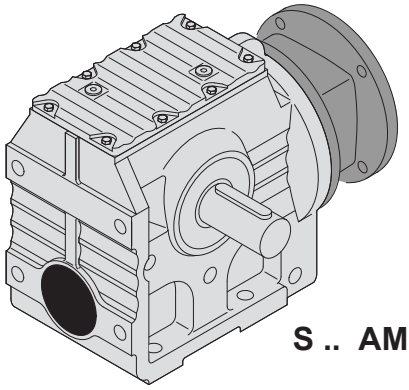
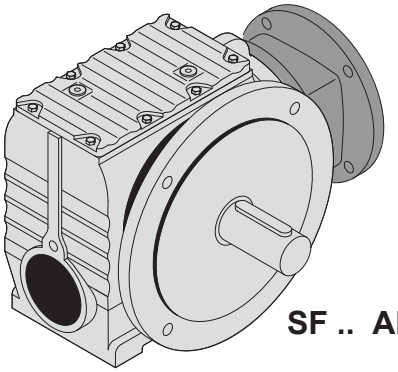
11 S - Helical Worm

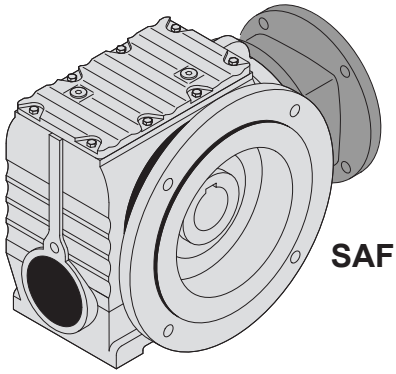
11.1 S.. AM



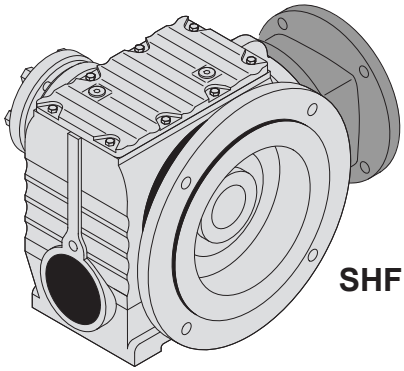
S .. AM..



SF .. AM..

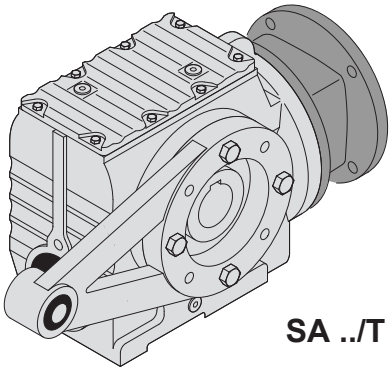


SAF .. AM..

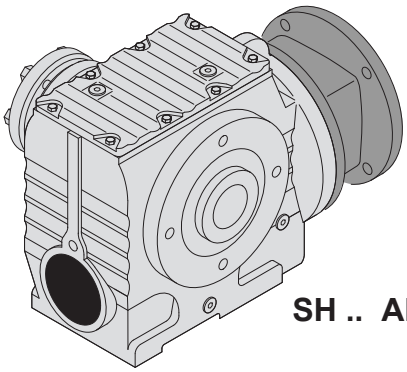


SHF .. AM..

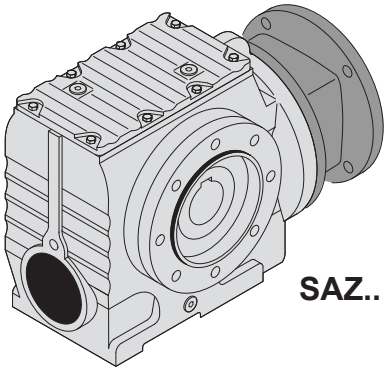
50413axx



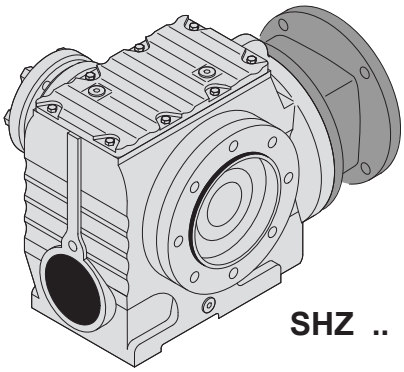
SA ../T AM..



SH .. AM..



SAZ.. AM..



SHZ .. AM..

50414axx

11.1.1 S37

S37, n_e = 1700 rpm								800 lb-in
	i	n_a	$T_{a\ max}$	F_{Ra}	$\phi_{(/R)}$	AM		
Stages	[ratio]	[rpm]	[lb-in]	[lb]	[']	56	143	145
S37 2	**3.97**	428	280	285	-			
	4.86	350	290	310	-			
	5.38	316	300	325	-			
	6.33	269	305	345	-			
	6.80	250	360	340	-			
	8.00	212	380	360	-			
	9.02	188	380	380	-			
	10.23	166	395	395	-			
	10.91	156	395	410	-			
	12.48	136	405	430	-			
	13.39	127	415	440	-			
	15.53	109	420	470	-			
	18.24	93	430	500	-			
	19.13	89	600	495	-			
	19.89	85	440	515	-			
	22.50	76	615	530	-			
	25.38	67	625	555	-			
	28.76	59	645	580	-			
	30.68	55	645	600	-			
	35.10	48	660	630	-			
	37.66	45	670	645	-			
	43.68	39	690	675	-			
	51.30	33	705	675	-			
	53.83	32	670	675	-			
	55.93	30	715	675	-			
	63.33	27	695	675	-			
	71.44	24	705	675	-			
	80.96	21	725	675	-			
	86.36	20	725	675	-			
	98.80	17	750	675	-			
	106.00	16	760	675	-			
	122.94	14	765	675	-			
	144.40	12	795	675	-			
	157.43	11	800	675	-			

Weight [lbs]		Stages	AM		
			56	143	145
S37	NEMA	2	21	25	25
			71	**80**	**90**
	IEC	2	20	25	25
SA37: -1 lbs / SAF37: +3 lbs / SF37: +3 lbs					

11.1.2 S47

S47, n_e = 1700 rpm								1500 lb-in
	i	n_a	$T_{a\,max}$	F_{Ra}	$\phi_{(/R)}$	AM		
Stages	[ratio]	[rpm]	[lb-in]	[lb]	[']	56	143	145
S47 2	**4.00**	425	420	445	-			
	4.76	357	510	450	-			
	5.39	315	575	455	-			
	6.40	266	670	465	-			
	6.83	249	690	470	-			
	7.28	234	760	475	-			
	8.64	197	880	475	-			
	9.23	184	920	480	-			
	10.80	157	950	510	-			
	12.10	140	960	540	-			
	14.24	119	960	585	-			
	16.47	103	960	630	-			
	17.62	96	960	650	-			
	19.54	87	1080	735	-			
	20.33	84	970	690	-			
	23.20	73	1250	755	-			
	24.77	69	1280	770	-			
	29.00	59	1360	810	-			
	32.48	52	1370	850	-			
	38.23	44	1370	910	-			
	44.22	38	1370	970	-			
	47.32	36	1370	1000	-			
	54.59	31	1370	1070	-			
	56.61	30	1340	1120	-			
	63.80	27	1370	1140	-			
	67.20	25	1450	1190	-			
	69.39	24	1370	1180	-			
	71.75	24	1470	1200	-			
	84.00	20	1470	1200	-			
	94.08	18	1470	1200	-			
	110.73	15	1470	1200	-			
	128.10	13	1470	1200	-			
	137.05	12	1470	1200	-			
	158.12	11	1480	1200	-			
	184.80	9.2	1480	1200	-			
	201.00	8.5	1500	1200	-			

Weight [lbs]		Stages	AM		
			56	143	145
S47	NEMA	2	27	32	32
			71	**80**	**90**
	IEC	2	26	32	32
SA47: +3 lbs / SAF47: +6 lbs / SF47: +8 lbs					

11.1.3 S57

S57, n_e = 1700 rpm								2610 lb-in
	i	n_a	$T_{a\ max}$	F_{Ra}	$\Phi_{(/R)}$	AM		
Stages	[ratio]	[rpm]	[lb-in]	[lb]	[']	56	143	145
S57 2	**4.00**	425	625	740	-			
	4.76	357	740	765	-			
	5.39	315	840	780	-			
	6.40	266	860	830	-			
	6.83	249	880	850	-			
	7.28	234	1070	830	-			
	8.64	197	1240	850	-			
	9.23	184	1310	860	-			
	10.80	157	1490	880	-			
	12.10	140	1490	930	-			
	14.24	119	1490	1000	-			
	16.47	103	1480	1070	-			
	17.62	96	1480	1100	-			
	19.54	87	1610	1240	-			
	20.33	84	1480	1180	-			
	23.20	73	1850	1280	-			
	24.77	69	1940	1300	-			
	29.00	59	2160	1350	-			
	32.48	52	2160	1420	-			
	38.23	44	2160	1520	-			
	44.22	38	2160	1610	-			
	47.32	36	2160	1660	-			
	54.59	31	2160	1690	-			
	56.61	30	1990	1720	-			
	63.80	27	2160	1690	-			
	67.20	25	2300	1670	-			
	69.39	24	2160	1690	-			
	71.75	24	2430	1640	-			
	84.00	20	2520	1620	-			
	94.08	18	2610	1590	-			
	110.73	15	2610	1600	-			
	128.10	13	2610	1600	-			
	137.05	12	2610	1600	-			
	158.12	11	2610	1600	-			
	184.80	9.2	2610	1600	-			
	201.00	8.5	2610	1600	-			

Weight [lbs]		Stages	AM		
			56	143	145
S57	NEMA	2	36	40	40
			71	**80**	**90**
	IEC	2	35	40	40
SA57: -1 lbs / SAF57: +6 lbs / SF57: +8 lbs					

11.1.4 S67

S67, n_e = 1700 rpm												4600 lb-in
	i	n_a	$T_{a\,max}$	F_{Ra}	$\phi_{(/R)}$	AM						
Stages	[ratio]	[rpm]	[lb-in]	[lb]	[']	56	143	145	182	184	213/215
S67 2	**7.56**	225	2210	795	-						
	8.69	196	2470	755	-						
	10.03	169	2780	700	-						
	11.03	154	3000	655	-						
	12.96	131	3000	795	-						
	13.73	124	3000	840	-						
	15.60	109	3000	960	-						
	17.28	98	3000	1030	-						
	20.30	84	3180	1270	-						
	20.37	83	3000	1120	-						
	23.22	73	3000	1200	-						
	23.33	73	3580	1290	-						
	24.44	70	3000	1230	-						
	26.93	63	4020	1310	-						
	29.63	57	4240	1340	-						
	34.80	49	4240	1450	-						
	36.85	46	4240	1490	-						
	41.89	41	4240	1580	-						
	46.40	37	4240	1660	-						
	54.70	31	4240	1790	-						
	58.80	29	4070	1950	-						
	62.35	27	4240	1890	-						
	65.63	26	4240	1940	-						
	67.57	25	4370	2000	-						
	75.06	23	4240	2030	-						
	78.00	22	4510	1970	-						
	85.83	20	4600	1950	-						
	100.80	17	4600	1950	-						
	106.75	16	4600	1950	-						
	121.33	14	4600	1950	-						
	134.40	13	4600	1950	-						
	158.45	11	4600	1950	-						
	180.60	9.4	4600	1950	-						
	190.11	8.9	4600	1950	-						
	217.41	7.8	4600	1950	-						

Weight [lbs]		Stages	AM					
			56	143	145	182	184	213/215
S67	NEMA	2	61	65	65	73	73	85
			71	**80**	**90**	**100**	**112**	**132S/M**
	IEC	2	60	65	65	75	75	91
SA67: +2 lbs / SAF67: +12 lbs / SF67: +14 lbs								

11.1.5 S67R37

S67R37, n_e = 1700 rpm									5040 lb-in
i	n_a	$T_{a\ max}$	F_{Ra} [1]	Stages		$\phi_{(/R)}$	AM		
[ratio]	[rpm]	[lb-in]	[lb]	Lg	Sm	[']	56	143	145
156	11	5040	1840	2	2	-			
168	10	5040	1840	2	2	-			
198	8.6	5040	1840	2	2	-			
221	7.7	5040	1840	2	2	-			
246	6.9	5040	1840	2	2	-			
281	6.0	5040	1840	2	2	-			
319	5.3	5040	1840	2	2	-			
365	4.7	5040	1840	2	2	-			
424	4.0	5040	1840	2	2	-			
469	3.6	5040	1840	2	2	-			
543	3.1	5040	1840	2	2	-			
615	2.8	5040	1840	2	2	-			
712	2.4	5040	1840	2	2	-			
809	2.1	5040	1840	2	2	-			
914	1.9	5040	1840	2	3	-			
1045	1.6	5040	1840	2	3	-			
1194	1.4	5040	1840	2	3	-			
1363	1.2	5040	1840	2	3	-			
1559	1.1	5040	1840	2	3	-			
1772	0.96	5040	1840	2	3	-			
2014	0.84	5040	1840	2	3	-			
2279	0.75	5040	1840	2	3	-			
2630	0.65	5040	1840	2	3	-			
2944	0.58	5040	1840	2	3	-			
3432	0.50	5040	1840	2	3	-			
3880	0.44	5040	1840	2	3	-			
4410	0.39	5040	1840	2	3	-			
4965	0.34	5040	1840	2	3	-			
5759	0.30	5040	1840	2	3	-			
6531	0.26	5040	1840	2	3	-			
7455	0.23	5040	1840	2	3	-			
8529	0.20	5040	1840	2	3	-			
9694	0.18	5040	1840	2	3	-			
11013	0.15	5040	1840	2	3	-			
12774	0.13	5040	1840	2	3	-			
14383	0.12	5040	1840	2	3	-			
16682	0.10	5040	1840	2	3	-			
18120	0.09	5040	1840	2	3	-			
19594	0.09	5040	1840	2	3	-			
21362	0.08	5040	1840	2	3	-			

Weight [lbs]		Stages		AM		
		Large	Small	56	143	145
S67R37	NEMA	2	2	84	88	88
		2	3	84	89	89
				71	**80**	**90**
	IEC	2	2	83	88	88
		2	3	83	89	89
SA67: +2 lbs / SAF67: +12 lbs / SF67: +14 lbs						

11.1.6 S77

S77, n_e = 1700 rpm												11200 lb-in
	i	n_a	$T_{a\,max}$	F_{Ra}	$\Phi_{(/R)}$	AM						
Stages	[ratio]	[rpm]	[lb-in]	[lb]	[']	56	143	145	182	184	213/215	
S77 2	**8.06**	211	5080	325	-							
	9.44	180	5790	161	-							
	10.65	160	6370	11	-							
	12.07	141	6370	152	-							
	13.76	124	6280	325	-							
	15.28	111	6280	455	-							
	17.45	97	6280	665	-							
	18.42	92	6230	735	-							
	18.97	90	7600	1360	-							
	20.99	81	6230	930	-							
	22.22	77	8140	1420	-							
	22.89	74	6230	1050	-							
	25.07	68	8490	1470	-							
	28.41	60	8750	1550	-							
	32.38	53	9200	1610	-							
	35.94	47	9370	1680	-							
	41.07	41	9730	1770	-							
	43.33	39	9730	1820	-							
	49.38	34	9730	1960	-							
	53.87	32	9730	2050	-							
	56.92	30	8140	2460	-							
	63.03	27	9730	2220	-							
	66.67	25	8580	2590	-							
	71.33	24	9730	2370	-							
	75.09	23	9730	2430	-							
	75.20	23	8930	2700	-							
	85.22	20	9290	2820	-							
	97.14	18	9640	2950	-							
	107.83	16	9820	2930	-							
	123.20	14	10100	2860	-							
	130.00	13	10300	2830	-							
	148.15	11	10600	2770	-							
	161.60	11	10700	2730	-							
	189.09	9.0	10900	2690	-							
	214.00	7.9	11200	2630	-							
	225.26	7.5	11200	2630	-							
	256.47	6.6	11200	2630	-							

Weight [lbs]		Stages	AM					
			56	143	145	182	184	213/215
S77	NEMA	2	105	110	110	115	115	130
			71	**80**	**90**	**100**	**112**	**132S/M**
	IEC	2	105	110	110	120	120	135
SA77: -1.0 lbs / SAF77: +14 lbs / SF77: +21 lbs								

11.1.7 S77R37

S77R37, n_e = 1700 rpm									11240 lb-in
i	n_a	$T_{a\ max}$	F_{Ra} [1]	Stages		ϕ (/R)	AM		
[ratio]	[rpm]	[lb-in]	[lb]	Lg	Sm	[']	56	143	145
219	7.8	10970	2690	2	2	-			
250	6.8	10970	2690	2	2	-			
289	5.9	10970	2690	2	2	-			
327	5.2	10970	2690	2	2	-			
389	4.4	10970	2690	2	2	-			
438	3.9	10970	2690	2	2	-			
499	3.4	10970	2690	2	2	-			
574	3.0	10970	2690	2	2	-			
637	2.7	10970	2690	2	2	-			
714	2.4	10970	2690	2	2	-			
837	2.0	10970	2690	2	2	-			
954	1.8	10970	2690	2	2	-			
1100	1.5	10970	2690	2	2	-			
1245	1.4	10970	2690	2	3	-			
1404	1.2	10970	2690	2	3	-			
1600	1.1	10970	2690	2	3	-			
1745	0.97	10970	2690	2	3	-			
1813	0.94	10970	2690	2	3	-			
2083	0.82	10970	2690	2	3	-			
2374	0.72	10970	2690	2	3	-			
2753	0.62	10970	2690	2	3	-			
3098	0.55	11240	2630	2	3	-			
3540	0.48	11240	2630	2	3	-			
3992	0.43	11240	2630	2	3	-			
4618	0.37	11240	2630	2	3	-			
5214	0.33	11240	2630	2	3	-			
5943	0.29	11240	2630	2	3	-			
6735	0.25	11240	2630	2	3	-			
7735	0.22	11240	2630	2	3	-			
8817	0.19	11240	2630	2	3	-			
9887	0.17	11240	2630	2	3	-			
11569	0.15	11240	2630	2	3	-			
13110	0.13	11240	2630	2	3	-			
14668	0.12	11240	2630	2	3	-			
17013	0.10	11240	2630	2	3	-			
19907	0.09	11240	2630	2	3	-			
21787	0.08	11240	2630	2	3	-			
25493	0.07	11240	2630	2	3	-			

Weight [lbs]		Stages		AM		
		Large	Small	56	143	145
S77R37	NEMA	2	2	125	130	130
		2	3	125	130	130
				71	**80**	**90**
	IEC	2	2	125	130	130
		2	3	125	130	130
SA77: -1.0 lbs / SAF77: +14 lbs / SF77: +21 lbs						

11.1.8 S87

S87, n_e = 1700 rpm													20100 lb-in
	i	n_a	$T_{a\,max}$	F_{Ra}	$\phi_{(/R)}$	AM							
Stages	[ratio]	[rpm]	[lb-in]	[lb]	[']	143	145	182	184	213/215	254/256	284/286
S87  2	**7.88**	216	7340	3490	-							
	9.07	187	8400	3530	-							
	10.93	156	9990	3580	-							
	12.21	139	10900	3480	-							
	14.06	121	10900	3830	-							
	15.64	109	10900	4000	-							
	17.49	97	10900	4190	-							
	19.70	86	10900	4400	-							
	20.27	84	12500	4760	-							
	21.43	79	10900	4550	-							
	24.43	70	14100	4950	-							
	25.50	67	10900	4870	-							
	27.28	62	14100	5160	-							
	31.43	54	14100	5440	-							
	34.96	49	14100	5660	-							
	39.10	43	14100	5900	-							
	44.03	39	14100	6160	-							
	47.91	35	14100	6360	-							
	57.00	30	14100	6520	-							
	64.00	27	13900	6530	-							
	64.27	26	14100	6520	-							
	70.43	24	14100	6520	-							
	77.14	22	15000	6500	-							
	81.76	21	14100	6520	-							
	86.15	20	15600	6470	-							
	91.20	19	13300	6540	-							
	99.26	17	16200	6450	-							
	110.40	15	16800	6430	-							
	123.48	14	17300	6410	-							
	139.05	12	17800	6380	-							
	151.30	11	18200	6370	-							
	180.00	9.4	18800	6340	-							
	202.96	8.4	19300	6320	-							
	222.40	7.6	19500	6310	-							
	258.18	6.6	19900	6290	-							
	288.00	5.9	20100	6280	-							

Weight [lbs]		Stages	AM						
			143	145	182	184	213/215	254/256	284/286
S87	NEMA	2	185	185	195	195	210	240	245
			80	**90**	**100**	**112**	**132S/M**	**160**	**180**
	IEC	2	185	185	200	200	215	250	250
SA87: -5.0 lbs / SAF87: +30 lbs / SF87: +48 lbs									

11.1.9 S87R57

S87R57, n_e = 1700 rpm												22130 lb-in
i	n_a	$T_{a\ max}$	F_{Ra} [1]	Stages		ϕ (/R)	AM					
[ratio]	[rpm]	[lb-in]	[lb]	Lg	Sm	[']	56	143	145	182	184	213/215
205	8.3	17520	6390	2	2	-						
222	7.7	17520	6390	2	2	-						
255	6.7	17520	6390	2	2	-						
281	6.0	21240	6230	2	2	-						
323	5.3	21240	6230	2	2	-						
378	4.5	21680	6210	2	2	-						
435	3.9	21680	6210	2	2	-						
485	3.5	22130	6180	2	2	-						
558	3.0	22130	6180	2	2	-						
624	2.7	22130	6180	2	2	-						
719	2.4	22130	6180	2	2	-						
831	2.0	22130	6180	2	2	-						
930	1.8	22130	6180	2	2	-						
1032	1.6	22130	6180	2	2	-						
1191	1.4	22130	6180	2	2	-						
1332	1.3	22130	6180	2	2	-						
1631	1.0	22130	6180	2	2	-						
1824	0.93	22130	6180	2	2	-						
2054	0.83	22130	6180	2	2	-						
2335	0.73	22130	6180	2	2	-						
2586	0.66	22130	6180	2	2	-						
2905	0.59	22130	6180	2	2	-						
3475	0.49	22130	6180	2	2	-						
3872	0.44	22130	6180	2	3	-						
4606	0.37	22130	6180	2	3	-						
5187	0.33	22130	6180	2	3	-						
5875	0.29	22130	6180	2	3	-						
6706	0.25	22130	6180	2	3	-						
7643	0.22	22130	6180	2	3	-						
8549	0.20	22130	6180	2	3	-						
9904	0.17	22130	6180	2	3	-						
11200	0.15	22130	6180	2	3	-						
13160	0.13	22130	6180	2	3	-						
14820	0.11	22130	6180	2	3	-						
16774	0.10	22130	6180	2	3	-						
18265	0.09	22130	6180	2	3	-						
20568	0.08	22130	6180	2	3	-						
23940	0.07	22130	6180	2	3	-						
25987	0.07	22130	6180	2	3	-						

Weight [lbs]		Stages		AM					
		Large	Small	56	143	145	182	184	213/215
S87R57	NEMA	2	2	233	238	238	246	246	260
		2	3	235	240	240	248	248	262
				71	**80**	**90**	**100**	**112**	**132S/M**
	IEC	2	2	233	238	238	248	248	264
		2	3	235	240	240	250	250	266
SA87: -5.0 lbs / SAF87: +30 lbs / SF87: +48 lbs									

11.1.10 S97

S97, n_e = 1700 rpm													35300 lb-in
	i	n_a	$T_{a\,max}$	F_{Ra}	$\phi_{(/R)}$	AM							
Stages	[ratio]	[rpm]	[lb-in]	[lb]	[']	182	184	213/215	254/256	284/286	324/326	364/365
S97 2	**8.26**	206	12700	4220	-							
	9.55	178	14700	4230	-							
	11.41	149	17600	4170	-							
	13.07	130	19200	4080	-							
	15.42	110	20300	4220	-							
	17.05	100	21200	4260	-							
	19.23	88	22100	4370	-							
	21.23	80	22700	4510	-							
	23.59	72	23000	4790	-							
	24.13	70	23600	5960	-							
	26.39	64	23000	5210	-							
	27.63	62	24800	6180	-							
	32.60	52	26300	6480	-							
	36.05	47	27500	6650	-							
	40.65	42	28500	6880	-							
	44.89	38	29100	7110	-							
	49.87	34	29100	7410	-							
	55.79	30	29100	7740	-							
	60.59	28	29100	7750	-							
	65.45	26	23400	7960	-							
	71.43	24	29100	7750	-							
	78.26	22	25300	7900	-							
	80.85	21	28500	7760	-							
	89.60	19	26700	7850	-							
	105.71	16	28400	7780	-							
	116.92	15	29500	7740	-							
	131.85	13	30400	7700	-							
	145.60	12	31400	7650	-							
	161.74	11	32200	7610	-							
	180.95	9.4	33300	7560	-							
	196.52	8.7	33900	7530	-							
	231.67	7.3	35000	7480	-							
	262.22	6.5	35300	7460	-							
	286.40	5.9	35300	7460	-							

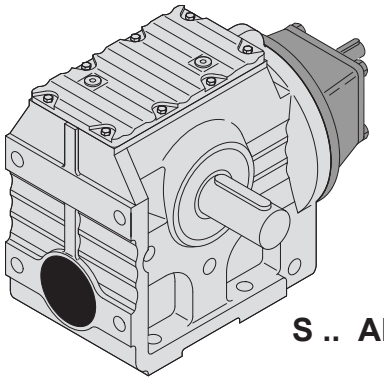
Weight [lbs]		Stages	AM						
			182	184	213/215	254/256	284/286	324/326	364/365
S97	NEMA	2	325	325	340	370	375	415	415
			100	**112**	**132S/M**	**160**	**180**	**200**	**225**
	IEC	2	330	330	345	380	385	420	430
SA97: -12 lbs / SAF97: +46 lbs / SF97: +72 lbs									

11.1.11 S97R57

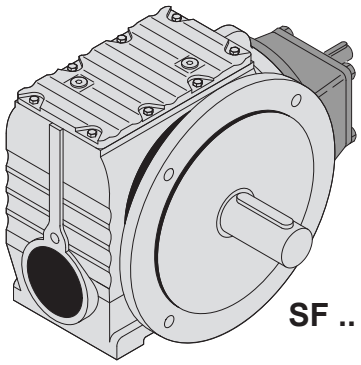
S97R57, n_e = 1700 rpm												37170 lb-in
i	n_a	$T_{a\ max}$	F_{Ra} [1]	Stages		$\phi_{(/R)}$	AM					
[ratio]	[rpm]	[lb-in]	[lb]	Lg	Sm	[']	56	143	145	182	184	213/215
205	8.3	37170	7100	2	2	-						
219	7.8	37170	7100	2	2	-						
252	6.7	37170	7090	2	2	-						
287	5.9	37170	7080	2	2	-						
327	5.2	37170	7080	2	2	-						
376	4.5	37170	7070	2	2	-						
420	4.0	37170	7060	2	2	-						
484	3.5	37170	7050	2	2	-						
538	3.2	37170	7050	2	2	-						
626	2.7	37170	7040	2	2	-						
714	2.4	37170	7370	2	2	-						
824	2.1	37170	7040	2	2	-						
928	1.8	37170	7040	2	2	-						
1070	1.6	37170	7040	2	2	-						
1223	1.4	37170	7040	2	2	-						
1394	1.2	37170	7040	2	2	-						
1574	1.1	37170	7040	2	3	-						
1860	0.91	37170	7040	2	3	-						
2081	0.82	37170	7040	2	3	-						
2329	0.73	37170	7040	2	3	-						
2654	0.64	37170	7040	2	3	-						
3108	0.55	37170	7040	2	3	-						
3453	0.49	37170	7040	2	3	-						
4017	0.42	37170	7040	2	3	-						
4444	0.38	37170	7040	2	3	-						
4937	0.34	37170	7040	2	3	-						
5780	0.29	37170	7040	2	3	-						
6640	0.26	37170	7040	2	3	-						
7554	0.23	37170	7370	2	3	-						
8608	0.20	37170	7370	2	3	-						
10078	0.17	37170	7370	2	3	-						
11267	0.15	37170	7370	2	3	-						
12752	0.13	37170	7370	2	3	-						
14576	0.12	37170	7370	2	3	-						
16233	0.10	37170	7370	2	3	-						
18749	0.09	37170	7370	2	3	-						
21537	0.08	37170	7370	2	3	-						
24641	0.07	37170	7370	2	3	-						
27847	0.06	37170	7370	2	3	-						
31154	0.05	37170	7370	2	3	-						
33818	0.05	37170	7370	2	3	-						

Weight [lbs]		Stages		AM					
		Large	Small	56	143	145	182	184	213/215
S97R57	**NEMA**	2	2	365	370	370	378	378	392
		2	3	367	372	372	380	380	394
				71	**80**	**90**	**100**	**112**	**132S/M**
	IEC	2	2	365	370	370	380	380	396
		2	3	367	372	372	382	382	398
SA97: -12 lbs / SAF97: +46 lbs / SF97: +72 lbs									

11.2 S.. AD



S .. AD..



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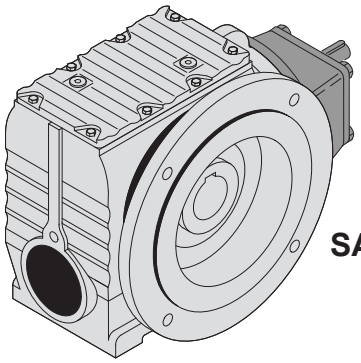

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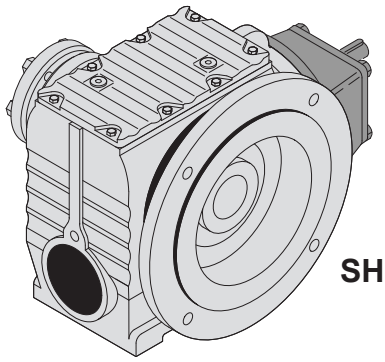

SHF .. AD..

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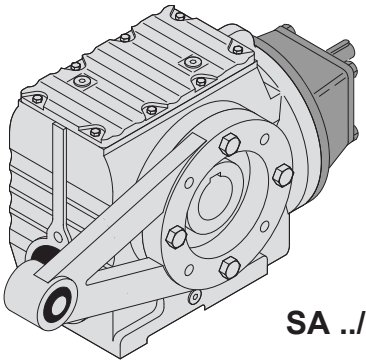
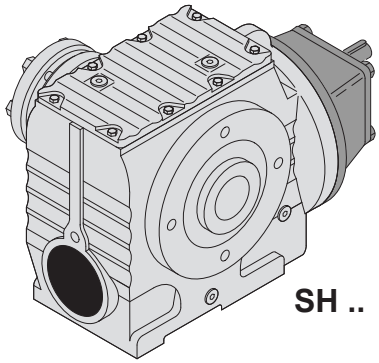


SA ../T AD..



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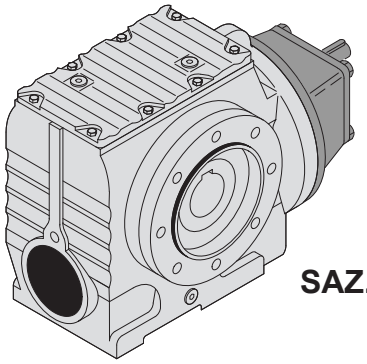
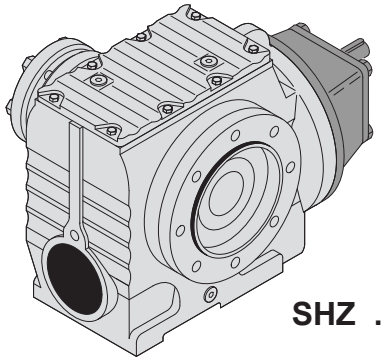


SAZ.. AD..



SHZ .. AD..

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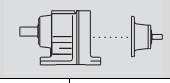
11.2.1 S37

S37 AD.. , n_e = 1700 rpm											810 lb-in
i [ratio]	n_a [rpm]	$T_{a\,max}$ [lb-in]	P_e [HP]	F_{Ra} [lb] 1)	F_{Re} [lb]	Stages Lg	Stages Sm	ϕ (/R) [']	⚠		
15.53	109	400	0.84	490	70	2	-	-	-		
18.24	93	420	0.76	510	70	2	-	-	-		
19.89	85	430	0.72	530	70	2	-	-	-		
22.50	76	620	0.98	530	110	2	-	-	M1-6		
25.38	67	630	0.89	560	110	2	-	-	M1-6		
28.76	59	650	0.82	580	110	2	-	-	M1-6		
30.68	55	650	0.77	600	110	2	-	-	M1-6		
35.10	48	660	0.69	630	110	2	-	-	M1-6		
37.66	45	670	0.66	650	110	2	-	-	M2-6		
43.68	39	690	0.59	670	120	2	-	-	-		
51.30	33	710	0.53	670	120	2	-	-	-	**S37**	**AD1**
55.93	30	720	0.50	670	120	2	-	-	-		
63.33	27	700	0.53	670	160	2	-	-	M1-6		
71.44	24	710	0.48	670	160	2	-	-	M1-6		
80.96	21	730	0.45	670	160	2	-	-	M1-6		
86.36	20	730	0.42	670	160	2	-	-	M1-6		
98.80	17	750	0.39	670	160	2	-	-	M2-6		
106.00	16	760	0.37	670	160	2	-	-	M2-6		
122.94	14	770	0.33	670	160	2	-	-	-		
144.40	12	800	0.30	670	160	2	-	-	-		
157.43	11	810	0.28	670	160	2	-	-	-		
3.97	428	280	2.2	290	340	2	-	-	M1-6		
4.86	350	290	1.9	320	350	2	-	-	M1-6		
5.38	316	300	1.7	330	350	2	-	-	M1-6		
6.33	269	310	1.5	350	350	2	-	-	M1-6		
6.80	250	360	1.7	350	350	2	-	-	M1-6		
8.00	213	380	1.5	370	300	2	-	-	M1-6		
9.02	188	380	1.4	390	310	2	-	-	M1-6		
10.23	166	400	1.3	400	310	2	-	-	M1-6		
10.91	156	400	1.2	420	310	2	-	-	M2-6		
12.48	136	410	1.1	440	310	2	-	-	-		
13.39	127	420	1.0	450	310	2	-	-	-		
15.53	109	420	0.89	480	320	2	-	-	-		
18.24	93	430	0.79	510	320	2	-	-	-		
19.13	89	600	1.1	500	370	2	-	-	M1-6		
19.89	85	440	0.74	520	320	2	-	-	-		
22.50	76	620	0.99	530	370	2	-	-	M1-6		
25.38	67	630	0.90	560	370	2	-	-	M1-6	**S37**	**AD2**
28.76	59	650	0.83	580	370	2	-	-	M1-6		
30.68	55	650	0.78	600	370	2	-	-	M1-6		
35.10	48	660	0.71	630	370	2	-	-	M2-6		
37.66	45	670	0.67	650	370	2	-	-	M2,4-6		
43.68	39	690	0.61	670	370	2	-	-	-		
51.30	33	710	0.54	670	370	2	-	-	-		
53.83	32	670	0.60	670	380	2	-	-	M1-6		
55.93	30	720	0.51	670	370	2	-	-	-		
63.33	27	700	0.54	670	380	2	-	-	M1-6		
71.44	24	710	0.50	670	380	2	-	-	M1-6		
80.96	21	730	0.46	670	380	2	-	-	M1-6		
86.36	20	730	0.44	670	390	2	-	-	M1-6		
98.80	17	750	0.40	670	390	2	-	-	M2-6		
106.00	16	760	0.38	670	390	2	-	-	-		
122.94	14	770	0.34	670	390	2	-	-	-		
144.40	12	800	0.31	670	390	2	-	-	-		
157.43	11	810	0.30	670	390	2	-	-	-		

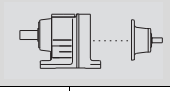
Weight [lbs]	Stages Large	Stages Small	AD1	AD2
S37	2	-	18	21
SA37: -1 lbs / SAF37: +3 lbs / SF37: +3 lbs				

11.2.2 S47

S47 AD.. , n_e = 1700 rpm											1500 lb-in
i [ratio]	n_a [rpm]	$T_{a\,max}$ [lb-in]	P_e [HP]	F_{Ra} [1)] [lb]	F_{Re} [lb]	Stages Lg	Stages Sm	ϕ (/R) [']	⚠		
44.22	38	1250	1.0	1000	80	2	-	-	M1-6		
47.32	36	1270	0.97	1030	80	2	-	-	M1-6		
54.59	31	1340	0.90	1080	70	2	-	-	M1-6		
63.80	27	1370	0.80	1140	70	2	-	-	-		
67.20	25	1450	0.97	1190	130	2	-	-	M1-6		
69.39	24	1370	0.74	1180	70	2	-	-	-		
71.75	24	1480	0.94	1200	130	2	-	-	M1-6		
84.00	20	1480	0.82	1200	130	2	-	-	M1-6	**S47**	**AD1**
94.08	18	1480	0.74	1200	130	2	-	-	M1-6		
110.73	15	1480	0.64	1200	140	2	-	-	M1-6		
128.10	13	1480	0.57	1200	140	2	-	-	M1-6		
137.05	12	1480	0.54	1200	140	2	-	-	M1-6		
158.12	11	1490	0.48	1200	140	2	-	-	-		
184.80	9.2	1490	0.42	1200	140	2	-	-	-		
201.00	8.5	1500	0.39	1200	140	2	-	-	-		
4.00	425	420	3.2	450	330	2	-	-	M1-6		
4.76	357	510	3.3	460	320	2	-	-	M1-6		
5.39	315	580	3.3	460	320	2	-	-	M1-6		
6.40	266	670	3.2	470	310	2	-	-	M1-6		
6.83	249	690	3.1	480	310	2	-	-	M1-6		
7.28	234	760	3.2	480	320	2	-	-	M1-6		
8.64	197	890	3.2	490	310	2	-	-	M1-6		
9.23	184	930	3.1	490	310	2	-	-	M1-6		
10.80	157	960	2.8	520	310	2	-	-	M1-6		
12.10	140	960	2.5	550	320	2	-	-	M1-6		
14.24	119	960	2.1	600	320	2	-	-	M1-6		
16.47	103	960	1.9	640	320	2	-	-	M1-6		
17.62	96	960	1.7	660	320	2	-	-	M1-6		
19.54	87	1090	1.9	730	350	2	-	-	M1-6		
20.33	84	970	1.5	700	190	2	-	-	M1-6		
23.20	73	1260	1.9	750	350	2	-	-	M1-6		
24.77	69	1280	1.8	770	350	2	-	-	M1-6		
29.00	59	1360	1.6	810	290	2	-	-	M1-6	**S47**	**AD2**
32.48	52	1370	1.5	850	300	2	-	-	M1-6		
38.23	44	1370	1.3	910	300	2	-	-	M1-6		
44.22	38	1370	1.1	980	310	2	-	-	M1-6		
47.32	36	1370	1.1	1000	310	2	-	-	M1-6		
54.59	31	1370	0.93	1070	320	2	-	-	M1-6		
56.61	30	1350	1.1	1130	380	2	-	-	M1-6		
63.80	27	1370	0.81	1140	320	2	-	-	-		
67.20	25	1450	0.98	1190	370	2	-	-	M1-6		
69.39	24	1370	0.75	1180	320	2	-	-	-		
71.75	24	1480	0.95	1200	380	2	-	-	M1-6		
84.00	20	1480	0.83	1200	380	2	-	-	M1-6		
94.08	18	1480	0.75	1200	380	2	-	-	M1-6		
110.73	15	1480	0.66	1200	380	2	-	-	M1-6		
128.10	13	1480	0.58	1200	380	2	-	-	M1-6		
137.05	12	1480	0.55	1200	380	2	-	-	M1-6		
158.12	11	1490	0.49	1200	380	2	-	-	-		
184.80	9.2	1490	0.43	1200	380	2	-	-	-		
201.00	8.5	1500	0.41	1200	380	2	-	-	-		

Weight [lbs]	Stages Large	Stages Small	AD1	AD2
S47	2	-	25	27
SA47: +3 lbs / SAF47: +6 lbs / SF47: +8 lbs				

11.2.3 S57

S57 AD.. , n_e = 1700 rpm											2610 lb-in
i [ratio]	n_a [rpm]	$T_{a\,max}$ [lb-in]	P_e [HP]	F_{Ra} [1)] [lb]	F_{Re} [lb]	Stages Lg	Stages Sm	ϕ (/R) [']	⚠		
84.00	20	2430	1.3	1640	80	2	-	-	M1-6		
94.08	18	2520	1.2	1620	80	2	-	-	M1-6		
110.73	15	2610	1.1	1600	80	2	-	-	M1-6		
128.10	13	2610	0.93	1600	90	2	-	-	M1-6	**S57**	**AD1**
137.05	12	2610	0.88	1600	90	2	-	-	M1-6		
158.12	11	2610	0.78	1600	90	2	-	-	M1-6		
184.80	9.2	2610	0.68	1600	90	2	-	-	M1-6		
201.00	8.5	2610	0.64	1600	90	2	-	-	M1-6		
4.00	425	630	4.7	750	290	2	-	-	M1-6		
4.76	357	740	4.7	770	280	2	-	-	M1-6		
5.39	315	840	4.7	790	280	2	-	-	M1-6		
6.40	266	870	4.1	840	280	2	-	-	M1-6		
6.83	249	890	4.0	860	280	2	-	-	M1-6		
7.28	234	1080	4.5	840	280	2	-	-	M1-6		
8.64	197	1250	4.4	870	270	2	-	-	M1-6		
9.23	184	1320	4.4	880	270	2	-	-	M1-6		
10.80	157	1500	4.3	900	260	2	-	-	M1-6		
12.10	140	1500	3.8	940	270	2	-	-	M1-6		
14.24	119	1500	3.3	1020	270	2	-	-	M1-6		
16.47	103	1490	2.8	1090	280	2	-	-	M1-6		
17.62	96	1490	2.7	1120	280	2	-	-	M1-6		
19.54	87	1620	2.8	1240	330	2	-	-	M1-6		
20.33	84	1490	2.3	1190	280	2	-	-	M1-6		
23.20	73	1860	2.7	1280	320	2	-	-	M1-6		
24.77	69	1950	2.7	1300	320	2	-	-	M1-6		
29.00	59	2170	2.5	1350	320	2	-	-	M1-6	**S57**	**AD2**
32.48	52	2170	2.3	1420	320	2	-	-	M1-6		
38.23	44	2170	2.0	1520	320	2	-	-	M1-6		
44.22	38	2170	1.7	1610	330	2	-	-	M1-6		
47.32	36	2170	1.6	1660	200	2	-	-	M1-6		
54.59	31	2170	1.4	1690	210	2	-	-	M1-6		
56.61	30	1990	1.5	1720	360	2	-	-	M1-6		
63.80	27	2170	1.2	1690	220	2	-	-	M1-6		
67.20	25	2300	1.5	1670	340	2	-	-	M1-6		
69.39	24	2170	1.1	1690	220	2	-	-	-		
71.75	24	2430	1.5	1640	330	2	-	-	M1-6		
84.00	20	2520	1.3	1620	330	2	-	-	M1-6		
94.08	18	2660	1.3	1590	330	2	-	-	M1-6		
110.73	15	2610	1.1	1600	330	2	-	-	M1-6		
128.10	13	2610	0.94	1600	340	2	-	-	M1-6		
137.05	12	2610	0.89	1600	340	2	-	-	M1-6		
158.12	11	2610	0.79	1600	350	2	-	-	M1-6		
184.80	9.2	2610	0.69	1600	350	2	-	-	M1-6		
201.00	8.5	2610	0.65	1600	350	2	-	-	-		

Weight [lbs]	Stages Large	Stages Small	AD1	AD2
S57	2	-	33	36
SA57: -1 lbs / SAF57: +6 lbs / SF57: +8 lbs				

11.2.4 S67

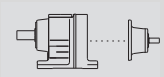
S67 AD.. , n_e = 1700 rpm										4600 lb-in	
i [ratio]	n_a [rpm]	$T_{a\,max}$ [lb-in]	P_e [HP]	F_{Ra} [1)] [lb]	F_{Re} [lb]	Stages Lg	Stages Sm	ϕ (/R) [']	⚠		
7.56	225	1950	7.8	870	230	2	-	-	M1-6		
8.69	196	2120	7.4	900	230	2	-	-	M1-6		
10.03	169	2350	7.1	920	220	2	-	-	M1-6		
11.03	154	2520	7.0	930	210	2	-	-	M1-6		
12.96	131	2790	6.6	940	210	2	-	-	M1-6		
13.73	124	2880	6.4	940	210	2	-	-	M1-6		
15.60	109	3010	5.9	990	200	2	-	-	M1-6		
17.28	98	3010	5.4	1060	210	2	-	-	M1-6		
20.37	83	3010	4.6	1150	220	2	-	-	M1-6		
23.22	73	3010	4.0	1230	230	2	-	-	M1-6		
23.33	73	3580	5.1	1290	280	2	-	-	M1-6		
24.44	70	3010	3.8	1260	230	2	-	-	M1-6		
26.93	63	4030	5.0	1310	280	2	-	-	M1-6		
29.63	57	4250	4.8	1340	270	2	-	-	M1-6		
34.80	49	4250	4.1	1450	280	2	-	-	M1-6		
36.85	46	4250	3.9	1490	280	2	-	-	M1-6		
41.89	41	4250	3.4	1580	290	2	-	-	M1-6	**S67**	**AD2**
46.40	37	4250	3.1	1660	290	2	-	-	M1-6		
54.70	31	4250	2.7	1790	290	2	-	-	M1-6		
62.35	27	4250	2.4	1900	300	2	-	-	M1-6		
65.63	26	4250	2.3	1940	300	2	-	-	M1-6		
67.57	25	4380	2.7	2000	340	2	-	-	M1-6		
75.06	23	4250	2.0	2030	300	2	-	-	M1-6		
78.00	22	4510	2.4	1970	340	2	-	-	M1-6		
85.83	20	4600	2.3	1950	340	2	-	-	M1-6		
100.80	17	4600	2.0	1950	350	2	-	-	M1-6		
106.75	16	4600	1.9	1950	350	2	-	-	M1-6		
121.33	14	4600	1.7	1950	290	2	-	-	M1-6		
134.40	13	4600	1.5	1950	290	2	-	-	M1-6		
158.45	11	4600	1.3	1950	290	2	-	-	M1-6		
180.60	9.4	4600	1.2	1950	300	2	-	-	M1-6		
190.11	8.9	4600	1.1	1950	300	2	-	-	M1-6		
217.41	7.8	4600	1.0	1950	300	2	-	-	-		
7.56	225	2210	8.9	810	430	2	-	-	M1-6		
8.69	196	2480	8.7	770	420	2	-	-	M1-6		
10.03	169	2790	8.5	720	410	2	-	-	M1-6		
11.03	154	3010	8.3	680	400	2	-	-	M1-6		
12.96	131	3010	7.1	820	410	2	-	-	M1-6		
13.73	124	3010	6.7	870	410	2	-	-	M1-6		
15.60	109	3010	5.9	990	420	2	-	-	M1-6		
17.28	98	3010	5.4	1060	420	2	-	-	M1-6		
20.30	84	3190	5.2	1270	500	2	-	-	M1-6		
20.37	83	3010	4.6	1150	430	2	-	-	M1-6		
23.33	73	3580	5.1	1290	500	2	-	-	M1-6		
26.93	63	4030	5.0	1310	490	2	-	-	M1-6		
29.63	57	4250	4.8	1340	490	2	-	-	M1-6		
34.80	49	4250	4.1	1450	500	2	-	-	M1-6	**S67**	**AD3**
36.85	46	4250	3.9	1490	500	2	-	-	M1-6		
41.89	41	4250	3.5	1580	500	2	-	-	M1-6		
46.40	37	4250	3.2	1660	500	2	-	-	M1-6		
54.70	31	4250	2.7	1790	510	2	-	-	M1-6		
58.80	29	4070	2.9	1950	550	2	-	-	M1-6		
67.57	25	4380	2.7	2000	550	2	-	-	M1-6		
78.00	22	4510	2.4	1970	550	2	-	-	M1-6		
85.83	20	4600	2.3	1950	560	2	-	-	M1-6		
100.80	17	4600	2.0	1950	560	2	-	-	M1-6		
106.75	16	4600	1.9	1950	560	2	-	-	M1-6		
121.33	14	4600	1.7	1950	560	2	-	-	M1-6		
134.40	13	4600	1.5	1950	560	2	-	-	M1-6		
158.45	11	4600	1.3	1950	560	2	-	-	M1-6		

Weight [lbs]	Stages Large	Stages Small	AD2	AD3
S67	2	-	60	67
SA67: +2 lbs / SAF67: +12 lbs / SF67: +14 lbs				

11.2.5 S67R37

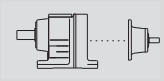
S67R37 AD.. , n_e = 1700 rpm										5040 lb-in	
i [ratio]	n_a [rpm]	$T_{a\,max}$ [lb-in]	P_e [HP]	F_{Ra} [1)] [lb]	F_{Re} [lb]	Stages Lg	Stages Sm	ϕ (/R) [']	⚠		
156	11	4560	1.1	1960	70	2	2	-	-		
168	10	5040	1.1	1840	80	2	2	-	-		
198	8.6	5040	0.98	1840	90	2	2	-	-		
221	7.7	5040	0.90	1840	130	2	2	-	-		
246	6.9	5040	0.81	1840	110	2	2	-	-		
281	6.0	5040	0.73	1840	150	2	2	-	-		
319	5.3	5040	0.65	1840	140	2	2	-	-		
365	4.7	5040	0.57	1840	140	2	2	-	-		
424	4.0	5040	0.51	1840	160	2	2	-	-		
469	3.6	5040	0.47	1840	160	2	2	-	-		
543	3.1	5040	0.41	1840	160	2	2	-	-		
615	2.8	5040	0.37	1840	160	2	2	-	-		
712	2.4	5040	0.32	1840	160	2	2	-	-		
809	2.1	5040	0.28	1840	160	2	2	-	-		
914	1.9	5040	0.26	1840	160	2	3	-	-		
1045	1.6	5040	0.23	1840	170	2	3	-	-		
1194	1.4	5040	0.22	1840	170	2	3	-	-		
1363	1.2	5040	0.19	1840	170	2	3	-	-		
1559	1.1	5040	0.17	1840	170	2	3	-	-		
1772	0.96	5040	0.15	1840	170	2	3	-	-	**S67R37**	**AD1**
2014	0.84	5040	0.14	1840	170	2	3	-	-		
2279	0.75	5040	0.13	1840	170	2	3	-	-		
2630	0.65	5040	0.12	1840	170	2	3	-	-		
2944	0.58	5040	0.11	1840	170	2	3	-	-		
3432	0.50	5040	0.10	1840	170	2	3	-	-		
3880	0.44	5040	0.09	1840	170	2	3	-	-		
4410	0.39	5040	0.08	1840	170	2	3	-	-		
4965	0.34	5040	0.08	1840	170	2	3	-	-		
5759	0.30	5040	0.07	1840	170	2	3	-	-		
6531	0.26	5040	0.09	1840	170	2	3	-	-		
7455	0.23	5040	0.08	1840	170	2	3	-	-		
8529	0.20	5040	0.07	1840	170	2	3	-	-		
9694	0.18	5040	0.08	1840	170	2	3	-	-		
11013	0.15	5040	0.06	1840	170	2	3	-	-		
12774	0.13	5040	0.06	1840	170	2	3	-	-		
14383	0.12	5040	0.06	1840	170	2	3	-	-		
16682	0.10	5040	0.05	1840	170	2	3	-	-		
18120	0.09	5040	0.05	1840	170	2	3	-	-		
19594	0.09	5040	0.05	1840	170	2	3	-	-		
21362	0.08	5040	0.05	1840	170	2	3	-	-		
156	11	5040	1.2	1840	300	2	2	-	-		
168	10	5040	1.2	1840	340	2	2	-	-		
198	8.6	5040	0.99	1840	340	2	2	-	-		
221	7.7	5040	0.92	1840	380	2	2	-	-		
246	6.9	5040	0.82	1840	370	2	2	-	-		
281	6.0	5040	0.75	1840	380	2	2	-	-		
319	5.3	5040	0.66	1840	380	2	2	-	-		
365	4.7	5040	0.59	1840	380	2	2	-	-		
424	4.0	5040	0.53	1840	390	2	2	-	-	**S67R37**	**AD2**
469	3.6	5040	0.49	1840	390	2	2	-	-		
543	3.1	5040	0.42	1840	390	2	2	-	-		
615	2.8	5040	0.38	1840	390	2	2	-	-		
712	2.4	5040	0.33	1840	390	2	2	-	-		
809	2.1	5040	0.30	1840	390	2	2	-	-		
914	1.9	5040	0.28	1840	390	2	3	-	-		
1045	1.6	5040	0.25	1840	390	2	3	-	-		
1194	1.4	5040	0.23	1840	400	2	3	-	-		

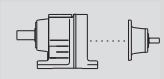
S67R37 AD.. , n_e = 1700 rpm — 5040 lb-in

i [ratio]	n_a [rpm]	$T_{a\,max}$ [lb-in]	P_e [HP]	F_{Ra} [1)] [lb]	F_{Re} [lb]	Stages Lg	Stages Sm	ϕ (/R) [']	⚠		
1363	1.2	5040	0.20	1840	400	2	3	-	-		
1559	1.1	5040	0.18	1840	400	2	3	-	-		
1772	0.96	5040	0.17	1840	400	2	3	-	-		
2014	0.84	5040	0.15	1840	400	2	3	-	-		
2279	0.75	5040	0.14	1840	400	2	3	-	-		
2630	0.65	5040	0.13	1840	400	2	3	-	-		
2944	0.58	5040	0.12	1840	400	2	3	-	-		
3432	0.50	5040	0.12	1840	400	2	3	-	-		
3880	0.44	5040	0.10	1840	400	2	3	-	-		
4410	0.39	5040	0.10	1840	400	2	3	-	-		
4965	0.34	5040	0.09	1840	400	2	3	-	-		
5759	0.30	5040	0.09	1840	400	2	3	-	-	**S67R37**	**AD2**
6531	0.26	5040	0.10	1840	400	2	3	-	-		
7455	0.23	5040	0.09	1840	400	2	3	-	-		
8529	0.20	5040	0.09	1840	400	2	3	-	-		
9694	0.18	5040	0.09	1840	400	2	3	-	-		
11013	0.15	5040	0.08	1840	400	2	3	-	-		
12774	0.13	5040	0.07	1840	400	2	3	-	-		
14383	0.12	5040	0.07	1840	400	2	3	-	-		
16682	0.10	5040	0.07	1840	400	2	3	-	-		
18120	0.09	5040	0.07	1840	400	2	3	-	-		
19594	0.09	5040	0.06	1840	400	2	3	-	-		
21362	0.08	5040	0.06	1840	400	2	3	-	-		

Weight [lbs]	Stages Large	Stages Small	AD1	AD2
S67R37	2	2	81	83
	2	3	82	84
SA67: +2 lbs / SAF67: +12 lbs / SF67: +14 lbs				

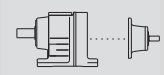
11.2.6 S77

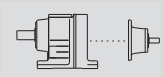
S77 AD.. , n_e = 1700 rpm											11240 lb-in
i [ratio]	n_a [rpm]	$T_{a\,max}$ [lb-in]	P_e [HP]	F_{Ra} [1)] [lb]	F_{Re} [lb]	Stages Lg	Stages Sm	ϕ (/R) [']	⚠		
41.07	41	8670	6.8	1910	210	2	-	-	M1-6		
43.33	39	8940	6.6	1930	210	2	-	-	M1-6		
49.38	34	9560	6.2	1990	200	2	-	-	M1-6		
53.87	32	9740	5.8	2060	200	2	-	-	M1-6		
56.92	30	8140	5.4	2460	300	2	-	-	M1-6		
63.03	27	9740	5.0	2240	210	2	-	-	M1-6		
66.67	25	8580	4.9	2600	310	2	-	-	M1-6		
71.33	24	9740	4.5	2380	220	2	-	-	M1-6		
75.09	23	9740	4.3	2440	220	2	-	-	M1-6		
75.20	23	8940	4.6	2700	310	2	-	-	M1-6		
85.22	20	9290	4.2	2820	310	2	-	-	M1-6	**S77**	**AD2**
97.14	18	9650	3.9	2950	310	2	-	-	M1-6		
107.83	16	9820	3.6	2930	310	2	-	-	M1-6		
123.20	14	10180	3.3	2860	310	2	-	-	M1-6		
130.00	13	10350	3.2	2830	310	2	-	-	M1-6		
148.15	11	10620	2.9	2770	310	2	-	-	M1-6		
161.60	11	10800	2.7	2730	310	2	-	-	M1-6		
189.09	9.0	10970	2.4	2690	310	2	-	-	M1-6		
214.00	7.9	11240	2.2	2630	310	2	-	-	M1-6		
225.26	7.5	11240	2.1	2630	310	2	-	-	M1-6		
256.47	6.6	11240	1.9	2630	310	2	-	-	M1-6		
15.28	111	6280	12.3	550	310	2	-	-	M1-6		
17.45	97	6280	10.9	720	320	2	-	-	M1-6		
18.42	92	6280	10.3	790	320	2	-	-	M1-6		
18.97	90	7610	12.6	1370	400	2	-	-	M1-6		
20.99	81	6240	9.0	990	330	2	-	-	M1-6		
22.22	77	8140	11.5	1430	400	2	-	-	M1-6		
22.89	74	6240	8.3	1110	340	2	-	-	M1-6		
25.07	68	8500	10.7	1480	400	2	-	-	M1-6		
28.41	60	8760	9.8	1560	400	2	-	-	M1-6		
32.38	53	9200	9.0	1620	400	2	-	-	M1-6		
35.94	47	9380	8.3	1700	410	2	-	-	M1-6		
41.07	41	9740	7.6	1780	410	2	-	-	M1-6		
43.33	39	9740	7.2	1830	410	2	-	-	M1-6		
49.38	34	9740	6.4	1970	420	2	-	-	M1-6	**S77**	**AD3**
53.87	32	9740	5.9	2060	420	2	-	-	M1-6		
56.92	30	8140	5.5	2460	520	2	-	-	M1-6		
63.03	27	9740	5.1	2240	420	2	-	-	M1-6		
66.67	25	8580	5.0	2600	520	2	-	-	M1-6		
75.20	23	8940	4.6	2700	520	2	-	-	M1-6		
85.22	20	9290	4.3	2820	520	2	-	-	M1-6		
97.14	18	9650	3.9	2950	520	2	-	-	M1-6		
107.83	16	9820	3.6	2930	520	2	-	-	M1-6		
123.20	14	10180	3.3	2860	520	2	-	-	M1-6		
130.00	13	10350	3.2	2830	520	2	-	-	M1-6		
148.15	11	10620	2.9	2770	520	2	-	-	M1-6		
161.60	11	10800	2.8	2730	520	2	-	-	M1-6		
189.09	9.0	10970	2.4	2690	520	2	-	-	M1-6		
8.06	211	5090	18.8	370	710	2	-	-	M1-6		
9.44	180	5800	18.3	210	690	2	-	-	M1-6		
10.65	160	6420	18.0	70	680	2	-	-	M1-6		
12.07	141	6420	15.9	210	690	2	-	-	M1-6	**S77**	**AD4**
13.76	124	6370	13.9	380	700	2	-	-	M1-6		
15.28	111	6370	12.6	510	720	2	-	-	M1-6		
17.45	97	6280	10.9	720	730	2	-	-	M1-6		
18.42	92	6280	10.4	790	740	2	-	-	M1-6		

S77 AD.. , n_e = 1700 rpm											11240 lb-in
i [ratio]	n_a [rpm]	$T_{a\,max}$ [lb-in]	P_e [HP]	F_{Ra} [1)] [lb]	F_{Re} [lb]	Stages Lg	Stages Sm	ϕ (/R) [']	⚠		
18.97	90	7610	12.6	1370	800	2	-	-	M1-6		
22.22	77	8140	11.6	1430	800	2	-	-	M1-6		
25.07	68	8500	10.7	1480	800	2	-	-	M1-6		
28.41	60	8760	9.8	1560	800	2	-	-	M1-6		
32.38	53	9200	9.1	1620	800	2	-	-	M1-6		
35.94	47	9380	8.4	1700	810	2	-	-	M1-6		
41.07	41	9740	7.7	1780	810	2	-	-	M1-6		
43.33	39	9740	7.3	1830	810	2	-	-	M1-6	**S77**	**AD4**
56.92	30	8140	5.5	2460	910	2	-	-	M1-6		
66.67	25	8580	5.0	2600	910	2	-	-	M1-6		
75.20	23	8940	4.7	2700	910	2	-	-	M1-6		
85.22	20	9290	4.3	2820	910	2	-	-	M1-6		
97.14	18	9650	4.0	2950	910	2	-	-	M1-6		
107.83	16	9820	3.7	2930	910	2	-	-	M1-6		
123.20	14	10180	3.4	2860	910	2	-	-	M1-6		
130.00	13	10350	3.3	2830	910	2	-	-	M1-6		

Weight [lbs]	Stages Large	Stages Small	AD2	AD3	AD4
S77	2	-	104	111	125
SA77: -1.0 lbs / SAF77: +14 lbs / SF77: +21 lbs					

11.2.7 S77R37

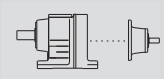
S77R37 AD.. , n_e = 1700 rpm										11240 lb-in	
i [ratio]	n_a [rpm]	$T_{a\,max}$ [lb-in]	P_e [HP]	F_{Ra} [1)] [lb]	F_{Re} [lb]	Stages Lg	Stages Sm	ϕ (/R) [']	⚠		
327	5.2	10970	1.2	2690	110	2	2	-	-		
389	4.4	10970	1.1	2690	120	2	2	-	-		
438	3.9	10970	0.95	2690	120	2	2	-	-		
499	3.4	10970	0.84	2690	130	2	2	-	-		
574	3.0	10970	0.74	2690	130	2	2	-	-		
637	2.7	10970	0.67	2690	140	2	2	-	-		
714	2.4	10970	0.60	2690	150	2	2	-	-		
837	2.0	10970	0.51	2690	140	2	2	-	-		
954	1.8	10970	0.45	2690	150	2	2	-	-		
1100	1.5	10970	0.40	2690	150	2	2	-	-		
1245	1.4	10970	0.37	2690	160	2	3	-	-		
1404	1.2	10970	0.33	2690	160	2	3	-	-		
1600	1.1	10970	0.30	2690	160	2	3	-	-		
1745	0.97	10970	0.28	2690	170	2	3	-	-		
1813	0.94	10970	0.27	2690	160	2	3	-	-		
2083	0.82	10970	0.23	2690	160	2	3	-	-		
2374	0.72	10970	0.21	2690	170	2	3	-	-		
2753	0.62	10970	0.18	2690	170	2	3	-	-	**S77R37**	**AD1**
3098	0.55	11240	0.23	2630	170	2	3	-	-		
3540	0.48	11240	0.21	2630	170	2	3	-	-		
3992	0.43	11240	0.19	2630	170	2	3	-	-		
4618	0.37	11240	0.18	2630	170	2	3	-	-		
5214	0.33	11240	0.15	2630	170	2	3	-	-		
5943	0.29	11240	0.14	2630	170	2	3	-	-		
6735	0.25	11240	0.13	2630	170	2	3	-	-		
7735	0.22	11240	0.11	2630	170	2	3	-	-		
8817	0.19	11240	0.10	2630	170	2	3	-	-		
9887	0.17	11240	0.10	2630	170	2	3	-	-		
11569	0.15	11240	0.10	2630	170	2	3	-	-		
13110	0.13	11240	0.09	2630	170	2	3	-	-		
14668	0.12	11240	0.08	2630	170	2	3	-	-		
17013	0.10	11240	0.07	2630	170	2	3	-	-		
19907	0.09	11240	0.07	2630	170	2	3	-	-		
21787	0.08	11240	0.06	2630	170	2	3	-	-		
25493	0.07	11240	0.06	2630	170	2	3	-	-		
219	7.8	10970	1.8	2690	340	2	2	-	-		
250	6.8	10970	1.6	2690	350	2	2	-	-		
289	5.9	10970	1.4	2690	280	2	2	-	-		
327	5.2	10970	1.3	2690	370	2	2	-	-		
389	4.4	10970	1.1	2690	370	2	2	-	-		
438	3.9	10970	0.96	2690	370	2	2	-	-		
499	3.4	10970	0.86	2690	380	2	2	-	-		
574	3.0	10970	0.75	2690	380	2	2	-	-		
637	2.7	10970	0.68	2690	380	2	2	-	-		
714	2.4	10970	0.61	2690	380	2	2	-	-		
837	2.0	10970	0.53	2690	380	2	2	-	-	**S77R37**	**AD2**
954	1.8	10970	0.47	2690	380	2	2	-	-		
1100	1.5	10970	0.41	2690	380	2	2	-	-		
1245	1.4	10970	0.38	2690	390	2	3	-	-		
1404	1.2	10970	0.35	2690	390	2	3	-	-		
1600	1.1	10970	0.31	2690	390	2	3	-	-		
1745	0.97	10970	0.29	2690	390	2	3	-	-		
1813	0.94	10970	0.28	2690	390	2	3	-	-		
2083	0.82	10970	0.25	2690	390	2	3	-	-		
2374	0.72	10970	0.22	2690	390	2	3	-	-		
2753	0.62	10970	0.20	2690	390	2	3	-	-		

S77R37 AD.. , n_e = 1700 rpm										11240 lb-in	
i [ratio]	n_a [rpm]	$T_{a\,max}$ [lb-in]	P_e [HP]	F_{Ra} [1)] [lb]	F_{Re} [lb]	Stages Lg	Stages Sm	ϕ (/R) [']	⚠		
3098	0.55	11240	0.24	2630	400	2	3	-	-		
3540	0.48	11240	0.22	2630	400	2	3	-	-		
3992	0.43	11240	0.20	2630	400	2	3	-	-		
4618	0.37	11240	0.19	2630	400	2	3	-	-		
5214	0.33	11240	0.17	2630	400	2	3	-	-		
5943	0.29	11240	0.15	2630	400	2	3	-	-		
6735	0.25	11240	0.14	2630	400	2	3	-	-		
7735	0.22	11240	0.13	2630	400	2	3	-	-		
8817	0.19	11240	0.12	2630	400	2	3	-	-	**S77R37**	**AD2**
9887	0.17	11240	0.12	2630	400	2	3	-	-		
11569	0.15	11240	0.11	2630	400	2	3	-	-		
13110	0.13	11240	0.10	2630	400	2	3	-	-		
14668	0.12	11240	0.09	2630	400	2	3	-	-		
17013	0.10	11240	0.08	2630	400	2	3	-	-		
19907	0.09	11240	0.08	2630	400	2	3	-	-		
21787	0.08	11240	0.08	2630	400	2	3	-	-		
25493	0.07	11240	0.07	2630	400	2	3	-	-		

Weight [lbs]	Stages Large	Stages Small	AD1	AD2
S77R37	2	2	124	126
	2	3	125	127
SA77: -1.0 lbs / SAF77: +14 lbs / SF77: +21 lbs				

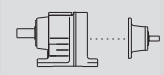
11.2.8 S87

S87 AD.. , n_e = 1700 rpm										20180 lb-in	
i [ratio]	n_a [rpm]	$T_{a\,max}$ [lb-in]	P_e [HP]	F_{Ra} [1)] [lb]	F_{Re} [lb]	Stages Lg	Stages Sm	ϕ (/R) [']	⚠		
57.00	30	12120	6.8	6590	210	2	-	-	M1-6		
64.27	26	12830	6.4	6570	200	2	-	-	M1-6		
70.43	24	13450	6.1	6550	200	2	-	-	M1-6		
77.14	22	15050	7.2	6500	280	2	-	-	M1-6		
81.76	21	14160	5.6	6520	190	2	-	-	M2		
86.15	20	15660	6.8	6480	280	2	-	-	M1-6		
91.20	19	13450	4.8	6550	210	2	-	-	-		
99.26	17	16280	6.2	6450	280	2	-	-	M1-6		
110.40	15	16820	5.8	6430	280	2	-	-	M1-6	**S87**	**AD2**
123.48	14	17350	5.3	6410	290	2	-	-	M1-6		
139.05	12	17880	4.9	6390	290	2	-	-	M1-6		
151.30	11	18230	4.6	6370	290	2	-	-	M1-6		
180.00	9.4	18850	4.1	6340	290	2	-	-	M1-6		
202.96	8.4	19380	3.8	6320	290	2	-	-	M1-6		
222.40	7.6	19560	3.5	6310	290	2	-	-	M1-6		
258.18	6.6	20000	3.1	6290	290	2	-	-	M1-6		
288.00	5.9	20180	2.8	6280	290	2	-	-	M1-6		
27.28	62	13280	15.1	5260	340	2	-	-	M1-6		
31.43	54	14160	14.0	5460	340	2	-	-	M1-6		
34.96	49	14160	12.6	5680	350	2	-	-	M1-6		
39.10	43	14160	11.3	5920	360	2	-	-	M1-6		
44.03	39	14160	10.1	6180	370	2	-	-	M1-6		
47.91	35	14160	9.3	6370	370	2	-	-	M1-6		
57.00	30	14160	7.9	6520	380	2	-	-	M1-6		
64.00	27	13980	8.1	6530	480	2	-	-	M1-6		
64.27	26	14160	7.0	6520	380	2	-	-	M1-6		
70.43	24	14160	6.5	6520	390	2	-	-	M1-6		
77.14	22	15050	7.3	6500	480	2	-	-	M1-6	**S87**	**AD3**
81.76	21	14160	5.6	6520	390	2	-	-	M2		
86.15	20	15660	6.8	6480	480	2	-	-	M1-6		
99.26	17	16280	6.2	6450	480	2	-	-	M1-6		
110.40	15	16820	5.8	6430	480	2	-	-	M1-6		
123.48	14	17350	5.4	6410	480	2	-	-	M1-6		
139.05	12	17880	5.0	6390	480	2	-	-	M1-6		
151.30	11	18230	4.7	6370	480	2	-	-	M1-6		
180.00	9.4	18850	4.1	6340	480	2	-	-	M1-6		
202.96	8.4	19380	3.8	6320	480	2	-	-	M1-6		
222.40	7.6	19560	3.5	6310	480	2	-	-	M1-6		
258.18	6.6	20000	3.1	6290	480	2	-	-	M1-6		
7.88	216	7350	28	3540	670	2	-	-	M1-6		
9.07	187	8410	27	3590	640	2	-	-	M1-6		
10.93	156	10000	27	3630	620	2	-	-	M1-6		
12.21	139	10970	27	3480	600	2	-	-	M1-6		
14.06	121	10970	23	3820	620	2	-	-	M1-6		
15.64	109	10970	21	4080	630	2	-	-	M1-6		
17.49	97	10970	18.7	4270	640	2	-	-	M1-6		
19.70	86	10970	16.7	4470	660	2	-	-	M1-6		
20.27	84	12570	19.2	4770	750	2	-	-	M1-6	**S87**	**AD4**
21.43	79	10970	15.3	4620	670	2	-	-	M1-6		
24.43	70	14160	17.9	4960	740	2	-	-	M1-6		
25.50	67	10970	13.0	4940	680	2	-	-	M1-6		
27.28	62	14160	16.1	5180	750	2	-	-	M1-6		
31.43	54	14160	14.1	5460	760	2	-	-	M1-6		
34.96	49	14160	12.7	5680	770	2	-	-	M1-6		
39.10	43	14160	11.4	5920	780	2	-	-	M1-6		
44.03	39	14160	10.2	6180	790	2	-	-	M1-6		
47.91	35	14160	9.4	6370	790	2	-	-	M1-6		

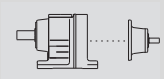
S87 AD.. , n_e = 1700 rpm											20180 lb-in
i [ratio]	n_a [rpm]	$T_{a\,max}$ [lb-in]	P_e [HP]	F_{Ra} [1)] [lb]	F_{Re} [lb]	Stages Lg	Stages Sm	ϕ (/R) [']	⚠		
57.00	30	14160	7.9	6520	800	2	-	-	M1-6		
64.00	27	13980	8.1	6530	890	2	-	-	M1-6		
77.14	22	15050	7.3	6500	890	2	-	-	M1-6		
86.15	20	15660	6.9	6480	890	2	-	-	M1-6		
99.26	17	16280	6.2	6450	890	2	-	-	M1-6	**S87**	**AD4**
110.40	15	16820	5.8	6430	890	2	-	-	M1-6		
123.48	14	17350	5.4	6410	890	2	-	-	M1-6		
139.05	12	17880	5.0	6390	890	2	-	-	M1-6		
151.30	11	18230	4.7	6370	890	2	-	-	M1-6		
180.00	9.4	18850	4.2	6340	890	2	-	-	M1-6		
7.88	216	7350	28	3540	1340	2	-	-	M1-6		
9.07	187	8410	27	3590	1320	2	-	-	M1-6		
10.93	156	10000	27	3630	1290	2	-	-	M1-6		
12.21	139	10970	27	3480	1270	2	-	-	M1-6		
14.06	121	10970	23	3820	1290	2	-	-	M1-6		
15.64	109	10970	21	4080	1300	2	-	-	M1-6		
17.49	97	10970	18.8	4270	1310	2	-	-	M1-6		
19.70	86	10970	16.7	4470	1320	2	-	-	M1-6		
20.27	84	12570	19.2	4770	1420	2	-	-	M1-6		
24.43	70	14160	18.0	4960	1410	2	-	-	M1-6		
27.28	62	14160	16.2	5180	1420	2	-	-	M1-6	**S87**	**AD5**
31.43	54	14160	14.1	5460	1430	2	-	-	M1-6		
34.96	49	14160	12.7	5680	1440	2	-	-	M1-6		
39.10	43	14160	11.5	5920	1440	2	-	-	M1-6		
44.03	39	14160	10.2	6180	1450	2	-	-	M1-6		
64.00	27	13980	8.2	6530	1550	2	-	-	M1-6		
77.14	22	15050	7.4	6500	1550	2	-	-	M1-6		
86.15	20	15660	6.9	6480	1550	2	-	-	M1-6		
99.26	17	16280	6.3	6450	1550	2	-	-	M1-6		
110.40	15	16820	5.9	6430	1550	2	-	-	M1-6		
123.48	14	17350	5.5	6410	1550	2	-	-	M1-6		
139.05	12	17880	5.1	6390	1550	2	-	-	M1-6		

Weight [lbs]	Stages Large	Stages Small	AD2	AD3	AD4	AD5
S87	2	-	183	192	205	238
SA87: -5.0 lbs / SAF87: +30 lbs / SF87: +48 lbs						

11.2.9 S87R57

S87R57 AD.. , n_e = 1700 rpm										22130 lb-in	
i [ratio]	n_a [rpm]	$T_{a\,max}$ [lb-in]	P_e [HP]	F_{Ra} [1)] [lb]	F_{Re} [lb]	Stages Lg	Stages Sm	ϕ (/R) [']	⚠		
205	8.3	17520	2.9	6390	320	2	2	-	-		
222	7.7	17520	2.7	6390	340	2	2	-	-		
255	6.7	17520	2.4	6390	350	2	2	-	-		
281	6.0	21240	3.0	6230	340	2	2	-	-		
323	5.3	21240	2.7	6230	340	2	2	-	-		
378	4.5	21680	2.4	6210	350	2	2	-	-		
435	3.9	21680	2.1	6210	350	2	2	-	-		
485	3.5	22130	2.0	6180	360	2	2	-	-		
558	3.0	22130	1.7	6180	360	2	2	-	-		
624	2.7	22130	1.6	6180	370	2	2	-	-		
719	2.4	22130	1.4	6180	370	2	2	-	-		
831	2.0	22130	1.2	6180	370	2	2	-	-		
930	1.8	22130	1.1	6180	370	2	2	-	-		
1032	1.6	22130	1.0	6180	380	2	2	-	-		
1191	1.4	22130	0.92	6180	380	2	2	-	-		
1332	1.3	22130	0.84	6180	380	2	2	-	-		
1631	1.0	22130	0.70	6180	380	2	2	-	-		
1824	0.93	22130	0.64	6180	380	2	2	-	-		
2054	0.83	22130	0.58	6180	390	2	2	-	-		
2335	0.73	22130	0.51	6180	390	2	2	-	-	**S87R57**	**AD2**
2586	0.66	22130	0.47	6180	390	2	2	-	-		
2905	0.59	22130	0.41	6180	390	2	2	-	-		
3475	0.49	22130	0.36	6180	390	2	2	-	-		
3872	0.44	22130	0.35	6180	390	2	3	-	-		
4606	0.37	22130	0.30	6180	390	2	3	-	-		
5187	0.33	22130	0.28	6180	390	2	3	-	-		
5875	0.29	22130	0.24	6180	390	2	3	-	-		
6706	0.25	22130	0.22	6180	400	2	3	-	-		
7643	0.22	22130	0.19	6180	390	2	3	-	-		
8549	0.20	22130	0.18	6180	400	2	3	-	-		
9904	0.17	22130	0.17	6180	400	2	3	-	-		
11200	0.15	22130	0.16	6180	400	2	3	-	-		
13160	0.13	22130	0.14	6180	400	2	3	-	-		
14820	0.11	22130	0.13	6180	400	2	3	-	-		
16774	0.10	22130	0.12	6180	400	2	3	-	-		
18265	0.09	22130	0.11	6180	400	2	3	-	-		
20568	0.08	22130	0.11	6180	400	2	3	-	-		
23940	0.07	22130	0.10	6180	400	2	3	-	-		
25987	0.07	22130	0.10	6180	400	2	3	-	-		
205	8.3	17520	2.9	6390	530	2	2	-	-		
222	7.7	17520	2.8	6390	550	2	2	-	-		
255	6.7	17520	2.4	6390	560	2	2	-	-		
281	6.0	21240	3.1	6230	550	2	2	-	-		
323	5.3	21240	2.7	6230	550	2	2	-	-		
378	4.5	21680	2.4	6210	560	2	2	-	-		
435	3.9	21680	2.2	6210	570	2	2	-	-		
485	3.5	22130	2.0	6180	570	2	2	-	-		
558	3.0	22130	1.8	6180	580	2	2	-	-	**S87R57**	**AD3**
624	2.7	22130	1.6	6180	580	2	2	-	-		
719	2.4	22130	1.4	6180	580	2	2	-	-		
831	2.0	22130	1.3	6180	580	2	2	-	-		
930	1.8	22130	1.2	6180	580	2	2	-	-		
1032	1.6	22130	1.1	6180	590	2	2	-	-		
1191	1.4	22130	0.95	6180	590	2	2	-	-		
1332	1.3	22130	0.87	6180	590	2	2	-	-		
1631	1.0	22130	0.73	6180	590	2	2	-	-		

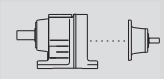
S87R57 AD.. , n_e = 1700 rpm — 22130 lb-in

i [ratio]	n_a [rpm]	$T_{a\,max}$ [lb-in]	P_e [HP]	F_{Ra} [1)] [lb]	F_{Re} [lb]	Stages Lg	Stages Sm	ϕ (/R) [']	⚠		
1824	0.93	22130	0.67	6180	600	2	2	-	-		
2054	0.83	22130	0.61	6180	600	2	2	-	-		
2335	0.73	22130	0.54	6180	600	2	2	-	-		
2586	0.66	22130	0.50	6180	600	2	2	-	-		
3872	0.44	22130	0.38	6180	600	2	3	-	-		
4606	0.37	22130	0.33	6180	610	2	3	-	-	**S87R57**	**AD3**
5187	0.33	22130	0.31	6180	610	2	3	-	-		
6706	0.25	22130	0.25	6180	610	2	3	-	-		
9904	0.17	22130	0.20	6180	610	2	3	-	-		
11200	0.15	22130	0.19	6180	610	2	3	-	-		
13160	0.13	22130	0.17	6180	610	2	3	-	-		
14820	0.11	22130	0.16	6180	610	2	3	-	-		

Weight [lbs]	Stages Large	Stages Small	AD2	AD3
S87R57	2	2	234	241
	2	3	236	243
SA87: -5.0 lbs / SAF87: +30 lbs / SF87: +48 lbs				

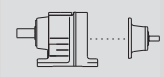
11.2.10 S97

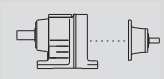
S97 AD.. , n_e = 1700 rpm											35400 lb-in
i [ratio]	n_a [rpm]	$T_{a\,max}$ [lb-in]	P_e [HP]	F_{Ra} [1)] [lb]	F_{Re} [lb]	Stages Lg	Stages Sm	ϕ (/R) [']	⚠		
65.45	26	23450	12.9	7970	430	2	-	-	M1-6		
71.43	24	25580	11.2	7890	280	2	-	-	M1-6		
78.26	22	25400	11.8	7900	430	2	-	-	M1-6		
80.85	21	26640	10.3	7850	270	2	-	-	M1-6		
89.60	19	26730	10.8	7850	430	2	-	-	M1-6		
105.71	16	28410	9.8	7790	430	2	-	-	M1-6		
116.92	15	29560	9.3	7740	430	2	-	-	M1-6		
131.85	13	30440	8.5	7700	430	2	-	-	M1-6	**S97**	**AD3**
145.60	12	31420	8.0	7660	430	2	-	-	M1-6		
161.74	11	32300	7.5	7620	430	2	-	-	M1-6		
180.95	9.4	33360	6.9	7570	430	2	-	-	M1-6		
196.52	8.7	33980	6.5	7540	430	2	-	-	M1-6		
231.67	7.3	35050	5.8	7480	430	2	-	-	M1-6		
262.22	6.5	35400	5.2	7460	430	2	-	-	M1-6		
286.40	5.9	35400	4.8	7460	440	2	-	-	M1-6		
32.60	52	26370	25	6500	640	2	-	-	M1-6		
36.05	47	27520	23	6670	640	2	-	-	M1-6		
40.65	42	28590	22	6910	640	2	-	-	M1-6		
44.89	38	29210	20	7140	640	2	-	-	M1-6		
49.87	34	29210	18.1	7440	650	2	-	-	M1-6		
55.79	30	29210	16.2	7750	660	2	-	-	M1-6		
60.59	28	29210	15.0	7750	670	2	-	-	M1-6		
65.45	26	23450	13.0	7970	850	2	-	-	M1-6		
71.43	24	29210	12.8	7750	680	2	-	-	M1-6		
78.26	22	25400	11.8	7900	850	2	-	-	M1-6	**S97**	**AD4**
89.60	19	26730	10.9	7850	850	2	-	-	M1-6		
105.71	16	28410	9.9	7790	850	2	-	-	M1-6		
116.92	15	29560	9.3	7740	850	2	-	-	M1-6		
131.85	13	30440	8.6	7700	850	2	-	-	M1-6		
145.60	12	31420	8.1	7660	850	2	-	-	M1-6		
161.74	11	32300	7.5	7620	850	2	-	-	M1-6		
180.95	9.4	33360	7.0	7570	850	2	-	-	M1-6		
196.52	8.7	33980	6.6	7540	850	2	-	-	M1-6		
231.67	7.3	35050	5.8	7480	850	2	-	-	M1-6		
8.26	206	12740	45	4290	1220	2	-	-	M1-6		
9.55	178	14780	45	4310	1180	2	-	-	M1-6		
11.41	149	17700	45	4160	1140	2	-	-	M1-6		
13.07	130	19200	43	4070	1120	2	-	-	M1-6		
15.42	110	20360	39	4210	1120	2	-	-	M1-6		
17.05	100	21240	37	4250	1120	2	-	-	M1-6		
19.23	88	22130	34	4360	1110	2	-	-	M1-6		
21.23	80	22740	32	4500	1110	2	-	-	M1-6		
23.59	72	23010	29	4790	1120	2	-	-	M1-6		
24.13	70	23630	30	5980	1310	2	-	-	M1-6		
26.39	64	23010	26	5200	1140	2	-	-	M1-6		
27.63	62	24870	27	6200	1310	2	-	-	M1-6	**S97**	**AD5**
32.60	52	26370	25	6500	1310	2	-	-	M1-6		
36.05	47	27520	23	6670	1310	2	-	-	M1-6		
40.65	42	28590	22	6910	1310	2	-	-	M1-6		
44.89	38	29210	20	7140	1310	2	-	-	M1-6		
49.87	34	29210	18.1	7440	1320	2	-	-	M1-6		
55.79	30	29210	16.3	7750	1330	2	-	-	M1-6		
65.45	26	23450	13.0	7970	1520	2	-	-	M1-6		
78.26	22	25400	11.8	7900	1520	2	-	-	M1-6		
89.60	19	26730	10.9	7850	1520	2	-	-	M1-6		
105.71	16	28410	9.9	7790	1520	2	-	-	M1-6		
116.92	15	29560	9.4	7740	1520	2	-	-	M1-6		

S97 AD.. , n_e = 1700 rpm											35400 lb-in
i [ratio]	n_a [rpm]	$T_{a\,max}$ [lb-in]	P_e [HP]	F_{Ra} [1)] [lb]	F_{Re} [lb]	Stages Lg	Stages Sm	ϕ (/R) [']	⚠		
131.85	13	30440	8.6	7700	1510	2	-	-	M1-6	**S97**	**AD5**
145.60	12	31420	8.1	7660	1510	2	-	-	M1-6		
161.74	11	32300	7.6	7620	1510	2	-	-	M1-6		
180.95	9.4	33360	7.0	7570	1510	2	-	-	M1-6		
8.26	206	12740	45	4290	1820	2	-	-	M1-6	**S97**	**AD6**
9.55	178	14780	45	4310	1790	2	-	-	M1-6		
11.41	149	17700	45	4160	1740	2	-	-	M1-6		
13.07	130	19200	43	4070	1730	2	-	-	M1-6		
15.42	110	20360	39	4210	1730	2	-	-	M1-6		
17.05	100	21240	37	4250	1730	2	-	-	M1-6		
19.23	88	22130	34	4360	1720	2	-	-	M1-6		
21.23	80	22740	32	4500	1720	2	-	-	M1-6		
24.13	70	23630	30	5980	1910	2	-	-	M1-6		
27.63	62	24870	27	6200	1910	2	-	-	M1-6		
32.60	52	26370	25	6500	1910	2	-	-	M1-6		
36.05	47	27520	23	6670	1910	2	-	-	M1-6		
40.65	42	28590	22	6910	1900	2	-	-	M1-6		
44.89	38	29210	20	7140	1900	2	-	-	M1-6		
65.45	26	23450	13.0	7970	2100	2	-	-	M1-6		
78.26	22	25400	11.9	7900	2100	2	-	-	M1-6		
89.60	19	26730	11.0	7850	2100	2	-	-	M1-6		
105.71	16	28410	10.0	7790	2100	2	-	-	M1-6		
116.92	15	29560	9.4	7740	2100	2	-	-	M1-6		
131.85	13	30440	8.7	7700	2100	2	-	-	M1-6		
145.60	12	31420	8.2	7660	2100	2	-	-	M1-6		

Weight [lbs]	Stages Large	Stages Small	AD3	AD4	AD5	AD6
S97	2	-	322	334	370	400
SA97: -12 lbs / SAF97: +46 lbs / SF97: +72 lbs						

11.2.11 S97R57

S97R57 AD.. , n_e = 1700 rpm										37170 lb-in	
i [ratio]	n_a [rpm]	$T_{a\,max}$ [lb-in]	P_e [HP]	F_{Ra} [1)] [lb]	F_{Re} [lb]	Stages Lg	Stages Sm	ϕ (/R) [']	⚠		
205	8.3	37170	5.9	7160	270	2	2	-	-		
219	7.8	37170	5.6	7160	280	2	2	-	-		
252	6.7	37170	4.9	7150	290	2	2	-	-		
287	5.9	37170	4.3	7140	270	2	2	-	-		
327	5.2	37170	3.8	7130	280	2	2	-	-		
376	4.5	37170	3.4	7130	310	2	2	-	-		
420	4.0	37170	3.0	7120	330	2	2	-	-		
484	3.5	37170	2.7	7110	340	2	2	-	-		
538	3.2	37170	2.4	7110	340	2	2	-	-		
626	2.7	37170	2.1	7100	340	2	2	-	-		
714	2.4	37170	2.2	7370	340	2	2	-	-		
824	2.1	37170	1.6	7090	350	2	2	-	-		
928	1.8	37170	1.4	7090	300	2	2	-	-		
1070	1.6	37170	1.2	7090	280	2	2	-	-		
1223	1.4	37170	1.1	7090	330	2	2	-	-		
1394	1.2	37170	0.97	7090	340	2	2	-	-		
1574	1.1	37170	0.89	7090	380	2	3	-	-		
1860	0.91	37170	0.77	7090	380	2	3	-	-		
2081	0.82	37170	0.69	7090	380	2	3	-	-		
2329	0.73	37170	0.61	7090	380	2	3	-	-		
2654	0.64	37170	0.55	7090	380	2	3	-	-	**S97R57**	**AD2**
3108	0.55	37170	0.47	7090	380	2	3	-	-		
3453	0.49	37170	0.43	7090	380	2	3	-	-		
4017	0.42	37170	0.39	7090	390	2	3	-	-		
4444	0.38	37170	0.35	7090	390	2	3	-	-		
4937	0.34	37170	0.32	7090	390	2	3	-	-		
5780	0.29	37170	0.28	7090	390	2	3	-	-		
6640	0.26	37170	0.25	7090	390	2	3	-	-		
7554	0.23	37170	0.29	7370	390	2	3	-	-		
8608	0.20	37170	0.26	7370	390	2	3	-	-		
10078	0.17	37170	0.23	7370	390	2	3	-	-		
11267	0.15	37170	0.21	7370	390	2	3	-	-		
12752	0.13	37170	0.19	7370	400	2	3	-	-		
14576	0.12	37170	0.19	7370	400	2	3	-	-		
16233	0.10	37170	0.17	7370	400	2	3	-	-		
18749	0.09	37170	0.15	7370	400	2	3	-	-		
21537	0.08	37170	0.14	7370	400	2	3	-	-		
24641	0.07	37170	0.13	7370	400	2	3	-	-		
27847	0.06	37170	0.12	7370	400	2	3	-	-		
31154	0.05	37170	0.11	7370	400	2	3	-	-		
33818	0.05	37170	0.11	7370	400	2	3	-	-		
205	8.3	37170	6.0	7160	480	2	2	-	-		
219	7.8	37170	5.6	7160	500	2	2	-	-		
252	6.7	37170	4.9	7150	500	2	2	-	-		
287	5.9	37170	4.4	7140	490	2	2	-	-		
327	5.2	37170	3.8	7130	490	2	2	-	-		
376	4.5	37170	3.4	7130	520	2	2	-	-		
420	4.0	37170	3.1	7120	550	2	2	-	-		
484	3.5	37170	2.7	7110	550	2	2	-	-	**S97R57**	**AD3**
538	3.2	37170	2.4	7110	560	2	2	-	-		
626	2.7	37170	2.1	7100	560	2	2	-	-		
714	2.4	37170	2.2	7370	550	2	2	-	-		
824	2.1	37170	1.6	7090	570	2	2	-	-		
928	1.8	37170	1.5	7090	560	2	2	-	-		
1223	1.4	37170	1.1	7090	570	2	2	-	-		
1574	1.1	37170	0.92	7090	590	2	3	-	-		
1860	0.91	37170	0.80	7090	590	2	3	-	-		

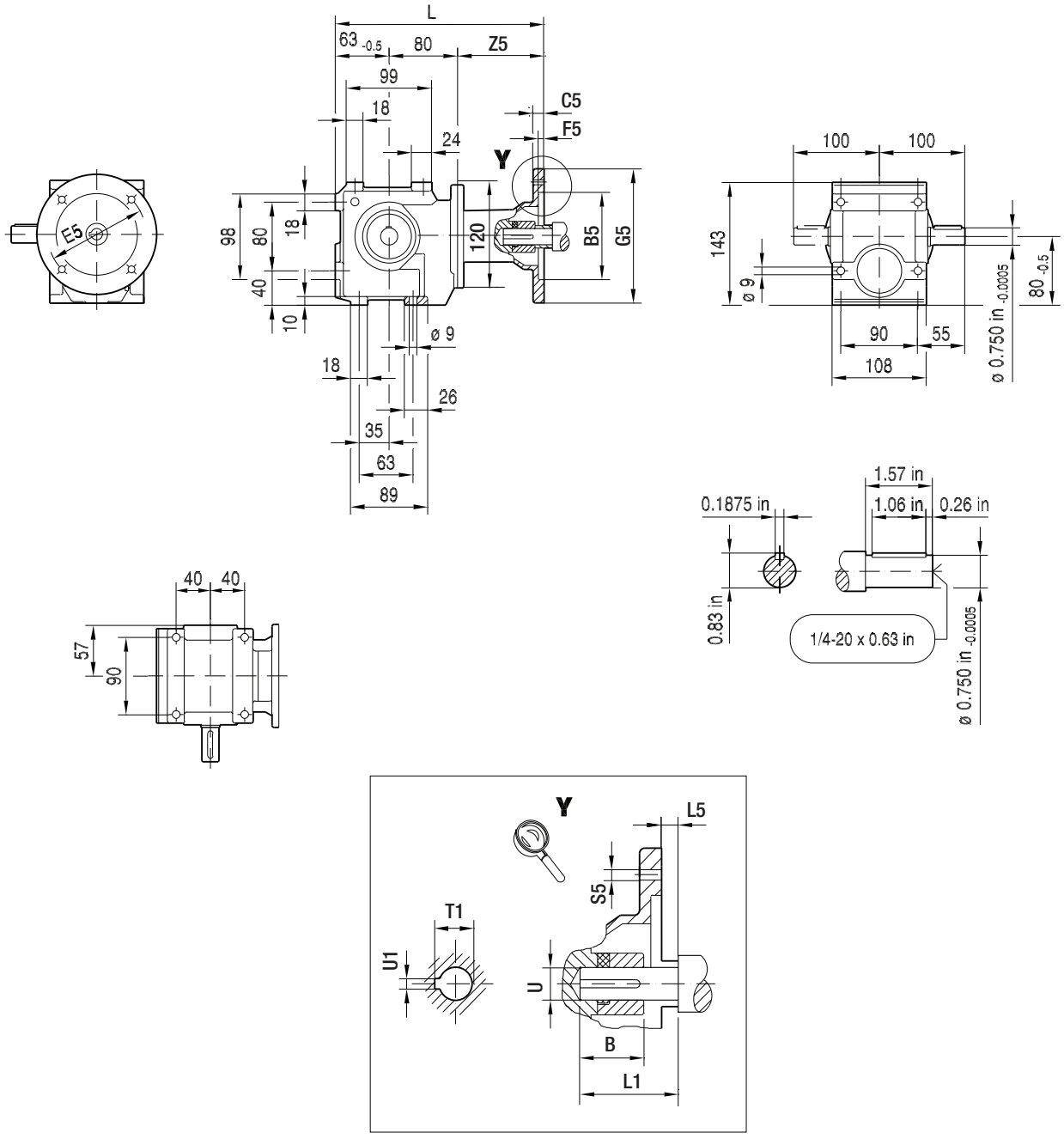
S97R57 AD.. , n_e = 1700 rpm										37170 lb-in	
i [ratio]	n_a [rpm]	$T_{a\,max}$ [lb-in]	P_e [HP]	F_{Ra} [1)] [lb]	F_{Re} [lb]	Stages Lg	Stages Sm	ϕ (/R) [']	⚠		
2081	0.82	37170	0.72	7090	590	2	3	-	-		
2329	0.73	37170	0.65	7090	590	2	3	-	-		
4017	0.42	37170	0.42	7090	600	2	3	-	-		
7554	0.23	37170	0.32	7370	600	2	3	-	-	**S97R57**	**AD3**
11267	0.15	37170	0.25	7370	610	2	3	-	-		
14576	0.12	37170	0.22	7370	610	2	3	-	-		
16233	0.10	37170	0.20	7370	610	2	3	-	-		

Weight [lbs]	Stages Large	Stages Small	AD2	AD3
S97R57	2	2	366	373
	2	3	368	375
SA97: -12 lbs / SAF97: +46 lbs / SF97: +72 lbs				

11.3 S.. AM.. [NEMA dimensions]

02 003 00 11

S37..

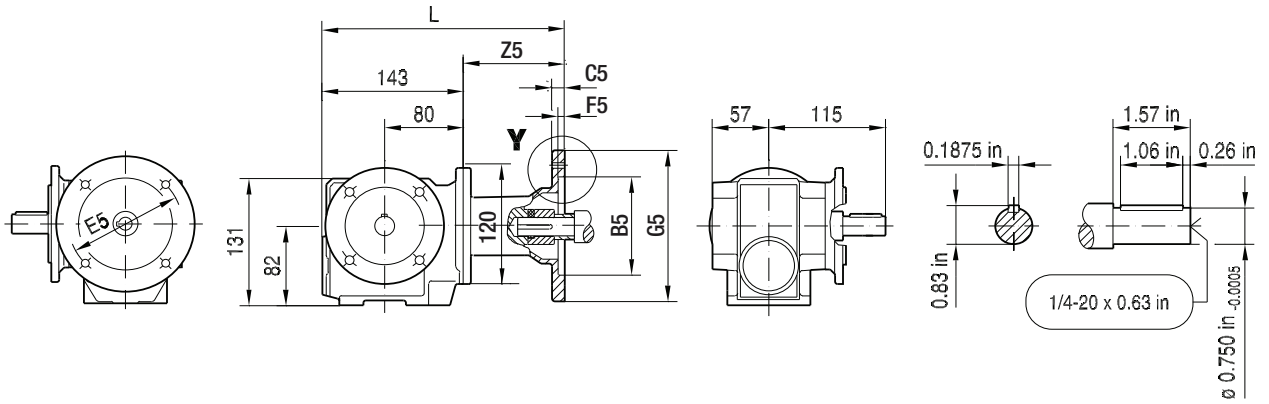


(→ 132)	B	B5	C5	E5	F5	G5	L	L1	L5	S5	T1	U	U1	Z5
AM56	1.23 in	4.50 in	11	5.875 in	4.5	170	237	1.88 in	-0.18 in	10.5	0.71 in	0.625 in	0.188 in	93.5
AM143	1.68 in	4.50 in	12	5.875 in	4.5	170	260	2.25 in	0.13 in	10.5	0.98 in	0.875 in	0.188 in	117
AM145	1.68 in	4.50 in	12	5.875 in	4.5	170	260	2.25 in	0.13 in	10.5	0.98 in	0.875 in	0.188 in	117

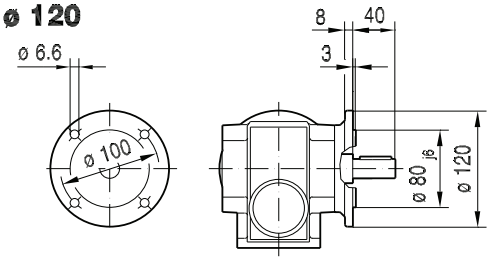
Dimensions in mm unless otherwise noted. For all available output shaft diameters, see page 682.

SF37..

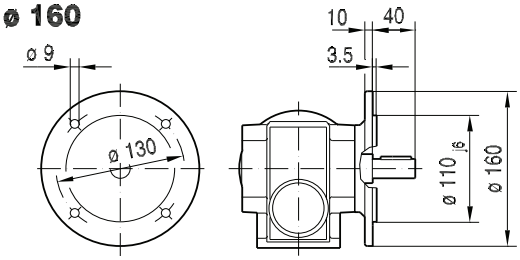
02 004 00 11



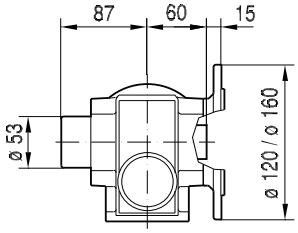
ø 120

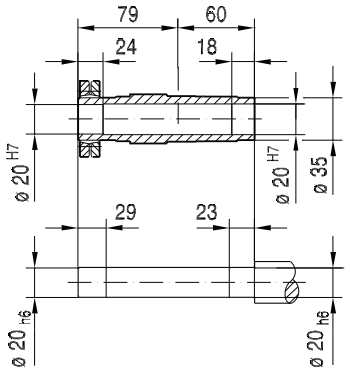


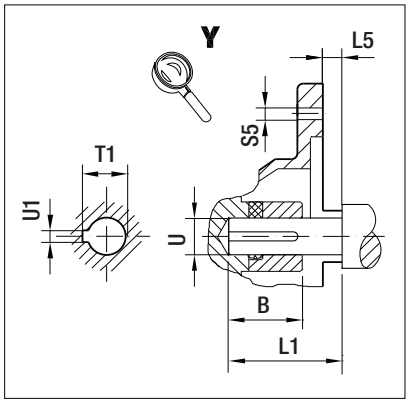
ø 160



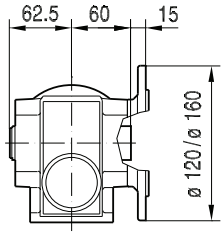
SHF37..

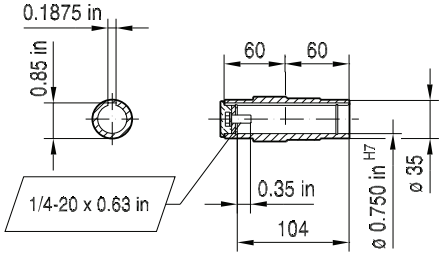






SAF37..



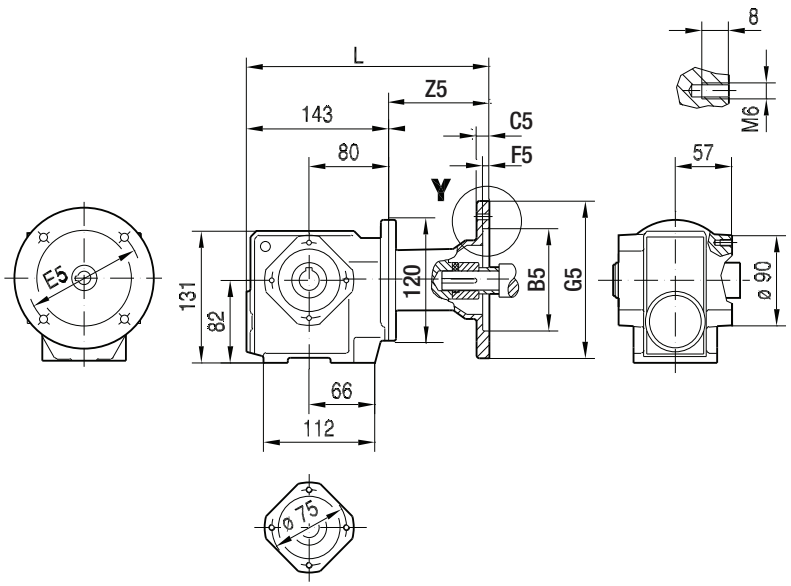


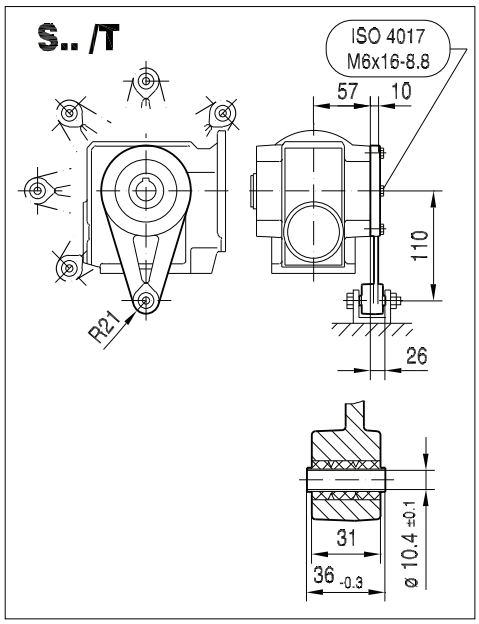
(→ 132)	B	B5	C5	E5	F5	G5	L	L1	L5	S5	T1	U	U1	Z5
AM56	1.23 in	4.50 in	11	5.875 in	4.5	170	237	1.88 in	-0.18 in	10.5	0.71 in	0.625 in	0.188 in	93.5
AM143	1.68 in	4.50 in	12	5.875 in	4.5	170	260	2.25 in	0.13 in	10.5	0.98 in	0.875 in	0.188 in	117
AM145	1.68 in	4.50 in	12	5.875 in	4.5	170	260	2.25 in	0.13 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 682.

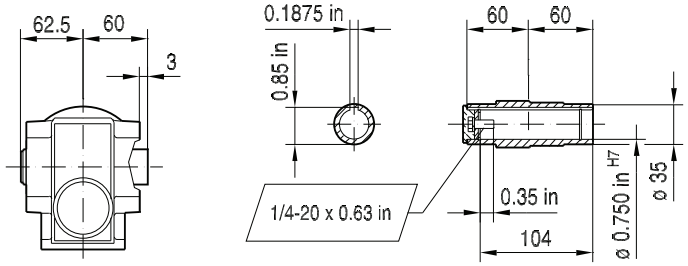
02 005 00 11

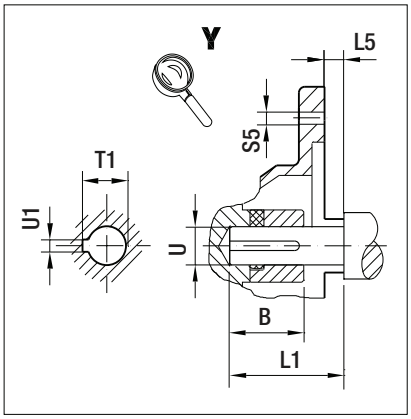
SA37..



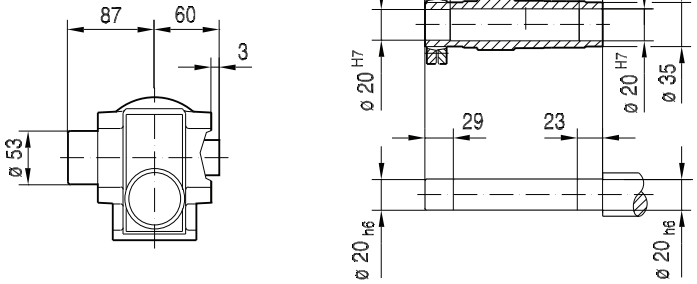


SA37..





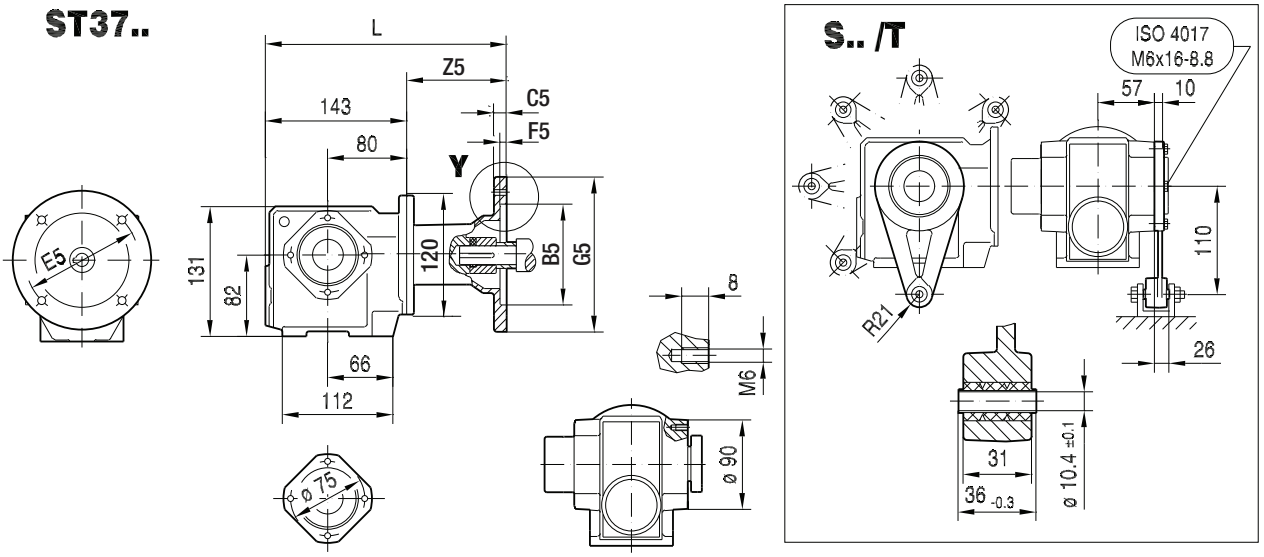
SH37..

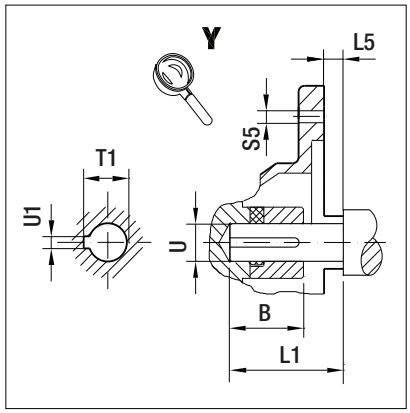


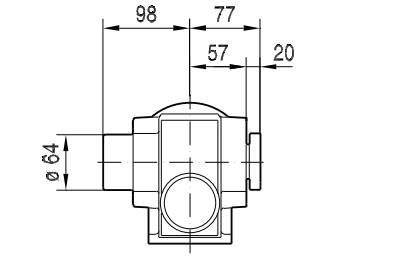
(→ 132)	B	B5	C5	E5	F5	G5	L	L1	L5	S5	T1	U	U1	Z5
AM56	1.23 in	4.50 in	11	5.875 in	4.5	170	237	1.88 in	-0.18 in	10.5	0.71 in	0.625 in	0.188 in	93.5
AM143	1.68 in	4.50 in	12	5.875 in	4.5	170	260	2.25 in	0.13 in	10.5	0.98 in	0.875 in	0.188 in	117
AM145	1.68 in	4.50 in	12	5.875 in	4.5	170	260	2.25 in	0.13 in	10.5	0.98 in	0.875 in	0.188 in	117

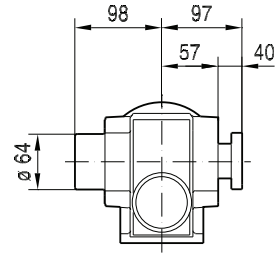
Dimensions in mm unless otherwise noted. For all available output shaft diameters, see page 684.

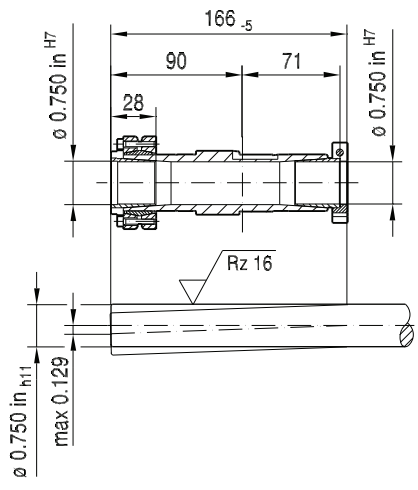
02 006 00 11

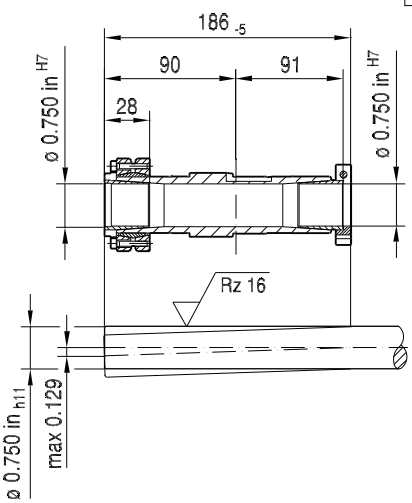










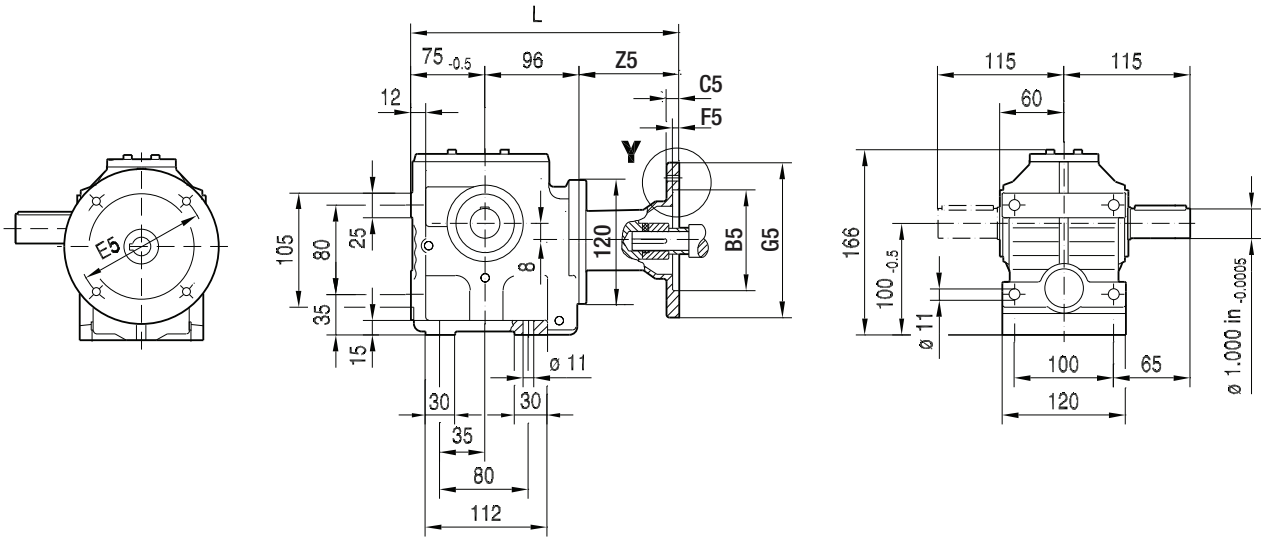


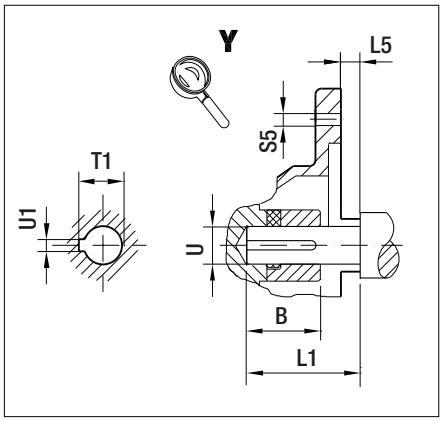
(→ 132)	B	B5	C5	E5	F5	G5	L	L1	L5	S5	T1	U	U1	Z5
AM56	1.23 in	4.50 in	11	5.875 in	4.5	170	237	1.88 in	-0.18 in	10.5	0.71 in	0.625 in	0.188 in	93.5
AM143	1.68 in	4.50 in	12	5.875 in	4.5	170	260	2.25 in	0.13 in	10.5	0.98 in	0.875 in	0.188 in	117
AM145	1.68 in	4.50 in	12	5.875 in	4.5	170	260	2.25 in	0.13 in	10.5	0.98 in	0.875 in	0.188 in	117

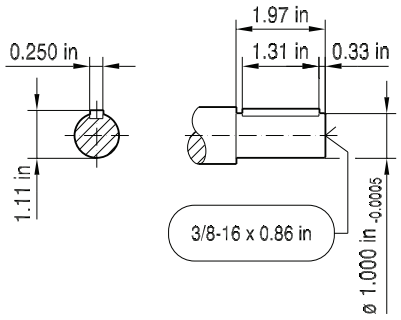
Dimensions in mm unless otherwise noted. For all available output shaft diameters, see page 686.

S47..

02 007 00 11





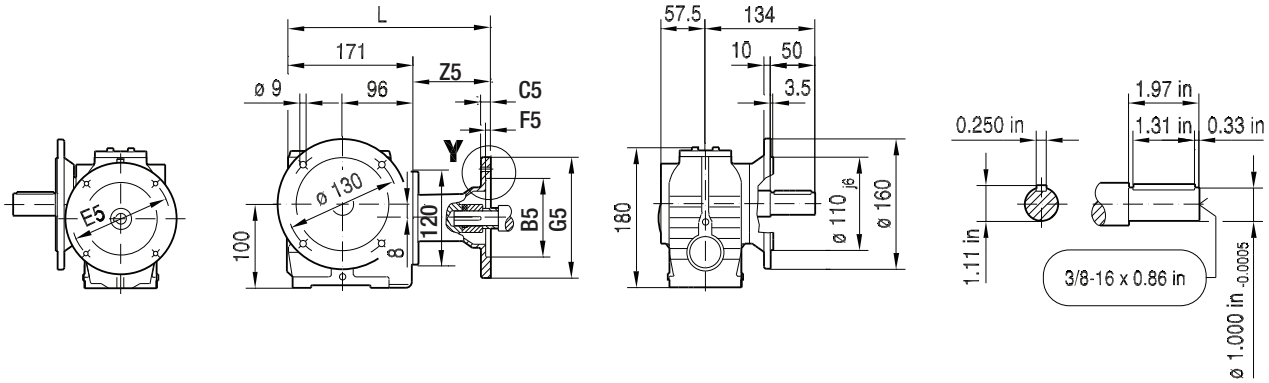


(→ 132)	B	B5	C5	E5	F5	G5	L	L1	L5	S5	T1	U	U1	Z5
AM56	1.23 in	4.50 in	11	5.875 in	4.5	170	265	1.88 in	-0.18 in	10.5	0.71 in	0.625 in	0.188 in	93.5
AM143	1.68 in	4.50 in	12	5.875 in	4.5	170	288	2.25 in	0.13 in	10.5	0.98 in	0.875 in	0.188 in	117
AM145	1.68 in	4.50 in	12	5.875 in	4.5	170	288	2.25 in	0.13 in	10.5	0.98 in	0.875 in	0.188 in	117

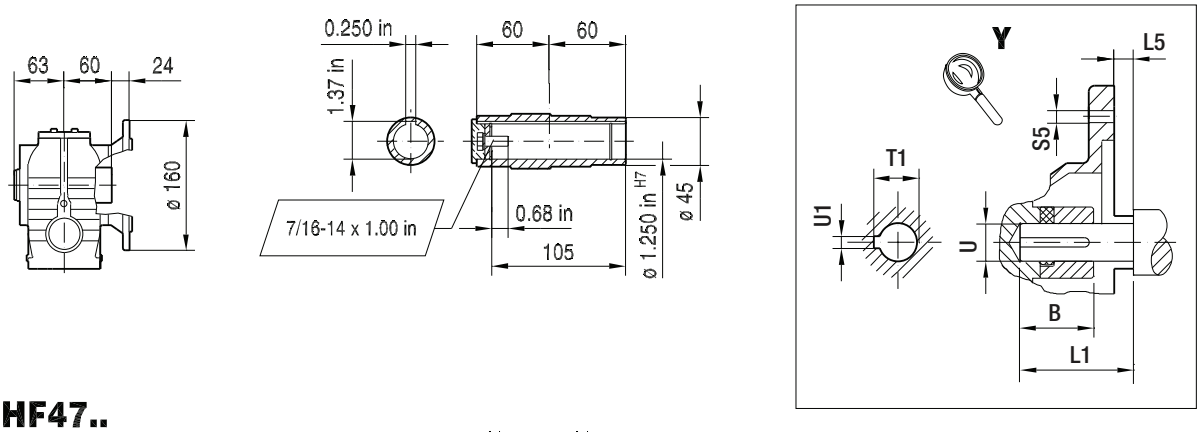
Dimensions in mm unless otherwise noted. For all available output shaft diameters, see page 682.

02 008 00 11

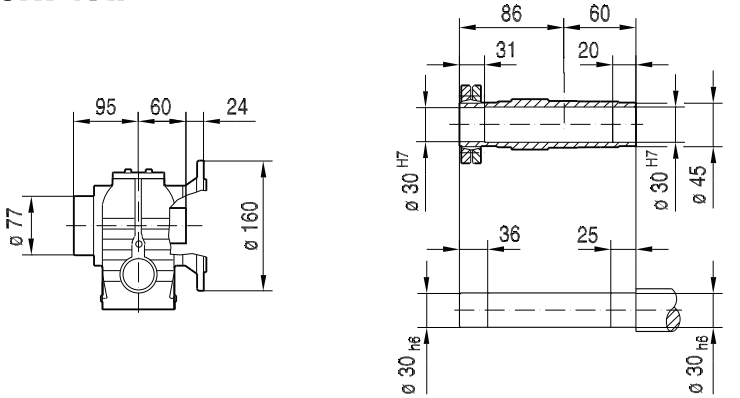
SF47..



SAF47..



SHF47..

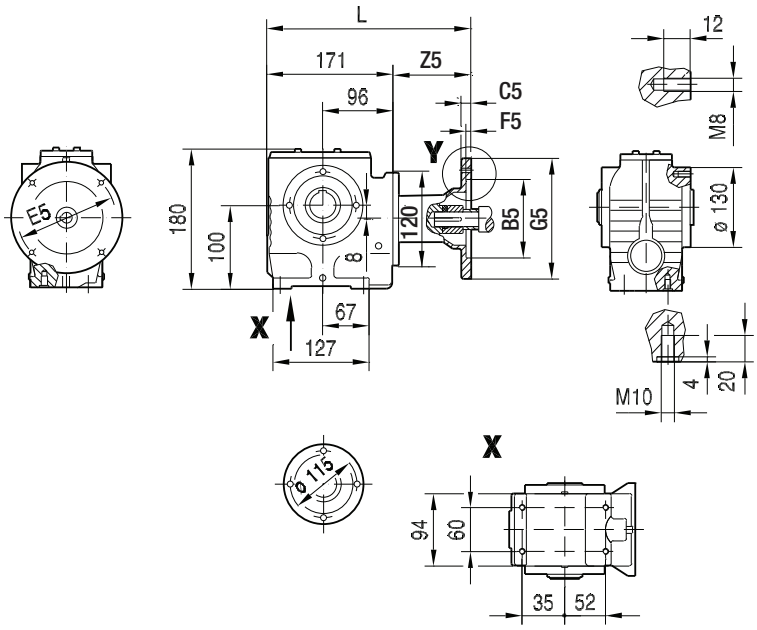


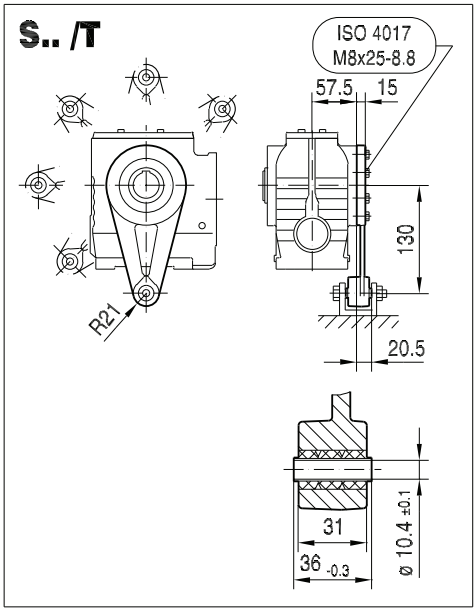
(→ 132)	B	B5	C5	E5	F5	G5	L	L1	L5	S5	T1	U	U1	Z5
AM56	1.23 in	4.50 in	11	5.875 in	4.5	170	265	1.88 in	-0.18 in	10.5	0.71 in	0.625 in	0.188 in	93.5
AM143	1.68 in	4.50 in	12	5.875 in	4.5	170	288	2.25 in	0.13 in	10.5	0.98 in	0.875 in	0.188 in	117
AM145	1.68 in	4.50 in	12	5.875 in	4.5	170	288	2.25 in	0.13 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 682.

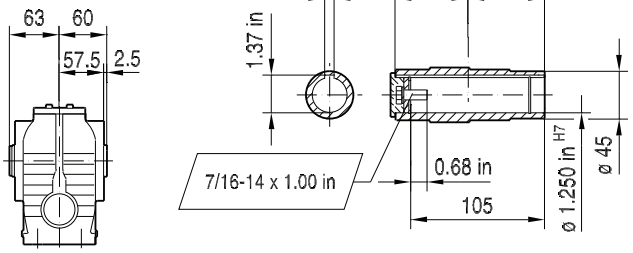
02 009 00 11

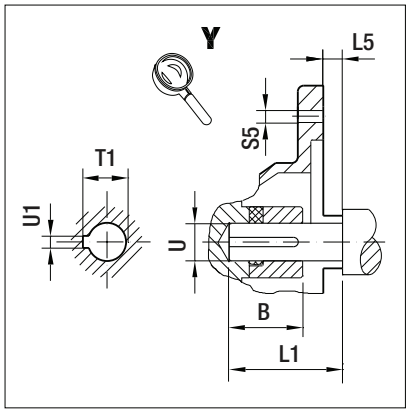
SA47..



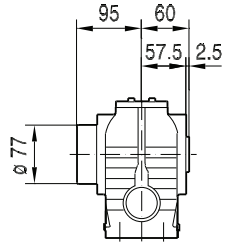


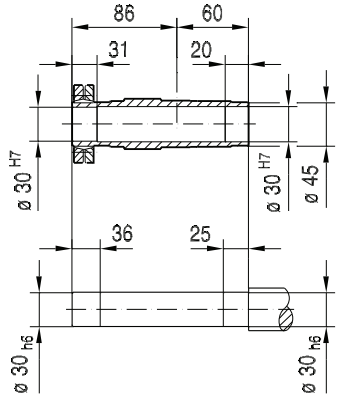
SA47..





SH47..



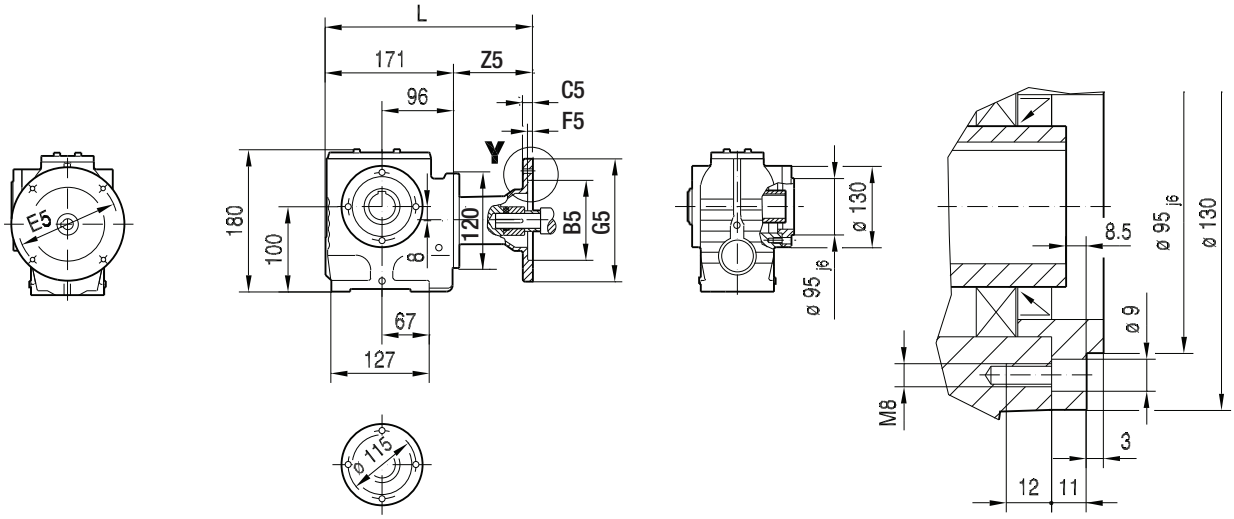


(→ 132)	B	B5	C5	E5	F5	G5	L	L1	L5	S5	T1	U	U1	Z5
AM56	1.23 in	4.50 in	11	5.875 in	4.5	170	265	1.88 in	-0.18 in	10.5	0.71 in	0.625 in	0.188 in	93.5
AM143	1.68 in	4.50 in	12	5.875 in	4.5	170	288	2.25 in	0.13 in	10.5	0.98 in	0.875 in	0.188 in	117
AM145	1.68 in	4.50 in	12	5.875 in	4.5	170	288	2.25 in	0.13 in	10.5	0.98 in	0.875 in	0.188 in	117

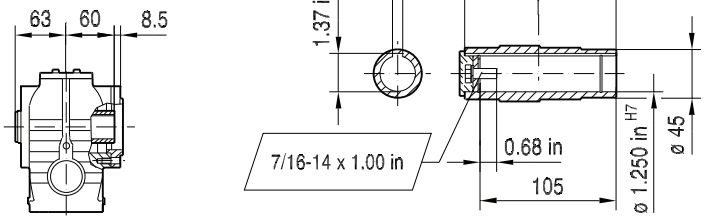
Dimensions in mm unless otherwise noted. For all available output shaft diameters, see page 684.

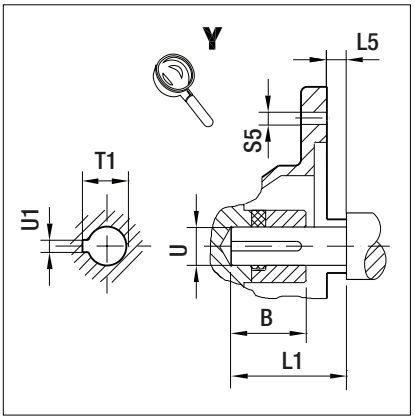
02 010 00 11

SAZ47..

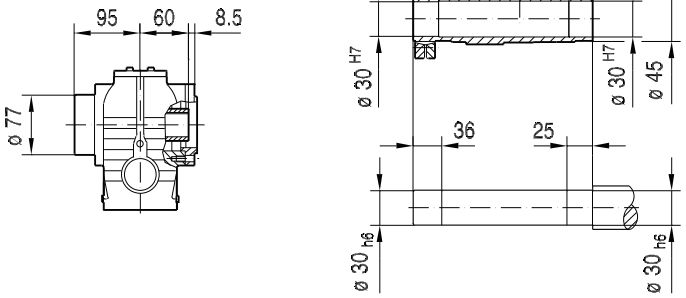


SAZ47..





SHZ47..

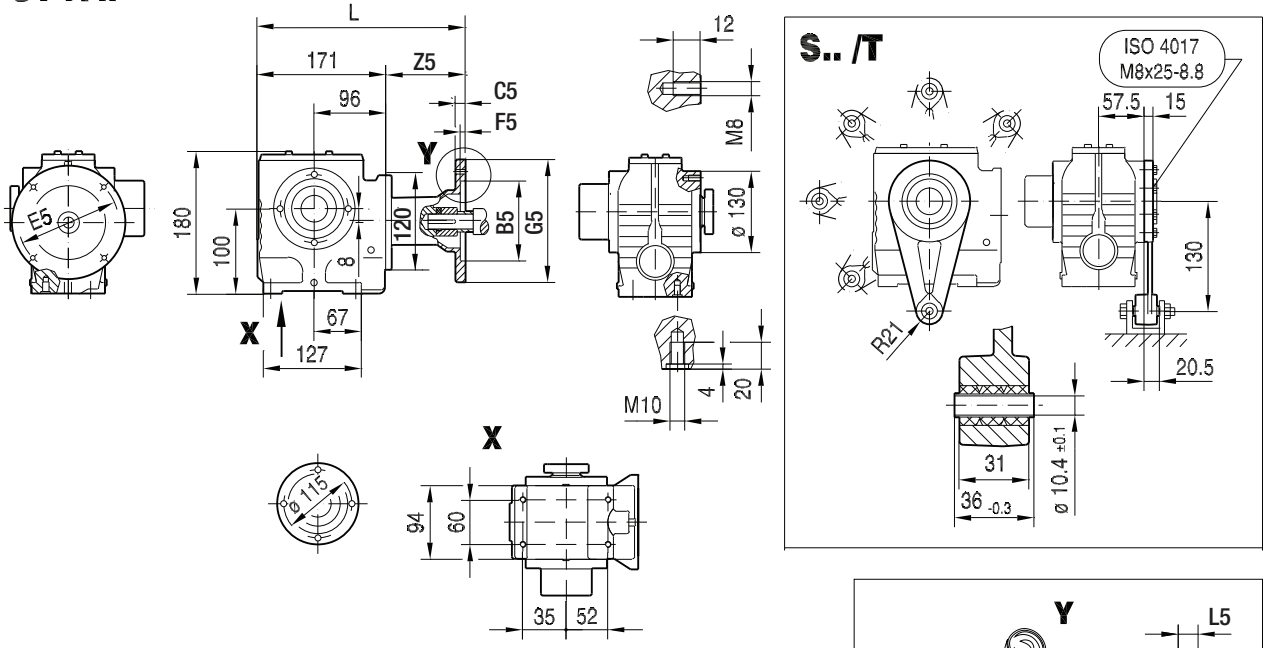


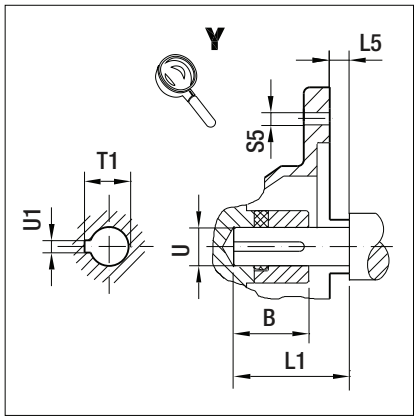
(→ 132)	B	B5	C5	E5	F5	G5	L	L1	L5	S5	T1	U	U1	Z5
AM56	1.23 in	4.50 in	11	5.875 in	4.5	170	265	1.88 in	-0.18 in	10.5	0.71 in	0.625 in	0.188 in	93.5
AM143	1.68 in	4.50 in	12	5.875 in	4.5	170	288	2.25 in	0.13 in	10.5	0.98 in	0.875 in	0.188 in	117
AM145	1.68 in	4.50 in	12	5.875 in	4.5	170	288	2.25 in	0.13 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 684.

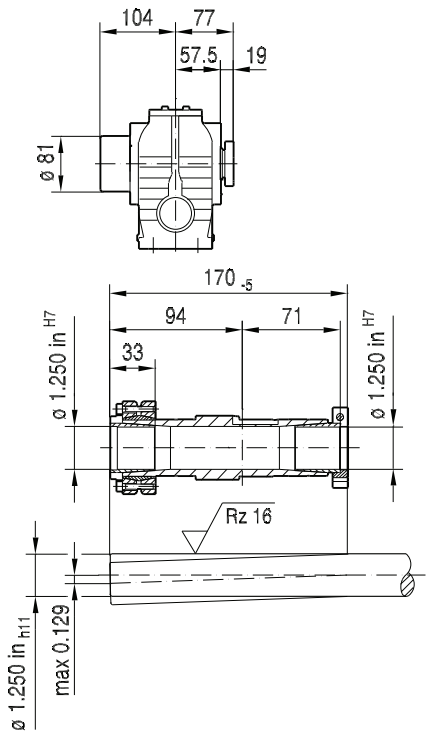
02 011 00 11

ST47..

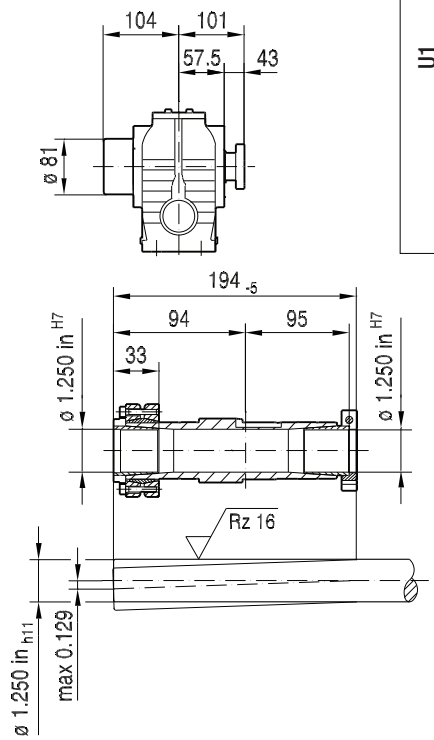




NON-Symmetrical



Symmetrical

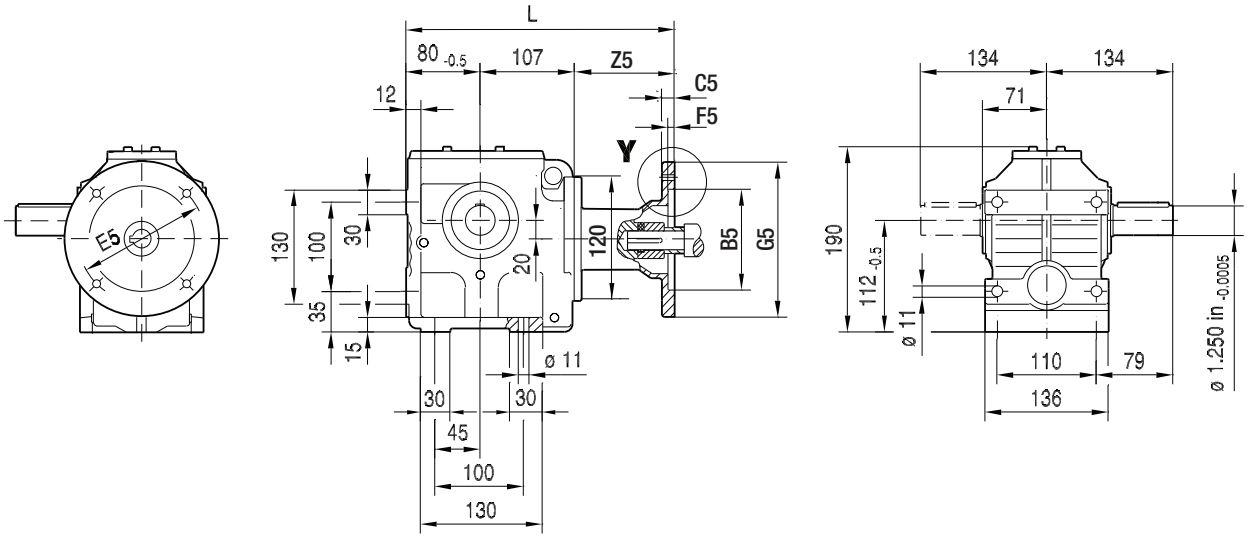


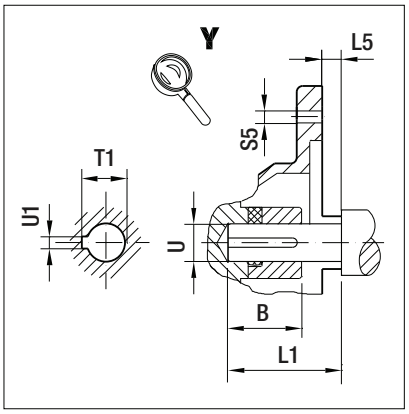
(→ 132)	B	B5	C5	E5	F5	G5	L	L1	L5	S5	T1	U	U1	Z5
AM56	1.23 in	4.50 in	11	5.875 in	4.5	170	265	1.88 in	-0.18 in	10.5	0.71 in	0.625 in	0.188 in	93.5
AM143	1.68 in	4.50 in	12	5.875 in	4.5	170	288	2.25 in	0.13 in	10.5	0.98 in	0.875 in	0.188 in	117
AM145	1.68 in	4.50 in	12	5.875 in	4.5	170	288	2.25 in	0.13 in	10.5	0.98 in	0.875 in	0.188 in	117

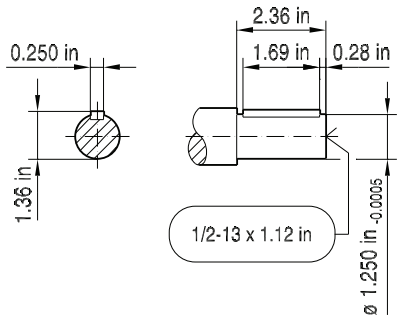
Dimensions in mm unless otherwise noted. For all available output shaft diameters, see page 686.

02 012 00 11

S57..





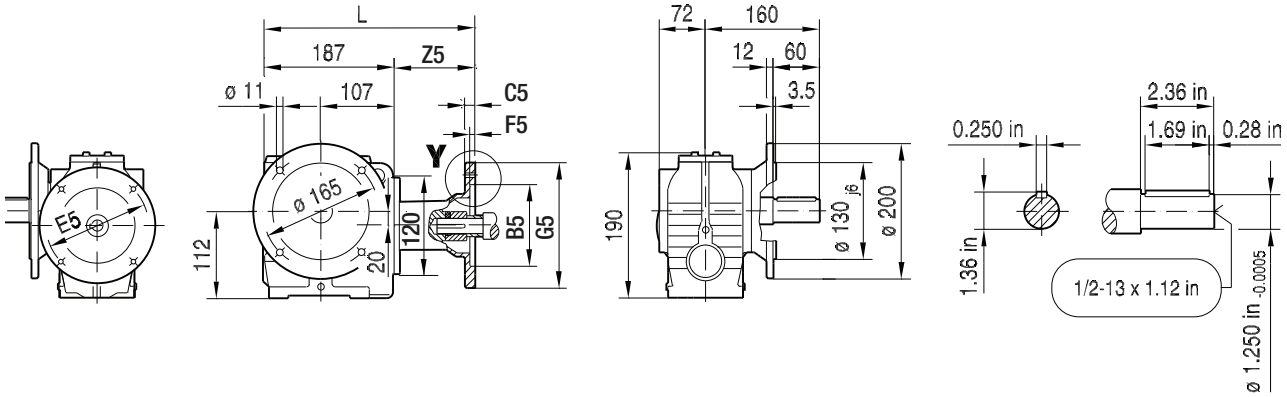


(→ 132)	B	B5	C5	E5	F5	G5	L	L1	L5	S5	T1	U	U1	Z5
AM56	1.23 in	4.50 in	11	5.875 in	4.5	170	281	1.88 in	-0.18 in	10.5	0.71 in	0.625 in	0.188 in	93.5
AM143	1.68 in	4.50 in	12	5.875 in	4.5	170	304	2.25 in	0.13 in	10.5	0.98 in	0.875 in	0.188 in	117
AM145	1.68 in	4.50 in	12	5.875 in	4.5	170	304	2.25 in	0.13 in	10.5	0.98 in	0.875 in	0.188 in	117

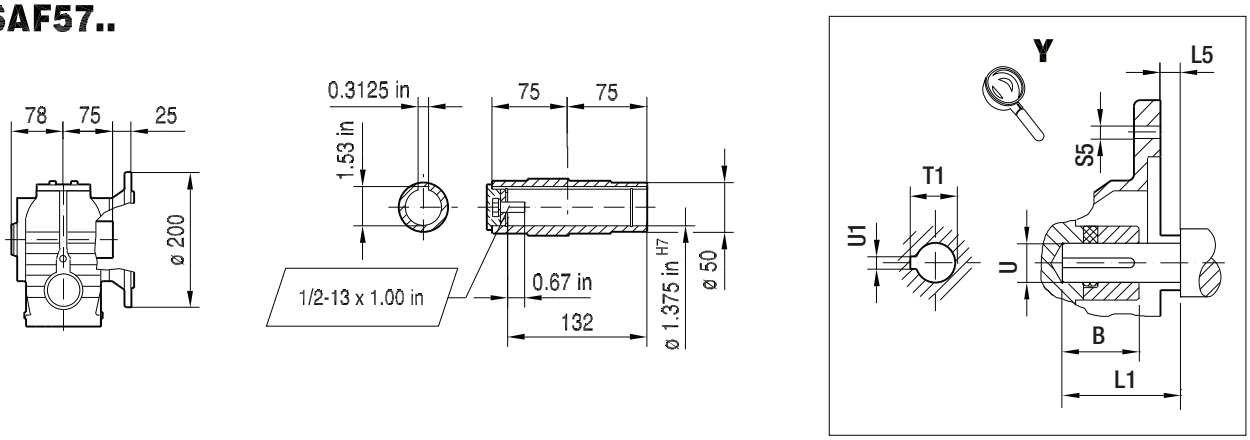
Dimensions in mm unless otherwise noted. For all available output shaft diameters, see page 682.

02 013 00 11

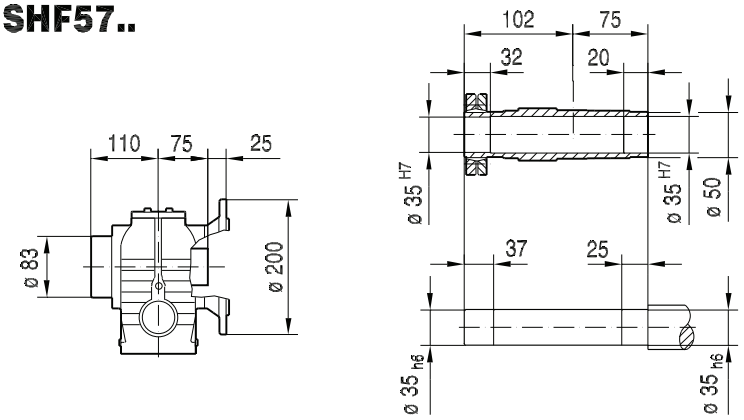
SF57..



SAF57..



SHF57..

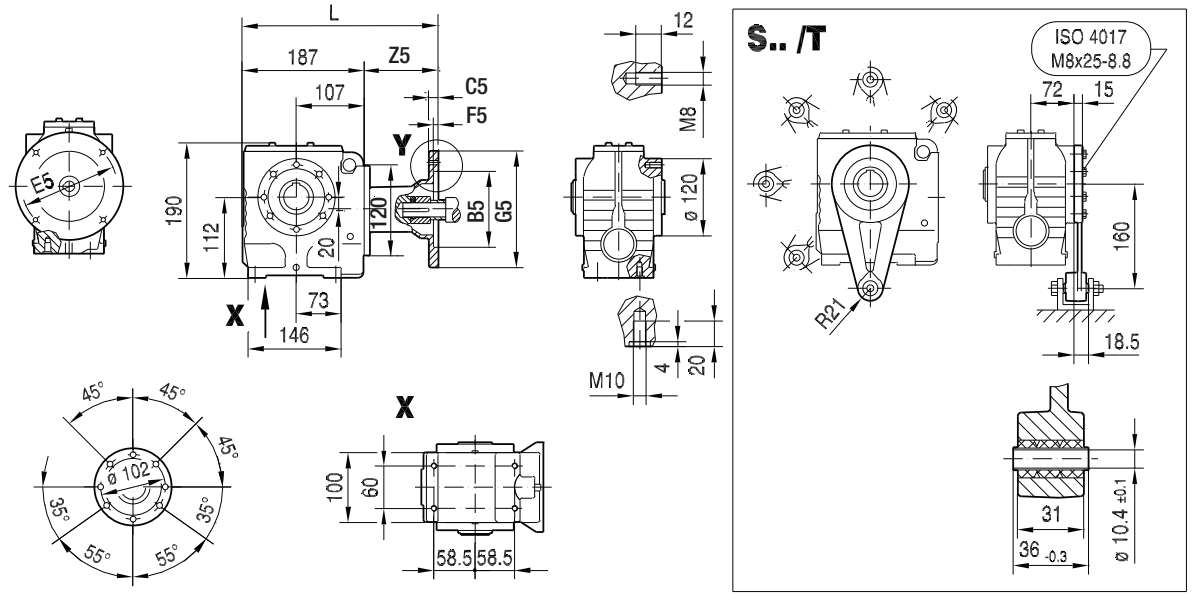


(→ 132)	B	B5	C5	E5	F5	G5	L	L1	L5	S5	T1	U	U1	Z5
AM56	1.23 in	4.50 in	11	5.875 in	4.5	170	281	1.88 in	-0.18 in	10.5	0.71 in	0.625 in	0.188 in	93.5
AM143	1.68 in	4.50 in	12	5.875 in	4.5	170	304	2.25 in	0.13 in	10.5	0.98 in	0.875 in	0.188 in	117
AM145	1.68 in	4.50 in	12	5.875 in	4.5	170	304	2.25 in	0.13 in	10.5	0.98 in	0.875 in	0.188 in	117

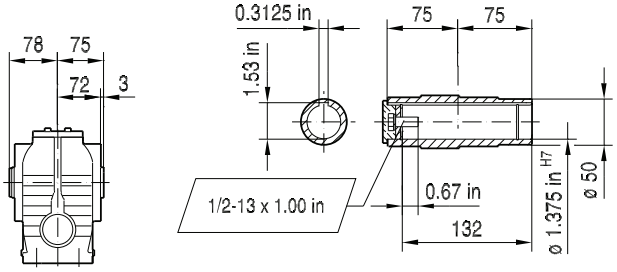
Dimensions in mm unless otherwise noted. For all available output shaft diameters, see page 682.

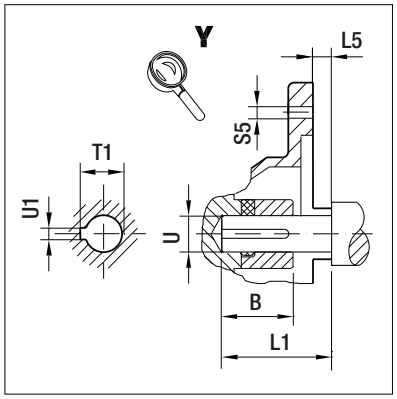
02 014 00 11

SA57..

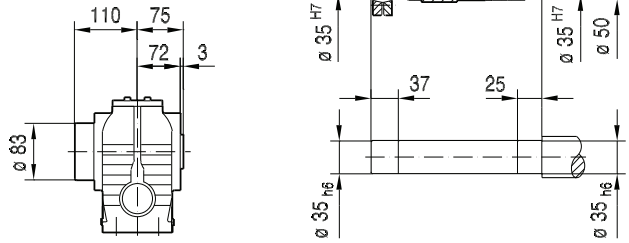


SA57..





SH57..

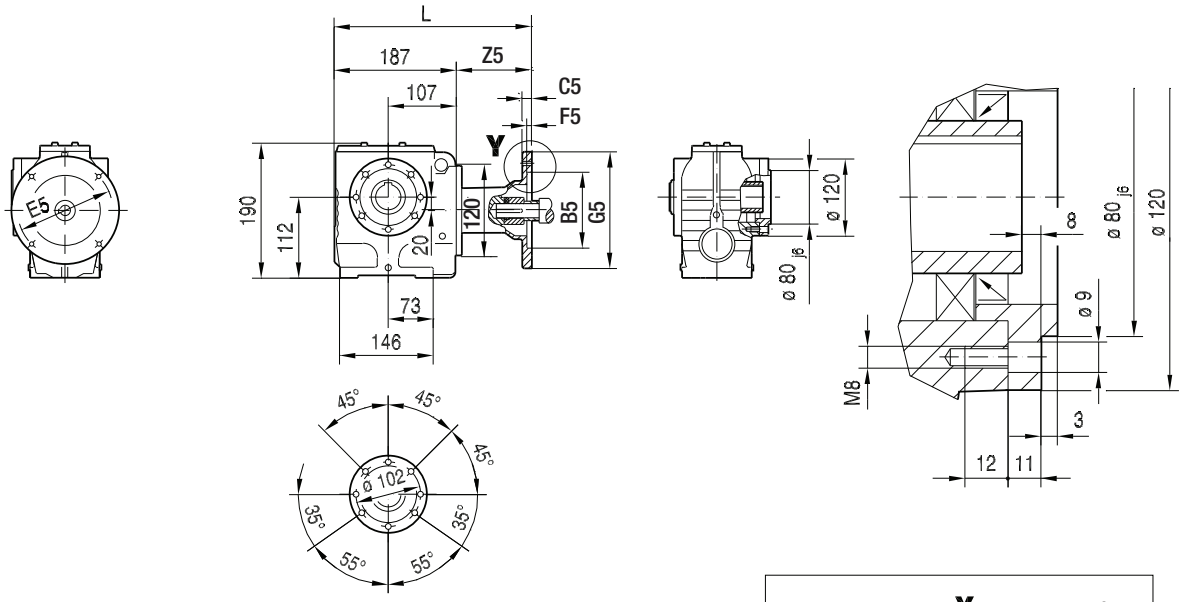


(→ 132)	B	B5	C5	E5	F5	G5	L	L1	L5	S5	T1	U	U1	Z5
AM56	1.23 in	4.50 in	11	5.875 in	4.5	170	281	1.88 in	-0.18 in	10.5	0.71 in	0.625 in	0.188 in	93.5
AM143	1.68 in	4.50 in	12	5.875 in	4.5	170	304	2.25 in	0.13 in	10.5	0.98 in	0.875 in	0.188 in	117
AM145	1.68 in	4.50 in	12	5.875 in	4.5	170	304	2.25 in	0.13 in	10.5	0.98 in	0.875 in	0.188 in	117

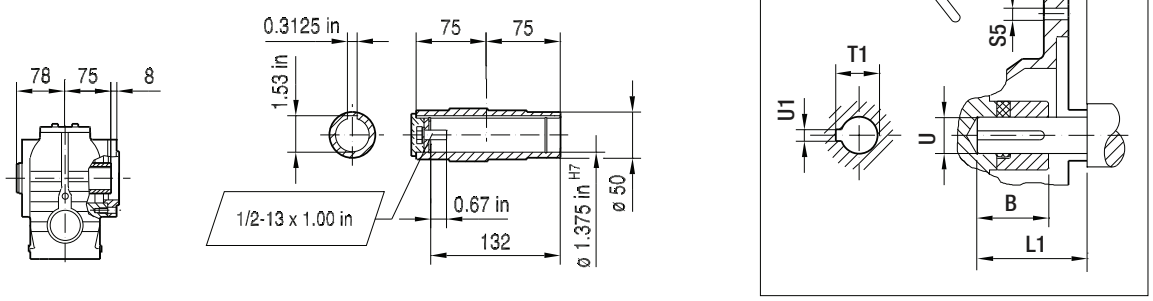
Dimensions in mm unless otherwise noted. For all available output shaft diameters, see page 684.

02 015 00 11

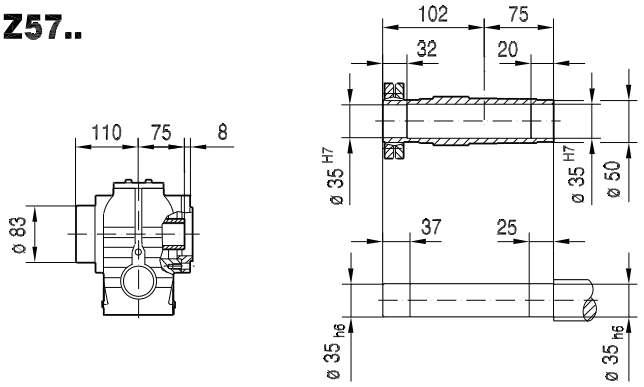
SAZ57..



SAZ57..



SHZ57..

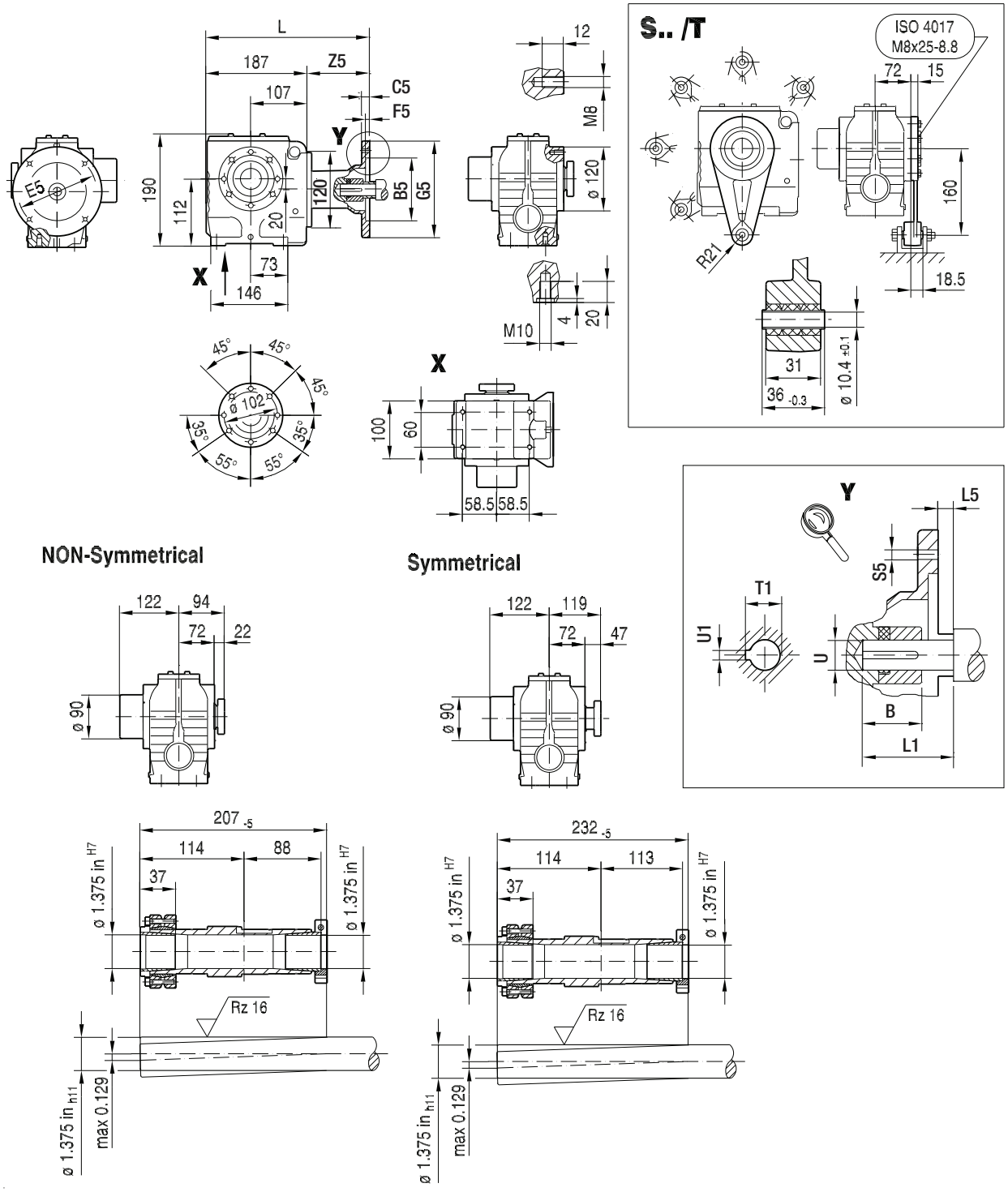


(→ 132)	B	B5	C5	E5	F5	G5	L	L1	L5	S5	T1	U	U1	Z5
AM56	1.23 in	4.50 in	11	5.875 in	4.5	170	281	1.88 in	-0.18 in	10.5	0.71 in	0.625 in	0.188 in	93.5
AM143	1.68 in	4.50 in	12	5.875 in	4.5	170	304	2.25 in	0.13 in	10.5	0.98 in	0.875 in	0.188 in	117
AM145	1.68 in	4.50 in	12	5.875 in	4.5	170	304	2.25 in	0.13 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 684.

02 016 00 11

ST57..

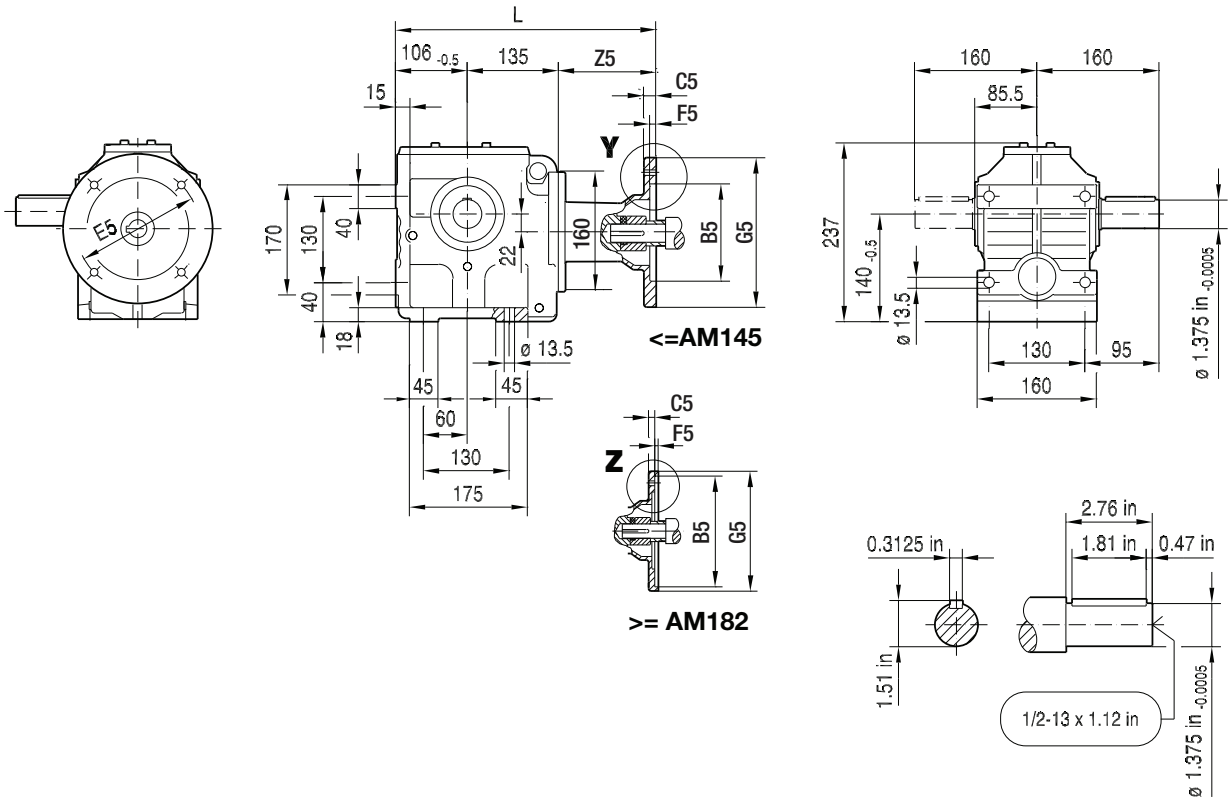


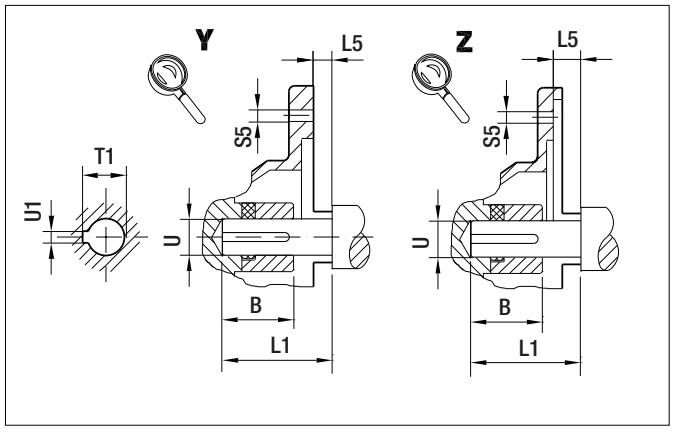
(→ 132)	B	B5	C5	E5	F5	G5	L	L1	L5	S5	T1	U	U1	Z5
AM56	1.23 in	4.50 in	11	5.875 in	4.5	170	281	1.88 in	-0.18 in	10.5	0.71 in	0.625 in	0.188 in	93.5
AM143	1.68 in	4.50 in	12	5.875 in	4.5	170	304	2.25 in	0.13 in	10.5	0.98 in	0.875 in	0.188 in	117
AM145	1.68 in	4.50 in	12	5.875 in	4.5	170	304	2.25 in	0.13 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 686.

02 017 00 11

S67..



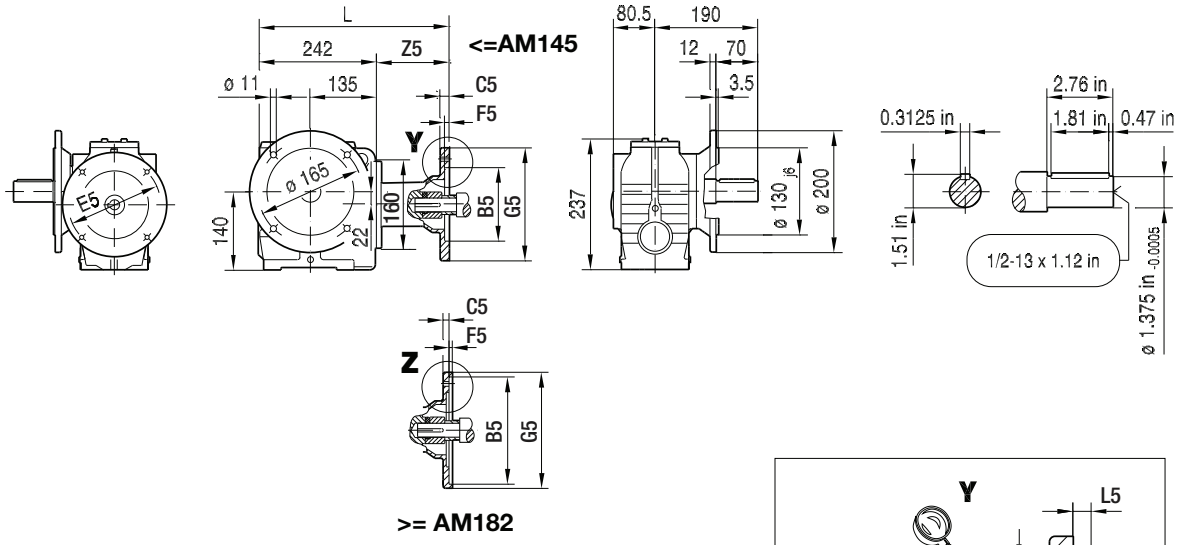


(→ 132)	B	B5	C5	E5	F5	G5	L	L1	L5	S5	T1	U	U1	Z5
AM56	1.23 in	4.50 in	11	5.875 in	4.5	170	328	1.88 in	-0.18 in	10.5	0.71 in	0.625 in	0.188 in	87
AM143	1.68 in	4.50 in	12	5.875 in	4.5	170	352	2.25 in	0.13 in	10.5	0.98 in	0.875 in	0.188 in	110.5
AM145	1.68 in	4.50 in	12	5.875 in	4.5	170	352	2.25 in	0.13 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	389	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	389	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	442	3.38 in	0.25 in	15	1.52 in	1.375 in	0.312 in	200.5

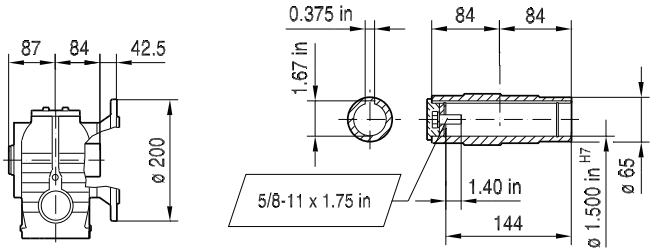
Note: Dimensions in mm unless otherwise noted. For all available output shaft diameters, see page 682. For dimensions of compound gear units (ex: S67R37) see page 648.

02 018 00 11

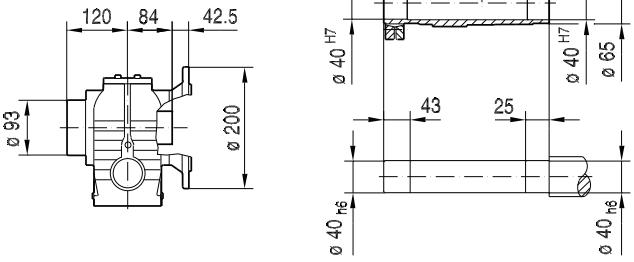
SF67..

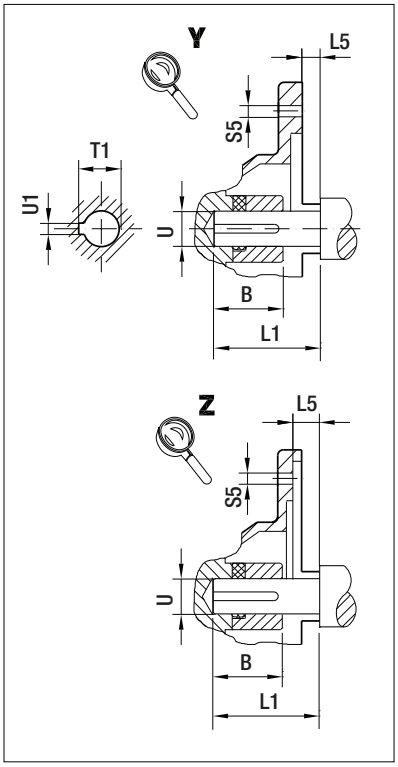


SAF67..



SHF67..



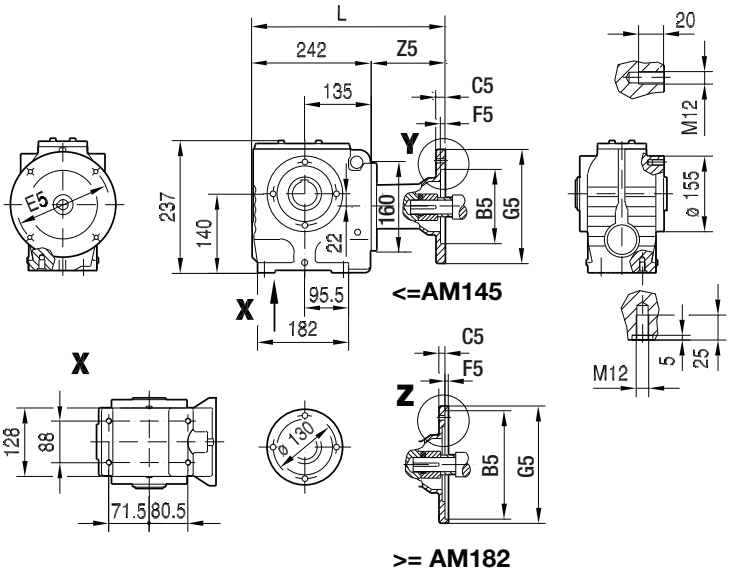


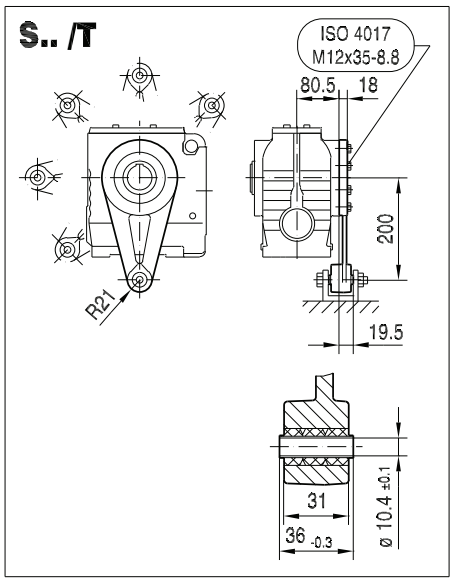
(→ 132)	B	B5	C5	E5	F5	G5	L	L1	L5	S5	T1	U	U1	Z5
AM56	1.23 in	4.50 in	11	5.875 in	4.5	170	329	1.88 in	-0.18 in	10.5	0.71 in	0.625 in	0.188 in	87
AM143	1.68 in	4.50 in	12	5.875 in	4.5	170	353	2.25 in	0.13 in	10.5	0.98 in	0.875 in	0.188 in	110.5
AM145	1.68 in	4.50 in	12	5.875 in	4.5	170	353	2.25 in	0.13 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 682. For dimensions of compound gear units (ex: SF67R37) see page 648.

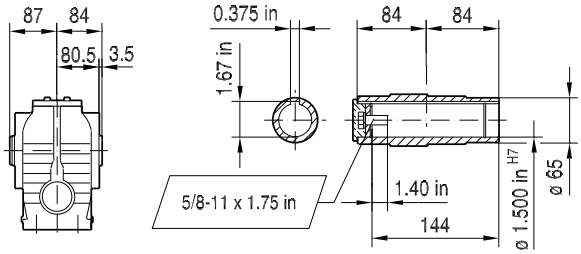
02 019 00 11

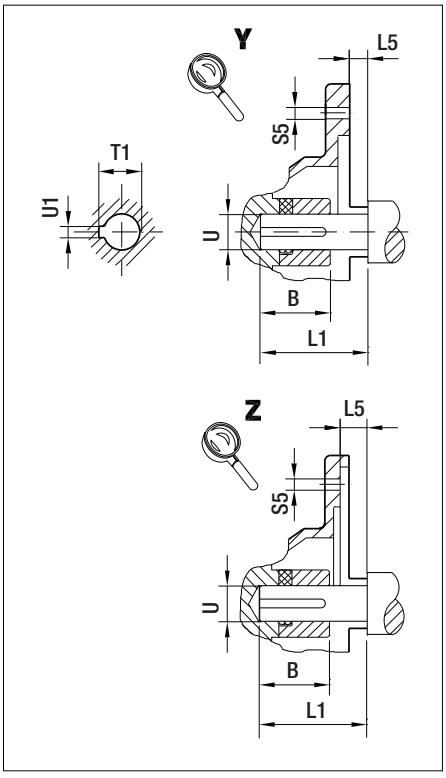
SA67..



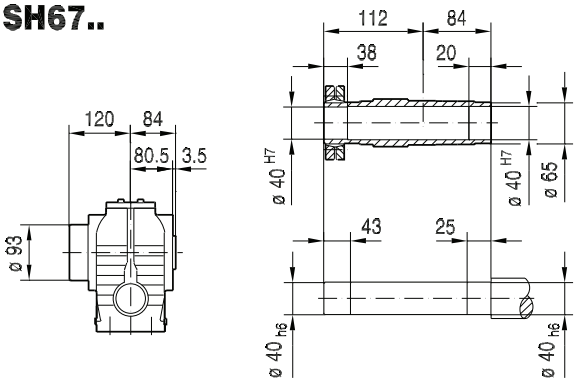


SA67..





SH67..

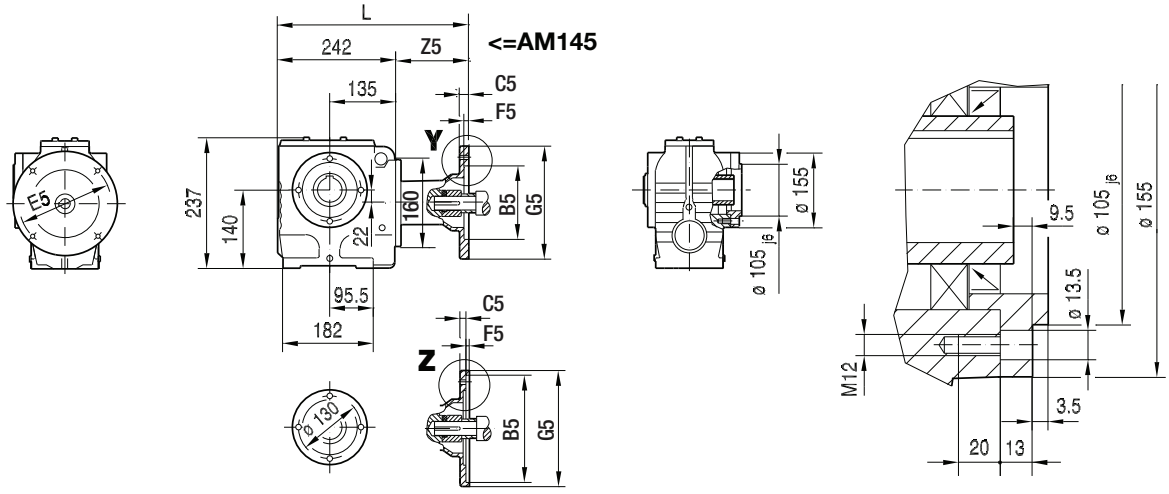


(→ 132)	B	B5	C5	E5	F5	G5	L	L1	L5	S5	T1	U	U1	Z5
AM56	1.23 in	4.50 in	11	5.875 in	4.5	170	329	1.88 in	-0.18 in	10.5	0.71 in	0.625 in	0.188 in	87
AM143	1.68 in	4.50 in	12	5.875 in	4.5	170	353	2.25 in	0.13 in	10.5	0.98 in	0.875 in	0.188 in	110.5
AM145	1.68 in	4.50 in	12	5.875 in	4.5	170	353	2.25 in	0.13 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 684. For dimensions of compound gear units (ex: SA67R37) see page 648.

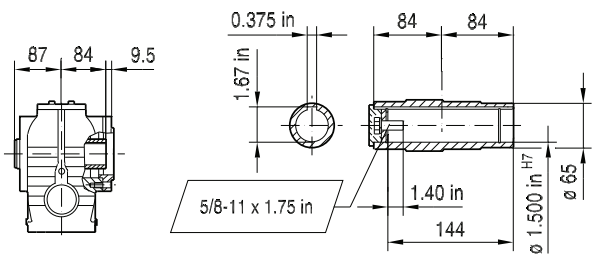
02 020 00 11

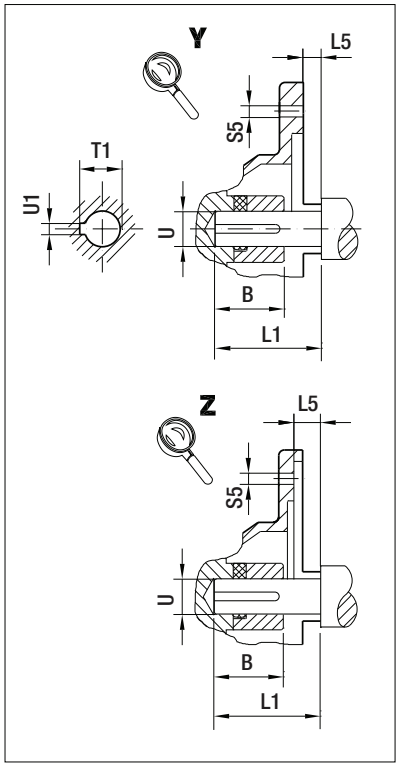
SAZ67..



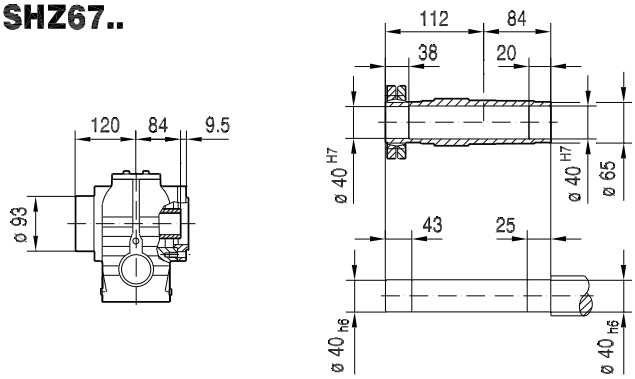
>= AM182

SAZ67..





SHZ67..

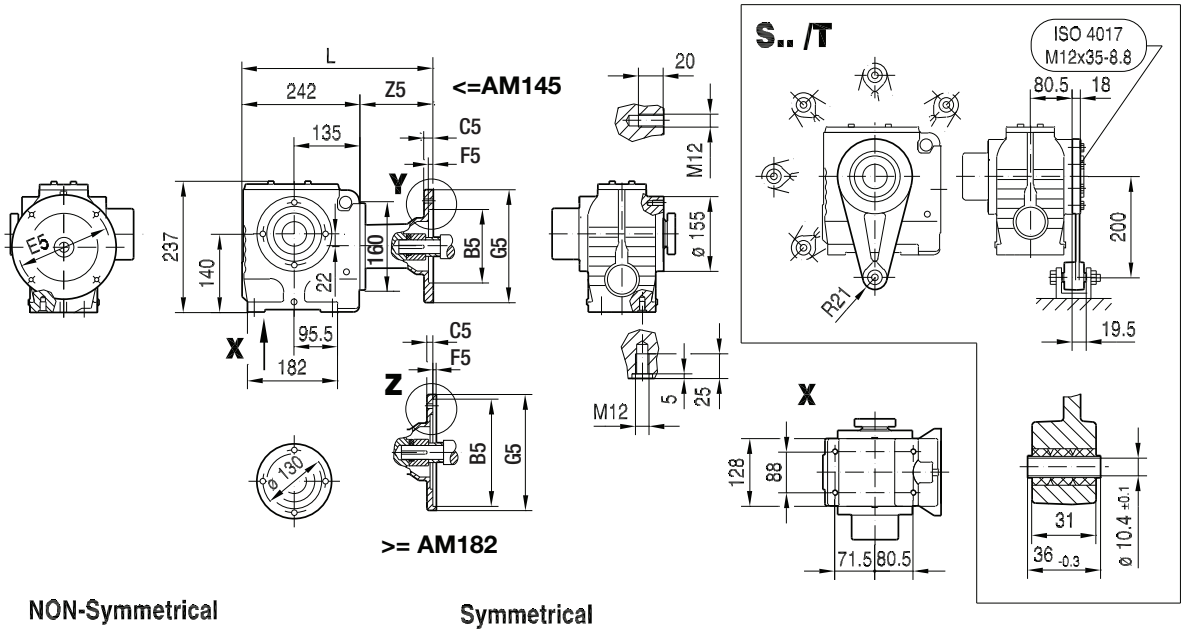


(→ 132)	B	B5	C5	E5	F5	G5	L	L1	L5	S5	T1	U	U1	Z5
AM56	1.23 in	4.50 in	11	5.875 in	4.5	170	329	1.88 in	-0.18 in	10.5	0.71 in	0.625 in	0.188 in	87
AM143	1.68 in	4.50 in	12	5.875 in	4.5	170	353	2.25 in	0.13 in	10.5	0.98 in	0.875 in	0.188 in	110.5
AM145	1.68 in	4.50 in	12	5.875 in	4.5	170	353	2.25 in	0.13 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

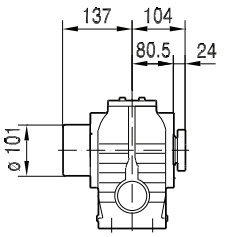
Note: Dimensions in mm unless otherwise noted. For all available output shaft diameters, see page 684. For dimensions of compound gear units (ex: SAZ67R37) see page 648.

02 021 00 11

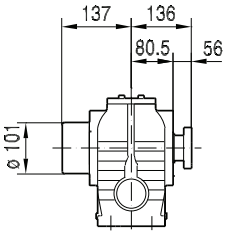
ST67..

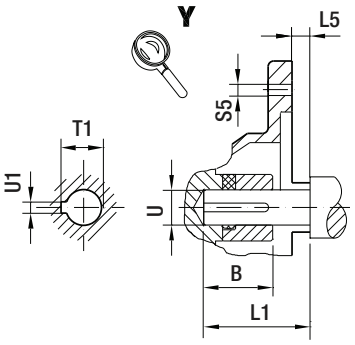


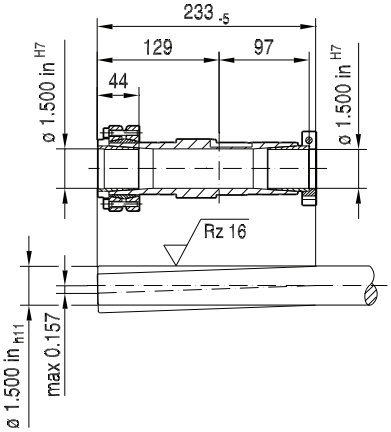
NON-Symmetrical

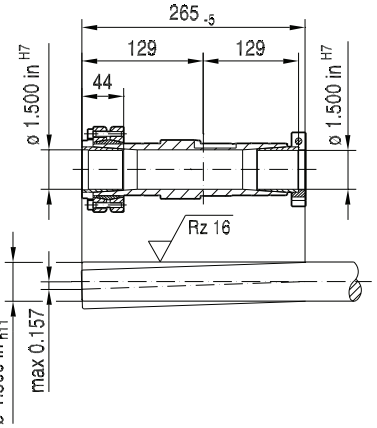


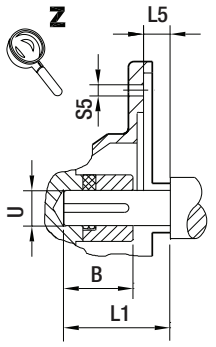
Symmetrical









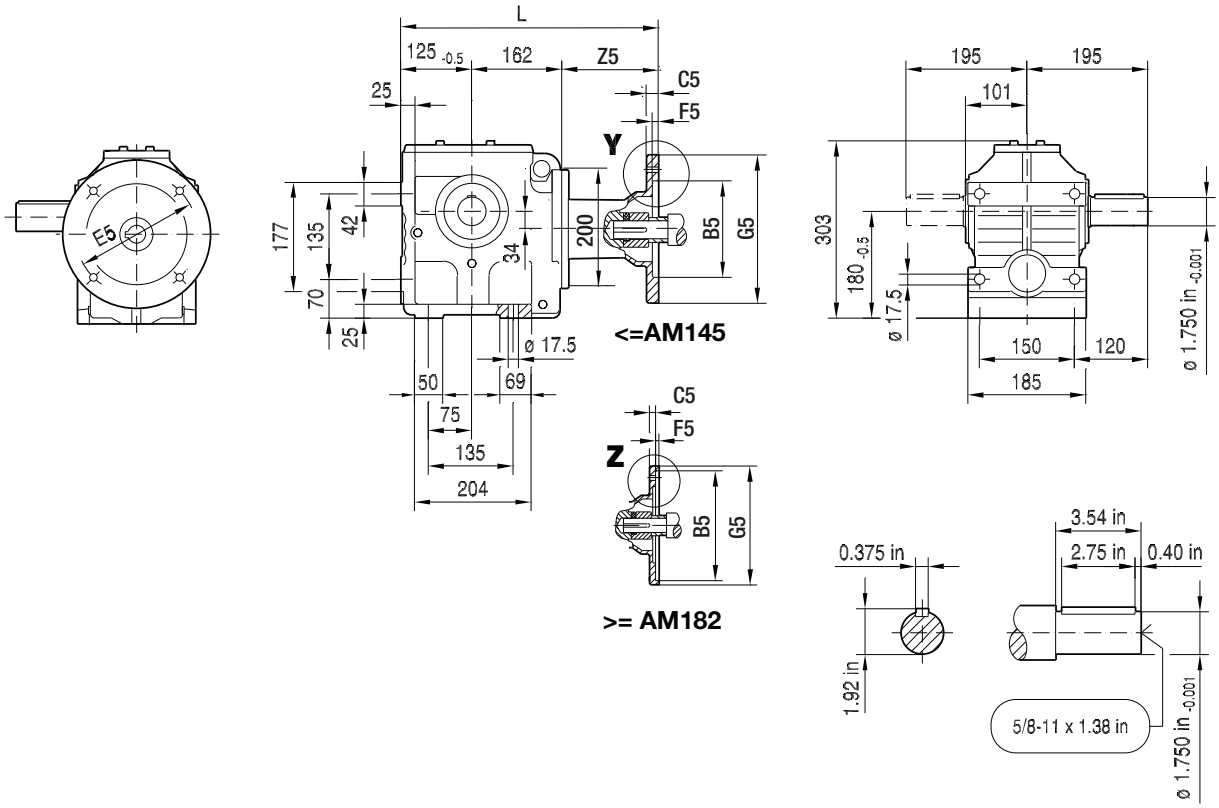


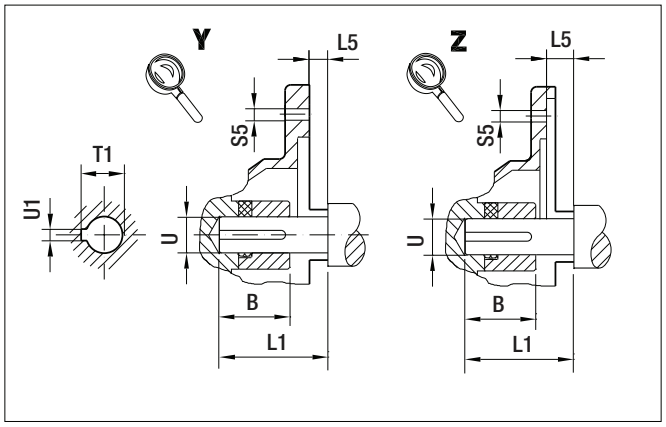
(→ 132)	B	B5	C5	E5	F5	G5	L	L1	L5	S5	T1	U	U1	Z5
AM56	1.23 in	4.50 in	11	5.875 in	4.5	170	329	1.88 in	-0.18 in	10.5	0.71 in	0.625 in	0.188 in	87
AM143	1.68 in	4.50 in	12	5.875 in	4.5	170	353	2.25 in	0.13 in	10.5	0.98 in	0.875 in	0.188 in	110.5
AM145	1.68 in	4.50 in	12	5.875 in	4.5	170	353	2.25 in	0.13 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 686. For dimensions of compound gear units (ex: ST67R37) see page 648.

02 022 00 11

S77..



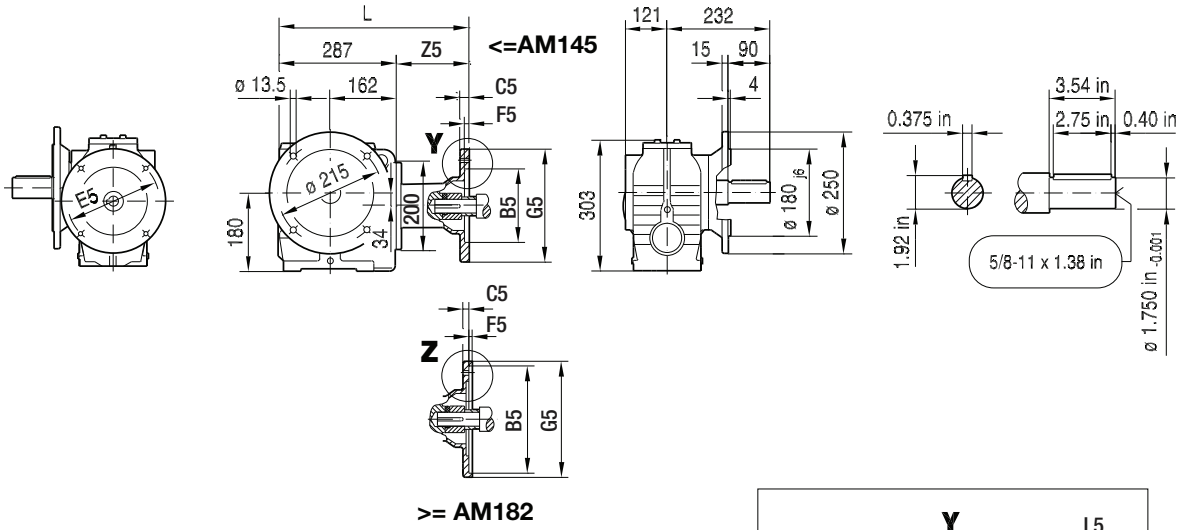


(→ 📖 132)	B	B5	C5	E5	F5	G5	L	L1	L5	S5	T1	U	U1	Z5
AM56	1.23 in	4.50 in	11	5.875 in	4.5	170	368	1.88 in	-0.18 in	10.5	0.71 in	0.625 in	0.188 in	81
AM143	1.68 in	4.50 in	12	5.875 in	4.5	170	391	2.25 in	0.13 in	10.5	0.98 in	0.875 in	0.188 in	103.5
AM145	1.68 in	4.50 in	12	5.875 in	4.5	170	391	2.25 in	0.13 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	427	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	427	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	476	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 682. For dimensions of compound gear units (ex: S77R37) see page 648.

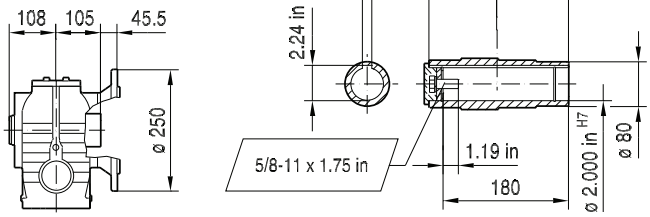
02 023 00 11

SF77..

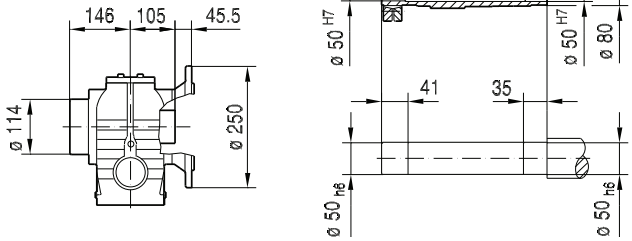


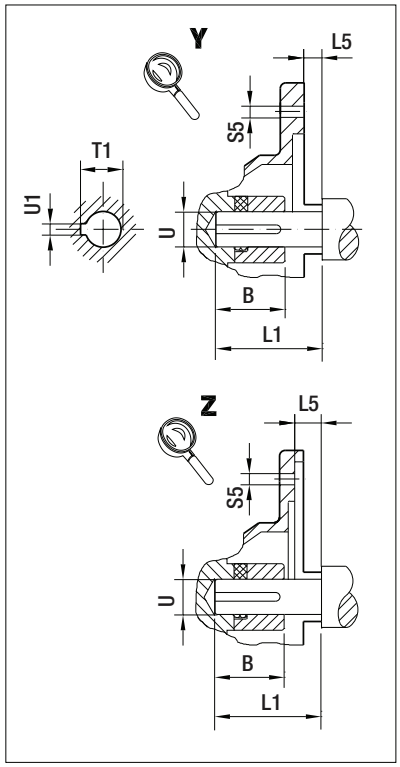
>= AM182

SAF77..



SHF77..



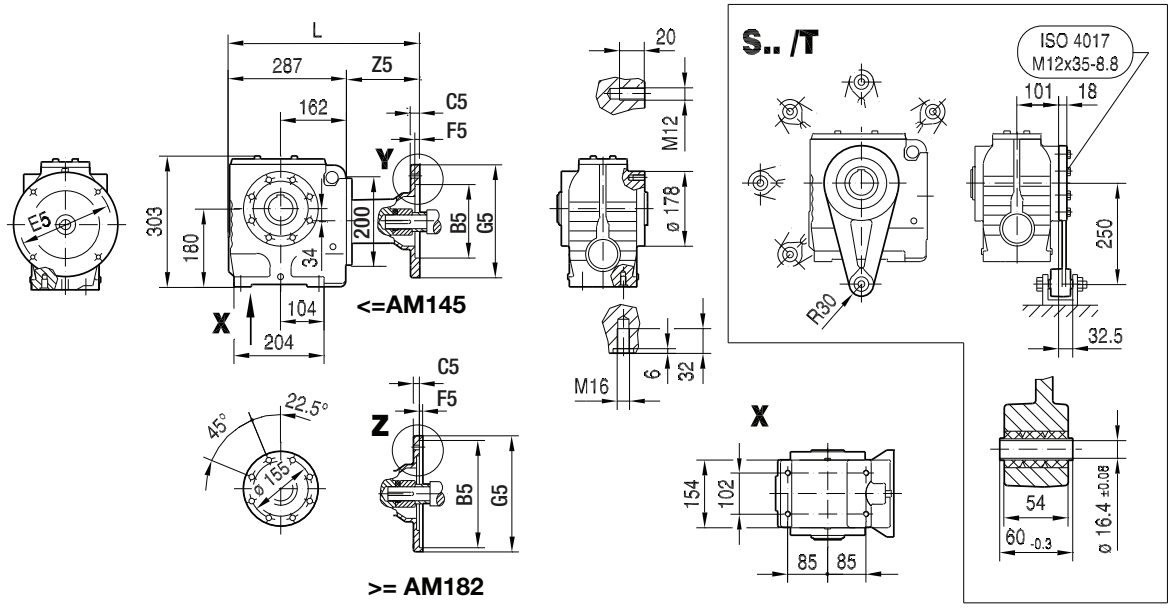


(→ 132)	B	B5	C5	E5	F5	G5	L	L1	L5	S5	T1	U	U1	Z5
AM56	1.23 in	4.50 in	11	5.875 in	4.5	170	368	1.88 in	-0.18 in	10.5	0.71 in	0.625 in	0.188 in	81
AM143	1.68 in	4.50 in	12	5.875 in	4.5	170	391	2.25 in	0.13 in	10.5	0.98 in	0.875 in	0.188 in	103.5
AM145	1.68 in	4.50 in	12	5.875 in	4.5	170	391	2.25 in	0.13 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	427	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	427	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	476	3.38 in	0.25 in	15	1.52 in	1.375 in	0.312 in	188.5

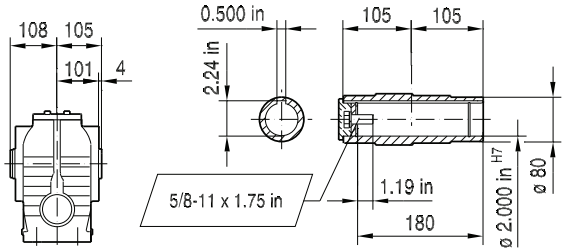
Note: Dimensions in mm unless otherwise noted. For all available output shaft diameters, see page 682. For dimensions of compound gear units (ex: SF77R37) see page 648.

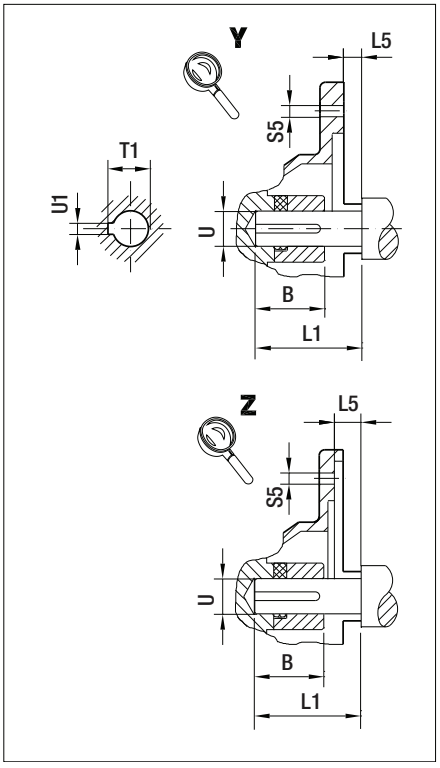
02 024 00 11

SA77..

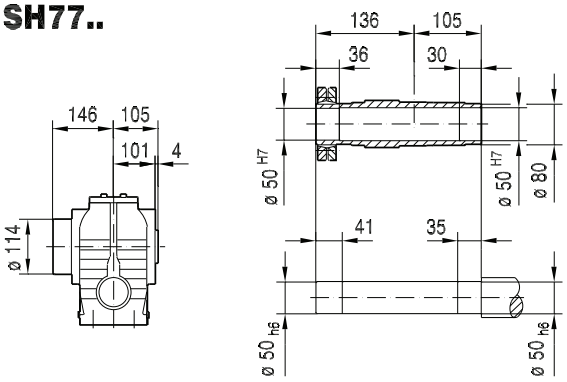


SA77..





SH77..

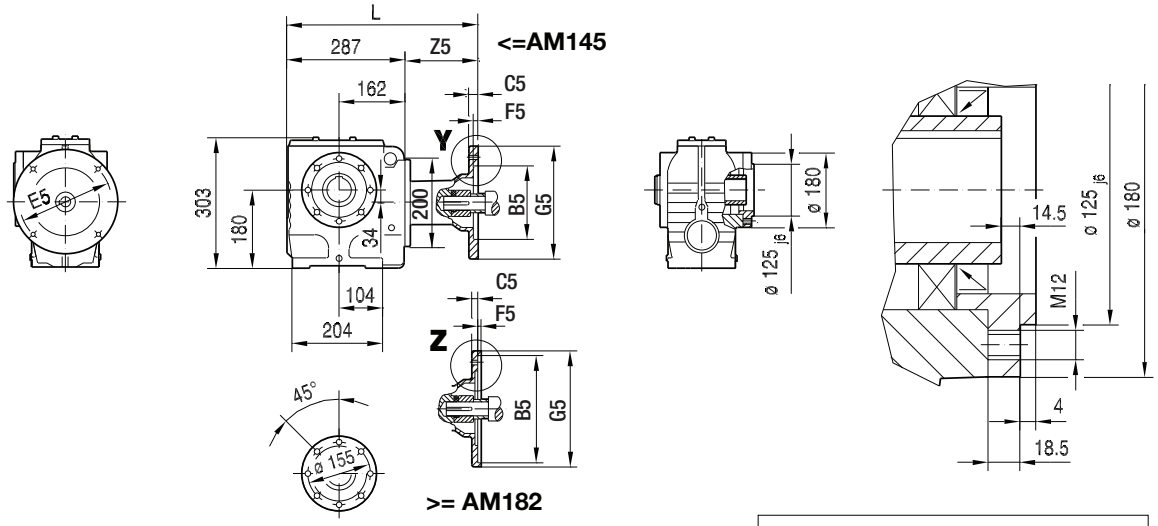


(→ 132)	B	B5	C5	E5	F5	G5	L	L1	L5	S5	T1	U	U1	Z5
AM56	1.23 in	4.50 in	11	5.875 in	4.5	170	368	1.88 in	-0.18 in	10.5	0.71 in	0.625 in	0.188 in	81
AM143	1.68 in	4.50 in	12	5.875 in	4.5	170	391	2.25 in	0.13 in	10.5	0.98 in	0.875 in	0.188 in	103.5
AM145	1.68 in	4.50 in	12	5.875 in	4.5	170	391	2.25 in	0.13 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	427	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	427	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	476	3.38 in	0.25 in	15	1.52 in	1.375 in	0.312 in	188.5

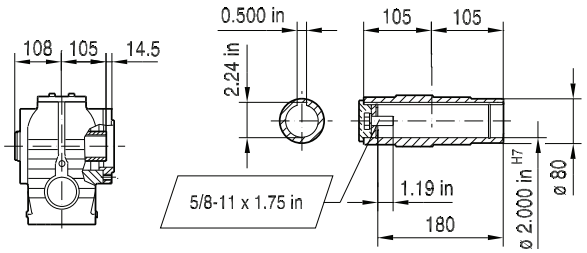
Note: Dimensions in mm unless otherwise noted. For all available output shaft diameters, see page 684. For dimensions of compound gear units (ex: SA77R37) see page 648.

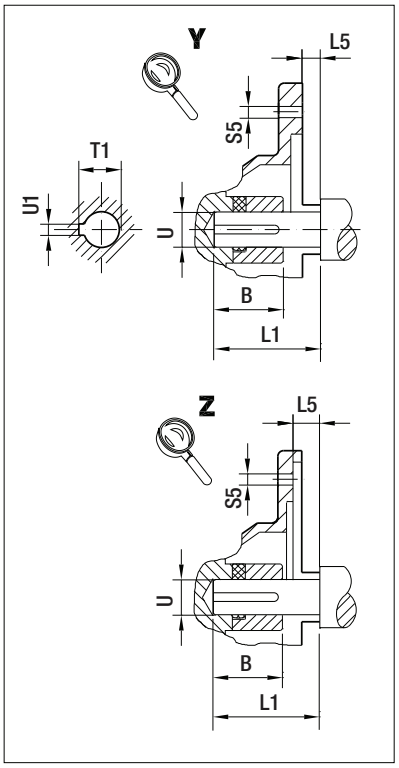
02 025 00 11

SAZ77..

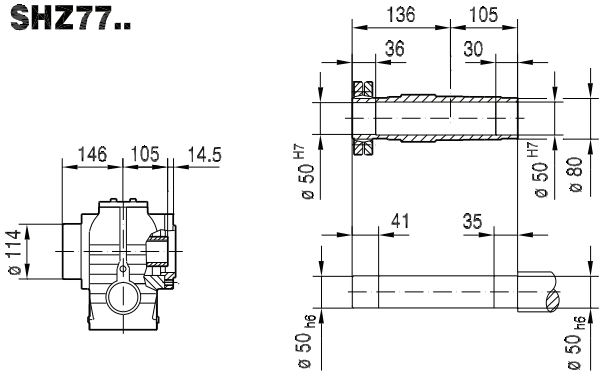


SAZ77..





SHZ77..

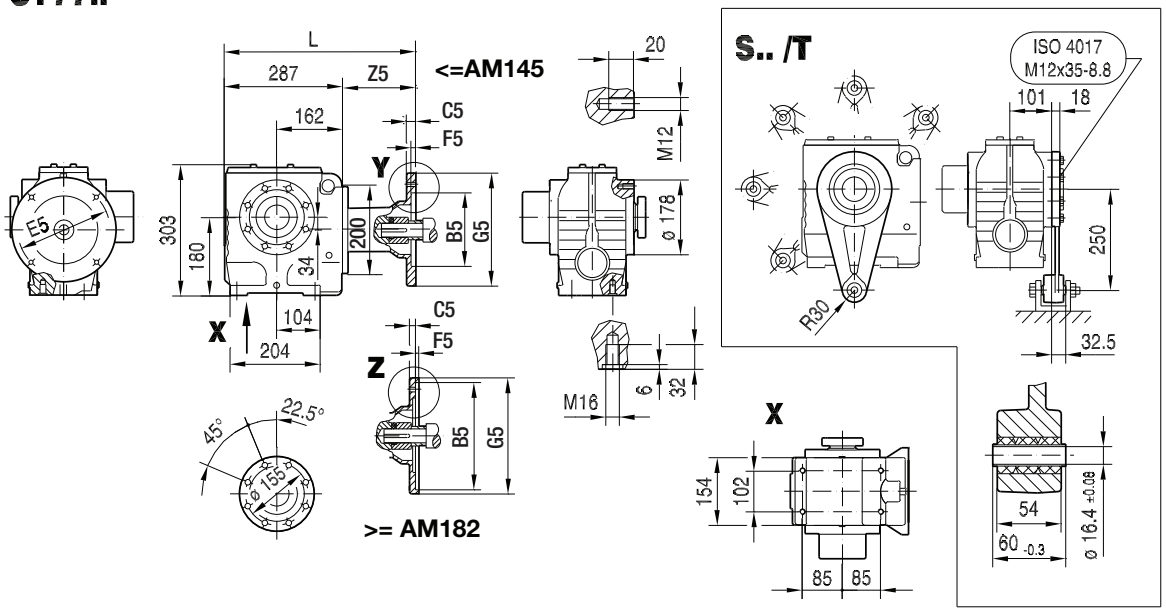


(→ 132)	B	B5	C5	E5	F5	G5	L	L1	L5	S5	T1	U	U1	Z5
AM56	1.23 in	4.50 in	11	5.875 in	4.5	170	368	1.88 in	-0.18 in	10.5	0.71 in	0.625 in	0.188 in	81
AM143	1.68 in	4.50 in	12	5.875 in	4.5	170	391	2.25 in	0.13 in	10.5	0.98 in	0.875 in	0.188 in	103.5
AM145	1.68 in	4.50 in	12	5.875 in	4.5	170	391	2.25 in	0.13 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	427	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	427	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	476	3.38 in	0.25 in	15	1.52 in	1.375 in	0.312 in	188.5

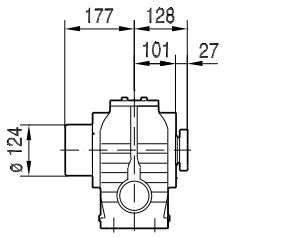
Note: Dimensions in mm unless otherwise noted. For all available output shaft diameters, see page 684. For dimensions of compound gear units (ex: SAZ77R37) see page 648.

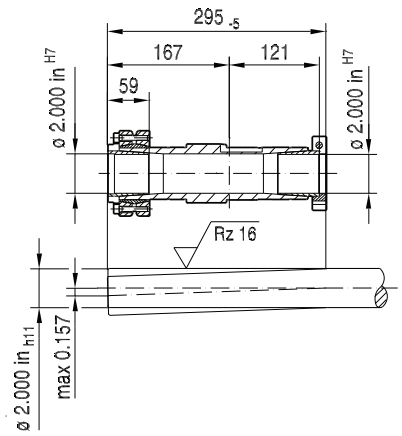
02 026 00 11

ST77..

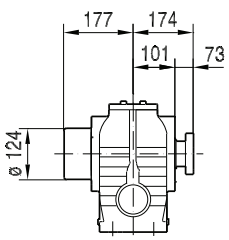


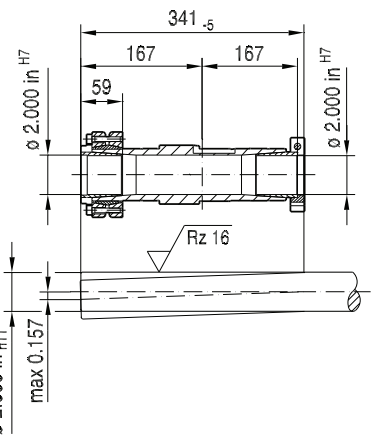
NON-Symmetrical

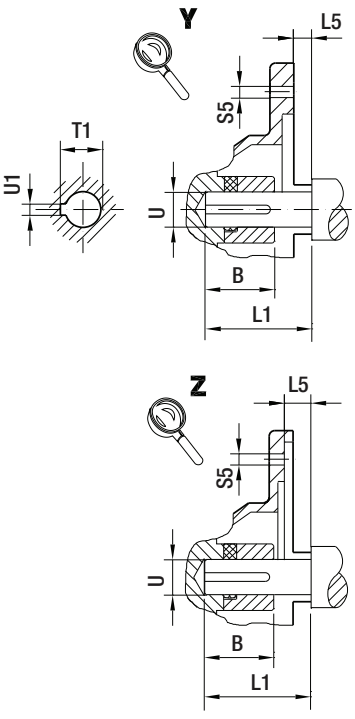




Symmetrical





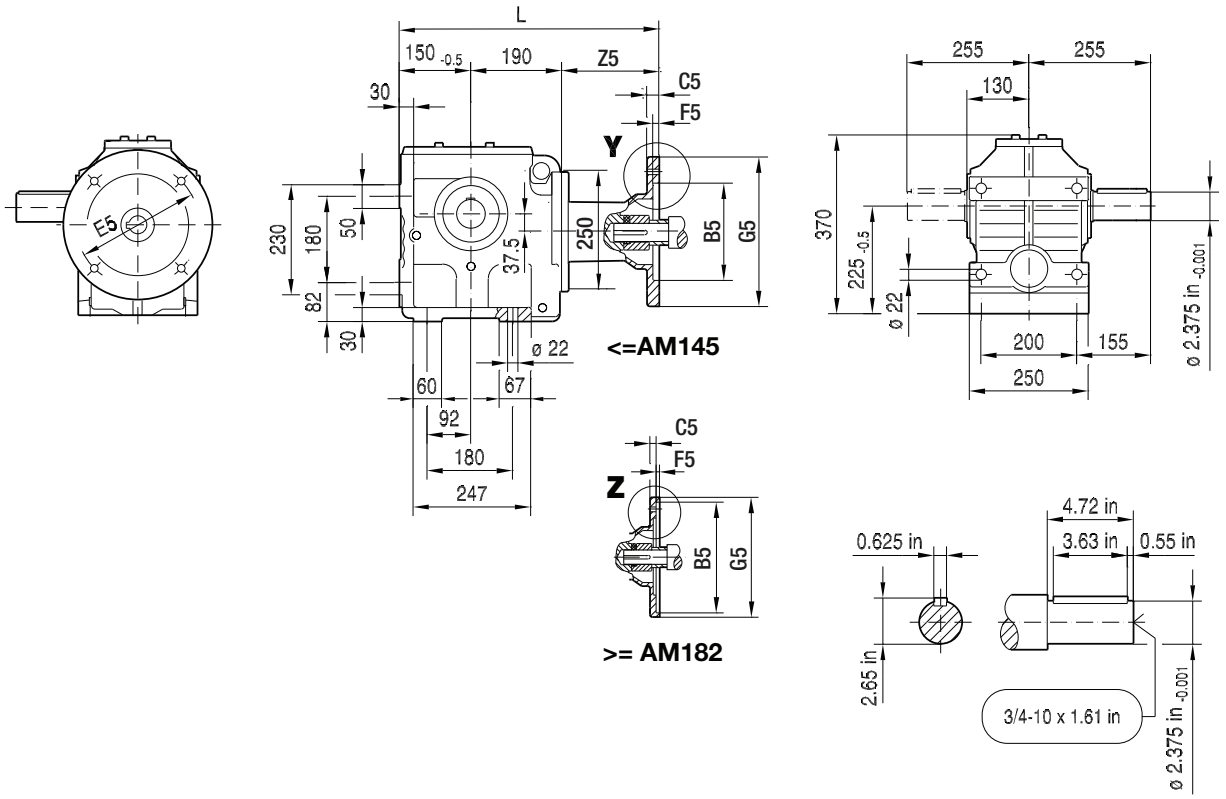


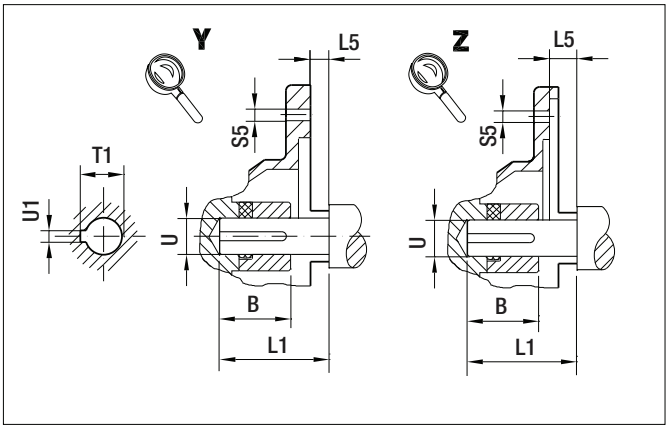
(→ 📖 132)	B	B5	C5	E5	F5	G5	L	L1	L5	S5	T1	U	U1	Z5
AM56	1.23 in	4.50 in	11	5.875 in	4.5	170	368	1.88 in	-0.18 in	10.5	0.71 in	0.625 in	0.188 in	81
AM143	1.68 in	4.50 in	12	5.875 in	4.5	170	391	2.25 in	0.13 in	10.5	0.98 in	0.875 in	0.188 in	103.5
AM145	1.68 in	4.50 in	12	5.875 in	4.5	170	391	2.25 in	0.13 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	427	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	427	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	476	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 686. For dimensions of compound gear units (ex: ST77R37) see page 648.

S87..

02 027 00 11



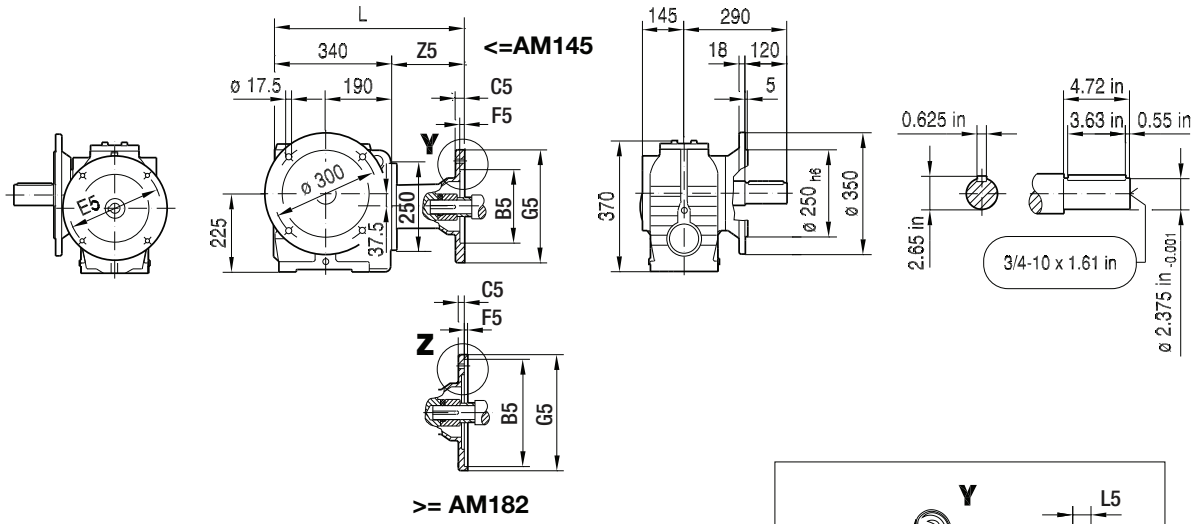


(→ 132)	B	B5	C5	E5	F5	G5	L	L1	L5	S5	T1	U	U1	Z5
AM143	1.68 in	4.50 in	12	5.875 in	4.5	170	439	2.25 in	0.13 in	10.5	0.98 in	0.875 in	0.188 in	98.5
AM145	1.68 in	4.50 in	12	5.875 in	4.5	170	439	2.25 in	0.13 in	10.5	0.98 in	0.875 in	0.188 in	98.5
AM182	2.10 in	8.50 in	10	7.25 in	5	228	475	2.75 in	0.13 in	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	475	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	524	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	574	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	581	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 682. For dimensions of compound gear units (ex: S87R57) see page 648.

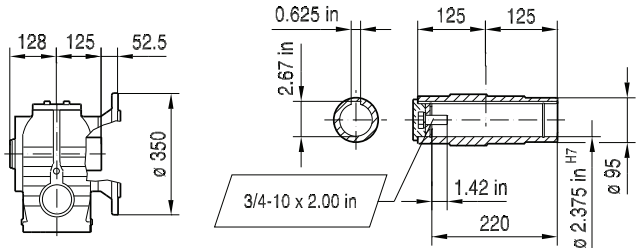
02 028 00 11

SF87..

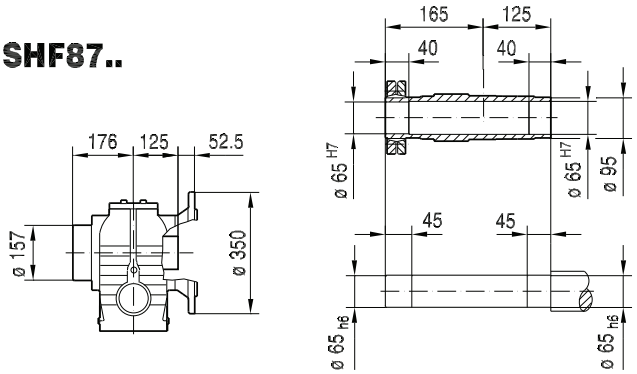


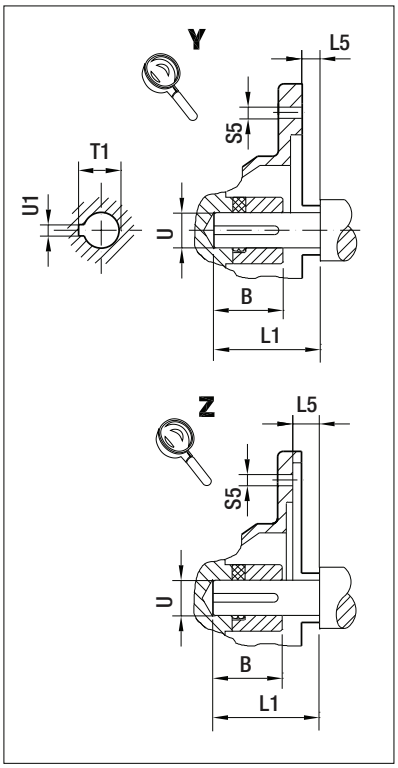
>= AM182

SAF87..



SHF87..



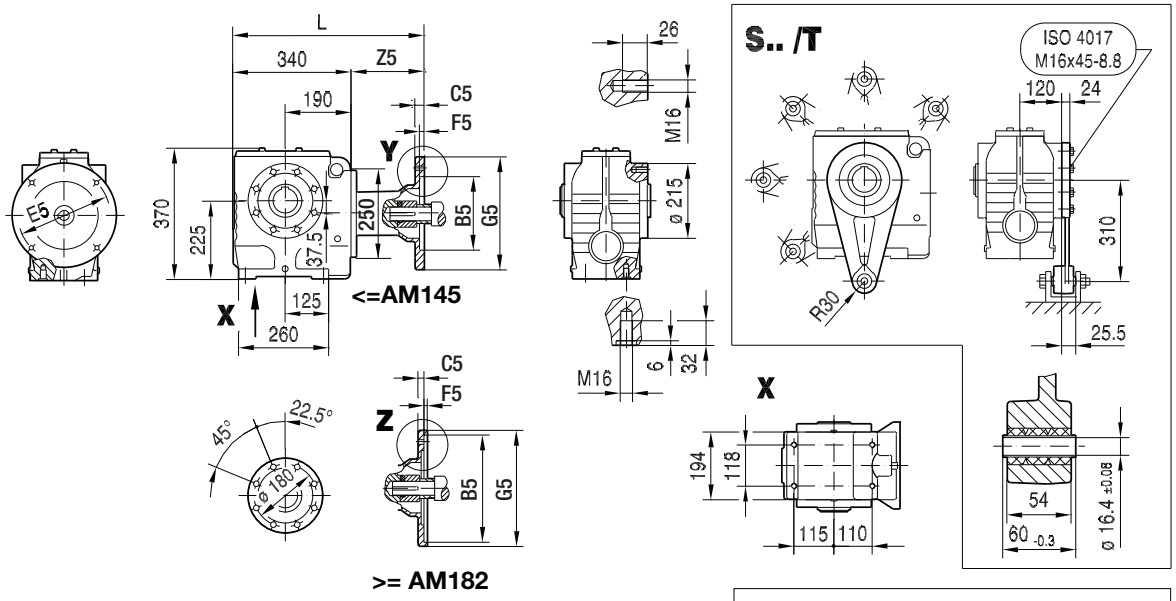


(→ 132)	B	B5	C5	E5	F5	G5	L	L1	L5	S5	T1	U	U1	Z5
AM143	1.68 in	4.50 in	12	5.875 in	4.5	170	439	2.25 in	0.13 in	10.5	0.98 in	0.875 in	0.188 in	98.5
AM145	1.68 in	4.50 in	12	5.875 in	4.5	170	439	2.25 in	0.13 in	10.5	0.98 in	0.875 in	0.188 in	98.5
AM182	2.10 in	8.50 in	10	7.25 in	5	228	475	2.75 in	0.13 in	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	475	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	524	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	574	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	581	4.62 in	0.25 in	15	2.10 in	1.875 in	0.500 in	241

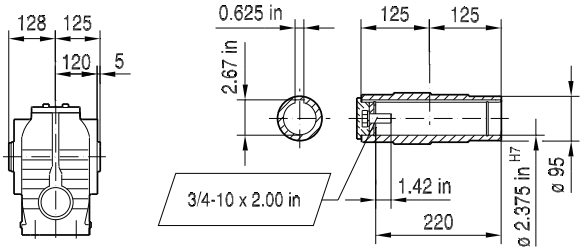
Note: Dimensions in mm unless otherwise noted. For all available output shaft diameters, see page 682. For dimensions of compound gear units (ex: SF87R57) see page 648.

02 029 00 11

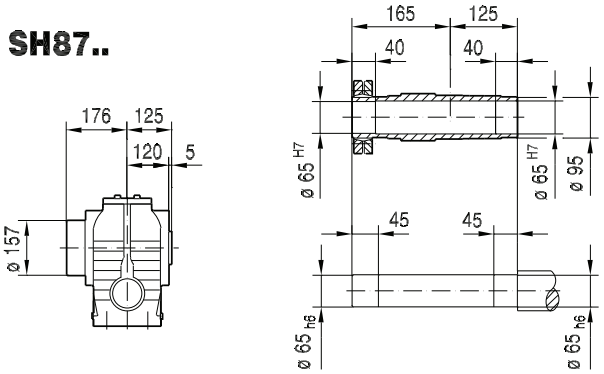
SA87..

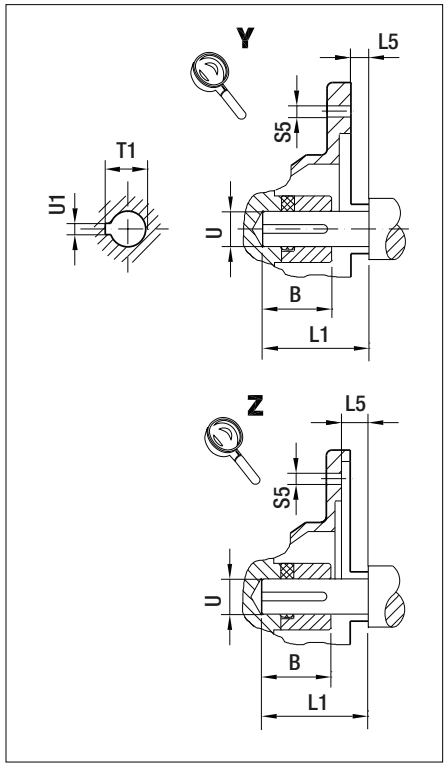


SA87..



SH87..



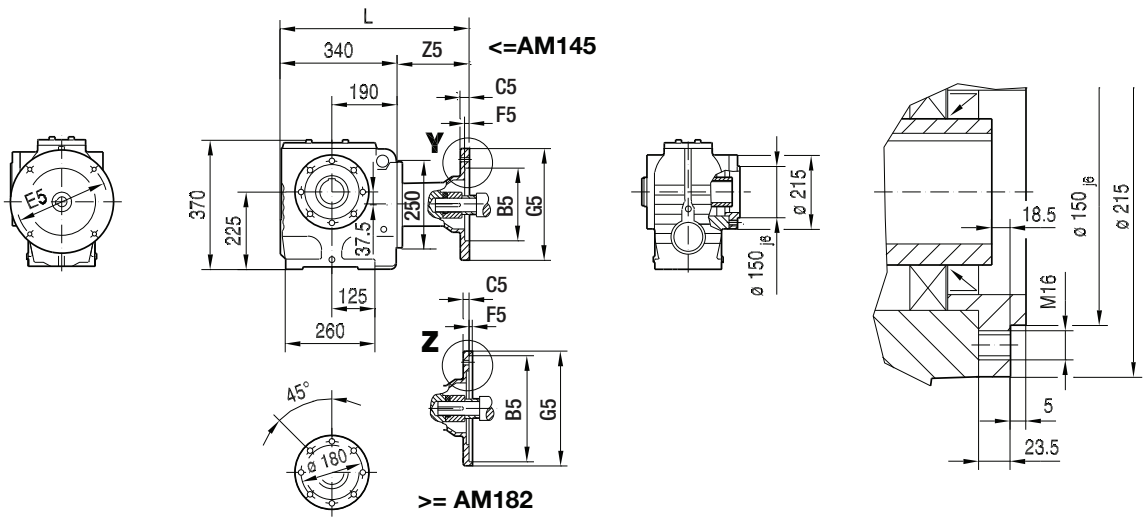


(→ 📖 132)	B	B5	C5	E5	F5	G5	L	L1	L5	S5	T1	U	U1	Z5
AM143	1.68 in	4.50 in	12	5.875 in	4.5	170	439	2.25 in	0.13 in	10.5	0.98 in	0.875 in	0.188 in	98.5
AM145	1.68 in	4.50 in	12	5.875 in	4.5	170	439	2.25 in	0.13 in	10.5	0.98 in	0.875 in	0.188 in	98.5
AM182	2.10 in	8.50 in	10	7.25 in	5	228	475	2.75 in	0.13 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	475	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	524	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	574	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	581	4.62 in	0.25 in	15	2.10 in	1.875 in	0.500 in	241

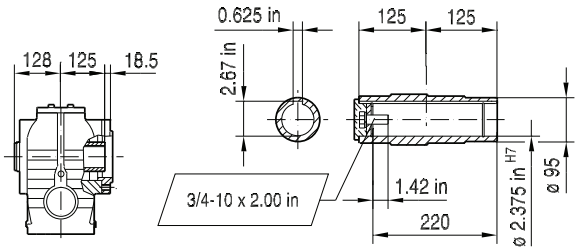
Note: Dimensions in mm unless otherwise noted. For all available output shaft diameters, see page 684. For dimensions of compound gear units (ex: SA87R57) see page 648.

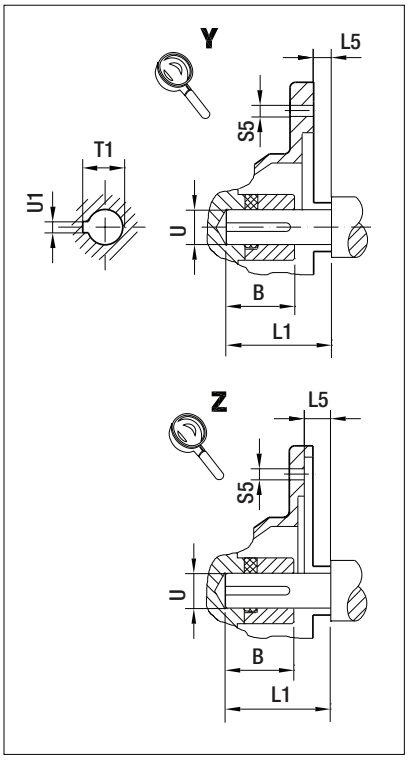
02 030 00 11

SAZ87..

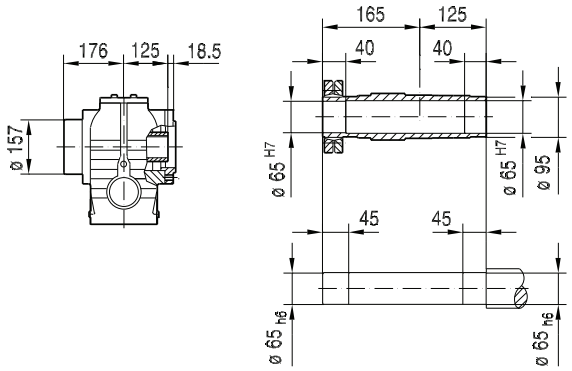


SAZ87..





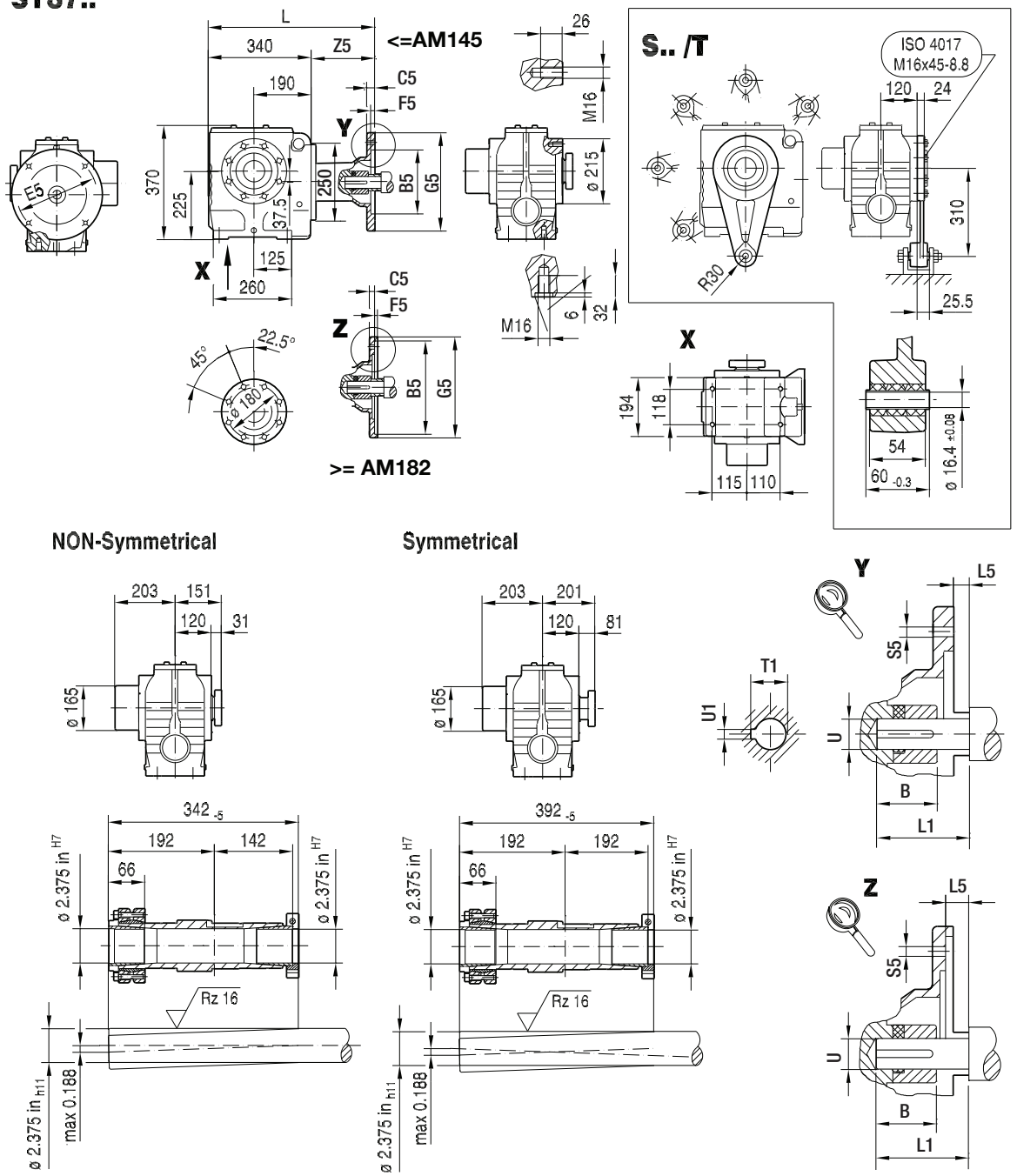
SHZ87..



(→ 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	439	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	439	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	475	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	475	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	524	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	574	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	581	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 684. For dimensions of compound gear units (ex: SAZ87R57) see page 648.

02 031 00 11

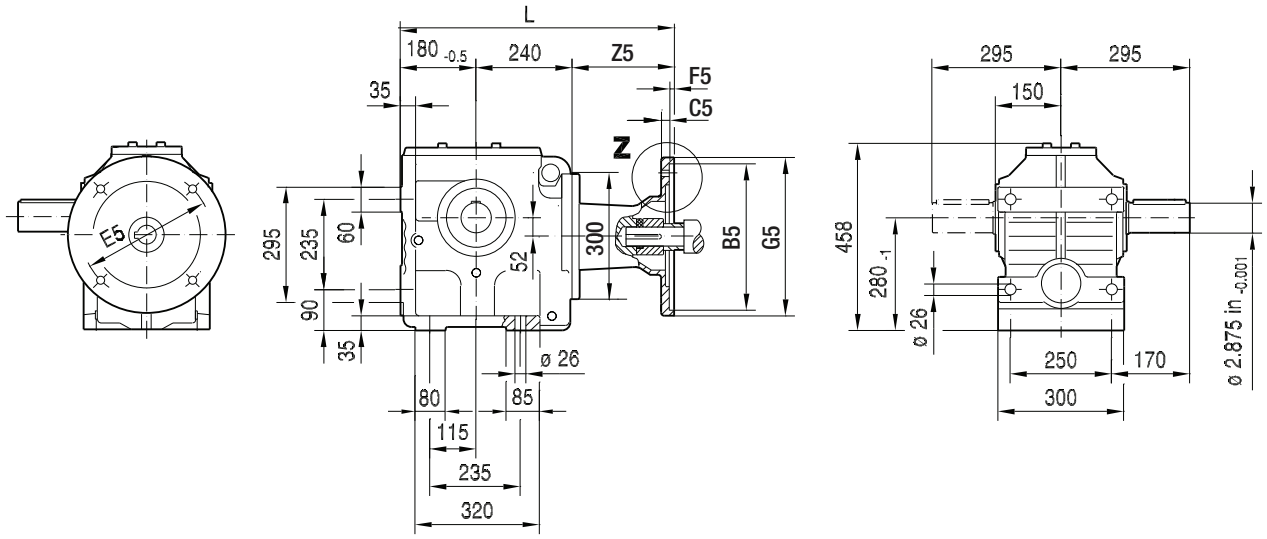


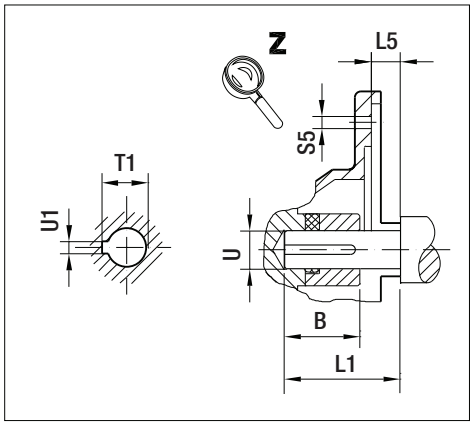
(→ 132)	B	B5	C5	E5	F5	G5	L	L1	L5	S5	T1	U	U1	Z5
AM143	1.68 in	4.50 in	12	5.875 in	4.5	170	439	2.25 in	0.13 in	10.5	0.98 in	0.875 in	0.188 in	98.5
AM145	1.68 in	4.50 in	12	5.875 in	4.5	170	439	2.25 in	0.13 in	10.5	0.98 in	0.875 in	0.188 in	98.5
AM182	2.10 in	8.50 in	10	7.25 in	5	228	475	2.75 in	0.13 in	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	475	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	524	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	574	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	581	4.62 in	0.25 in	15	2.10 in	1.875 in	0.500 in	241

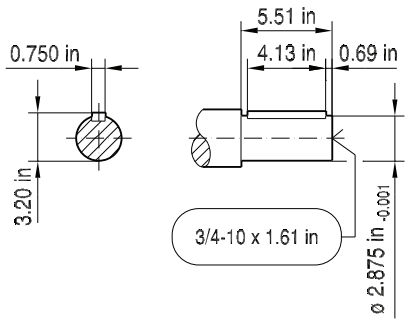
Note: Dimensions in mm unless otherwise noted. For all available output shaft diameters, see page 686. For dimensions of compound gear units (ex: ST87R57) see page 648.

02 032 00 11

S97..





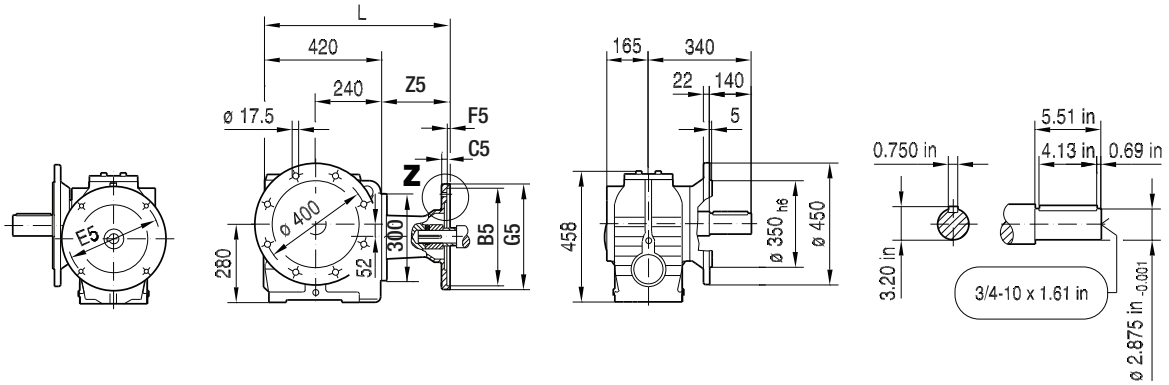


(→ 132)	B	B5	C5	E5	F5	G5	L	L1	L5	S5	T1	U	U1	Z5
AM182	2.10 in	8.50 in	10	7.25 in	5	228	550	2.75 in	0.13 in	15	1.24 in	1.125 in	0.250 in	129.5
AM184	2.10 in	8.50 in	10	7.25 in	5	228	550	2.75 in	0.13 in	15	1.24 in	1.125 in	0.250 in	129.5
AM213/215	2.76 in	8.50 in	11	7.25 in	5	228	599	3.38 in	0.25 in	15	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	649	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	656	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	716	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	716	5.88 in	0.25 in	17.5	2.66 in	2.375 in	0.625 in	296

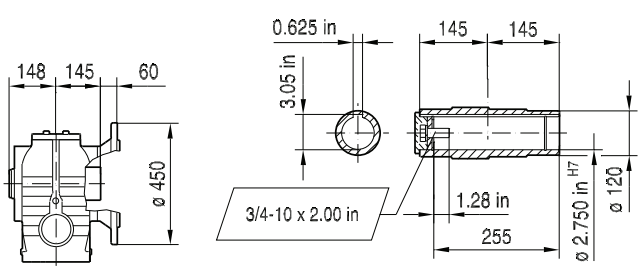
Note: Dimensions in mm unless otherwise noted. For all available output shaft diameters, see page 682. For dimensions of compound gear units (ex: S97R57) see page 648.

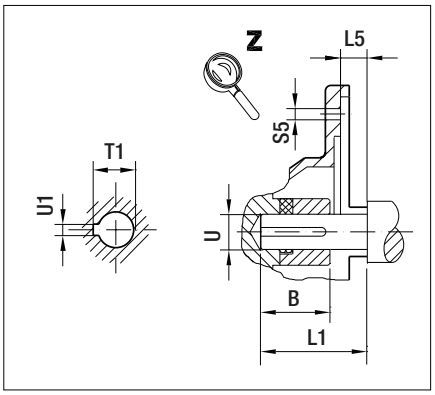
02 033 00 11

SF97..

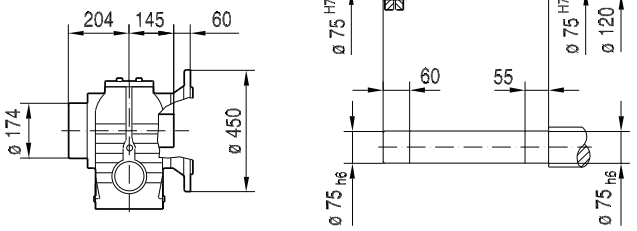


SAF97..





SHF97..

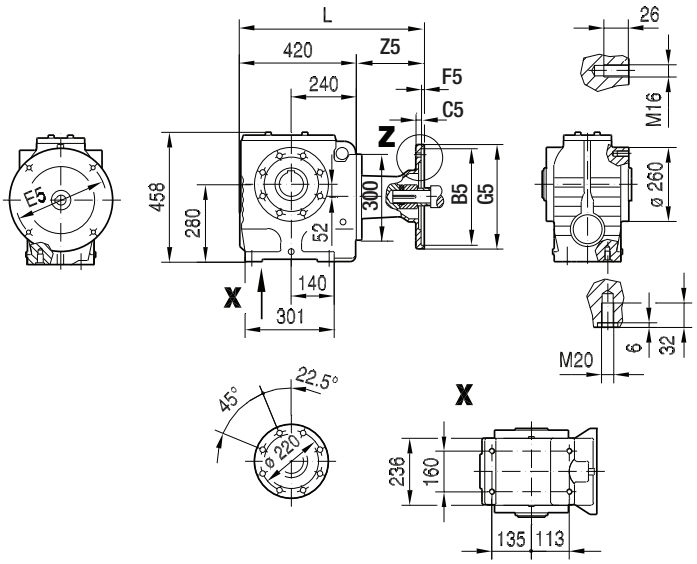


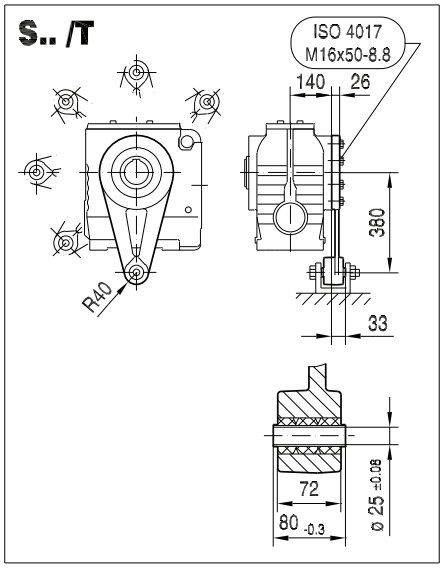
(→ 132)	B	B5	C5	E5	F5	G5	L	L1	L5	S5	T1	U	U1	Z5
AM182	2.10 in	8.50 in	10	7.25 in	5	228	550	2.75 in	0.13 in	15	1.24 in	1.125 in	0.250 in	129.5
AM184	2.10 in	8.50 in	10	7.25 in	5	228	550	2.75 in	0.13 in	15	1.24 in	1.125 in	0.250 in	129.5
AM213/215	2.76 in	8.50 in	11	7.25 in	5	228	599	3.38 in	0.25 in	15	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	649	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	656	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	716	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	716	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 682. For dimensions of compound gear units (ex: SF97R57) see page 648.

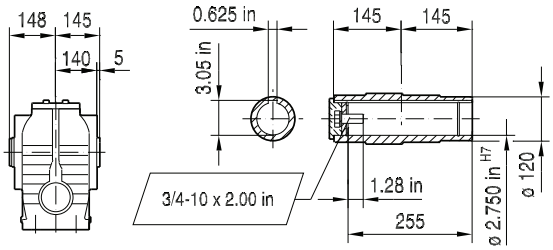
02 034 00 11

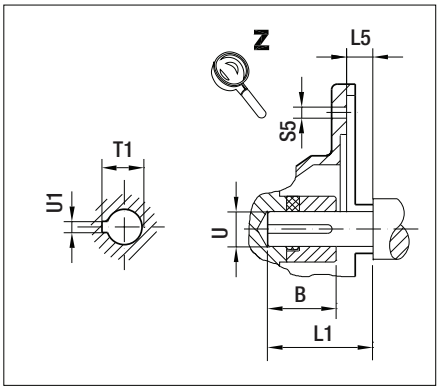
SA97..



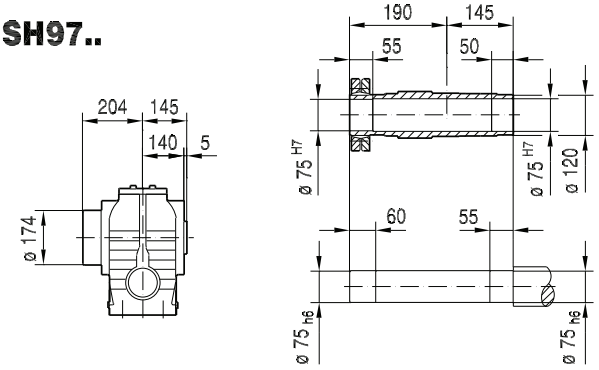


SA97..





SH97..

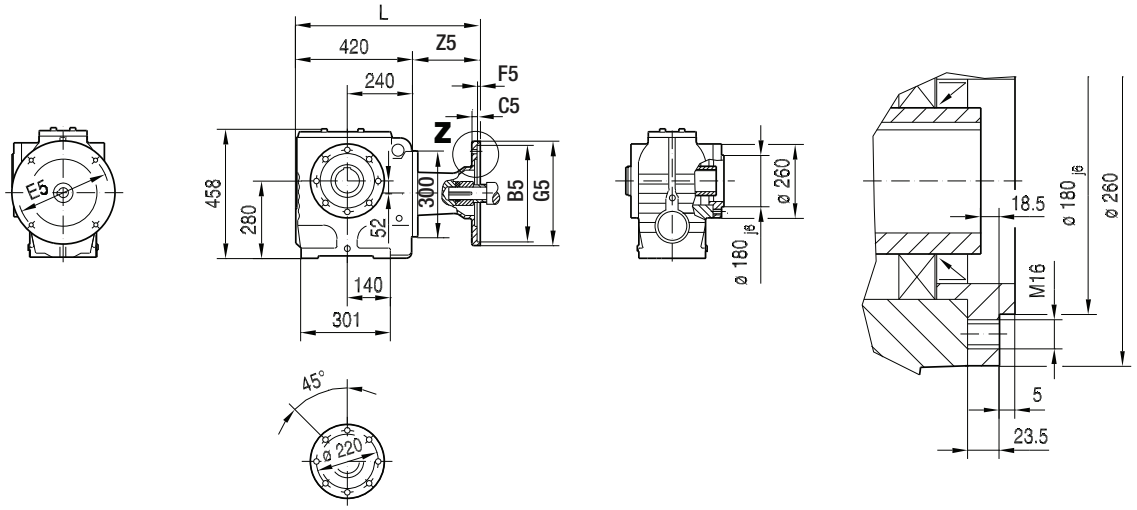


(→ 132)	B	B5	C5	E5	F5	G5	L	L1	L5	S5	T1	U	U1	Z5
AM182	2.10 in	8.50 in	10	7.25 in	5	228	550	2.75 in	0.13 in	15	1.24 in	1.125 in	0.250 in	129.5
AM184	2.10 in	8.50 in	10	7.25 in	5	228	550	2.75 in	0.13 in	15	1.24 in	1.125 in	0.250 in	129.5
AM213/215	2.76 in	8.50 in	11	7.25 in	5	228	599	3.38 in	0.25 in	15	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	649	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	656	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	716	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	716	5.88 in	0.25 in	17.5	2.66 in	2.375 in	0.625 in	296

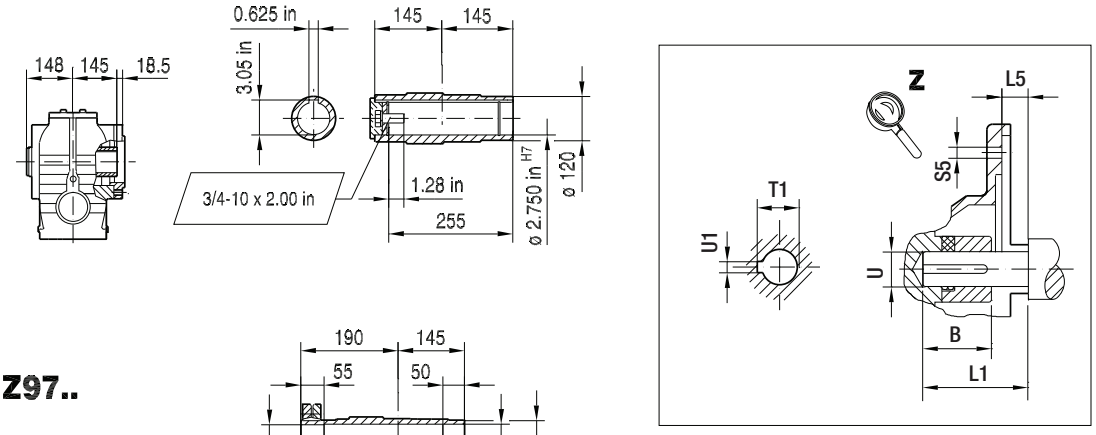
Note: Dimensions in mm unless otherwise noted. For all available output shaft diameters, see page 684. For dimensions of compound gear units (ex: SA97R57) see page 648.

02 035 00 11

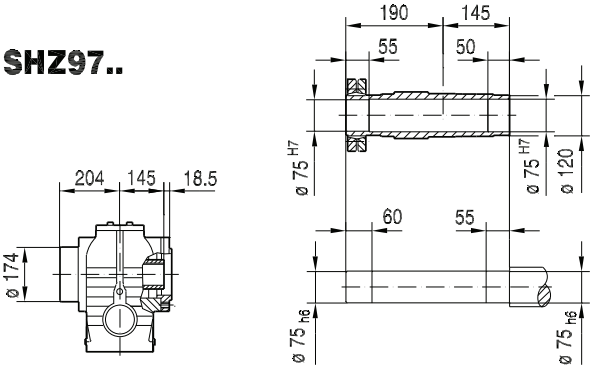
SAZ97..



SAZ97..



SHZ97..

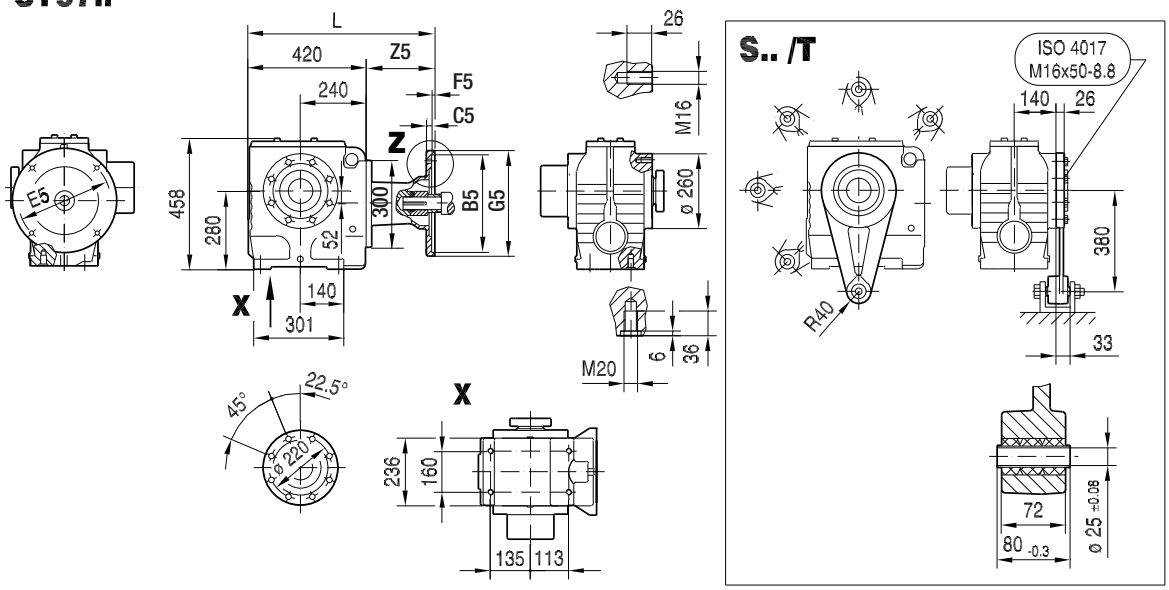


(→ 132)	B	B5	C5	E5	F5	G5	L	L1	L5	S5	T1	U	U1	Z5
AM182	2.10 in	8.50 in	10	7.25 in	5	228	550	2.75 in	0.13 in	15	1.24 in	1.125 in	0.250 in	129.5
AM184	2.10 in	8.50 in	10	7.25 in	5	228	550	2.75 in	0.13 in	15	1.24 in	1.125 in	0.250 in	129.5
AM213/215	2.76 in	8.50 in	11	7.25 in	5	228	599	3.38 in	0.25 in	15	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	649	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	656	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	716	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	716	5.88 in	0.25 in	17.5	2.66 in	2.375 in	0.625 in	296

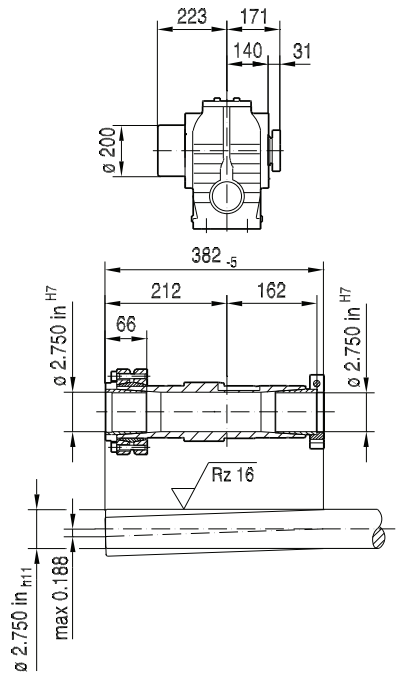
Note: Dimensions in mm unless otherwise noted. For all available output shaft diameters, see page 684. For dimensions of compound gear units (ex: SAZ97R57) see page 648.

02 036 00 11

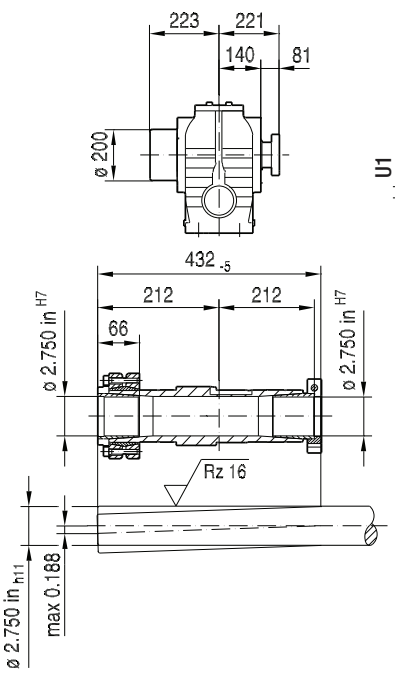
ST97..

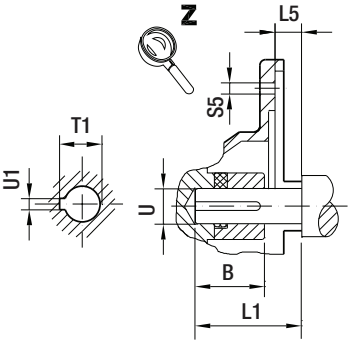


NON-Symmetrical



Symmetrical



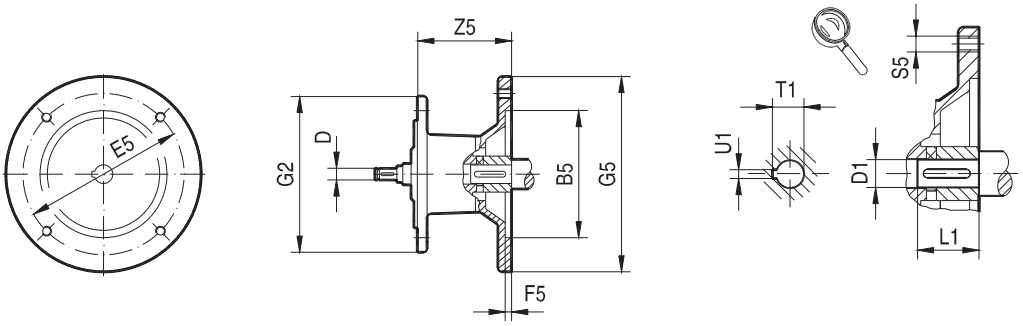


(→ 132)	B	B5	C5	E5	F5	G5	L	L1	L5	S5	T1	U	U1	Z5
AM182	2.10 in	8.50 in	10	7.25 in	5	228	550	2.75 in	0.13 in	15	1.24 in	1.125 in	0.250 in	129.5
AM184	2.10 in	8.50 in	10	7.25 in	5	228	550	2.75 in	0.13 in	15	1.24 in	1.125 in	0.250 in	129.5
AM213/215	2.76 in	8.50 in	11	7.25 in	5	228	599	3.38 in	0.25 in	15	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	649	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	656	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	716	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	716	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 686. For dimensions of compound gear units (ex: ST97R57) see page 648.

11.4 S.. AM.. [IEC dimensions]

23 002 100



		Dimensions in mm											
		B5	D	E5	F5	G2	G5	S5	Z5	D1	L1	T1	U1
S..37 S..47 S..57	**AM63**	95	10	115	3.5	120	140	M8	72	11	23	12.8	4
	AM71[1)]	110		130	4		160			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
S..67	**AM63**	95	10	115	3.5	160	140	M8	66	11	23	12.8	4
	AM71	110		130	4		160			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										
	AM132S/M[1)]	230	22	265			300		191	38	80	41.3	10
S..77	**AM63**	95	10	115	3.5	200	140	M8	60	11	23	12.8	4
	AM71	110		130	4		160			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										
	AM132S/M[1)]	230	22	265			300		179	38	80	41.3	10
	AM132ML[1)]		28										
S..87[2)]	**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										
	AM132S/M	230	22	265			300		174	38	80	41.3	10
	AM132ML		28										
	AM160[1)]	250	28	300	6		350	M16	232	42	110	45.3	12
	AM180[1)]		32							48		51.8	14

1) Check dimension (G5)/2 as adapter may protrude past the bottom of the feet on a foot-mounted gear unit.

2) Not with AM180

23 003 100

Fig.1

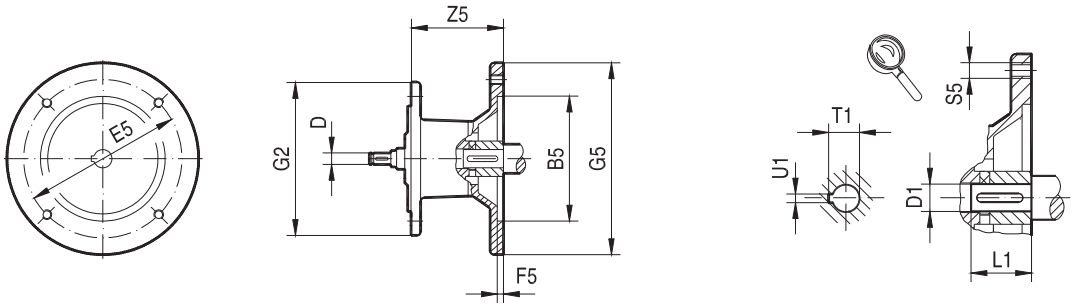


Fig.2

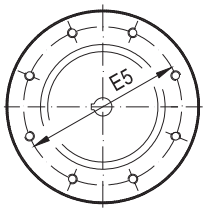
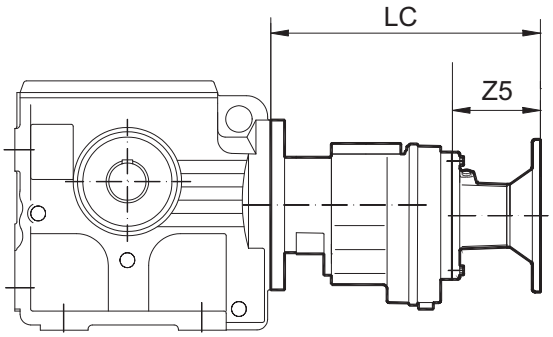


		Fig.	Dimensions in mm											
			B5	D	E5	F5	G2	G5	S5	Z5	D1	L1	T1	U1
S..97[1)]	**AM100**	1	180	16	215	5	300	250	M12	116	28	60	31.3	8
	AM112			18										
	AM132S/M		230	22	265			300		169	38	80	41.3	10
	AM132ML			28										
	AM160		250	28	300	6		350	M16	227	42	110	45.3	12
	AM180			32							48		51.8	14
	AM200		300	38	350	7		400		268	55		59.3	16

1) Not with AM200

11.5 S.. R.. AM.. [compound dimensions]



S_R_AM

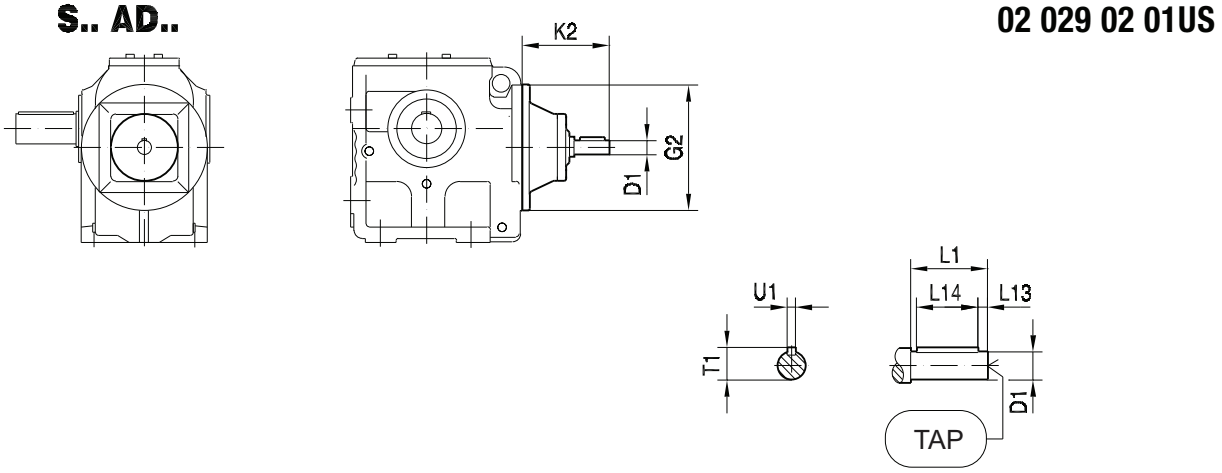
Large Unit	Small Unit	Adapter	Z5	LC
S..67	**R37**	AM56	93.5	258.5
		AM143	117	282
		AM145	117	282
S..77	**R37**	AM56	93.5	250.5
		AM143	117	274
		AM145	117	274
S...87	**R57**	AM56	87	303
		AM143	110.5	326.5
		AM145	110.5	326.5
		AM182	147.5	363.5
		AM184	147.5	363.5
		AM213/215	200.5	416.5
S..97	**R57**	AM56	87	298
		AM143	110.5	321.5
		AM145	110.5	321.5
		AM182	147.5	358.5
		AM184	147.5	358.5
		AM213/215	200.5	411.5

11.6 S.. AD.. [dimensions]

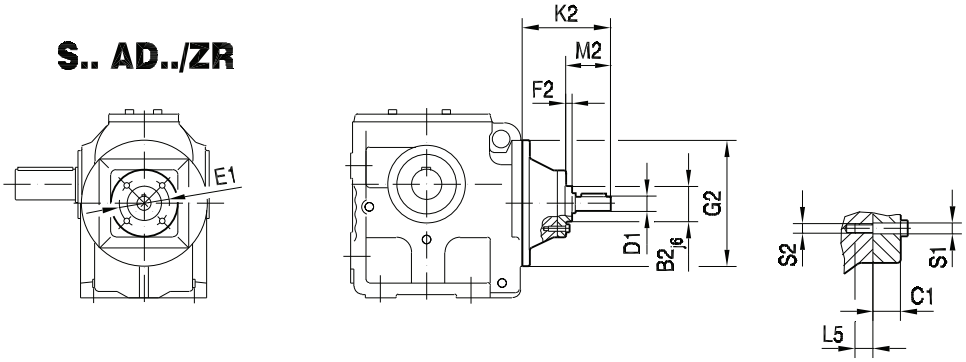
11.6.1 Input shaft - Inch

S.. AD..

02 029 02 01US



S.. AD../ZR

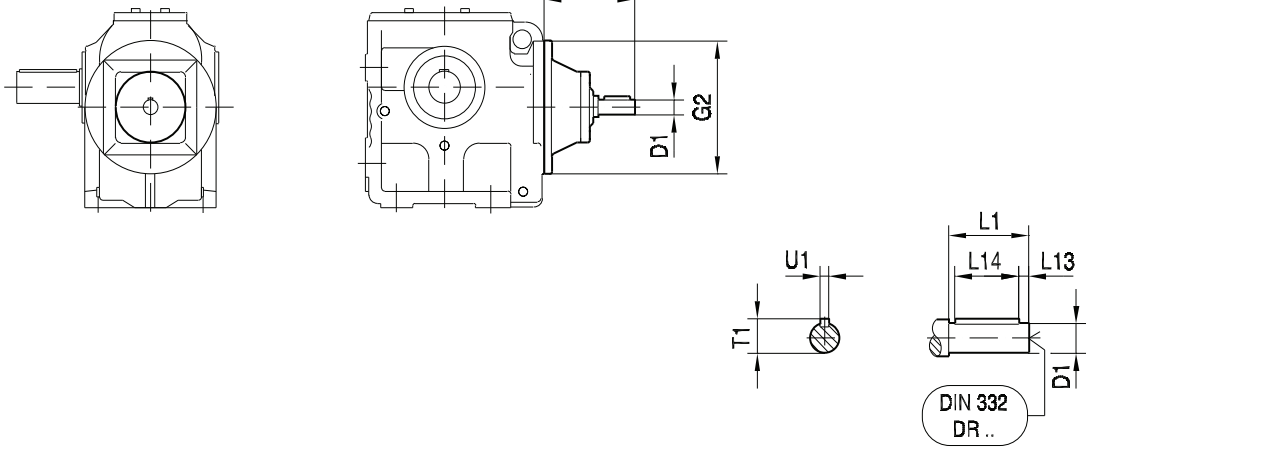


		B2	C1	D1	E1	F2	G2	K2	L1	L5	L13	L14	M2	S1	S2	T1	U1	TAP (inch)
S..37 **S..47** **S..57**	**AD1**	-	-	0.625 in	-	-	120	102	40	-	4	32	-	-	-	0.70 in	0.1875 in	1/4-20 x0.63
	AD2	55	13.5	0.750 in	80	8		130	40	12	4	32	50	9	M8	0.83 in		
S..67	**AD2**	55	13.5	0.750 in	80	8	160	123	40	12	4	32	50	9	M8	0.83 in	0.1875 in	1/4-20 x0.63
	AD3	70	15.5	0.875 in	105	8		159	50	16	5	40	60	11	M10	0.96 in		5/16-18 x0.87
S..77	**AD2**	55	13.5	0.750 in	80	8	200	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		5/16-18 x0.87
	AD4	100	16	1.375 in	130	13		224	80	20	5	70	95.5	13.5	M12	1.51 in	0.3125 in	1/2-13 x1.12
S..87	**AD2**	55	13.5	0.750 in	80	8	250	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		5/16-18 x0.87
	AD4	100	16	1.375 in	130	13		219	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		292	110	20	10	70	126	13.5	M12	1.79 in	0.375 in	5/8-11 x1.38
S..97	**AD3**	70	15.5	0.875 in	105	8	300	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
	AD5	120	24	1.625 in	180	11		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	

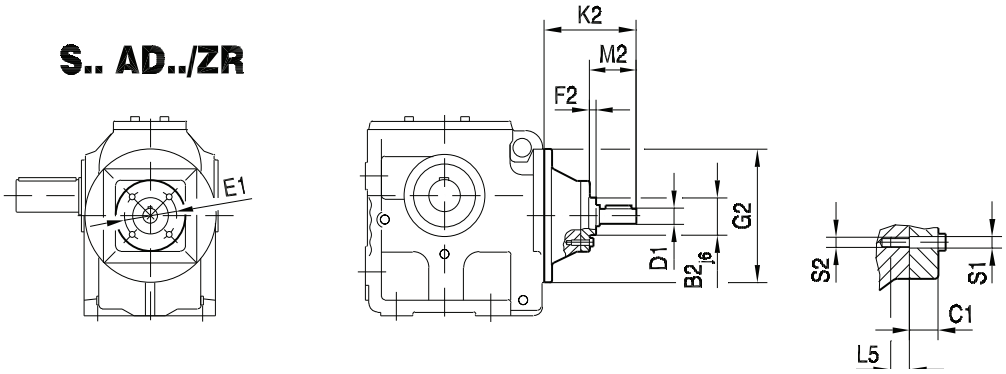
11.6.2 Input shaft - Metric

S.. AD..

02 029 02 01

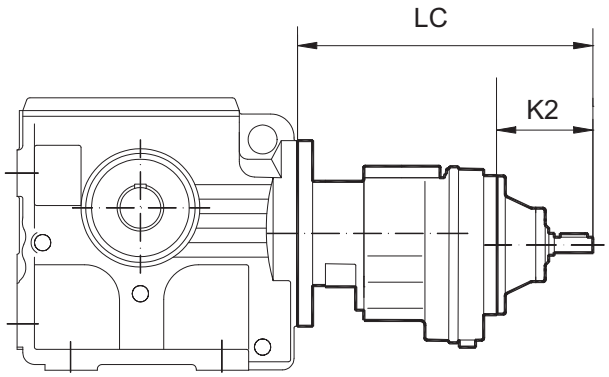


S.. AD../ZR



		B2	C1	E1	F2	G2	K2	L5	M2	S1	S2	D1	L1	L13	L14	T1	U1
S..37	**AD1**	-	-	-	-	120	102	-	-	-	-	16	40	4	32	18	5
S..47 **S..57**	**AD2 , AD2/ZR**	55	13.5	80	8		130	12	50	9	M8	19	40	4	32	21.5	6
S..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
S..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
S..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
S..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

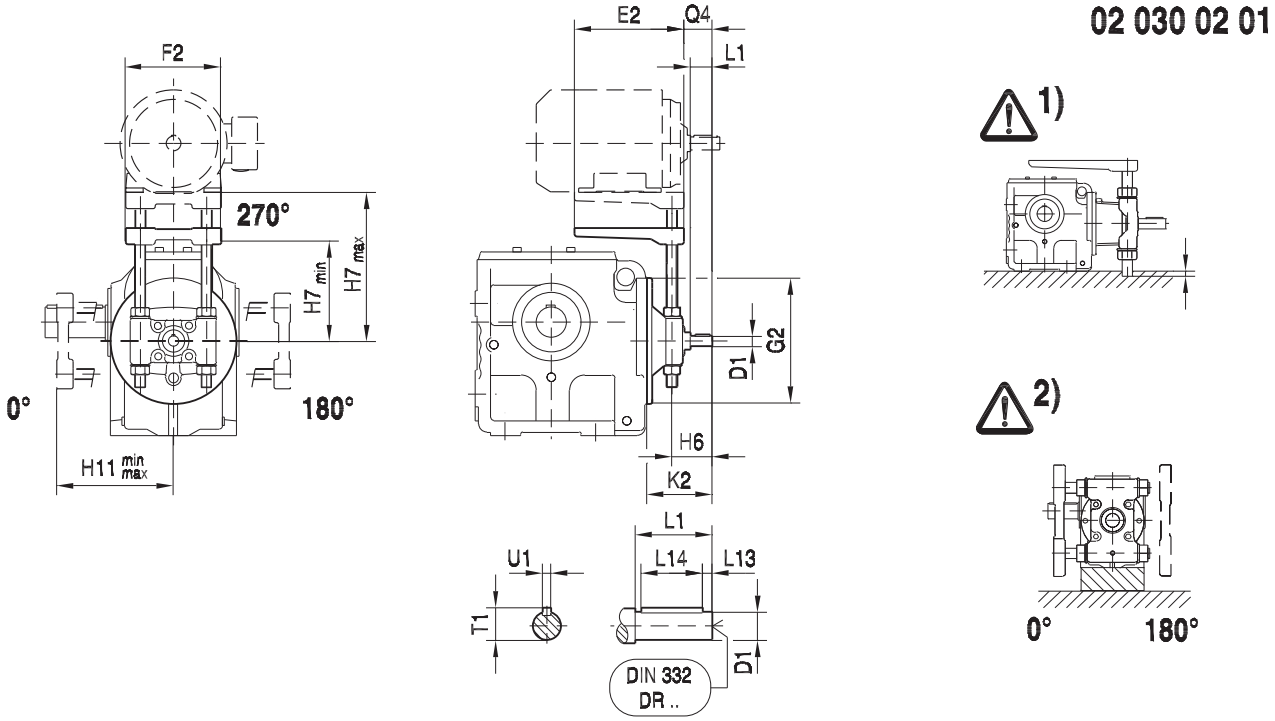
11.7 S.. R.. AD.. [compound dimensions]



S_R_AD

Large Unit	Small Unit	Adapter	K2	LC
S..67	**R37**	AD1	102	267
		AD2	130	295
S..77	**R37**	AD1	102	259
		AD2	130	287
S..87	**R57**	AD2	123	339
		AD3	159	375
S..97	**R57**	AD2	123	334
		AD3	159	370

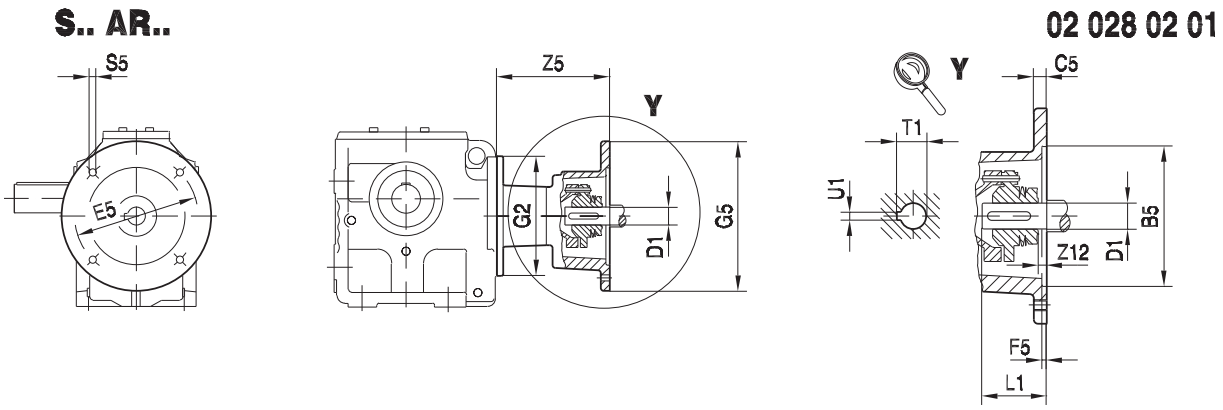
11.8 S.. AD../P [dimensions]



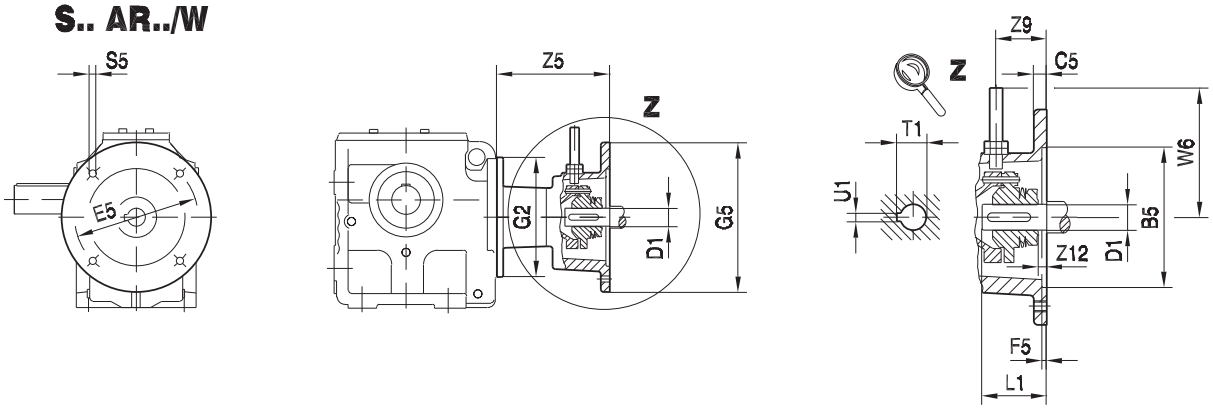
		E2	F2	G2	H6	H7 min	H7 max	H11 min	H11 max	K2	Q4	D1	L1	L13	L14	T1	U1	⚠ →131
S..37 **S..47**	**AD2/P**	195	180	120	65	110	165	95	165	130	43	19	40	4	32	21.5	6	1), 2)
S..57	**AD2/P**	195	180	120	65	140	200	110	165	130	43	19	40	4	32	21.5	6	1)
S..67	**AD2/P**	195	180	160	65	140	200	125	165	123	43	19	40	4	32	21.5	6	1)
	AD3/P	230	240		80	145	175	130	175	159	54	24	50	5	40	27	8	2)
S..77	**AD2/P**	195	180	200	65	175	260	145	200	116	43	19	40	4	32	21.5	6	
	AD3/P	230	240		80	180	230	150	230	151	54	24	50	5	40	27	8	
	AD4/P	345	291		118	190	280	150	210	224	83	38	80	5	70	41	10	1)
S..87	**AD2/P**	195	180	250	65	215	260	165	200	111	43	19	40	4	32	21.5	6	
	AD3/P	230	240		90	230	320	170	230	156	64	28	60	5	50	31	8	
	AD4/P	345	291		118	250	360	170	210	219	83	38	80	5	70	41	10	1)
	AD5/P	430	355		153	260	325	185	250	292	113	42	110	10	70	45	12	1), 2)
S..97	**AD3/P**	230	240	300	90	275	320	190	230	151	64	28	60	5	50	31	8	
	AD4/P	345	291		118	305	360	190	280	214	83	38	80	5	70	41	10	
	AD5/P	430	355		153	315	405	200	250	287	113	42	110	10	70	45	12	

11.9 S.. AR.. [dimensions]

S.. AR..



S.. AR../W



		B5	C5	E5	F5	G2	G5	S5	W6	Z5	Z9	Z12	D1	L1	T1	U1
S..37	**AR71**	110	10	130	3.5	120	160	M8	120	104	37	0	14	30	16.3	5
S..47	**AR80**	130	12	165	4.5		200	M10		140.5			19	40	21.8	6
S..57	**AR90**												24	50	27.3	8
	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
S..67	**AR90**												24	50	27.3	8
	AR100	180	15	215	5		250	M12	130	174.5	52	5.5	28	60	31.3	8
	AR112															
	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
S..77	**AR100**	180	15	215	5		250	M12	130	166.5	52	5.5	28	60	31.3	8
	AR112															
	AR132S/M	230	16	265	5		300	M12	145	234	72	5	38	80	41.3	10
	AR132ML															
	AR80	130	12	165	4.5	250	200	M10	120	122	37	0	19	40	21.8	6
	AR90												24	50	27.3	8
	AR100	180	15	215	5		250	M12	130	161.5	52	5.5	28	60	31.3	8
S..87	**AR112**															
	AR132S/M	230	16	265	5		300	M12	145	229	72	5	38	80	41.3	10
	AR132ML															
	AR160	250	18	300	6		350	M16	165	306.5	105	35	42	110	45.3	12
	AR180												48	110	51.8	14
	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
S..97	**AR132ML**															
	AR160	250	18	300	6		350	M16	165	301.5	105	35	42	110	45.3	12
	AR180												48	110	51.8	14

11.10 Mechanical ratings

11.10.1 S37

3400 - 2800 rpm 02 955 197

S37

i [ratio]	Worm ratio/ # starts	n_e = 3400 rpm				n_e = 3200 rpm				n_e = 2800 rpm			
		n_a [rpm]	T_{amax} [lb-in]	P_e [HP]	η [%]	n_a [rpm]	T_{amax} [lb-in]	P_e [HP]	η [%]	n_a [rpm]	T_{amax} [lb-in]	P_e [HP]	η [%]
157.43	38/1	**22**	690	0.42	57	**20**	710	0.40	57	**18**	725	0.36	57
144.40		**24**	675	0.44	58	**22**	690	0.42	58	**19**	710	0.38	57
122.94		**28**	655	0.50	58	**26**	665	0.47	58	**23**	690	0.43	58
106.00		**32**	630	0.55	59	**30**	635	0.52	59	**26**	675	0.48	59
98.80		**34**	620	0.58	59	**32**	635	0.55	59	**28**	665	0.51	59
86.36		**39**	600	0.63	60	**37**	610	0.60	60	**32**	635	0.55	60
80.96		**42**	585	0.66	60	**40**	600	0.63	60	**35**	635	0.58	60
71.44		**48**	485	0.63	58	**45**	565	0.67	60	**39**	620	0.63	61
63.33		**54**	325	0.55	51	**51**	450	0.63	57	**44**	595	0.68	61
53.83		**63**	255	0.52	49	**59**	285	0.54	50	**52**	470	0.66	59
55.93	27/2	**61**	620	0.78	77	**57**	630	0.75	76	**50**	635	0.67	76
51.30		**66**	600	0.82	77	**62**	620	0.80	77	**55**	635	0.72	76
43.68		**78**	585	0.94	77	**73**	595	0.90	77	**64**	620	0.82	77
37.66		**90**	565	1.0	78	**85**	575	0.99	78	**74**	600	0.91	78
35.10		**97**	550	1.1	78	**91**	565	1.0	78	**80**	585	0.95	78
30.68		**111**	540	1.2	78	**104**	550	1.2	78	**91**	565	1.0	78
28.76		**118**	515	1.2	78	**111**	540	1.2	78	**97**	565	1.1	78
25.38		**134**	415	1.2	77	**126**	470	1.2	78	**110**	550	1.2	79
22.50		**151**	275	0.93	71	**142**	380	1.1	76	**124**	505	1.3	79
19.13		**178**	210	0.87	69	**167**	240	0.90	70	**146**	390	1.2	77
19.89	24/5	**171**	370	1.2	86	**161**	380	1.1	86	**141**	390	1.0	86
18.24		**186**	365	1.2	86	**175**	370	1.2	86	**154**	390	1.1	86
15.53		**219**	345	1.3	86	**206**	355	1.3	86	**180**	370	1.2	86
13.39		**254**	325	1.5	86	**239**	345	1.5	86	**209**	365	1.3	86
12.48		**272**	325	1.6	86	**256**	335	1.6	86	**224**	355	2.0	86
10.91		**312**	310	1.7	86	**293**	320	1.7	86	**257**	345	1.6	87
10.23		**332**	310	1.9	87	**313**	320	1.9	87	**274**	335	1.7	87
9.02		**377**	275	1.9	86	**355**	300	2.0	87	**310**	320	1.7	87
8.00		**425**	175	1.5	82	**400**	255	1.9	86	**350**	310	2.0	87
6.80		**500**	140	1.3	81	**471**	160	1.5	82	**412**	255	1.9	86
6.33		**537**	210	2.1	87	**506**	240	2.1	88	**442**	285	2.3	88
5.38		**632**	175	2.0	87	**595**	195	2.1	87	**520**	230	2.1	88
4.86		**700**	160	2.0	87	**658**	170	2.0	87	**576**	210	2.3	88
3.97		**856**	125	2.0	86	**806**	135	2.0	87	**705**	170	2.1	88

All values reflect mechanical limits. Shaded area indicates additional thermal limitations where P_{emax} = 1.5 HP for continuous use.

2200 - 1400 rpm

02 955 197

S37													
i [ratio]	Worm ratio/ # starts	n_e = 2200 rpm				n_e = 1700 rpm				n_e = 1400 rpm			
		n_a [rpm]	T_{amax} [lb-in]	P_e [HP]	η [%]	n_a [rpm]	T_{amax} [lb-in]	P_e [HP]	η [%]	n_a [rpm]	T_{amax} [lb-in]	P_e [HP]	η [%]
157.43	38/1	**14**	770	0.31	56	**11**	805	0.25	54	**8.9**	815	0.21	53
144.40		**15**	760	0.32	56	**12**	795	0.27	55	**9.7**	815	0.23	54
122.94		**18**	735	0.36	57	**14**	770	0.30	56	**11**	805	0.27	55
106.00		**21**	715	0.40	58	**16**	760	0.34	57	**13**	780	0.30	56
98.80		**22**	710	0.43	58	**17**	750	0.36	57	**14**	770	0.31	56
86.36		**25**	690	0.47	59	**20**	725	0.39	58	**16**	760	0.34	57
80.96		**27**	680	0.50	60	**21**	725	0.42	59	**17**	750	0.36	58
71.44		**31**	665	0.54	60	**24**	710	0.44	60	**20**	745	0.39	59
63.33		**35**	645	0.59	61	**27**	700	0.50	60	**22**	725	0.43	60
53.83		**41**	610	0.64	62	**32**	675	0.55	61	**26**	710	0.48	61
55.93	27/2	**39**	680	0.56	75	**30**	715	0.47	74	**25**	715	0.39	73
51.30		**43**	675	0.60	76	**33**	710	0.50	75	**27**	715	0.42	74
43.68		**50**	655	0.68	76	**39**	690	0.56	76	**32**	715	0.48	75
37.66		**58**	635	0.76	77	**45**	675	0.63	76	**37**	700	0.55	76
35.10		**63**	630	0.80	77	**48**	665	0.67	77	**40**	690	0.58	76
30.68		**72**	620	0.90	78	**55**	645	0.74	77	**46**	675	0.63	76
28.76		**76**	600	0.94	78	**59**	645	0.78	77	**49**	665	0.67	77
25.38		**87**	595	1.0	79	**67**	630	0.86	78	**55**	655	0.74	77
22.50		**98**	585	1.1	79	**76**	620	0.94	79	**62**	645	0.82	78
19.13		**115**	560	1.3	80	**89**	600	1.1	79	**73**	630	0.93	79
19.89	24/5	**111**	425	0.87	85	**85**	445	0.71	85	**70**	460	0.62	84
18.24		**121**	415	0.94	85	**93**	435	0.75	85	**77**	460	0.67	84
15.53		**142**	400	1.0	86	**109**	425	0.86	85	**90**	445	0.75	85
13.39		**164**	390	1.2	86	**127**	415	0.98	86	**105**	435	0.84	85
12.48		**176**	380	1.2	86	**136**	405	1.0	86	**112**	425	0.89	86
10.91		**202**	370	1.3	87	**156**	400	1.1	86	**128**	425	1.0	86
10.23		**215**	365	1.5	87	**166**	400	1.2	87	**137**	415	0.78	86
9.02		**244**	355	1.6	87	**188**	380	1.3	87	**155**	405	1.2	87
8.00		**275**	345	1.7	87	**213**	380	1.5	87	**175**	400	1.3	87
6.80		**324**	325	1.9	88	**250**	365	1.6	88	**206**	380	1.5	87
6.33		**348**	310	2.0	88	**269**	310	1.5	88	**221**	310	1.2	87
5.38		**409**	300	2.3	88	**316**	300	1.7	88	**260**	300	1.5	88
4.86		**453**	285	2.3	89	**350**	290	1.7	88	**288**	290	1.5	88
3.97		**554**	230	2.3	88	**428**	285	2.1	89	**353**	285	1.7	88

All values reflect mechanical limits. Shaded area indicates additional thermal limitations where P_{emax} = 1.5 HP for continuous use.

1100 - 700 rpm 02 956 197

S37

i [ratio]	Worm ratio/ # starts	n_e = 1100 rpm				n_e = 900 rpm				n_e = 700 rpm			
		n_a [rpm]	T_{amax} [lb-in]	P_e [HP]	η [%]	n_a [rpm]	T_{amax} [lb-in]	P_e [HP]	η [%]	n_a [rpm]	T_{amax} [lb-in]	P_e [HP]	η [%]
157.43	38/1	**7.0**	815	0.17	52	**5.7**	815	0.15	50	**4.4**	815	0.12	49
144.40		**7.6**	815	0.19	52	**6.2**	815	0.16	51	**4.8**	815	0.12	50
122.94		**8.9**	815	0.21	54	**7.3**	815	0.19	52	**5.7**	815	0.15	51
106.00		**10**	815	0.24	55	**8.5**	815	0.20	53	**6.6**	815	0.16	52
98.80		**11**	815	0.25	55	**9.1**	815	0.21	54	**7.1**	815	0.17	52
86.36		**13**	795	0.28	56	**10**	815	0.24	55	**8.1**	815	0.20	53
80.96		**14**	790	0.30	57	**11**	815	0.25	55	**8.6**	815	0.21	54
71.44		**15**	770	0.32	57	**13**	805	0.28	56	**9.8**	815	0.23	55
63.33		**17**	760	0.36	58	**14**	790	0.31	57	**11**	815	0.25	56
53.83		**20**	745	0.40	60	**17**	770	0.35	58	**13**	805	0.30	57
55.93	27/2	**20**	770	0.34	72	**16**	805	0.28	71	**13**	815	0.23	70
51.30		**21**	770	0.36	73	**18**	795	0.31	72	**14**	815	0.25	71
43.68		**25**	745	0.40	74	**21**	770	0.35	73	**16**	815	0.30	71
37.66		**29**	725	0.46	75	**24**	760	0.39	74	**19**	790	0.32	72
35.10		**31**	725	0.48	75	**26**	745	0.42	74	**20**	780	0.34	73
30.68		**36**	710	0.54	76	**29**	725	0.46	75	**23**	770	0.38	74
28.76		**38**	700	0.56	76	**31**	725	0.48	75	**24**	760	0.40	74
25.38		**43**	690	0.62	77	**35**	715	0.54	76	**28**	745	0.44	75
22.50		**49**	680	0.68	77	**40**	700	0.58	76	**31**	725	0.48	75
19.13		**58**	665	0.78	78	**47**	690	0.67	77	**37**	715	0.55	76
19.89	24/5	**55**	485	0.51	83	**45**	515	0.44	83	**35**	530	0.36	82
18.24		**60**	480	0.55	84	**49**	495	0.47	83	**38**	530	0.39	82
15.53		**71**	470	0.63	84	**58**	485	0.54	84	**45**	515	0.44	83
13.39		**82**	460	0.71	85	**67**	480	0.60	84	**52**	495	0.50	83
12.48		**88**	450	0.74	85	**72**	470	0.63	84	**56**	485	0.52	84
10.91		**101**	445	0.83	86	**82**	460	0.71	85	**64**	480	0.58	84
10.23		**108**	435	0.86	86	**88**	450	0.74	85	**68**	480	0.62	84
9.02		**122**	425	0.95	86	**100**	445	0.82	86	**78**	470	0.68	85
8.00		**138**	415	1.0	87	**113**	435	0.90	86	**88**	460	0.75	85
6.80		**162**	405	1.2	87	**132**	425	1.0	87	**103**	450	0.86	86
6.33		**174**	400	1.3	87	**142**	400	1.0	87	**111**	400	0.82	86
5.38		**204**	380	1.4	88	**167**	380	1.2	87	**130**	380	0.91	87
4.86		**226**	370	1.5	88	**185**	370	1.2	88	**144**	370	0.98	87
3.97		**277**	355	1.8	88	**227**	355	1.4	88	**176**	355	1.1	88

500 - 10 rpm

02 956 197

S37													
i [ratio]	Worm ratio/ # starts	n_e = 500 rpm				n_e = 250 rpm				n_e = 10 rpm			
		n_a [rpm]	T_{amax} [lb-in]	P_e [HP]	η [%]	n_a [rpm]	T_{amax} [lb-in]	P_e [HP]	η [%]	n_a [rpm]	T_{amax} [lb-in]	P_e [HP]	η [%]
157.43	38/1	**3.2**	815	0.08	47	**1.6**	815	0.04	46	**0.06**	815	0.00	26
144.40		**3.5**	815	0.09	48	**1.7**	815	0.05	46	**0.07**	815	0.00	27
122.94		**4.1**	815	0.11	49	**2.0**	815	0.06	46	**0.08**	815	0.00	29
106.00		**4.7**	815	0.12	50	**2.4**	815	0.07	47	**0.09**	815	0.00	30
98.80		**5.1**	815	0.13	50	**2.5**	815	0.07	47	**0.10**	815	0.00	31
86.36		**5.8**	815	0.15	51	**2.9**	815	0.08	47	**0.12**	815	0.00	32
80.96		**6.2**	815	0.16	51	**3.1**	815	0.08	47	**0.12**	815	0.00	33
71.44		**7.0**	815	0.17	52	**3.5**	815	0.09	48	**0.14**	815	0.00	35
63.33		**7.9**	815	0.19	53	**3.9**	815	0.11	49	**0.16**	815	0.00	37
53.83		**9.3**	815	0.21	55	**4.6**	815	0.12	50	**0.19**	815	0.00	39
55.93	27/2	**8.9**	815	0.17	69	**4.5**	815	0.08	67	**0.18**	815	0.00	48
51.30		**9.7**	815	0.19	69	**4.9**	815	0.09	67	**0.19**	815	0.00	49
43.68		**11**	815	0.21	70	**5.7**	815	0.11	67	**0.23**	815	0.00	51
37.66		**13**	815	0.24	71	**6.6**	815	0.13	67	**0.27**	815	0.00	53
35.10		**14**	815	0.25	71	**7.1**	815	0.13	68	**0.28**	815	0.00	54
30.68		**16**	815	0.30	72	**8.1**	815	0.15	68	**0.33**	815	0.00	56
28.76		**17**	805	0.31	72	**8.7**	815	0.16	69	**0.35**	815	0.00	57
25.38		**20**	790	0.34	73	**9.9**	815	0.19	69	**0.39**	815	0.00	59
22.50		**22**	770	0.38	74	**11**	815	0.20	70	**0.44**	815	0.00	61
19.13		**26**	750	0.42	75	**13**	815	0.24	71	**0.52**	815	0.00	62
19.89	24/5	**25**	600	0.30	81	**13**	635	0.16	79	**0.50**	635	0.00	65
18.24		**27**	585	0.31	81	**14**	635	0.17	79	**0.55**	635	0.00	66
15.53		**32**	560	0.35	82	**16**	635	0.20	79	**0.64**	635	0.00	68
13.39		**37**	540	0.39	82	**19**	635	0.24	80	**0.75**	635	0.00	71
12.48		**40**	520	0.40	82	**20**	635	0.25	80	**0.80**	635	0.00	72
10.91		**46**	515	0.46	83	**23**	630	0.28	81	**0.92**	630	0.00	73
10.23		**49**	505	0.47	83	**24**	620	0.30	81	**0.98**	620	0.00	73
9.02		**55**	495	0.52	84	**28**	585	0.32	81	**1.1**	585	0.00	74
8.00		**63**	485	0.58	84	**31**	560	0.34	82	**1.2**	560	0.00	74
6.80		**74**	480	0.66	85	**37**	540	0.39	82	**1.5**	540	0.00	75
6.33		**79**	400	0.59	85	**39**	400	0.31	83	**1.6**	400	0.00	80
5.38		**93**	380	0.66	86	**46**	380	0.34	83	**1.9**	380	0.00	80
4.86		**103**	370	0.71	86	**51**	370	0.36	84	**2.1**	370	0.00	80
3.97		**126**	355	0.82	87	**63**	355	0.42	84	**2.5**	355	0.00	80

11.10.2 S47

3400 - 2800 rpm

02 957 197

S47													
i	Worm ratio/ # starts	n_e = 3400 rpm				n_e = 3200 rpm				n_e = 2800 rpm			
[ratio]		n_a [rpm]	T_{amax} [lb-in]	P_e [HP]	η [%]	n_a [rpm]	T_{amax} [lb-in]	P_e [HP]	η [%]	n_a [rpm]	T_{amax} [lb-in]	P_e [HP]	η [%]
201.00		**17**	1330	0.59	60	**16**	1330	0.56	60	**14**	1330	0.50	59
184.80		**18**	1330	0.64	60	**17**	1330	0.60	60	**15**	1330	0.54	59
158.12		**22**	1330	0.74	61	**20**	1330	0.70	61	**18**	1330	0.62	60
137.05		**25**	1330	0.84	62	**23**	1330	0.79	62	**20**	1330	0.70	61
128.10		**27**	1330	0.90	63	**25**	1330	0.84	62	**22**	1330	0.75	62
110.73	42/1	**31**	1220	0.94	63	**29**	1310	0.95	63	**25**	1330	0.84	63
94.08		**36**	1000	0.93	62	**34**	1090	0.94	63	**30**	1290	0.97	63
84.00		**40**	840	0.89	61	**38**	945	0.93	62	**33**	1150	0.95	63
71.75		**47**	515	0.74	53	**45**	725	0.86	60	**39**	945	0.94	63
67.20		**51**	470	0.72	52	**48**	600	0.80	57	**42**	875	0.93	62
56.61		**60**	355	0.68	49	**57**	405	0.71	51	**49**	665	0.87	60
69.39		**49**	1240	1.2	79	**46**	1240	1.2	78	**40**	1240	1.0	78
63.80		**53**	1240	1.3	79	**50**	1240	1.2	79	**44**	1240	1.1	78
54.59		**62**	1240	1.5	80	**59**	1240	1.5	79	**51**	1240	1.3	79
47.32		**72**	1230	1.7	80	**68**	1240	1.6	80	**59**	1240	1.5	80
44.22		**77**	1140	1.7	80	**72**	1230	1.7	80	**63**	1240	1.6	80
38.23	29/2	**89**	990	1.7	80	**84**	1060	1.7	80	**73**	1230	1.7	80
32.48		**105**	805	1.7	79	**99**	885	1.7	80	**86**	1035	1.7	80
29.00		**117**	675	1.6	78	**110**	760	1.7	79	**97**	920	1.7	80
24.77		**137**	415	1.3	72	**129**	585	1.6	77	**113**	770	1.7	80
23.20		**147**	370	1.2	71	**138**	480	1.3	75	**121**	700	1.7	79
19.54		**174**	285	1.1	69	**164**	325	1.2	71	**143**	520	1.5	77
20.33		**167**	885	2.7	88	**157**	885	2.5	88	**138**	885	2.1	88
17.62		**193**	860	3.0	88	**182**	885	3.0	88	**159**	885	2.5	88
16.47		**206**	795	3.0	88	**194**	860	3.0	88	**170**	885	2.7	88
14.24		**239**	690	3.0	88	**225**	735	3.0	88	**197**	860	3.1	88
12.10		**281**	560	2.8	88	**264**	610	3.0	88	**231**	725	3.0	88
10.80		**315**	470	2.7	87	**296**	530	2.8	88	**259**	635	3.0	88
9.23	27/5	**368**	285	2.0	83	**347**	400	2.5	86	**303**	530	3.0	88
8.64		**394**	255	2.0	82	**370**	325	2.3	85	**324**	485	2.8	88
7.28		**467**	195	1.7	81	**440**	220	1.9	82	**385**	365	2.5	86
6.83		**498**	300	2.7	87	**469**	325	2.7	88	**410**	400	3.0	88
6.40		**531**	275	2.7	87	**500**	300	2.7	87	**438**	370	3.0	88
5.39		**631**	210	2.4	86	**594**	240	2.5	87	**519**	300	2.8	88
4.76		**714**	175	2.4	85	**672**	205	2.5	86	**588**	255	2.7	87
4.00		**850**	140	2.3	85	**800**	160	2.4	85	**700**	205	2.5	87

All values reflect mechanical limits. Shaded area indicates additional thermal limitations where P_{emax} = 2.0 HP for continuous use.

2200 - 1400 rpm

02 957 197

S47													
i [ratio]	Worm ratio/ # starts	n_e = 2200 rpm				n_e = 1700 rpm				n_e = 1400 rpm			
		n_a [rpm]	T_{amax} [lb-in]	P_e [HP]	η [%]	n_a [rpm]	T_{amax} [lb-in]	P_e [HP]	η [%]	n_a [rpm]	T_{amax} [lb-in]	P_e [HP]	η [%]
201.00		**11**	1480	0.44	58	**8.5**	1505	0.36	56	**7.0**	1505	0.31	55
184.80		**12**	1480	0.48	58	**9.2**	1485	0.39	57	**7.6**	1505	0.32	56
158.12		**14**	1480	0.55	60	**11**	1485	0.44	58	**8.9**	1505	0.38	57
137.05		**16**	1460	0.62	60	**12**	1480	0.50	59	**10**	1485	0.42	58
128.10		**17**	1460	0.66	61	**13**	1480	0.52	59	**11**	1485	0.44	58
110.73	42/1	**20**	1460	0.74	62	**15**	1480	0.59	61	**13**	1485	0.51	59
94.08		**23**	1460	0.86	63	**18**	1480	0.68	62	**15**	1485	0.58	60
84.00		**26**	1435	0.94	64	**20**	1480	0.76	62	**17**	1480	0.64	61
71.75		**31**	1285	0.98	64	**24**	1480	0.87	63	**20**	1480	0.74	62
67.20		**33**	1210	0.98	64	**25**	1450	0.91	64	**21**	1480	0.78	63
56.61		**39**	1020	0.98	64	**30**	1345	0.99	65	**25**	1460	0.90	64
69.39		**32**	1370	0.90	77	**24**	1370	0.70	76	**20**	1370	0.59	75
63.80		**34**	1370	0.97	77	**27**	1370	0.76	76	**22**	1370	0.63	75
54.59		**40**	1370	1.1	78	**31**	1370	0.89	77	**26**	1370	0.74	76
47.32		**46**	1370	1.3	79	**36**	1370	1.0	78	**30**	1370	0.84	77
44.22		**50**	1370	1.3	79	**38**	1370	1.1	78	**32**	1370	0.90	77
38.23	29/2	**58**	1370	1.6	80	**44**	1370	1.2	79	**37**	1370	1.0	78
32.48		**68**	1290	1.7	80	**52**	1370	1.5	80	**43**	1370	1.2	79
29.00		**76**	1210	1.7	81	**59**	1365	1.6	80	**48**	1370	1.3	79
24.77		**89**	1035	1.7	81	**69**	1285	1.7	81	**57**	1370	1.5	80
23.20		**95**	980	1.9	81	**73**	1255	1.7	81	**60**	1345	1.6	80
19.54		**113**	815	1.7	81	**87**	1090	1.9	81	**72**	1275	1.7	81
20.33		**108**	965	1.9	87	**84**	975	1.5	87	**69**	975	1.2	86
17.62		**125**	955	2.1	88	**96**	965	1.7	87	**79**	975	1.5	86
16.47		**134**	955	2.3	88	**103**	965	1.9	87	**85**	975	1.5	87
14.24		**154**	955	2.7	88	**119**	965	2.1	88	**98**	975	1.7	87
12.10		**182**	930	3.1	89	**140**	965	2.4	88	**116**	965	2.0	88
10.80		**204**	840	3.1	89	**157**	955	2.7	88	**130**	965	2.3	88
9.23	27/5	**238**	725	3.1	89	**184**	930	3.1	89	**152**	965	2.7	88
8.64		**255**	680	3.1	89	**197**	885	3.1	89	**162**	965	2.8	88
7.28		**302**	565	3.1	89	**234**	760	3.2	89	**192**	910	3.1	89
6.83		**322**	550	3.2	89	**249**	690	3.1	89	**205**	690	2.5	89
6.40		**344**	515	3.2	89	**266**	675	3.2	89	**219**	675	2.7	89
5.39		**408**	425	3.1	89	**315**	575	3.2	89	**260**	655	3.1	89
4.76		**462**	370	3.1	89	**357**	515	3.2	89	**294**	635	3.4	90
4.00		**550**	300	3.0	88	**425**	425	3.2	89	**350**	540	3.4	90

All values reflect mechanical limits. Shaded area indicates additional thermal limitations where P_{emax} = 2.0 HP for continuous use.

1100 - 700 rpm 02 958 197

S47													
		n_e = 1100 rpm				n_e = 900 rpm				n_e = 700 rpm			
i [ratio]	Worm ratio/ # starts	n_a [rpm]	T_{amax} [lb-in]	P_e [HP]	η [%]	n_a [rpm]	T_{amax} [lb-in]	P_e [HP]	η [%]	n_a [rpm]	T_{amax} [lb-in]	P_e [HP]	η [%]
201.00		**5.5**	1560	0.25	53	**4.5**	1595	0.21	52	**3.5**	1635	0.17	51
184.80		**6.0**	1540	0.27	54	**4.9**	1575	0.23	53	**3.8**	1620	0.19	51
158.12		**7.0**	1520	0.31	55	**5.7**	1560	0.27	54	**4.4**	1595	0.21	52
137.05		**8.0**	1515	0.35	56	**6.6**	1520	0.30	55	**5.1**	1575	0.24	53
128.10		**8.6**	1515	0.36	57	**7.0**	1520	0.31	55	**5.5**	1560	0.25	54
110.73	42/1	**9.9**	1495	0.40	58	**8.1**	1515	0.35	56	**6.3**	1540	0.28	55
94.08		**12**	1495	0.47	59	**9.6**	1515	0.40	57	**7.4**	1520	0.32	56
84.00		**13**	1495	0.52	60	**11**	1495	0.43	58	**8.3**	1515	0.35	57
71.75		**15**	1495	0.60	61	**13**	1495	0.50	60	**9.8**	1515	0.40	58
67.20		**16**	1495	0.63	61	**13**	1495	0.54	60	**10**	1515	0.43	58
56.61		**19**	1495	0.74	63	**16**	1495	0.62	61	**12**	1515	0.50	60
69.39		**16**	1530	0.52	74	**13**	1560	0.44	73	**10**	1595	0.36	71
63.80		**17**	1530	0.56	74	**14**	1550	0.47	73	**11**	1595	0.39	72
54.59		**20**	1515	0.64	75	**16**	1530	0.54	74	**13**	1560	0.44	73
47.32		**23**	1515	0.74	76	**19**	1530	0.62	75	**15**	1550	0.50	73
44.22		**25**	1515	0.78	76	**20**	1515	0.66	75	**16**	1550	0.52	74
38.23	29/2	**29**	1495	0.89	77	**24**	1515	0.75	76	**18**	1530	0.59	75
32.48		**34**	1495	1.0	78	**28**	1515	0.87	77	**22**	1515	0.68	75
29.00		**38**	1505	1.2	78	**31**	1515	0.97	77	**24**	1515	0.76	76
24.77		**44**	1495	1.3	79	**36**	1505	1.1	78	**28**	1515	0.89	77
23.20		**47**	1450	1.3	79	**39**	1505	1.2	79	**30**	1515	0.94	77
19.54		**56**	1365	1.5	80	**46**	1460	1.3	79	**36**	1505	1.1	78
20.33		**54**	990	1.0	85	**44**	1010	0.84	84	**34**	1025	0.67	83
17.62		**62**	990	1.2	86	**51**	1000	0.95	85	**40**	1020	0.76	84
16.47		**67**	990	1.2	86	**55**	1000	1.0	85	**43**	1010	0.80	84
14.24		**77**	980	1.3	86	**63**	990	1.2	86	**49**	1000	0.93	85
12.10		**91**	980	1.6	87	**74**	980	1.3	86	**58**	1000	1.1	85
10.80		**102**	980	1.9	87	**83**	980	1.5	87	**65**	990	1.2	86
9.23	27/5	**119**	975	2.1	88	**98**	980	1.7	87	**76**	990	1.3	86
8.64		**127**	965	2.3	88	**104**	980	1.9	87	**81**	990	1.5	87
7.28		**151**	965	2.7	88	**124**	980	2.1	88	**96**	980	1.7	87
6.83		**161**	840	2.4	89	**132**	840	2.0	88	**102**	840	1.6	88
6.40		**172**	825	2.5	89	**141**	825	2.1	88	**109**	825	1.6	88
5.39		**204**	790	2.8	89	**167**	790	2.4	89	**130**	790	1.9	88
4.76		**231**	770	3.2	89	**189**	770	2.5	89	**147**	770	2.0	89
4.00		**275**	690	3.4	90	**225**	745	3.0	89	**175**	745	2.3	89

All values reflect mechanical limits. Shaded area indicates additional thermal limitations where P_{emax} = 2.0 HP for continuous use.

500 - 10 rpm

02 958 197

S47													
i [ratio]	Worm ratio/ # starts	n_e = 500 rpm				n_e = 250 rpm				n_e = 10 rpm			
		n_a [rpm]	T_{amax} [lb-in]	P_e [HP]	η [%]	n_a [rpm]	T_{amax} [lb-in]	P_e [HP]	η [%]	n_a [rpm]	T_{amax} [lb-in]	P_e [HP]	η [%]
201.00		**2.5**	1635	0.13	49	**1.2**	1635	0.07	48	**0.05**	1635	0.00	32
184.80		**2.7**	1635	0.15	49	**1.4**	1635	0.07	48	**0.05**	1635	0.00	32
158.12		**3.2**	1635	0.16	50	**1.6**	1635	0.08	48	**0.06**	1635	0.00	35
137.05		**3.6**	1635	0.19	51	**1.8**	1635	0.09	48	**0.07**	1635	0.00	37
128.10		**3.9**	1620	0.20	51	**2.0**	1635	0.11	48	**0.08**	1635	0.00	38
110.73	42/1	**4.5**	1600	0.21	52	**2.3**	1635	0.12	49	**0.09**	1635	0.00	40
94.08		**5.3**	1575	0.25	54	**2.7**	1635	0.13	49	**0.11**	1635	0.00	42
84.00		**6.0**	1560	0.27	54	**3.0**	1635	0.16	50	**0.12**	1635	0.00	43
71.75		**7.0**	1540	0.31	56	**3.5**	1635	0.17	51	**0.14**	1635	0.00	44
67.20		**7.4**	1520	0.32	56	**3.7**	1635	0.19	51	**0.15**	1635	0.00	44
56.61		**8.8**	1520	0.38	57	**4.4**	1600	0.21	53	**0.18**	1600	0.00	45
69.39		**7.2**	1635	0.27	70	**3.6**	1635	0.13	68	**0.14**	1635	0.00	56
63.80		**7.8**	1635	0.30	70	**3.9**	1635	0.15	68	**0.16**	1635	0.00	57
54.59		**9.2**	1635	0.34	71	**4.6**	1635	0.17	68	**0.18**	1635	0.00	60
47.32		**11**	1600	0.38	72	**5.3**	1635	0.20	68	**0.21**	1635	0.00	61
44.22		**11**	1595	0.40	72	**5.7**	1635	0.21	69	**0.23**	1635	0.00	62
38.23	29/2	**13**	1575	0.44	73	**6.5**	1635	0.24	69	**0.26**	1635	0.00	63
32.48		**15**	1540	0.51	74	**7.7**	1635	0.28	70	**0.31**	1635	0.00	64
29.00		**17**	1540	0.56	74	**8.6**	1635	0.32	71	**0.34**	1635	0.00	65
24.77		**20**	1520	0.64	75	**10**	1620	0.36	71	**0.40**	1620	0.00	66
23.20		**22**	1520	0.68	76	**11**	1600	0.38	72	**0.43**	1600	0.00	66
19.54		**26**	1520	0.80	77	**13**	1575	0.44	73	**0.51**	1575	0.00	67
20.33		**25**	1095	0.52	82	**12**	1390	0.34	80	**0.49**	1390	0.00	75
17.62		**28**	1060	0.58	83	**14**	1320	0.38	80	**0.57**	1320	0.00	76
16.47		**30**	1045	0.60	83	**15**	1285	0.39	81	**0.61**	1285	0.00	76
14.24		**35**	1025	0.68	84	**18**	1220	0.42	81	**0.70**	1220	0.00	77
12.10		**41**	1020	0.79	84	**21**	1160	0.47	82	**0.83**	1160	0.00	77
10.80		**46**	1010	0.87	85	**23**	1125	0.50	82	**0.93**	1125	0.00	77
9.23	27/5	**54**	1000	1.0	85	**27**	1070	0.55	83	**1.1**	1070	0.00	78
8.64		**58**	1000	1.1	86	**29**	1060	0.59	83	**1.2**	1060	0.00	78
7.28		**69**	990	1.2	86	**34**	1035	0.67	84	**1.4**	1035	0.00	78
6.83		**73**	840	1.1	87	**37**	840	0.58	84	**1.5**	840	0.00	81
6.40		**78**	825	1.2	87	**39**	825	0.60	85	**1.6**	825	0.00	81
5.39		**93**	790	1.3	87	**46**	790	0.68	85	**1.9**	790	0.00	81
4.76		**105**	770	1.5	88	**53**	770	0.75	86	**2.1**	770	0.00	81
4.00		**125**	745	1.7	88	**63**	745	0.86	86	**2.5**	745	0.00	81

11.10.3 S57

3400 - 2800 rpm

02 959 197

S57													
		n_e = 3400 rpm				n_e = 3200 rpm				n_e = 2800 rpm			
i [ratio]	Worm ratio/ # starts	n_a [rpm]	T_{amax} [lb-in]	P_e [HP]	η [%]	n_a [rpm]	T_{amax} [lb-in]	P_e [HP]	η [%]	n_a [rpm]	T_{amax} [lb-in]	P_e [HP]	η [%]
201.00		**17**	2390	1.0	64	**16**	2390	0.95	63	**14**	2390	0.84	62
184.80		**18**	2390	1.1	64	**17**	2390	1.0	64	**15**	2390	0.91	63
158.12		**22**	2390	1.2	65	**20**	2390	1.2	65	**18**	2390	1.0	64
137.05		**25**	2255	1.3	66	**23**	2390	1.3	66	**20**	2390	1.2	65
128.10		**27**	2170	1.3	66	**25**	2255	1.3	66	**22**	2390	1.3	65
110.73	42/1	**31**	1905	1.3	67	**29**	2035	1.3	67	**25**	2255	1.3	66
94.08		**36**	1630	1.3	67	**34**	1735	1.3	67	**30**	1990	1.5	67
84.00		**40**	1460	1.3	67	**38**	1550	1.3	67	**33**	1770	1.3	67
71.75		**47**	1230	1.3	67	**45**	1320	1.3	67	**39**	1540	1.5	67
67.20		**51**	1135	1.3	66	**48**	1230	1.3	67	**42**	1450	1.5	67
56.61		**60**	910	1.3	65	**57**	1010	1.3	66	**49**	1220	1.5	67
69.39		**49**	1945	1.9	81	**46**	1945	1.7	80	**40**	1945	1.6	80
63.80		**53**	1945	2.0	81	**50**	1945	1.9	81	**44**	1945	1.7	80
54.59		**62**	1945	2.4	81	**59**	1945	2.3	81	**51**	1945	2.0	81
47.32		**72**	1860	2.5	82	**68**	1945	2.5	82	**59**	1945	2.3	81
44.22		**77**	1745	2.5	82	**72**	1815	2.5	82	**63**	1945	2.4	81
38.23	29/2	**89**	1540	2.7	82	**84**	1630	2.7	82	**73**	1815	2.5	82
32.48		**105**	1310	2.7	82	**99**	1390	2.7	82	**86**	1595	2.7	82
29.00		**117**	1160	2.7	82	**110**	1250	2.7	82	**97**	1435	2.7	82
24.77		**137**	980	2.5	82	**129**	1060	2.7	82	**113**	1230	2.7	82
23.20		**147**	905	2.5	82	**138**	980	2.7	82	**121**	1160	2.7	82
19.54		**174**	715	2.4	81	**164**	795	2.5	82	**143**	965	2.7	82
20.33		**167**	1415	4.3	89	**157**	1415	4.0	89	**138**	1415	3.5	88
17.62		**193**	1240	4.3	89	**182**	1320	4.3	89	**159**	1415	4.0	89
16.47		**206**	1170	4.3	89	**194**	1240	4.3	89	**170**	1400	4.3	89
14.24		**239**	1025	4.3	89	**225**	1090	4.3	89	**197**	1230	4.3	89
12.10		**281**	875	4.4	89	**264**	930	4.4	89	**231**	1070	4.4	89
10.80		**315**	780	4.4	89	**296**	830	4.4	89	**259**	955	4.4	89
9.23	27/5	**368**	645	4.3	89	**347**	700	4.3	89	**303**	825	4.4	89
8.64		**394**	600	4.3	89	**370**	655	4.3	89	**324**	770	4.4	89
7.28		**467**	480	4.0	88	**440**	530	4.2	89	**385**	635	4.3	89
6.83		**498**	480	4.3	89	**469**	515	4.3	89	**410**	610	4.4	90
6.40		**531**	445	4.2	89	**500**	480	4.3	89	**438**	565	4.4	89
5.39		**631**	365	4.2	89	**594**	390	4.2	89	**519**	470	4.3	89
4.76		**714**	310	4.0	88	**672**	335	4.0	89	**588**	405	4.3	89
4.00		**850**	250	3.8	88	**800**	275	3.9	88	**700**	335	4.2	89

All values reflect mechanical limits. Shaded area indicates additional thermal limitations where P_{emax} = 4.0 HP for continuous use.

2200 - 1400 rpm

02 959 197

S57													
i [ratio]	Worm ratio/ # starts	n_e = 2200 rpm				n_e = 1700 rpm				n_e = 1400 rpm			
		n_a [rpm]	T_{amax} [lb-in]	P_e [HP]	η [%]	n_a [rpm]	T_{amax} [lb-in]	P_e [HP]	η [%]	n_a [rpm]	T_{amax} [lb-in]	P_e [HP]	η [%]
201.00		**11**	2610	0.74	61	**8.5**	2610	0.59	59	**7.0**	2610	0.50	58
184.80		**12**	2610	0.80	62	**9.2**	2610	0.64	60	**7.6**	2610	0.54	58
158.12		**14**	2610	0.93	63	**11**	2610	0.74	61	**8.9**	2610	0.62	60
137.05		**16**	2610	1.0	64	**12**	2610	0.83	62	**10**	2610	0.70	61
128.10		**17**	2610	1.1	64	**13**	2610	0.89	62	**11**	2610	0.74	61
110.73	42/1	**20**	2565	1.2	65	**15**	2610	1.0	63	**13**	2610	0.84	62
94.08		**23**	2435	1.3	66	**18**	2655	1.2	65	**15**	2610	0.98	63
84.00		**26**	2215	1.3	67	**20**	2520	1.2	65	**17**	2610	1.1	64
71.75		**31**	1945	1.5	67	**24**	2435	1.3	66	**20**	2565	1.2	65
67.20		**33**	1860	1.5	67	**25**	2300	1.3	67	**21**	2520	1.3	65
56.61		**39**	1585	1.5	68	**30**	1990	1.5	67	**25**	2345	1.3	67
69.39		**32**	2170	1.3	79	**24**	2170	1.1	77	**20**	2170	0.91	76
63.80		**34**	2170	1.5	79	**27**	2170	1.2	78	**22**	2170	0.98	77
54.59		**40**	2170	1.7	80	**31**	2170	1.3	79	**26**	2170	1.1	78
47.32		**46**	2170	2.0	81	**36**	2170	1.6	79	**30**	2170	1.3	79
44.22		**50**	2170	2.1	81	**38**	2170	1.6	80	**32**	2170	1.3	79
38.23	29/2	**58**	2170	2.4	81	**44**	2170	1.9	80	**37**	2170	1.6	80
32.48		**68**	1990	2.5	82	**52**	2170	2.3	81	**43**	2170	1.9	80
29.00		**76**	1770	2.5	82	**59**	2170	2.4	81	**48**	2170	2.0	81
24.77		**89**	1565	2.7	82	**69**	1945	2.5	82	**57**	2170	2.4	81
23.20		**95**	1480	2.7	83	**73**	1860	2.7	82	**60**	2170	2.5	82
19.54		**113**	1265	2.7	83	**87**	1620	2.7	83	**72**	1905	2.7	82
20.33		**108**	1485	3.0	88	**84**	1485	2.3	87	**69**	1485	1.9	87
17.62		**125**	1485	3.4	88	**96**	1485	2.5	88	**79**	1485	2.1	87
16.47		**134**	1495	3.6	88	**103**	1485	2.8	88	**85**	1485	2.3	87
14.24		**154**	1495	4.2	89	**119**	1495	3.2	88	**98**	1495	2.7	88
12.10		**182**	1330	4.3	89	**140**	1495	3.8	89	**116**	1495	3.1	88
10.80		**204**	1205	4.3	89	**157**	1495	4.2	89	**130**	1495	3.5	88
9.23	27/5	**238**	1055	4.4	89	**184**	1320	4.3	89	**152**	1495	4.0	89
8.64		**255**	990	4.4	89	**197**	1250	4.4	89	**162**	1470	4.3	89
7.28		**302**	850	4.6	90	**234**	1080	4.4	90	**192**	1290	4.4	89
6.83		**322**	805	4.6	90	**249**	885	3.9	90	**205**	885	3.2	89
6.40		**344**	750	4.6	90	**266**	865	4.0	90	**219**	865	3.4	89
5.39		**408**	635	4.6	90	**315**	840	4.7	90	**260**	840	3.9	90
4.76		**462**	560	4.6	90	**357**	745	4.7	90	**294**	825	4.3	90
4.00		**550**	470	4.6	90	**425**	630	4.7	90	**350**	780	4.8	90

All values reflect mechanical limits. Shaded area indicates additional thermal limitations where P_{emax} = 4.0 HP for continuous use.

1100 - 700 rpm 02 960 197

S57													
		n_e = 1100 rpm				n_e = 900 rpm				n_e = 700 rpm			
i [ratio]	Worm ratio/ # starts	n_a [rpm]	T_{amax} [lb-in]	P_e [HP]	η [%]	n_a [rpm]	T_{amax} [lb-in]	P_e [HP]	η [%]	n_a [rpm]	T_{amax} [lb-in]	P_e [HP]	η [%]
201.00		**5.5**	2610	0.40	56	**4.5**	2660	0.35	55	**3.5**	2740	0.28	53
184.80		**6.0**	2610	0.43	57	**4.9**	2660	0.38	55	**3.8**	2700	0.31	54
158.12		**7.0**	2610	0.50	58	**5.7**	2610	0.42	56	**4.4**	2660	0.34	55
137.05		**8.0**	2610	0.56	59	**6.6**	2610	0.47	57	**5.1**	2660	0.39	56
128.10		**8.6**	2610	0.60	59	**7.0**	2610	0.50	58	**5.5**	2610	0.40	56
110.73	42/1	**9.9**	2610	0.68	61	**8.1**	2610	0.58	59	**6.3**	2610	0.46	57
94.08		**12**	2610	0.79	62	**9.6**	2610	0.66	60	**7.4**	2610	0.52	58
84.00		**13**	2610	0.87	63	**11**	2610	0.72	61	**8.3**	2610	0.58	59
71.75		**15**	2610	0.99	64	**13**	2610	0.83	62	**9.8**	2610	0.67	61
67.20		**16**	2660	1.1	64	**13**	2610	0.89	63	**10**	2610	0.71	61
56.61		**19**	2570	1.2	65	**16**	2660	1.0	64	**12**	2610	0.82	62
69.39		**16**	2390	0.80	75	**13**	2390	0.66	74	**10**	2390	0.52	73
63.80		**17**	2390	0.86	76	**14**	2390	0.71	75	**11**	2390	0.56	73
54.59		**20**	2390	0.99	77	**16**	2390	0.83	75	**13**	2390	0.66	74
47.32		**23**	2390	1.1	77	**19**	2390	0.94	76	**15**	2390	0.75	75
44.22		**25**	2390	1.2	78	**20**	2390	1.0	77	**16**	2390	0.79	75
38.23	29/2	**29**	2390	1.3	79	**24**	2390	1.2	77	**18**	2390	0.91	76
32.48		**34**	2390	1.6	79	**28**	2390	1.3	78	**22**	2390	1.1	77
29.00		**38**	2390	1.7	80	**31**	2390	1.5	79	**24**	2390	1.2	78
24.77		**44**	2390	2.1	81	**36**	2390	1.7	80	**28**	2390	1.3	78
23.20		**47**	2390	2.3	81	**39**	2390	1.9	80	**30**	2390	1.5	79
19.54		**56**	2210	2.4	81	**46**	2390	2.1	81	**36**	2390	1.7	80
20.33		**54**	1490	1.5	86	**44**	1500	1.2	85	**34**	1520	0.99	84
17.62		**62**	1500	1.7	86	**51**	1500	1.5	86	**40**	1500	1.1	85
16.47		**67**	1490	1.9	87	**55**	1490	1.5	86	**43**	1500	1.2	85
14.24		**77**	1490	2.1	87	**63**	1490	1.7	86	**49**	1500	1.3	86
12.10		**91**	1500	2.4	88	**74**	1500	2.0	87	**58**	1500	1.6	86
10.80		**102**	1500	2.8	88	**83**	1500	2.3	87	**65**	1500	1.7	87
9.23	27/5	**119**	1500	3.2	88	**98**	1490	2.7	88	**76**	1490	2.0	87
8.64		**127**	1500	3.5	88	**104**	1500	2.8	88	**81**	1490	2.1	87
7.28		**151**	1500	4.0	89	**124**	1500	3.4	88	**96**	1500	2.5	88
6.83		**161**	1060	3.1	89	**132**	1060	2.5	89	**102**	1060	2.0	88
6.4		**172**	1040	3.2	89	**141**	1040	2.5	89	**109**	1040	2.0	88
5.39		**204**	980	3.6	90	**167**	980	3.0	89	**130**	980	2.3	89
4.76		**231**	955	3.9	90	**189**	955	3.2	90	**147**	955	2.5	89
4.00		**275**	910	4.4	90	**225**	910	3.6	90	**175**	910	2.8	89

All values reflect mechanical limits. Shaded area indicates additional thermal limitations where P_{emax} = 4.0 HP for continuous use.

500 - 10 rpm

02 960 197

S57													
i [ratio]	Worm ratio/ # starts	n_e = 500 rpm				n_e = 250 rpm				n_e = 10 rpm			
		n_a [rpm]	T_{amax} [lb-in]	P_e [HP]	η [%]	n_a [rpm]	T_{amax} [lb-in]	P_e [HP]	η [%]	n_a [rpm]	T_{amax} [lb-in]	P_e [HP]	η [%]
201.00		**2.5**	2920	0.23	51	**1.2**	2920	0.12	49	**0.05**	2920	0.00	42
184.80		**2.7**	2920	0.24	51	**1.4**	2920	0.13	49	**0.05**	2920	0.00	43
158.12		**3.2**	2790	0.27	52	**1.6**	2920	0.15	49	**0.06**	2920	0.00	44
137.05		**3.6**	2740	0.30	53	**1.8**	2920	0.17	50	**0.07**	2920	0.00	45
128.10		**3.9**	2700	0.31	54	**2.0**	2920	0.19	50	**0.08**	2920	0.00	46
110.73	42/1	**4.5**	2660	0.35	55	**2.3**	2920	0.20	51	**0.09**	2920	0.00	46
94.08		**5.3**	2660	0.40	56	**2.7**	2920	0.24	51	**0.11**	2920	0.00	47
84.00		**6.0**	2610	0.43	57	**3.0**	2880	0.25	52	**0.12**	2880	0.00	47
71.75		**7.0**	2610	0.50	58	**3.5**	2740	0.28	53	**0.14**	2740	0.00	48
67.20		**7.4**	2610	0.52	58	**3.7**	2740	0.31	54	**0.15**	2740	0.00	48
56.61		**8.8**	2610	0.62	60	**4.4**	2660	0.34	55	**0.18**	2660	0.00	48
69.39		**7.2**	2660	0.43	71	**3.6**	2660	0.23	68	**0.14**	2660	0.00	63
63.80		**7.8**	2660	0.46	71	**3.9**	2660	0.24	68	**0.16**	2660	0.00	64
54.59		**9.2**	2660	0.54	72	**4.6**	2660	0.28	69	**0.18**	2660	0.00	65
47.32		**11**	2660	0.60	73	**5.3**	2660	0.32	70	**0.21**	2660	0.00	66
44.22		**11**	2660	0.64	74	**5.7**	2660	0.34	70	**0.23**	2660	0.00	66
38.23	29/2	**13**	2610	0.72	74	**6.5**	2660	0.39	71	**0.26**	2660	0.00	67
32.48		**15**	2610	0.84	75	**7.7**	2660	0.46	71	**0.31**	2660	0.00	67
29.00		**17**	2610	0.94	76	**8.6**	2660	0.51	72	**0.34**	2660	0.00	67
24.77		**20**	2610	1.1	77	**10**	2660	0.58	73	**0.40**	2660	0.00	68
23.20		**22**	2610	1.2	77	**11**	2660	0.62	73	**0.43**	2660	0.00	68
19.54		**26**	2610	1.3	78	**13**	2610	0.71	74	**0.51**	2610	0.00	68
20.33		**25**	1600	0.75	83	**12**	1900	0.47	80	**0.49**	1900	0.00	77
17.62		**28**	1550	0.83	83	**14**	1860	0.52	81	**0.57**	1860	0.00	77
16.47		**30**	1540	0.89	84	**15**	1810	0.54	81	**0.61**	1810	0.00	78
14.24		**35**	1520	1.0	84	**18**	1750	0.60	81	**0.70**	1750	0.00	78
12.10		**41**	1500	1.2	85	**21**	1660	0.66	82	**0.83**	1660	0.00	78
10.80		**46**	1500	1.3	85	**23**	1630	0.72	83	**0.93**	1630	0.00	78
9.23	27/5	**54**	1500	1.5	86	**27**	1570	0.80	83	**1.1**	1570	0.00	79
8.64		**58**	1500	1.6	86	**29**	1550	0.86	83	**1.2**	1550	0.00	79
7.28		**69**	1500	1.9	87	**34**	1520	0.98	84	**1.4**	1520	0.00	79
6.83		**73**	1060	1.5	87	**37**	1060	0.72	85	**1.5**	1060	0.00	81
6.40		**78**	1040	1.5	87	**39**	1040	0.75	85	**1.6**	1040	0.00	81
5.39		**93**	980	1.6	88	**46**	980	0.84	86	**1.9**	980	0.00	81
4.76		**105**	955	1.9	88	**53**	955	0.93	86	**2.1**	955	0.00	81
4.00		**125**	910	2.0	89	**63**	910	1.0	87	**2.5**	910	0.00	81

11.10.4 S67

3400 - 2800 rpm

02 961 097

S67

i [ratio]	Worm ratio/ # starts	n_e = 3400 rpm				n_e = 3200 rpm				n_e = 2800 rpm			
		n_a [rpm]	T_{amax} [lb-in]	P_e [HP]	η [%]	n_a [rpm]	T_{amax} [lb-in]	P_e [HP]	η [%]	n_a [rpm]	T_{amax} [lb-in]	P_e [HP]	η [%]
217.41		**16**	4120	1.6	66	**15**	4120	1.5	66	**13**	4120	1.3	65
190.11		**18**	4120	1.7	67	**17**	4120	1.6	67	**15**	4120	1.5	66
180.60		**19**	4120	1.9	67	**18**	4120	1.7	67	**16**	4120	1.5	66
158.45		**21**	4120	2.0	68	**20**	4120	2.0	68	**18**	4120	1.7	67
134.40		**25**	4120	2.4	69	**24**	4120	2.3	68	**21**	4120	2.0	68
121.33		**28**	4030	2.5	69	**26**	4120	2.5	69	**23**	4120	2.1	68
106.75	42/1	**32**	3580	2.7	69	**30**	3810	2.7	69	**26**	4120	2.5	69
100.80		**34**	3360	2.5	69	**32**	3630	2.7	69	**28**	4120	2.7	69
85.83		**40**	2830	2.5	69	**37**	3050	2.5	69	**33**	3540	2.7	70
78.00		**44**	2520	2.5	69	**41**	2740	2.5	69	**36**	3230	2.7	70
67.57		**50**	2080	2.4	67	**47**	2300	2.5	68	**41**	2790	2.7	69
58.80		**58**	1630	2.3	65	**54**	1900	2.4	67	**48**	2390	2.5	69
75.06		**45**	3850	3.4	82	**43**	3850	3.2	82	**37**	3850	2.8	81
65.63		**52**	3850	3.9	82	**49**	3850	3.6	82	**43**	3850	3.2	82
62.35		**55**	3850	4.0	83	**51**	3850	3.8	82	**45**	3850	3.4	82
54.70		**62**	3850	4.6	83	**59**	3850	4.3	83	**51**	3850	3.8	83
46.40		**73**	3500	4.8	83	**69**	3670	4.8	83	**60**	3850	4.4	83
41.89	29/2	**81**	3140	4.8	83	**76**	3360	4.8	83	**67**	3810	4.8	83
36.85		**92**	2740	4.8	83	**87**	2960	4.8	84	**76**	3360	4.8	84
34.80		**98**	2610	4.8	83	**92**	2790	4.8	84	**80**	3230	5.0	84
29.63		**115**	2210	4.8	83	**108**	2390	5.0	83	**94**	2740	5.0	84
26.93		**126**	1950	4.7	83	**119**	2120	4.8	83	**104**	2480	4.8	84
23.33		**146**	1610	4.6	82	**137**	1770	4.7	83	**120**	2170	5.0	84
20.30		**167**	1250	4.2	81	**158**	1450	4.4	82	**138**	1810	4.8	83
24.44		**139**	2790	6.8	90	**131**	2790	6.4	90	**115**	2790	5.6	89
23.22		**146**	2790	7.2	90	**138**	2790	6.8	90	**121**	2790	5.9	90
20.37		**167**	2790	8.2	90	**157**	2790	7.8	90	**137**	2790	6.7	90
17.28		**197**	2390	8.3	90	**185**	2570	8.3	90	**162**	2790	7.9	90
15.60		**218**	2170	8.3	90	**205**	2300	8.3	90	**179**	2610	8.2	90
13.73	27/5	**248**	1900	8.3	90	**233**	2040	8.3	90	**204**	2350	8.4	90
12.96		**262**	1770	8.2	90	**247**	1900	8.2	90	**216**	2210	8.4	90
11.03		**308**	1500	8.2	90	**290**	1620	8.3	90	**254**	1900	8.4	90
10.03		**339**	1340	8.0	90	**319**	1450	8.2	90	**279**	1720	8.4	90
8.69		**391**	1100	7.6	89	**368**	1210	7.9	90	**322**	1470	8.3	90
7.56		**450**	840	6.8	88	**423**	990	7.5	89	**370**	1250	8.2	90

All values reflect mechanical limits. Shaded area indicates additional thermal limitations where P_{emax} = 7.5 HP for continuous use.

2200 - 1400 rpm

02 961 097

S67

i [ratio]	Worm ratio/ # starts	n_e = 2200 rpm				n_e = 1700 rpm				n_e = 1400 rpm			
		n_a [rpm]	T_{amax} [lb-in]	P_e [HP]	η [%]	n_a [rpm]	T_{amax} [lb-in]	P_e [HP]	η [%]	n_a [rpm]	T_{amax} [lb-in]	P_e [HP]	η [%]
217.41	42/1	**10**	4600	1.2	64	**7.8**	4600	0.93	62	**6.4**	4600	0.78	61
190.11		**12**	4600	1.3	65	**8.9**	4600	1.0	63	**7.4**	4600	0.87	62
180.60		**12**	4600	1.3	65	**9.4**	4600	1.1	63	**7.8**	4600	0.91	62
158.45		**14**	4600	1.5	66	**11**	4600	1.2	64	**8.8**	4600	1.0	63
134.40		**16**	4600	1.7	67	**13**	4600	1.5	65	**10**	4600	1.2	64
121.33		**18**	4600	2.0	68	**14**	4600	1.6	66	**12**	4600	1.3	65
106.75		**21**	4600	2.1	68	**16**	4600	1.7	67	**13**	4600	1.5	66
100.80		**22**	4510	2.3	69	**17**	4600	1.9	67	**14**	4600	1.5	66
85.83		**26**	4340	2.5	69	**20**	4600	2.1	68	**16**	4600	1.7	67
78.00		**28**	4120	2.7	70	**22**	4510	2.3	69	**18**	4600	1.9	68
67.57		**33**	3630	2.7	70	**25**	4380	2.5	69	**21**	4600	2.1	69
58.80		**37**	3190	2.7	70	**29**	4070	2.7	70	**24**	4430	2.4	69
75.06	29/2	**29**	4250	2.4	81	**23**	4250	1.9	79	**19**	4250	1.6	79
65.63		**34**	4250	2.8	81	**26**	4250	2.1	80	**21**	4250	1.9	79
62.35		**35**	4250	3.0	81	**27**	4250	2.3	80	**22**	4250	1.9	79
54.70		**40**	4250	3.4	82	**31**	4250	2.5	81	**26**	4250	2.1	80
46.40		**47**	4250	3.9	82	**37**	4250	3.1	82	**30**	4250	2.5	81
41.89		**53**	4250	4.3	83	**41**	4250	3.4	82	**33**	4250	2.8	81
36.85		**60**	4200	4.8	83	**46**	4250	3.8	82	**38**	4250	3.1	82
34.80		**63**	3980	4.8	83	**49**	4250	4.0	83	**40**	4250	3.4	82
29.63		**74**	3500	5.0	84	**57**	4250	4.7	83	**47**	4250	3.9	83
26.93		**82**	3190	5.0	84	**63**	4030	4.8	83	**52**	4250	4.3	83
23.33		**94**	2830	5.1	84	**73**	3580	5.0	84	**60**	4250	4.8	83
20.30		**108**	2480	5.1	84	**84**	3190	5.1	84	**69**	3760	5.0	84
24.44	27/5	**90**	3010	4.8	89	**70**	3010	3.8	88	**57**	3010	3.1	88
23.22		**95**	3010	5.1	89	**73**	3010	3.9	89	**60**	3010	3.2	88
20.37		**108**	3010	5.8	89	**83**	3010	4.4	89	**69**	3010	3.8	88
17.28		**127**	3010	6.7	90	**98**	3010	5.2	89	**81**	3010	4.3	89
15.60		**141**	3010	7.5	90	**109**	3010	5.8	89	**90**	3010	4.8	89
13.73		**160**	2920	8.2	90	**124**	3010	6.6	90	**102**	3010	5.5	89
12.96		**170**	2790	8.3	90	**131**	3010	7.0	90	**108**	3010	5.8	89
11.03		**199**	2430	8.4	90	**154**	3010	8.2	90	**127**	3010	6.7	90
10.03		**219**	2210	8.4	91	**169**	2790	8.3	90	**140**	3010	7.4	90
8.69		**253**	1950	8.6	91	**196**	2480	8.4	91	**161**	2960	8.4	90
7.56		**291**	1700	8.7	91	**225**	2210	8.7	91	**185**	2610	8.4	91

All values reflect mechanical limits. Shaded area indicates additional thermal limitations where P_{emax} = 7.5 HP for continuous use.

1100 - 700 rpm 02 962 097

S67

i [ratio]	Worm ratio/ # starts	n_e = 1100 rpm				n_e = 900 rpm				n_e = 700 rpm			
		n_a [rpm]	T_{amax} [lb-in]	P_e [HP]	η [%]	n_a [rpm]	T_{amax} [lb-in]	P_e [HP]	η [%]	n_a [rpm]	T_{amax} [lb-in]	P_e [HP]	η [%]
217.41	42/1	**5.1**	4910	0.67	59	**4.1**	4960	0.56	58	**3.2**	5040	0.46	56
190.11		**5.8**	4910	0.75	60	**4.7**	4960	0.63	59	**3.7**	5000	0.51	57
180.60		**6.1**	4910	0.79	61	**5.0**	4910	0.66	59	**3.9**	5000	0.54	57
158.45		**6.9**	4870	0.87	62	**5.7**	4910	0.74	60	**4.4**	4960	0.59	58
134.40		**8.2**	4870	1.0	63	**6.7**	4870	0.84	61	**5.2**	4910	0.68	60
121.33		**9.1**	4870	1.1	63	**7.4**	4870	0.93	62	**5.8**	4910	0.75	60
106.75		**10**	4870	1.2	64	**8.4**	4870	1.0	63	**6.6**	4910	0.83	61
100.80		**11**	4870	1.3	65	**8.9**	4870	1.1	63	**6.9**	4910	0.89	62
85.83		**13**	4870	1.5	66	**10**	4870	1.3	64	**8.2**	4870	1.0	63
78.00		**14**	4870	1.6	66	**12**	4870	1.3	65	**9.0**	4870	1.1	63
67.57		**16**	4870	1.9	67	**13**	4870	1.6	66	**10**	4870	1.2	64
58.80		**19**	4690	2.0	68	**15**	4870	1.7	67	**12**	4870	1.3	65
75.06	29/2	**15**	4650	1.3	77	**12**	4650	1.2	76	**9.3**	4650	0.91	75
65.63		**17**	4650	1.6	78	**14**	4650	1.3	77	**11**	4650	1.0	76
62.35		**18**	4650	1.6	78	**14**	4650	1.3	77	**11**	4650	1.1	76
54.70		**20**	4650	1.9	79	**16**	4650	1.6	78	**13**	4650	1.2	77
46.40		**24**	4650	2.1	80	**19**	4650	1.9	79	**15**	4650	1.5	78
41.89		**26**	4650	2.4	80	**21**	4650	2.0	79	**17**	4650	1.6	78
36.85		**30**	4650	2.7	81	**24**	4650	2.3	80	**19**	4650	1.7	79
34.80		**32**	4650	2.8	81	**26**	4650	2.4	80	**20**	4650	1.9	79
29.63		**37**	4650	3.4	82	**30**	4650	2.8	81	**24**	4650	2.1	80
26.93		**41**	4650	3.6	82	**33**	4650	3.1	81	**26**	4650	2.4	80
23.33		**47**	4650	4.2	83	**39**	4650	3.5	82	**30**	4650	2.7	81
20.30		**54**	4600	4.7	83	**44**	4650	4.0	82	**34**	4650	3.1	81
24.44	27/5	**45**	3140	2.5	87	**37**	3190	2.1	87	**29**	3230	1.7	86
23.22		**47**	3140	2.7	87	**39**	3190	2.3	87	**30**	3230	1.7	86
20.37		**54**	3140	3.1	88	**44**	3140	2.5	87	**34**	3230	2.0	86
17.28		**64**	3140	3.6	88	**52**	3140	3.0	88	**41**	3190	2.4	87
15.60		**71**	3100	3.9	88	**58**	3140	3.2	88	**45**	3140	2.5	87
13.73		**80**	3100	4.4	89	**66**	3140	3.8	88	**51**	3140	3.0	88
12.96		**85**	3100	4.7	89	**69**	3100	3.9	88	**54**	3140	3.1	88
11.03		**100**	3100	5.5	89	**82**	3100	4.6	89	**63**	3140	3.6	88
10.03		**110**	3050	5.9	90	**90**	3100	5.0	89	**70**	3140	3.9	88
8.69		**127**	3050	6.8	90	**104**	3100	5.6	89	**81**	3100	4.4	89
7.56		**146**	3050	7.8	90	**119**	3050	6.4	90	**93**	3100	5.1	89

All values reflect mechanical limits. Shaded area indicates additional thermal limitations where P_{emax} = 7.5 HP for continuous use.

500 - 10 rpm

02 962 097

S67													
i [ratio]	Worm ratio/ # starts	n_e = 500 rpm				n_e = 250 rpm				n_e = 10 rpm			
		n_a [rpm]	T_{amax} [lb-in]	P_e [HP]	η [%]	n_a [rpm]	T_{amax} [lb-in]	P_e [HP]	η [%]	n_a [rpm]	T_{amax} [lb-in]	P_e [HP]	η [%]
217.41	42/1	**2.3**	5040	0.34	54	**1.1**	5040	0.17	51	**0.05**	5040	0.00	47
190.11		**2.6**	5040	0.39	55	**1.3**	5040	0.20	51	**0.05**	5040	0.00	48
180.60		**2.8**	5040	0.40	55	**1.4**	5040	0.21	51	**0.06**	5040	0.00	48
158.45		**3.2**	5040	0.46	56	**1.6**	5040	0.24	52	**0.06**	5040	0.00	49
134.40		**3.7**	5000	0.51	57	**1.9**	5040	0.28	53	**0.07**	5040	0.00	50
121.33		**4.1**	4960	0.56	58	**2.1**	5040	0.31	53	**0.08**	5040	0.00	50
106.75		**4.7**	4960	0.63	59	**2.3**	5040	0.35	54	**0.09**	5040	0.00	50
100.80		**5.0**	4960	0.66	59	**2.5**	5040	0.36	55	**0.10**	5040	0.00	50
85.83		**5.8**	4910	0.75	60	**2.9**	5040	0.42	56	**0.12**	5040	0.00	51
78.00		**6.4**	4910	0.82	61	**3.2**	5040	0.46	56	**0.13**	5040	0.00	51
67.57		**7.4**	4910	0.93	62	**3.7**	5000	0.51	57	**0.15**	5000	0.00	51
58.80		**8.5**	4870	1.0	63	**4.3**	4960	0.58	58	**0.17**	4960	0.00	51
75.06	29/2	**6.7**	5040	0.72	73	**3.3**	5040	0.38	70	**0.13**	5040	0.00	68
65.63		**7.6**	5040	0.82	74	**3.8**	5040	0.43	71	**0.15**	5040	0.00	68
62.35		**8.0**	5040	0.86	74	**4.0**	5040	0.46	71	**0.16**	5040	0.00	69
54.70		**9.1**	5040	0.98	75	**4.6**	5040	0.51	71	**0.18**	5040	0.00	69
46.40		**11**	5040	1.1	76	**5.4**	5040	0.59	72	**0.22**	5040	0.00	69
41.89		**12**	5040	1.2	76	**6.0**	5040	0.66	73	**0.24**	5040	0.00	69
36.85		**14**	5040	1.5	77	**6.8**	5040	0.74	73	**0.27**	5040	0.00	69
34.80		**14**	5040	1.5	77	**7.2**	5040	0.78	74	**0.29**	5040	0.00	69
29.63		**17**	5000	1.7	78	**8.4**	5040	0.91	75	**0.34**	5040	0.00	70
26.93		**19**	5000	1.9	79	**9.3**	5040	0.99	75	**0.37**	5040	0.00	70
23.33		**21**	5000	2.1	79	**11**	5040	1.1	76	**0.43**	5040	0.00	70
20.30		**25**	5000	2.4	80	**12**	5040	1.3	77	**0.49**	5040	0.00	70
24.44	27/5	**20**	3230	1.2	85	**10**	3140	0.62	82	**0.41**	3140	0.03	80
23.22		**22**	3230	1.3	85	**11**	3140	0.66	82	**0.43**	3140	0.00	80
20.37		**25**	3360	1.5	85	**12**	3230	0.76	83	**0.49**	3230	0.00	80
17.28		**29**	3230	1.7	86	**14**	3850	1.1	83	**0.58**	3850	0.00	81
15.60		**32**	3230	1.9	86	**16**	3810	1.2	84	**0.64**	3810	0.00	81
13.73		**36**	3230	2.1	87	**18**	3670	1.3	84	**0.73**	3670	0.00	81
12.96		**39**	3190	2.3	87	**19**	3630	1.3	84	**0.77**	3630	0.00	81
11.03		**45**	3140	2.5	87	**23**	3450	1.5	85	**0.91**	3450	0.00	81
10.03		**50**	3140	2.8	88	**25**	3360	1.6	85	**1.0**	3360	0.00	81
8.69		**58**	3140	3.2	88	**29**	3270	1.7	86	**1.2**	3270	0.08	81
7.56		**66**	3140	3.8	88	**33**	3230	2.0	86	**1.3**	3230	0.08	81

11.10.5 S77

3400 - 2800 rpm

02 963 097

S77													
i	Worm ratio/ # starts	n_e = 3400 rpm				n_e = 3200 rpm				n_e = 2800 rpm			
[ratio]		n_a [rpm]	T_{amax} [lb-in]	P_e [HP]	η [%]	n_a [rpm]	T_{amax} [lb-in]	P_e [HP]	η [%]	n_a [rpm]	T_{amax} [lb-in]	P_e [HP]	η [%]
256.47		**13**	10270	3.1	71	**12**	10270	2.8	71	**11**	10270	2.5	70
225.26		**15**	10000	3.4	72	**14**	10180	3.2	71	**12**	10270	2.8	71
214.00		**16**	9820	3.5	72	**15**	10090	3.4	71	**13**	10270	3.0	71
189.09		**18**	9560	3.8	72	**17**	9740	3.6	72	**15**	10090	3.4	71
161.60		**21**	9200	4.2	73	**20**	9290	4.0	73	**17**	9650	3.6	72
148.15		**23**	8940	4.4	73	**22**	9120	4.3	73	**19**	9470	3.9	73
130.00	40/1	**26**	8580	4.8	74	**25**	8760	4.7	74	**22**	9120	4.3	73
123.20		**28**	8410	5.0	74	**26**	8580	4.8	74	**23**	8940	4.4	73
107.83		**32**	7970	5.4	74	**30**	8140	5.2	74	**26**	8580	4.8	74
97.14		**35**	7610	5.6	75	**33**	7790	5.5	74	**29**	8230	5.1	74
85.22		**40**	6810	5.8	75	**38**	7260	5.8	75	**33**	7790	5.5	75
75.20		**45**	5970	5.8	74	**43**	6420	5.8	75	**37**	7350	5.8	75
66.67		**51**	5180	5.6	74	**48**	5620	5.8	75	**42**	6590	5.9	75
56.92		**60**	4290	5.5	73	**56**	4690	5.6	74	**49**	5620	5.9	75
75.09		**45**	9030	7.5	86	**43**	9030	7.1	86	**37**	9030	6.2	86
71.33		**48**	9030	7.9	87	**45**	9030	7.4	86	**39**	9030	6.6	86
63.03		**54**	9030	8.9	87	**51**	9030	8.3	87	**44**	9030	7.4	86
53.87		**63**	8670	9.9	87	**59**	8850	9.5	87	**52**	9030	8.6	87
49.38		**69**	8410	10.5	87	**65**	8580	10.1	87	**57**	8940	9.3	87
43.33		**78**	8050	11.4	88	**74**	8230	11.0	88	**65**	8580	10.1	87
41.07	40/3	**83**	7970	11.9	88	**78**	8050	11.4	88	**68**	8410	10.5	87
35.94		**95**	7080	12.1	88	**89**	7520	12.1	88	**78**	8050	11.4	88
32.38		**105**	6420	12.2	88	**99**	6810	12.2	88	**86**	7790	12.2	88
28.41		**120**	5620	12.2	88	**113**	6020	12.2	88	**99**	6900	12.2	88
25.07		**136**	4960	12.2	88	**128**	5310	12.2	88	**112**	6150	12.3	88
22.22		**153**	4290	11.9	88	**144**	4650	12.1	88	**126**	5440	12.3	88
18.97		**179**	3500	11.4	87	**169**	3890	11.9	88	**148**	4600	12.2	88
22.89		**149**	5220	13.4	91	**140**	5220	12.7	91	**122**	5220	11.1	91
20.99		**162**	5220	14.6	92	**152**	5220	13.8	92	**133**	5220	12.1	91
18.42		**185**	5220	16.6	92	**174**	5220	15.7	92	**152**	5220	13.8	92
17.45		**195**	5220	17.6	92	**183**	5220	16.6	92	**160**	5220	14.5	92
15.28	34/6	**223**	4690	18.1	92	**209**	4960	18.0	92	**183**	5220	16.5	92
13.76		**247**	4250	18.1	92	**233**	4470	18.0	92	**203**	5180	18.2	92
12.07		**282**	3670	17.8	92	**265**	3940	18.0	92	**232**	4560	18.2	92
10.65		**319**	3230	17.8	92	**300**	3450	18.0	92	**263**	4030	18.2	92
9.44		**360**	2790	17.4	92	**339**	3050	17.8	92	**297**	3580	18.4	92
8.06		**422**	2300	16.9	91	**397**	2520	17.3	92	**347**	3010	18.1	92

All values reflect mechanical limits. Shaded area indicates additional thermal limitations where P_{emax} = 12.3 HP for continuous use.

2200 - 1400 rpm

02 963 097

S77													
i	Worm ratio/ # starts	n_e = 2200 rpm				n_e = 1700 rpm				n_e = 1400 rpm			
[ratio]		n_a [rpm]	T_{amax} [lb-in]	P_e [HP]	η [%]	n_a [rpm]	T_{amax} [lb-in]	P_e [HP]	η [%]	n_a [rpm]	T_{amax} [lb-in]	P_e [HP]	η [%]
256.47	40/1	**8.6**	11150	2.1	69	**6.6**	11240	1.7	67	**5.5**	11240	1.5	66
225.26		**9.8**	10890	2.4	69	**7.5**	11240	2.0	68	**6.2**	11240	1.6	67
214.00		**10**	10800	2.5	70	**7.9**	11240	2.1	68	**6.5**	11240	1.7	67
189.09		**12**	10620	2.8	70	**9.0**	10970	2.3	69	**7.4**	11240	2.0	68
161.60		**14**	10270	3.1	71	**11**	10800	2.5	70	**8.7**	11150	2.3	69
148.15		**15**	10090	3.4	72	**11**	10620	2.8	70	**9.4**	10970	2.4	69
130.00		**17**	9740	3.6	72	**13**	10350	3.1	71	**11**	10710	2.5	70
123.20		**18**	9560	3.8	73	**14**	10180	3.1	71	**11**	10620	2.7	70
107.83		**20**	9200	4.0	73	**16**	9820	3.4	72	**13**	10350	3.0	71
97.14		**23**	8940	4.4	74	**18**	9650	3.8	73	**14**	10090	3.2	72
85.22		**26**	8580	4.7	74	**20**	9290	4.0	73	**16**	9740	3.5	72
75.20		**29**	8140	5.1	74	**23**	8940	4.3	74	**19**	9470	3.9	73
66.67		**33**	7790	5.5	75	**25**	8580	4.7	74	**21**	9200	4.2	73
56.92		**39**	7350	6.0	75	**30**	8140	5.2	75	**25**	8760	4.6	74
75.09	40/3	**29**	9740	5.4	85	**23**	9740	4.2	84	**19**	9740	3.5	83
71.33		**31**	9740	5.6	85	**24**	9740	4.3	85	**20**	9740	3.6	84
63.03		**35**	9740	6.3	86	**27**	9740	5.0	85	**22**	9740	4.0	84
53.87		**41**	9740	7.4	86	**32**	9740	5.8	86	**26**	9740	4.7	85
49.38		**45**	9560	7.8	87	**34**	9740	6.2	86	**28**	9740	5.1	85
43.33		**51**	9290	8.6	87	**39**	9740	7.0	86	**32**	9740	5.8	86
41.07		**54**	9120	8.9	87	**41**	9740	7.4	86	**34**	9740	6.2	86
35.94		**61**	8670	9.7	87	**47**	9380	8.2	87	**39**	9740	7.0	86
32.38		**68**	8500	10.5	88	**53**	9200	8.9	87	**43**	9650	7.6	87
28.41		**77**	8140	11.4	88	**60**	8760	9.5	87	**49**	9290	8.3	87
25.07		**88**	7700	12.2	88	**68**	8500	10.5	88	**56**	9030	9.1	87
22.22		**99**	6990	12.5	88	**77**	8140	11.3	88	**63**	8670	9.9	87
18.97		**116**	6020	12.6	88	**90**	7610	12.3	88	**74**	8230	11.0	88
22.89	34/6	**96**	6280	10.6	91	**74**	6240	8.2	90	**61**	6240	6.7	90
20.99		**105**	6280	11.5	91	**81**	6240	8.9	91	**67**	6240	7.4	90
18.42		**119**	6370	13.3	91	**92**	6280	10.2	91	**76**	6240	8.3	90
17.45		**126**	6370	13.9	91	**97**	6280	10.7	91	**80**	6280	8.9	91
15.28		**144**	6370	16.0	92	**111**	6370	12.3	91	**92**	6280	10.1	91
13.76		**160**	6420	17.7	92	**124**	6370	13.7	91	**102**	6280	11.1	91
12.07		**182**	5750	18.1	92	**141**	6420	15.7	92	**116**	6370	12.9	91
10.65		**207**	5130	18.2	92	**160**	6420	17.7	92	**131**	6370	14.5	92
9.44		**233**	4600	18.5	92	**180**	5800	18.0	92	**148**	6420	16.5	92
8.06		**273**	3940	18.5	92	**211**	5090	18.5	92	**174**	6020	18.1	92

All values reflect mechanical limits. Shaded area indicates additional thermal limitations where P_{emax} = 12.3 HP for continuous use.

1100 - 700 rpm 02 964 097

S77													
i [ratio]	Worm ratio/ # starts	n_e = 1100 rpm				n_e = 900 rpm				n_e = 700 rpm			
		n_a [rpm]	T_{amax} [lb-in]	P_e [HP]	η [%]	n_a [rpm]	T_{amax} [lb-in]	P_e [HP]	η [%]	n_a [rpm]	T_{amax} [lb-in]	P_e [HP]	η [%]
256.47	40/1	**4.3**	11240	1.2	64	**3.5**	11240	1.0	63	**2.7**	11240	0.80	61
225.26		**4.9**	11240	1.3	65	**4.0**	11240	1.1	63	**3.1**	11240	0.90	62
214.00		**5.1**	11240	1.3	65	**4.2**	11240	1.2	64	**3.3**	11240	0.94	62
189.09		**5.8**	11240	1.6	66	**4.8**	11240	1.3	65	**3.7**	11240	1.0	63
161.60		**6.8**	11240	1.7	67	**5.6**	11240	1.5	66	**4.3**	11240	1.2	64
148.15		**7.4**	11240	2.0	68	**6.1**	11240	1.6	66	**4.7**	11240	1.3	65
130.00		**8.5**	11150	2.1	69	**6.9**	11240	1.9	67	**5.4**	11240	1.5	66
123.20		**8.9**	11060	2.3	69	**7.3**	11240	1.9	68	**5.7**	11240	1.5	66
107.83		**10**	10800	2.5	70	**8.3**	11150	2.1	69	**6.5**	11240	1.7	67
97.14		**11**	10620	2.7	70	**9.3**	11060	2.4	69	**7.2**	11240	1.9	68
85.22		**13**	10350	3.0	71	**11**	10800	2.5	70	**8.2**	11240	2.1	69
75.20		**15**	10090	3.2	72	**12**	10530	2.8	71	**9.3**	11060	2.4	69
66.67		**16**	9820	3.5	72	**13**	10270	3.1	71	**10**	10800	2.5	70
56.92		**19**	9380	3.9	73	**16**	9910	3.5	72	**12**	10530	3.0	71
75.09	40/3	**15**	9910	2.8	83	**12**	10000	2.3	82	**9.3**	10350	1.9	81
71.33		**15**	9910	3.0	83	**13**	10000	2.4	82	**9.8**	9910	1.9	81
63.03		**17**	9910	3.4	83	**14**	9910	2.7	82	**11**	10000	2.1	81
53.87		**20**	9910	3.9	84	**17**	9910	3.2	83	**13**	9910	2.5	82
49.38		**22**	9910	4.2	84	**18**	9910	3.5	83	**14**	9910	2.7	82
43.33		**25**	10000	4.7	85	**21**	9910	3.9	84	**16**	9910	3.1	83
41.07		**27**	10000	5.0	85	**22**	9910	4.2	84	**17**	9910	3.2	83
35.94		**31**	10180	5.8	85	**25**	10000	4.7	85	**19**	9910	3.6	84
32.38		**34**	10000	6.3	86	**28**	10000	5.2	85	**22**	9910	4.0	84
28.41		**39**	9820	7.0	86	**32**	10180	6.0	86	**25**	10000	4.6	85
25.07		**44**	9560	7.6	87	**36**	9910	6.6	86	**28**	10000	5.2	85
22.22		**50**	9290	8.4	87	**41**	9740	7.2	86	**32**	10180	5.9	86
18.97		**58**	8940	9.4	87	**47**	9380	8.2	87	**37**	9910	6.7	86
22.89	34/6	**48**	6150	5.2	89	**39**	6150	4.3	89	**31**	6240	3.5	88
20.99		**52**	6240	5.8	90	**43**	6150	4.7	89	**33**	6240	3.8	88
18.42		**60**	6200	6.6	90	**49**	6200	5.4	89	**38**	6200	4.2	89
17.45		**63**	6200	6.8	90	**52**	6200	5.6	90	**40**	6200	4.4	89
15.28		**72**	6280	7.9	90	**59**	6200	6.4	90	**46**	6200	5.1	89
13.76		**80**	6280	8.9	91	**65**	6200	7.1	90	**51**	6200	5.6	90
12.07		**91**	6280	10.1	91	**75**	6280	8.2	90	**58**	6200	6.3	90
10.65		**103**	6330	11.4	91	**85**	6280	9.3	91	**66**	6280	7.2	90
9.44		**117**	6370	12.9	91	**95**	6330	10.5	91	**74**	6280	8.2	90
8.06		**136**	6420	15.2	92	**112**	6370	12.3	91	**87**	6280	9.5	91

All values reflect mechanical limits. Shaded area indicates additional thermal limitations where P_{emax} = 12.3 HP for continuous use.

500 - 10 rpm

02 964 097

S77													
i [ratio]	Worm ratio/ # starts	n_e = 500 rpm				n_e = 250 rpm				n_e = 10 rpm			
		n_a [rpm]	T_{amax} [lb-in]	P_e [HP]	η [%]	n_a [rpm]	T_{amax} [lb-in]	P_e [HP]	η [%]	n_a [rpm]	T_{amax} [lb-in]	P_e [HP]	η [%]
256.47	40/1	**1.9**	11240	0.59	59	**0.97**	11240	0.31	56	**0.04**	11240	0.00	54
225.26		**2.2**	11240	0.66	60	**1.1**	11240	0.35	56	**0.04**	11240	0.00	55
214.00		**2.3**	11240	0.70	60	**1.2**	11240	0.38	56	**0.05**	11240	0.00	55
189.09		**2.6**	11240	0.78	61	**1.3**	11240	0.42	57	**0.05**	11240	0.00	55
161.60		**3.1**	11240	0.90	62	**1.5**	11240	0.48	58	**0.06**	11240	0.00	55
148.15		**3.4**	11240	0.97	62	**1.7**	11240	0.52	58	**0.07**	11240	0.00	55
130.00		**3.8**	11240	1.1	63	**1.9**	11240	0.58	59	**0.08**	11240	0.00	55
123.20		**4.1**	11240	1.1	64	**2.0**	11240	0.62	59	**0.08**	11240	0.00	55
107.83		**4.6**	11240	1.3	65	**2.3**	11240	0.68	60	**0.09**	11240	0.00	56
97.14		**5.1**	11240	1.3	65	**2.6**	11240	0.75	61	**0.10**	11240	0.00	56
85.22		**5.9**	11240	1.6	66	**2.9**	11240	0.84	62	**0.12**	11240	0.00	56
75.20		**6.6**	11240	1.7	67	**3.3**	11240	0.95	62	**0.13**	11240	0.00	56
66.67		**7.5**	11240	2.0	68	**3.7**	11240	1.1	63	**0.15**	11240	0.00	56
56.92		**8.8**	11150	2.3	69	**4.4**	11240	1.2	64	**0.18**	11240	0.00	56
75.09	40/3	**6.7**	10270	1.3	79	**3.3**	9910	0.68	76	**0.13**	9910	0.00	75
71.33		**7.0**	9820	1.3	79	**3.5**	9380	0.68	77	**0.14**	9380	0.00	75
63.03		**7.9**	10890	1.7	80	**4.0**	10620	0.87	77	**0.16**	10620	0.00	76
53.87		**9.3**	10440	1.9	81	**4.6**	10970	1.0	78	**0.19**	10970	0.00	76
49.38		**10**	10270	2.0	81	**5.1**	10970	1.1	78	**0.20**	10970	0.00	76
43.33		**12**	9910	2.3	82	**5.8**	10970	1.3	79	**0.23**	10970	0.00	76
41.07		**12**	9910	2.3	82	**6.1**	10970	1.3	79	**0.24**	10970	0.00	76
35.94		**14**	9910	2.7	82	**7.0**	10970	1.5	79	**0.28**	10970	0.00	76
32.38		**15**	9910	3.0	83	**7.7**	10970	1.7	80	**0.31**	10970	0.07	76
28.41		**18**	9910	3.4	83	**8.8**	10530	1.9	80	**0.35**	10530	0.08	76
25.07		**20**	9910	3.8	84	**10**	10350	2.0	81	**0.40**	10350	0.08	76
22.22		**23**	10000	4.3	84	**11**	10000	2.1	81	**0.45**	10000	0.09	76
18.97		**26**	10000	5.0	85	**13**	9910	2.5	82	**0.53**	9910	0.11	76
22.89	34/6	**22**	6110	2.4	87	**11**	5970	1.2	85	**0.44**	5970	0.00	83
20.99		**24**	6420	2.8	87	**12**	6550	1.5	85	**0.48**	6550	0.00	83
18.42		**27**	6240	3.1	88	**14**	7350	1.9	86	**0.54**	7350	0.08	83
17.45		**29**	6240	3.2	88	**14**	7170	1.9	86	**0.57**	7170	0.08	83
15.28		**33**	6240	3.6	88	**16**	6950	2.1	86	**0.65**	6950	0.08	83
13.76		**36**	6150	4.0	89	**18**	6810	2.3	87	**0.73**	6810	0.09	83
12.07		**41**	6150	4.6	89	**21**	6640	2.5	87	**0.83**	6640	0.11	83
10.65		**47**	6150	5.1	89	**23**	6420	2.7	87	**0.94**	6420	0.12	83
9.44		**53**	6240	5.9	90	**26**	6240	3.0	88	**1.1**	6240	0.12	83
8.06		**62**	6240	6.8	90	**31**	6240	3.5	88	**1.2**	6240	0.15	83

11.10.6 S87

3400 - 2800 rpm

02 965 097

S87

i [ratio]	Worm ratio/ # starts	n_e = 3400 rpm				n_e = 3200 rpm				n_e = 2800 rpm			
		n_a [rpm]	T_{amax} [lb-in]	P_e [HP]	η [%]	n_a [rpm]	T_{amax} [lb-in]	P_e [HP]	η [%]	n_a [rpm]	T_{amax} [lb-in]	P_e [HP]	η [%]
288.00		**12**	17970	4.6	74	**11**	18320	4.4	73	**9.7**	18320	3.9	73
258.18		**13**	17610	5.0	74	**12**	17790	4.7	74	**11**	18320	4.3	73
222.40		**15**	16900	5.5	75	**14**	17260	5.4	74	**13**	17790	4.8	74
202.96		**17**	16370	5.8	75	**16**	16730	5.6	75	**14**	17430	5.1	74
180.00		**19**	15930	6.3	75	**18**	16200	6.0	75	**16**	16900	5.6	75
151.30		**22**	14960	7.1	75	**21**	15310	6.8	75	**19**	15930	6.2	75
139.05	40/1	**24**	14430	7.4	76	**23**	14870	7.2	76	**20**	15580	6.6	75
123.48		**28**	13890	8.0	76	**26**	14160	7.6	76	**23**	14960	7.1	76
110.40		**31**	12660	8.2	76	**29**	13630	8.3	76	**25**	14340	7.6	76
99.26		**34**	11150	8.0	75	**32**	12210	8.3	76	**28**	13720	8.0	76
86.15		**39**	9120	7.8	74	**37**	10180	8.0	75	**33**	12300	8.3	76
77.14		**44**	7350	7.1	72	**41**	8580	7.6	74	**36**	10800	8.2	76
64.00		**53**	4430	5.8	65	**50**	5490	6.3	68	**44**	8500	7.9	75
91.20		**37**	13010	8.9	88	**35**	13010	8.3	87	**31**	13010	7.2	87
81.76		**42**	13010	9.8	88	**39**	13010	9.3	88	**34**	13010	8.0	87
70.43		**48**	13010	11.3	88	**45**	13010	10.6	88	**40**	13010	9.4	88
64.27		**53**	13010	12.3	88	**50**	13010	11.7	88	**44**	13010	10.2	88
57.00		**60**	13010	13.9	88	**56**	13010	13.1	88	**49**	13010	11.5	88
47.91		**71**	13010	16.5	89	**67**	13010	15.6	89	**58**	13010	13.7	88
44.03	38/3	**77**	13010	18.0	89	**73**	13010	16.9	89	**64**	13010	14.8	89
39.10		**87**	11510	17.8	89	**82**	12390	18.1	89	**72**	13010	16.6	89
34.96		**97**	10090	17.6	89	**92**	10970	18.0	89	**80**	12740	18.2	89
31.43		**108**	8850	17.2	88	**102**	9650	17.6	89	**89**	11420	18.1	89
27.28		**125**	7170	16.2	88	**117**	8050	17.0	88	**103**	9820	18.0	89
24.43		**139**	5840	14.9	87	**131**	6860	16.2	88	**115**	8500	17.4	89
20.27		**168**	3500	11.3	82	**158**	4340	12.9	84	**138**	6680	16.6	88
25.50		**133**	8760	20	92	**125**	8760	18.9	92	**110**	8760	16.6	92
21.43		**159**	8760	24	92	**149**	8760	23	92	**131**	8760	19.7	92
19.70		**173**	8760	25	92	**162**	8760	25	92	**142**	8760	21	92
17.49		**194**	7700	25	92	**183**	8230	25	92	**160**	8760	24	92
15.64	34/6	**217**	6730	25	92	**205**	7350	25	92	**179**	8500	25	92
14.06		**242**	5840	24	92	**228**	6420	25	92	**199**	7610	25	92
12.21		**278**	4780	23	91	**262**	5350	24	92	**229**	6460	25	92
10.93		**311**	3890	21	90	**293**	4510	23	91	**256**	5710	25	92
9.07		**375**	2260	15.4	87	**353**	2880	18.1	89	**309**	4430	24	92
7.88		**431**	1770	14.1	86	**406**	2040	15.2	87	**355**	3320	21	90

All values reflect mechanical limits. Shaded area indicates additional thermal limitations where P_{emax} = 20 HP for continuous use.

2200 - 1400 rpm

02 965 097

S87

i [ratio]	Worm ratio/ # starts	n_e = 2200 rpm				n_e = 1700 rpm				n_e = 1400 rpm			
		n_a [rpm]	T_{amax} [lb-in]	P_e [HP]	η [%]	n_a [rpm]	T_{amax} [lb-in]	P_e [HP]	η [%]	n_a [rpm]	T_{amax} [lb-in]	P_e [HP]	η [%]
288.00		**7.6**	19560	3.4	71	**5.9**	20180	2.7	70	**4.9**	20180	2.3	69
258.18		**8.5**	19200	3.6	72	**6.6**	20000	3.0	71	**5.4**	20180	2.5	69
222.40		**9.9**	18850	4.0	73	**7.6**	19560	3.4	71	**6.3**	20180	2.8	70
202.96		**11**	18410	4.3	73	**8.4**	19380	3.6	72	**6.9**	20000	3.1	71
180.00		**12**	17880	4.7	74	**9.4**	18850	3.9	73	**7.8**	19560	3.4	72
151.30		**15**	17170	5.4	75	**11**	18230	4.4	74	**9.3**	19030	3.9	73
139.05	40/1	**16**	16640	5.6	75	**12**	17880	4.7	74	**10**	18590	4.0	73
123.48		**18**	16110	6.0	75	**14**	17350	5.1	74	**11**	18230	4.4	74
110.40		**20**	15660	6.6	76	**15**	16820	5.5	75	**13**	17700	4.8	74
99.26		**22**	15050	7.0	76	**17**	16280	5.9	75	**14**	17350	5.2	75
86.15		**26**	14340	7.6	76	**20**	15660	6.4	76	**16**	16640	5.8	75
77.14		**29**	13630	8.0	76	**22**	15050	7.0	76	**18**	16110	6.2	76
64.00		**34**	12040	8.6	77	**27**	13980	7.6	77	**22**	15050	6.8	76
91.20		**24**	13630	6.0	87	**19**	13450	4.7	86	**15**	13360	3.9	85
81.76		**27**	14160	7.0	87	**21**	14160	5.4	86	**17**	14160	4.6	86
70.43		**31**	14160	8.0	87	**24**	14160	6.3	87	**20**	14160	5.2	86
64.27		**34**	14160	8.9	88	**26**	14160	6.8	87	**22**	14160	5.6	86
57.00		**39**	14160	9.9	88	**30**	14160	7.6	87	**25**	14160	6.4	87
47.91		**46**	14160	11.7	88	**35**	14160	9.1	88	**29**	14160	7.5	87
44.03	38/3	**50**	14160	12.7	88	**39**	14160	9.9	88	**32**	14160	8.2	87
39.10		**56**	14160	14.2	89	**43**	14160	11.1	88	**36**	14160	9.1	88
34.96		**63**	14160	16.0	89	**49**	14160	12.3	88	**40**	14160	10.2	88
31.43		**70**	14160	17.7	89	**54**	14160	13.7	89	**45**	14160	11.4	88
27.28		**81**	12830	18.4	89	**62**	14160	15.7	89	**51**	14160	13.0	89
24.43		**90**	11590	18.5	89	**70**	14160	17.6	89	**57**	14160	14.5	89
20.27		**109**	9560	18.5	89	**84**	12570	18.8	89	**69**	14160	17.4	89
25.50		**86**	10970	16.4	92	**67**	10970	12.7	91	**55**	10970	10.5	91
21.43		**103**	10970	19.4	92	**79**	10970	15.0	92	**65**	10970	12.5	91
19.70		**112**	10970	21	92	**86**	10970	16.4	92	**71**	10970	13.5	91
17.49		**126**	10970	24	92	**97**	10970	18.4	92	**80**	10970	15.2	92
15.64	34/6	**141**	10890	27	92	**109**	10970	21	92	**90**	10970	17.0	92
14.06		**156**	9820	27	92	**121**	10970	23	92	**100**	10970	18.9	92
12.21		**180**	8580	27	93	**139**	10970	27	92	**115**	10970	22	92
10.93		**201**	7700	27	93	**156**	10000	27	93	**128**	10970	24	92
9.07		**243**	6370	27	92	**187**	8410	27	93	**154**	10090	27	93
7.88		**279**	5350	25	92	**216**	7350	27	93	**178**	8940	27	93

All values reflect mechanical limits. Shaded area indicates additional thermal limitations where P_{emax} = 20 HP for continuous use.

1100 - 700 rpm 02 966 097

S87													
		n_e = 1100 rpm				n_e = 900 rpm				n_e = 700 rpm			
i [ratio]	Worm ratio/ # starts	n_a [rpm]	T_{amax} [lb-in]	P_e [HP]	η [%]	n_a [rpm]	T_{amax} [lb-in]	P_e [HP]	η [%]	n_a [rpm]	T_{amax} [lb-in]	P_e [HP]	η [%]
288.00		**3.8**	21240	1.9	67	**3.1**	21680	1.6	66	**2.4**	21950	1.3	64
258.18		**4.3**	21060	2.1	68	**3.5**	21510	1.7	67	**2.7**	21860	1.5	65
222.40		**4.9**	20800	2.4	69	**4.0**	21240	2.0	68	**3.1**	21680	1.6	66
202.96		**5.4**	20620	2.5	70	**4.4**	21060	2.1	68	**3.4**	21510	1.7	67
180.00		**6.1**	20180	2.8	70	**5.0**	20800	2.4	69	**3.9**	21240	1.9	68
151.30		**7.3**	19820	3.2	71	**5.9**	20440	2.7	70	**4.6**	20800	2.3	69
139.05	40/1	**7.9**	19380	3.4	72	**6.5**	20000	3.0	71	**5.0**	20620	2.4	69
123.48		**8.9**	19030	3.8	73	**7.3**	19820	3.2	71	**5.7**	20440	2.7	70
110.40		**10**	18670	4.0	73	**8.2**	19380	3.5	72	**6.3**	20180	2.8	71
99.26		**11**	18320	4.4	74	**9.1**	19030	3.8	73	**7.1**	19820	3.1	71
86.15		**13**	17700	4.8	74	**10**	18500	4.2	73	**8.1**	19380	3.5	72
77.14		**14**	17170	5.2	75	**12**	18050	4.6	74	**9.1**	19030	3.8	73
64.00		**17**	16280	5.9	76	**14**	17350	5.2	75	**11**	18320	4.3	74
91.20		**12**	13190	3.0	84	**9.9**	13100	2.4	83	**7.7**	12920	1.9	82
81.76		**13**	15580	3.9	85	**11**	15580	3.2	84	**8.6**	15580	2.5	83
70.43		**16**	15580	4.6	85	**13**	15580	3.8	85	**9.9**	15580	3.0	83
64.27		**17**	15580	5.0	86	**14**	15580	4.0	85	**11**	15580	3.2	84
57.00		**19**	15580	5.5	86	**16**	15580	4.6	85	**12**	15580	3.6	84
47.91		**23**	15580	6.6	87	**19**	15580	5.4	86	**15**	15580	4.3	85
44.03	38/3	**25**	15580	7.1	87	**20**	15580	5.9	86	**16**	15580	4.6	85
39.10		**28**	15580	8.0	87	**23**	15580	6.6	87	**18**	15580	5.2	86
34.96		**31**	15580	8.9	88	**26**	15580	7.4	87	**20**	15580	5.8	86
31.43		**35**	15580	9.9	88	**29**	15580	8.2	87	**22**	15580	6.3	87
27.28		**40**	15580	11.3	88	**33**	15580	9.3	88	**26**	15580	7.2	87
24.43		**45**	15580	12.6	88	**37**	15580	10.3	88	**29**	15580	8.0	87
20.27		**54**	15580	15.2	89	**44**	15580	12.5	88	**35**	15580	9.7	88
25.50		**43**	11860	9.0	90	**35**	11860	7.4	90	**27**	11860	5.8	89
21.43		**51**	11860	10.6	91	**42**	11860	8.7	90	**33**	11860	6.8	90
19.70		**56**	11860	11.5	91	**46**	11860	9.5	91	**36**	11860	7.4	90
17.49		**63**	11860	13.0	91	**51**	11860	10.6	91	**40**	11860	8.3	90
15.64	34/6	**70**	11860	14.5	92	**58**	11860	11.9	91	**45**	11860	9.3	91
14.06		**78**	11860	16.1	92	**64**	11860	13.1	91	**50**	11860	10.3	91
12.21		**90**	11860	18.5	92	**74**	11860	15.2	92	**57**	11860	11.8	91
10.93		**101**	11860	21	92	**82**	11860	16.9	92	**64**	11860	13.1	91
9.07		**121**	11860	25	92	**99**	11860	20	92	**77**	11860	15.8	92
7.88		**140**	11150	27	93	**114**	11860	23	92	**89**	11860	18.2	92

All values reflect mechanical limits. Shaded area indicates additional thermal limitations where P_{emax} = 20 HP for continuous use.

500 - 10 rpm

02 966 097

S87

i [ratio]	Worm ratio/ # starts	n_e = 500 rpm				n_e = 250 rpm				n_e = 10 rpm			
		n_a [rpm]	T_{amax} [lb-in]	P_e [HP]	η [%]	n_a [rpm]	T_{amax} [lb-in]	P_e [HP]	η [%]	n_a [rpm]	T_{amax} [lb-in]	P_e [HP]	η [%]
288.00		**1.7**	22130	0.98	62	**0.87**	22130	0.51	59	**0.03**	22130	0.00	58
258.18		**1.9**	22130	1.1	63	**0.97**	22130	0.58	59	**0.04**	22130	0.00	58
222.40		**2.2**	22130	1.2	64	**1.1**	22130	0.66	60	**0.04**	22130	0.00	59
202.96		**2.5**	21950	1.3	64	**1.2**	22130	0.71	61	**0.05**	22130	0.00	59
180.00		**2.8**	21950	1.5	65	**1.4**	22130	0.80	61	**0.06**	22130	0.00	59
151.30		**3.3**	21510	1.7	67	**1.7**	22130	0.94	62	**0.07**	22130	0.00	59
139.05	40/1	**3.6**	21510	1.9	67	**1.8**	22130	1.0	63	**0.07**	22130	0.00	59
123.48		**4.0**	21240	2.0	68	**2.0**	22130	1.1	63	**0.08**	22130	0.00	59
110.40		**4.5**	21060	2.1	69	**2.3**	22130	1.2	64	**0.09**	22130	0.00	59
99.26		**5.0**	20620	2.4	69	**2.5**	21860	1.3	65	**0.10**	21860	0.00	59
86.15		**5.8**	20440	2.7	70	**2.9**	21680	1.5	66	**0.12**	21680	0.07	59
77.14		**6.5**	20000	3.0	71	**3.2**	21510	1.6	66	**0.13**	21510	0.08	59
64.00		**7.8**	19650	3.4	72	**3.9**	21240	2.0	68	**0.16**	21240	0.09	59
91.20		**5.5**	12830	1.3	81	**2.7**	12300	0.68	79	**0.11**	12300	0.00	78
81.76		**6.1**	17350	2.0	82	**3.1**	16640	1.0	79	**0.12**	16640	0.00	78
70.43		**7.1**	17520	2.4	82	**3.5**	17520	1.2	80	**0.14**	17520	0.00	79
64.27		**7.8**	17520	2.7	83	**3.9**	17520	1.3	80	**0.16**	17520	0.00	79
57.00		**8.8**	17520	3.0	83	**4.4**	17520	1.5	80	**0.18**	17520	0.00	79
47.91		**10**	17520	3.5	84	**5.2**	17520	1.7	81	**0.21**	17520	0.08	79
44.03	38/3	**11**	17520	3.8	84	**5.7**	17520	1.9	81	**0.23**	17520	0.08	79
39.10		**13**	17520	4.2	85	**6.4**	17520	2.1	82	**0.26**	17520	0.09	79
34.96		**14**	17520	4.7	85	**7.2**	17520	2.4	82	**0.29**	17520	0.11	79
31.43		**16**	17520	5.2	85	**8.0**	17520	2.7	83	**0.32**	17520	0.11	79
27.28		**18**	17520	5.9	86	**9.2**	17520	3.1	83	**0.37**	17520	0.13	79
24.43		**20**	17520	6.6	86	**10**	17520	3.4	84	**0.41**	17520	0.15	79
20.27		**25**	17520	7.9	87	**12**	17520	4.0	85	**0.49**	17520	0.17	79
25.50		**20**	12660	4.4	88	**9.8**	12300	2.1	87	**0.39**	12300	0.09	85
21.43		**23**	12570	5.2	89	**12**	13360	2.8	87	**0.47**	13360	0.12	85
19.70		**25**	12480	5.6	89	**13**	13890	3.2	87	**0.51**	13890	0.13	85
17.49		**29**	12300	6.2	89	**14**	13890	3.6	88	**0.57**	13890	0.15	85
15.64	34/6	**32**	12300	7.0	90	**16**	13630	3.9	88	**0.64**	13630	0.16	85
14.06		**36**	12300	7.6	90	**18**	13360	4.3	88	**0.71**	13360	0.17	85
12.21		**41**	12300	8.9	90	**20**	12920	4.7	89	**0.82**	12920	0.20	85
10.93		**46**	12300	9.8	91	**23**	12660	5.2	89	**0.91**	12660	0.21	85
9.07		**55**	12480	11.9	91	**28**	12300	6.0	89	**1.1**	12300	0.25	85
7.88		**63**	12480	13.8	91	**32**	12300	6.8	90	**1.3**	12300	0.30	85

11.10.7 S97

3400 - 2800 rpm

02 967 097

S97													
		n_e = 3400 rpm				n_e = 3200 rpm				n_e = 2800 rpm			
i [ratio]	Worm ratio/ # starts	n_a [rpm]	T_{amax} [lb-in]	P_e [HP]	η [%]	n_a [rpm]	T_{amax} [lb-in]	P_e [HP]	η [%]	n_a [rpm]	T_{amax} [lb-in]	P_e [HP]	η [%]
286.40		**12**	31150	7.8	76	**11**	31770	7.5	76	**9.8**	32750	6.7	75
262.22		**13**	30530	8.3	76	**12**	31150	7.9	76	**11**	32130	7.2	75
231.67		**15**	29290	9.0	76	**14**	29910	8.6	76	**12**	31150	7.9	76
196.52		**17**	27610	9.9	77	**16**	28410	9.7	76	**14**	29650	8.9	76
180.95		**19**	26820	10.5	77	**18**	27610	10.1	77	**15**	28760	9.3	76
161.74		**21**	25750	11.1	77	**20**	26280	10.7	77	**17**	27610	9.9	77
145.60	40/1	**23**	24430	11.8	77	**22**	25220	11.4	77	**19**	26550	10.6	77
131.85		**26**	23540	12.6	77	**24**	24250	12.2	77	**21**	25490	11.1	77
116.92		**29**	20530	12.5	76	**27**	22570	12.7	77	**24**	24250	11.9	77
105.71		**32**	17520	11.9	75	**30**	19560	12.3	76	**26**	23280	12.7	77
89.60		**38**	11330	9.8	70	**36**	14780	11.4	74	**31**	19560	12.6	77
78.26		**43**	8140	8.6	65	**41**	9200	9.0	67	**36**	15660	11.8	75
65.45		**52**	5970	7.9	63	**49**	6860	8.3	64	**43**	9120	9.1	68
80.85		**42**	27880	21	89	**40**	27880	19.6	89	**35**	27880	17.2	89
71.43		**48**	27350	23	90	**45**	27880	22	89	**39**	27880	19.4	89
60.59		**56**	25750	25	90	**53**	26280	25	90	**46**	27610	23	90
55.79		**61**	24960	27	90	**57**	25490	25	90	**50**	26820	24	90
49.87		**68**	23980	30	90	**64**	24430	28	90	**56**	25750	25	90
44.89	37/3	**76**	21510	28	90	**71**	23280	30	90	**62**	24690	27	90
40.65		**84**	19200	28	90	**79**	20800	30	90	**69**	23720	28	90
36.05		**94**	16200	27	89	**89**	17880	28	89	**78**	21240	30	90
32.60		**104**	13810	25	89	**98**	15580	27	89	**86**	19030	30	90
27.63		**123**	8940	20	86	**116**	11680	24	88	**101**	15400	28	89
24.13		**141**	6420	17.3	83	**133**	7260	18.2	84	**116**	12300	25	88
26.39		**129**	15490	34	93	**121**	15490	32	93	**106**	15490	28	93
23.59		**144**	15490	38	93	**136**	15490	36	93	**119**	15490	31	93
21.23		**160**	15490	43	93	**151**	15490	40	93	**132**	15490	35	93
19.23		**177**	13720	42	93	**166**	14870	42	93	**146**	15490	39	93
17.05	35/6	**199**	11680	40	93	**188**	12830	42	93	**164**	15310	43	93
15.42		**220**	9820	38	92	**208**	11150	40	93	**182**	13630	42	93
13.07		**260**	6420	30	90	**245**	8320	35	92	**214**	10970	40	93
11.41		**298**	4560	25	88	**280**	5180	25	89	**245**	8850	38	92
9.55		**356**	3320	22	87	**335**	3850	23	87	**293**	5130	27	89
8.26		**412**	2570	19.7	85	**387**	2960	21	86	**339**	4030	25	88

All values reflect mechanical limits. Shaded area indicates additional thermal limitations where P_{emax} = 30 HP for continuous use.

2200 - 1400 rpm

02 967 097

S97

i [ratio]	Worm ratio/ # starts	n_e = 2200 rpm				n_e = 1700 rpm				n_e = 1400 rpm			
		n_a [rpm]	T_{amax} [lb-in]	P_e [HP]	η [%]	n_a [rpm]	T_{amax} [lb-in]	P_e [HP]	η [%]	n_a [rpm]	T_{amax} [lb-in]	P_e [HP]	η [%]
286.40		**7.7**	34690	5.6	74	**5.9**	35400	4.6	73	**4.9**	35400	3.9	72
262.22		**8.4**	33980	6.0	75	**6.5**	35400	5.0	73	**5.3**	35400	4.2	72
231.67		**9.5**	33360	6.7	75	**7.3**	35050	5.5	74	**6.0**	35400	4.7	73
196.52		**11**	31680	7.4	76	**8.7**	33980	6.3	75	**7.1**	35400	5.4	74
180.95		**12**	31060	7.9	76	**9.4**	33360	6.6	75	**7.7**	34690	5.8	74
161.74		**14**	30180	8.6	76	**11**	32300	7.1	76	**8.7**	33980	6.3	75
145.60	40/1	**15**	28940	9.1	77	**12**	31420	7.6	76	**9.6**	33010	6.7	75
131.85		**17**	28050	9.7	77	**13**	30440	8.2	76	**11**	32300	7.2	76
116.92		**19**	26730	10.3	77	**15**	29560	8.9	77	**12**	31060	7.8	76
105.71		**21**	25930	11.1	77	**16**	28410	9.4	77	**13**	30440	8.3	76
89.60		**25**	24160	12.2	77	**19**	26730	10.5	77	**16**	28670	9.3	77
78.26		**28**	22480	12.9	78	**22**	25400	11.3	78	**18**	27260	10.1	77
65.45		**34**	18760	13.0	77	**26**	23450	12.3	78	**21**	25670	11.1	78
80.85		**27**	29210	14.2	89	**21**	28940	11.0	88	**17**	28590	9.0	88
71.43		**31**	29210	16.1	89	**24**	29210	12.5	88	**20**	29210	10.3	88
60.59		**36**	29210	18.9	89	**28**	29210	14.6	89	**23**	29210	12.1	88
55.79		**39**	28940	20	89	**30**	29210	15.8	89	**25**	29210	13.1	88
49.87		**44**	28050	22	90	**34**	29210	17.7	89	**28**	29210	14.6	89
44.89	37/3	**49**	26990	23	90	**38**	29210	19.6	89	**31**	29210	16.2	89
40.65		**54**	26110	25	90	**42**	28590	21	90	**34**	29210	17.8	89
36.05		**61**	24870	27	90	**47**	27520	23	90	**39**	29210	20	89
32.60		**67**	23900	28	90	**52**	26370	24	90	**43**	28320	21	90
27.63		**80**	21150	30	90	**62**	24870	27	90	**51**	26640	24	90
24.13		**91**	18230	30	90	**70**	23630	30	90	**58**	25400	25	90
26.39		**83**	22570	32	93	**64**	23010	25	93	**53**	23010	21	92
23.59		**93**	21680	35	93	**72**	23010	28	93	**59**	23010	23	93
21.23		**104**	21060	38	93	**80**	22740	31	93	**66**	23010	25	93
19.23		**114**	20180	39	93	**88**	22130	34	93	**73**	23010	28	93
17.05	35/6	**129**	19200	42	93	**100**	21240	36	93	**82**	22740	32	93
15.42		**143**	18050	44	93	**110**	20360	38	93	**91**	21860	34	93
13.07		**168**	15220	43	93	**130**	19200	43	93	**107**	20620	38	93
11.41		**193**	13100	43	93	**149**	17700	44	93	**123**	19560	40	93
9.55		**230**	10620	42	93	**178**	14780	44	93	**147**	18050	44	94
8.26		**266**	8670	40	93	**206**	12740	44	93	**169**	15660	46	94

All values reflect mechanical limits. Shaded area indicates additional thermal limitations where P_{emax} = 30 HP for continuous use.

1100 - 700 rpm 02 968 097

S97

i [ratio]	Worm ratio/ # starts	n_e = 1100 rpm				n_e = 900 rpm				n_e = 700 rpm			
		n_a [rpm]	T_{amax} [lb-in]	P_e [HP]	η [%]	n_a [rpm]	T_{amax} [lb-in]	P_e [HP]	η [%]	n_a [rpm]	T_{amax} [lb-in]	P_e [HP]	η [%]
286.40		**3.8**	37170	3.2	70	**3.1**	37170	2.7	69	**2.4**	37170	2.1	68
262.22		**4.2**	37170	3.5	71	**3.4**	37170	3.0	70	**2.7**	37170	2.3	68
231.67		**4.7**	37170	3.9	72	**3.9**	37170	3.2	70	**3.0**	37170	2.5	69
196.52		**5.6**	36820	4.6	73	**4.6**	37170	3.8	71	**3.6**	37170	3.0	70
180.95		**6.1**	36460	4.8	73	**5.0**	37170	4.0	72	**3.9**	37170	3.2	70
161.74		**6.8**	35670	5.2	74	**5.6**	36820	4.4	73	**4.3**	37170	3.6	71
145.60	40/1	**7.6**	34960	5.6	74	**6.2**	36110	4.8	73	**4.8**	37170	3.9	72
131.85		**8.3**	34340	6.0	75	**6.8**	35670	5.2	74	**5.3**	37170	4.3	72
116.92		**9.4**	33280	6.6	75	**7.7**	34600	5.6	74	**6.0**	36460	4.7	73
105.71		**10**	32300	7.1	76	**8.5**	33980	6.2	75	**6.6**	35670	5.1	74
89.60		**12**	30980	7.9	76	**10**	32660	6.8	76	**7.8**	34600	5.8	75
78.26		**14**	29820	8.7	77	**12**	31680	7.6	76	**8.9**	33630	6.3	75
65.45		**17**	28050	9.7	77	**14**	30090	8.6	77	**11**	32300	7.2	76
80.85		**14**	28590	7.1	87	**11**	28320	5.8	86	**8.7**	28050	4.6	85
71.43		**15**	31860	9.0	87	**13**	31860	7.4	87	**9.8**	31860	5.8	86
60.59		**18**	31860	10.5	88	**15**	31860	8.6	87	**12**	31860	6.7	86
55.79		**20**	31860	11.4	88	**16**	31860	9.4	87	**13**	31860	7.4	87
49.87		**22**	31860	12.6	88	**18**	31860	10.5	88	**14**	31860	8.2	87
44.89	37/3	**25**	31860	13.9	88	**20**	31860	11.5	88	**16**	31860	9.0	87
40.65		**27**	31860	15.4	89	**22**	31860	12.7	88	**17**	31860	9.9	88
36.05		**31**	31240	17.0	89	**25**	31860	14.2	89	**19**	31860	11.1	88
32.60		**34**	30270	18.1	89	**28**	31860	15.7	89	**21**	31860	12.3	88
27.63		**40**	28850	20	90	**33**	30620	17.7	89	**25**	31860	14.5	89
24.13		**46**	27700	22	90	**37**	29380	19.4	89	**29**	31510	16.4	89
26.39		**42**	23450	16.9	92	**34**	23190	13.7	92	**27**	23190	10.7	91
23.59		**47**	23450	18.8	92	**38**	23450	15.4	92	**30**	23190	11.9	91
21.23		**52**	23450	21	92	**42**	23450	17.2	92	**33**	23190	13.3	92
19.23		**57**	23450	23	93	**47**	23450	18.9	92	**36**	23190	14.6	92
17.05	35/6	**65**	23630	25	93	**53**	23450	21	92	**41**	23450	16.6	92
15.42		**71**	23630	28	93	**58**	23450	23	93	**45**	23450	18.4	92
13.07		**84**	22480	32	93	**69**	23630	28	93	**54**	23450	22	92
11.41		**96**	21420	35	93	**79**	22920	31	93	**61**	23450	25	93
9.55		**115**	20180	39	93	**94**	21590	35	93	**73**	23450	30	93
8.26		**133**	18940	43	94	**109**	20530	38	93	**85**	22480	32	93

All values reflect mechanical limits. Shaded area indicates additional thermal limitations where P_{emax} = 30 HP for continuous use.

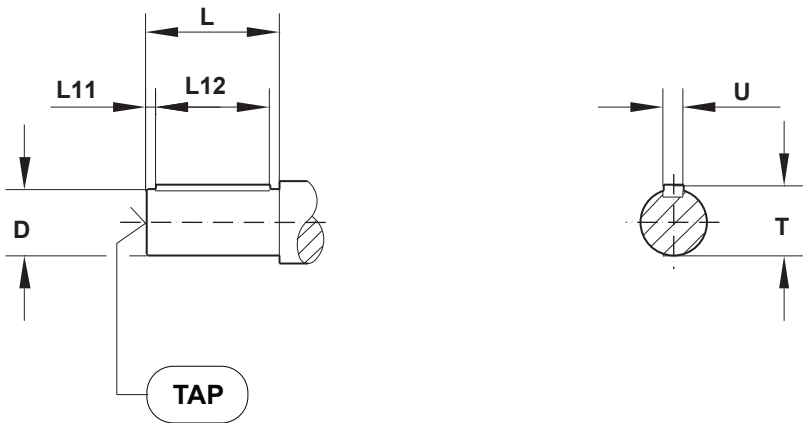
500 - 10 rpm

02 968 097

S97													
i [ratio]	Worm ratio/ # starts	n_e = 500 rpm				n_e = 250 rpm				n_e = 10 rpm			
		n_a [rpm]	T_{amax} [lb-in]	P_e [HP]	η [%]	n_a [rpm]	T_{amax} [lb-in]	P_e [HP]	η [%]	n_a [rpm]	T_{amax} [lb-in]	P_e [HP]	η [%]
286.40		**1.7**	37170	1.6	65	**0.87**	37170	0.83	62	**0.03**	37170	0.00	60
262.22		**1.9**	37170	1.7	66	**0.95**	37170	0.91	62	**0.04**	37170	0.00	60
231.67		**2.2**	37170	1.9	67	**1.1**	37170	1.0	63	**0.04**	37170	0.00	60
196.52		**2.5**	37170	2.1	68	**1.3**	37170	1.2	64	**0.05**	37170	0.00	60
180.95		**2.8**	37170	2.4	68	**1.4**	37170	1.3	64	**0.06**	37170	0.00	60
161.74		**3.1**	37170	2.7	69	**1.5**	37170	1.5	65	**0.06**	37170	0.00	60
145.60	40/1	**3.4**	37170	3.0	70	**1.7**	37170	1.6	65	**0.07**	37170	0.07	60
131.85		**3.8**	37170	3.2	70	**1.9**	37170	1.7	66	**0.08**	37170	0.08	60
116.92		**4.3**	37170	3.5	71	**2.1**	37170	1.9	67	**0.09**	37170	0.08	60
105.71		**4.7**	37170	3.9	72	**2.4**	37170	2.0	67	**0.09**	37170	0.09	60
89.60		**5.6**	36820	4.4	73	**2.8**	37170	2.4	69	**0.11**	37170	0.11	60
78.26		**6.4**	36110	5.0	74	**3.2**	37170	2.7	69	**0.13**	37170	0.12	60
65.45		**7.6**	34600	5.6	75	**3.8**	37170	3.2	70	**0.15**	37170	0.15	60
80.85		**6.2**	27520	3.2	84	**3.1**	26640	1.6	82	**0.12**	26640	0.00	80
71.43		**7.0**	37170	4.8	85	**3.5**	36820	2.5	82	**0.14**	36820	0.11	81
60.59		**8.3**	37170	5.8	85	**4.1**	36110	2.8	83	**0.17**	36110	0.12	81
55.79		**9.0**	37170	6.2	86	**4.5**	37170	3.2	83	**0.18**	37170	0.13	81
49.87		**10**	37170	6.8	86	**5.0**	37170	3.5	83	**0.20**	37170	0.15	81
44.89	37/3	**11**	36820	7.5	86	**5.6**	37170	3.9	84	**0.22**	37170	0.16	81
40.65		**12**	36460	8.2	87	**6.2**	37170	4.3	84	**0.25**	37170	0.17	81
36.05		**14**	36110	9.1	87	**6.9**	37170	4.8	85	**0.28**	37170	0.20	81
32.60		**15**	35310	9.8	87	**7.7**	37170	5.4	85	**0.31**	37170	0.23	81
27.63		**18**	34600	11.3	88	**9.0**	37170	6.3	86	**0.36**	37170	0.27	81
24.13		**21**	33630	12.5	88	**10**	37170	7.1	86	**0.41**	37170	0.31	81
26.39		**19**	22920	7.6	90	**9.5**	22480	3.8	89	**0.38**	22480	0.16	87
23.59		**21**	22920	8.4	91	**11**	22480	4.3	89	**0.42**	22480	0.17	87
21.23		**24**	22920	9.4	91	**12**	22740	4.8	89	**0.47**	22740	0.20	87
19.23		**26**	23190	10.5	91	**13**	22740	5.2	89	**0.52**	22740	0.21	87
17.05	35/6	**29**	23190	11.8	91	**15**	22740	5.9	90	**0.59**	22740	0.24	87
15.42		**32**	23190	13.0	92	**16**	22740	6.4	90	**0.65**	22740	0.27	87
13.07		**38**	23450	15.6	92	**19**	22920	7.6	90	**0.77**	22920	0.32	87
11.41		**44**	23450	17.7	92	**22**	22920	8.9	91	**0.88**	22920	0.36	87
9.55		**52**	23450	21	92	**26**	23190	10.6	91	**1.0**	23190	0.44	87
8.26		**61**	23450	24	93	**30**	23190	12.2	91	**1.2**	23190	0.51	87

11.11 Output shaft sizes

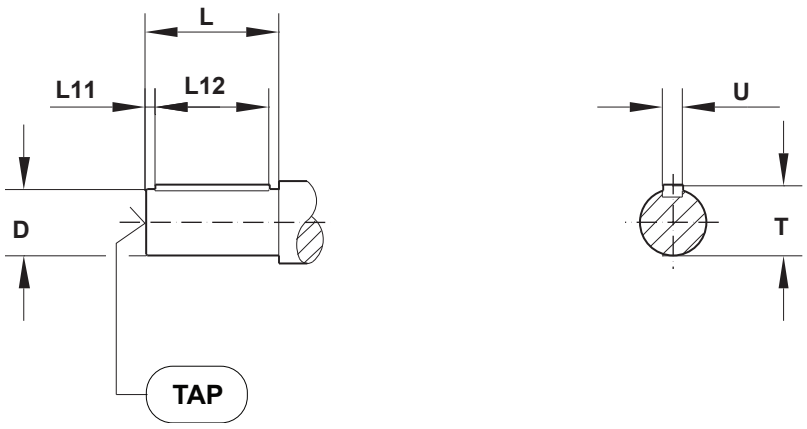
11.11.1 Solid shaft - Inch



All dimensions in inches							
Model	**D**	**T**	**U**	**L[1)]**	**L11**	**L12**	**TAP**
S..37	0.75	0.83	3/16	1.57	0.25	1-1/16	1/4 - 20 x 0.63
S..47	1	1.11	1/4	1.97	0.32	1-5/16	3/8 - 16 x 0.87
S..57	1.25	1.36	1/4	2.36	0.26	1-11/16	1/2 - 13 x 1.12
S..67	1.375	1.51	5/16	2.76	0.43	1-13/16	1/2 - 13 x 1.12
S..77	1.75	1.92	3/8	3.54	0.38	2-3/4	5/8 - 11 x 1.38
S..87	2.375	2.65	5/8	4.72	0.51	3-5/8	3/4 - 10 x 1.61
S..97	2.875	3.2	3/4	5.51	0.67	4-1/8	3/4 - 10 x 1.61

1) Longer shafts to match older designs (ie: SF..60, SF..62) are available for flanged units.

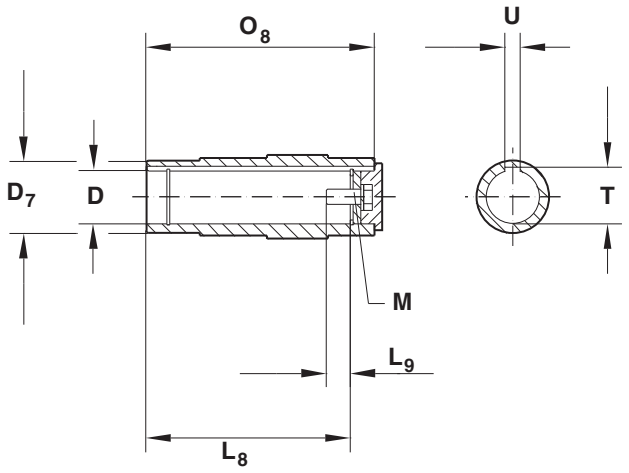
11.11.2 Solid shaft - Metric



All dimensions in mm							
Model	**D**	**T**	**U**	**L[1)]**	**L11**	**L12**	**TAP**
S..37	20	22.5	6	40	4	32	M6 x 16
S..47	25	28	8	50	5	40	M10 x 22
S..57	30	33	8	60	3.5	50	M10 x 22
S..67	35	38	10	70	7	56	M12 x 28
S..77	45	48.5	14	90	5	80	M16 x 36
S..87	60	64	18	120	5	110	M20 x 42
S..97	70	74.5	20	140	7.5	125	M20 x 42

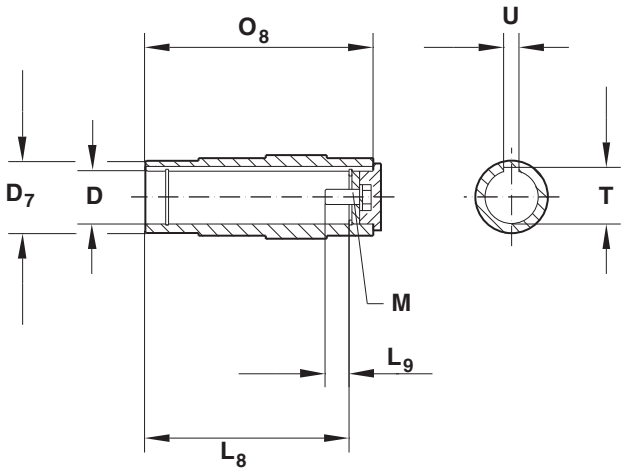
1) Longer shafts to match older designs (ie: SF..60, SF..62) are available for flanged units.

11.11.3 Hollow shafts - Inch



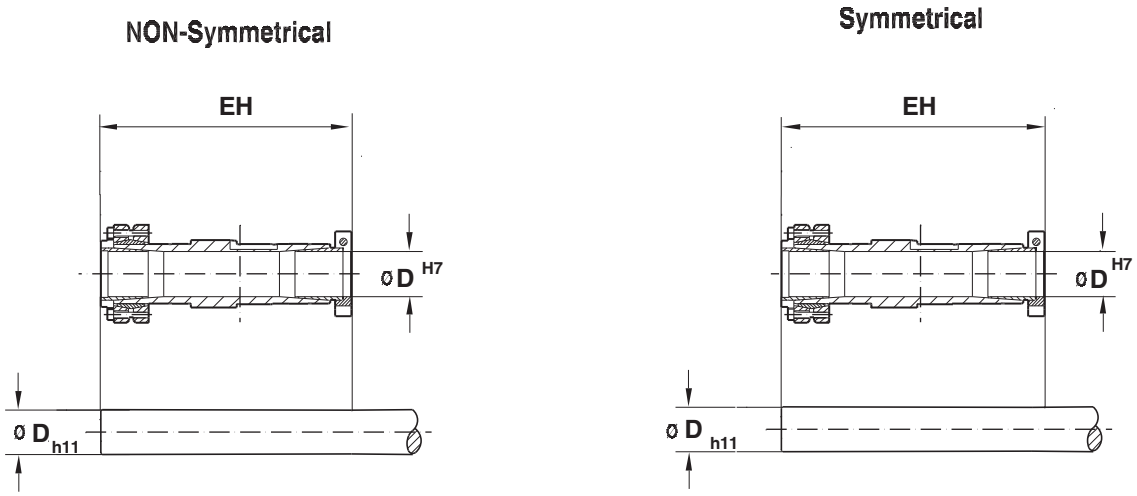
All dimensions in inches								
Model	**D**	**D_7**	**O_8**	**T**	**U**	**L_8**	**L_9**	**M**
SA..37	0.75	1.38	4.72	0.84	3/16	4.09	0.37	1/4 - 20 x 5/8
SA..47	1.25	1.77	4.72	1.37	1/4	4.13	0.67	7/16 - 14 x 1
SA..57	1.1875	1.97	5.91	1.30	1/4	5.20	0.67	3/8 - 16 x 1
	1.25	1.97	5.91	1.37	1/4	5.20	0.67	7/16 - 14 x 1
	1.375	1.97	5.91	1.52	5/16	5.20	0.65	1/2 - 13 x 1
	1.4375	1.97	5.91	1.61	3/8	5.20	0.65	5/8 - 11 x 1-3/4
SA..67	1.25	2.56	6.61	1.37	1/4	5.67	0.67	7/16 - 14 x 1
	1.50	2.56	6.61	1.67	3/8	5.67	1.36	5/8 - 11 x 1-3/4
SA..77	2.00	3.15	8.27	2.22	1/2	7.20	1.16	5/8 - 11 x 1-3/4
SA..87	2.375	3.74	9.84	2.65	5/8	8.66	1.37	3/4 - 10 x 2
SA..97	2.75	4.72	11.42	3.03	5/8	10.23	1.24	3/4 - 10 x 2

11.11.4 Hollow shaft - Metric



All dimensions in mm								
Model	**D**	**D_7**	**O_8**	**T**	**U**	**L_8**	**L_9**	**M**
SA..37	20	35	120	22.8	6	104	8	M6 x 16
SA..47	25	45	120	28.3	8	105	17	M10 x 25
	30	45	120	33.3	8	105	17	M10 x 25
SA..57	30	50	150	33.3	8	132	17	M10 x 25
	35	50	150	38.3	10	132	22	M12 x 30
SA..67	40	65	168	43.3	12	144	29	M16 x 40
	45	65	168	48.3	14	144	29	M16 x 40
SA..77	50	80	210	53.8	14	183	32	M16 x 45
	60	80	210	64.4	18	180	37	M20 x 50
SA..87	60	95	250	64.4	18	220	36	M20 x 50
	70	95	250	74.9	20	220	34	M20 x 50
SA..97	70	120	290	74.9	20	260	34	M20 x 50
	90	120	290	95.4	25	255	41	M24 x 60

11.11.5 TorqLOC keyless hollow shaft



Metric and inch bores are available as shown below.

Model	D (in) Inch Bores					D (mm) Metric Bores			EH (inches)	
									NON-Symmetrical	Symmetrical
ST37	0.625	0.6875	0.75	-	-	16	19	20	6.54	7.33
ST47	1.00	1.1875	1.25	-	-	25	30	-	6.69	7.63
ST57	1.1875	1.25	1.375	1.4375	-	30	35	-	8.15	9.13
ST67	1.375	1.4375	1.50	1.625	1.688	35	38	40	9.17	10.43
ST77	1.625	1.75	1.9375	2.00	-	50	-	-	11.61	13.34
ST87	1.9375	2.00	2.375	2.4375	-	51	62	65	13.50	15.47
ST97	2.4375	2.75	2.9375	-	-	62	70	75	15.00	16.97