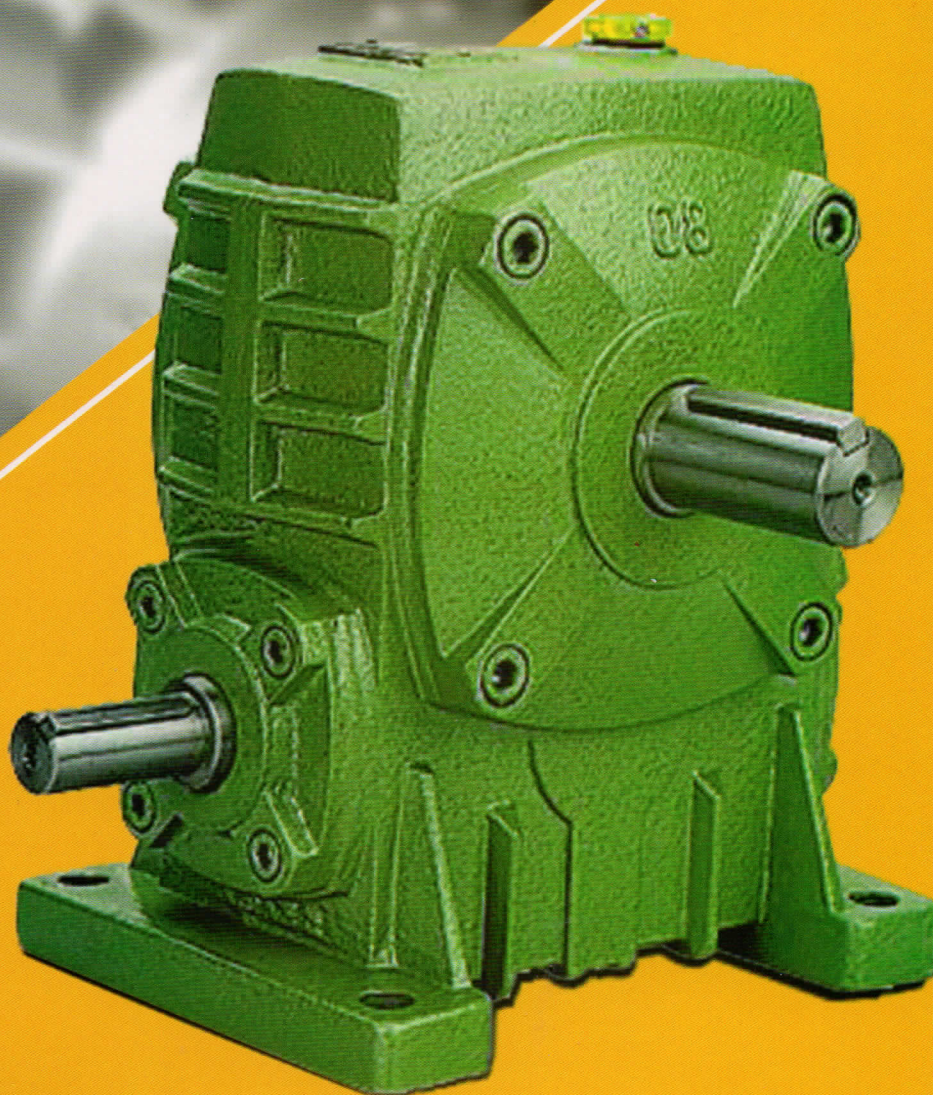




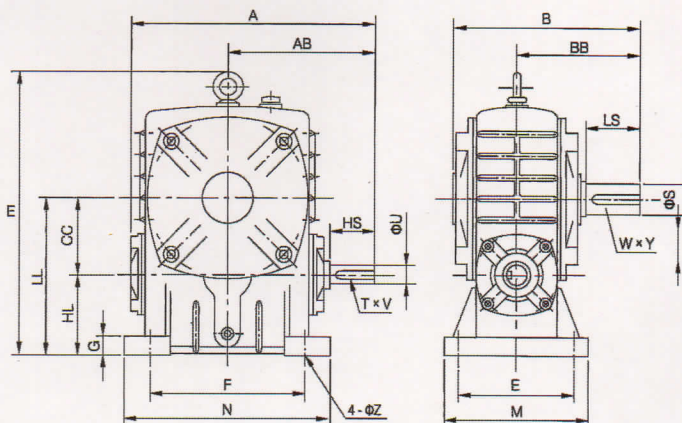
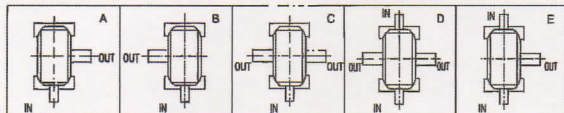
WORM GEAR SPEED REDUCER



WPA

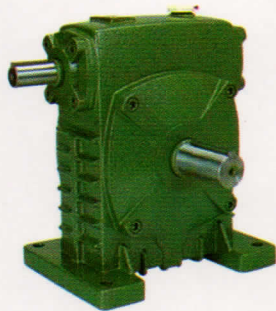


WPA Shaft Direction

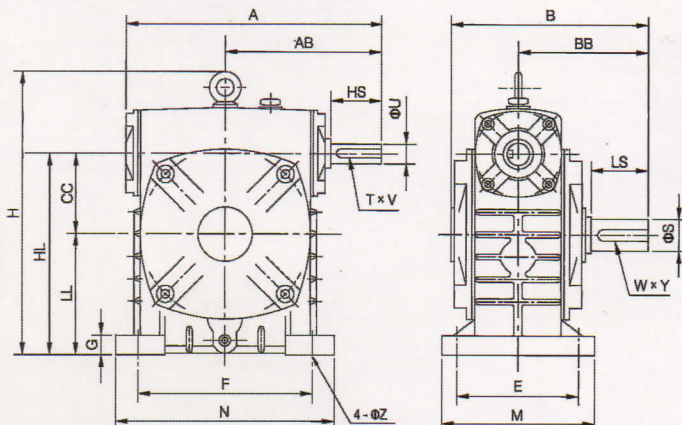
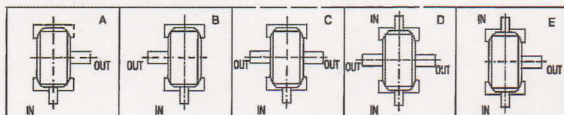


Size	Ratio	A	AB	B	BB	CC	E	F	H	HL	LL	M	N	G	Z	Input Shaft			Output shaft			kg	L
																HS	U	T x V	LS	S	W x Y		
40	1/5	142	85	112	74	40	70	80	135	40	80	90	100	12	10	25	12	4 x 2.5	28	14	5 x 16	38	0.14
50		175	105	145	95	50	95	110	176	50	100	120	140	15	11	30	12	4 x 2.5	40	17	5 x 19	7	0.17
60	1/10	195	120	165	110	60	105	120	201	60	120	130	150	20	11	40	15	5 x 3	50	22	7 x 25	10.5	0.23
70	1/15	234	140	195	130	70	115	150	238	70	140	150	190	20	15	40	18	5 x 3	60	28	7 x 31	14.5	0.5
80	1/20	264	160	210	140	80	135	180	263	80	160	170	220	20	15	50	22	7 x 4	65	32	10 x 35.5	22	0.7
100	1/25	300	178	245	163	100	155	220	328	100	200	190	260	25	15	50	25	7 x 4	75	38	10 x 41.5	36	1.6
120	1/30	385	230	285	185	120	180	260	421	120	240	230	320	30	18	65	30	7 x 4	85	45	12 x 48.5	63	3.0
135	1/40	435	260	320	210	135	200	290	484	135	270	250	350	30	18	75	35	10 x 4.5	95	55	15 x 60	80	3.5
155	1/50	507	300	387	252	155	220	320	527	135	290	280	390	38	20	85	40	10 x 4.5	110	60	15 x 65	114	3.6
175	1/60	550	325	407	262	175	250	350	597	160	335	310	430	40	20	85	45	12 x 4.5	110	65	18 x 71	150	4.5
200	1/60	594	350	480	305	200	290	390	669	175	375	360	480	42	22	95	50	12 x 4.5	125	70	20 x 76	218	6.4
250		710	420	560	360	250	380	480	802	200	450	460	560	42	27	110	60	15 x 5	155	90	24 x 98	363	8.5

WPS



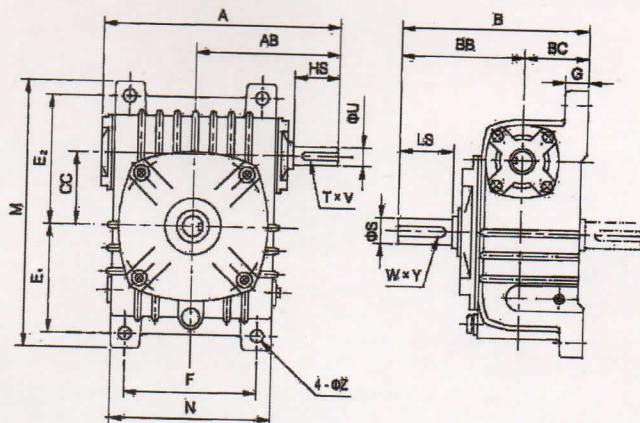
WPS Shaft Direction



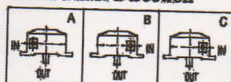
Size	Ratio	A	AB	B	BB	CC	E	F	H	HL	LL	M	N	G	Z	Input Shaft			Output shaft			kg	L
																HS	U	T x V	LS	S	W x Y		
40	1/5	142	85	112	74	40	70	80	140	100	60	90	100	12	10	25	12	4 x 2.5	28	14	5 x 16	38	0.3
50		175	105	145	95	50	95	110	176	130	80	120	140	15	11	30	12	4 x 2.5	40	17	5 x 19	7	0.4
60	1/10	195	120	165	110	60	105	120	201	150	90	130	150	20	11	40	15	5 x 3	50	22	7 x 25	10.5	0.5
70	1/15	234	140	195	130	70	115	150	233	175	105	150	190	25	15	40	18	5 x 3	60	28	7 x 31	14.5	0.7
80	1/20	264	160	210	140	80	135	180	265	200	120	170	220	25	15	50	22	7 x 4	65	32	10 x 35.5	22	1.1
100	1/25	300	178	245	163	100	155	220	322	250	150	190	260	25	15	50	25	7 x 4	75	38	10 x 41.5	36	2.3
120	1/30	385	230	285	185	120	180	260	414	300	180	230	320	30	18	65	30	7 x 4	85	45	12 x 48.5	63	4.5
135	1/40	435	260	320	210	135	200	290	476	350	215	250	350	30	18	75	35	10 x 4.5	95	55	15 x 60	80	6.0
155	1/50	507	300	387	252	155	220	320	533	390	235	280	390	38	20	85	40	10 x 4.5	110	60	15 x 65	114	6.2
175	1/60	550	325	407	262	175	250	350	593	435	260	310	430	40	20	85	45	12 x 4.5	110	65	18 x 71	150	8.0
200	1/60	594	350	480	305	200	290	390	677	490	290	360	480	42	22	95	50	12 x 4.5	125	70	20 x 76	218	9.0
250		710	420	560	360	250	380	480	823	600	350	460	560	48	27	110	60	15 x 5	155	90	24 x 98	363	17.0

WPX

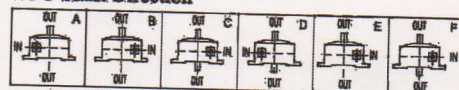
WPO



WPX Shaft Direction

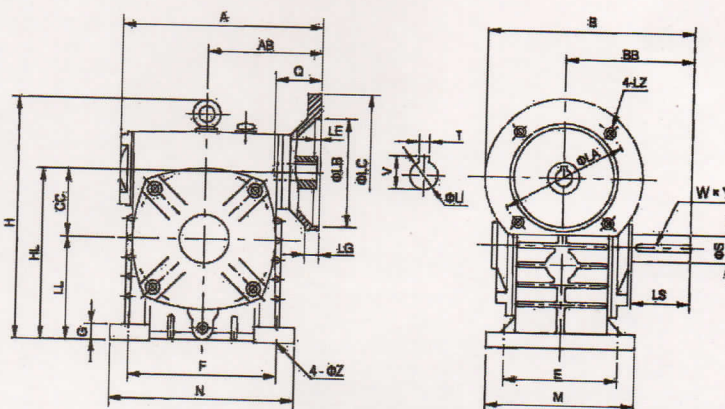
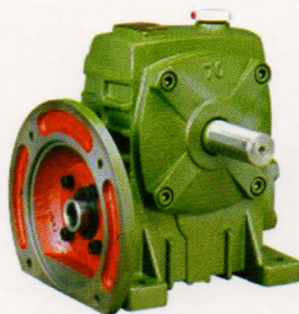


WPO Shaft Direction

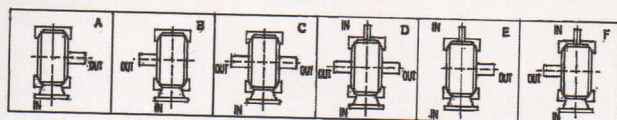


Size	Ratio	A	AB	B	BB	CC	E	E ₁	E ₂	F	G	M	N	Z	Input Shaft			Output shaft			kg	L
															HS	U	T x V	LS	S	W x Y		
40	1/5	142	85	114	74	40	40	72	85	75	12	179	97	10	25	12	4 x 2.5	28	14	5 x 16	3.8	0.35
50		175	105	145	95	50	50	93	102	90	14	220	116	11	30	12	4 x 2.5	40	17	5 x 19	6.5	0.5
60	1/10	195	120	165	110	55	60	105	120	100	15	260	126	11	40	15	5 x 3	50	22	7 x 25	9	0.6
70		234	140	195	130	65	70	120	135	120	20	295	156	15	40	18	5 x 3	60	28	7 x 31	14	1.1
80	1/20	264	160	210	140	70	80	130	150	140	20	320	176	15	50	22	7 x 4	65	32	10 x 35.5	21	1.44
100		300	178	253	163	90	100	155	180	190	30	375	226	15	50	25	7 x 4	75	38	10 x 41.5	33	3.0
120	1/25	385	230	285	185	100	120	185	215	220	30	450	266	18	65	30	7 x 4	85	45	12 x 48.5	51	5.1
135		435	260	320	210	110	135	210	235	260	35	495	306	18	75	35	10 x 4.5	95	55	15 x 60	75	7.2
155	1/40	507	300	392	252	140	155	245	295	290	45	590	350	20	85	40	10 x 4.5	110	60	15 x 65	115	9.0
175		550	325	412	262	150	175	267	323	320	45	640	394	20	85	45	12 x 4.5	110	65	18 x 71	143	10
200	1/50	594	350	480	305	175	200	290	360	370	42	710	440	22	95	50	12 x 4.5	125	70	20 x 76	200	12
250		710	420	560	360	200	250	350	440	440	46	860	510	27	110	60	15 x 5	155	90	24 x 98	345	22

WPDA

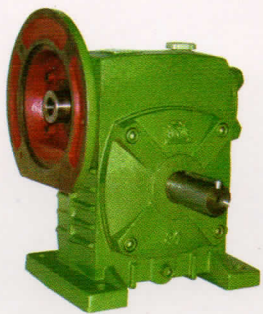


WPDA Shaft Direction

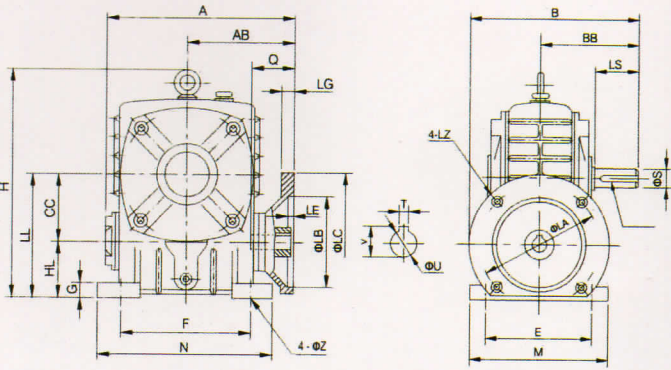
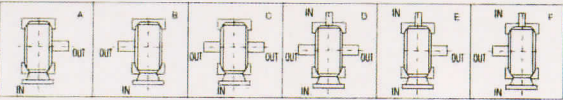


Size	kw	Ratio	A	AB	B	BB	CC	E	F	G	H	HL	LL	M	N	Z	Flange						Input Hole			Output Shaft			kg
																	LA	LB	LC	LE	LG	LZ	Q	U	T × V	LS	S	W × Y	
50	0.18	1/10	135	84	165	95	50	95	110	15	176	130	80	120	140	11	115	95	140	5	10	M8	25	11	4 × 12.8	40	17	5 × 19	7
60	0.37		170	92	190	110	60	105	120	20	201	150	90	130	150	11	130	110	160	5	12	M8	35	14	5 × 16.3	50	22	7 × 25	11
70	0.37		206	110	210	130	70	115	150	20	238	175	105	150	190	15	130	110	160	5	12	M8	35	14	5 × 16.3	60	28	7 × 31	15
	0.75		165	130	200												15	M10	45		19	6 × 21.8							
80	0.75	1/20	232	128	240	140	80	135	180	20	265	200	120	170	220	15	165	130	200	5	15	M10	45	19	6 × 21.8	65	32	10 × 35.5	23
	1.5		165	130	200	5	15	M10	55	24	8 × 27.3																		
100	1.5	1/30	266	145	263	163	100	155	220	25	322	250	150	190	260	15	165	130	200	5	12	M10	52	24	8 × 27.3	75	38	10 × 41.5	38
	2.2		215	180	250												15	M12	62		28	8 × 31.3							
120	2.2	1/50	340	182	310	185	120	180	260	30	414	300	180	230	320	18	215	180	250	5	18	M12	65	28	8 × 31.3	85	45	12 × 48.5	65
	3.0																												
135	3.0	1/60	375	200	335	210	135	200	290	30	476	350	215	250	350	18	215	180	250	5	18	M12	65	28	8 × 31.3	95	55	15 × 60	84
	4.0																												
155	5.5	11	442	236	402	252	155	220	320	32	533	390	235	280	390	20	265	230	300	5	20	M12	85	38	10 × 41.3	110	60	15 × 65	120
175	7.5		465	240	412	262	175	250	350	40	593	435	260	310	430	20	265	230	300	5	18	M12	85	38	10 × 41.3	110	65	18 × 71	155
200	7.5		508	270	455	305	200	290	390	42	669	175	375	360	480	22	265	230	300	6	18	M12	85	38	10 × 41.3	125	70	20 × 76	225
	11		480																M16			115	42	10 × 41.3					

WPDS



WPDS Shaft Direction

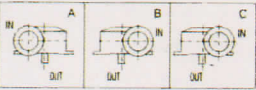


Size	kw	Ratio	A	AB	B	BB	CC	E	F	G	H	HL	LL	M	N	Z	Flange						Input Hole				Output Shaft			kg
																	LA	LB	LC	LE	LG	LZ	Q	U	T × V	LS	S	W × Y		
50	0.18	1/5	155	84	165	95	50	95	110	15	176	50	100	120	140	11	115	95	140	5	10	M8	25	11	4 × 12.8	40	17	5 × 19	7	
60	0.37		170	92	190	110	60	105	120	20	201	60	120	130	150	11	130	110	160	5	12	M8	35	14	5 × 16.3	50	22	7 × 25	11	
70	0.37		206	110	210	130	70	115	150	20	238	70	140	150	190	15	130	110	160	5	12	M8	35	14	5 × 16.3	60	28	7 × 31	15	
	0.75				230												165	130	200		15	M10	45	19	6 × 21.8					
80	0.75	1/10	232	128	240	140	80	135	180	20	263	80	160	170	220	15	165	130	200	5	15	M10	45	19	6 × 21.8	65	32	10 × 35.5	23	
	1.5																					55	24	8 × 27.3						
100	1.5	1/20	266	145	263	163	100	155	220	25	328	100	200	190	260	15	165	130	200	5	12	M10	52	24	8 × 27.3	75	38	10 × 41.5	38	
	2.2																				15	M12	62	28	8 × 31.3					
120	2.2	1/25	270	149	288												215	180	250						8 × 31.3					
120	3.0	1/30	340	182	310	185	120	180	260	30	421	120	240	230	320	18	215	180	250	5	18	M12	65	28	8 × 31.3	85	45	12 × 48.5	65	
135	3.0	1/40	375	200	235	210	135	200	290	30	484	135	270	250	350	18	215	180	250	5	18	M12	65	28	8 × 31.3	95	55	15 × 60	84	
155	4.0	1/50																												
155	5.5	1/60	442	236	402	252	155	220	320	32	527	135	290	280	380	20	265	230	300	5	20	M12	85	38	10 × 41.3	110	60	15 × 65	120	
175	7.5		465	240	412	262	175	250	350	40	597	160	335	310	430	20	265	230	300	5	18	M12	85	38	10 × 41.3	110	65	18 × 71	155	

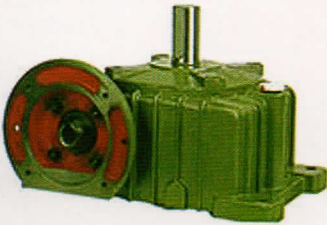
WPDX



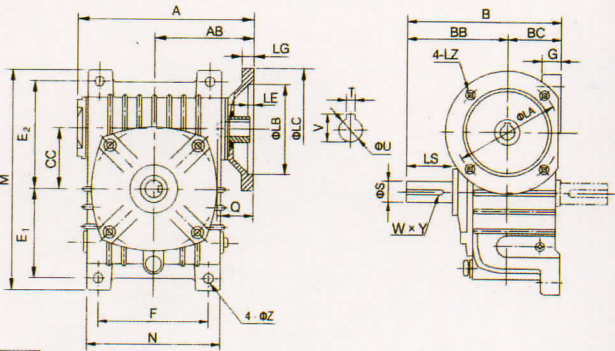
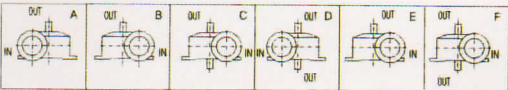
WPDX Shaft Direction



WPDO



WPDO Shaft Direction



Size	kw	Ratio	A	AB	B	BB	BC	CC	E ₁	E ₂	F	G	M	N	Z	Flange						Input Hole			Output Shaft			kg
																LA	LB	LC	LE	LG	LZ	Q	U	T × V	LS	S	W × Y	
50	0.18	1/5	155	84	145	95	50	50	93	102	90	14	220	116	11	115	95	140	5	10	M8	25	11	4 × 12.8	40	17	5 × 19	7
60	0.37		170	92	165	110	55	60	105	120	100	15	260	126	11	130	110	160	5	12	M8	35	14	5 × 16.3	50	22	7 × 25	10
70	0.37	1/10	206	110	195	130	65	70	120	135	120	20	295	156	15	130	110	160	5	12	M8	35	14	5 × 16.3	60	28	7 × 31	15
	0.75																											
80	0.75	1/15	232	128	210	140	70	80	130	150	140	20	320	176	15	165	130	200	5	15	M10	45	19	6 × 21.8	65	32	10 × 35.5	23
	1.5																					55	24	8 × 27.3				
100	1.5	1/20	266	145	253	163	90	100	155	180	190	30	375	226	15	165	130	200	5	12	M10	52	24	8 × 27.3	75	38	10 × 41.5	36
	2.2																					215	180	250				
120	2.2	1/25	270	149	285	185	100	120	185	215	220	30	450	266	18	215	180	250	5	18	M12	65	28	8 × 31.3	85	45	12 × 48.5	55
	3.0																											
135	3.0	1/30	340	182	285	185	100	120	185	215	220	30	450	266	18	215	180	250	5	18	M12	65	28	8 × 31.3	85	45	12 × 48.5	55
	4.0																											
155	4.0	1/50	375	200	320	210	110	135	210	235	260	35	495	306	18	215	180	250	5	18	M12	65	28	8 × 31.3	95	55	15 × 60	80
	5.5																											
175	5.5	1/60	442	236	392	252	140	155	245	295	290	45	590	350	20	265	230	300	5	20	M12	85	38	10 × 41.3	110	60	15 × 65	120
	7.5																											
200	7.5	1/1	508	270	480	305	175	200	290	360	370	42	710	440	22	265	230	300	6	18	M12	85	38	10 × 41.3	125	70	20 × 76	220
	11																											

Input Power & Output Torque

Size	Ratio	(r/min)	1800	1500	1200	900
40	1/10	(kw)	0.62	0.58	0.50	0.42
		(N.m)	26	28	31	34
	1/20	(kw)	0.29	0.26	0.23	0.20
		(N.m)	21	23	25	28
	1/30	(kw)	0.32	0.30	0.26	0.20
		(N.m)	33	35	38	38
	1/40	(kw)	0.20	0.18	0.16	0.14
		(N.m)	25	26	28	31
	1/50	(kw)	0.19	0.17	0.15	0.13
		(N.m)	28	30	32	35
	1/60	(kw)	0.15	0.14	0.12	0.11
		(N.m)	24	26	27	30
50	1/5	(kw)	1.62	1.47	1.30	1.00
		(N.m)	31	32	35	36
	1/10	(kw)	1.08	0.98	0.87	0.67
		(N.m)	45	48	53	53
	1/15	(kw)	0.80	0.73	0.62	0.47
		(N.m)	47	51	53	53
	1/20	(kw)	0.49	0.44	0.38	0.32
		(N.m)	38	41	44	48
	1/30	(kw)	0.51	0.44	0.36	0.28
		(N.m)	53	53	53	53
	1/40	(kw)	0.33	0.30	0.26	0.21
		(N.m)	44	47	50	53
	1/50	(kw)	0.29	0.26	0.23	0.18
		(N.m)	45	48	51	53
	1/60	(kw)	0.23	0.21	0.18	0.16
		(N.m)	43	45	47	53
60	1/5	(kw)	2.60	2.34	2.10	1.77
		(N.m)	51	55	60	67
	1/10	(kw)	1.74	1.56	1.41	1.18
		(N.m)	73	78	86	94
	1/15	(kw)	1.29	1.16	1.02	0.88
		(N.m)	77	82	88	99
	1/20	(kw)	0.91	0.83	0.74	0.62
		(N.m)	70	75	81	90
	1/30	(kw)	0.86	0.79	0.69	0.59
		(N.m)	91	98	104	114
	1/40	(kw)	0.62	0.56	0.50	0.44
		(N.m)	80	86	92	102
	1/50	(kw)	0.58	0.53	0.47	0.30
		(N.m)	95	100	108	90
	1/60	(kw)	0.48	0.44	0.38	0.32
		(N.m)	90	95	102	111
70	1/5	(kw)	3.91	3.49	3.12	2.35
		(N.m)	78	82	90	90
	1/10	(kw)	2.61	2.33	2.08	1.57
		(N.m)	110	117	128	141
	1/15	(kw)	1.89	1.72	1.52	1.30
		(N.m)	114	123	133	148
	1/20	(kw)	1.45	1.31	1.16	0.98
		(N.m)	115	123	134	148
	1/30	(kw)	1.27	1.16	1.02	0.89
		(N.m)	136	147	158	173
	1/40	(kw)	0.93	0.85	0.76	0.65
		(N.m)	128	137	147	162
	1/50	(kw)	0.84	0.77	0.68	0.58
		(N.m)	140	149	160	174
	1/60	(kw)	0.71	0.65	0.57	0.49
		(N.m)	137	143	153	166

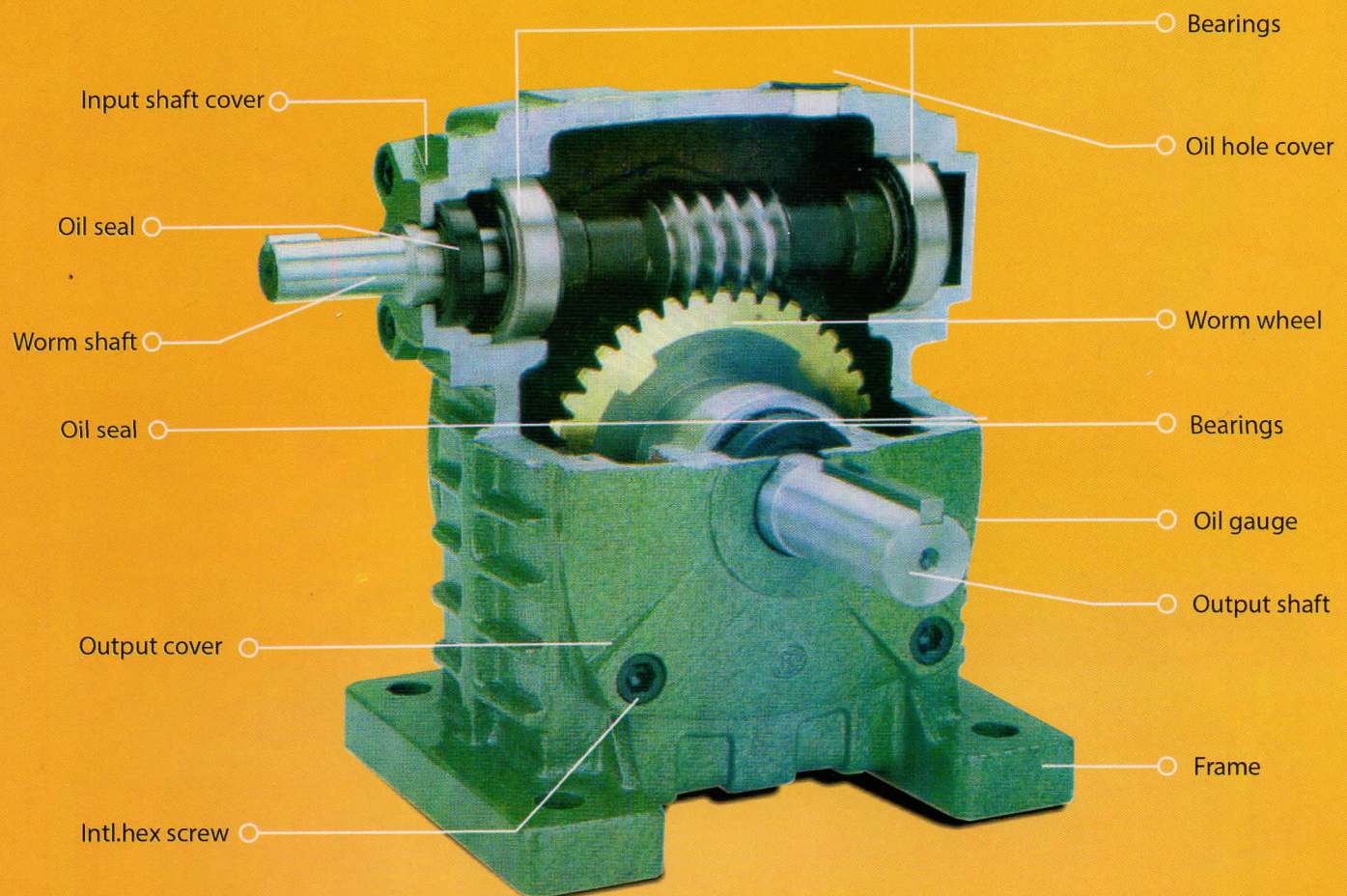
Input Power & Output Torque

Size	Ratio	(r/min)	1800	1500	1200	900
80	1/5	(kw)	5.50	4.98	4.38	3.72
		(N.m)	113	118	128	145
	1/10	(kw)	3.70	3.32	2.92	2.48
		(N.m)	156	167	182	202
	1/15	(kw)	2.68	2.41	2.12	1.83
		(N.m)	163	174	190	212
	1/20	(kw)	1.90	1.73	1.53	1.28
		(N.m)	148	160	174	191
	1/30	(kw)	1.79	1.61	1.43	1.24
		(N.m)	194	207	225	248
	1/40	(kw)	1.28	1.16	1.04	0.89
		(N.m)	172	184	200	218
100	1/5	(kw)	9.80	8.90	7.80	6.60
		(N.m)	202	218	235	265
	1/10	(kw)	6.55	5.95	5.20	4.40
		(N.m)	280	302	328	370
	1/15	(kw)	4.75	4.25	3.82	3.25
		(N.m)	292	310	345	385
	1/20	(kw)	3.77	3.43	3.02	2.55
		(N.m)	306	332	362	395
	1/30	(kw)	3.15	2.86	2.51	2.17
		(N.m)	351	375	403	451
	1/40	(kw)	2.38	2.15	1.91	1.52
		(N.m)	334	368	401	451
120	1/5	(kw)	15.6	14.10	12.37	10.56
		(N.m)	326	350	378	425
	1/10	(kw)	10.4	9.45	8.25	7.04
		(N.m)	448	491	528	588
	1/15	(kw)	7.50	6.77	6.06	5.12
		(N.m)	470	501	553	615
	1/20	(kw)	5.37	4.87	4.29	3.64
		(N.m)	432	470	503	568
	1/30	(kw)	5.00	4.50	3.98	3.41
		(N.m)	561	601	650	725
	1/40	(kw)	3.51	3.14	2.83	2.43
		(N.m)	497	526	573	636
135	1/5	(kw)	22.2	20.2	17.8	14.9
		(N.m)	476	514	559	616
	1/10	(kw)	14.8	13.5	11.9	9.98
		(N.m)	648	713	762	851
	1/15	(kw)	11.0	9.83	8.85	7.46
		(N.m)	699	745	823	914
	1/20	(kw)	8.48	7.73	6.73	5.77
		(N.m)	710	768	822	924
	1/30	(kw)	7.26	6.53	5.78	4.94
		(N.m)	843	900	970	1078
	1/40	(kw)	5.24	4.78	4.20	3.60
		(N.m)	792	851	918	1020
150	1/5	(kw)	3.96	3.57	3.17	2.70
		(N.m)	728	771	841	918
	1/10	(kw)	3.11	2.81	2.48	2.13
		(N.m)	658	698	755	825

Input Power & Output Torque

Size	Ratio	(r/min)	1800	1500	1200	900
155	1/5	(kw)	29.6	26.88	23.76	20.00
		(N.m)	592	748	702	760
	1/10	(kw)	19.74	17.92	15.84	13.36
		(N.m)	823	893	980	1100
	1/15	(kw)	15.48	13.86	12.24	10.44
		(N.m)	935	1005	1095	1090
	1/20	(kw)	11.2	10.1	8.93	7.50
		(N.m)	926	1000	1078	1196
	1/30	(kw)	9.98	9.08	7.80	6.81
		(N.m)	1098	1196	1274	1431
	1/40	(kw)	6.99	6.20	5.55	4.71
		(N.m)	1039	1098	1196	1315
175	1/50	(kw)	5.35	4.82	4.32	3.67
		(N.m)	969	1029	1118	1235
	1/60	(kw)	4.39	4.03	3.54	2.96
		(N.m)	934	1000	1068	1156
175	1/10	(kw)	26.32	23.92	22.64	19.04
		(N.m)	1105	1248	1412	1568
	1/15	(kw)	19.84	17.76	15.52	13.28
		(N.m)	1210	1294	1412	1585
	1/20	(kw)	15.39	13.76	12.15	11.4
		(N.m)	1245	1332	1455	1784
	1/30	(kw)	12.87	11.61	11.3	9.68
		(N.m)	1440	1552	1862	2078
	1/40	(kw)	8.91	8.04	7.80	6.72
		(N.m)	1314	1410	1676	1862
	1/50	(kw)	7.34	6.56	5.99	4.98
		(N.m)	1324	1412	1568	1676
200	1/60	(kw)	6.17	5.81	4.97	4.17
		(N.m)	1294	1440	1490	1622
	1/10	(kw)	31.60	28.60	25.12	21.36
		(N.m)	1420	1536	1686	2368
	1/20	(kw)	20.43	18.27	17.9	15.1
		(N.m)	1703	1818	2215	2450
	1/30	(kw)	16.92	15.29	13.41	12.7
		(N.m)	2050	2196	2646	2940
	1/40	(kw)	12.33	11.16	10.7	9.23
		(N.m)	1878	2030	2420	2686
	1/50	(kw)	10.4	9.23	8.40	6.97
		(N.m)	1911	2030	2264	2420
250	1/60	(kw)	8.63	7.73	7.23	5.82
		(N.m)	1842	1960	2234	2322
	1/10	(kw)	54.38	49.65	44.10	36.82
		(N.m)	2530	2602	3074	3325
	1/20	(kw)	33.22	29.50	26.00	21.84
		(N.m)	2880	3066	3320	3715
	1/30	(kw)	26.55	23.77	22.24	18.64
		(N.m)	3138	3360	3912	4320
	1/40	(kw)	19.76	17.92	15.52	13.68
		(N.m)	3144	3410	3670	4215
	1/50	(kw)	14.24	12.72	11.9	10.12
		(N.m)	2865	3008	3482	3815
250	1/60	(kw)	12.16	10.8	10.71	8.58
		(N.m)	2744	2910	3550	3660

STRUCTURAL DRAWINGS



Disrtibutor :

