ra} ¹⁾ [lb]	F _{Re} [lb]	Stages		φ _(/R) [']				
						Lg	Sm					
293	5.8	106200	10.5	20230	240	3	2	-	-			
312	5.4	106200	9.9	20230	230	3	2	-	-			
374	4.5	106200	8.3	20230	260	3	2	-	-			F127R87
418	4.1	106200	7.4	20230	270	3	2	-	-			AD2
483	3.5	106200	6.4	20230	300	3	2	-	-			
166	10	106200	18.6	20230	320	3	2	-	-			
198	8.6	106200	15.6	20230	360	3	2	-	-			
223	7.6	106200	13.9	20230	390	3	2	-	-			
259	6.6	106200	11.9	20230	420	3	2	-	-			
293	5.8	106200	10.5	20230	440	3	2	-	-			F127R87
312	5.4	106200	9.9	20230	430	3	2	-	-			AD3
374	4.5	106200	8.3	20230	460	3	2	-	-			
418	4.1	106200	7.4	20230	460	3	2	-	-			
483	3.5	106200	6.4	20230	490	3	2	-	-			
166	10	106200	18.6	20230	750	3	2	-	-			
198	8.6	106200	15.6	20230	790	3	2	-	-			
223	7.6	106200	13.9	20230	810	3	2	-	-			
259	6.6	106200	11.9	20230	830	3	2	-	-			
293	5.8	106200	10.5	20230	850	3	2	-	-			F127R87
312	5.4	106200	9.9	20230	850	3	2	-	-			AD4
374	4.5	106200	8.3	20230	870	3	2	-	-			
418	4.1	106200	7.4	20230	880	3	2	-	-			
483	3.5	106200	6.4	20230	900	3	2	-	-			
166	10	106200	18.6	20230	1420	3	2	-	-			
198	8.6	106200	15.6	20230	1460	3	2	-	-			
223	7.6	106200	13.9	20230	1480	3	2	-	-			
259	6.6	106200	11.9	20230	1500	3	2	-	-			
293	5.8	106200	10.5	20230	1520	3	2	-	-			F127R87
312	5.4	106200	9.9	20230	1510	3	2	-	-			AD5
374	4.5	106200	8.3	20230	1540	3	2	-	-			
418	4.1	106200	7.4	20230	1540	3	2	-	-			
483	3.5	106200	6.4	20230	1570	3	2	-	-			
Weight [lbs]			Stages		AD2	AD3	AD4	AD5				
			Large	Small								
F127R87			3	2	1057	1066	1079	1112				
FA127: -80 lb / FAF127: +2 lbs / FF127: +98 lbs												

9.2.19 F157

F157 AD.. , n _e = 1700 rpm										159300 lb-in		
i [ratio]	n _a [rpm]	T _a max [lb-in]	P _e [HP]	F _{Ra} ¹⁾ [lb]	F _{Re} [lb]	Stages		φ (°/R) [']			F157	AD
						Lg	Sm					
60.25	28	159300	75	17040	690	3	-	5	M2,5-6	F157	AD5	
68.28	25	159300	66	18000	750	3	-	5	-			
78.46	22	159300	57	19110	810	3	-	5	-			
85.80	20	159300	52	19850	850	3	-	5	-			
96.53	18	159300	47	20860	1190	3	-	5	M2			
108.49	16	159300	41	21890	1210	3	-	5	-			
125.14	14	159300	36	22540	1230	3	-	5	-			
141.80	12	159300	32	22540	1240	3	-	5	-			
162.96	10	159300	28	22540	1260	3	-	5	-			
178.20	9.5	159300	25	22540	1270	3	-	5	-			
217.62	7.8	159300	21	22540	1290	3	-	5	-			
267.43	6.4	159300	16.8	22540	1310	3	-	5	-			
35.75	48	97350	76	16540	900	2	-	4	-	F157	AD6	
43.94	39	88500	56	18360	1250	2	-	4	-			
52.24	33	159300	86	15990	1380	3	-	5	M1-6			
60.25	28	159300	75	17040	1410	3	-	5	M2,5-6			
68.28	25	159300	66	18000	1440	3	-	5	-			
78.46	22	159300	57	19110	1470	3	-	5	-			
85.80	20	159300	52	19850	1490	3	-	5	-			
96.53	18	159300	47	20860	1790	3	-	5	M2			
108.49	16	159300	41	21890	1810	3	-	5	-			
125.14	14	159300	36	22540	1830	3	-	5	-			
141.80	12	159300	32	22540	1850	3	-	5	-			
162.96	10	159300	28	22540	1860	3	-	5	-			
178.20	9.5	159300	25	22540	1870	3	-	5	-			
217.62	7.8	159300	21	22540	1890	3	-	5	-			
32.55	52	159300	138	12810	3090	3	-	5	M1-6	F157	AD7	
35.75	48	97350	76	16540	2660	2	-	4	-			
40.06	42	159300	112	14150	3460	3	-	5	M1-6			
46.48	37	159300	97	15160	3500	3	-	5	M1-6			
52.24	33	159300	86	15990	3530	3	-	5	M1-6			
60.25	28	159300	75	17040	3570	3	-	5	M2,5-6			
68.28	25	159300	66	18000	3590	3	-	5	-			
78.46	22	159300	57	19110	3620	3	-	5	-			
85.80	20	159300	52	19850	3640	3	-	5	-			
96.53	18	159300	47	20860	3890	3	-	5	M2			
108.49	16	159300	41	21890	3910	3	-	5	-			
125.14	14	159300	36	22540	3920	3	-	5	-			
141.80	12	159300	32	22540	3940	3	-	5	-			
162.96	10	159300	28	22540	3950	3	-	5	-			
178.20	9.5	159300	25	22540	3960	3	-	5	-			

F157 AD.. , n_e = 1700 rpm 159300 lb-in

i [ratio]	n _a [rpm]	T _a max [lb-in]	P _e [HP]	F _{Ra} ¹⁾ [lb]	F _{Re} [lb]	Stages		φ (°/R) [']		
						Lg	Sm			
11.92	143	141600	330	8270	4430	2	-	5	M1-6	F157 AD8
13.96	122	150450	300	8570	4460	2	-	5	M1-6	
16.85	101	159300	263	9060	4490	2	-	5	M1-6	
19.77	86	150450	212	10350	4700	2	-	4	M1-6	
22.16	77	159300	200	10530	4670	2	-	4	M1-6	
25.43	67	132750	145	12660	5010	2	-	4	M1-6	
27.60	62	159300	163	11800	5420	3	-	5	M1-6	
28.60	59	150450	146	12460	4870	2	-	4	M1-6	
32.55	52	159300	138	12810	5490	3	-	5	M1-6	
40.06	42	159300	112	14150	5580	3	-	5	M1-6	
46.48	37	159300	97	15160	5610	3	-	5	M1-6	
52.24	33	159300	86	15990	5640	3	-	5	M1-6	
60.25	28	159300	75	17040	5680	3	-	5	M2,5-6	
68.28	25	159300	66	18000	5700	3	-	5	-	
96.53	18	159300	47	20860	6020	3	-	5	M2	
108.49	16	159300	41	21890	6030	3	-	5	-	



Weight [lbs]	Stages		AD5	AD6	AD7	AD8
	Large	Small				
F157	2	-	1489	1527	1513	1565
	3	-	1503	1540	1527	1578

FA157: -46 lb / FAF157: +84 lbs / FF157: +236 lbs



9 F - theSnuggler® Helical

F.. AD

9.2.20 F157R97

F157R97 AD.. , n _e = 1700 rpm										159300 lb-in		
i [ratio]	n _a [rpm]	T _a max [lb-in]	P _e [HP]	F _{Ra} ¹⁾ [lb]	F _{Re} [lb]	Stages		φ (/R) [']				
						Lg	Sm					
273	6.2	159300	17.0	22540	310	3	2	-	-			
302	5.6	159300	15.3	22540	320	3	2	-	-			
353	4.8	159300	13.1	22540	410	3	2	-	-			
446	3.8	159300	10.4	22540	410	3	2	-	-			
503	3.4	159300	9.2	22540	460	3	2	-	-			
576	3.0	159300	8.0	22540	470	3	2	-	-			
680	2.5	159300	6.8	22540	480	3	2	-	-			
764	2.2	159300	6.1	22540	490	3	2	-	-			
845	2.0	159300	5.5	22540	490	3	2	-	-			
953	1.8	159300	4.9	22540	490	3	2	-	-			
1169	1.5	159300	4.0	22540	500	3	2	-	-			
1308	1.3	159300	3.5	22540	500	3	2	-	-			
1441	1.2	159300	3.3	22540	540	3	3	-	-			
1674	1.0	159300	2.8	22540	510	3	2	-	-			
1944	0.87	159300	2.4	22540	540	3	2	-	-			
2185	0.78	159300	2.1	22540	540	3	2	-	-			
2427	0.70	159300	1.9	22540	540	3	2	-	-			
2780	0.61	159300	1.7	22540	550	3	3	-	-		F157R97	AD3
3210	0.53	159300	1.5	22540	560	3	3	-	-			
3607	0.47	159300	1.3	22540	560	3	3	-	-			
4130	0.41	159300	1.1	22540	560	3	3	-	-			
4831	0.35	159300	0.97	22540	570	3	3	-	-			
5404	0.31	159300	0.87	22540	570	3	3	-	-			
6295	0.27	159300	0.75	22540	570	3	3	-	-			
7075	0.24	159300	0.66	22540	570	3	3	-	-			
8026	0.21	159300	0.59	22540	570	3	3	-	-			
9021	0.19	159300	0.52	22540	580	3	3	-	-			
10033	0.17	159300	0.47	22540	580	3	3	-	-			
12235	0.14	159300	0.38	22540	580	3	3	-	-			
13751	0.12	159300	0.34	22540	580	3	3	-	-			
16358	0.10	159300	0.29	22540	580	3	3	-	-			
17984	0.09	159300	0.26	22540	580	3	3	-	-			
20212	0.08	159300	0.23	22540	580	3	3	-	-			
23464	0.07	159300	0.20	22540	580	3	3	-	-			
197	8.6	159300	24	22540	680	3	2	-	-			
202	8.4	159300	23	22540	710	3	2	-	-			
232	7.3	159300	20	22540	730	3	2	-	-			
273	6.2	159300	17.0	22540	740	3	2	-	-			
302	5.6	159300	15.3	22540	750	3	2	-	-			
353	4.8	159300	13.1	22540	830	3	2	-	-			
446	3.8	159300	10.4	22540	830	3	2	-	-			
503	3.4	159300	9.2	22540	870	3	2	-	-			
576	3.0	159300	8.0	22540	880	3	2	-	-			
680	2.5	159300	6.8	22540	890	3	2	-	-			
764	2.2	159300	6.1	22540	900	3	2	-	-			
845	2.0	159300	5.5	22540	900	3	2	-	-			
953	1.8	159300	4.9	22540	900	3	2	-	-			
1169	1.5	159300	4.0	22540	910	3	2	-	-		F157R97	AD4
1308	1.3	159300	3.5	22540	910	3	2	-	-			
1441	1.2	159300	3.3	22540	940	3	3	-	-			
1674	1.0	159300	2.8	22540	920	3	2	-	-			
1944	0.87	159300	2.4	22540	940	3	2	-	-			
2185	0.78	159300	2.1	22540	950	3	2	-	-			
2427	0.70	159300	1.9	22540	950	3	2	-	-			
2780	0.61	159300	1.7	22540	950	3	3	-	-			
3210	0.53	159300	1.5	22540	960	3	3	-	-			
3607	0.47	159300	1.3	22540	970	3	3	-	-			
4130	0.41	159300	1.1	22540	970	3	3	-	-			
4831	0.35	159300	0.97	22540	970	3	3	-	-			
5404	0.31	159300	0.87	22540	970	3	3	-	-			

F157R97 AD.. , n_e = 1700 rpm 159300 lb-in

i [ratio]	n _a [rpm]	T _{a max} [lb-in]	P _e [HP]	F _{Ra} ¹⁾ [lb]	F _{Re} [lb]	Stages		φ (/R) [']		
						Lg	Sm			
6295	0.27	159300	0.75	22540	970	3	3	-	-	F157R97 AD4
7075	0.24	159300	0.66	22540	970	3	3	-	-	
8026	0.21	159300	0.59	22540	970	3	3	-	-	
9021	0.19	159300	0.52	22540	980	3	3	-	-	
10033	0.17	159300	0.47	22540	980	3	3	-	-	
12235	0.14	159300	0.38	22540	980	3	3	-	-	
13751	0.12	159300	0.34	22540	980	3	3	-	-	
16358	0.10	159300	0.29	22540	980	3	3	-	-	
197	8.6	159300	24	22540	1350	3	2	-	-	F157R97 AD5
202	8.4	159300	23	22540	1380	3	2	-	-	
232	7.3	159300	20	22540	1400	3	2	-	-	
273	6.2	159300	17.0	22540	1410	3	2	-	-	
302	5.6	159300	15.3	22540	1420	3	2	-	-	
353	4.8	159300	13.1	22540	1500	3	2	-	-	
446	3.8	159300	10.4	22540	1490	3	2	-	-	
503	3.4	159300	9.2	22540	1540	3	2	-	-	
576	3.0	159300	8.0	22540	1550	3	2	-	-	
680	2.5	159300	6.8	22540	1550	3	2	-	-	
764	2.2	159300	6.1	22540	1560	3	2	-	-	
845	2.0	159300	5.5	22540	1570	3	2	-	-	
953	1.8	159300	4.9	22540	1570	3	2	-	-	
1169	1.5	159300	4.0	22540	1570	3	2	-	-	
1308	1.3	159300	3.5	22540	1580	3	2	-	-	
1441	1.2	159300	3.3	22540	1610	3	3	-	-	
1944	0.87	159300	2.4	22540	1610	3	2	-	-	
2185	0.78	159300	2.1	22540	1610	3	2	-	-	
2427	0.70	159300	1.9	22540	1610	3	2	-	-	
2780	0.61	159300	1.7	22540	1620	3	3	-	-	
3210	0.53	159300	1.5	22540	1630	3	3	-	-	
3607	0.47	159300	1.3	22540	1630	3	3	-	-	
4130	0.41	159300	1.1	22540	1630	3	3	-	-	
4831	0.35	159300	0.97	22540	1630	3	3	-	-	
5404	0.31	159300	0.87	22540	1630	3	3	-	-	
8026	0.21	159300	0.59	22540	1640	3	3	-	-	
9021	0.19	159300	0.52	22540	1640	3	3	-	-	
10033	0.17	159300	0.47	22540	1640	3	3	-	-	
197	8.6	159300	24	22540	1950	3	2	-	-	F157R97 AD6
202	8.4	159300	23	22540	1980	3	2	-	-	
232	7.3	159300	20	22540	1990	3	2	-	-	
273	6.2	159300	17.0	22540	2000	3	2	-	-	
302	5.6	159300	15.3	22540	2010	3	2	-	-	
353	4.8	159300	13.1	22540	2080	3	2	-	-	
446	3.8	159300	10.4	22540	2080	3	2	-	-	
503	3.4	159300	9.2	22540	2120	3	2	-	-	
576	3.0	159300	8.0	22540	2130	3	2	-	-	
680	2.5	159300	6.8	22540	2130	3	2	-	-	
764	2.2	159300	6.1	22540	2140	3	2	-	-	
845	2.0	159300	5.5	22540	2150	3	2	-	-	
953	1.8	159300	4.9	22540	2150	3	2	-	-	
1441	1.2	159300	3.3	22540	2180	3	3	-	-	
1944	0.87	159300	2.4	22540	2180	3	2	-	-	
2185	0.78	159300	2.1	22540	2190	3	2	-	-	
3210	0.53	159300	1.5	22540	2200	3	3	-	-	
3607	0.47	159300	1.3	22540	2210	3	3	-	-	
4130	0.41	159300	1.1	22540	2210	3	3	-	-	
4831	0.35	159300	0.97	22540	2210	3	3	-	-	
8026	0.21	159300	0.59	22540	2210	3	3	-	-	
9021	0.19	159300	0.52	22540	2210	3	3	-	-	
10033	0.17	159300	0.47	22540	2220	3	3	-	-	

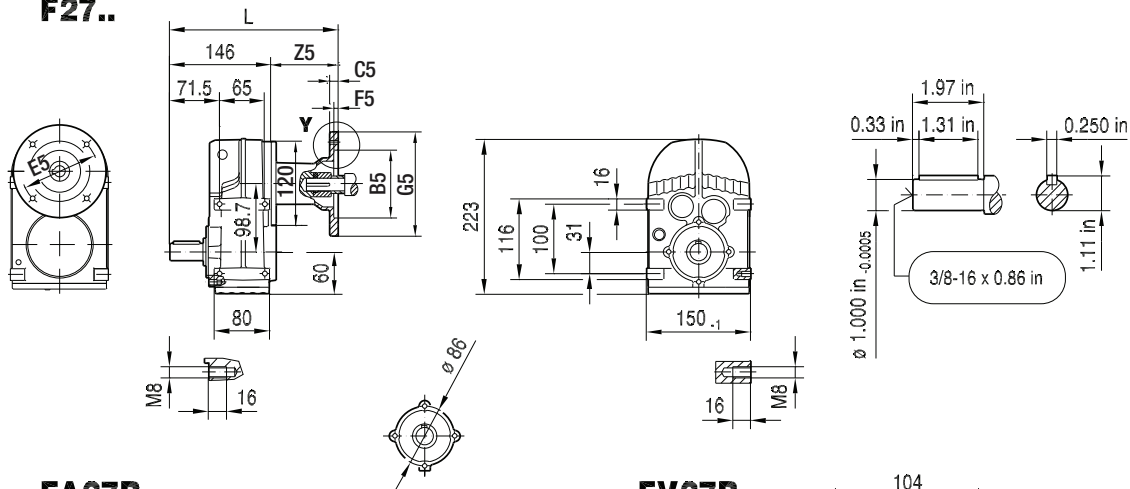
Weight [lbs]	Stages		AD3	AD4	AD5	AD6
	Large	Small				
F157R97	3	2	1727	1738	1775	1805
	3	3	1734	1745	1782	1812

FA157: -46 lb / FAF157: +84 lbs / FF157: +236 lbs

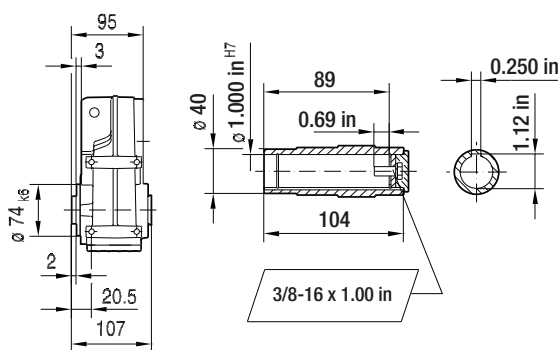
9.3 F.. AM.. [NEMA dimensions]

42 004 00 11

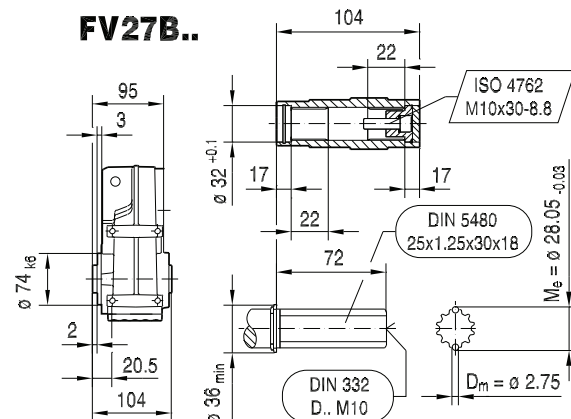
F27..



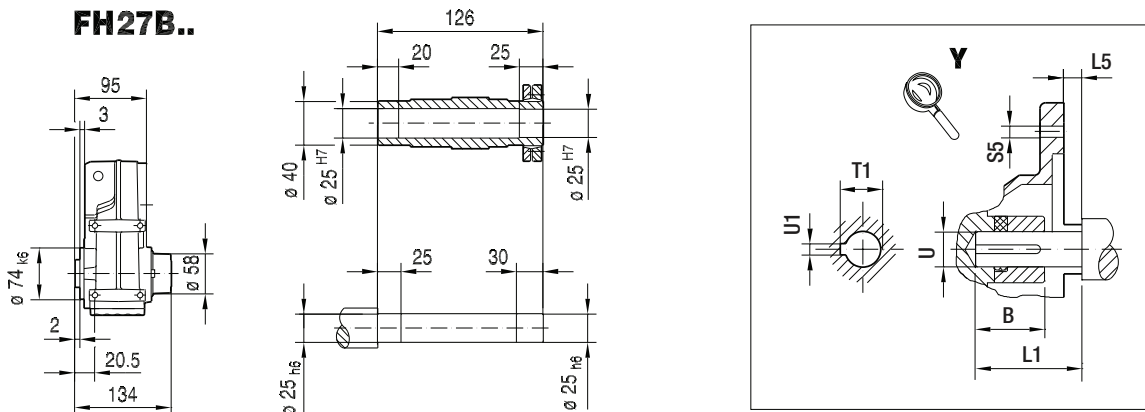
FA27B..



FV27B..



FH27B..

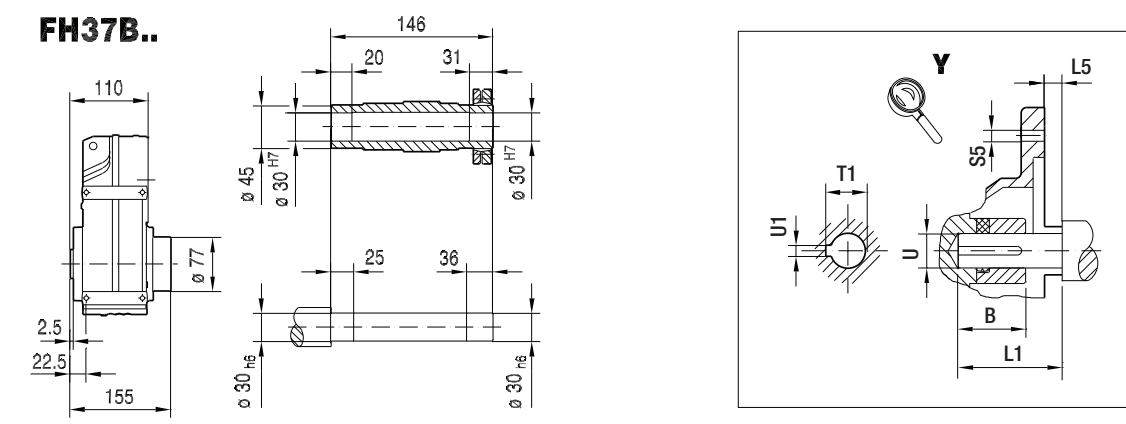
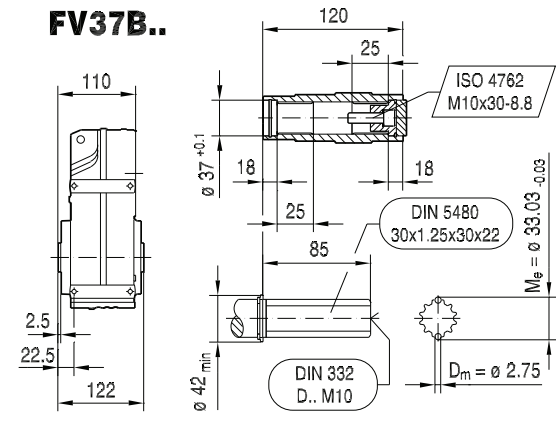
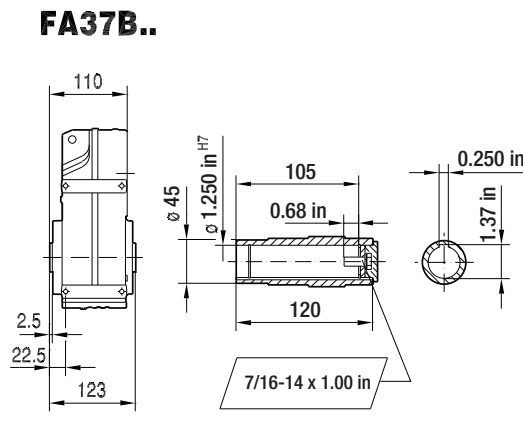
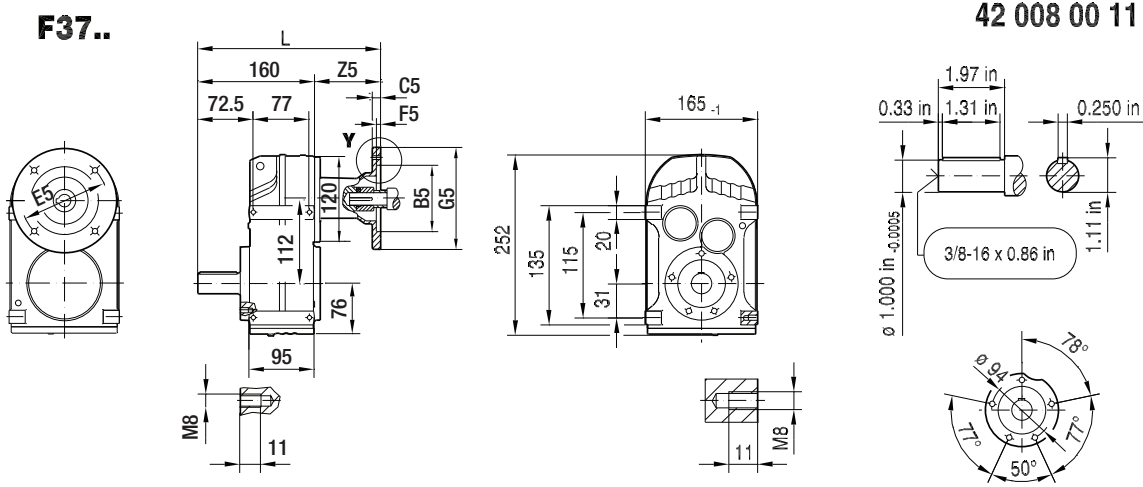


(→ 132)	B	B5	C5	E5	F5	G5	L	L1	L5	S5	T1	U	U1	Z5
AM56	1.23 in	4.50 in	11	5.875 in	4.5	170	240	1.88 in	-0.18 in	10.5	0.71 in	0.625 in	0.188 in	93.5
AM143	1.68 in	4.50 in	12	5.875 in	4.5	170	263	2.25 in	0.13 in	10.5	0.98 in	0.875 in	0.188 in	117
AM145	1.68 in	4.50 in	12	5.875 in	4.5	170	263	2.25 in	0.13 in	10.5	0.98 in	0.875 in	0.188 in	117

Dimensions in mm unless otherwise noted. For all available output shaft diameters, see page 409.

9 F - theSnuggler® Helical

F.. AM.. [NEMA dimensions]

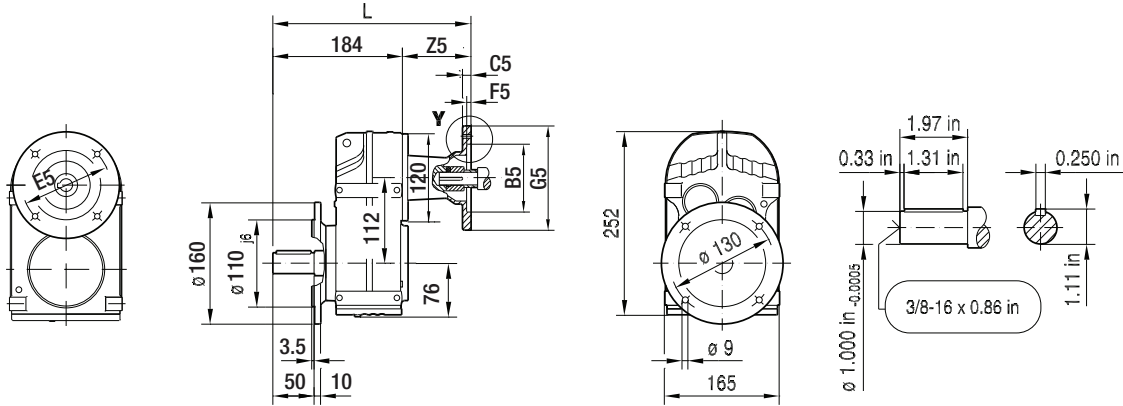


(→ 132)	B	B5	C5	E5	F5	G5	L	L1	L5	S5	T1	U	U1	Z5
AM56	1.23 in	4.50 in	11	5.875 in	4.5	170	254	1.88 in	-0.18 in	10.5	0.71 in	0.625 in	0.188 in	93.5
AM143	1.68 in	4.50 in	12	5.875 in	4.5	170	277	2.25 in	0.13 in	10.5	0.98 in	0.875 in	0.188 in	117
AM145	1.68 in	4.50 in	12	5.875 in	4.5	170	277	2.25 in	0.13 in	10.5	0.98 in	0.875 in	0.188 in	117

Dimensions in mm unless otherwise noted. For all available output shaft diameters, see page 409.

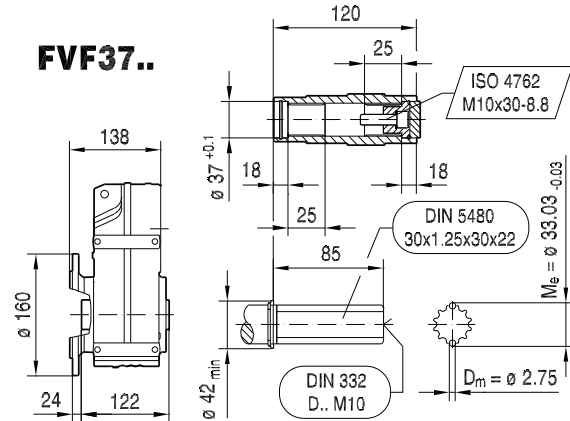
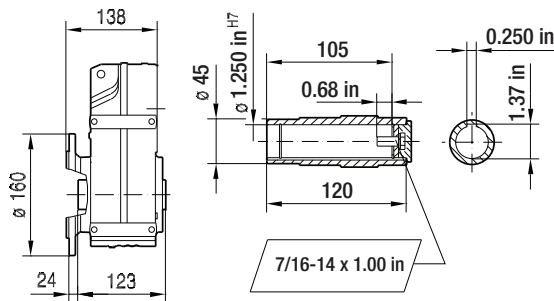
FF37..

42 009 00 11

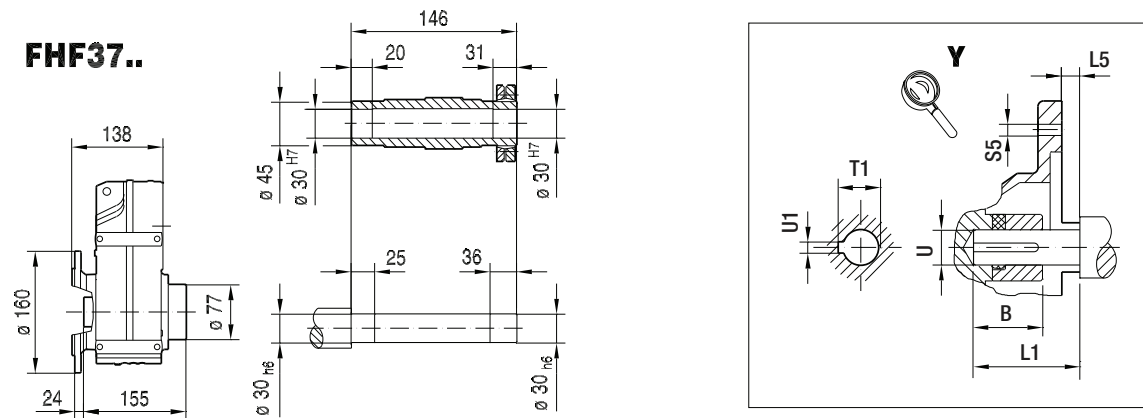


FAF37..

FVF37..



FHF37..

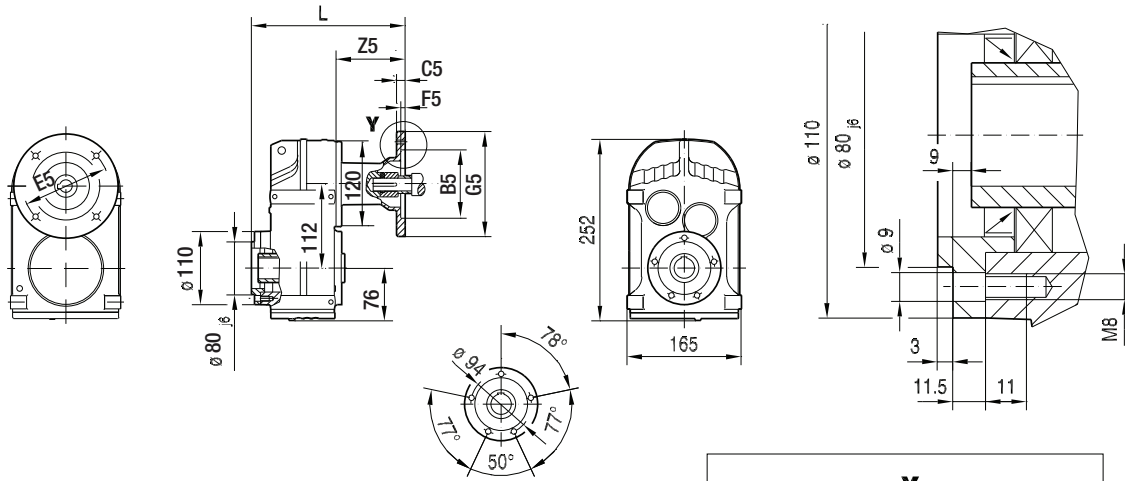


(→ 132)	B	B5	C5	E5	F5	G5	L	L1	L5	S5	T1	U	U1	Z5
AM56	1.23 in	4.50 in	11	5.875 in	4.5	170	278	1.88 in	-0.18 in	10.5	0.71 in	0.625 in	0.188 in	93.5
AM143	1.68 in	4.50 in	12	5.875 in	4.5	170	301	2.25 in	0.13 in	10.5	0.98 in	0.875 in	0.188 in	117
AM145	1.68 in	4.50 in	12	5.875 in	4.5	170	301	2.25 in	0.13 in	10.5	0.98 in	0.875 in	0.188 in	117

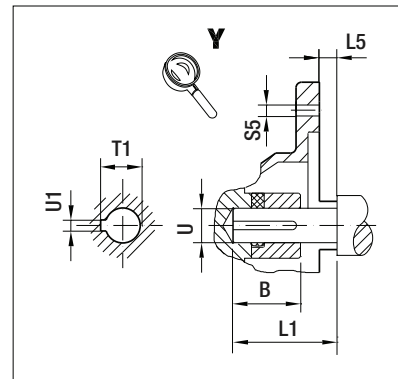
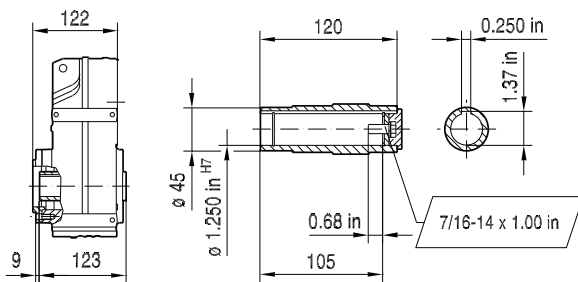
Dimensions in mm unless otherwise noted. For all available output shaft diameters, see page 409.

FAZ37..

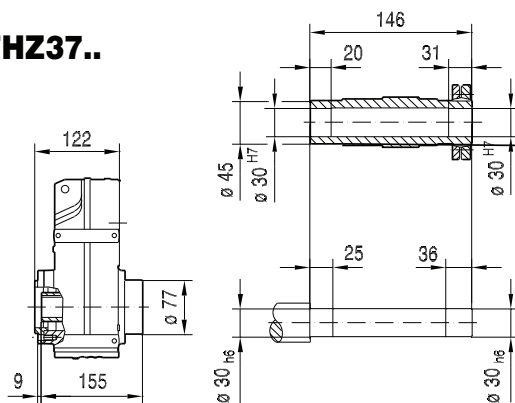
42 011 00 11



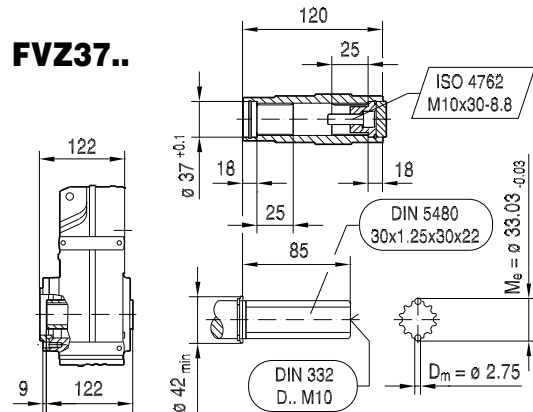
FAZ37..



FHZ37..



FVZ37..



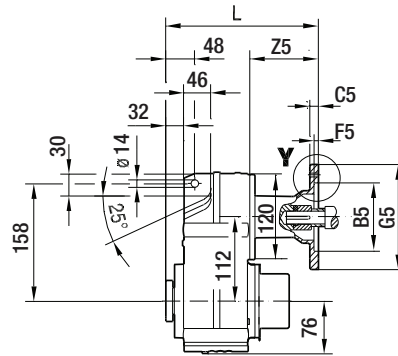
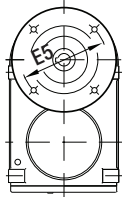
(→ 132)	B	B5	C5	E5	F5	G5	L	L1	L5	S5	T1	U	U1	Z5
AM56	1.23 in	4.50 in	11	5.875 in	4.5	170	216	1.88 in	-0.18 in	10.5	0.71 in	0.625 in	0.188 in	93.5
AM143	1.68 in	4.50 in	12	5.875 in	4.5	170	239	2.25 in	0.13 in	10.5	0.98 in	0.875 in	0.188 in	117
AM145	1.68 in	4.50 in	12	5.875 in	4.5	170	239	2.25 in	0.13 in	10.5	0.98 in	0.875 in	0.188 in	117

Dimensions in mm unless otherwise noted. For all available output shaft diameters, see page 411.

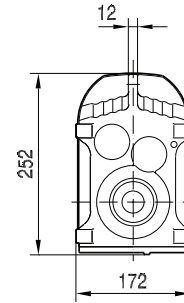
9 F - theSnuggler® Helical

F.. AM.. [NEMA dimensions]

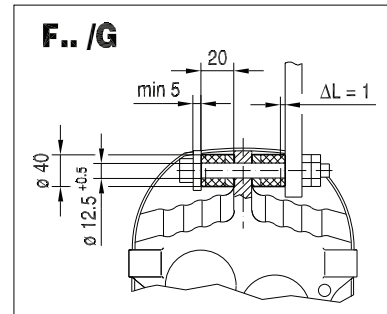
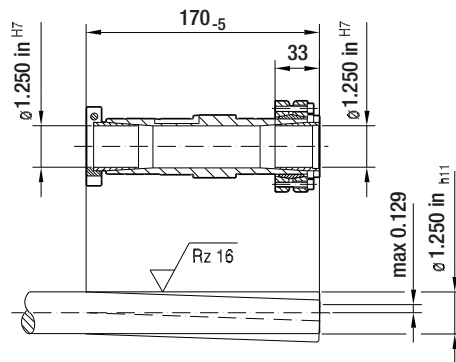
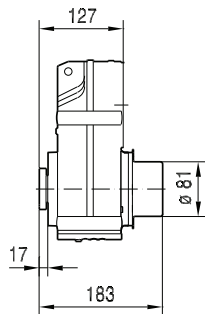
FT37..



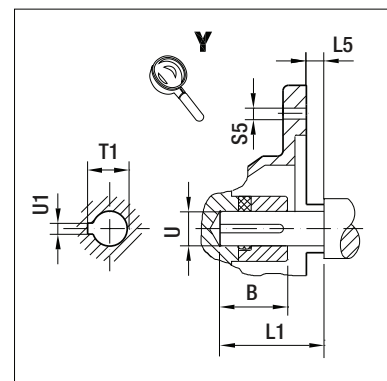
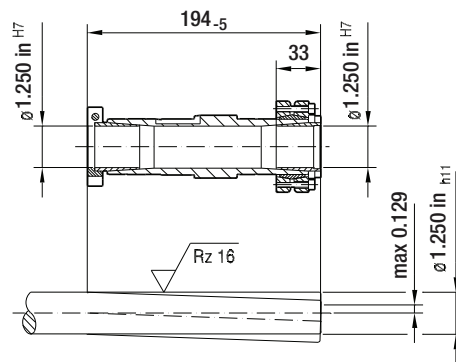
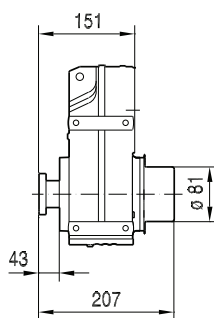
42 012 00 11



NON-Symmetrical FT37..



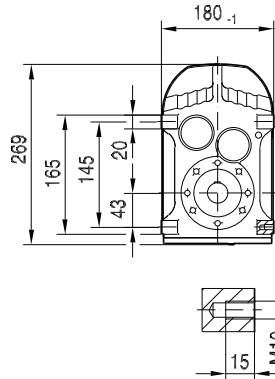
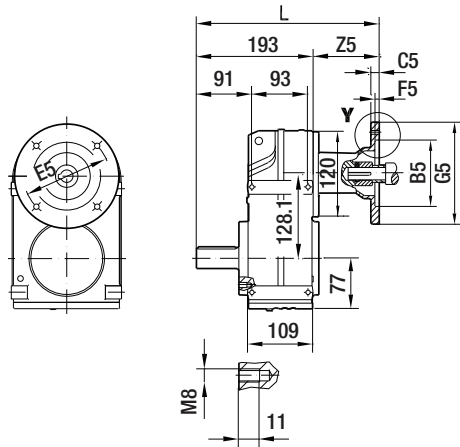
Symmetrical FT37..



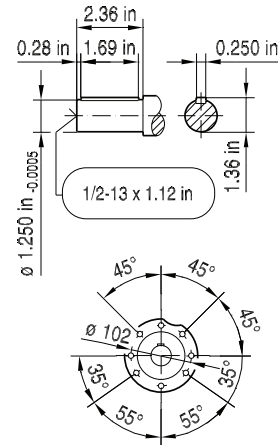
(→ 132)	B	B5	C5	E5	F5	G5	L	L1	L5	S5	T1	U	U1	Z5
AM56	1.23 in	4.50 in	11	5.875 in	4.5	170	221	1.88 in	-0.18 in	10.5	0.71 in	0.625 in	0.188 in	93.5
AM143	1.68 in	4.50 in	12	5.875 in	4.5	170	244	2.25 in	0.13 in	10.5	0.98 in	0.875 in	0.188 in	117
AM145	1.68 in	4.50 in	12	5.875 in	4.5	170	244	2.25 in	0.13 in	10.5	0.98 in	0.875 in	0.188 in	117

Dimensions in mm unless otherwise noted. For all available output shaft diameters, see page 413.

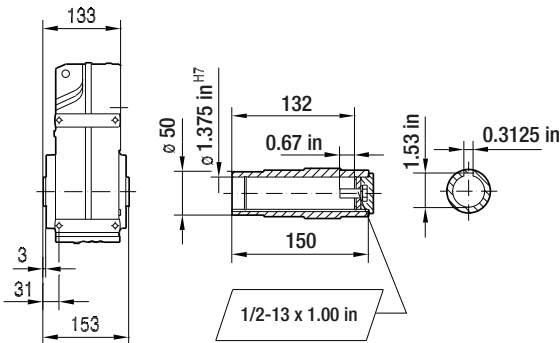
F47..



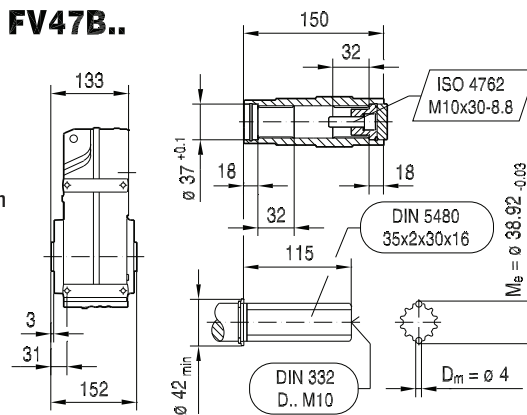
42 013 00 11



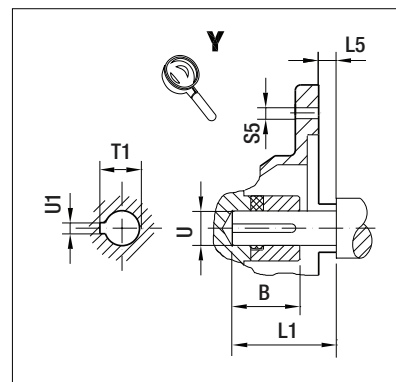
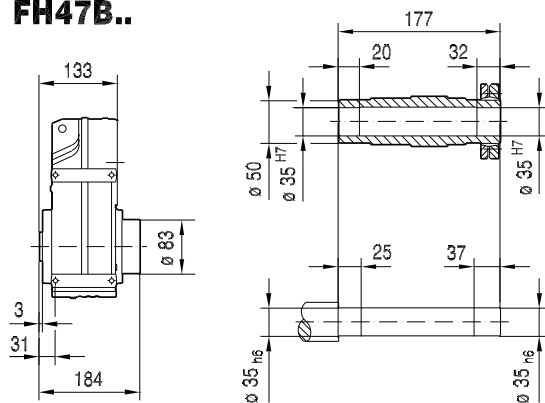
FA47B..



FV47B..



FH47B..



(→ 132)	B	B5	C5	E5	F5	G5	L	L1	L5	S5	T1	U	U1	Z5
AM56	1.23 in	4.50 in	11	5.875 in	4.5	170	287	1.88 in	-0.18 in	10.5	0.71 in	0.625 in	0.188 in	93.5
AM143	1.68 in	4.50 in	12	5.875 in	4.5	170	310	2.25 in	0.13 in	10.5	0.98 in	0.875 in	0.188 in	117
AM145	1.68 in	4.50 in	12	5.875 in	4.5	170	310	2.25 in	0.13 in	10.5	0.98 in	0.875 in	0.188 in	117

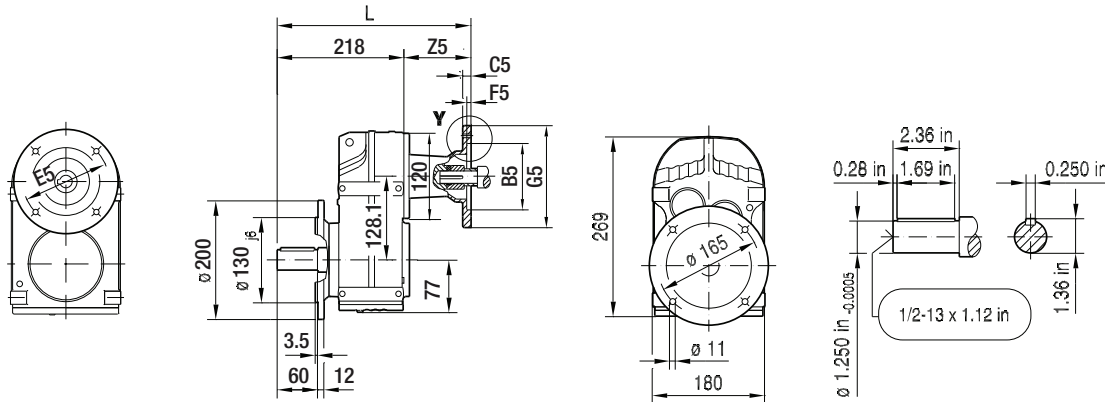
Note: Dimensions in mm unless otherwise noted. For all available output shaft diameters, see page 409. For dimensions of compound gear units (ex: F47R37) see page 401.

9 F - theSnuggler® Helical

F.. AM.. [NEMA dimensions]

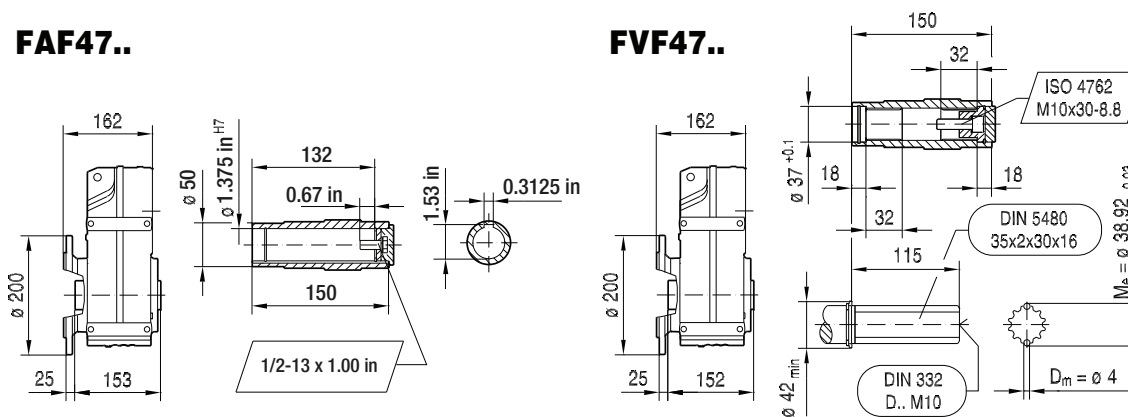
FF47..

42 014 00 11

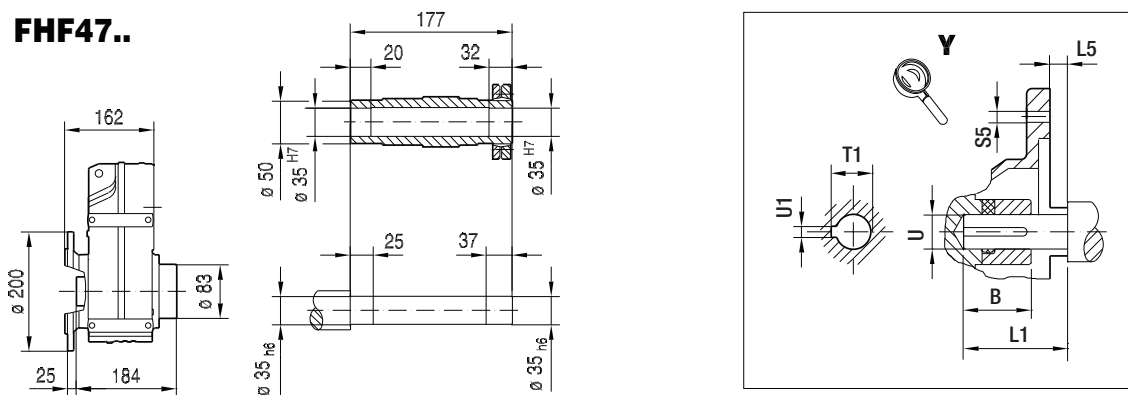


FAF47..

FVF47..



FHF47..

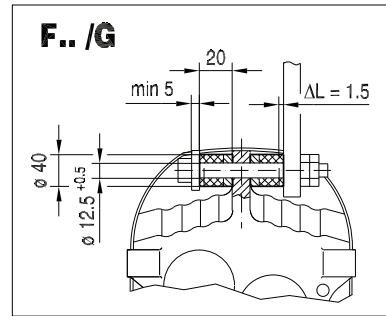
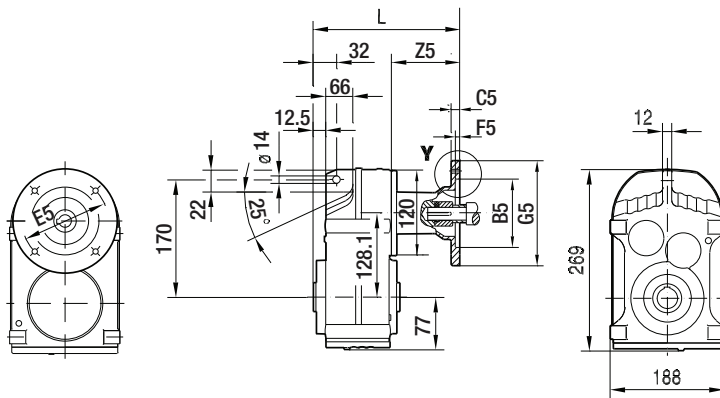


(→ 132)	B	B5	C5	E5	F5	G5	L	L1	L5	S5	T1	U	U1	Z5
AM56	1.23 in	4.50 in	11	5.875 in	4.5	170	312	1.88 in	-0.18 in	10.5	0.71 in	0.625 in	0.188 in	93.5
AM143	1.68 in	4.50 in	12	5.875 in	4.5	170	335	2.25 in	0.13 in	10.5	0.98 in	0.875 in	0.188 in	117
AM145	1.68 in	4.50 in	12	5.875 in	4.5	170	335	2.25 in	0.13 in	10.5	0.98 in	0.875 in	0.188 in	117

Note: Dimensions in mm unless otherwise noted. For all available output shaft diameters, see page 409. For dimensions of compound gear units (ex: FF47R37) see page 401.

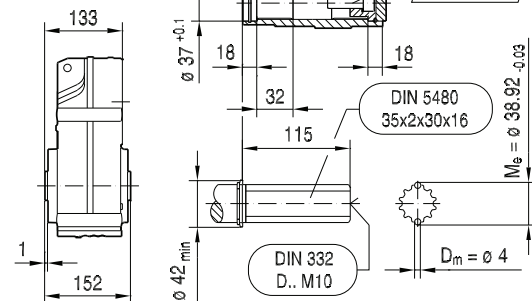
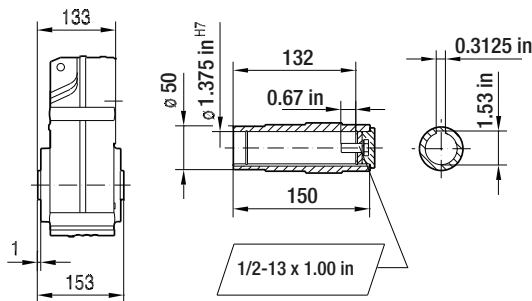
FA47..

42 015 00 11

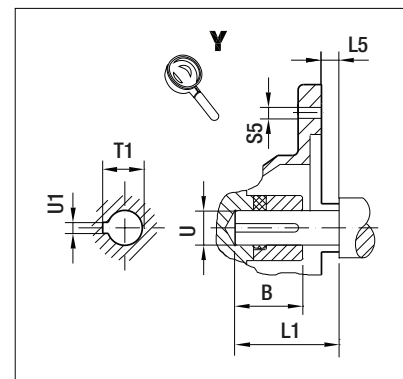


FA47..

FV47..



FH47..



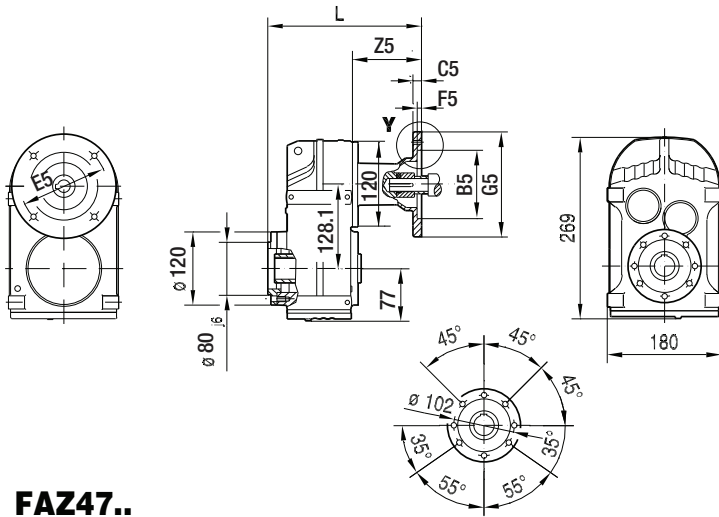
(→ 132)	B	B5	C5	E5	F5	G5	L	L1	L5	S5	T1	U	U1	Z5
AM56	1.23 in	4.50 in	11	5.875 in	4.5	170	227	1.88 in	-0.18 in	10.5	0.71 in	0.625 in	0.188 in	93.5
AM143	1.68 in	4.50 in	12	5.875 in	4.5	170	250	2.25 in	0.13 in	10.5	0.98 in	0.875 in	0.188 in	117
AM145	1.68 in	4.50 in	12	5.875 in	4.5	170	250	2.25 in	0.13 in	10.5	0.98 in	0.875 in	0.188 in	117

Note: Dimensions in mm unless otherwise noted. For all available output shaft diameters, see page 411. For dimensions of compound gear units (ex: FA47R37) see page 401.

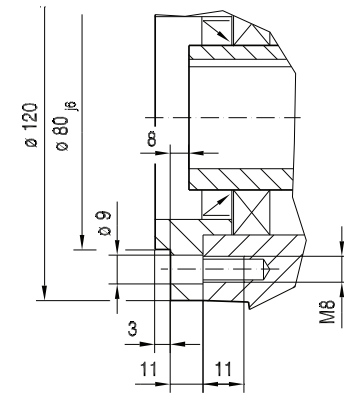
9 F - theSnuggler® Helical

F.. AM.. [NEMA dimensions]

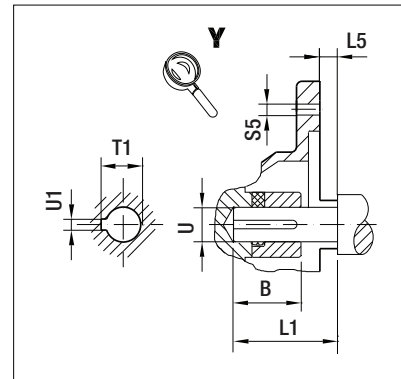
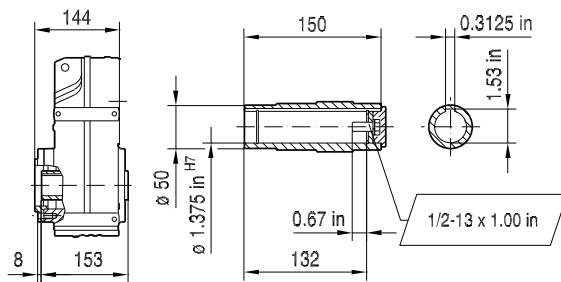
FAZ47..



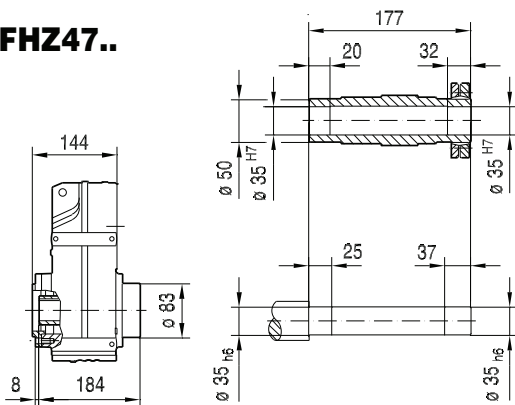
42 016 00 11



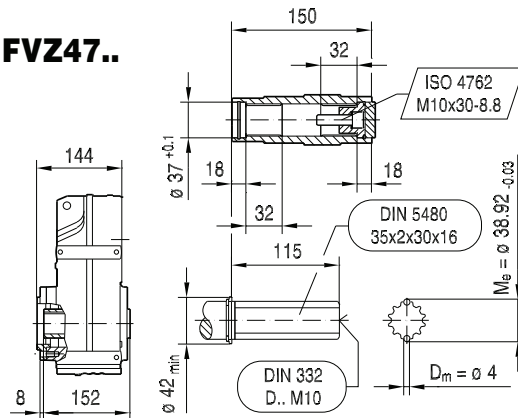
FAZ47..



FHZ47..



FVZ47..

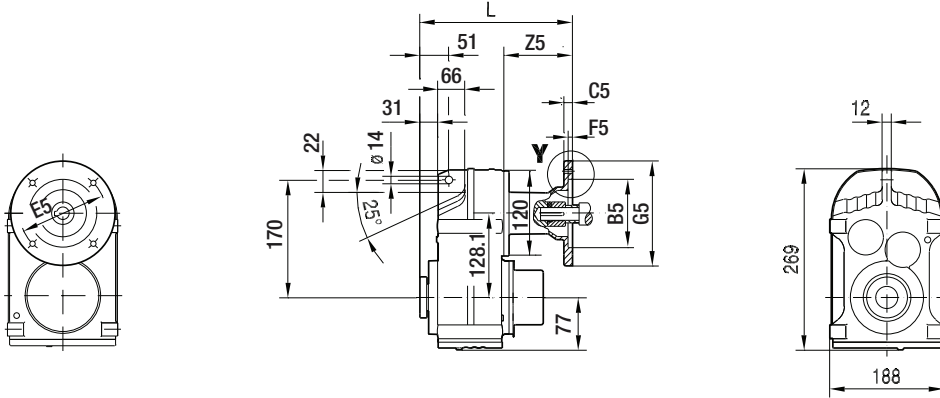


(→ 132)	B	B5	C5	E5	F5	G5	L	L1	L5	S5	T1	U	U1	Z5
AM56	1.23 in	4.50 in	11	5.875 in	4.5	170	238	1.88 in	-0.18 in	10.5	0.71 in	0.625 in	0.188 in	93.5
AM143	1.68 in	4.50 in	12	5.875 in	4.5	170	261	2.25 in	0.13 in	10.5	0.98 in	0.875 in	0.188 in	117
AM145	1.68 in	4.50 in	12	5.875 in	4.5	170	261	2.25 in	0.13 in	10.5	0.98 in	0.875 in	0.188 in	117

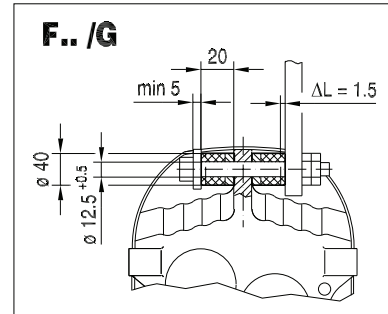
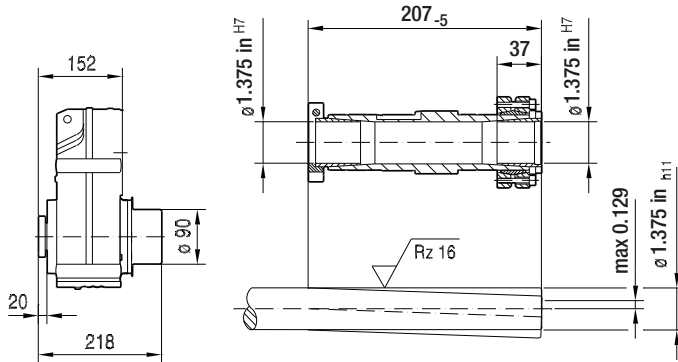
Note: Dimensions in mm unless otherwise noted. For all available output shaft diameters, see page 411. For dimensions of compound gear units (ex: FAZ47R37) see page 401.

FT47..

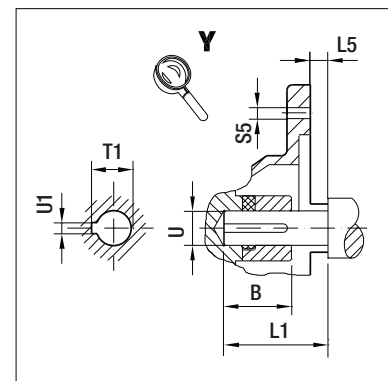
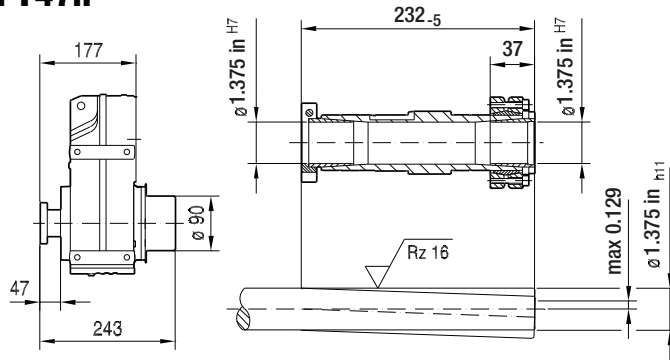
42 017 00 11



**NON-Symmetrical
FT47..**



**Symmetrical
FT47..**



(→ 132)	B	B5	C5	E5	F5	G5	L	L1	L5	S5	T1	U	U1	Z5
AM56	1.23 in	4.50 in	11	5.875 in	4.5	170	246	1.88 in	-0.18 in	10.5	0.71 in	0.625 in	0.188 in	93.5
AM143	1.68 in	4.50 in	12	5.875 in	4.5	170	269	2.25 in	0.13 in	10.5	0.98 in	0.875 in	0.188 in	117
AM145	1.68 in	4.50 in	12	5.875 in	4.5	170	269	2.25 in	0.13 in	10.5	0.98 in	0.875 in	0.188 in	117

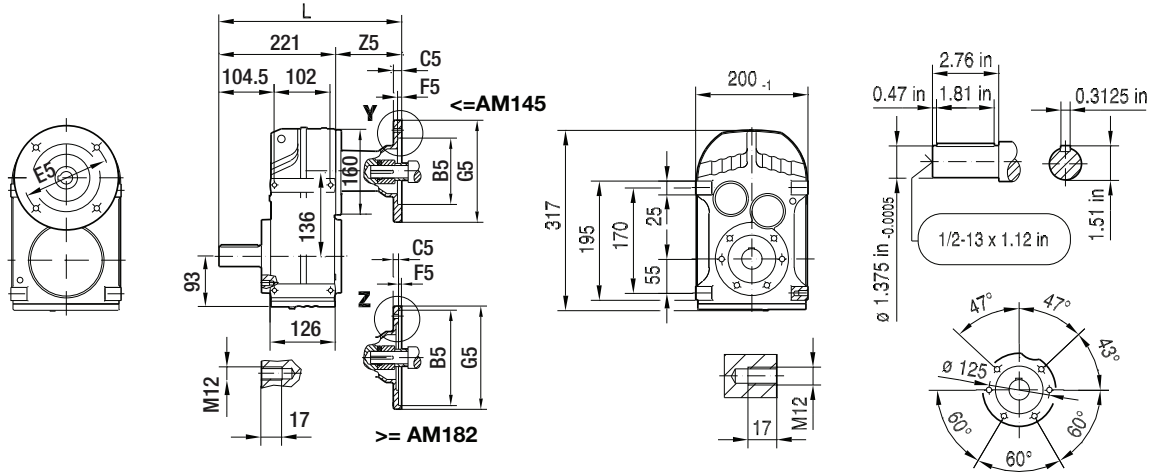
Note: Dimensions in mm unless otherwise noted. For all available output shaft diameters, see page 413. For dimensions of compound gear units (ex: FT47R37) see page 401.

9 F - theSnuggler® Helical

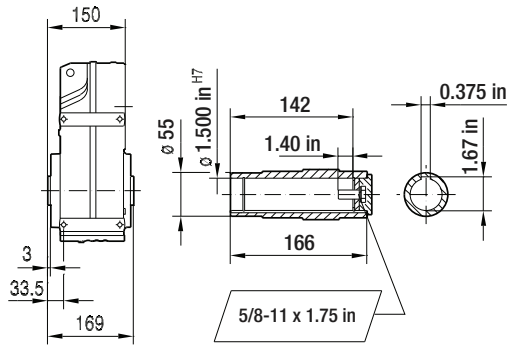
F.. AM.. [NEMA dimensions]

42 018 00 11

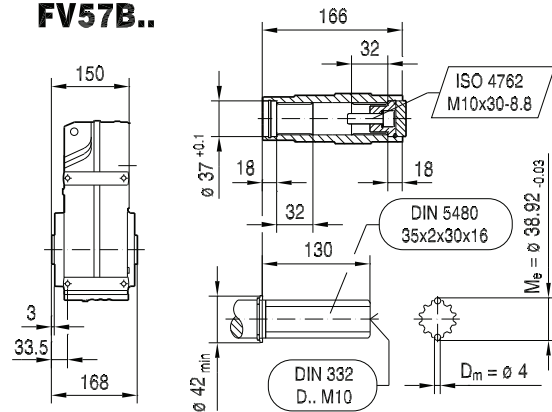
F57..



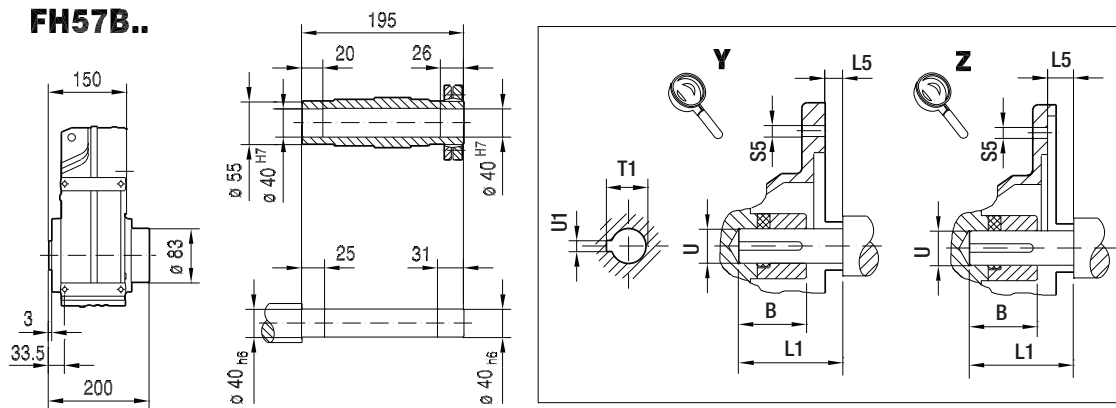
FA57B..



FV57B..



FH57B..

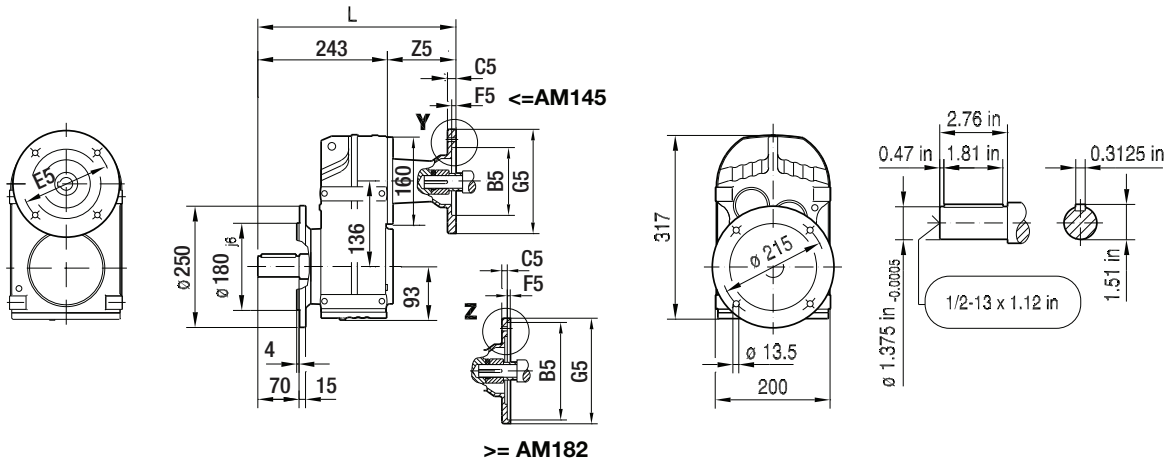


(→ 132)	B	B5	C5	E5	F5	G5	L	L1	L5	S5	T1	U	U1	Z5
AM56	1.23 in	4.50 in	11	5.875 in	4.5	170	308	1.88 in	-0.18 in	10.5	0.71 in	0.625 in	0.188 in	87
AM143	1.68 in	4.50 in	12	5.875 in	4.5	170	332	2.25 in	0.13 in	10.5	0.98 in	0.875 in	0.188 in	110.5
AM145	1.68 in	4.50 in	12	5.875 in	4.5	170	332	2.25 in	0.13 in	10.5	0.98 in	0.875 in	0.188 in	110.5
AM182	2.10 in	8.50 in	10	7.25 in	5	228	369	2.75 in	0.13 in	15	1.24 in	1.125 in	0.250 in	147.5
AM184	2.10 in	8.50 in	10	7.25 in	5	228	369	2.75 in	0.13 in	15	1.24 in	1.125 in	0.250 in	147.5
AM213/215	2.76 in	8.50 in	11	7.25 in	5	228	422	3.38 in	0.25 in	15	1.52 in	1.375 in	0.312 in	200.5

Note: Dimensions in mm unless otherwise noted. For all available output shaft diameters, see page 409. For dimensions of compound gear units (ex: F57R37) see page 401.

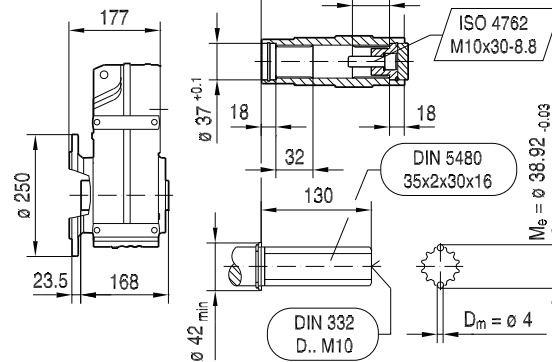
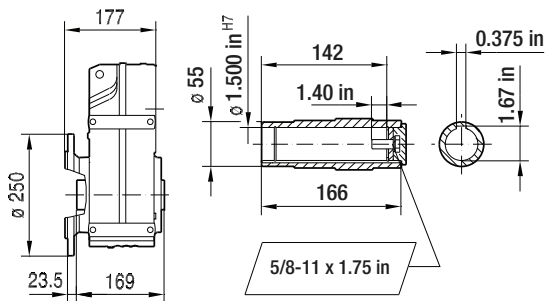
FF57..

42 019 00 11

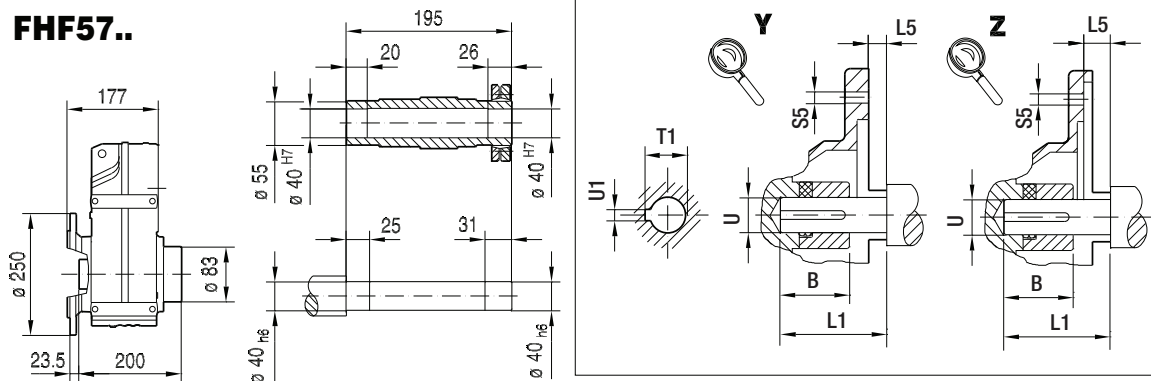


FAF57..

FVF57..



FHF57..



(→ 132)	B	B5	C5	E5	F5	G5	L	L1	L5	S5	T1	U	U1	Z5
AM56	1.23 in	4.50 in	11	5.875 in	4.5	170	330	1.88 in	-0.18 in	10.5	0.71 in	0.625 in	0.188 in	87
AM143	1.68 in	4.50 in	12	5.875 in	4.5	170	354	2.25 in	0.13 in	10.5	0.98 in	0.875 in	0.188 in	110.5
AM145	1.68 in	4.50 in	12	5.875 in	4.5	170	354	2.25 in	0.13 in	10.5	0.98 in	0.875 in	0.188 in	110.5
AM182	2.10 in	8.50 in	10	7.25 in	5	228	391	2.75 in	0.13 in	15	1.24 in	1.125 in	0.250 in	147.5
AM184	2.10 in	8.50 in	10	7.25 in	5	228	391	2.75 in	0.13 in	15	1.24 in	1.125 in	0.250 in	147.5
AM213/215	2.76 in	8.50 in	11	7.25 in	5	228	444	3.38 in	0.25 in	15	1.52 in	1.375 in	0.312 in	200.5

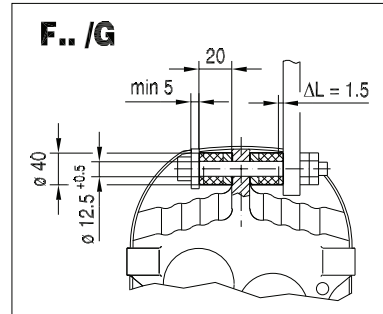
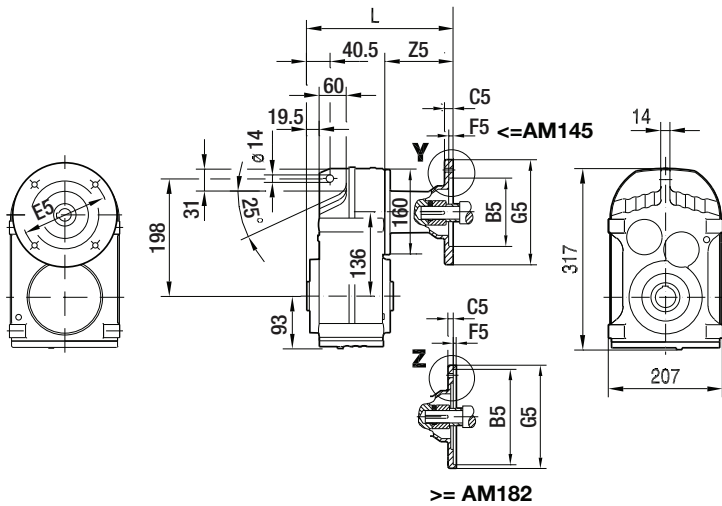
Note: Dimensions in mm unless otherwise noted. For all available output shaft diameters, see page 409. For dimensions of compound gear units (ex: FF57R37) see page 401.

9 F - theSnuggler® Helical

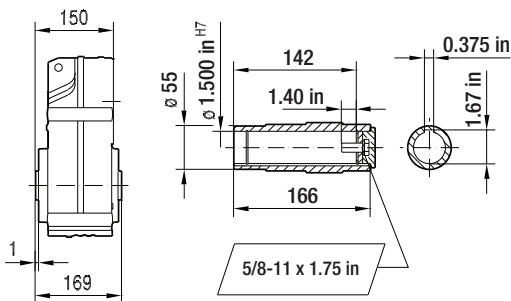
F.. AM.. [NEMA dimensions]

42 020 00 11

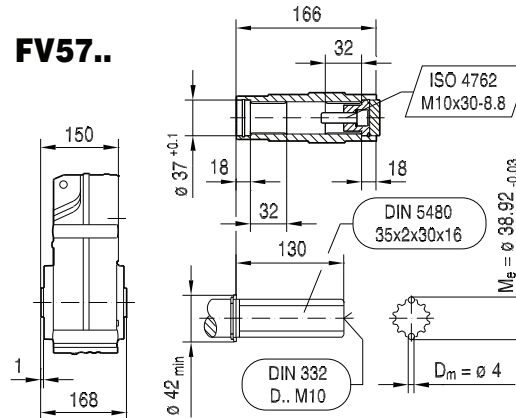
FA57..



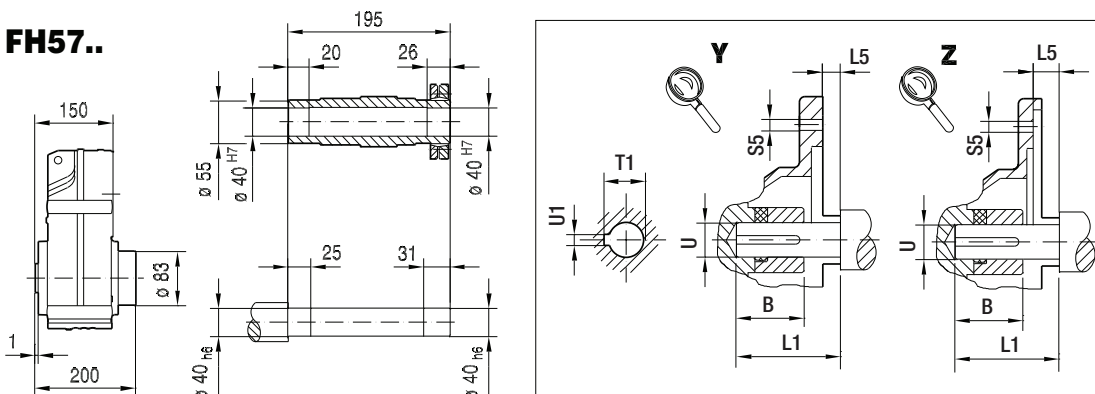
FA57..



FV57..



FH57..

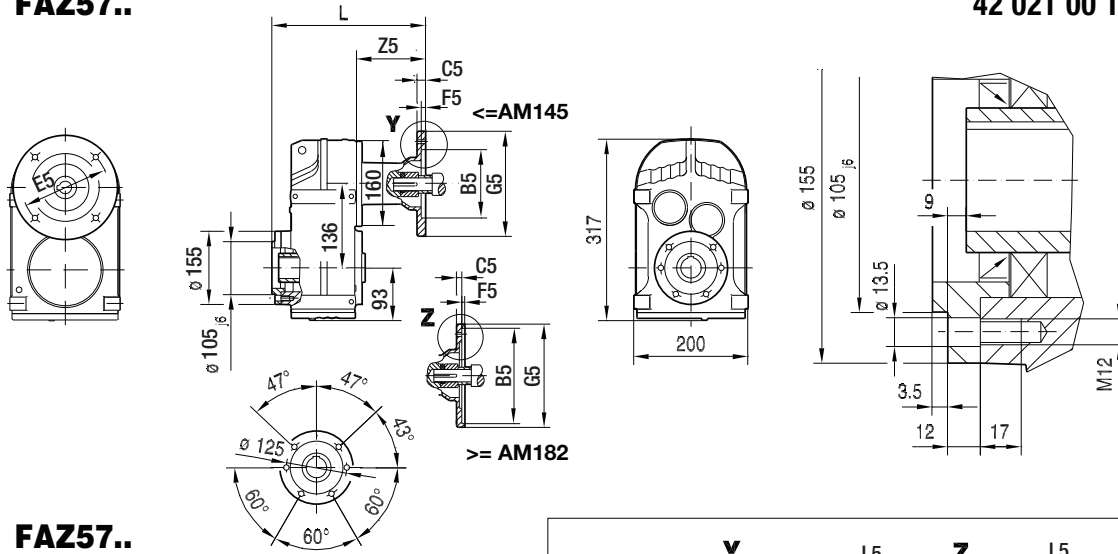


(→ 132)	B	B5	C5	E5	F5	G5	L	L1	L5	S5	T1	U	U1	Z5
AM56	1.23 in	4.50 in	11	5.875 in	4.5	170	237	1.88 in	-0.18 in	10.5	0.71 in	0.625 in	0.188 in	87
AM143	1.68 in	4.50 in	12	5.875 in	4.5	170	261	2.25 in	0.13 in	10.5	0.98 in	0.875 in	0.188 in	110.5
AM145	1.68 in	4.50 in	12	5.875 in	4.5	170	261	2.25 in	0.13 in	10.5	0.98 in	0.875 in	0.188 in	110.5
AM182	2.10 in	8.50 in	10	7.25 in	5	228	298	2.75 in	0.13 in	15	1.24 in	1.125 in	0.250 in	147.5
AM184	2.10 in	8.50 in	10	7.25 in	5	228	298	2.75 in	0.13 in	15	1.24 in	1.125 in	0.250 in	147.5
AM213/215	2.76 in	8.50 in	11	7.25 in	5	228	351	3.38 in	0.25 in	15	1.52 in	1.375 in	0.312 in	200.5

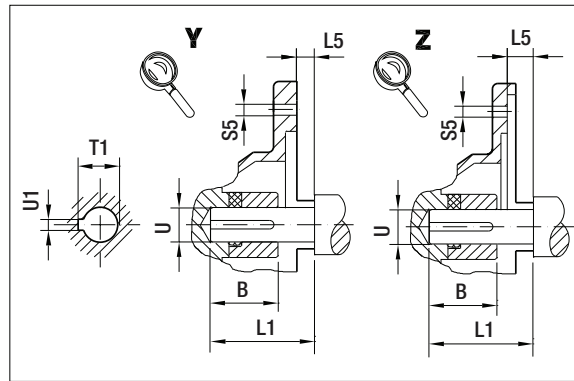
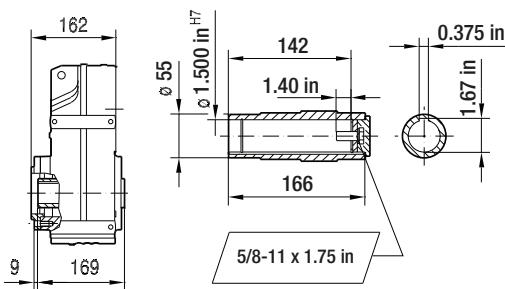
Note: Dimensions in mm unless otherwise noted. For all available output shaft diameters, see page 411. For dimensions of compound gear units (ex: FA57R37) see page 401.

FAZ57..

42 021 00 11

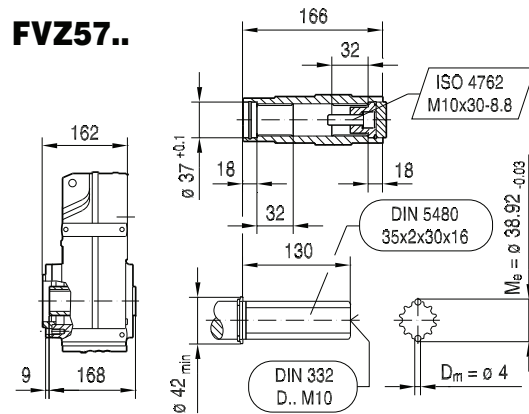
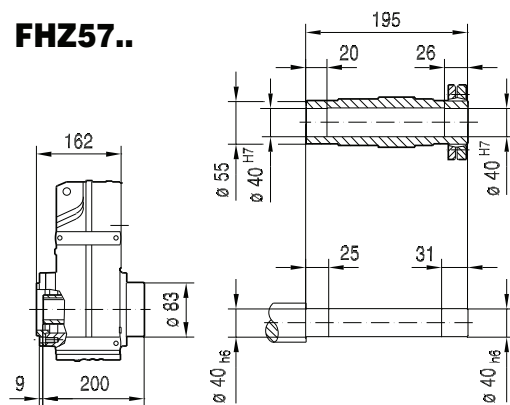


FAZ57..



FHZ57..

FVZ57..



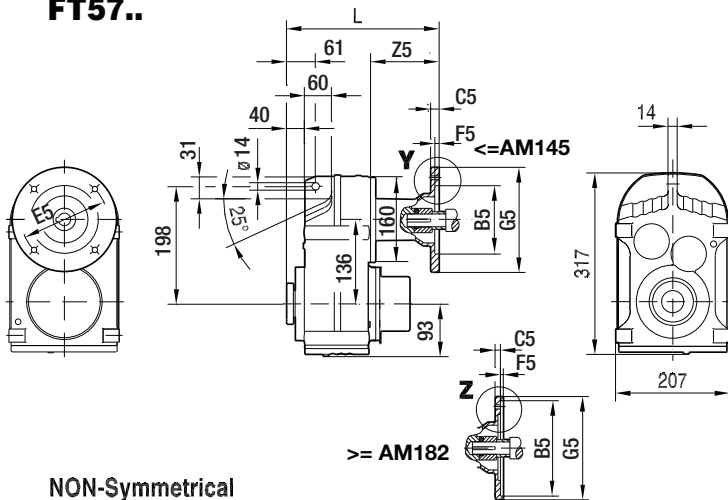
(→ 132)	B	B5	C5	E5	F5	G5	L	L1	L5	S5	T1	U	U1	Z5
AM56	1.23 in	4.50 in	11	5.875 in	4.5	170	249	1.88 in	-0.18 in	10.5	0.71 in	0.625 in	0.188 in	87
AM143	1.68 in	4.50 in	12	5.875 in	4.5	170	273	2.25 in	0.13 in	10.5	0.98 in	0.875 in	0.188 in	110.5
AM145	1.68 in	4.50 in	12	5.875 in	4.5	170	273	2.25 in	0.13 in	10.5	0.98 in	0.875 in	0.188 in	110.5
AM182	2.10 in	8.50 in	10	7.25 in	5	228	310	2.75 in	0.13 in	15	1.24 in	1.125 in	0.250 in	147.5
AM184	2.10 in	8.50 in	10	7.25 in	5	228	310	2.75 in	0.13 in	15	1.24 in	1.125 in	0.250 in	147.5
AM213/215	2.76 in	8.50 in	11	7.25 in	5	228	363	3.38 in	0.25 in	15	1.52 in	1.375 in	0.312 in	200.5

Note: Dimensions in mm unless otherwise noted. For all available output shaft diameters, see page 411. For dimensions of compound gear units (ex: FAZ57R37) see page 401.

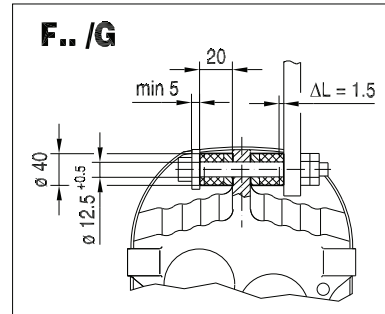
9 F - theSnuggler® Helical

F.. AM.. [NEMA dimensions]

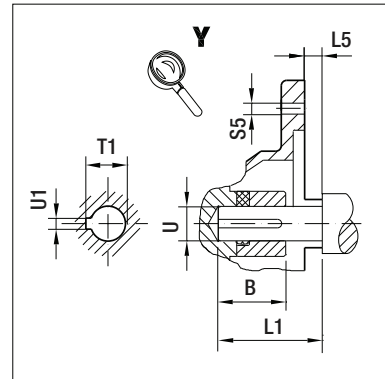
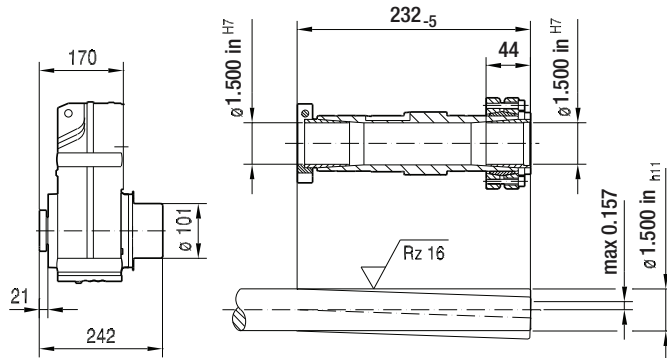
FT57..



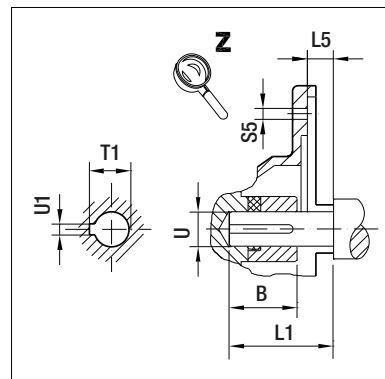
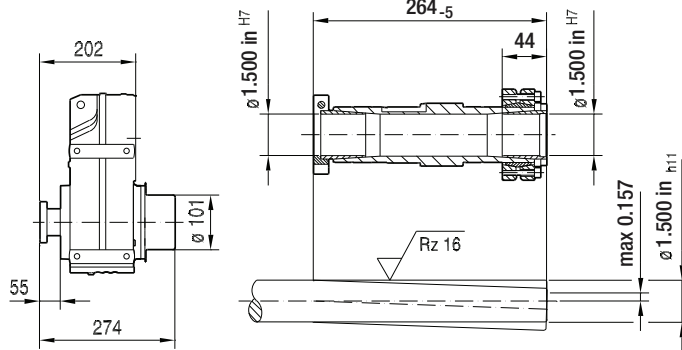
42 022 00 11



NON-Symmetrical FT57..

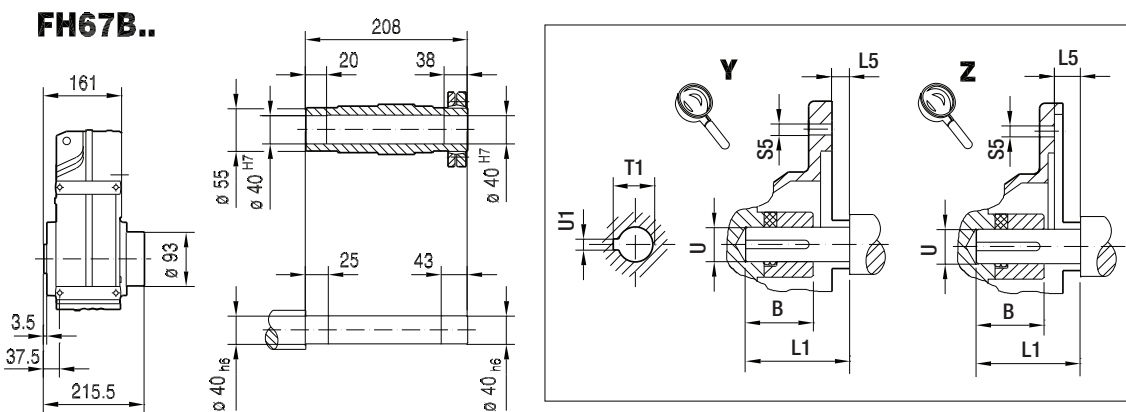
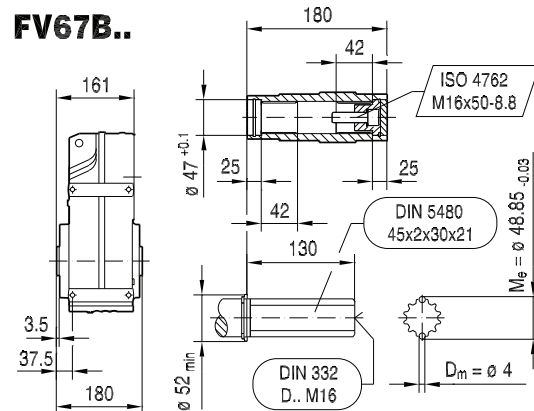
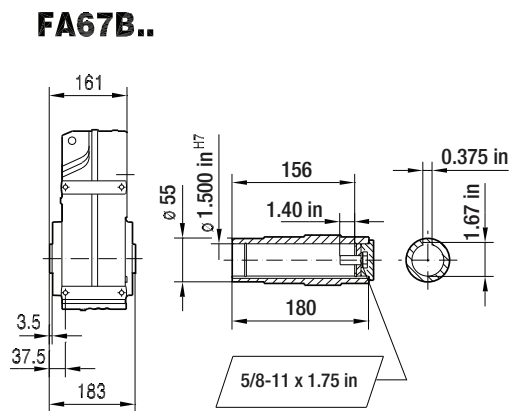
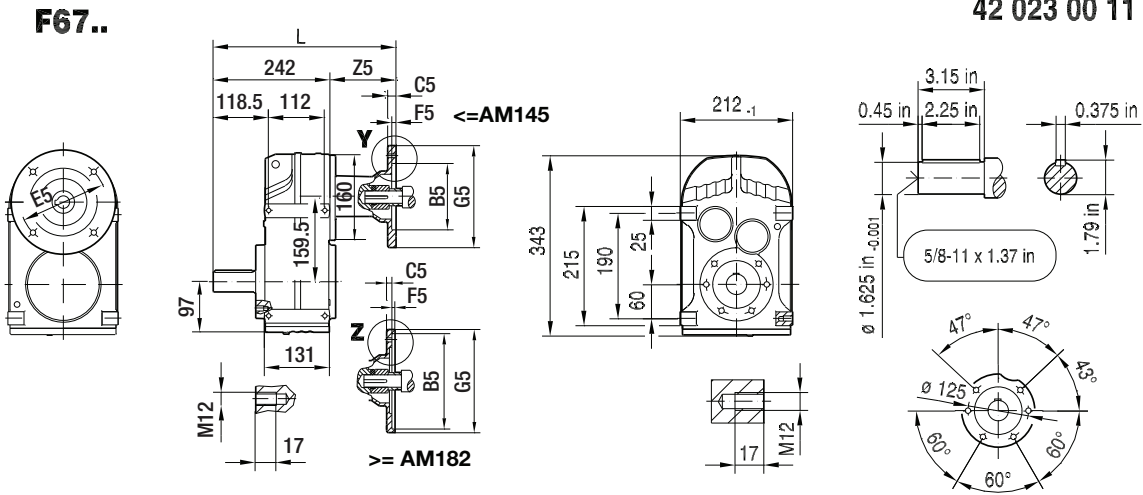


Symmetrical FT57..



(→ 132)	B	B5	C5	E5	F5	G5	L	L1	L5	S5	T1	U	U1	Z5
AM56	1.23 in	4.50 in	11	5.875 in	4.5	170	257	1.88 in	-0.18 in	10.5	0.71 in	0.625 in	0.188 in	87
AM143	1.68 in	4.50 in	12	5.875 in	4.5	170	281	2.25 in	0.13 in	10.5	0.98 in	0.875 in	0.188 in	110.5
AM145	1.68 in	4.50 in	12	5.875 in	4.5	170	281	2.25 in	0.13 in	10.5	0.98 in	0.875 in	0.188 in	110.5
AM182	2.10 in	8.50 in	10	7.25 in	5	228	318	2.75 in	0.13 in	15	1.24 in	1.125 in	0.250 in	147.5
AM184	2.10 in	8.50 in	10	7.25 in	5	228	318	2.75 in	0.13 in	15	1.24 in	1.125 in	0.250 in	147.5
AM213/215	2.76 in	8.50 in	11	7.25 in	5	228	371	3.38 in	0.25 in	15	1.52 in	1.375 in	0.312 in	200.5

Note: Dimensions in mm unless otherwise noted. For all available output shaft diameters, see page 413. For dimensions of compound gear units (ex: FT57R37) see page 401.



(→ 132)	B	B5	C5	E5	F5	G5	L	L1	L5	S5	T1	U	U1	Z5
AM56	1.23 in	4.50 in	11	5.875 in	4.5	170	329	1.88 in	-0.18 in	10.5	0.71 in	0.625 in	0.188 in	87
AM143	1.68 in	4.50 in	12	5.875 in	4.5	170	353	2.25 in	0.13 in	10.5	0.98 in	0.875 in	0.188 in	110.5
AM145	1.68 in	4.50 in	12	5.875 in	4.5	170	353	2.25 in	0.13 in	10.5	0.98 in	0.875 in	0.188 in	110.5
AM182	2.10 in	8.50 in	10	7.25 in	5	228	390	2.75 in	0.13 in	15	1.24 in	1.125 in	0.250 in	147.5
AM184	2.10 in	8.50 in	10	7.25 in	5	228	390	2.75 in	0.13 in	15	1.24 in	1.125 in	0.250 in	147.5
AM213/215	2.76 in	8.50 in	11	7.25 in	5	228	443	3.38 in	0.25 in	15	1.52 in	1.375 in	0.312 in	200.5

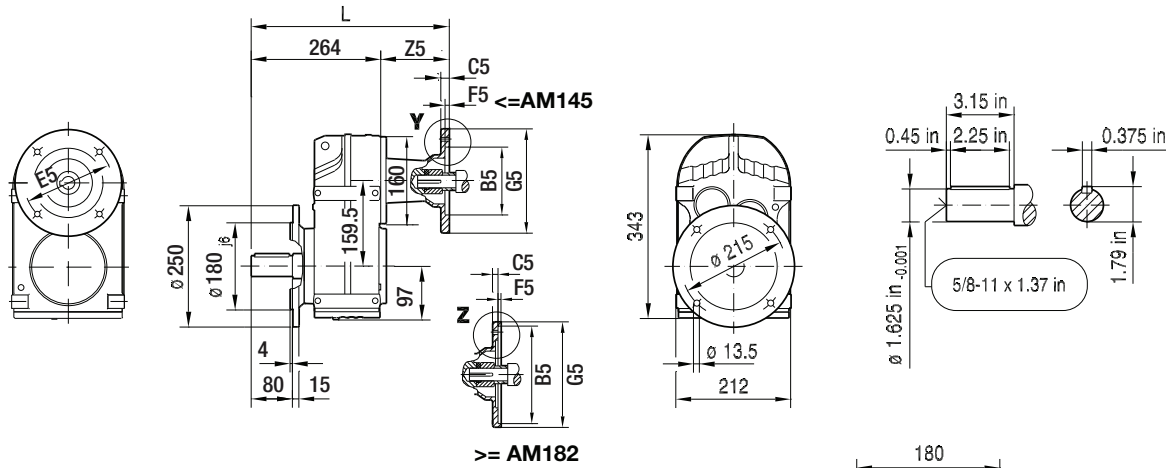
Note: Dimensions in mm unless otherwise noted. For all available output shaft diameters, see page 409. For dimensions of compound gear units (ex: F67R37) see page 401.

9 F - theSnuggler® Helical

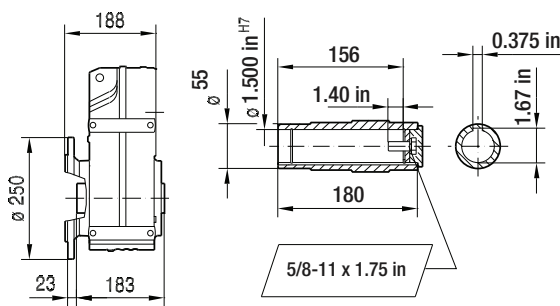
F.. AM.. [NEMA dimensions]

42 024 00 11

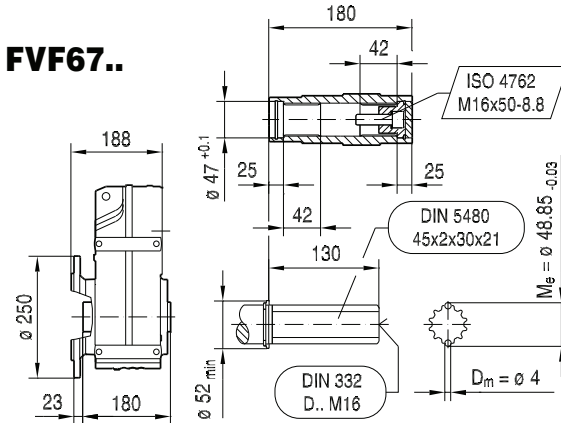
FF67..



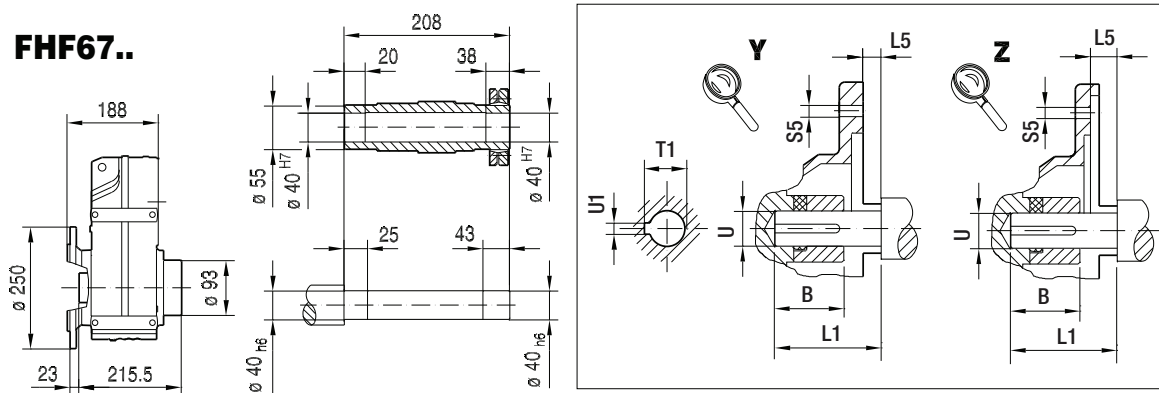
FAF67..



FVF67..



FHF67..

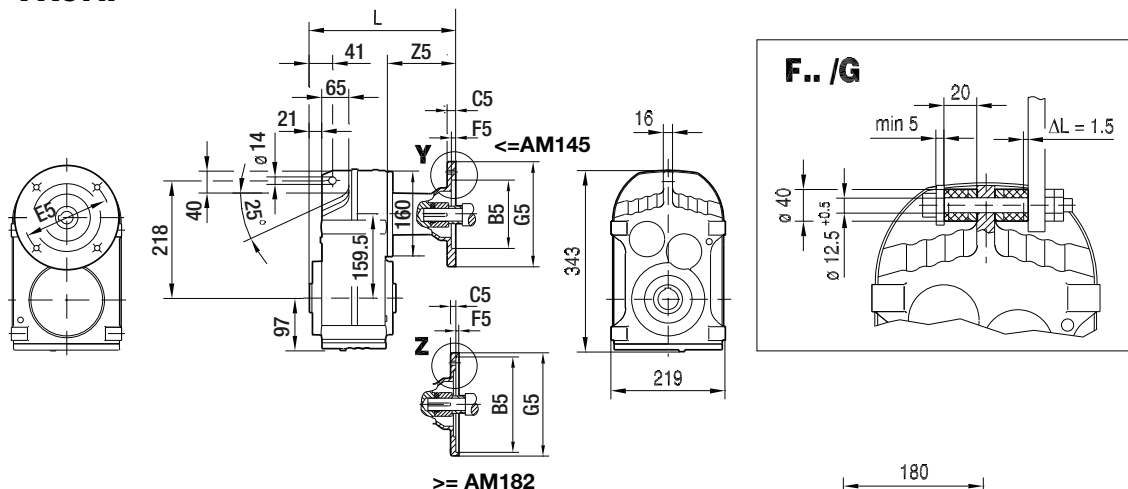


(→ 132)	B	B5	C5	E5	F5	G5	L	L1	L5	S5	T1	U	U1	Z5
AM56	1.23 in	4.50 in	11	5.875 in	4.5	170	351	1.88 in	-0.18 in	10.5	0.71 in	0.625 in	0.188 in	87
AM143	1.68 in	4.50 in	12	5.875 in	4.5	170	375	2.25 in	0.13 in	10.5	0.98 in	0.875 in	0.188 in	110.5
AM145	1.68 in	4.50 in	12	5.875 in	4.5	170	375	2.25 in	0.13 in	10.5	0.98 in	0.875 in	0.188 in	110.5
AM182	2.10 in	8.50 in	10	7.25 in	5	228	412	2.75 in	0.13 in	15	1.24 in	1.125 in	0.250 in	147.5
AM184	2.10 in	8.50 in	10	7.25 in	5	228	412	2.75 in	0.13 in	15	1.24 in	1.125 in	0.250 in	147.5
AM213/215	2.76 in	8.50 in	11	7.25 in	5	228	465	3.38 in	0.25 in	15	1.52 in	1.375 in	0.312 in	200.5

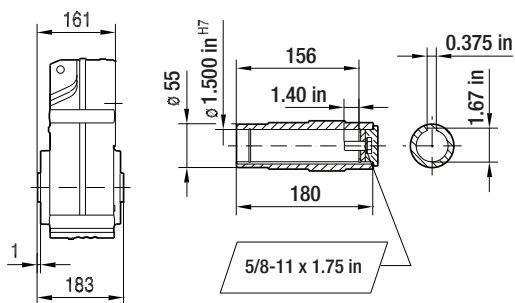
Note: Dimensions in mm unless otherwise noted. For all available output shaft diameters, see page 409. For dimensions of compound gear units (ex: FF67R37) see page 401.

FA67..

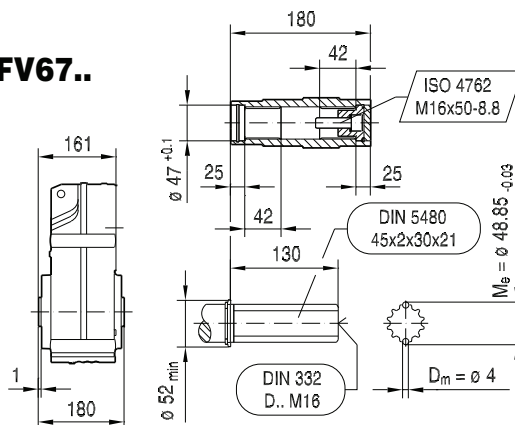
42 025 00 11



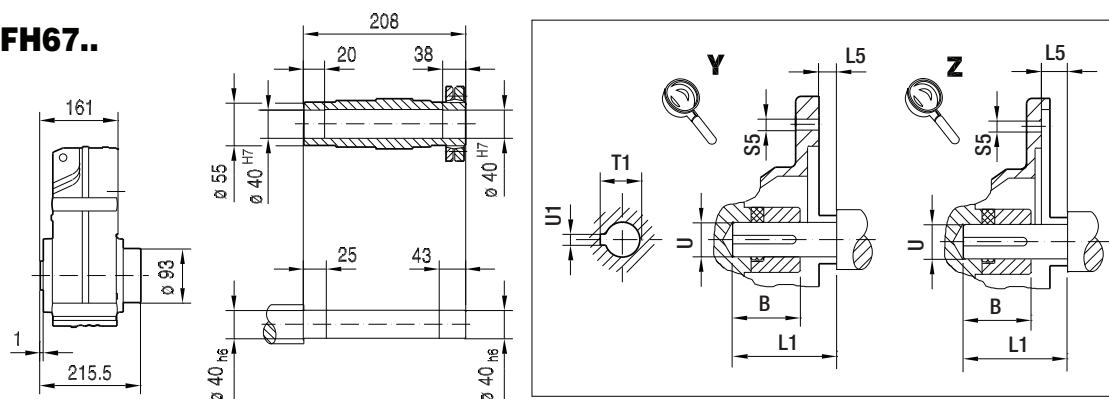
FA67..



FV67..



FH67..



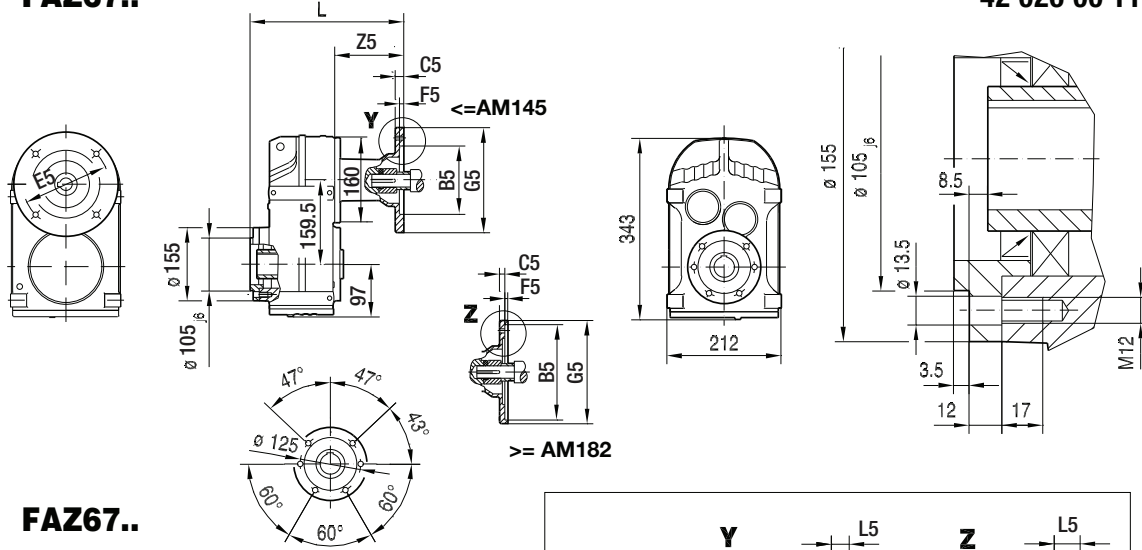
(→  132)	B	B5	C5	E5	F5	G5	L	L1	L5	S5	T1	U	U1	Z5
AM56	1.23 in	4.50 in	11	5.875 in	4.5	170	248	1.88 in	-0.18 in	10.5	0.71 in	0.625 in	0.188 in	87
AM143	1.68 in	4.50 in	12	5.875 in	4.5	170	272	2.25 in	0.13 in	10.5	0.98 in	0.875 in	0.188 in	110.5
AM145	1.68 in	4.50 in	12	5.875 in	4.5	170	272	2.25 in	0.13 in	10.5	0.98 in	0.875 in	0.188 in	110.5
AM182	2.10 in	8.50 in	10	7.25 in	5	228	309	2.75 in	0.13 in	15	1.24 in	1.125 in	0.250 in	147.5
AM184	2.10 in	8.50 in	10	7.25 in	5	228	309	2.75 in	0.13 in	15	1.24 in	1.125 in	0.250 in	147.5
AM213/215	2.76 in	8.50 in	11	7.25 in	5	228	362	3.38 in	0.25 in	15	1.52 in	1.375 in	0.312 in	200.5

Note: Dimensions in mm unless otherwise noted. For all available output shaft diameters, see page 411. For dimensions of compound gear units (ex: FA67R37) see page 401.

9 F - theSnuggler® Helical

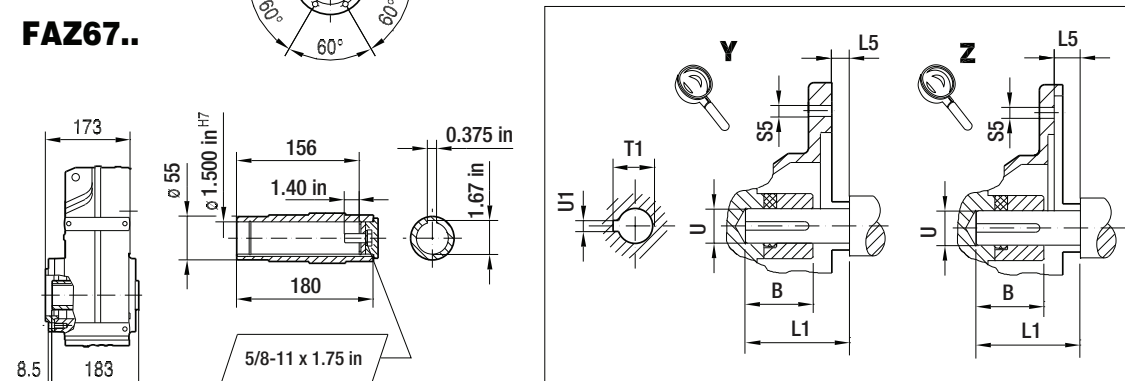
F.. AM.. [NEMA dimensions]

FAZ67..

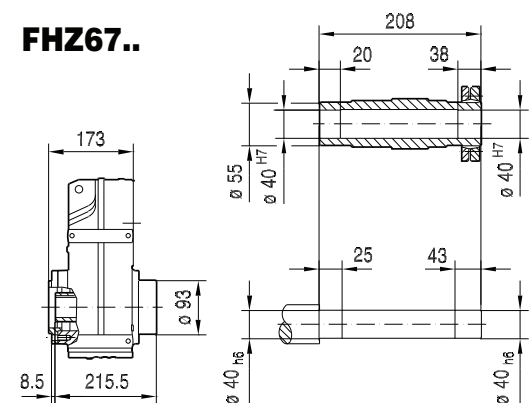


42 026 00 11

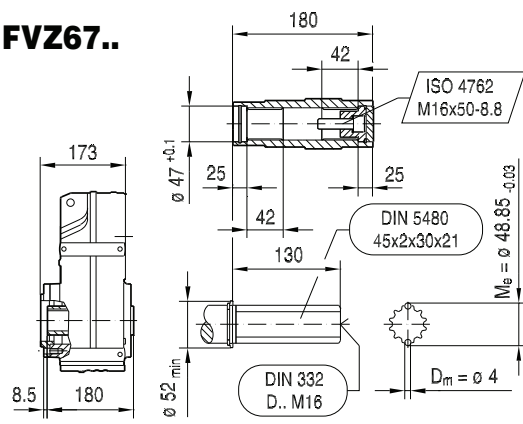
FAZ67..



FHZ67..



FVZ67..

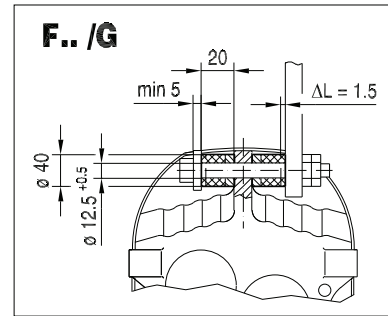
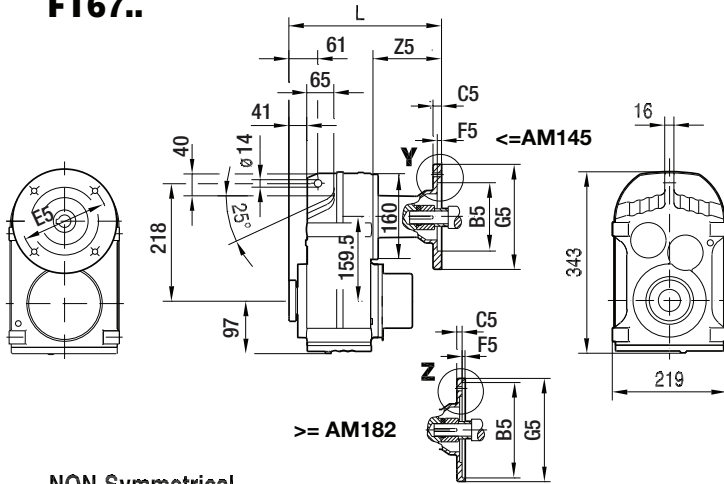


(→ 132)	B	B5	C5	E5	F5	G5	L	L1	L5	S5	T1	U	U1	Z5
AM56	1.23 in	4.50 in	11	5.875 in	4.5	170	260	1.88 in	-0.18 in	10.5	0.71 in	0.625 in	0.188 in	87
AM143	1.68 in	4.50 in	12	5.875 in	4.5	170	284	2.25 in	0.13 in	10.5	0.98 in	0.875 in	0.188 in	110.5
AM145	1.68 in	4.50 in	12	5.875 in	4.5	170	284	2.25 in	0.13 in	10.5	0.98 in	0.875 in	0.188 in	110.5
AM182	2.10 in	8.50 in	10	7.25 in	5	228	321	2.75 in	0.13 in	15	1.24 in	1.125 in	0.250 in	147.5
AM184	2.10 in	8.50 in	10	7.25 in	5	228	321	2.75 in	0.13 in	15	1.24 in	1.125 in	0.250 in	147.5
AM213/215	2.76 in	8.50 in	11	7.25 in	5	228	374	3.38 in	0.25 in	15	1.52 in	1.375 in	0.312 in	200.5

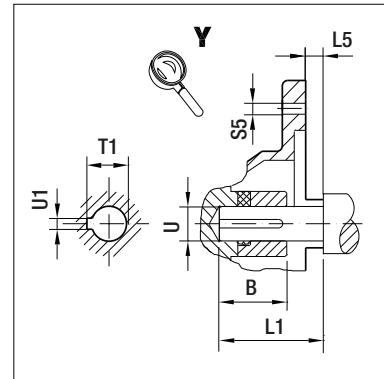
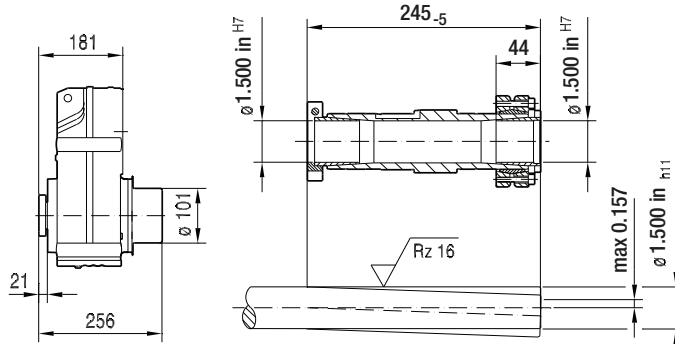
Note: Dimensions in mm unless otherwise noted. For all available output shaft diameters, see page 411. For dimensions of compound gear units (ex: FAZ67R37) see page 401.

FT67..

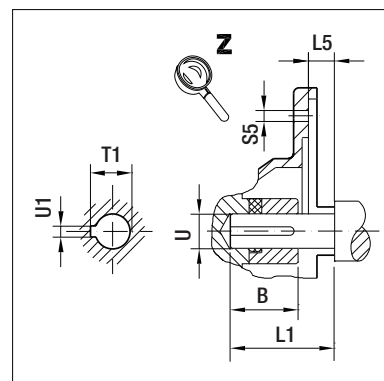
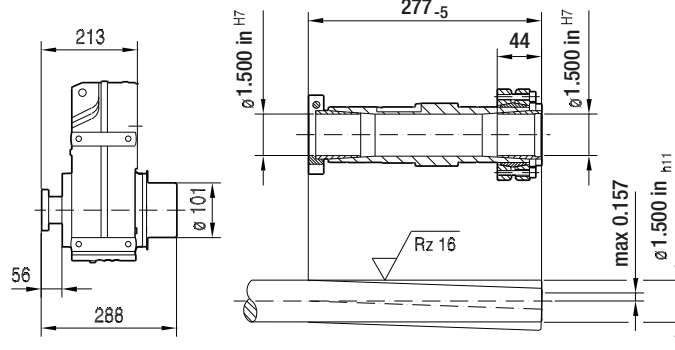
42 027 00 11



**NON-Symmetrical
FT67..**



**Symmetrical
FT67..**

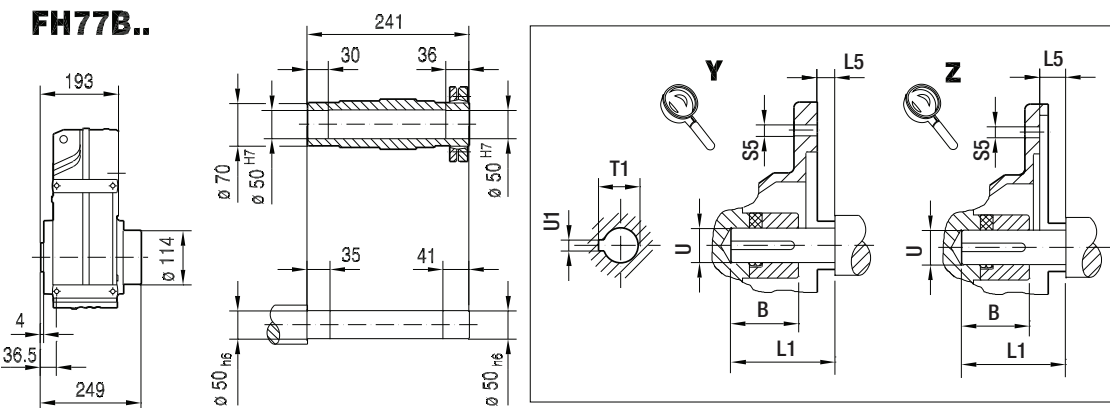
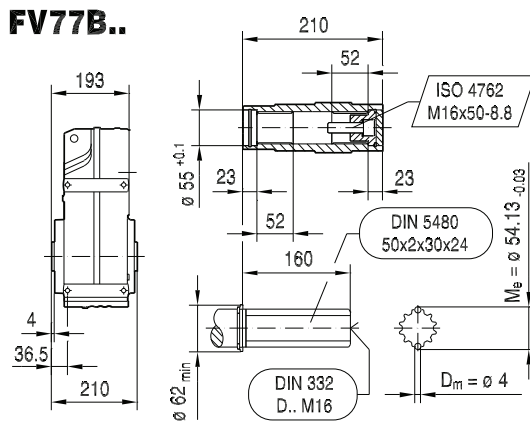
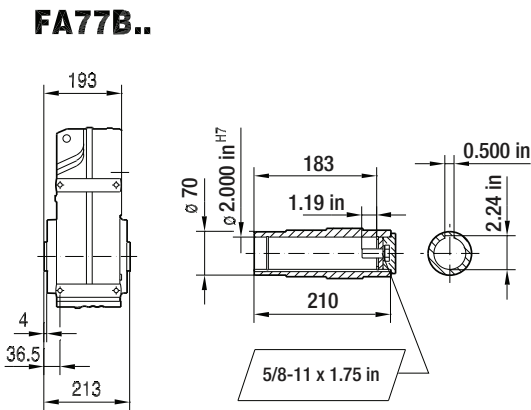
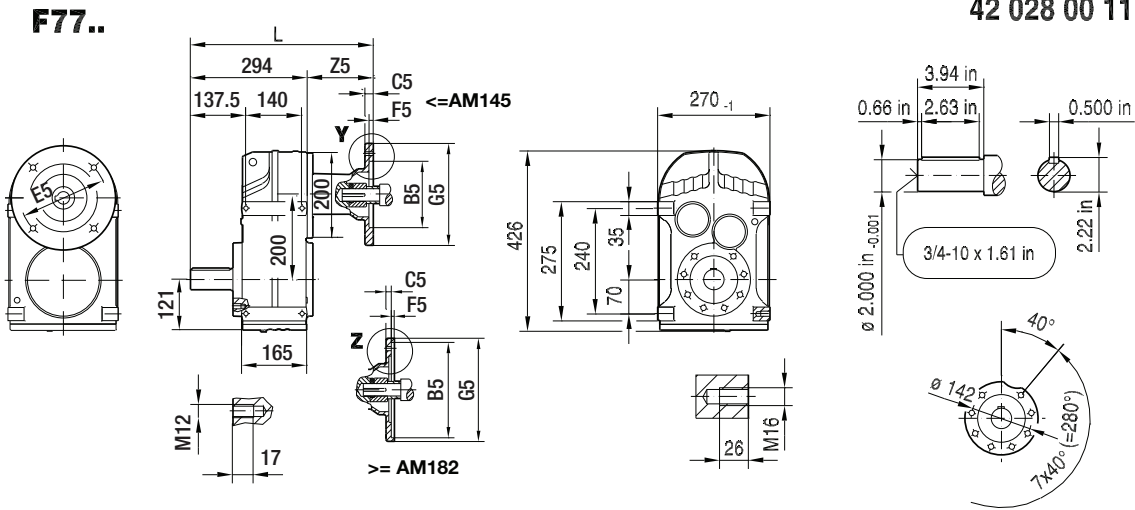


(→ 132)	B	B5	C5	E5	F5	G5	L	L1	L5	S5	T1	U	U1	Z5
AM56	1.23 in	4.50 in	11	5.875 in	4.5	170	268	1.88 in	-0.18 in	10.5	0.71 in	0.625 in	0.188 in	87
AM143	1.68 in	4.50 in	12	5.875 in	4.5	170	292	2.25 in	0.13 in	10.5	0.98 in	0.875 in	0.188 in	110.5
AM145	1.68 in	4.50 in	12	5.875 in	4.5	170	292	2.25 in	0.13 in	10.5	0.98 in	0.875 in	0.188 in	110.5
AM182	2.10 in	8.50 in	10	7.25 in	5	228	329	2.75 in	0.13 in	15	1.24 in	1.125 in	0.250 in	147.5
AM184	2.10 in	8.50 in	10	7.25 in	5	228	329	2.75 in	0.13 in	15	1.24 in	1.125 in	0.250 in	147.5
AM213/215	2.76 in	8.50 in	11	7.25 in	5	228	382	3.38 in	0.25 in	15	1.52 in	1.375 in	0.312 in	200.5

Note: Dimensions in mm unless otherwise noted. For all available output shaft diameters, see page 413. For dimensions of compound gear units (ex: FT67R37) see page 401.

9 F - theSnuggler® Helical

F.. AM.. [NEMA dimensions]

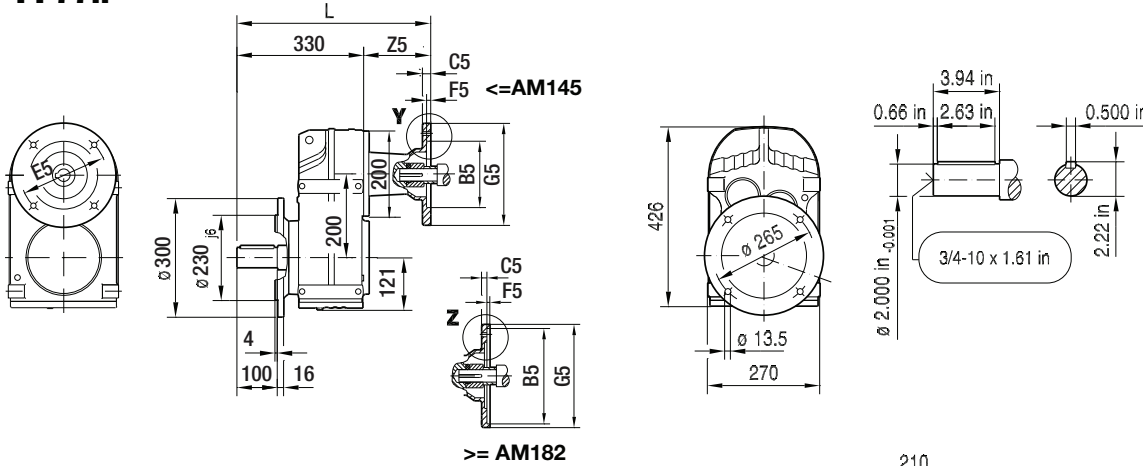


(→ 132)	B	B5	C5	E5	F5	G5	L	L1	L5	S5	T1	U	U1	Z5
AM56	1.23 in	4.50 in	11	5.875 in	4.5	170	375	1.88 in	-0.18 in	10.5	0.71 in	0.625 in	0.188 in	81
AM143	1.68 in	4.50 in	12	5.875 in	4.5	170	398	2.25 in	0.13 in	10.5	0.98 in	0.875 in	0.188 in	103.5
AM145	1.68 in	4.50 in	12	5.875 in	4.5	170	398	2.25 in	0.13 in	10.5	0.98 in	0.875 in	0.188 in	103.5
AM182	2.10 in	8.50 in	10	7.25 in	5	228	434	2.75 in	0.13 in	15	1.24 in	1.125 in	0.250 in	139.5
AM184	2.10 in	8.50 in	10	7.25 in	5	228	434	2.75 in	0.13 in	15	1.24 in	1.125 in	0.250 in	139.5
AM213/215	2.76 in	8.50 in	11	7.25 in	5	228	483	3.38 in	0.25 in	15	1.52 in	1.375 in	0.312 in	188.5

Note: Dimensions in mm unless otherwise noted. For all available output shaft diameters, see page 409. For dimensions of compound gear units (ex: FA77R37) see page 401.

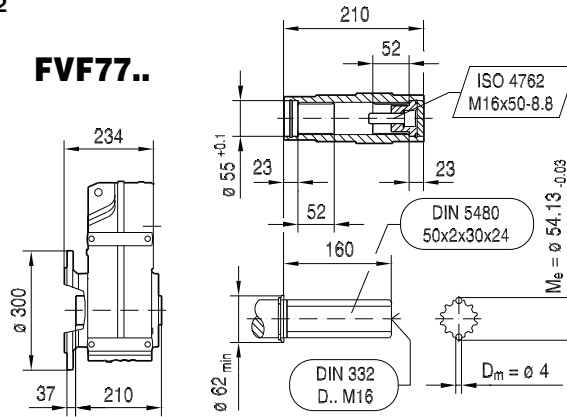
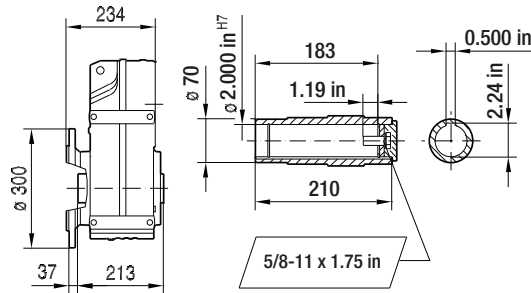
FF77..

42 029 00 11

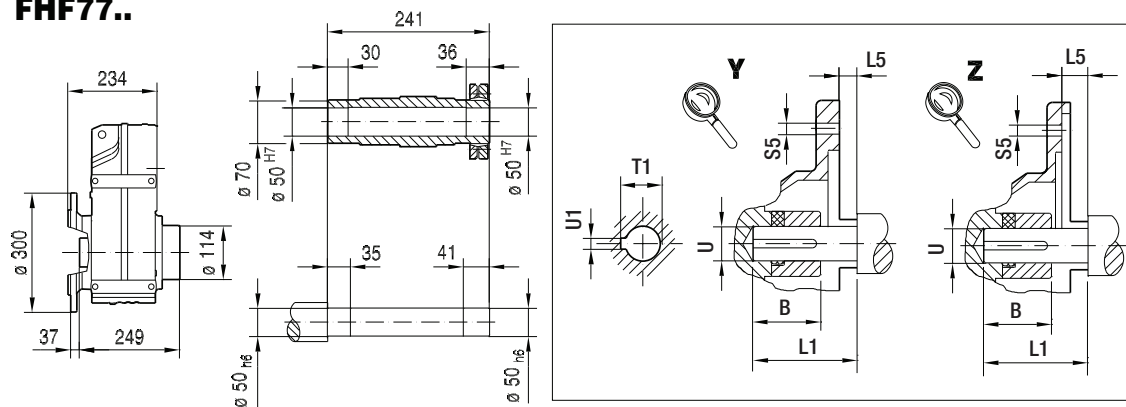


FAF77..

FVF77..



FHF77..



(→ 132)	B	B5	C5	E5	F5	G5	L	L1	L5	S5	T1	U	U1	Z5
AM56	1.23 in	4.50 in	11	5.875 in	4.5	170	411	1.88 in	-0.18 in	10.5	0.71 in	0.625 in	0.188 in	81
AM143	1.68 in	4.50 in	12	5.875 in	4.5	170	434	2.25 in	0.13 in	10.5	0.98 in	0.875 in	0.188 in	103.5
AM145	1.68 in	4.50 in	12	5.875 in	4.5	170	434	2.25 in	0.13 in	10.5	0.98 in	0.875 in	0.188 in	103.5
AM182	2.10 in	8.50 in	10	7.25 in	5	228	470	2.75 in	0.13 in	15	1.24 in	1.125 in	0.250 in	139.5
AM184	2.10 in	8.50 in	10	7.25 in	5	228	470	2.75 in	0.13 in	15	1.24 in	1.125 in	0.250 in	139.5
AM213/215	2.76 in	8.50 in	11	7.25 in	5	228	519	3.38 in	0.25 in	15	1.52 in	1.375 in	0.312 in	188.5

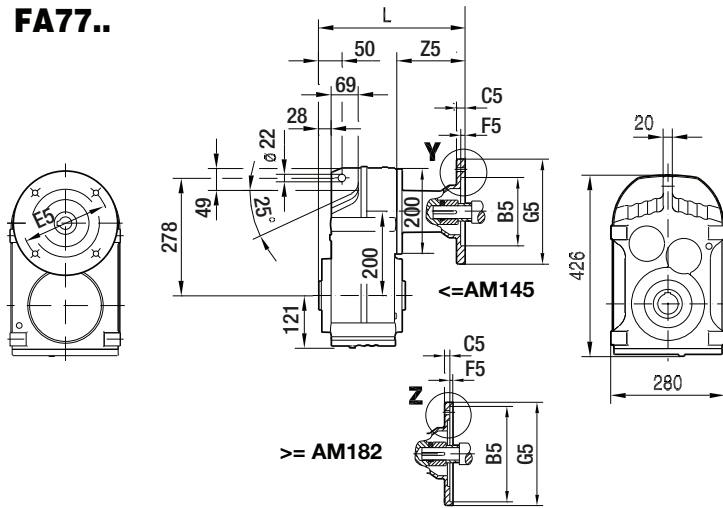
Note: Dimensions in mm unless otherwise noted. For all available output shaft diameters, see page 409. For dimensions of compound gear units (ex: FAF77R37) see page 401.

9 F - theSnuggler® Helical

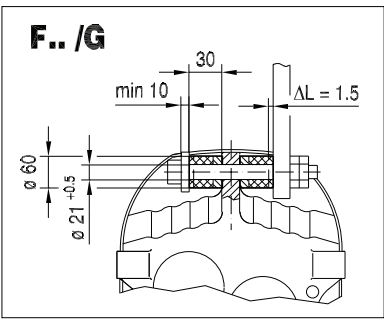
F.. AM.. [NEMA dimensions]

42 030 00 11

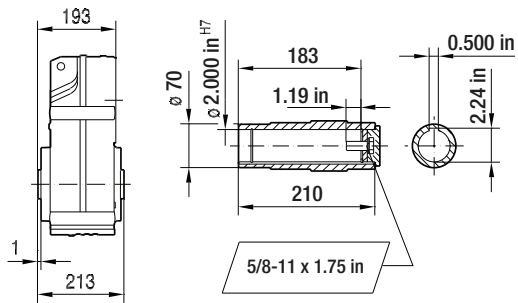
FA77..



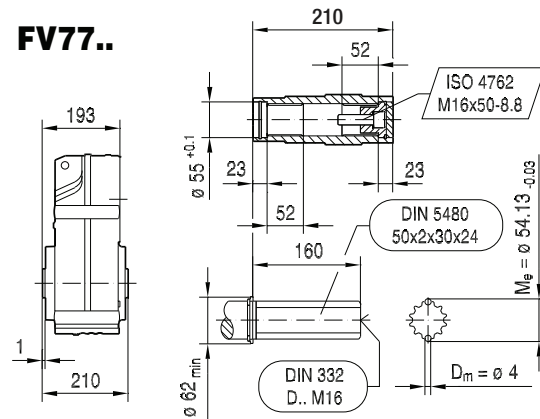
F../G



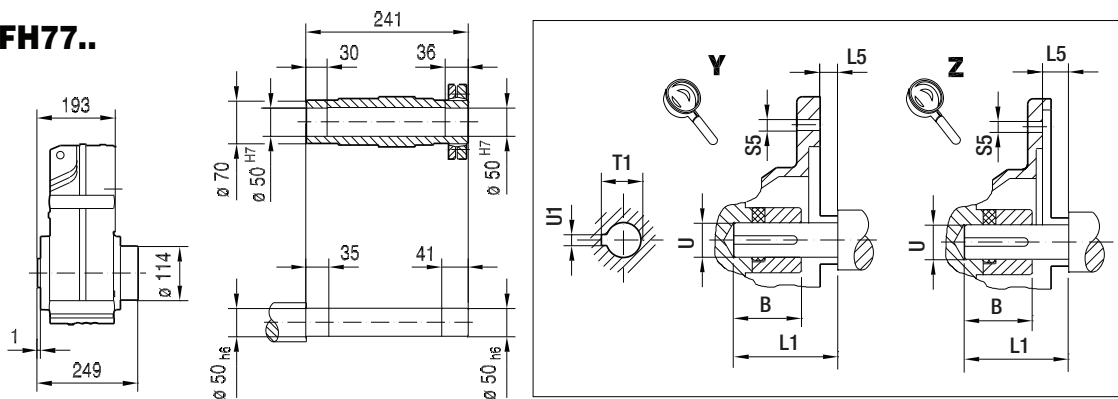
FA77..



FV77..



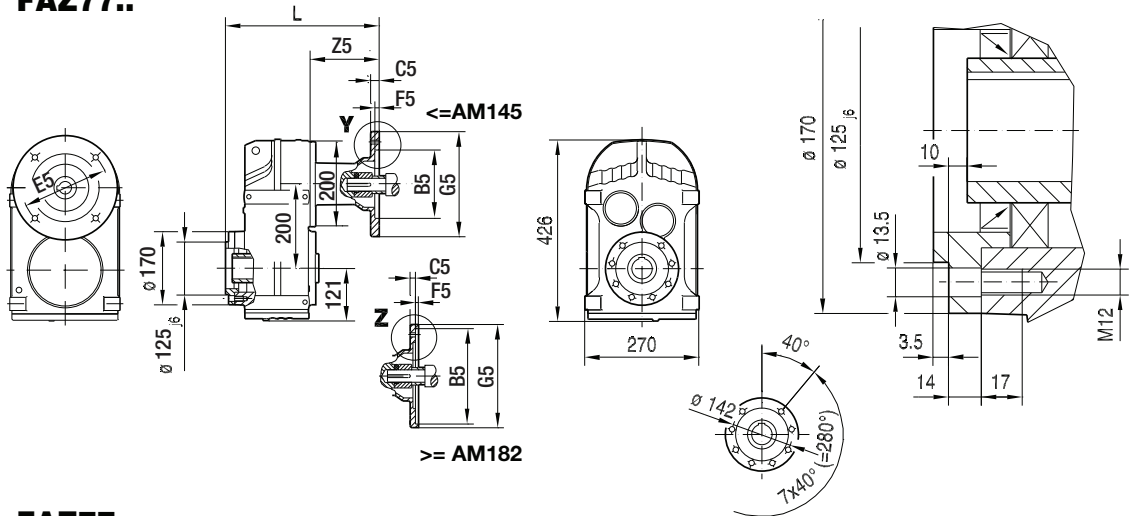
FH77..



(→ 132)	B	B5	C5	E5	F5	G5	L	L1	L5	S5	T1	U	U1	Z5
AM56	1.23 in	4.50 in	11	5.875 in	4.5	170	274	1.88 in	-0.18 in	10.5	0.71 in	0.625 in	0.188 in	81
AM143	1.68 in	4.50 in	12	5.875 in	4.5	170	297	2.25 in	0.13 in	10.5	0.98 in	0.875 in	0.188 in	103.5
AM145	1.68 in	4.50 in	12	5.875 in	4.5	170	297	2.25 in	0.13 in	10.5	0.98 in	0.875 in	0.188 in	103.5
AM182	2.10 in	8.50 in	10	7.25 in	5	228	333	2.75 in	0.13 in	15	1.24 in	1.125 in	0.250 in	139.5
AM184	2.10 in	8.50 in	10	7.25 in	5	228	333	2.75 in	0.13 in	15	1.24 in	1.125 in	0.250 in	139.5
AM213/215	2.76 in	8.50 in	11	7.25 in	5	228	382	3.38 in	0.25 in	15	1.52 in	1.375 in	0.312 in	188.5

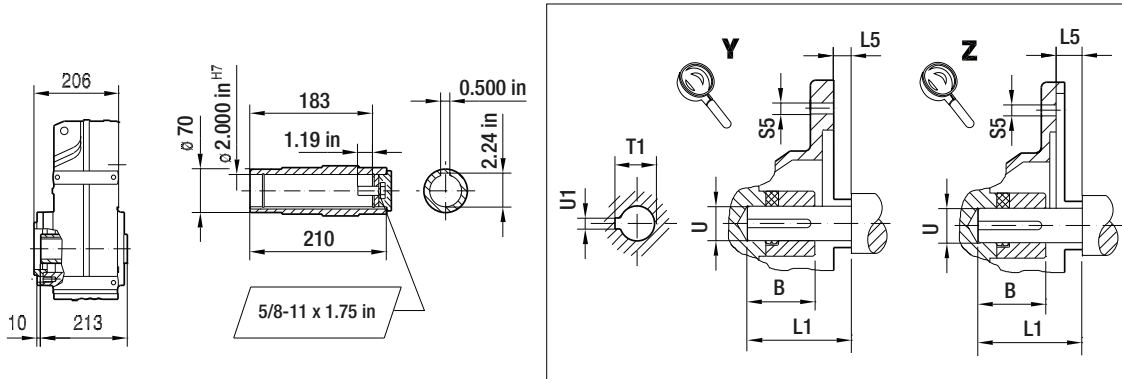
Note: Dimensions in mm unless otherwise noted. For all available output shaft diameters, see page 411. For dimensions of compound gear units (ex: FA77R37) see page 401.

FAZ77..

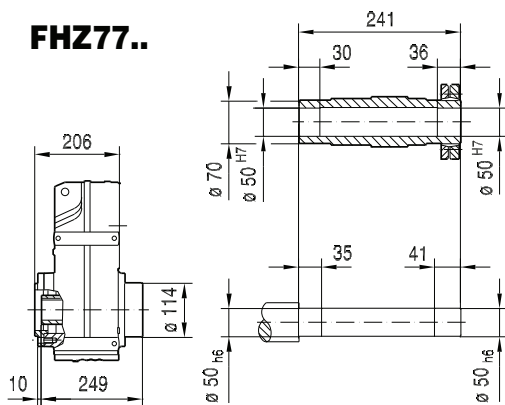


42 031 00 11

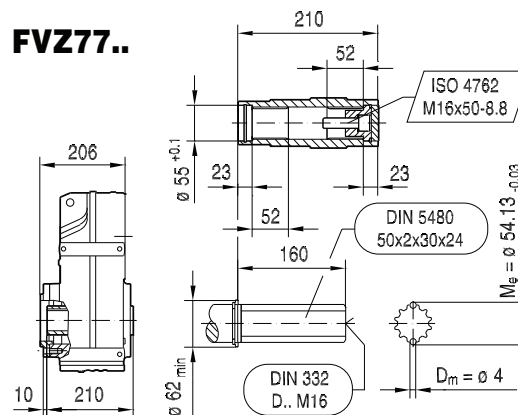
FAZ77..



FHZ77..



FVZ77..



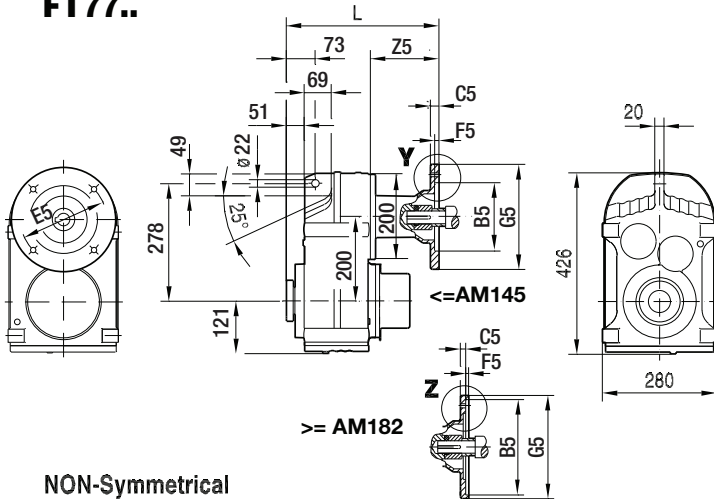
(→ 132)	B	B5	C5	E5	F5	G5	L	L1	L5	S5	T1	U	U1	Z5
AM56	1.23 in	4.50 in	11	5.875 in	4.5	170	287	1.88 in	-0.18 in	10.5	0.71 in	0.625 in	0.188 in	81
AM143	1.68 in	4.50 in	12	5.875 in	4.5	170	310	2.25 in	0.13 in	10.5	0.98 in	0.875 in	0.188 in	103.5
AM145	1.68 in	4.50 in	12	5.875 in	4.5	170	310	2.25 in	0.13 in	10.5	0.98 in	0.875 in	0.188 in	103.5
AM182	2.10 in	8.50 in	10	7.25 in	5	228	346	2.75 in	0.13 in	15	1.24 in	1.125 in	0.250 in	139.5
AM184	2.10 in	8.50 in	10	7.25 in	5	228	346	2.75 in	0.13 in	15	1.24 in	1.125 in	0.250 in	139.5
AM213/215	2.76 in	8.50 in	11	7.25 in	5	228	395	3.38 in	0.25 in	15	1.52 in	1.375 in	0.312 in	188.5

Note: Dimensions in mm unless otherwise noted. For all available output shaft diameters, see page 411. For dimensions of compound gear units (ex: FAZ77R37) see page 401.

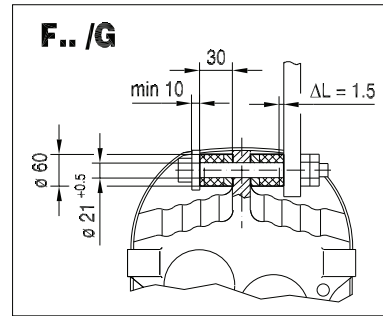
9 F - theSnuggler® Helical

F.. AM.. [NEMA dimensions]

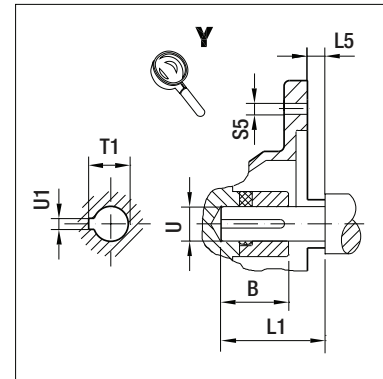
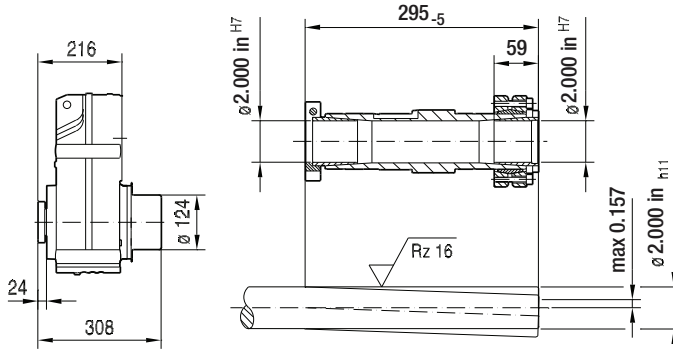
FT77..



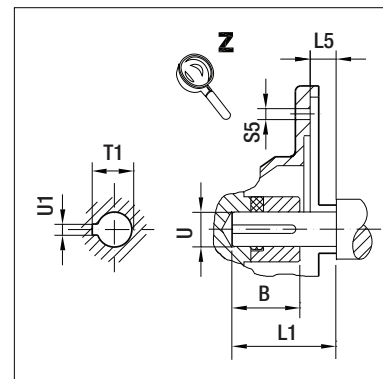
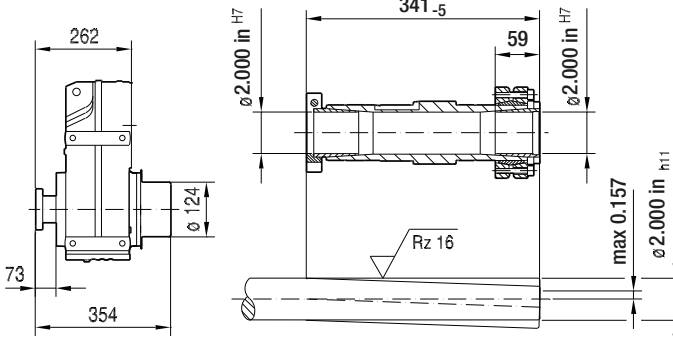
42 032 00 11



NON-Symmetrical FT77..



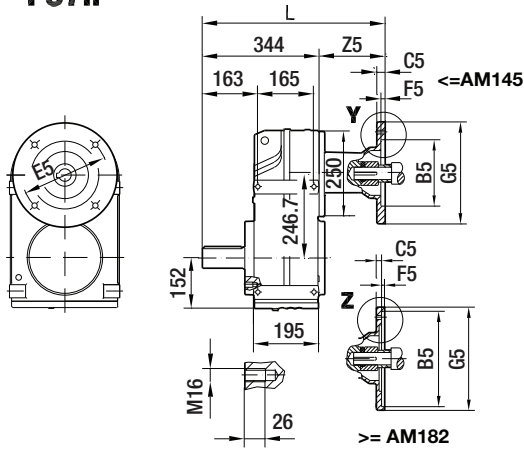
Symmetrical FT77..



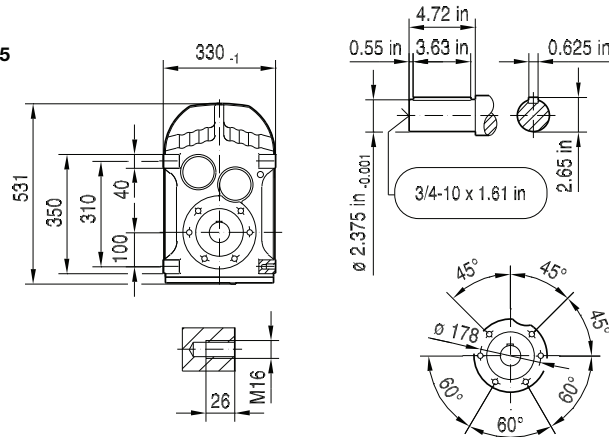
(→ 132)	B	B5	C5	E5	F5	G5	L	L1	L5	S5	T1	U	U1	Z5
AM56	1.23 in	4.50 in	11	5.875 in	4.5	170	297	1.88 in	-0.18 in	10.5	0.71 in	0.625 in	0.188 in	81
AM143	1.68 in	4.50 in	12	5.875 in	4.5	170	320	2.25 in	0.13 in	10.5	0.98 in	0.875 in	0.188 in	103.5
AM145	1.68 in	4.50 in	12	5.875 in	4.5	170	320	2.25 in	0.13 in	10.5	0.98 in	0.875 in	0.188 in	103.5
AM182	2.10 in	8.50 in	10	7.25 in	5	228	356	2.75 in	0.13 in	15	1.24 in	1.125 in	0.250 in	139.5
AM184	2.10 in	8.50 in	10	7.25 in	5	228	356	2.75 in	0.13 in	15	1.24 in	1.125 in	0.250 in	139.5
AM213/215	2.76 in	8.50 in	11	7.25 in	5	228	405	3.38 in	0.25 in	15	1.52 in	1.375 in	0.312 in	188.5

Note: Dimensions in mm unless otherwise noted. For all available output shaft diameters, see page 413. For dimensions of compound gear units (ex: FT77R37) see page 401.

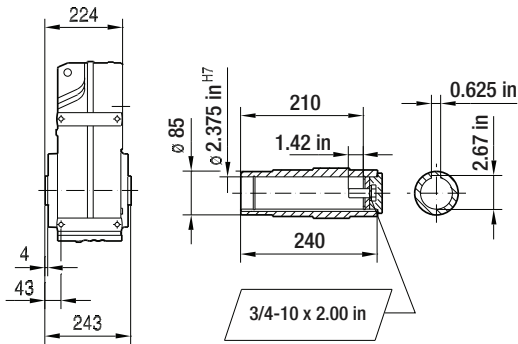
F87..



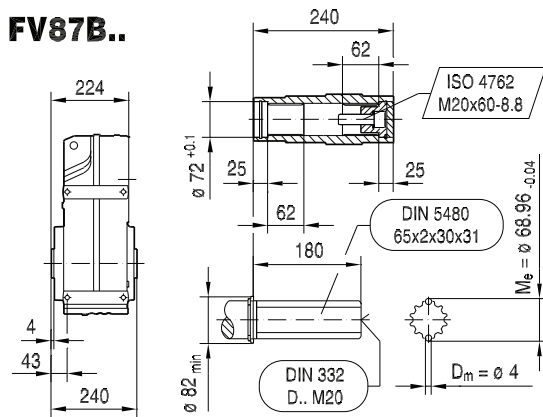
42 033 00 11



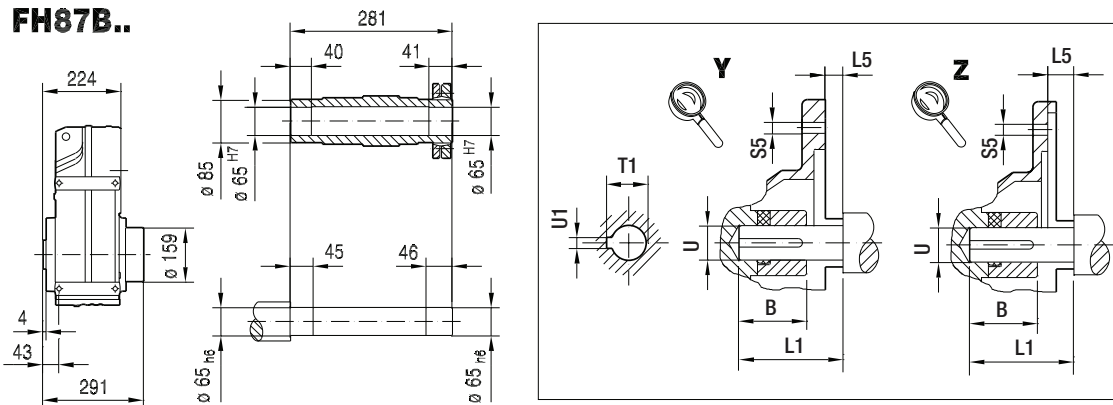
FA87B..



FV87B..



FH87B..



(→ 132)	B	B5	C5	E5	F5	G5	L	L1	L5	S5	T1	U	U1	Z5
AM143	1.68 in	4.50 in	12	5.875 in	4.5	170	443	2.25 in	0.13 in	10.5	0.98 in	0.875 in	0.188 in	98.5
AM145	1.68 in	4.50 in	12	5.875 in	4.5	170	443	2.25 in	0.13 in	10.5	0.98 in	0.875 in	0.188 in	98.5
AM182	2.10 in	8.50 in	10	7.25 in	5	228	479	2.75 in	0.13 in	15	1.24 in	1.125 in	0.250 in	134.5
AM184	2.10 in	8.50 in	10	7.25 in	5	228	479	2.75 in	0.13 in	15	1.24 in	1.125 in	0.250 in	134.5
AM213/215	2.76 in	8.50 in	11	7.25 in	5	228	528	3.38 in	0.25 in	15	1.52 in	1.375 in	0.312 in	183.5
AM254/256	3.65 in	8.50 in	14	7.25 in	5	228	578	4.00 in	0.25 in	15	1.80 in	1.625 in	0.375 in	234
AM284/286	4.00 in	10.50 in	15	9.00 in	5	286	585	4.62 in	0.25 in	15	2.10 in	1.875 in	0.500 in	241

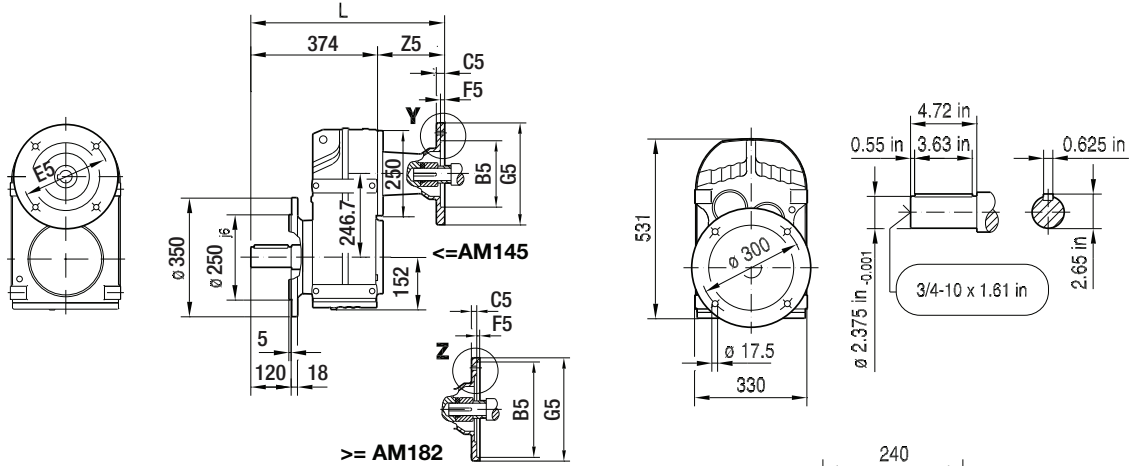
Note: Dimensions in mm unless otherwise noted. For all available output shaft diameters, see page 409. For dimensions of compound gear units (ex: F87R57) see page 401.

9 F - theSnuggler® Helical

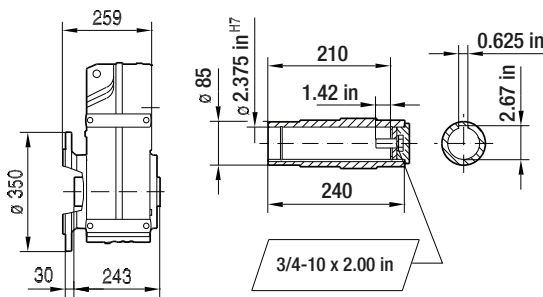
F.. AM.. [NEMA dimensions]

42 034 00 11

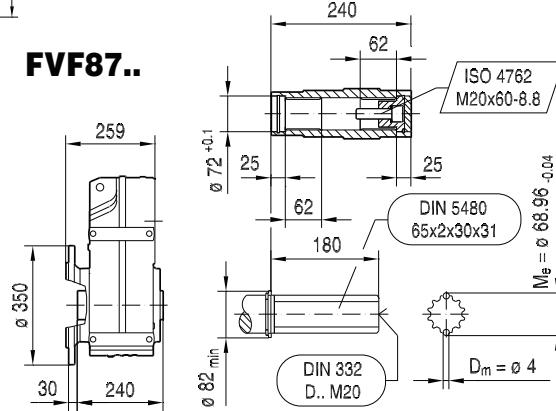
FF87..



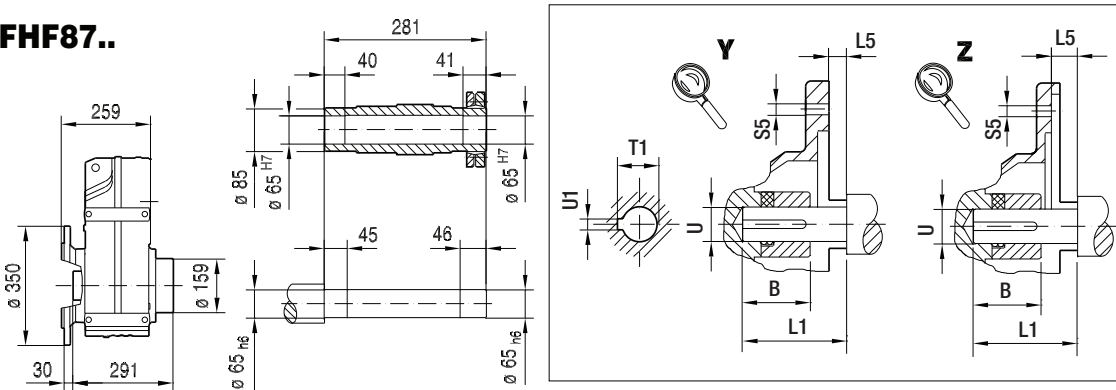
FAF87..



FVF87..



FHF87..

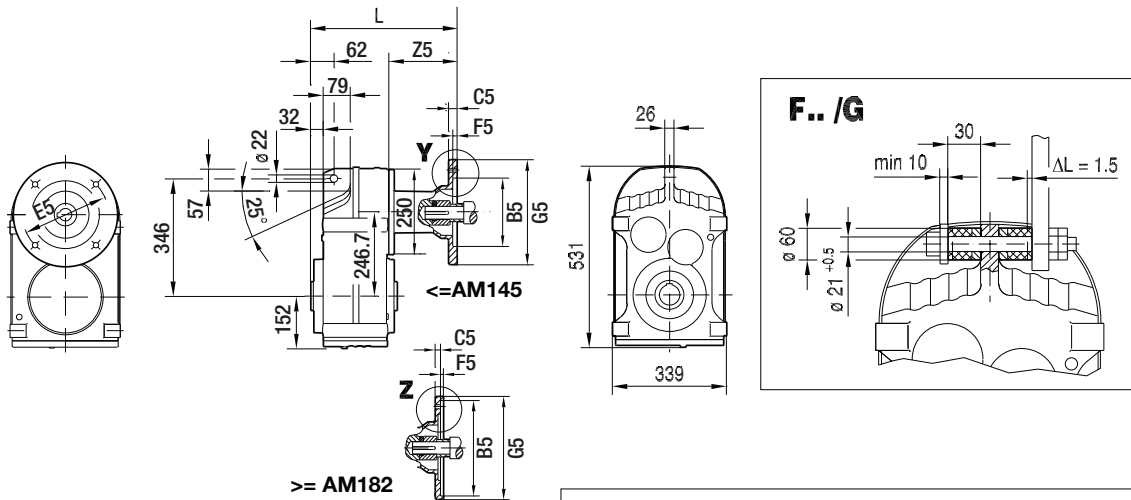


(→ 132)	B	B5	C5	E5	F5	G5	L	L1	L5	S5	T1	U	U1	Z5
AM143	1.68 in	4.50 in	12	5.875 in	4.5	170	473	2.25 in	0.13 in	10.5	0.98 in	0.875 in	0.188 in	98.5
AM145	1.68 in	4.50 in	12	5.875 in	4.5	170	473	2.25 in	0.13 in	10.5	0.98 in	0.875 in	0.188 in	98.5
AM182	2.10 in	8.50 in	10	7.25 in	5	228	509	2.75 in	0.13 in	15	1.24 in	1.125 in	0.250 in	134.5
AM184	2.10 in	8.50 in	10	7.25 in	5	228	509	2.75 in	0.13 in	15	1.24 in	1.125 in	0.250 in	134.5
AM213/215	2.76 in	8.50 in	11	7.25 in	5	228	558	3.38 in	0.25 in	15	1.52 in	1.375 in	0.312 in	183.5
AM254/256	3.65 in	8.50 in	14	7.25 in	5	228	608	4.00 in	0.25 in	15	1.80 in	1.625 in	0.375 in	234
AM284/286	4.00 in	10.50 in	15	9.00 in	5	286	615	4.62 in	0.25 in	15	2.10 in	1.875 in	0.500 in	241

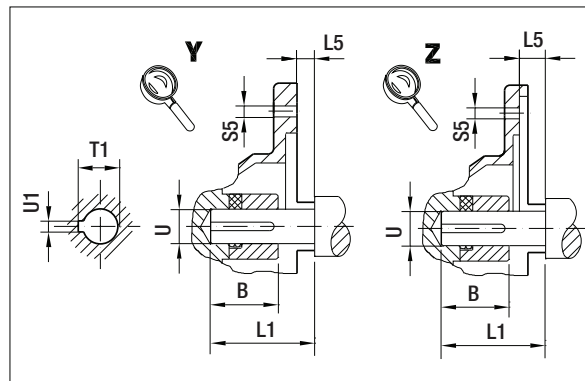
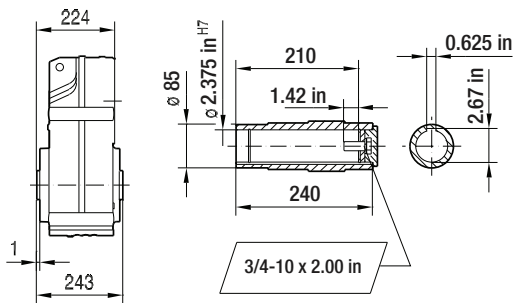
Note: Dimensions in mm unless otherwise noted. For all available output shaft diameters, see page 409. For dimensions of compound gear units (ex: FF87R57) see page 401.

FA87..

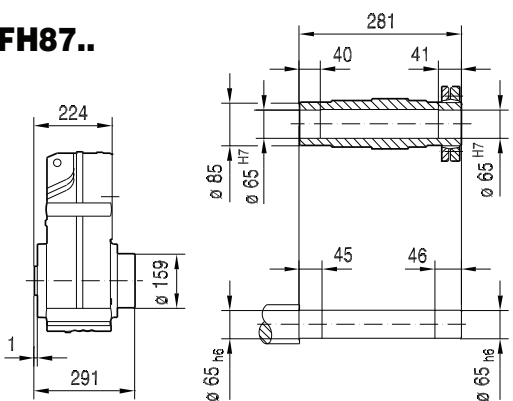
42 035 00 11



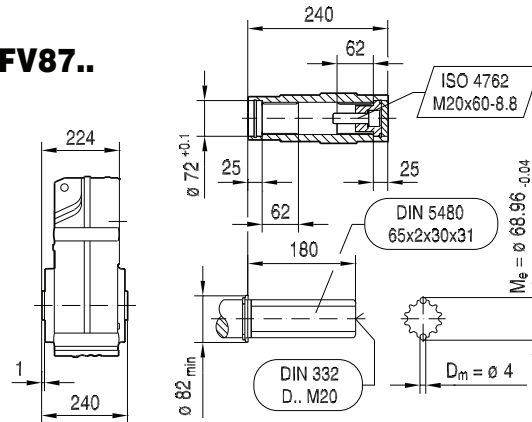
FA87..



FH87..



FV87..



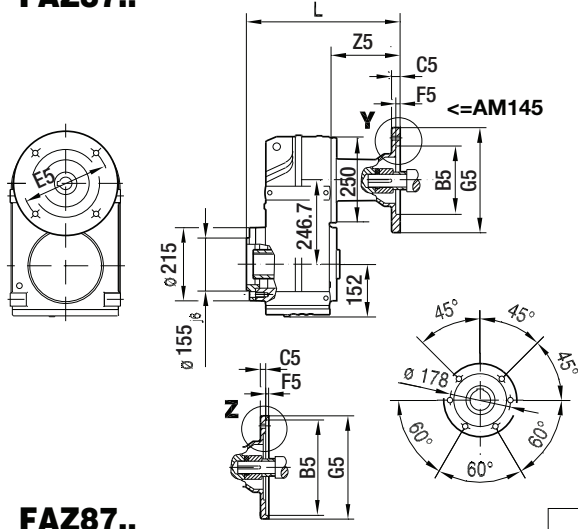
(→ 132)	B	B5	C5	E5	F5	G5	L	L1	L5	S5	T1	U	U1	Z5
AM143	1.68 in	4.50 in	12	5.875 in	4.5	170	443	2.25 in	0.13 in	10.5	0.98 in	0.875 in	0.188 in	98.5
AM145	1.68 in	4.50 in	12	5.875 in	4.5	170	443	2.25 in	0.13 in	10.5	0.98 in	0.875 in	0.188 in	98.5
AM182	2.10 in	8.50 in	10	7.25 in	5	228	479	2.75 in	0.13 in	15	1.24 in	1.125 in	0.250 in	134.5
AM184	2.10 in	8.50 in	10	7.25 in	5	228	479	2.75 in	0.13 in	15	1.24 in	1.125 in	0.250 in	134.5
AM213/215	2.76 in	8.50 in	11	7.25 in	5	228	528	3.38 in	0.25 in	15	1.52 in	1.375 in	0.312 in	183.5
AM254/256	3.65 in	8.50 in	14	7.25 in	5	228	578	4.00 in	0.25 in	15	1.80 in	1.625 in	0.375 in	234
AM284/286	4.00 in	10.50 in	15	9.00 in	5	286	585	4.62 in	0.25 in	15	2.10 in	1.875 in	0.500 in	241

Note: Dimensions in mm unless otherwise noted. For all available output shaft diameters, see page 411. For dimensions of compound gear units (ex: FA87R57) see page 401.

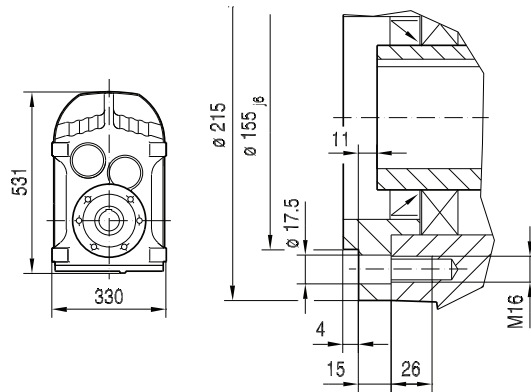
9 F - theSnuggler® Helical

F.. AM.. [NEMA dimensions]

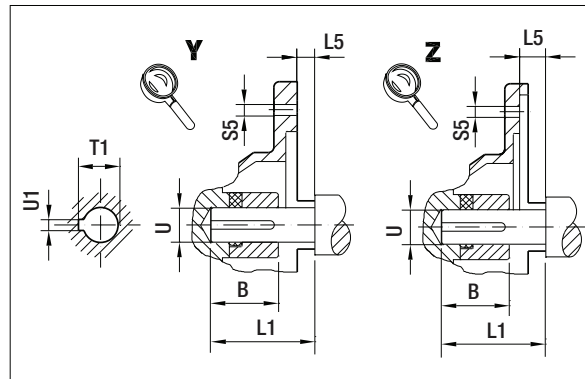
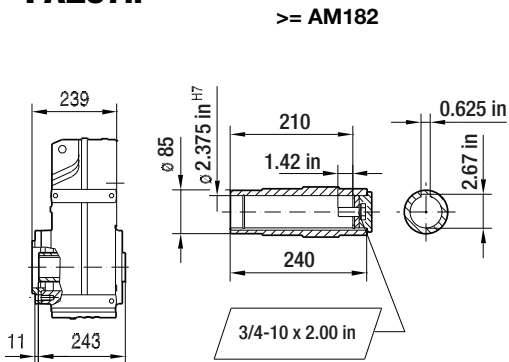
FAZ87..



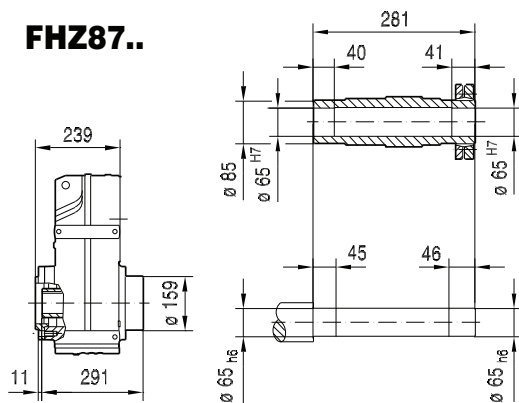
42 036 00 11



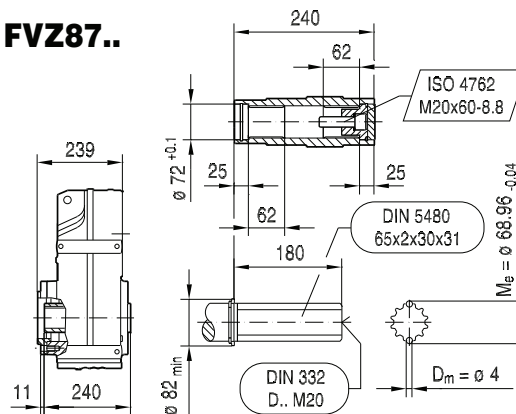
FAZ87..



FHZ87..



FVZ87..

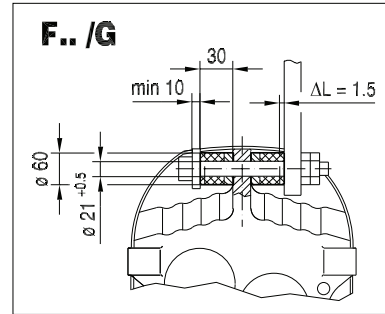
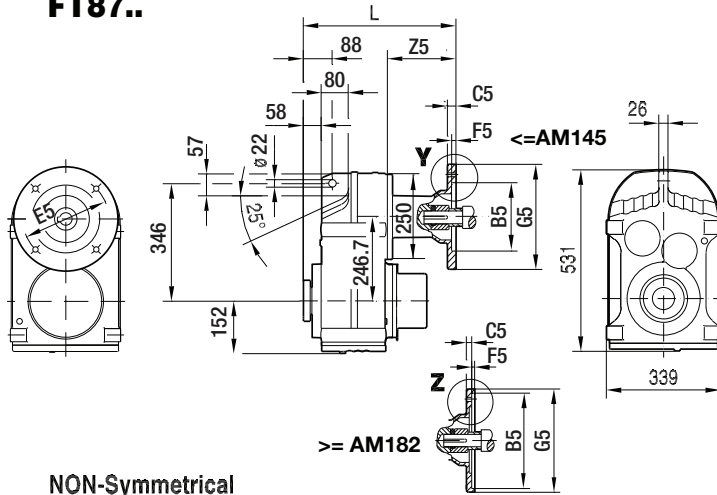


(→ 132)	B	B5	C5	E5	F5	G5	L	L1	L5	S5	T1	U	U1	Z5
AM143	1.68 in	4.50 in	12	5.875 in	4.5	170	338	2.25 in	0.13 in	10.5	0.98 in	0.875 in	0.188 in	98.5
AM145	1.68 in	4.50 in	12	5.875 in	4.5	170	338	2.25 in	0.13 in	10.5	0.98 in	0.875 in	0.188 in	98.5
AM182	2.10 in	8.50 in	10	7.25 in	5	228	374	2.75 in	0.13 in	15	1.24 in	1.125 in	0.250 in	134.5
AM184	2.10 in	8.50 in	10	7.25 in	5	228	374	2.75 in	0.13 in	15	1.24 in	1.125 in	0.250 in	134.5
AM213/215	2.76 in	8.50 in	11	7.25 in	5	228	423	3.38 in	0.25 in	15	1.52 in	1.375 in	0.312 in	183.5
AM254/256	3.65 in	8.50 in	14	7.25 in	5	228	473	4.00 in	0.25 in	15	1.80 in	1.625 in	0.375 in	234
AM284/286	4.00 in	10.50 in	15	9.00 in	5	286	480	4.62 in	0.25 in	15	2.10 in	1.875 in	0.500 in	241

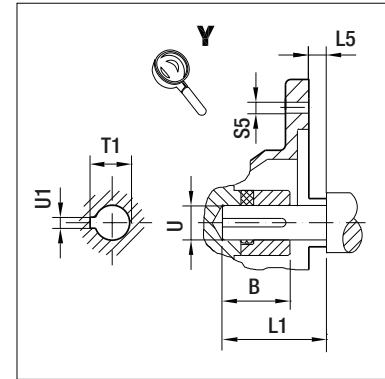
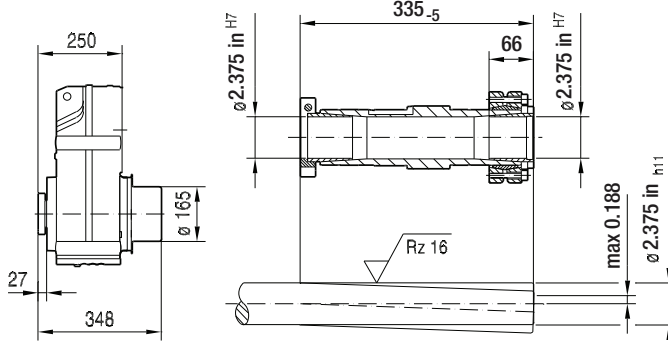
Note: Dimensions in mm unless otherwise noted. For all available output shaft diameters, see page 411. For dimensions of compound gear units (ex: FAZ87R57) see page 401.

FT87..

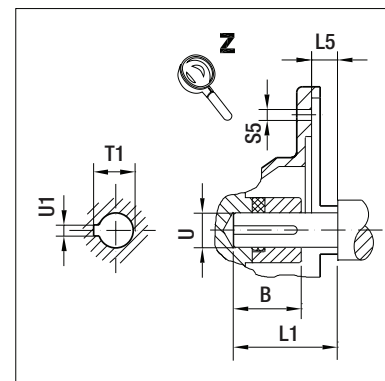
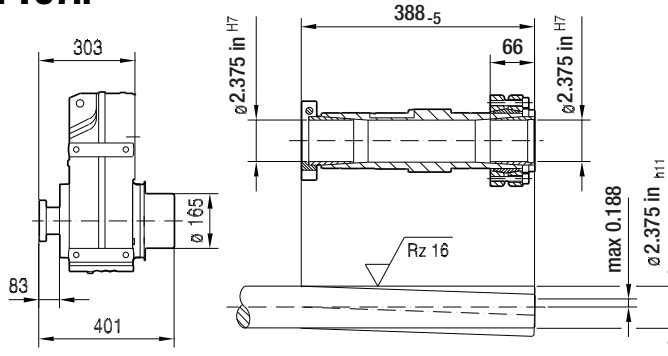
42 037 00 11



**NON-Symmetrical
FT87..**



**Symmetrical
FT87..**

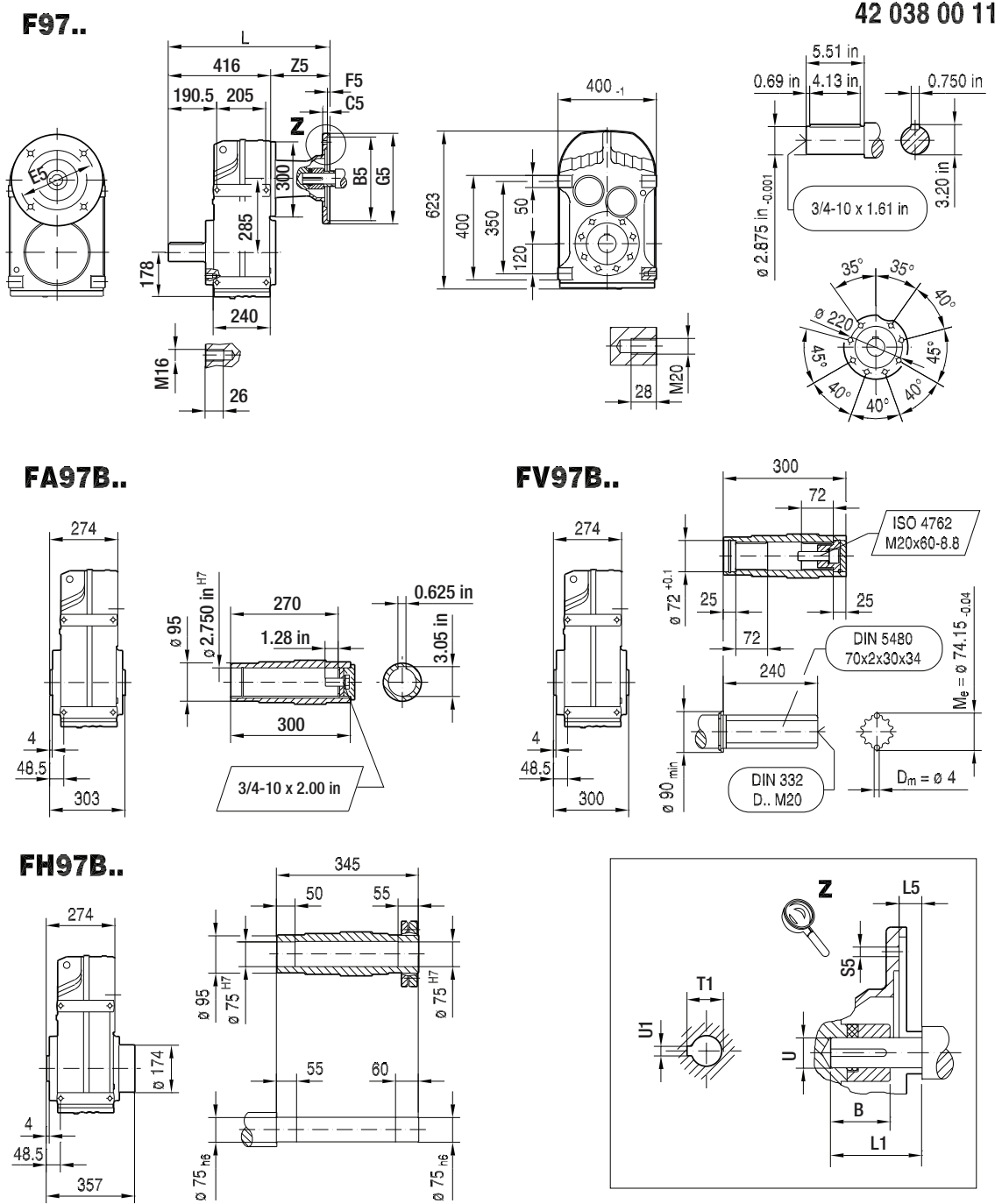


(→ 132)	B	B5	C5	E5	F5	G5	L	L1	L5	S5	T1	U	U1	Z5
AM143	1.68 in	4.50 in	12	5.875 in	4.5	170	443	2.25 in	0.13 in	10.5	0.98 in	0.875 in	0.188 in	98.5
AM145	1.68 in	4.50 in	12	5.875 in	4.5	170	443	2.25 in	0.13 in	10.5	0.98 in	0.875 in	0.188 in	98.5
AM182	2.10 in	8.50 in	10	7.25 in	5	228	479	2.75 in	0.13 in	15	1.24 in	1.125 in	0.250 in	134.5
AM184	2.10 in	8.50 in	10	7.25 in	5	228	479	2.75 in	0.13 in	15	1.24 in	1.125 in	0.250 in	134.5
AM213/215	2.76 in	8.50 in	11	7.25 in	5	228	528	3.38 in	0.25 in	15	1.52 in	1.375 in	0.312 in	183.5
AM254/256	3.65 in	8.50 in	14	7.25 in	5	228	578	4.00 in	0.25 in	15	1.80 in	1.625 in	0.375 in	234
AM284/286	4.00 in	10.50 in	15	9.00 in	5	286	585	4.62 in	0.25 in	15	2.10 in	1.875 in	0.500 in	241

Note: Dimensions in mm unless otherwise noted. For all available output shaft diameters, see page 413. For dimensions of compound gear units (ex: FT87R57) see page 401.

9 F - theSnuggler® Helical

F.. AM.. [NEMA dimensions]

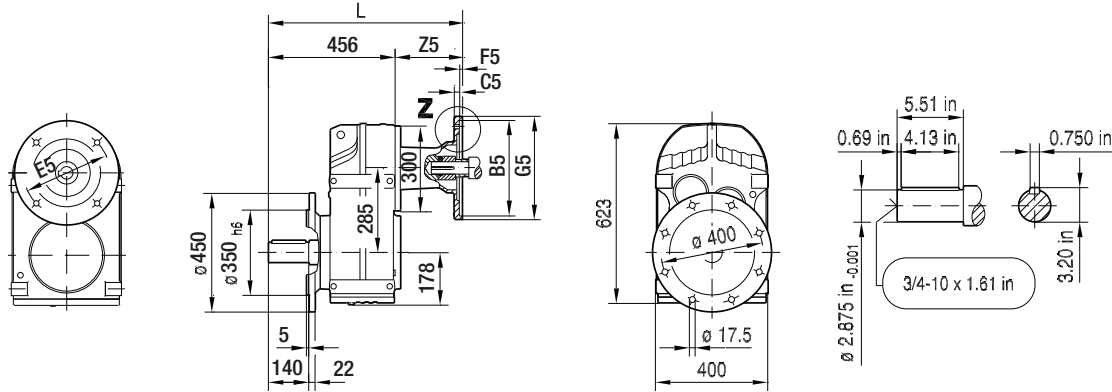


(→ 132)	B	B5	C5	E5	F5	G5	L	L1	L5	S5	T1	U	U1	Z5
AM182	2.10 in	8.50 in	10	7.25 in	5	228	546	2.75 in	0.13 in	15	1.24 in	1.125 in	0.250 in	129.5
AM184	2.10 in	8.50 in	10	7.25 in	5	228	546	2.75 in	0.13 in	15	1.24 in	1.125 in	0.250 in	129.5
AM213/215	2.76 in	8.50 in	11	7.25 in	5	228	595	3.38 in	0.25 in	15	1.52 in	1.375 in	0.312 in	178.5
AM254/256	3.65 in	8.50 in	12	7.25 in	5	228	645	4.00 in	0.25 in	15	1.80 in	1.625 in	0.375 in	229
AM284/286	4.00 in	10.50 in	15	9.00 in	5	286	652	4.62 in	0.25 in	15	2.10 in	1.875 in	0.500 in	236
AM324/326	3.88 in	12.50 in	17	11.0 in	5	356	712	5.25 in	0.25 in	17.5	2.36 in	2.125 in	0.500 in	296
AM364/365	4.51 in	12.50 in	17	11.0 in	5	356	712	5.88 in	0.25 in	17.5	2.66 in	2.375 in	0.625 in	296

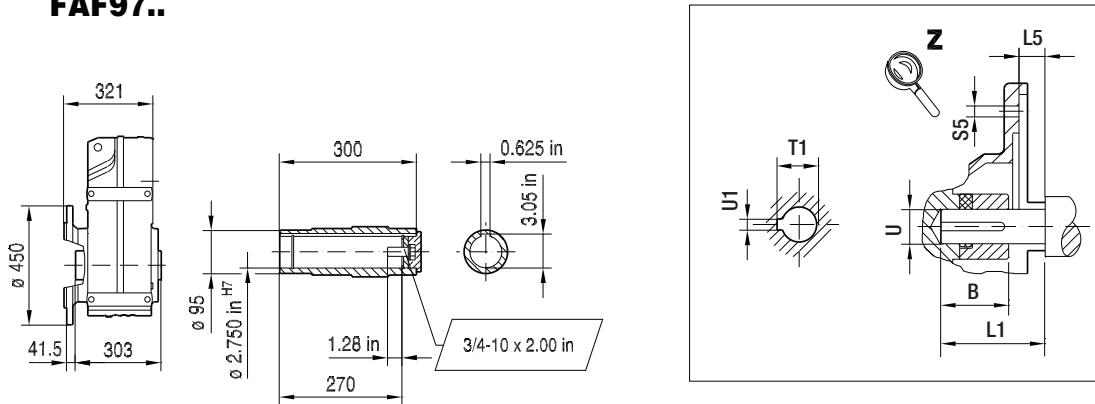
Note: Dimensions in mm unless otherwise noted. For all available output shaft diameters, see page 409. For dimensions of compound gear units (ex: F97R57) see page 401.

FF97..

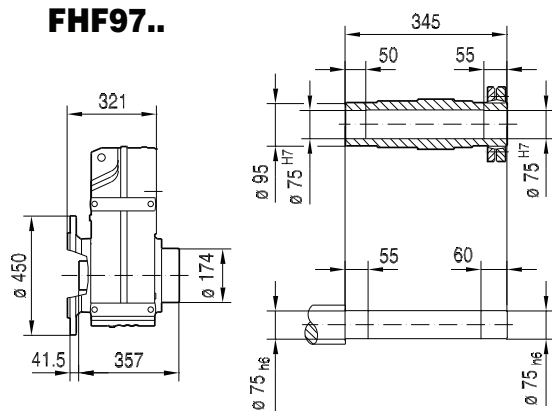
42 039 00 11



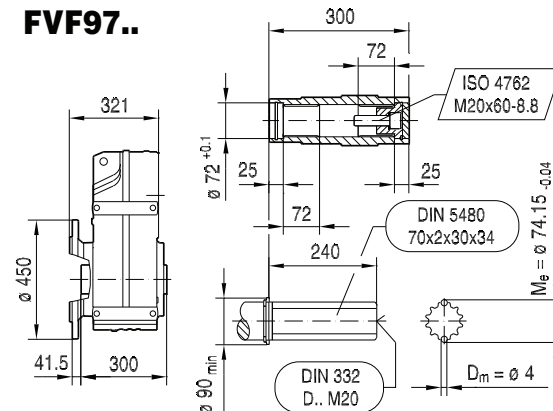
FAF97..



FHF97..



FVF97..



(→ 132)	B	B5	C5	E5	F5	G5	L	L1	L5	S5	T1	U	U1	Z5
AM182	2.10 in	8.50 in	10	7.25 in	5	228	586	2.75 in	0.13 in	15	1.24 in	1.125 in	0.250 in	129.5
AM184	2.10 in	8.50 in	10	7.25 in	5	228	586	2.75 in	0.13 in	15	1.24 in	1.125 in	0.250 in	129.5
AM213/215	2.76 in	8.50 in	11	7.25 in	5	228	635	3.38 in	0.25 in	15	1.52 in	1.375 in	0.312 in	178.5
AM254/256	3.65 in	8.50 in	12	7.25 in	5	228	685	4.00 in	0.25 in	15	1.80 in	1.625 in	0.375 in	229
AM284/286	4.00 in	10.50 in	15	9.00 in	5	286	692	4.62 in	0.25 in	15	2.10 in	1.875 in	0.500 in	236
AM324/326	3.88 in	12.50 in	17	11.0 in	5	356	752	5.25 in	0.25 in	17.5	2.36 in	2.125 in	0.500 in	296
AM364/365	4.51 in	12.50 in	17	11.0 in	5	356	752	5.88 in	0.25 in	17.5	2.66 in	2.375 in	0.625 in	296

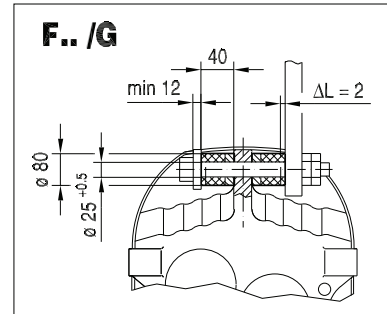
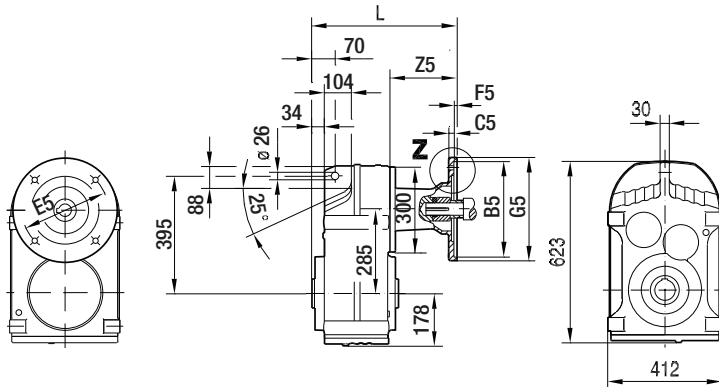
Note: Dimensions in mm unless otherwise noted. For all available output shaft diameters, see page 409. For dimensions of compound gear units (ex: FAF97R57) see page 401.

9 F - theSnuggler® Helical

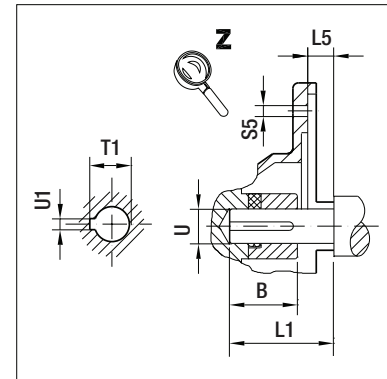
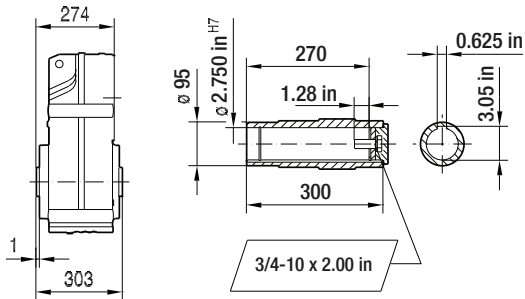
F.. AM.. [NEMA dimensions]

42 040 00 11

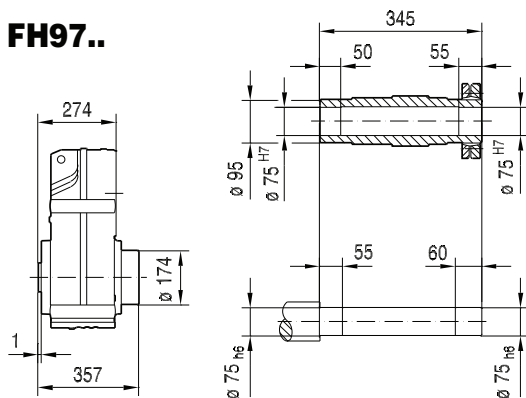
FA97..



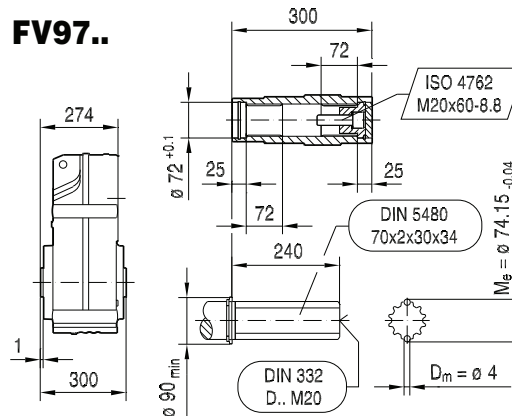
FA97..



FH97..



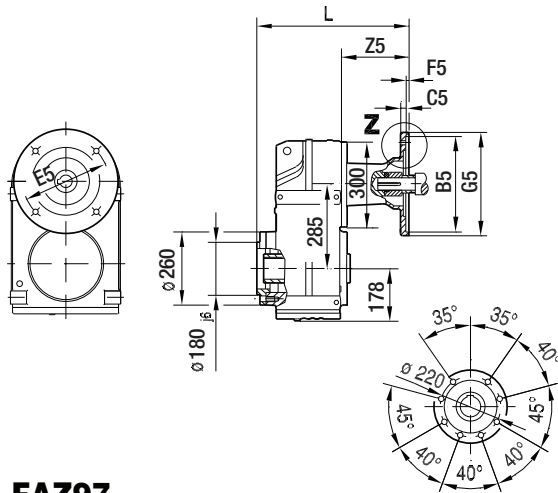
FV97..



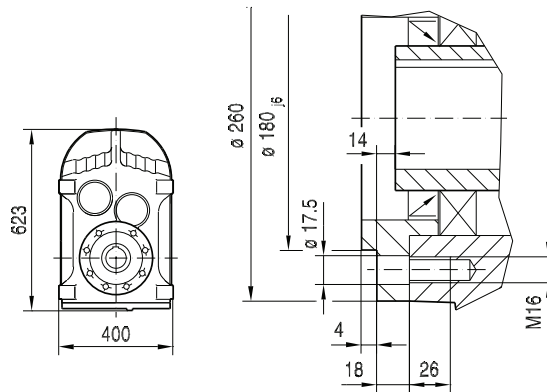
(→ 132)	B	B5	C5	E5	F5	G5	L	L1	L5	S5	T1	U	U1	Z5
AM182	2.10 in	8.50 in	10	7.25 in	5	228	404	2.75 in	0.13 in	15	1.24 in	1.125 in	0.250 in	129.5
AM184	2.10 in	8.50 in	10	7.25 in	5	228	404	2.75 in	0.13 in	15	1.24 in	1.125 in	0.250 in	129.5
AM213/215	2.76 in	8.50 in	11	7.25 in	5	228	453	3.38 in	0.25 in	15	1.52 in	1.375 in	0.312 in	178.5
AM254/256	3.65 in	8.50 in	12	7.25 in	5	228	503	4.00 in	0.25 in	15	1.80 in	1.625 in	0.375 in	229
AM284/286	4.00 in	10.50 in	15	9.00 in	5	286	510	4.62 in	0.25 in	15	2.10 in	1.875 in	0.500 in	236
AM324/326	3.88 in	12.50 in	17	11.0 in	5	356	570	5.25 in	0.25 in	17.5	2.36 in	2.125 in	0.500 in	296
AM364/365	4.51 in	12.50 in	17	11.0 in	5	356	570	5.88 in	0.25 in	17.5	2.66 in	2.375 in	0.625 in	296

Note: Dimensions in mm unless otherwise noted. For all available output shaft diameters, see page 411. For dimensions of compound gear units (ex: FA97R57) see page 401.

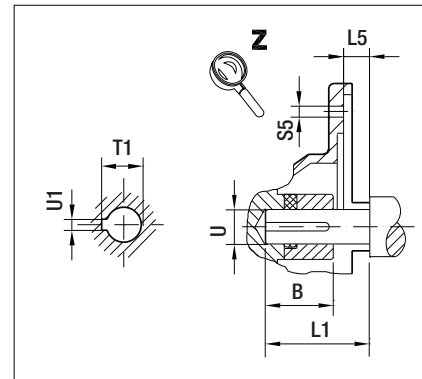
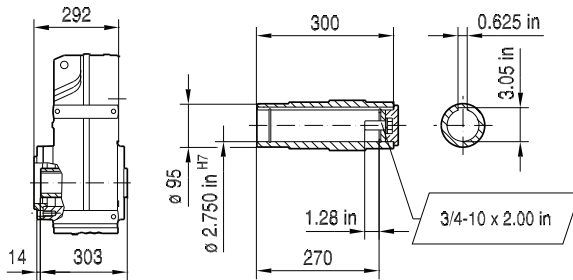
FAZ97..



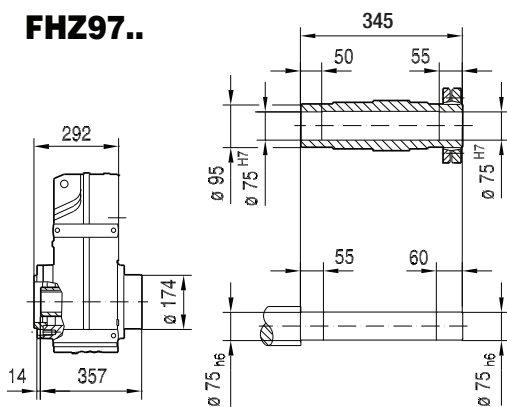
42 041 00 11



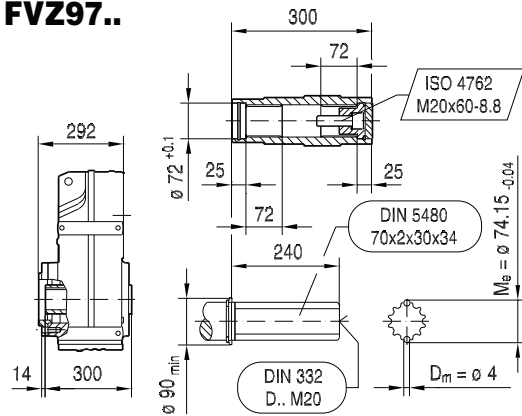
FAZ97..



FHZ97..



FVZ97..



(→ 132)	B	B5	C5	E5	F5	G5	L	L1	L5	S5	T1	U	U1	Z5
AM182	2.10 in	8.50 in	10	7.25 in	5	228	422	2.75 in	0.13 in	15	1.24 in	1.125 in	0.250 in	129.5
AM184	2.10 in	8.50 in	10	7.25 in	5	228	422	2.75 in	0.13 in	15	1.24 in	1.125 in	0.250 in	129.5
AM213/215	2.76 in	8.50 in	11	7.25 in	5	228	471	3.38 in	0.25 in	15	1.52 in	1.375 in	0.312 in	178.5
AM254/256	3.65 in	8.50 in	12	7.25 in	5	228	521	4.00 in	0.25 in	15	1.80 in	1.625 in	0.375 in	229
AM284/286	4.00 in	10.50 in	15	9.00 in	5	286	528	4.62 in	0.25 in	15	2.10 in	1.875 in	0.500 in	236
AM324/326	3.88 in	12.50 in	17	11.0 in	5	356	588	5.25 in	0.25 in	17.5	2.36 in	2.125 in	0.500 in	296
AM364/365	4.51 in	12.50 in	17	11.0 in	5	356	588	5.88 in	0.25 in	17.5	2.66 in	2.375 in	0.625 in	296

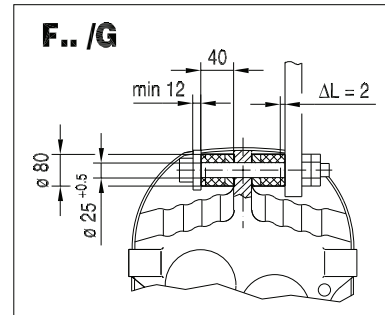
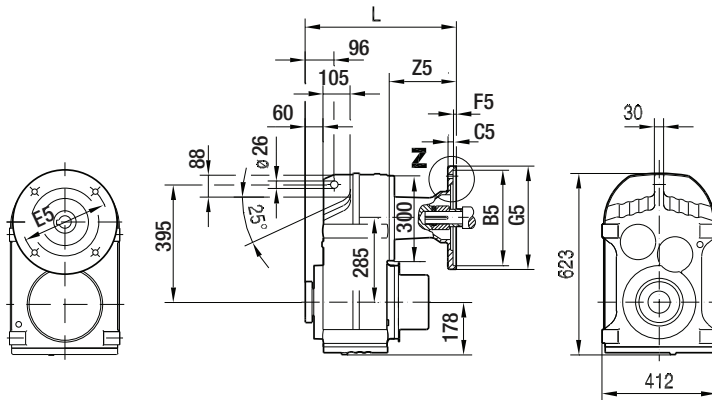
Note: Dimensions in mm unless otherwise noted. For all available output shaft diameters, see page 411. For dimensions of compound gear units (ex: FAZ97R57) see page 401.

9 F - theSnuggler® Helical

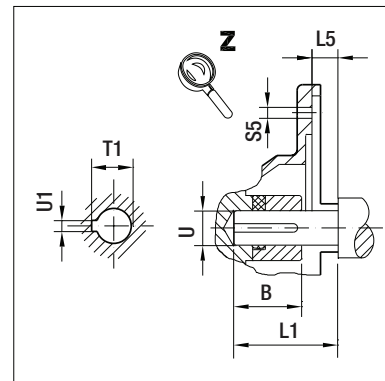
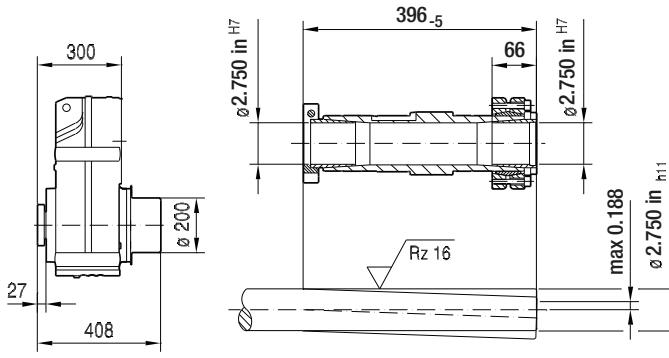
F.. AM.. [NEMA dimensions]

FT97..

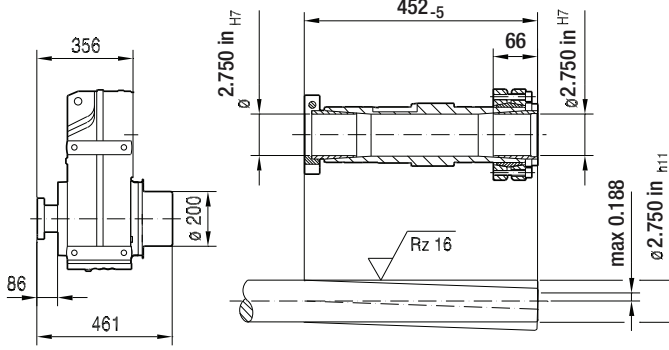
42 042 00 11



NON-Symmetrical FT97..



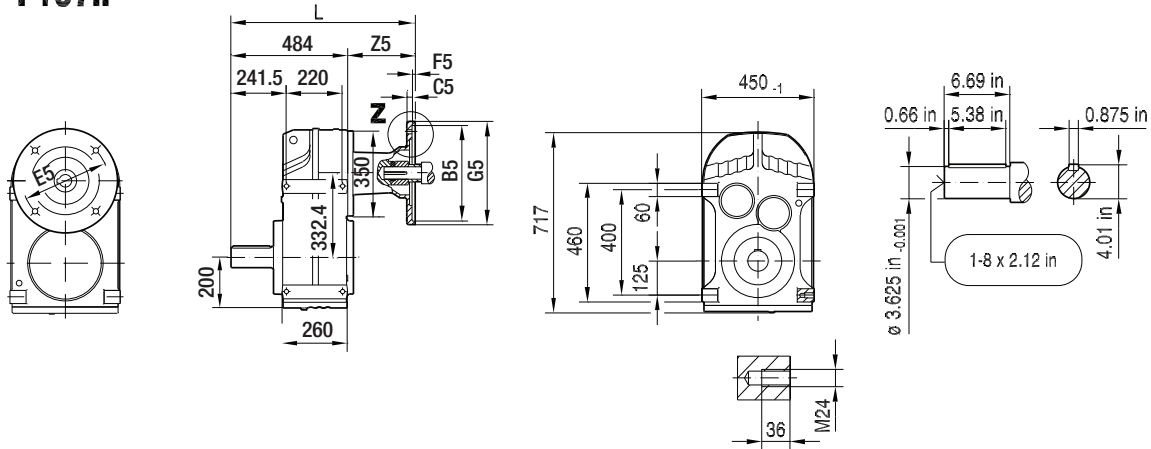
Symmetrical FT97..



(→ 132)	B	B5	C5	E5	F5	G5	L	L1	L5	S5	T1	U	U1	Z5
AM182	2.10 in	8.50 in	10	7.25 in	5	228	430	2.75 in	0.13 in	15	1.24 in	1.125 in	0.250 in	129.5
AM184	2.10 in	8.50 in	10	7.25 in	5	228	430	2.75 in	0.13 in	15	1.24 in	1.125 in	0.250 in	129.5
AM213/215	2.76 in	8.50 in	11	7.25 in	5	228	479	3.38 in	0.25 in	15	1.52 in	1.375 in	0.312 in	178.5
AM254/256	3.65 in	8.50 in	12	7.25 in	5	228	529	4.00 in	0.25 in	15	1.80 in	1.625 in	0.375 in	229
AM284/286	4.00 in	10.50 in	15	9.00 in	5	286	536	4.62 in	0.25 in	15	2.10 in	1.875 in	0.500 in	236
AM324/326	3.88 in	12.50 in	17	11.0 in	5	356	596	5.25 in	0.25 in	17.5	2.36 in	2.125 in	0.500 in	296
AM364/365	4.51 in	12.50 in	17	11.0 in	5	356	596	5.88 in	0.25 in	17.5	2.66 in	2.375 in	0.625 in	296

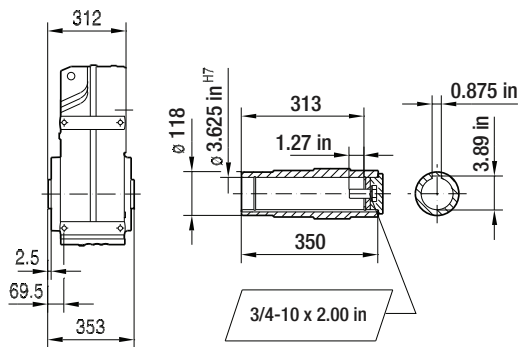
Note: Dimensions in mm unless otherwise noted. For all available output shaft diameters, see page 413. For dimensions of compound gear units (ex: FT97R57) see page 401.

F107..

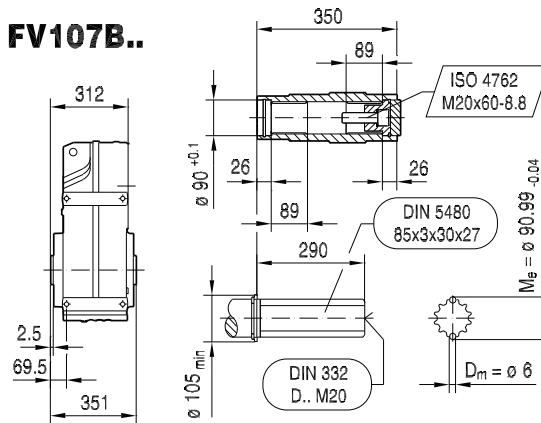


42 043 00 11

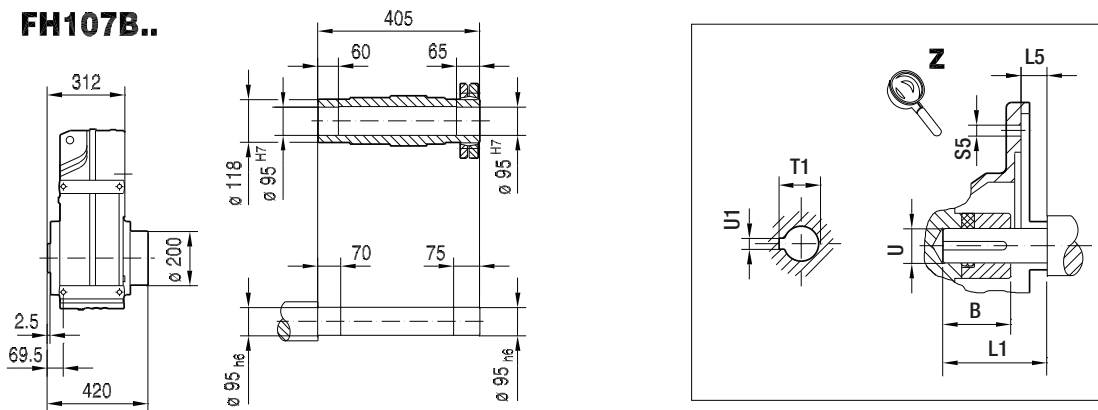
FA107B..



FV107B..



FH107B..



(→ 132)	B	B5	C5	E5	F5	G5	L	L1	L5	S5	T1	U	U1	Z5
AM182	2.10 in	8.50 in	10	7.25 in	5	228	608	2.75 in	0.13 in	15	1.24 in	1.125 in	0.250 in	123.5
AM184	2.10 in	8.50 in	10	7.25 in	5	228	608	2.75 in	0.13 in	15	1.24 in	1.125 in	0.250 in	123.5
AM213/215	2.76 in	8.50 in	11	7.25 in	5	228	657	3.38 in	0.25 in	15	1.52 in	1.375 in	0.312 in	172.5
AM254/256	3.65 in	8.50 in	12	7.25 in	5	228	707	4.00 in	0.25 in	15	1.80 in	1.625 in	0.375 in	223
AM284/286	4.00 in	10.50 in	15	9.00 in	5	286	714	4.62 in	0.25 in	15	2.10 in	1.875 in	0.500 in	230
AM324/326	3.88 in	12.50 in	17	11.0 in	5	356	774	5.25 in	0.25 in	17.5	2.36 in	2.125 in	0.500 in	290
AM364/365	4.51 in	12.50 in	17	11.0 in	5	356	774	5.88 in	0.25 in	17.5	2.66 in	2.375 in	0.625 in	290

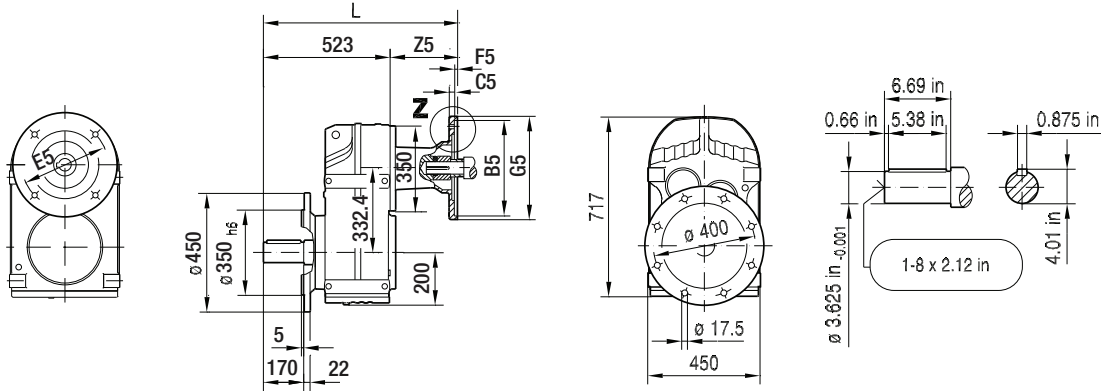
Note: Dimensions in mm unless otherwise noted. For all available output shaft diameters, see page 409. For dimensions of compound gear units (ex: F107R77) see page 401.

9 F - theSnuggler® Helical

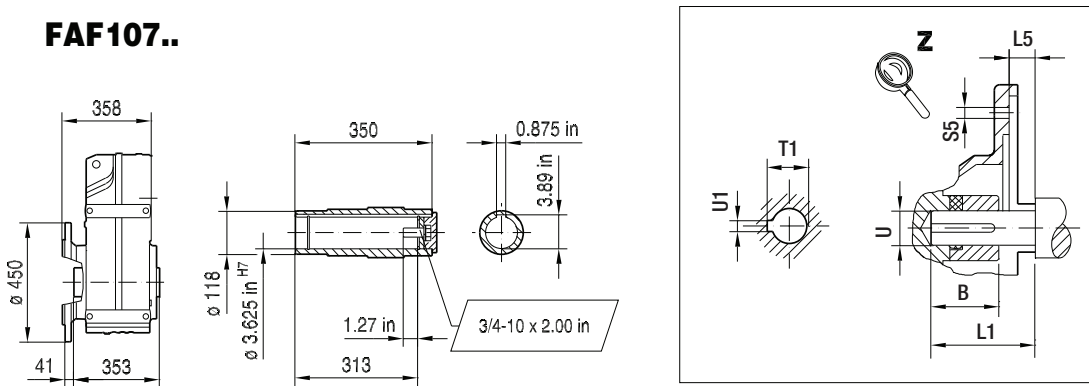
F.. AM.. [NEMA dimensions]

FF107..

42 044 00 11

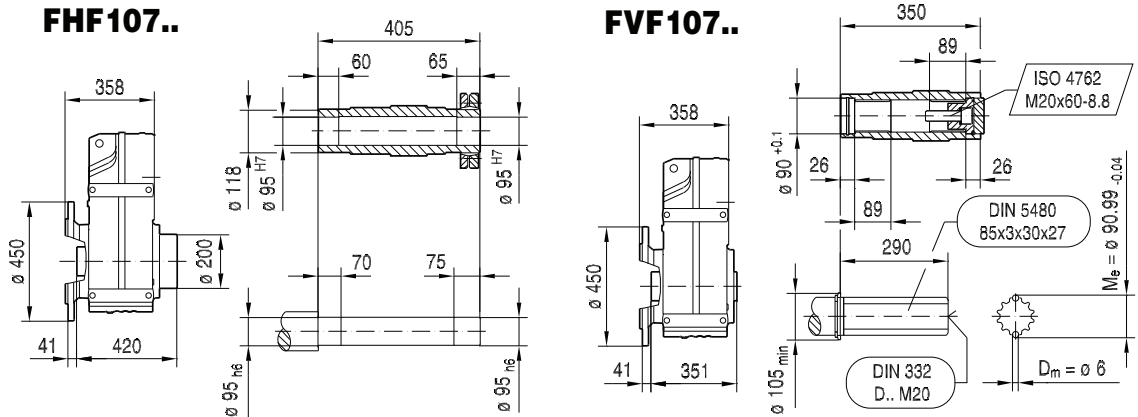


FAF107..



FHF107..

FVF107..

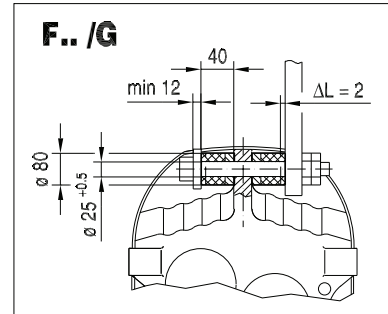
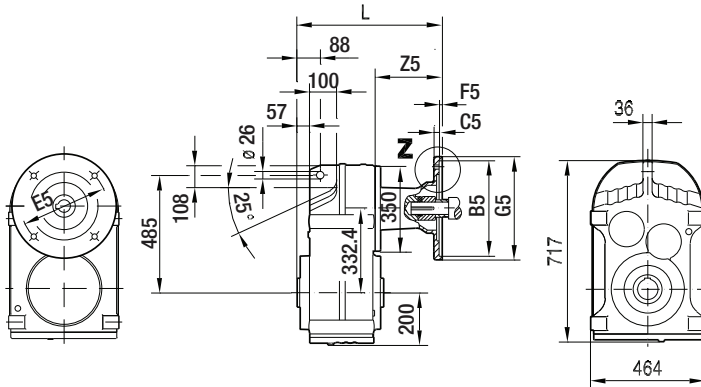


(→ 132)	B	B5	C5	E5	F5	G5	L	L1	L5	S5	T1	U	U1	Z5
AM182	2.10 in	8.50 in	10	7.25 in	5	228	647	2.75 in	0.13 in	15	1.24 in	1.125 in	0.250 in	123.5
AM184	2.10 in	8.50 in	10	7.25 in	5	228	647	2.75 in	0.13 in	15	1.24 in	1.125 in	0.250 in	123.5
AM213/215	2.76 in	8.50 in	11	7.25 in	5	228	696	3.38 in	0.25 in	15	1.52 in	1.375 in	0.312 in	172.5
AM254/256	3.65 in	8.50 in	12	7.25 in	5	228	746	4.00 in	0.25 in	15	1.80 in	1.625 in	0.375 in	223
AM284/286	4.00 in	10.50 in	15	9.00 in	5	286	753	4.62 in	0.25 in	15	2.10 in	1.875 in	0.500 in	230
AM324/326	3.88 in	12.50 in	17	11.0 in	5	356	813	5.25 in	0.25 in	17.5	2.36 in	2.125 in	0.500 in	290
AM364/365	4.51 in	12.50 in	17	11.0 in	5	356	813	5.88 in	0.25 in	17.5	2.66 in	2.375 in	0.625 in	290

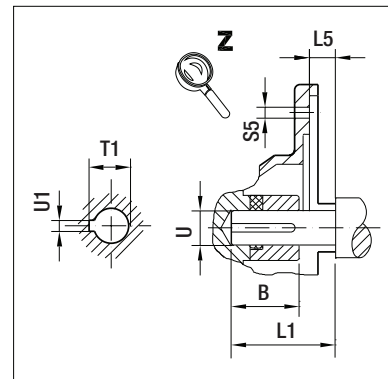
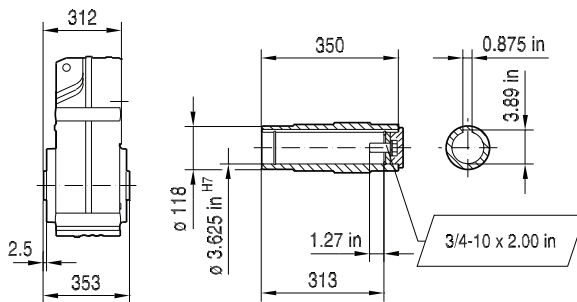
Note: Dimensions in mm unless otherwise noted. For all available output shaft diameters, see page 409. For dimensions of compound gear units (ex: FF107R77) see page 401.

FA107..

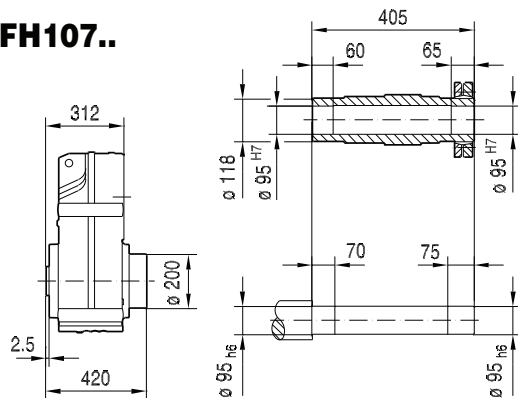
42 045 00 11



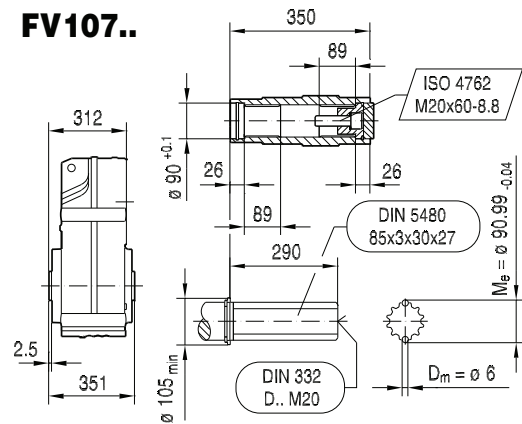
FA107..



FH107..



FV107..



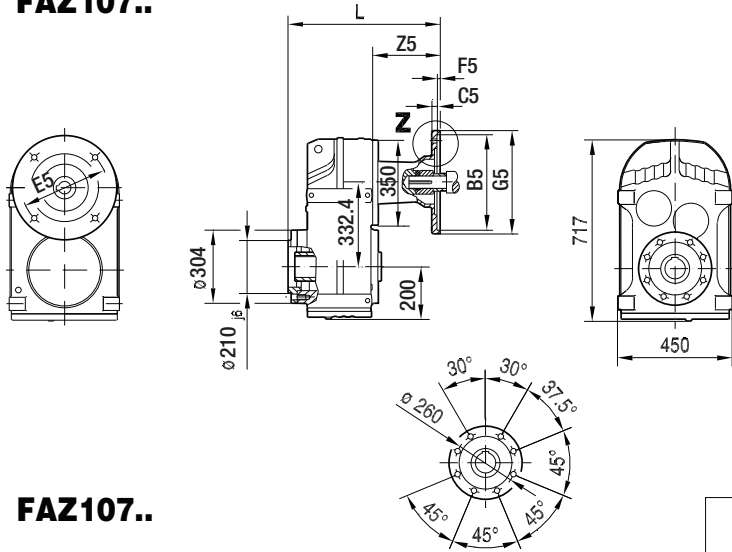
(→ 132)	B	B5	C5	E5	F5	G5	L	L1	L5	S5	T1	U	U1	Z5
AM182	2.10 in	8.50 in	10	7.25 in	5	228	436	2.75 in	0.13 in	15	1.24 in	1.125 in	0.250 in	123.5
AM184	2.10 in	8.50 in	10	7.25 in	5	228	436	2.75 in	0.13 in	15	1.24 in	1.125 in	0.250 in	123.5
AM213/215	2.76 in	8.50 in	11	7.25 in	5	228	485	3.38 in	0.25 in	15	1.52 in	1.375 in	0.312 in	172.5
AM254/256	3.65 in	8.50 in	12	7.25 in	5	228	535	4.00 in	0.25 in	15	1.80 in	1.625 in	0.375 in	223
AM284/286	4.00 in	10.50 in	15	9.00 in	5	286	542	4.62 in	0.25 in	15	2.10 in	1.875 in	0.500 in	230
AM324/326	3.88 in	12.50 in	17	11.0 in	5	356	602	5.25 in	0.25 in	17.5	2.36 in	2.125 in	0.500 in	290
AM364/365	4.51 in	12.50 in	17	11.0 in	5	356	602	5.88 in	0.25 in	17.5	2.66 in	2.375 in	0.625 in	290

Note: Dimensions in mm unless otherwise noted. For all available output shaft diameters, see page 411. For dimensions of compound gear units (ex: FA107R77) see page 401.

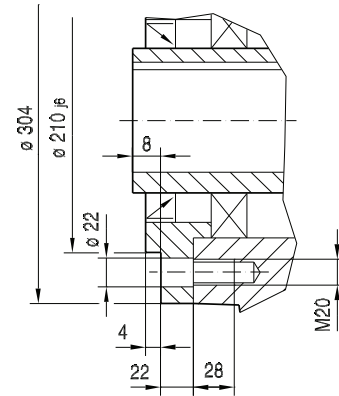
9 F - theSnuggler® Helical

F.. AM.. [NEMA dimensions]

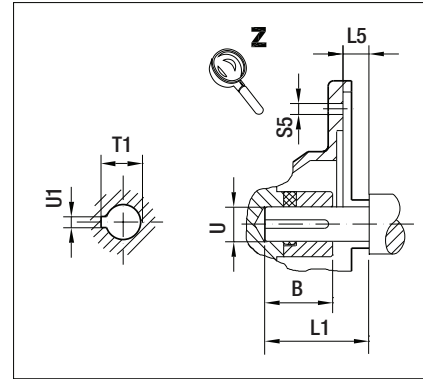
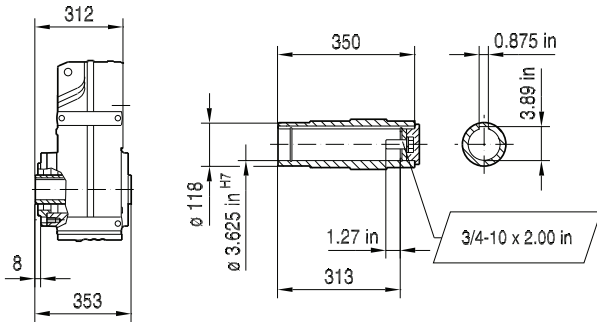
FAZ107..



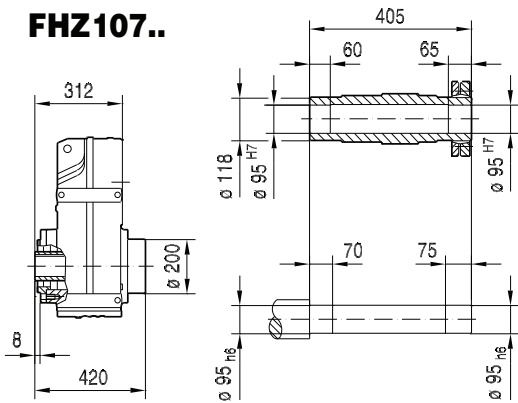
42 046 00 11



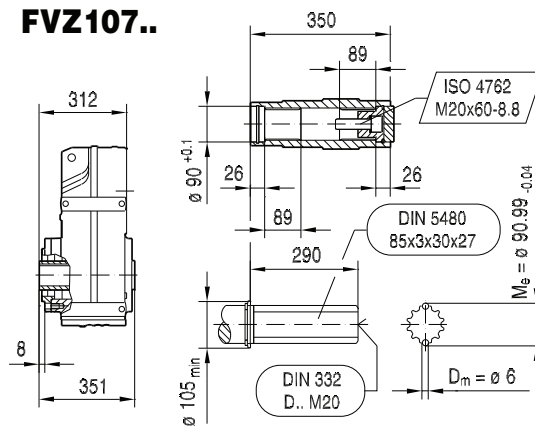
FAZ107..



FHZ107..



FVZ107..

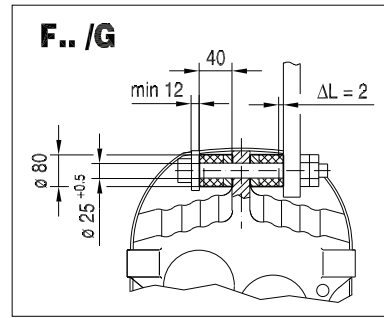
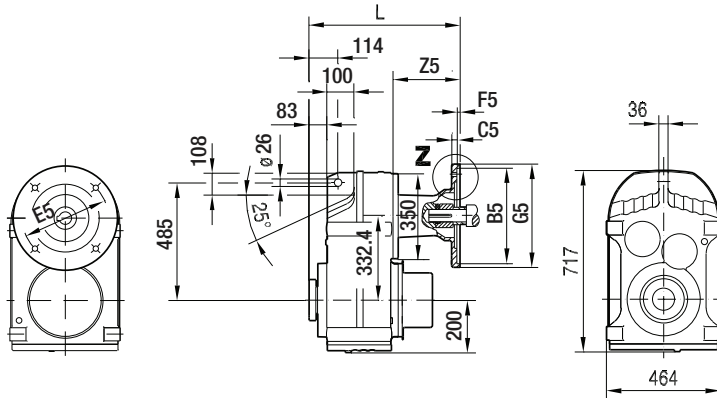


(→ 132)	B	B5	C5	E5	F5	G5	L	L1	L5	S5	T1	U	U1	Z5
AM182	2.10 in	8.50 in	10	7.25 in	5	228	436	2.75 in	0.13 in	15	1.24 in	1.125 in	0.250 in	123.5
AM184	2.10 in	8.50 in	10	7.25 in	5	228	436	2.75 in	0.13 in	15	1.24 in	1.125 in	0.250 in	123.5
AM213/215	2.76 in	8.50 in	11	7.25 in	5	228	485	3.38 in	0.25 in	15	1.52 in	1.375 in	0.312 in	172.5
AM254/256	3.65 in	8.50 in	12	7.25 in	5	228	535	4.00 in	0.25 in	15	1.80 in	1.625 in	0.375 in	223
AM284/286	4.00 in	10.50 in	15	9.00 in	5	286	542	4.62 in	0.25 in	15	2.10 in	1.875 in	0.500 in	230
AM324/326	3.88 in	12.50 in	17	11.0 in	5	356	602	5.25 in	0.25 in	17.5	2.36 in	2.125 in	0.500 in	290
AM364/365	4.51 in	12.50 in	17	11.0 in	5	356	602	5.88 in	0.25 in	17.5	2.66 in	2.375 in	0.625 in	290

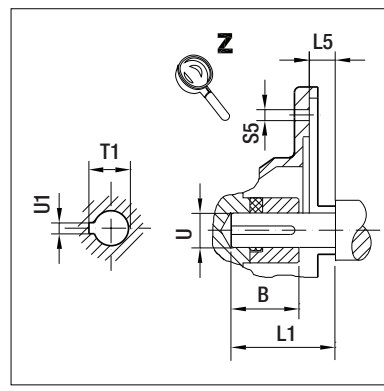
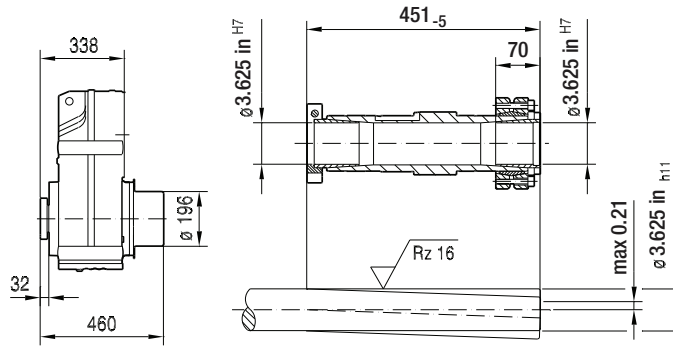
Note: Dimensions in mm unless otherwise noted. For all available output shaft diameters, see page 411. For dimensions of compound gear units (ex: FAZ107R77) see page 401.

FT107..

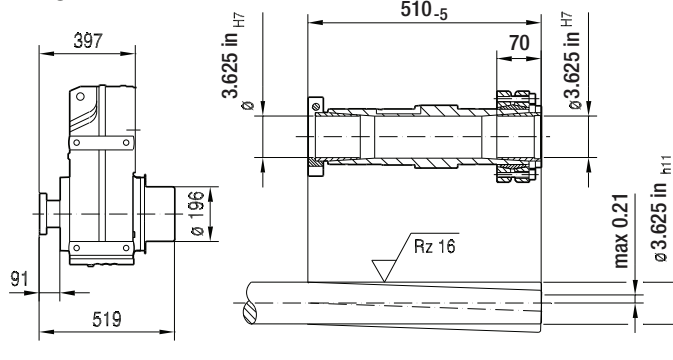
42 047 00 11



NON-Symmetrical
FT107..



Symmetrical
FT107..



(→ 132)	B	B5	C5	E5	F5	G5	L	L1	L5	S5	T1	U	U1	Z5
AM182	2.10 in	8.50 in	10	7.25 in	5	228	462	2.75 in	0.13 in	15	1.24 in	1.125 in	0.250 in	123.5
AM184	2.10 in	8.50 in	10	7.25 in	5	228	462	2.75 in	0.13 in	15	1.24 in	1.125 in	0.250 in	123.5
AM213/215	2.76 in	8.50 in	11	7.25 in	5	228	511	3.38 in	0.25 in	15	1.52 in	1.375 in	0.312 in	172.5
AM254/256	3.65 in	8.50 in	12	7.25 in	5	228	561	4.00 in	0.25 in	15	1.80 in	1.625 in	0.375 in	223
AM284/286	4.00 in	10.50 in	15	9.00 in	5	286	568	4.62 in	0.25 in	15	2.10 in	1.875 in	0.500 in	230
AM324/326	3.88 in	12.50 in	17	11.0 in	5	356	628	5.25 in	0.25 in	17.5	2.36 in	2.125 in	0.500 in	290
AM364/365	4.51 in	12.50 in	17	11.0 in	5	356	628	5.88 in	0.25 in	17.5	2.66 in	2.375 in	0.625 in	290

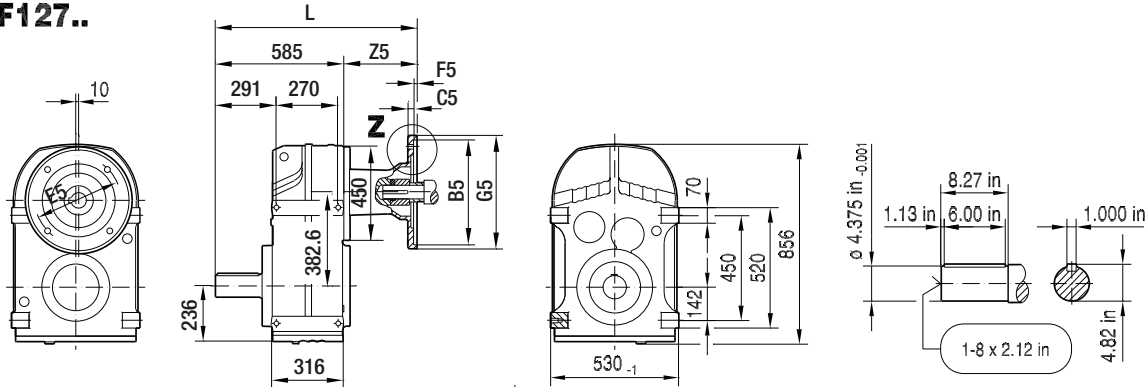
Note: Dimensions in mm unless otherwise noted. For all available output shaft diameters, see page 413. For dimensions of compound gear units (ex: FT107R77) see page 401.

9 F - theSnuggler® Helical

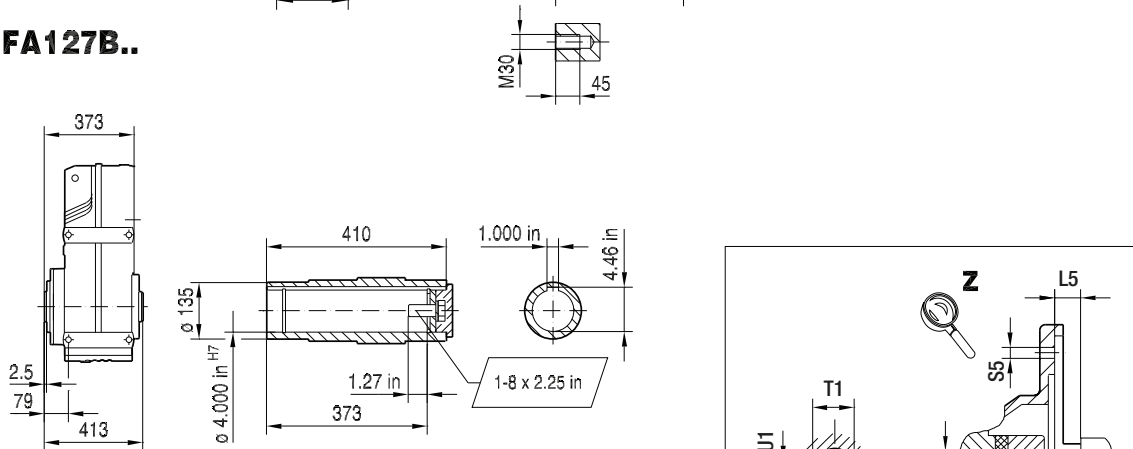
F.. AM.. [NEMA dimensions]

42 048 00 11

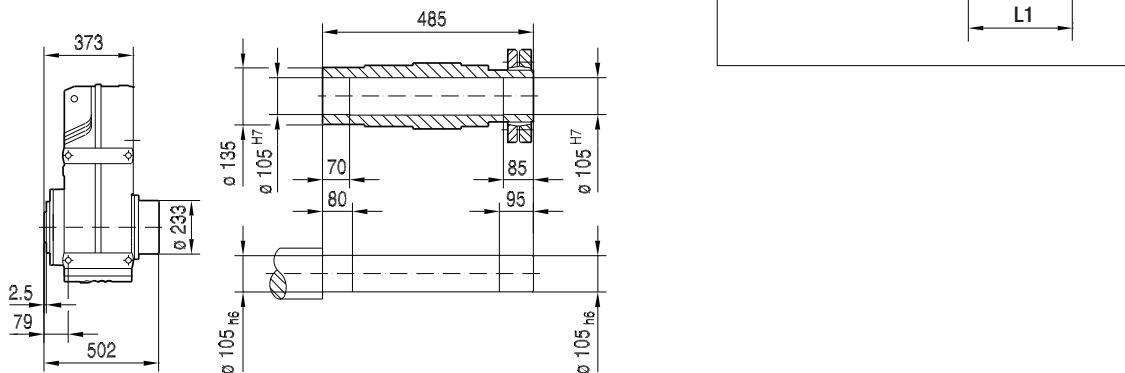
F127..



FA127B..



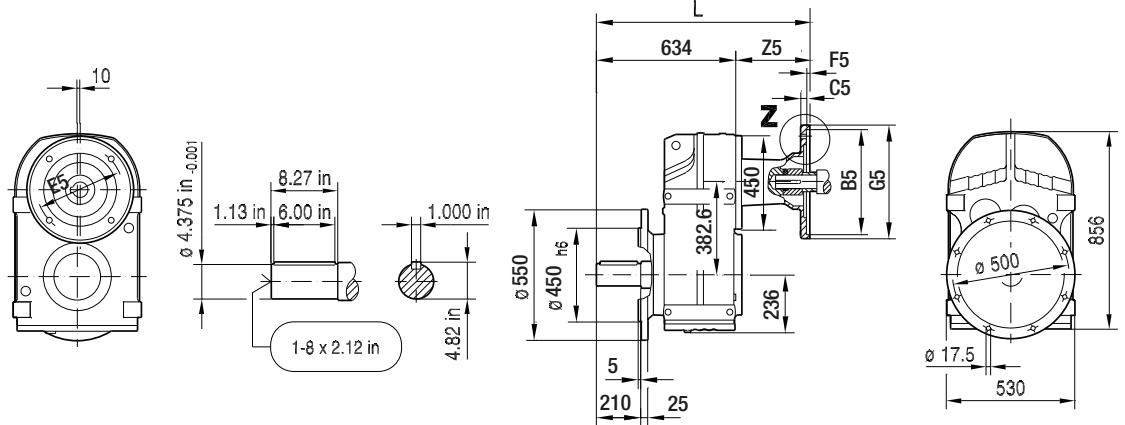
FH127B..



(→ 132)	B	B5	C5	E5	F5	G5	L	L1	L5	S5	T1	U	U1	Z5
AM213/215	2.76 in	8.50 in	11	7.25 in	5	228	743	3.38 in	0.25 in	15	1.52 in	1.375 in	0.312 in	157.5
AM254/256	3.65 in	8.50 in	12	7.25 in	5	228	793	4.00 in	0.25 in	15	1.80 in	1.625 in	0.375 in	208
AM284/286	4.00 in	10.50 in	15	9.00 in	5	286	800	4.62 in	0.25 in	15	2.10 in	1.875 in	0.500 in	215
AM324/326	3.88 in	12.50 in	17	11.0 in	5	356	860	5.25 in	0.25 in	17.5	2.36 in	2.125 in	0.500 in	275
AM364/365	4.51 in	12.50 in	17	11.0 in	5	356	860	5.88 in	0.25 in	17.5	2.66 in	2.375 in	0.625 in	275

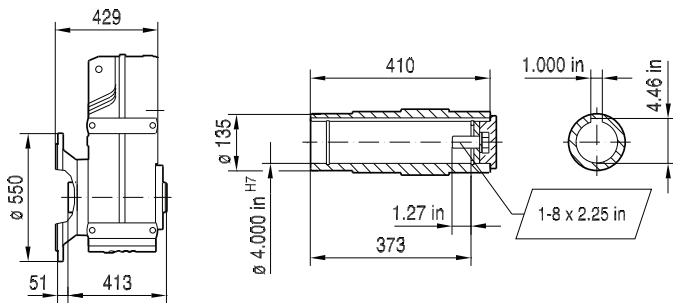
Note: Dimensions in mm unless otherwise noted. For all available output shaft diameters, see page 409. For dimensions of compound gear units (ex: FA127R77) see page 401.

FF127..

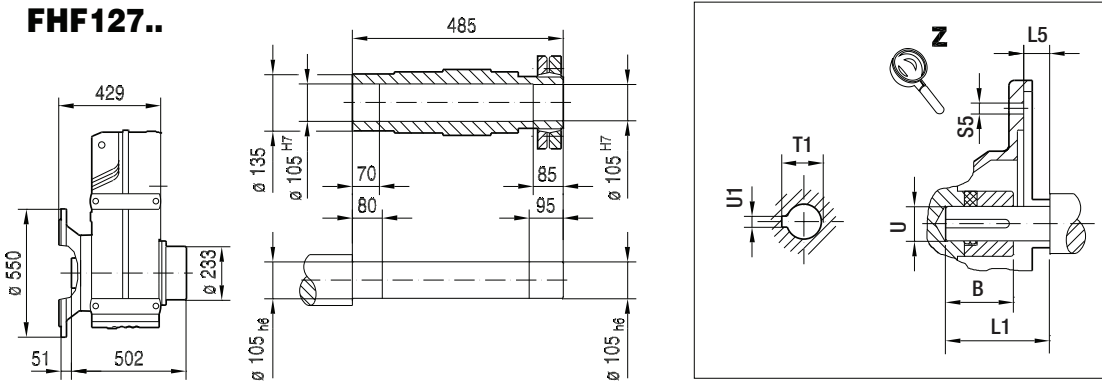


42 049 00 11

FAF127..



FHF127..



(→ 132)	B	B5	C5	E5	F5	G5	L	L1	L5	S5	T1	U	U1	Z5
AM213/215	2.76 in	8.50 in	11	7.25 in	5	228	792	3.38 in	0.25 in	15	1.52 in	1.375 in	0.312 in	157.5
AM254/256	3.65 in	8.50 in	12	7.25 in	5	228	842	4.00 in	0.25 in	15	1.80 in	1.625 in	0.375 in	208
AM284/286	4.00 in	10.50 in	15	9.00 in	5	286	849	4.62 in	0.25 in	15	2.10 in	1.875 in	0.500 in	215
AM324/326	3.88 in	12.50 in	17	11.0 in	5	356	909	5.25 in	0.25 in	17.5	2.36 in	2.125 in	0.500 in	275
AM364/365	4.51 in	12.50 in	17	11.0 in	5	356	909	5.88 in	0.25 in	17.5	2.66 in	2.375 in	0.625 in	275

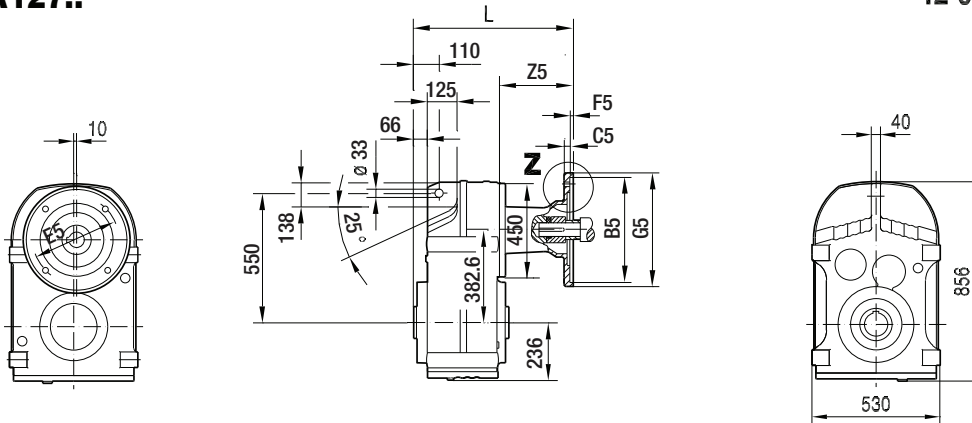
Note: Dimensions in mm unless otherwise noted. For all available output shaft diameters, see page 409. For dimensions of compound gear units (ex: FAF127R77) see page 401.

9 F - theSnuggler® Helical

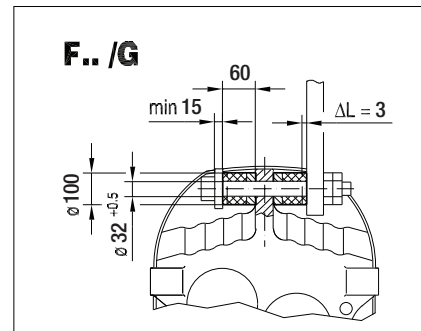
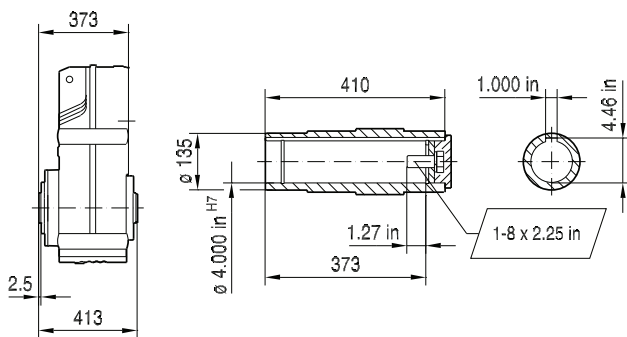
F.. AM.. [NEMA dimensions]

FA127..

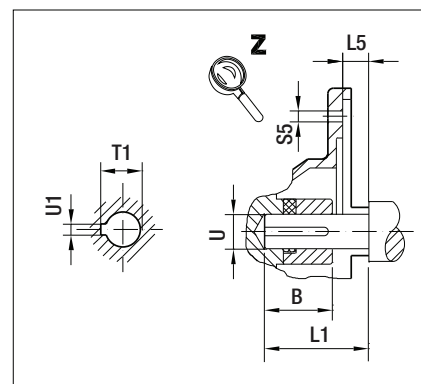
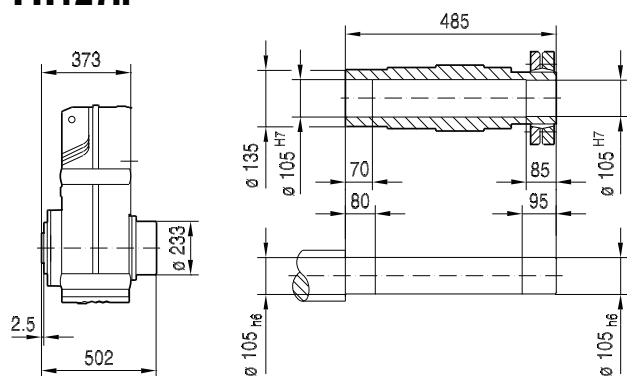
42 050 00 11



FA127..



FH127..

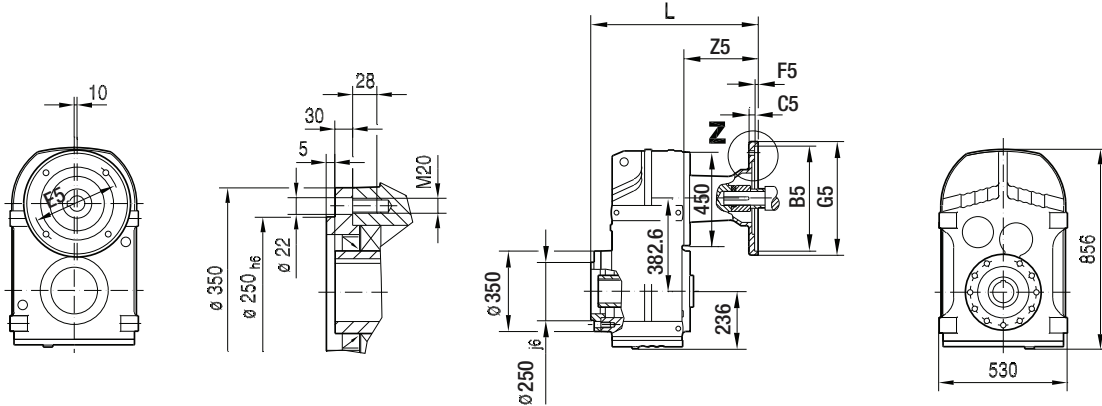


(→ 132)	B	B5	C5	E5	F5	G5	L	L1	L5	S5	T1	U	U1	Z5
AM213/215	2.76 in	8.50 in	11	7.25 in	5	228	531	3.38 in	0.25 in	15	1.52 in	1.375 in	0.312 in	157.5
AM254/256	3.65 in	8.50 in	12	7.25 in	5	228	581	4.00 in	0.25 in	15	1.80 in	1.625 in	0.375 in	208
AM284/286	4.00 in	10.50 in	15	9.00 in	5	286	588	4.62 in	0.25 in	15	2.10 in	1.875 in	0.500 in	215
AM324/326	3.88 in	12.50 in	17	11.0 in	5	356	648	5.25 in	0.25 in	17.5	2.36 in	2.125 in	0.500 in	275
AM364/365	4.51 in	12.50 in	17	11.0 in	5	356	648	5.88 in	0.25 in	17.5	2.66 in	2.375 in	0.625 in	275

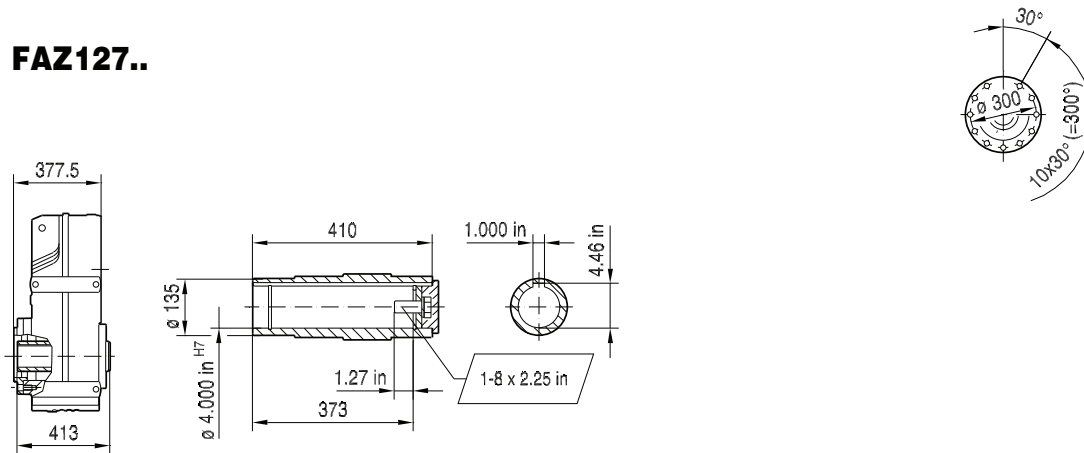
Note: Dimensions in mm unless otherwise noted. For all available output shaft diameters, see page 411. For dimensions of compound gear units (ex: FA127R77) see page 401.

FAZ127..

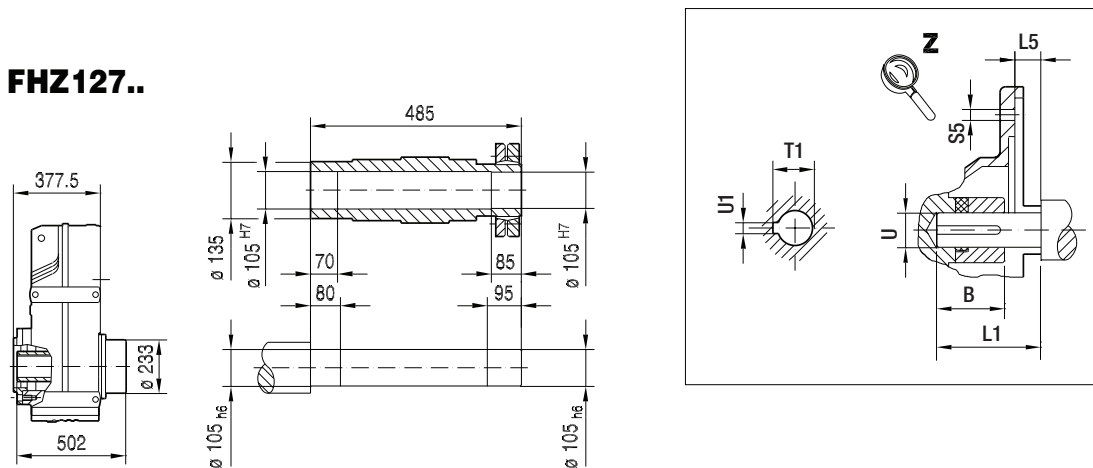
42 051 00 11



FAZ127..



FHZ127..

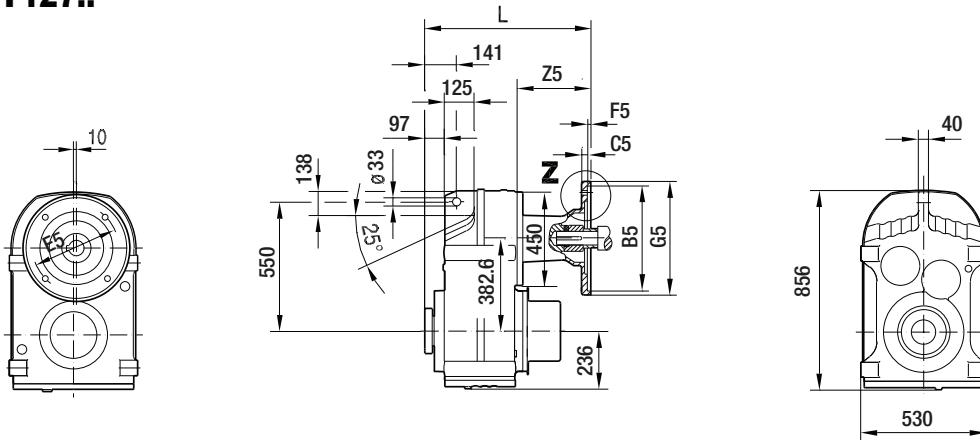


(→ 132)	B	B5	C5	E5	F5	G5	L	L1	L5	S5	T1	U	U1	Z5
AM213/215	2.76 in	8.50 in	11	7.25 in	5	228	535	3.38 in	0.25 in	15	1.52 in	1.375 in	0.312 in	157.5
AM254/256	3.65 in	8.50 in	12	7.25 in	5	228	586	4.00 in	0.25 in	15	1.80 in	1.625 in	0.375 in	208
AM284/286	4.00 in	10.50 in	15	9.00 in	5	286	593	4.62 in	0.25 in	15	2.10 in	1.875 in	0.500 in	215
AM324/326	3.88 in	12.50 in	17	11.0 in	5	356	653	5.25 in	0.25 in	17.5	2.36 in	2.125 in	0.500 in	275
AM364/365	4.51 in	12.50 in	17	11.0 in	5	356	653	5.88 in	0.25 in	17.5	2.66 in	2.375 in	0.625 in	275

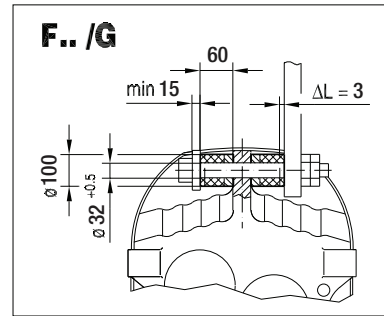
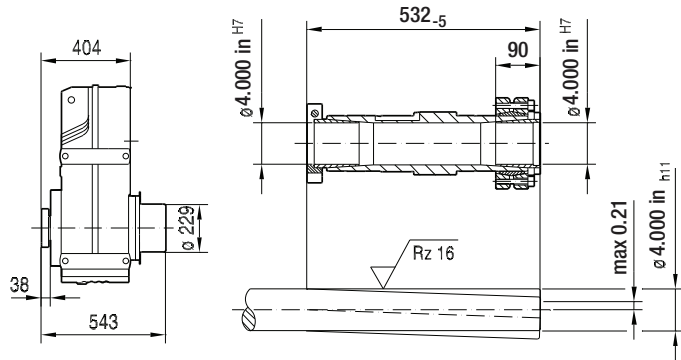
Note: Dimensions in mm unless otherwise noted. For all available output shaft diameters, see page 411. For dimensions of compound gear units (ex: FAZ127R77) see page 401.

FT127..

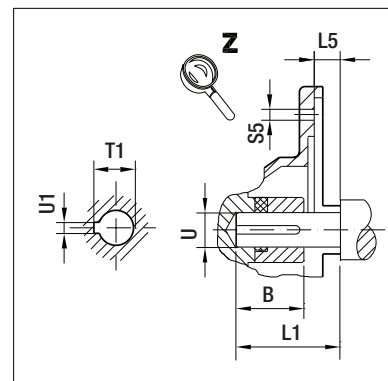
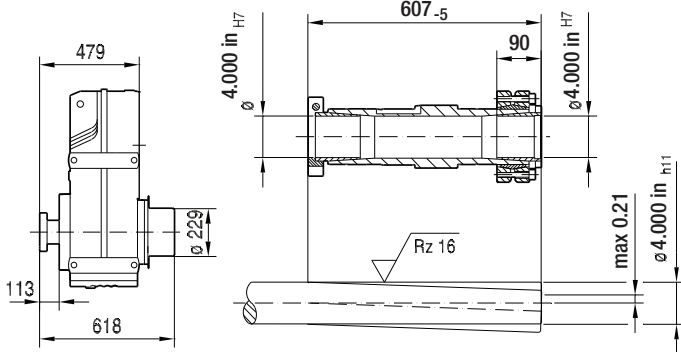
42 052 00 11



NON-Symmetrical FT127..



Symmetrical FT127B..

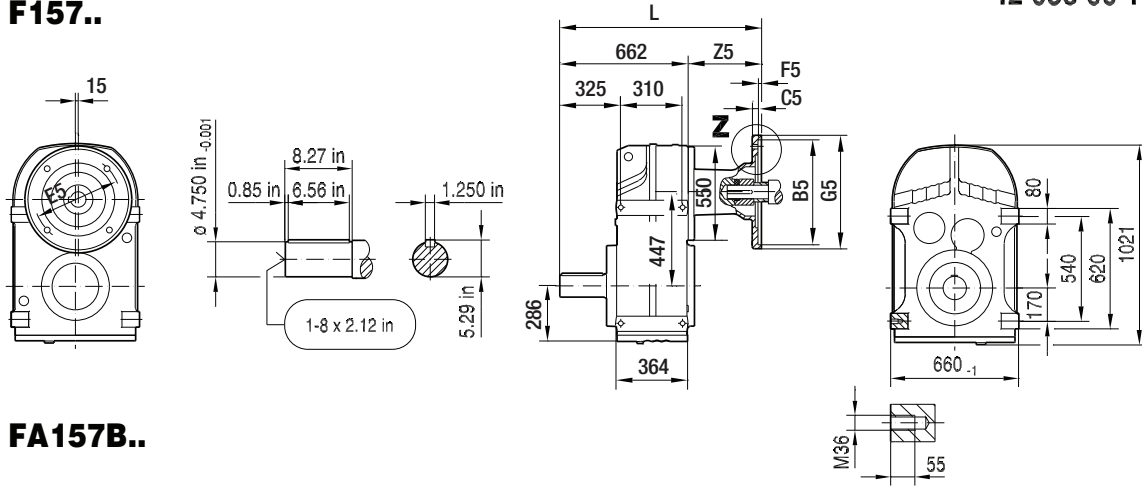


(→ 132)	B	B5	C5	E5	F5	G5	L	L1	L5	S5	T1	U	U1	Z5
AM213/215	2.76 in	8.50 in	11	7.25 in	5	228	562	3.38 in	0.25 in	15	1.52 in	1.375 in	0.312 in	157.5
AM254/256	3.65 in	8.50 in	12	7.25 in	5	228	612	4.00 in	0.25 in	15	1.80 in	1.625 in	0.375 in	208
AM284/286	4.00 in	10.50 in	15	9.00 in	5	286	619	4.62 in	0.25 in	15	2.10 in	1.875 in	0.500 in	215
AM324/326	3.88 in	12.50 in	17	11.0 in	5	356	679	5.25 in	0.25 in	17.5	2.36 in	2.125 in	0.500 in	275
AM364/365	4.51 in	12.50 in	17	11.0 in	5	356	679	5.88 in	0.25 in	17.5	2.66 in	2.375 in	0.625 in	275

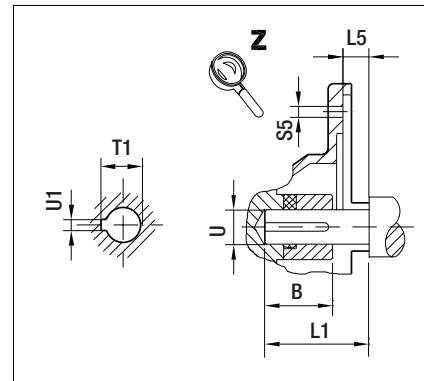
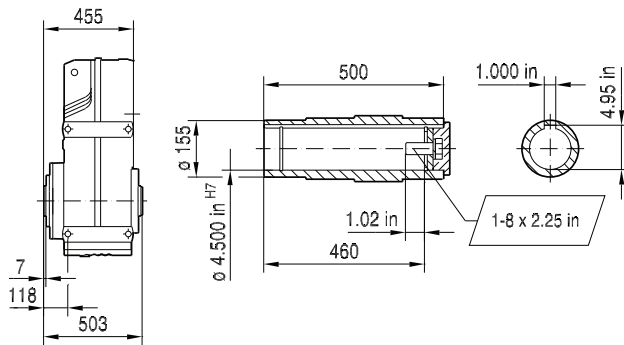
Note: Dimensions in mm unless otherwise noted. For all available output shaft diameters, see page 413. For dimensions of compound gear units (ex: FT127R77) see page 401.

F157..

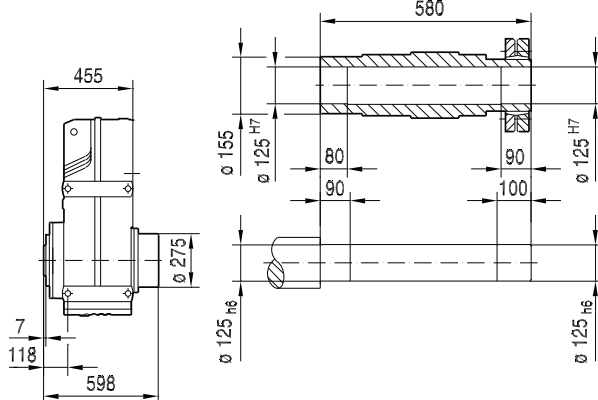
42 053 00 11



FA157B..



FH157B..



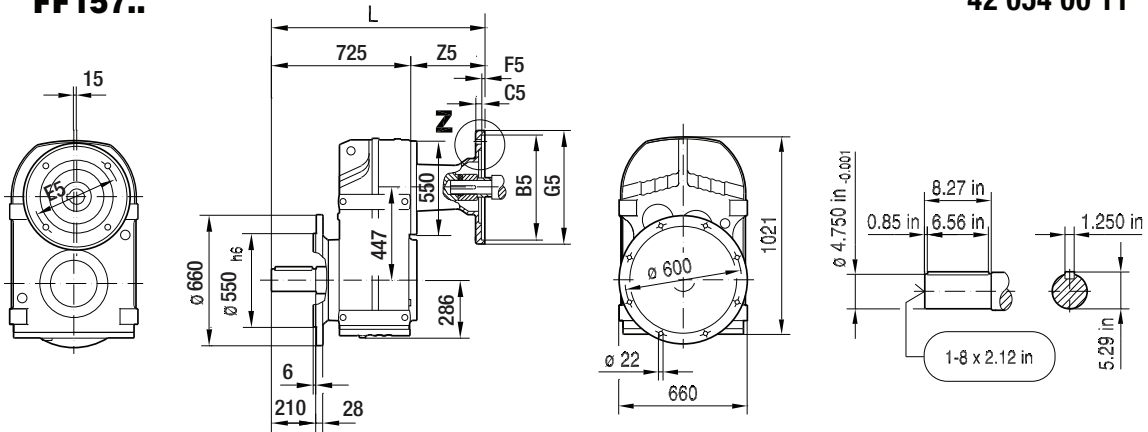
(→ 132)	B	B5	C5	E5	F5	G5	L	L1	L5	S5	T1	U	U1	Z5
AM254/256	3.65 in	8.50 in	12	7.25 in	5	228	862	4.00 in	0.25 in	15	1.80 in	1.625 in	0.375 in	200
AM284/286	4.00 in	10.50 in	15	9.00 in	5	286	869	4.62 in	0.25 in	15	2.10 in	1.875 in	0.500 in	207
AM324/326	3.88 in	12.50 in	17	11.0 in	5	356	929	5.25 in	0.25 in	17.5	2.36 in	2.125 in	0.500 in	267
AM364/365	4.51 in	12.50 in	17	11.0 in	5	356	929	5.88 in	0.25 in	17.5	2.66 in	2.375 in	0.625 in	267

Note: Dimensions in mm unless otherwise noted. For all available output shaft diameters, see page 409. For dimensions of compound gear units (ex: F157R97) see page 401.

9 F - theSnuggler® Helical

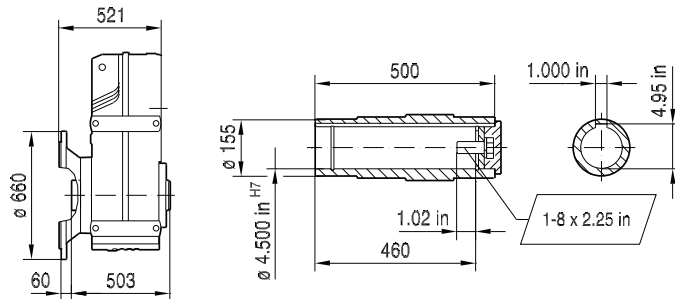
F.. AM.. [NEMA dimensions]

FF157..

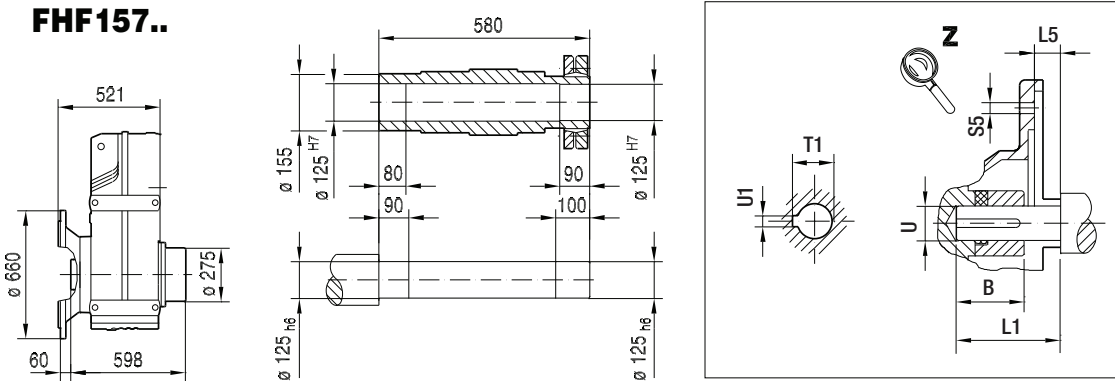


42 054 00 11

FAF157..



FHF157..

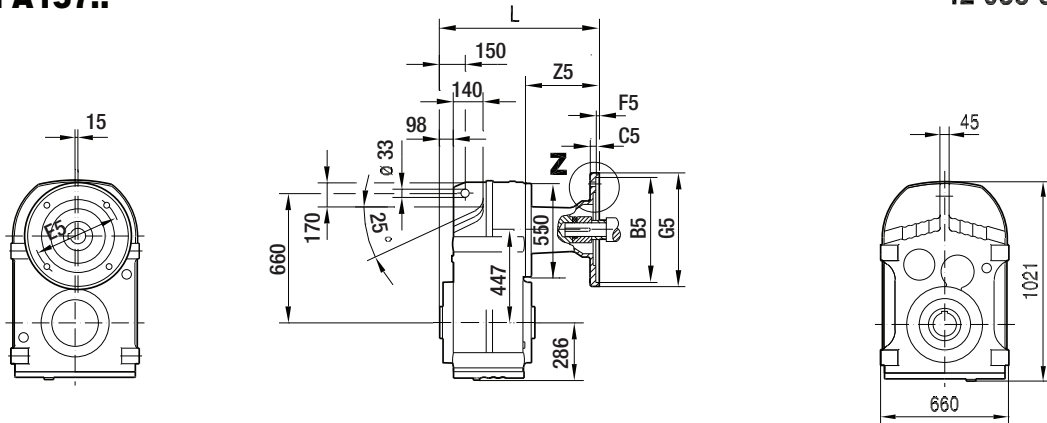


(→ 132)	B	B5	C5	E5	F5	G5	L	L1	L5	S5	T1	U	U1	Z5
AM254/256	3.65 in	8.50 in	12	7.25 in	5	228	925	4.00 in	0.25 in	15	1.80 in	1.625 in	0.375 in	200
AM284/286	4.00 in	10.50 in	15	9.00 in	5	286	932	4.62 in	0.25 in	15	2.10 in	1.875 in	0.500 in	207
AM324/326	3.88 in	12.50 in	17	11.0 in	5	356	992	5.25 in	0.25 in	17.5	2.36 in	2.125 in	0.500 in	267
AM364/365	4.51 in	12.50 in	17	11.0 in	5	356	992	5.88 in	0.25 in	17.5	2.66 in	2.375 in	0.625 in	267

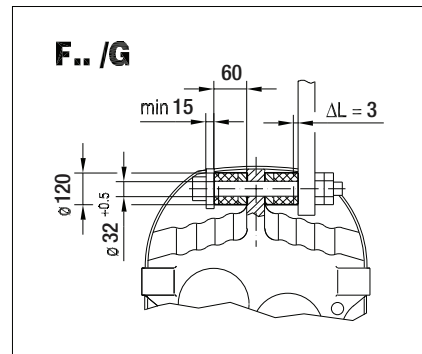
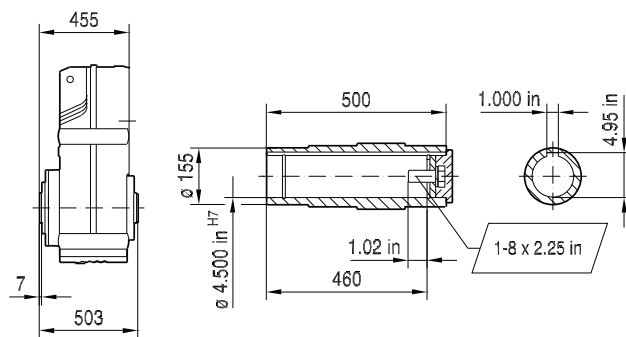
Note: Dimensions in mm unless otherwise noted. For all available output shaft diameters, see page 409. For dimensions of compound gear units (ex: FF157R97) see page 401.

FA157..

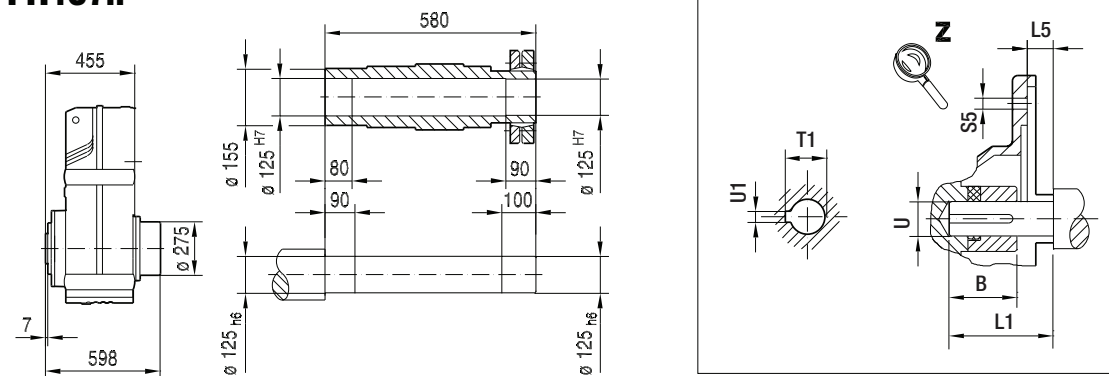
42 055 00 11



FA157..



FH157..



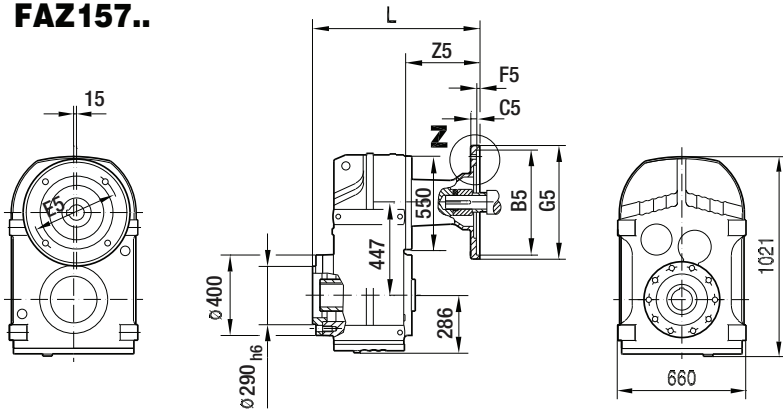
(→ 132)	B	B5	C5	E5	F5	G5	L	L1	L5	S5	T1	U	U1	Z5
AM254/256	3.65 in	8.50 in	12	7.25 in	5	228	655	4.00 in	0.25 in	15	1.80 in	1.625 in	0.375 in	200
AM284/286	4.00 in	10.50 in	15	9.00 in	5	286	662	4.62 in	0.25 in	15	2.10 in	1.875 in	0.500 in	207
AM324/326	3.88 in	12.50 in	17	11.0 in	5	356	722	5.25 in	0.25 in	17.5	2.36 in	2.125 in	0.500 in	267
AM364/365	4.51 in	12.50 in	17	11.0 in	5	356	722	5.88 in	0.25 in	17.5	2.66 in	2.375 in	0.625 in	267

Note: Dimensions in mm unless otherwise noted. For all available output shaft diameters, see page 411. For dimensions of compound gear units (ex: FA157R97) see page 401.

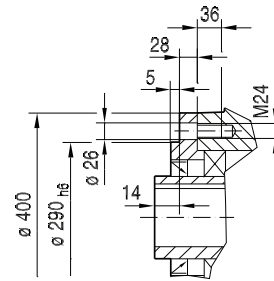
9 F - theSnuggler® Helical

F.. AM.. [NEMA dimensions]

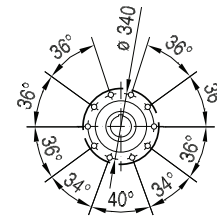
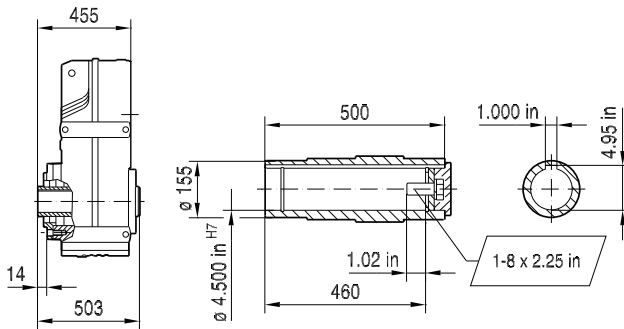
FAZ157..



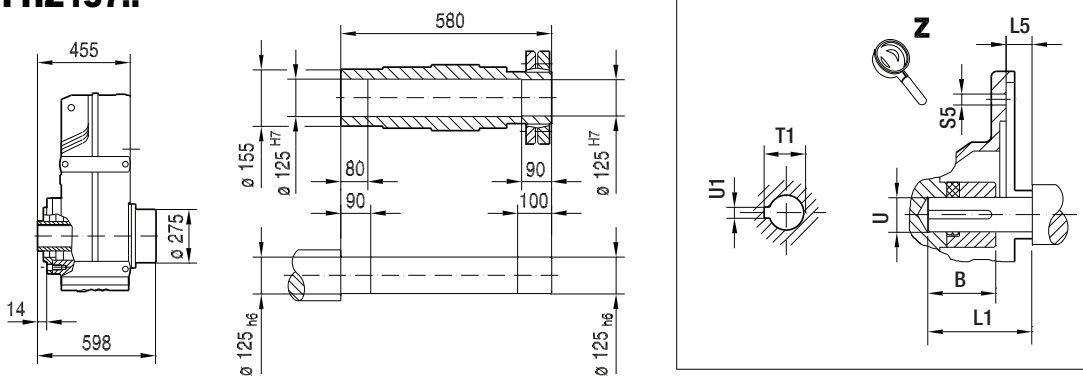
42 056 00 11



FAZ157..



FHZ157..

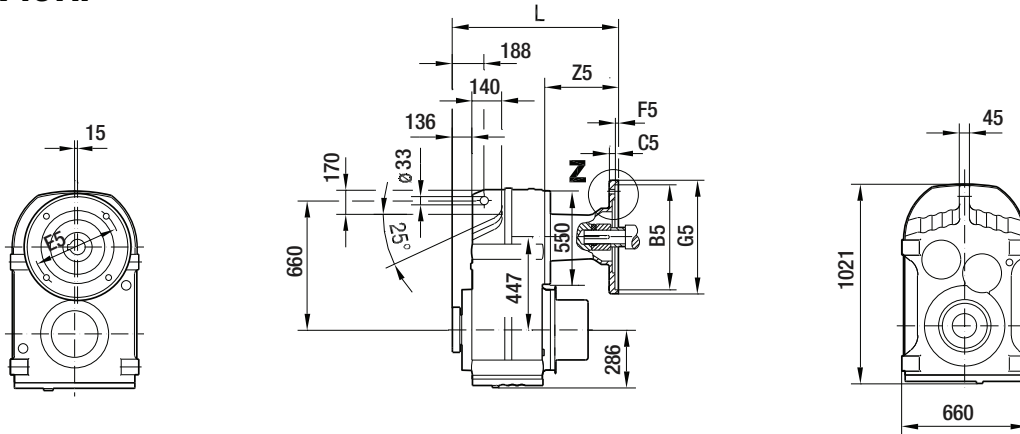


(→ 132)	B	B5	C5	E5	F5	G5	L	L1	L5	S5	T1	U	U1	Z5
AM254/256	3.65 in	8.50 in	12	7.25 in	5	228	655	4.00 in	0.25 in	15	1.80 in	1.625 in	0.375 in	200
AM284/286	4.00 in	10.50 in	15	9.00 in	5	286	662	4.62 in	0.25 in	15	2.10 in	1.875 in	0.500 in	207
AM324/326	3.88 in	12.50 in	17	11.0 in	5	356	722	5.25 in	0.25 in	17.5	2.36 in	2.125 in	0.500 in	267
AM364/365	4.51 in	12.50 in	17	11.0 in	5	356	722	5.88 in	0.25 in	17.5	2.66 in	2.375 in	0.625 in	267

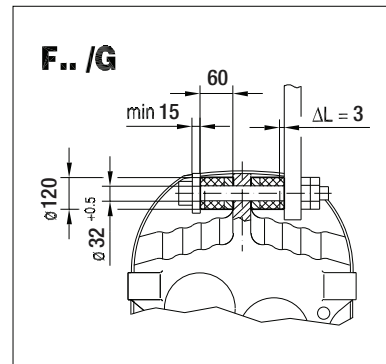
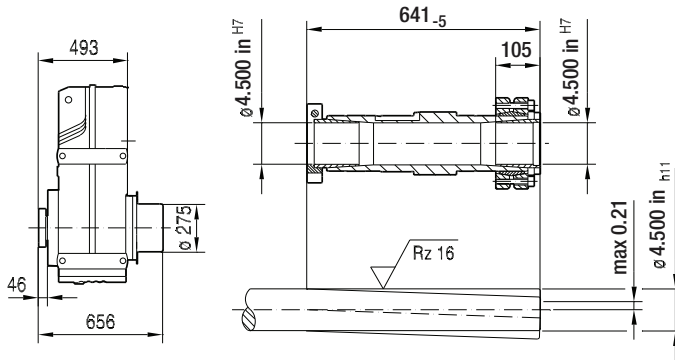
Note: Dimensions in mm unless otherwise noted. For all available output shaft diameters, see page 411. For dimensions of compound gear units (ex: FAZ157R97) see page 401.

FT157..

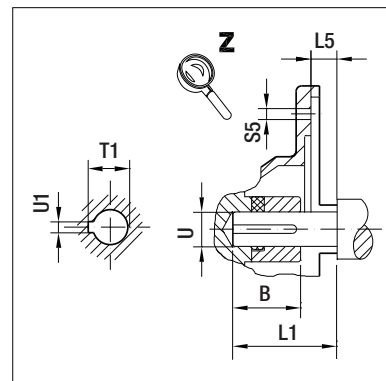
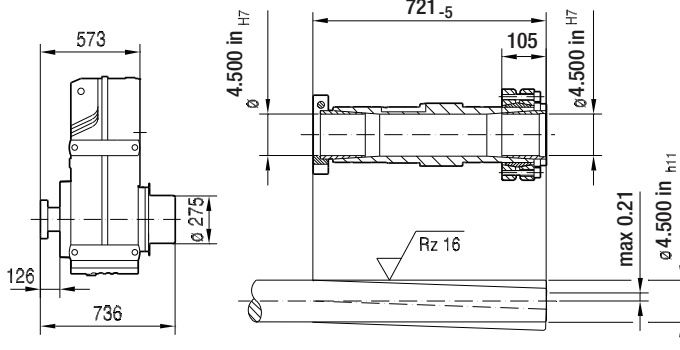
42 057 00 11



**NON-Symmetrical
FT157..**



**Symmetrical
FT157B..**



(→ 132)	B	B5	C5	E5	F5	G5	L	L1	L5	S5	T1	U	U1	Z5
AM254/256	3.65 in	8.50 in	12	7.25 in	5	228	693	4.00 in	0.25 in	15	1.80 in	1.625 in	0.375 in	200
AM284/286	4.00 in	10.50 in	15	9.00 in	5	286	700	4.62 in	0.25 in	15	2.10 in	1.875 in	0.500 in	207
AM324/326	3.88 in	12.50 in	17	11.0 in	5	356	760	5.25 in	0.25 in	17.5	2.36 in	2.125 in	0.500 in	267
AM364/365	4.51 in	12.50 in	17	11.0 in	5	356	760	5.88 in	0.25 in	17.5	2.66 in	2.375 in	0.625 in	267

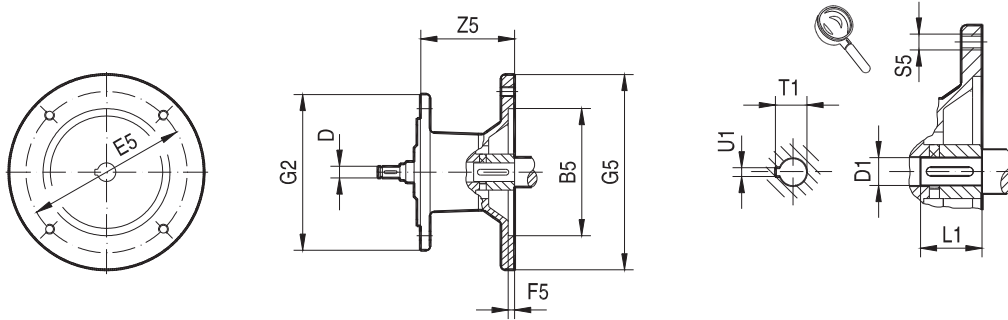
Note: Dimensions in mm unless otherwise noted. For all available output shaft diameters, see page 413. For dimensions of compound gear units (ex: FT157R97) see page 401.

9 F - theSnuggler® Helical

F..AM.. [IEC dimensions]

9.4 F..AM.. [IEC dimensions]

23 002 100



		Dimensions in mm											
		B5	D	E5	F5	G2	G5	S5	Z5	D1	L1	T1	U1
F..27 F..37 F..47	AM63	95	10	115	3.5	120	140	M8	72	11	23	12.8	4
	AM71 ¹⁾	110		130	4		14			30	16.3	5	
	AM80 ¹⁾	130	12	165	4.5		200	M10	106	19	40	21.8	6
	AM90 ¹⁾		14							24	50	27.3	8
F..57 F..67	AM63	95	10	115	3.5	160	140	M8	66	11	23	12.8	4
	AM71	110		130	4		14			30	16.3	5	
	AM80	130	12	165	4.5		200	M10	99	19	40	21.8	6
	AM90		14							24	50	27.3	8
	AM100 ¹⁾	180	16	215	5		250	M12	134	28	60	31.3	8
	AM112 ¹⁾		18							300	191	38	80
	AM132S/M ¹⁾	230	22	265									
		230	28	265									
F..77	AM63	95	10	115	3.5	200	140	M8	60	11	23	12.8	4
	AM71	110		130	4		14			30	16.3	5	
	AM80	130	12	165	4.5		200	M10	92	19	40	21.8	6
	AM90		14							24	50	27.3	8
	AM100 ¹⁾	180	16	215	5		250	M12	126	28	60	31.3	8
	AM112 ¹⁾		18							300	179	38	80
	AM132S/M ¹⁾	230	22	265									
AM132ML ¹⁾		230	28	265									
F..87	AM80	130	12	165	4.5	250	200	M10	87	19	40	21.8	6
	AM90		14							24	50	27.3	8
	AM100	180	16	215	5		250	M12	121	28	60	31.3	8
	AM112		18							300	174	38	80
	AM132S/M	230	22	265	5		300	M12	174	38	80	41.3	10
	AM132ML		28							350	232	42	110
	AM160 ¹⁾	250	28	300	6		350	M16	232	48	110	51.8	14
AM180 ¹⁾	32												

1) Check dimension 1/2 G5 because component may protrude past foot-mounting surface if installed on R, K, S or W foot-mounted gear unit.

23 003 100

Fig.1

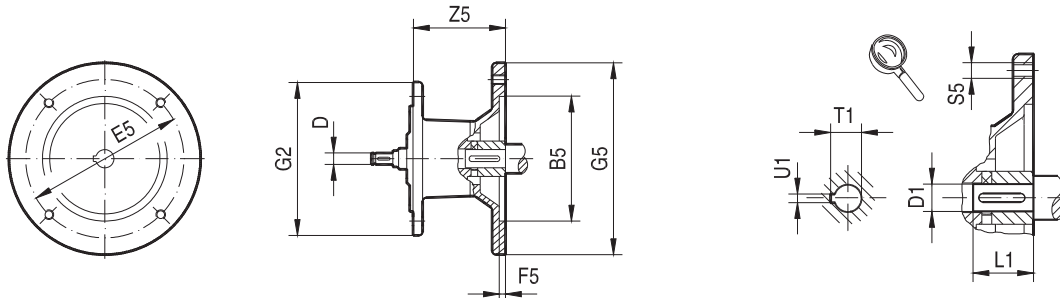


Fig.2

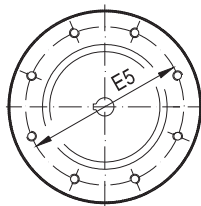


		Fig.	Dimensions in mm											
			B5	D	E5	F5	G2	G5	S5	Z5	D1	L1	T1	U1
F..97	AM100	1	180	16	215	5	300	250	M12	116	28	60	31.3	8
	AM112			18										
	AM132S/M		230	22	265	6		350	M16	227	42	110	45.3	12
	AM132ML			28										
	AM160		250	28	300	7		400	M16	268	55	110	51.8	14
	AM180			32										
	AM200		300	38	350	7		400	268	55	110	59.3	16	
F..107	AM100	1	180	16	215	5	350	250	M12	110	28	60	31.3	8
	AM112			18										
	AM132S/M		230	22	265	6		350	M16	221	42	110	45.3	12
	AM132ML			28										
	AM160		250	28	300	7		450	M16	277	60	140	64.4	18
	AM180			32										
	AM200		300	38	350	7		450	262	55	110	59.3	16	
	AM225	2	350	38	400	7	450	277	60	140	64.4	18		

23 004 100

Fig.1

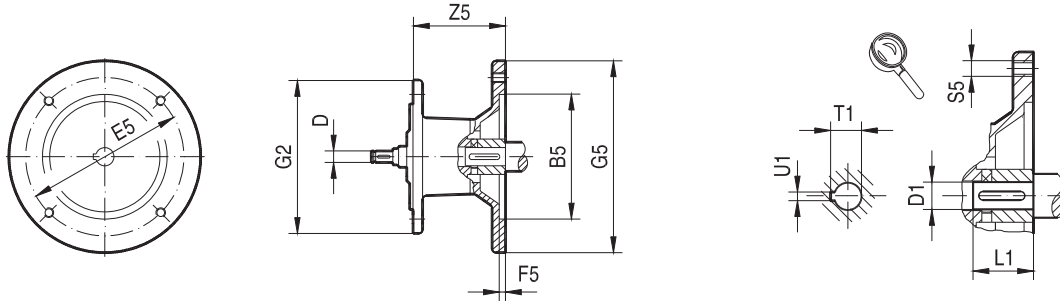


Fig.2

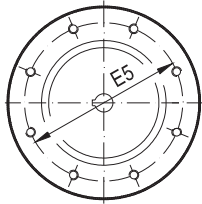
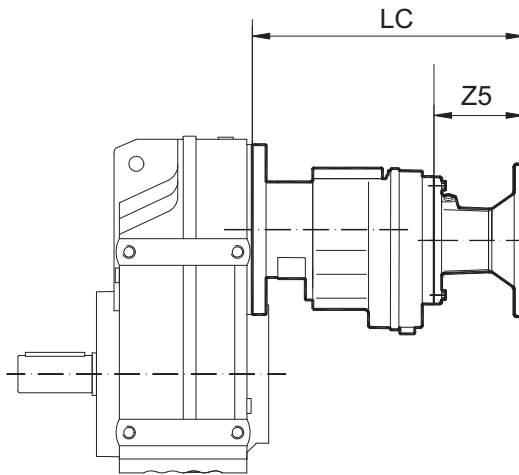


		Fig.	Dimensions in mm												
			B5	D	E5	F5	G2	G5	S5	Z5	D1	L1	T1	U1	
F..127	AM132S/M	1	230	22	265	5	450	300	M12	148	38	80	41.3	10	
	AM132ML			28							38				
	AM160		250	28	300	6		350	350	M16	206	42	110	45.3	12
	AM180			32				48				51.8		14	
	AM200	300	38	350	7	400		400	M16	247	55	140	59.3	16	
	AM225		38			60					64.4		18		
	AM250	450	48	500	7	550		550	M16	336	65	140	69.4	18	
	AM280										75		79.9	20	
F..157	AM160	1	250	28	300	6	550	350	M16	198	42	110	45.3	12	
	AM180			32							48		51.8	14	
	AM200		300	38	350	7		400	400	M16	239	55	140	59.3	16
	AM225			38				60				64.4		18	
	AM250	450	48	500	7	550		550	M16	328	65	140	69.4	18	
	AM280										75		79.9	20	

9.5 F.. R.. AM.. [compound dimensions]



F_R_AM

9

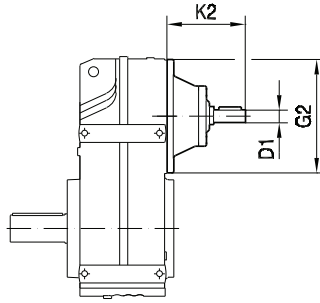
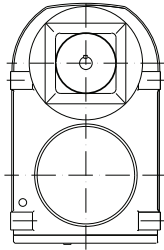
Large Unit	Small Unit	Adapter	Z5	LC
F..47 F..57 F..67	R37	AM56	93.5	258.5
		AM143	117	282
		AM145	117	282
F..77	R37	AM56	93.5	250.5
		AM143	117	274
		AM145	117	274
F..87	R57	AM56	87	303
		AM143	110.5	326.5
		AM145	110.5	326.5
		AM182	147.5	363.5
		AM184	147.5	363.5
		AM213/215	200.5	416.5
F..97	R57	AM56	87	298
		AM143	110.5	321.5
		AM145	110.5	321.5
		AM182	147.5	358.5
		AM184	147.5	358.5
F..107	R77	AM56	81	328
		AM143	103.5	350.5
		AM145	103.5	350.5
		AM182	139.5	386.5
		AM184	139.5	386.5
		AM213/215	188.5	435.5

Large Unit	Small Unit	Adapter	Z5	LC	
F..127	R77	AM56	81	313	
		AM143	103.5	335.5	
		AM145	103.5	335.5	
		AM182	139.5	371.5	
		AM184	139.5	371.5	
			AM213/215	188.5	420.5
	R87	AM143	98.5	378.5	
		AM145	98.5	378.5	
		AM182	134.5	414.5	
		AM184	134.5	414.5	
AM213/215		183.5	463.5		
		AM254/256	234	514	
		AM284/286	241	521	
F..157	R97	AM182	129.5	454.5	
		AM184	129.5	454.5	
		AM213/215	178.5	503.5	
		AM254/256	229	554	
		AM284/286	236	561	
		AM324/326	296	621	
		AM364/365	296	621	

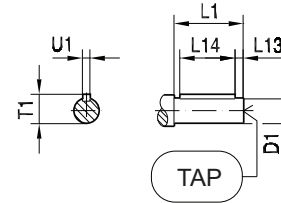
9.6 F.. AD.. [dimensions]

9.6.1 Input shaft - Inch

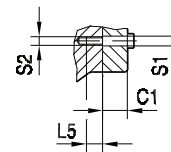
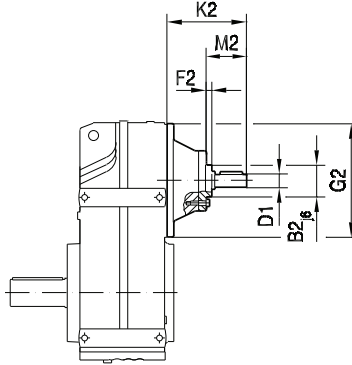
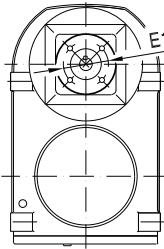
F.. AD..



42 098 01 01US



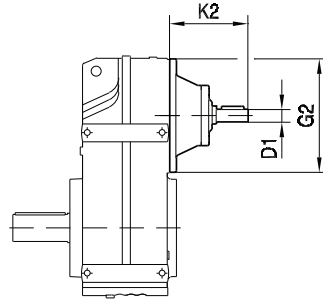
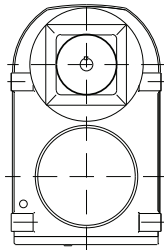
F.. AD../ZR



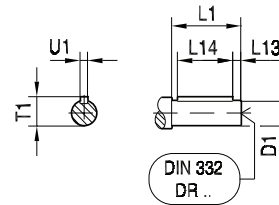
		B2	C1	D1	E1	F2	G2	K2	L1	L5	L13	L14	M2	S1	S2	T1	U1	TAP (inch)
F..27	AD1	-	-	0.625 in	-	-	120	102	40	-	4	32	-	-	-	0.70 in	0.1875 in	1/4-20 x0.63
F..37	AD2	55	13.5	0.750 in	80	8		130	40	12	4	32	50	9	M8	0.83 in		
F..47	AD3	70	15.5	0.875 in	105	8		159	50	16	5	40	60	11	M10	0.96 in		
F..57	AD2	55	13.5	0.750 in	80	8	160	116	40	12	4	32	50	9	M8	0.83 in	0.1875 in	1/4-20 x0.63
	AD3	70	15.5	0.875 in	105	8		151	50	16	5	40	60	11	M10	0.96 in		
	AD4	100	16	1.375 in	130	13		224	80	20	5	70	95.5	13.5	M12	1.51 in		
F..77	AD2	55	13.5	0.750 in	80	8	200	111	40	12	4	32	50	9	M8	0.83 in	0.1875 in	1/4-20 x0.63
	AD3	70	15.5	0.875 in	105	8		156	60	16	5	50	70	11	M10	0.96 in		
	AD4	100	16	1.375 in	130	13		219	80	20	5	70	95.5	13.5	M12	1.51 in		
F..87	AD5	120	24	1.625 in	180	11	250	292	110	20	10	70	126	13.5	M12	1.79 in	0.375 in	5/8-11 x1.38
	AD3	70	15.5	0.875 in	105	8		151	60	16	5	50	70	11	M10	0.96 in	0.1875 in	5/16-18 x0.87
	AD4	100	16	1.375 in	130	13		214	80	20	5	70	95.5	13.5	M12	1.51 in	0.3125 in	1/2-13 x1.12
F..97	AD5	120	24	1.625 in	180	11	300	287	110	20	10	70	126	13.5	M12	1.79 in	0.375 in	5/8-11 x1.38
	AD6	130	22.5	1.875 in	200	11		327	110	26	10	80	130.5	17.5	M16	2.09 in	0.50 in	5/8-11 x1.38
	AD3	70	15.5	0.875 in	105	8		145	60	16	5	50	70	11	M10	0.96 in	0.1875 in	5/16-18 x0.87
F..107	AD4	100	16	1.375 in	130	13	350	208	80	20	5	70	95.5	13.5	M12	1.51 in	0.3125 in	1/2-13 x1.12
	AD5	120	24	1.625 in	180	11		281	110	20	10	70	126	13.5	M12	1.79 in	0.375 in	5/8-11 x1.38
	AD6	130	22.5	1.875 in	200	11		321	110	26	10	80	130.5	17.5	M16	2.09 in	0.50 in	5/8-11 x1.38
F..127	AD4	100	16	1.375 in	130	13	450	193	80	20	5	70	95.5	13.5	M12	1.51 in	0.3125 in	1/2-13 x1.12
	AD5	120	24	1.625 in	180	11		266	110	20	10	70	126	13.5	M12	1.79 in	0.375 in	5/8-11 x1.38
	AD6	130	22.5	1.875 in	200	11		306	110	26	10	80	130.5	17.5	M16	2.09 in	0.50 in	5/8-11 x1.38
F..157	AD7	125	19	2.125 in	190	13	550	300	110	30	10	90	133	22	M20	2.35 in	0.50 in	3/4-10 x1.61
	AD8	120	22.5	2.750 in	210	5		383	140	19.5	15	110	155	13.5	M12	3.03 in	0.625 in	3/4-10 x1.61
	AD5	120	24	1.625 in	180	11		258	110	20	10	70	126	13.5	M12	1.79 in	0.375 in	5/8-11 x1.38
F..157	AD6	130	22.5	1.875 in	200	11	550	298	110	26	10	80	130.5	17.5	M16	2.09 in	0.50 in	5/8-11 x1.38
	AD7	125	19	2.125 in	190	13		292	110	30	10	90	133	22	M20	2.35 in	0.50 in	3/4-10 x1.61
	AD8	120	22.5	2.750 in	210	5		374	140	19.5	15	110	155	13.5	M12	3.03 in	0.625 in	3/4-10 x1.61

9.6.2 Input Shaft - Metric

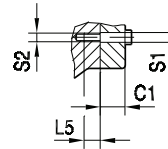
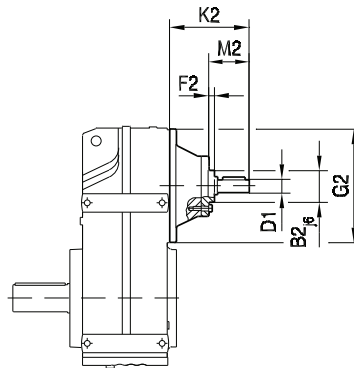
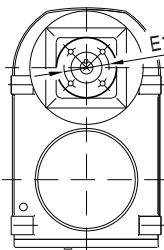
F.. AD..



42 098 01 01



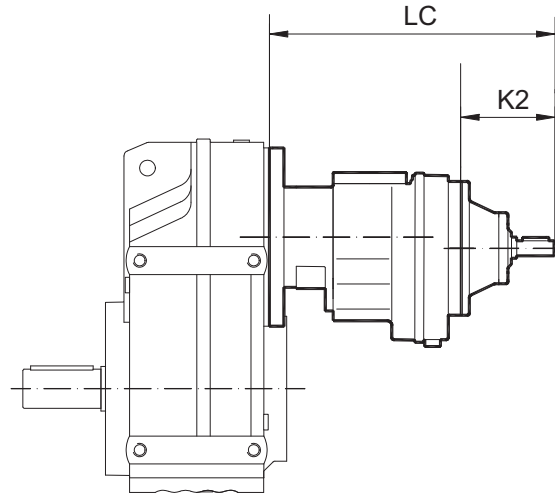
F.. AD../ZR



		B2	C1	E1	F2	G2	K2	L5	M2	S1	S2	D1	L1	L13	L14	T1	U1
F..27 F..37 F..47	AD1	-	-	-	-	120	102	-	-	-	-	16	40	4	32	18	5
	AD2, AD2/ZR	55	13.5	80	8		130	12	50	9	M8	19	40	4	32	21.5	6
F..57 F..67	AD2, AD2/ZR	55	13.5	80	8	160	123	12	50	9	M8	19	40	4	32	21.5	6
	AD3, AD3/ZR	70	15.5	105	8		159	16	60	11	M10	24	50	5	40	27	8
F..77	AD2, AD2/ZR	55	13.5	80	8	200	116	12	50	9	M8	19	40	4	32	21.5	6
	AD3, AD3/ZR	70	15.5	105	8		151	16	60	11	M10	24	50	5	40	27	8
	AD4, AD4/ZR	100	16	130	13		224	20	95.5	13.5	M12	38	80	5	70	41	10
F..87	AD2, AD2/ZR	55	13.5	80	8	250	111	12	50	9	M8	19	40	4	32	21.5	6
	AD3, AD3/ZR	70	15.5	105	8		156	16	70	11	M10	28	60	5	50	31	8
	AD4, AD4/ZR	100	16	130	13		219	20	95.5	13.5	M12	38	80	5	70	41	10
	AD5, AD5/ZR	120	24	180	11		292	20	126	13.5	M12	42	110	10	70	45	12
F..97	AD3, AD3/ZR	70	15.5	105	8	300	151	16	70	11	M10	28	60	5	50	31	8
	AD4, AD4/ZR	100	16	130	13		214	20	95.5	13.5	M12	38	80	5	70	41	10
	AD5, AD5/ZR	120	24	180	11		287	20	126	13.5	M12	42	110	10	70	45	12
	AD6, AD6/ZR	130	22.5	200	11		327	26	130.5	17.5	M16	48	110	10	80	51.5	14
F..107	AD3, AD3/ZR	70	15.5	105	8	350	145	16	70	11	M10	28	60	5	50	31	8
	AD4, AD4/ZR	100	16	130	13		208	20	95.5	13.5	M12	38	80	5	70	41	10
	AD5, AD5/ZR	120	24	180	11		281	20	126	13.5	M12	42	110	10	70	45	12
	AD6, AD6/ZR	130	22.5	200	11		321	26	130.5	17.5	M16	48	110	10	80	51.5	14
F..127	AD4, AD4/ZR	100	16	130	13	450	193	20	95.5	13.5	M12	38	80	5	70	41	10
	AD5, AD5/ZR	120	24	180	11		266	20	126	13.5	M12	42	110	10	70	45	12
	AD6, AD6/ZR	130	22.5	200	11		306	26	130.5	17.5	M16	48	110	10	80	51.5	14
	AD7, AD7/ZR	125	19	190	13		300	30	133	22	M20	55	110	10	90	59	16
	AD8, AD8/ZR	120	22.5	210	5		383	19.5	155	13.5	M12	70	140	15	110	74.5	20
F..157	AD5, AD5/ZR	120	24	180	11	550	258	20	126	13.5	M12	42	110	10	70	45	12
	AD6, AD6/ZR	130	22.5	200	11		298	26	130.5	17.5	M16	48	110	10	80	51.5	14
	AD7, AD7/ZR	125	19	190	13		292	30	133	22	M20	55	110	10	90	59	16
	AD8, AD8/ZR	120	22.5	210	5		374	19.5	155	13.5	M12	70	140	15	110	74.5	20

9.7 F.. R.. AD.. [compound dimensions]

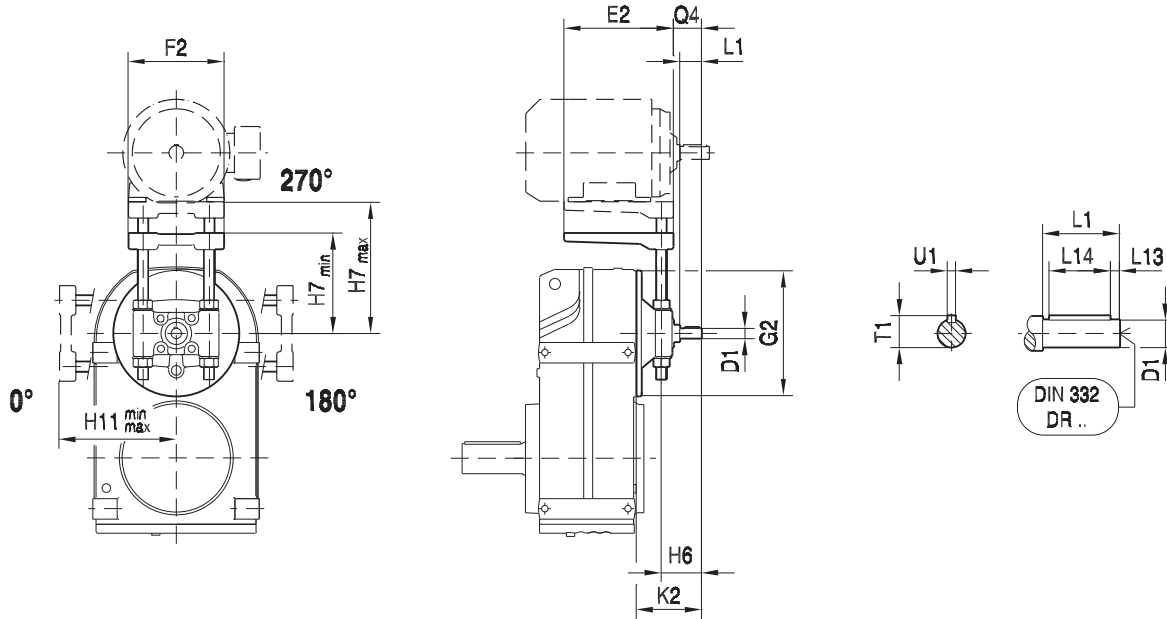
F_R_AD



Large Unit	Small Unit	Adapter	K2	LC
F..47	R37	AD1	102	267
F..57		AD2	130	295
F..67				
F..77	R37	AD1	102	259
		AD2	130	287
F..87	R57	AD2	123	339
		AD3	159	375
F..97	R57	AD2	123	334
		AD3	159	370
F..107	R77	AD2	116	363
		AD3	151	398
		AD4	224	471
F..127	R77	AD2	116	348
		AD3	151	383
		AD4	224	456
	R87	AD2	111	391
		AD3	156	436
		AD4	219	499
		AD5	292	572
F..157	R97	AD3	151	476
		AD4	214	539
		AD5	287	612
		AD6	327	652

9.8 F.. AD../P [dimensions]

42 099 01 01



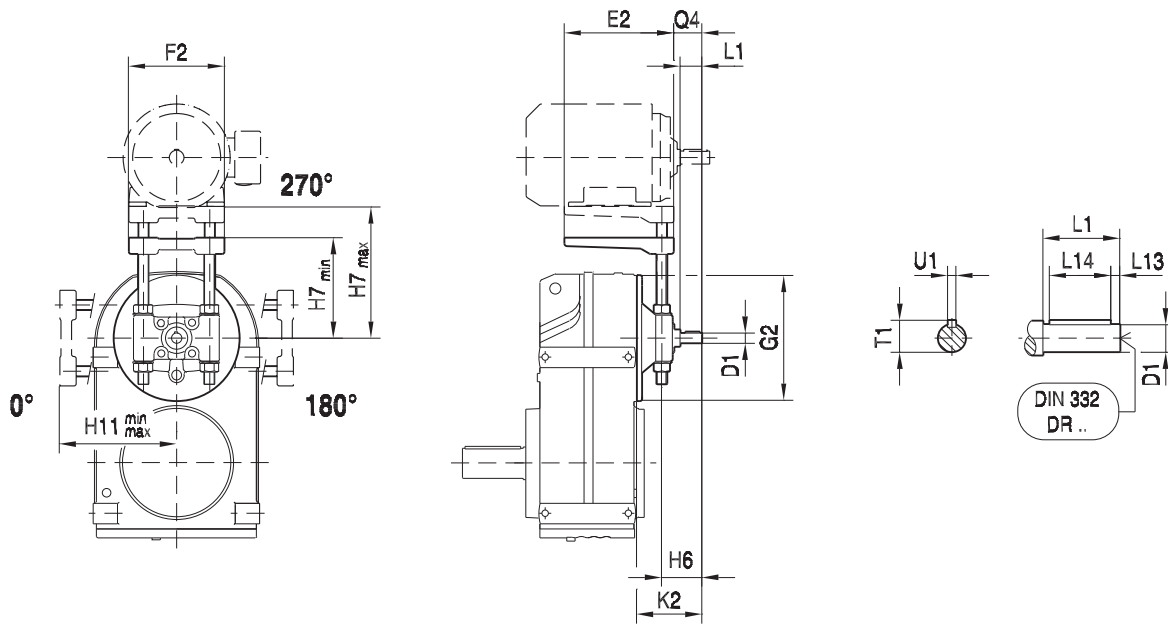
9

		E2	F2	G2	H6	H7 min	H7 max	H11 min	H11 max	K2	Q4	D1	L1	L13	L14	T1	U1
F..27	AD2/P	195	180	120	65	100	165	125	165	130	43	19	40	4	32	21.5	6
F..37	AD2/P	195	180	120	65	100	165	125	165	130	43	19	40	4	32	21.5	6
F..47	AD2/P	195	180	120	65	105	165	125	165	130	43	19	40	4	32	21.5	6
F..57	AD2/P	195	180	160	65	125	165	140	200	123	43	19	40	4	32	21.5	6
	AD3/P	230	240		80	130	175	150	230	159	54	24	50	5	40	27	8
F..67	AD2/P	195	180	160	65	125	165	145	200	123	43	19	40	4	32	21.5	6
	AD3/P	230	240		80	130	175	155	230	159	54	24	50	5	40	27	8
F..77	AD2/P	195	180	200	65	145	200	170	200	116	43	19	40	4	32	21.5	6
	AD3/P	230	240		80	150	230	175	230	151	54	24	50	5	40	27	8
	AD4/P	345	291		118	155	210	185	210	224	83	38	80	5	70	41	10
F..87	AD2/P	195	180	250	65	170	260	205	260	111	43	19	40	4	32	21.5	6
	AD3/P	230	240		90	175	230	210	320	156	64	28	60	5	50	31	8
	AD4/P	345	291		118	180	280	215	280	219	83	38	80	5	70	41	10
	AD5/P	430	355		153	185	250	225	325	292	113	42	110	10	70	45	12
F..97	AD3/P	230	240	300	90	205	320	240	320	151	64	28	60	5	50	31	8
	AD4/P	345	291		118	210	280	245	280	214	83	38	80	5	70	41	10
	AD5/P	430	355		153	215	325	250	325	287	113	42	110	10	70	45	12
F..107	AD3/P	230	240	350	90	230	320	270	320	145	64	28	60	5	50	31	8
	AD4/P	345	291		118	240	280	275	360	208	83	38	80	5	70	41	10
	AD5/P	430	355		153	240	325	280	325	281	113	42	110	10	70	45	12
	AD6/P	495	457		163	245	310	285	310	321	114	48	110	10	80	51.5	14

9 F - theSnuggler® Helical

F.. AD../P [dimensions]

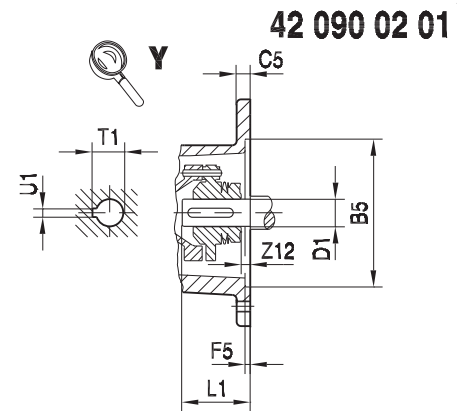
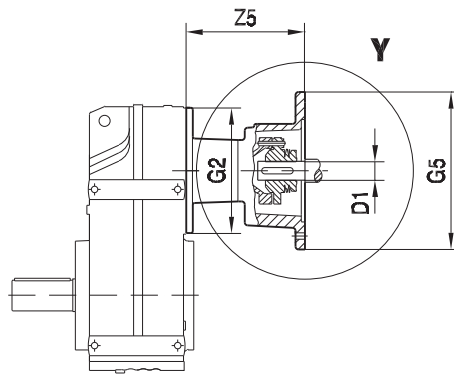
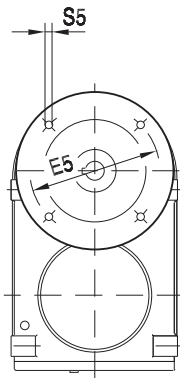
42 101 01 01



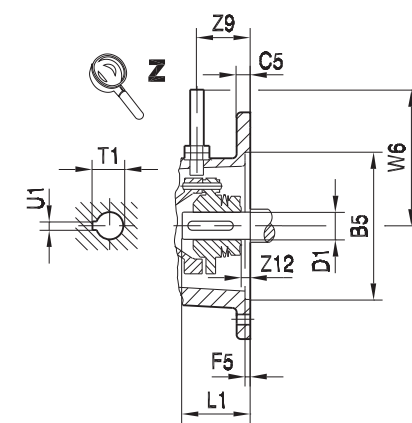
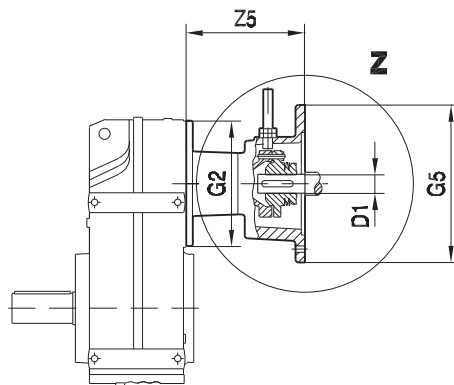
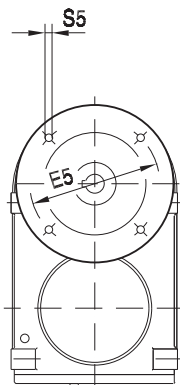
		E2	F2	G2	H6	H7 min	H7 max	H11 min	H11 max	K2	Q4	D1	L1	L13	L14	T1	U1
F..127	AD4/P	345	291	450	118	240	280	310	360	193	83	38	80	5	70	41	10
	AD5/P	430	355		153	295	405	320	405	266	113	42	110	10	70	45	12
	AD6/P	495	457		163	295	360	310	360	306	114	48	110	10	80	51.5	14
	AD7/P	650	570		170	300	365	310	365	300	112	55	110	10	90	59	16
F..157	AD5/P	430	355	550	153	345	405	370	405	258	113	42	110	10	70	45	12
	AD6/P	495	457		163	375	475	380	475	298	114	48	110	10	80	51.5	14
	AD7/P	650	570		170	375	475	385	475	292	112	55	110	10	90	59	16

9.9 F.. AR.. [dimensions]

F.. AR..



F.. AR../W

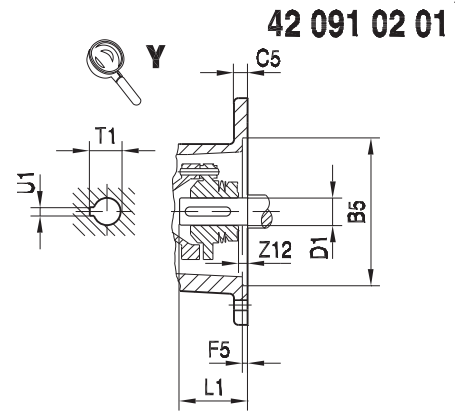
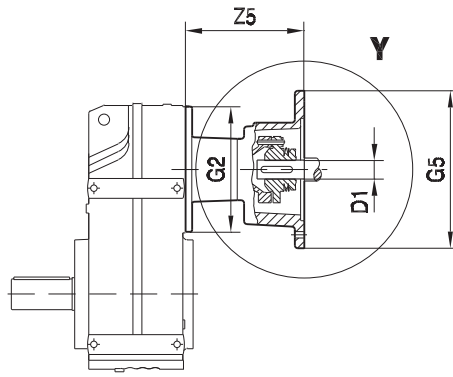
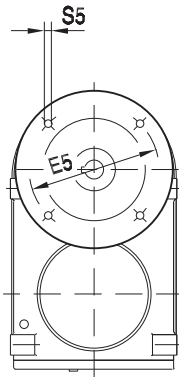


		B5	C5	E5	F5	G2	G5	S5	W6	Z5	Z9	Z12	D1	L1	T1	U1			
F..27 F..37 F..47	AR71	110	10	130	3.5	120	160	M8	120	104	37	0	14	30	16.3	5			
	AR80	130	12	165	4.5		200	M10		140.5			19	40	21.8	6			
	AR90						24	50		27.3			8						
F..57 F..67	AR71	110	10	130	3.5	160	160	M8	120	97.5	37	0	14	30	16.3	5			
	AR80	130	12	165	4.5		200	M10		134			19	40	21.8	6			
	AR90						24	50		27.3			8						
	AR100 AR112	180	15	215	5		250	M12		130			174.5	52	5.5	28	60	31.3	8
F..77	AR71	110	10	130	3.5	200	160	M8	120	91.5	37	0	14	30	16.3	5			
	AR80	130	12	165	4.5		200	M10		127			19	40	21.8	6			
	AR90						24	50		27.3			8						
	AR100 AR112	180	15	215	5		250	M12		130			166.5	52	5.5	28	60	31.3	8
	AR132S/M AR132ML	230	16	265	5		300	M12		145			234	72	5	38	80	41.3	10
	F..87	AR80	130	12	165		4.5	250		200			M10	120	122	37	0	19	40
AR90		24				50			27.3	8									
AR100 AR112		180	15	215	5	250	M12		130	161.5	52	5.5	28	60	31.3	8			
AR132S/M AR132ML		230	16	265	5	300	M12		145	229	72	5	38	80	41.3	10			
AR160 AR180		250	18	300	6	350	M16		165	306.5	105	35	42	110	45.3	12			
														48	110	51.8	14		

9 F - theSnuggler® Helical

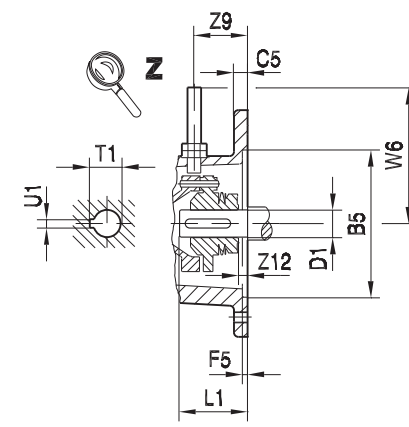
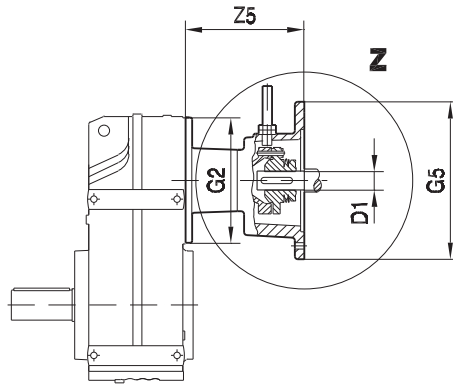
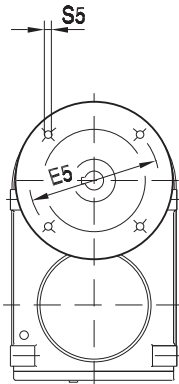
F.. AR.. [dimensions]

F.. AR..



42 091 02 01

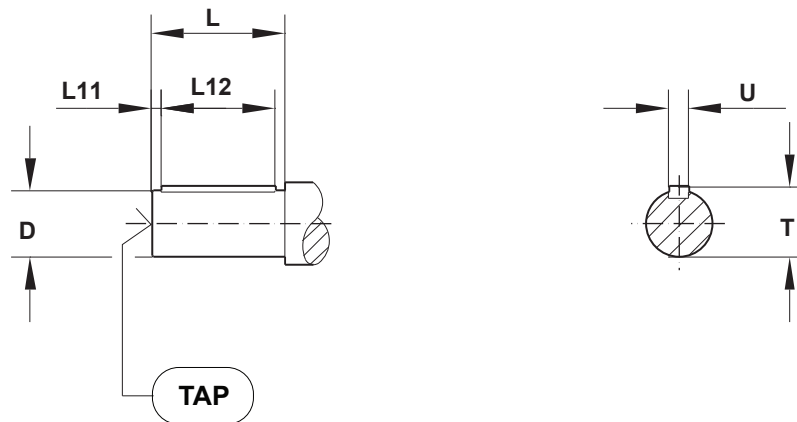
F.. AR../W



		B5	C5	E5	F5	G2	G5	S5	W6	Z5	Z9	Z12	D1	L1	T1	U1
F..97	AR100	180	15	215	5	300	250	M12	130	156.5	52	5.5	28	60	31.3	8
	AR112															
	AR132S/M	230	16	265	5		300	M12	145	224	72	5	38	80	41.3	10
	AR132ML															
	AR160															
AR180	250	18	300	6	350	M16	165	301.5	105	35	42	110	45.3	12		
		48	110	51.8	14											
F..107	AR100	180	15	215	5	350	250	M12	130	150.5	52	5.5	28	60	31.3	8
	AR112															
	AR132S/M	230	16	265	5		300	M12	145	218	72	5	38	80	41.3	10
	AR132ML															
	AR160															
AR180	250	18	300	6	350	M16	165	295.5	105	35	42	110	45.3	12		
		48	110	51.8	14											
F..147	AR132S/M	230	16	265	5	450	300	M12	145	203	72	5	38	80	41.3	10
	AR132ML															
	AR160	250	18	300	6		350	M16	165	280.5	105	35	42	110	45.3	12
	AR180															
		48	110	51.8	14											
F..167	AR160	250	18	300	6	550	350	M16	165	272.5	105	35	42	110	45.3	12
	AR180															
		48	110	51.8	14											

9.10 Output shaft sizes

9.10.1 Solid Shafts - Inch



All dimensions in inches								
Model	D	T	U	L ¹⁾	L11	L12	TAP	Change ²⁾
F..27	1.00	1.11	1/4	1.97	0.20	1-5/16	3/8 - 16 x 0.87	0
F..37	1.00	1.11	1/4	1.97	0.20	1-5/16	3/8 - 16 x 0.87	0
F..47	1.25	1.36	1/4	2.36	0.26	1-11/16	1/2 - 13 x 1.12	0
F..57	1.375	1.51	5/16	2.76	0.43	1-13/16	1/2 - 13 x 1.12	0
F..67	1.375	1.51	5/16	2.76	0.47	1-13/16	1/2 - 13 x 1.12	-0.39
	1.625	1.79	3/8	3.15	0.38	2-1/4	5/8 - 11 x 1.38	0
F..77	1.75	1.92	3/8	3.54	0.4	2-3/4	5/8 - 11 x 1.38	-0.39
	2.00	2.22	1/2	3.94	0.64	2-5/8	3/4 - 10 x 1.61	0
F..87	2.375	2.65	5/8	4.72	0.51	3-5/8	3/4 - 10 x 1.61	0
F..97	2.875	3.2	3/4	5.51	0.67	4-1/8	3/4 - 10 x 1.61	0
F..107	3.625	4.01	7/8	6.69	0.63	5-3/8	1 - 8 x 2.13	0
F..127	4.375	4.82	1	8.27	1.09	6	1 - 8 x 2.13	0
F..157	4.75	5.29	1-1/4	8.27	0.82	6-9/16	1 - 8 x 2.13	0

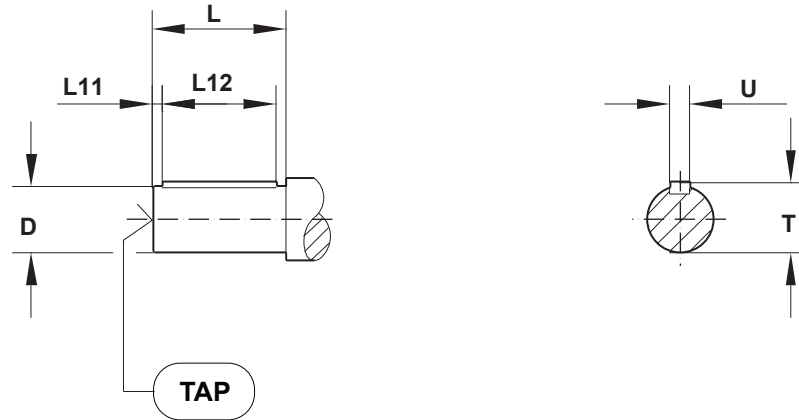
1) Longer shafts to match older designs are available for flanged units.

2) The change in length, L, when compared to the standard shaft that is shown in dimension pages.

9 F - theSnuggler® Helical

Output shaft sizes

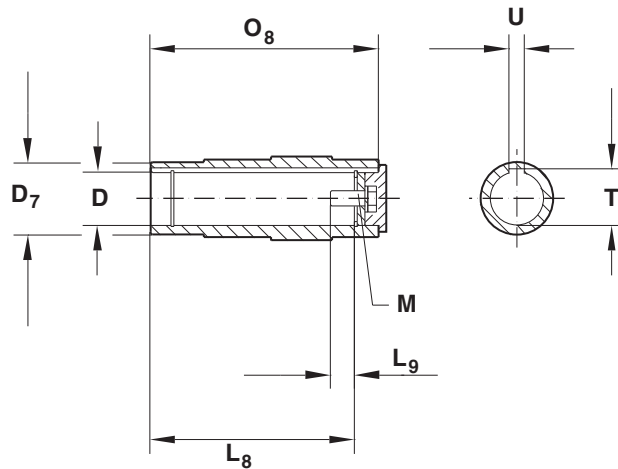
9.10.2 Solid shafts - Metric



All dimensions in mm							
Model	D	T	U	L ¹⁾	L11	L12	TAP
F..27	25	28	8	50	5	40	M10 x 22
F..37	25	28	8	50	5	40	M10 x 22
F..47	30	33	8	60	3.5	50	M10 x 22
F..57	35	38	10	70	7	56	M12 x 28
F..67	40	43	12	80	5	70	M16 x 36
	35	38	10	70	7	56	M12 x 28
F..77	50	53.5	14	100	10	80	M16 x 36
	45	48.5	14	90	5	80	M16 x 36
F..87	60	64	18	120	5	110	M20 x 42
F..97	70	74.5	20	140	7.5	125	M20 x 42
F..107	90	95	25	170	5	160	M24 x 50
F..127	110	116	28	210	15	180	M24 x 50
F..157	120	127	32	210	5	200	M24 x 50

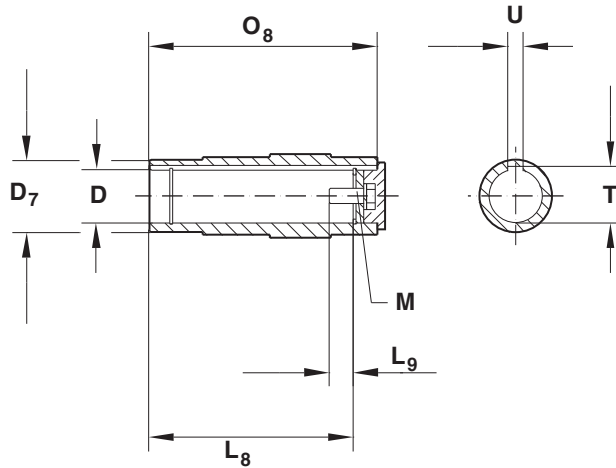
1) Longer shafts to match older designs are available for flanged units.

9.10.3 Hollow shafts - Inch



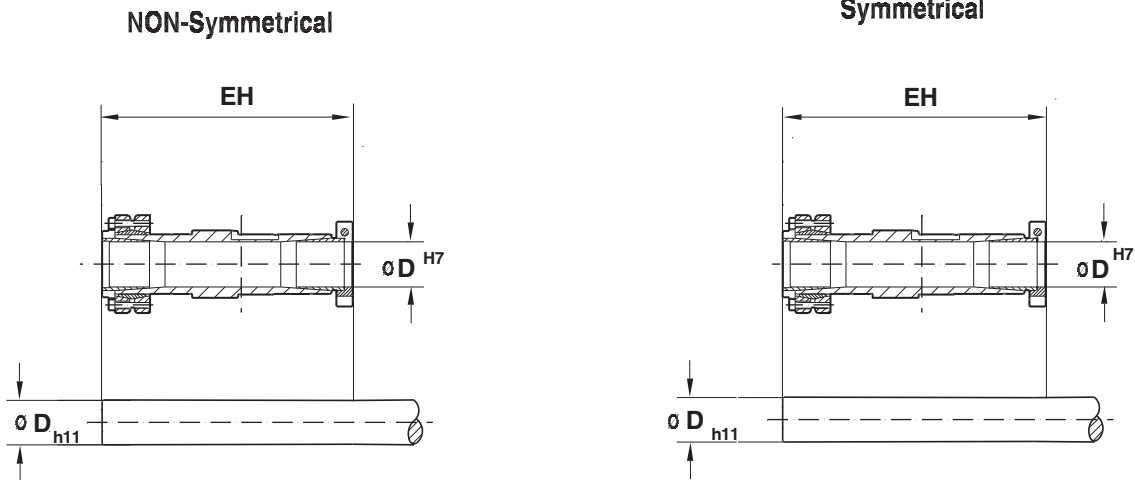
All dimensions in inches								
Model	D	D ₇	O ₈	T	U	L ₈	L ₉	M
FA..27	1.00	1.57	4.09	1.12	1/4	3.50	0.69	3/8 - 16 x 1
FA..37	1.25	1.77	4.72	1.37	1/4	4.13	0.67	7/16 - 14 x 1
FA..47	1.1875	1.97	5.91	1.30	1/4	5.2	0.67	3/8 - 16 x 1
	1.25	1.97	5.91	1.37	1/4	5.2	0.67	7/16 - 14 x 1
	1.375	1.97	5.91	1.52	5/16	5.2	0.65	1/2 - 13 x 1
	1.4375	1.97	5.91	1.61	3/8	5.2	0.65	5/8 - 11 x 1-3/4
FA..57	1.4375	2.17	6.54	1.61	3/8	5.59	1.36	5/8 - 11 x 1-3/4
	1.50	2.17	6.54	1.67	3/8	5.59	1.36	5/8 - 11 x 1-3/4
FA..67	1.4375	2.17	7.09	1.61	3/8	6.14	1.36	5/8 - 11 x 1-3/4
	1.50	2.17	7.09	1.67	3/8	6.14	1.36	5/8 - 11 x 1-3/4
FA..77	1.9375	2.76	8.27	2.16	1/2	7.2	1.16	5/8 - 11 x 1-3/4
	2.00	2.76	8.27	2.22	1/2	7.2	1.16	5/8 - 11 x 1-3/4
FA..87	2.375	3.35	9.45	2.65	5/8	8.27	1.39	3/4 - 10 x 2
	2.4375	3.35	9.45	2.62	5/8	8.27	1.39	3/4 - 10 x 2
FA..97	2.75	3.74	11.81	3.03	5/8	10.63	1.24	3/4 - 10 x 2
	2.9375	3.74	11.81	3.14	3/4	10.63	1.24	3/4 - 10 x 2
FA..107	3.25	4.65	13.78	3.59	3/4	12.32	1.24	3/4 - 10 x 2
	3.4375	4.65	13.78	3.7	7/8	12.32	1.24	3/4 - 10 x 2
	3.625	4.65	13.78	3.89	7/8	12.32	1.24	3/4 - 10 x 2
FA..127	4.00	5.31	16.14	4.44	1	14.69	1.26	1 - 8 x 2-1/4
FA..157	4.50	6.1	19.69	4.95	1	18.11	1.26	1 - 8 x 2-1/4

9.10.4 Hollow shafts - Metric



All dimensions in mm								
Model	D	D ₇	O ₈	T	U	L ₈	L ₉	M
FA..27	25	40	104	28.3	8	89	17	M10 x 25
FA..37	30	45	120	33.3	8	105	17	M10 x 25
FA..47	35	50	150	38.3	10	132	22	M12 x 30
	30	50	150	33.3	8	132	16	M10 x 25
FA..57	40	55	166	43.3	12	142	29	M16 x 40
FA..67	40	55	180	43.3	12	156	29	M16 x 40
FA..77	50	70	210	53.8	14	183	32	M16 x 45
FA..87	60	85	240	64.4	18	210	36	M20 x 50
FA..97	70	95	300	74.9	20	270	34	M20 x 50
FA..107	90	118	350	95.4	25	313	40	M24 x 60
	80	118	350	85.4	22	313	30	M20 x 50
FA..127	100	135	410	106.4	28	373	38	M24 x 60
FA..157	120	135	500	127.4	32	460	36	M24 x 60

9.10.5 TorqLOC keyless hollow shaft



Metric and inch bores are available as shown below.

Model	D (in)					D (mm)			EH (inches)	
	Inch Bores					Metric Bores			NON-Symmetrical	Symmetrical
FT37	1.00	1.1875	1.25	-	-	25	30	-	6.69	7.60
FT47	1.1875	1.25	1.375	1.4375	-	30	35	-	8.15	9.09
FT57	1.375	1.4375	1.50	1.625	-	35	38	40	9.13	10.33
FT67	1.375	1.4375	1.50	1.625	1.688	35	38	40	9.65	10.85
FT77	1.625	1.75	1.9375	2.00	-	50	-	-	11.57	13.21
FT87	1.9375	2.00	2.375	2.4375	-	51	62	65	13.19	15.24
FT97	2.4375	2.75	2.9375	-	-	62	70	75	15.59	17.76
FT107	3.250	3.4375	3.625	3.750	-	80	90	95	17.76	20.09
FT127	3.4375	3.750	4.00	4.1875	-	105	-	-	20.94	23.89
FT157	4.4375	4.50	4.9375	5.00	-	110	125	-	25.24	28.39

9 F - theSnuggler® Helical

Output shaft sizes

