

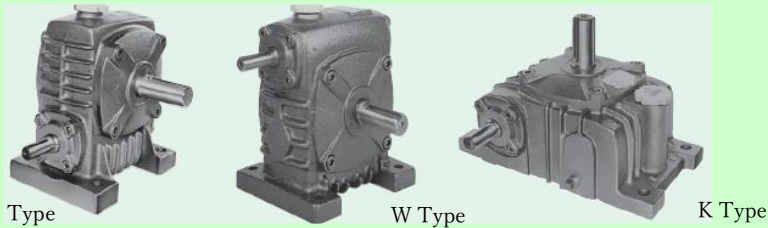
Makishinko Worm Reducer

S.A Series

(Single Reduction)

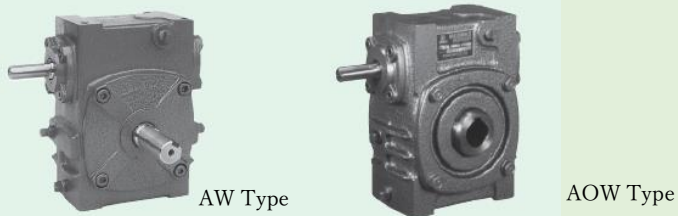
Single reduction worm reducer (Solid shaft)

S Series



Single reduction worm reducer (Solid shaft/Hollow Shaft)

A /AO Series



● Main parts material list (S/A/AO Series)

Part Name	Material	Remark
Input shaft (Worm Screw)	Mechanical structural carbon steel., etc.	Precision grinding after tooth surface induction hardening
Worm wheel	Special Aluminum, Bronze., etc.	Hob cutting
Case	Gray cast iron., etc.	
Output shaft	Mechanical structural carbon steel. , etc.	
Cover	Zinc die cast, Aluminum die cast., etc.,	Input shaft, Output shaft

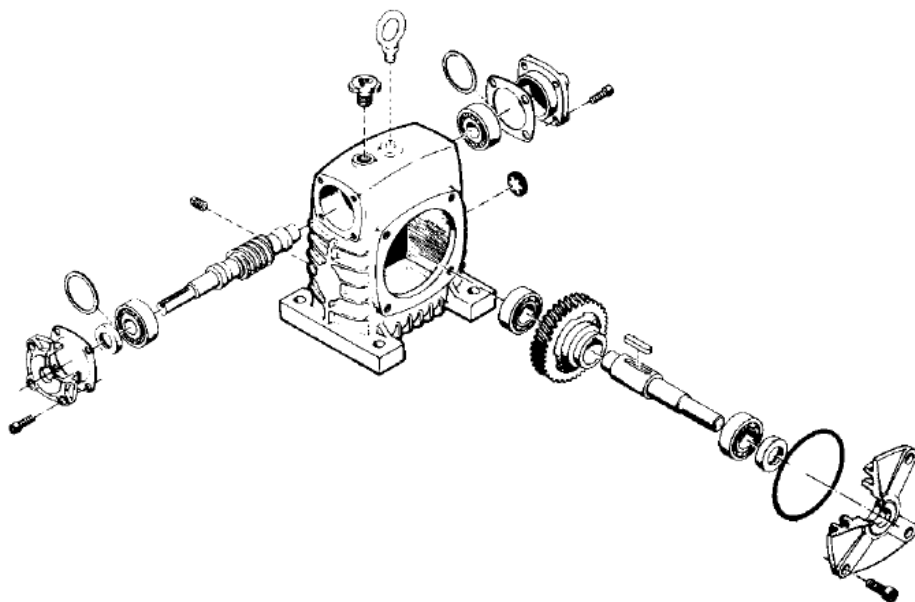
S Series Features

- **Quietness:** Different from hypoid gear and helical gear, sliding transmission allows S series to drive smoothly and quietly
 - **Self-locking:** Non-reversibility of output shaft
 - **Orthogonal shafts:** Space saving
 - **Speed reduction ratio:** High speed single reduction ratio (10-60)
 - **Shaft arrangement:** Single shaft and double shaft are available for both input and output shaft
 - **Torque:** 47-56,600 N.m
 - **Model:** 17 models from 50 to 500
 - **Type:** B/BP/W/WP/K
- **B/BP (Under Worm) Type**
Worm screw is always dipped in lubricant. This is rather suitable for low-speed and high-load operation.
 - **W/WP (Upper Worm) Type**
Highly placed input shaft makes it easy to connect reducer to big diameter pulley and sprocket.
 - **K (Vertical Output Shaft) Type**
Output shaft uses bearings those are strong against thrust load.
Worm screw is always dipped in lubricant. This is rather suitable for low-speed and high-load operation.

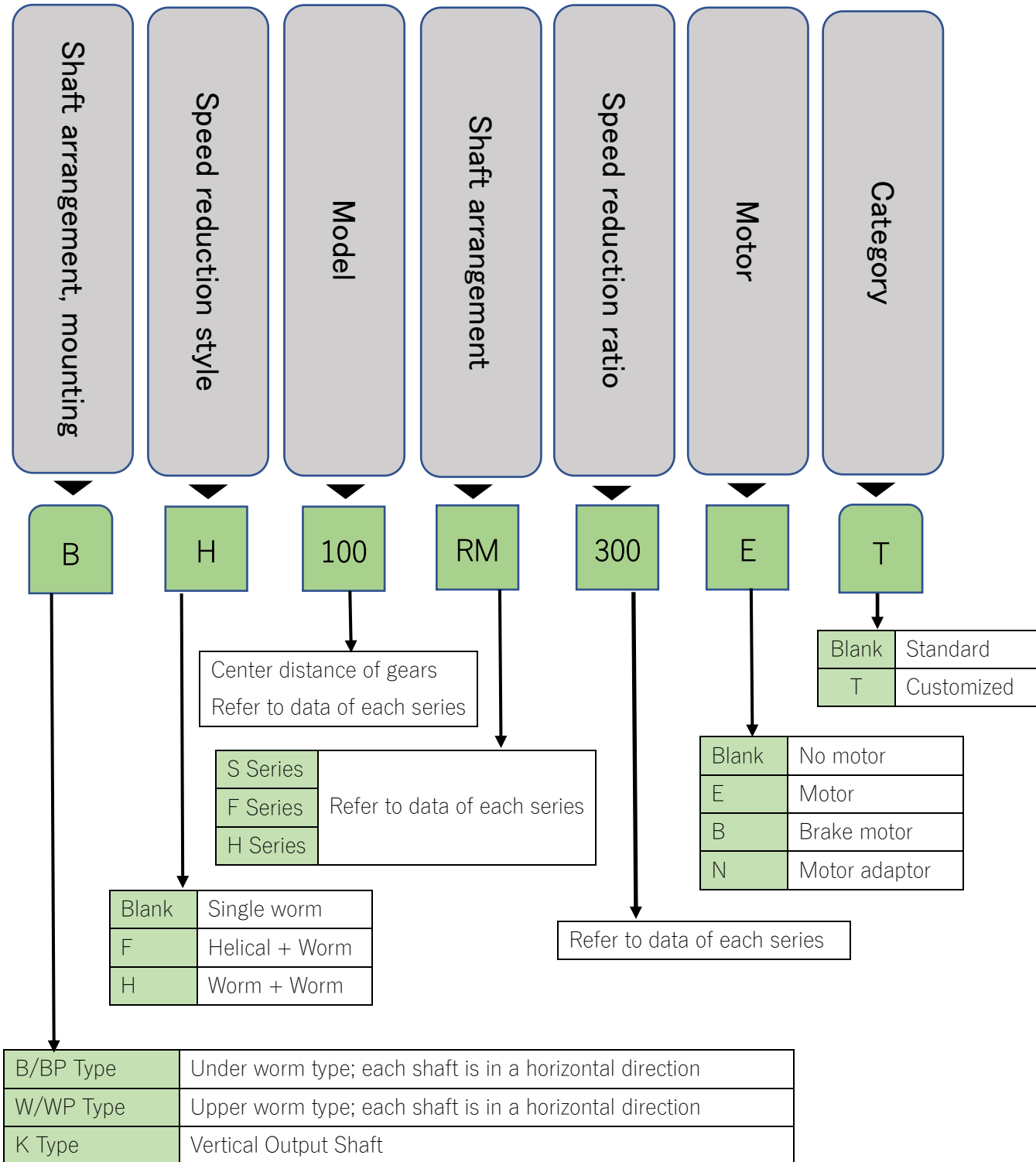
Features (A/AO Series)

- **Quietness:** Different from hypoid gear and helical gear, slip transmission allows S series to drive smoothly and quietly
- **Self-locking:** Non-reversibility of output shaft
- **Orthogonal shafts:** Space saving
- **Speed reduction ratio:** High speed single reduction ratio (10-60)
- **Shaft arrangements:**
Input shaft: Single shaft and double shaft are available
Output shaft: Single shaft, double shaft and hollow shaft are available
- **Torque:** 47-8,330N.m

S/A Series (Solid Shaft and Hollow shaft)



S/F/H Series



(※) For F type and H type, please refer to the catalog of Worm Speed Reducer F•H Series(Double Reduction).

S Series

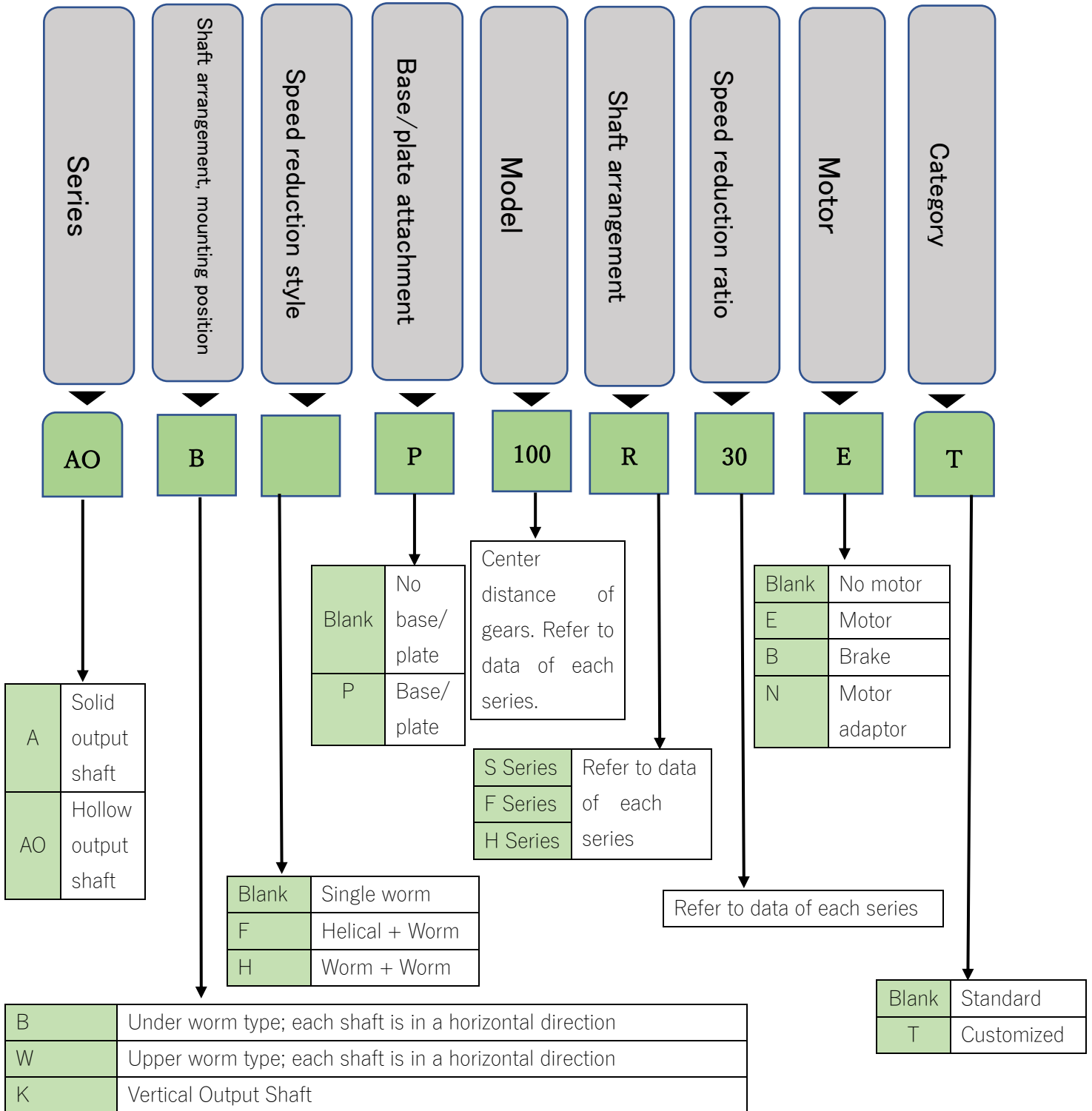
Shaft arrangement and mounting position	B/BP/W/WP/K	-E/-B
Model (center distance)	50/60/70/80/100/120/135/155/175/200/225/250/ 300/350/400/450/500	50/60/70/80/100/ 120/135/155
Speed reduction Ratio	10/15/20/25/30/40/50/60	
Input shaft style	Solid shaft / Screw diameter dimension tolerance h7 (JIS B 0401)	Motor
Output shaft style	Solid shaft / Screw diameter dimension tolerance h7(JIS B 0401)	
Screw end key	JIS B 1301-1996 (parallel key)	
Worm screw twist angle	Right hand	
Lubricant	Gear oil equal to ISO VG320 JTXG Energy /Bonnoc TS320 or Shell /Omala S2G320	
Paint	Atomix / Tone green (Alkyd resin paint)	

F/H Series

Shaft arrangement and mounting position	BF/BFP/KF	BH/BHP/KH	BH-E/BHP-E/ KH-E
Model (center distance)	80/100/120/135/155/ 175/200/225/250/300/ 350/400/450/500	60/70/80/100/120/135/ 155/175/200/225/250/300/ 350/400/450/500	80/100/120/135/ 155/170/200/225
Speed reduction Ratio	80/90/100/120/150/180	100/150/200/250/300/400/500/600/800/900/ 1000/1200/1500/1600/1800/2000/2400/2500/ 3000/3600	
Input shaft style	Solid shaft / Screw diameter dimension tolerance h7(JIS B 0401)		Motor
Output shaft style	Solid shaft / Screw diameter dimension tolerance h7(JIS B 0401)		
Screw end key	JIS B 1301-1996 (parallel key)		
Worm screw twist angle	Right hand		
Lubricant	Gear oil equal to ISO VG320 JTXG Energy /Bonnoc M320 or Shell /Omala S2G320		
Paint	Atomix / Tone green (Alkyd resin paint)		

※ JIS B 1301-1996 has been applied to input shaft and output shaft of all screw key sizes since January 1997.

A Series



(※) For F type and H type, please refer to the catalog of Worm Speed Reducer F·H Series(Double Reduction).

A/AO Series

Shaft arrangement, mounting position	A※/AB/AW/AK/AO※/AOB/AOW/AOK	-E/-B
Model (center distance)	50/60/70/80/100/120/135/155/175/200/225/250	50/60/70/80/100/ 120/135/155
Speed reduction Ratio	10/15/20/25/30/40/50/60	
Input shaft style	Solid shaft /Screw diameter dimension tolerance h7 (JIS B 0401)	Motor
Output shaft style	Solid shaft (A)/ Screw diameter dimension tolerance h7(JIS B 0401) Hollow shaft (AO)/ Screw diameter dimension tolerance H7(JIS B 0401)	
Screw end key	JIS B 1301-1996 (parallel key)	
Worm screw twist angle	Right hand	
Lubricant	Gear oil equal to ISO VG320 JTXG Energy /Bonnoc TS320 or Shell /Omala S2G320.	
Paint	Atomix / Tone green (Alkyd resin paint)	

※Former JIS standard screw end keys are available as customized products. Shaft arrangement and mounting position are base/plate free which are as same as those of AW and AOW.

AF/AH Series

Shaft arrangement, mounting position	AF/ABF/AKF/ AOF/AOBF/AOKF	AH/ABH/AKH/ AOH/AOBH/AOKH	AH-E/ABH-E/AKH-E AOH-E/AOBH-E/ AOKH-E
Model (center distance)	80/100/120/135/155/ 175/200/225/250/	60/70/80/100/120/ 135/ 155/175/200/225/2 50/	80/100/120/135/155/ 175/200/225/
Speed reduction Ratio	80/90/100/ 120/150/180	100/150/200/250/300/400/500/600/800/900/ 1000/1200/1500/1600/1800/2000/2400/2500/ 3000/3600	
Input shaft style	Solid shaft (A) / Screw diameter dimension tolerance h7(JIS B 0401)		Motor
Output shaft style	Hollow shaft (AO)/ Screw diameter dimension tolerance H7(JIS B 0401)		
Screw end key	JIS B 1301-1996 (parallel key)		
Worm screw twist angle	Right hand		
Lubricant	Gear oil equal to ISO VG320 JTXG Energy /Bonnoc M320 or Shell /Omala S2G320		
Paint	Atomix / Tone green (Alkyd resin paint)		

※JIS B 1301-1996 has been applied to input shaft and output shaft of all screw key sizes since January 1997.

Lubricant

Ambient temperature(°C)	0~50
ISO viscosity grade	VG320
Mobil	Mobil Gear 600 XP320
JXTG Energy	Bonnoc TS320
Idemitsu	Daphne Super gear oil 320
Showa Shell	Shell Omala S2G320
Cosmo Oil	Cosmo Gear SE320

- Makishinko applies Bonnoc TS320 (JXTG Energy) to Model from 50 to 135 and Shell Omala S2G320(Showa Shell) to model from 155 to 500 .
- Attention: Contact us in the case of special ambient temperature.

Grease

Idemitsu	Showa Shell	JXTG Energy	Cosmo Oil
Daphne Eponex Grease SR NO.2	Sunlight Grease NO.2	Epnoc AP 2	Dynamax Super NO.2

Rated Transmission Capacities

S • A Series

B/W/K/A/AO

Model	RPM	1800		1500		1200		900		600		300		100	
	Reduction Ratio	Input Capacity	Output Torque	Input Capacity	Output Torque	Input Capacity	Output Torque	Input Capacity	Output Torque	Input Capacity	Output Torque	Input Capacity	Output Torque	Input Capacity	Output Torque
		kW	N.m	kW	N.m	kW	N.m	kW	N.m	kW	N.m	kW	N.m	kW	N.m
50	10	1.11	47.1	1.00	51.0	0.85	53.2	0.65	53.2	0.44	53.2	0.23	53.2	0.08	53.2
	15	0.79	48.1	0.71	51.0	0.61	53.2	0.45	53.2	0.32	53.2	0.17	53.2	0.06	53.2
	20	0.64	51.0	0.56	53.2	0.45	53.2	0.34	53.2	0.24	53.2	0.13	53.2	0.04	53.2
	25	0.51	47.1	0.47	51.0	0.40	53.2	0.31	53.2	0.22	53.2	0.11	53.2	0.04	53.2
	30	0.48	52.0	0.42	53.2	0.35	53.2	0.27	53.2	0.18	53.2	0.10	53.2	0.03	53.2
	40	0.38	53.2	0.33	53.2	0.27	53.2	0.21	53.2	0.14	53.2	0.08	53.2	0.03	53.2
	50	0.34	53.0	0.30	53.2	0.25	53.2	0.20	53.2	0.14	53.2	0.07	53.2	0.03	53.2
	60	0.29	53.2	0.24	53.2	0.20	53.2	0.15	53.2	0.10	53.2	0.06	53.2	0.02	53.2
60	10	2.00	85.3	1.79	91.2	1.61	101	1.35	111	0.93	113	0.48	113	0.17	113
	15	1.39	85.3	1.26	92.2	1.11	99.1	0.95	112	0.65	113	0.35	113	0.12	113
	20	1.09	85.3	0.97	91.2	0.87	98.1	0.74	109	0.52	113	0.28	113	0.10	113
	25	0.86	85.3	0.78	91.2	0.69	98.1	0.57	107	0.41	113	0.22	113	0.07	113
	30	0.84	91.2	0.77	99.1	0.68	105	0.57	113	0.40	113	0.21	113	0.08	113
	40	0.70	93.2	0.63	99.1	0.57	107	0.49	113	0.32	113	0.18	113	0.07	113
	50	0.54	90.3	0.49	95.2	0.43	103	0.47	112	0.25	113	0.14	113	0.05	113
	60	0.47	90.3	0.42	96.1	0.37	102	0.31	111	0.22	113	0.12	113	0.04	113
70	10	2.96	128	2.64	136	2.35	149	1.97	164	1.57	192	1.02	240	0.37	245
	15	2.03	126	1.84	136	1.62	147	1.39	164	1.08	186	0.70	231	0.27	245
	20	1.73	140	1.55	149	1.38	162	1.16	179	0.90	202	0.58	244	0.21	245
	25	1.18	118	1.08	127	0.95	135	0.80	149	0.63	170	0.39	202	0.17	245
	30	1.23	134	1.12	146	0.99	156	0.85	173	0.67	195	0.43	232	0.17	245
	40	1.05	148	0.95	158	0.85	170	0.72	185	0.57	210	0.36	246	0.11	245
	50	0.74	127	0.68	135	0.61	145	0.51	158	0.40	168	0.25	205	0.10	245
	60	0.69	136	0.63	143	0.56	153	0.47	167	0.37	182	0.24	216	0.10	245

- ※ Do NOT exceed the output torque.
- ※ Service Factor 1.(uniform load and 10 hrs. per day.)
- ※ Reduction ratio means actual reduction ratio.
- ※ Capacities mentioned above are under a continuous running condition (a stable condition after temperature rise). Short time operation and intermittent operation may heighten lubricant's stirring resistance and lower motor's efficiency. Please refer to the theoretical start-up efficiency in this case.

Allowable thrust load of K Type output shaft

Model	50	60	70	80	100	120	135	155
Allowable thrust Load(N)	2450	2940	3920	4900	5880	7840	10780	12740

Allowable thrust load of AOK Type output shaft

Model	50	60	70	80	100	120	135
Allowable thrust Load(N)	980	1176	1568	1960	2352	3136	4312

Rated Transmission Capacities

S • A Series

B/BP/W/WP/K/A/AO

Model	RPM	1800		1500		1200		900		600		300		100	
	Reduction Ratio	Input Capacity	Output Torque	Input Capacity	Output Torque	Input Capacity	Output Torque	Input Capacity	Output Torque	Input Capacity	Output Torque	Input Capacity	Output Torque	Input Capacity	Output Torque
		kW	N.m	kW	N.m	kW	N.m	kW	N.m	kW	N.m	kW	N.m	kW	N.m
80	10	3.98	173	3.58	184	3.14	201	2.67	223	2.12	261	1.38	326	0.50	343
	15	2.74	171	2.46	182	2.16	199	1.87	223	1.46	253	0.95	315	0.37	343
	20	2.14	172	1.96	186	1.73	202	1.47	222	1.16	254	0.75	309	0.30	343
	25	1.54	152	1.38	161	1.23	176	1.04	191	0.82	219	0.52	262	0.24	335
	30	1.65	183	1.48	195	1.31	212	1.14	233	0.90	266	0.58	314	0.24	343
	40	1.37	189	1.24	202	1.11	221	0.96	240	0.76	271	0.50	323	0.20	343
	50	0.99	166	0.90	179	0.81	192	0.69	208	0.54	232	0.35	275	0.17	339
	60	0.91	178	0.83	191	0.74	202	0.64	222	0.49	243	0.32	288	0.14	343
100	10	7.42	325	6.75	351	5.88	380	5.00	425	3.95	490	2.04	490	0.73	490
	15	5.11	324	4.57	343	4.11	381	3.49	425	2.73	481	2.21	490	0.72	490
	20	3.79	315	3.46	342	3.04	372	2.56	407	2.02	467	1.11	490	0.40	490
	25	2.89	294	2.58	312	2.31	343	1.94	374	1.53	430	0.92	490	0.33	490
	30	3.06	349	2.78	373	2.45	401	2.11	448	1.63	490	0.88	490	0.32	490
	40	2.28	337	2.05	359	1.83	393	1.56	427	1.23	482	0.68	490	0.25	490
	50	1.75	311	1.59	334	1.42	362	1.21	390	0.94	439	0.57	490	0.22	490
	60	1.49	307	1.35	331	1.20	353	1.03	386	0.79	424	0.50	490	0.19	490
120	10	11.8	521	10.8	570	9.54	620	8.18	700	6.43	806	3.39	823	1.21	823
	15	8.31	530	7.36	559	6.60	618	5.56	684	4.41	786	2.42	823	0.87	823
	20	5.45	448	4.99	488	4.40	528	3.75	589	2.98	673	1.93	823	0.71	823
	25	4.96	516	4.42	545	3.93	600	3.31	657	2.61	753	1.50	823	0.53	823
	30	4.91	567	4.42	604	3.92	652	3.35	727	2.69	826	1.44	823	0.54	823
	40	3.45	498	3.07	525	2.76	572	2.37	635	1.91	717	1.20	823	0.46	823
	50	2.93	543	2.65	579	2.35	632	2.01	685	1.56	763	0.90	823	0.34	823
	60	2.30	478	2.08	508	1.84	549	1.59	600	1.24	660	0.82	794	0.32	823

Rated Transmission Capacities

S • A Series

B/BP/W/WP/K/A/AO

Model	RPM	1800		1500		1200		900		600		300		100	
	Ratio	Input Capacity	Output Torque	Input Capacity	Output Torque	Input Capacity	Output Torque	Input Capacity	Output Torque	Input Capacity	Output Torque	Input Capacity	Output Torque	Input Capacity	Output Torque
		kW	N.m	kW	N.m	kW	N.m	kW	N.m	kW	N.m	kW	N.m	kW	N.m
135	10	17.0	757	15.6	830	13.7	903	11.7	1020	9.23	1180	5.54	1372	1.96	1372
	15	12.2	795	10.8	838	9.73	926	8.18	1030	6.46	1180	3.92	1372	1.40	1372
	20	8.75	747	7.97	806	6.92	865	5.92	972	4.66	1110	2.99	1360	1.08	1372
	25	6.64	696	5.94	739	5.26	808	4.44	890	3.47	1010	2.19	1210	0.89	1372
	30	7.21	856	6.49	912	5.73	987	4.90	1100	3.90	1250	2.29	1372	0.86	1372
	40	5.13	794	4.68	852	4.11	918	3.52	1020	2.80	1150	1.78	1360	0.66	1372
	50	3.89	730	3.51	775	3.12	845	2.66	922	2.07	1030	1.34	1230	0.56	1372
	60	3.04	655	2.75	697	2.43	753	2.08	823	1.62	905	1.06	1090	0.50	1350
155	10(9.66)	23.9	1020	21.7	1110	19.2	1220	16.2	1360	12.9	1600	8.14	1990	3.54	2370
	15(14.5)	16.8	1040	15.0	1120	13.2	1220	11.2	1360	8.87	1570	5.89	1970	2.55	2370
	20	11.5	975	10.4	1050	9.20	1140	7.75	1260	6.18	1460	4.00	1800	1.80	2220
	25	8.78	913	7.93	982	6.98	1060	5.86	1170	4.67	1340	2.99	1630	1.41	2098
	30(29)	9.77	1100	8.89	1190	7.68	1280	6.65	1430	5.30	1650	3.05	1980	1.58	2370
	40	6.85	1040	6.05	1100	5.43	1200	4.62	1320	3.69	1500	2.39	1790	1.17	2287
	50	5.21	965	4.70	1030	4.22	1120	3.60	1240	2.86	1380	1.86	1650	0.90	2077
	60	4.19	912	3.84	977	3.43	1060	2.89	1160	2.32	1295	1.52	1550	0.75	1970

- ※ Do NOT exceed the output torque.
- ※ Service Factor 1.(uniform load and 10 hrs. per day.)
- ※ () is actual reduction ratio.
- ※ Capacities mentioned above are under a continuous running condition(a stable condition after temperature rise). Short time operation and intermittent operation may heighten lubricant's stirring resistance and lower motor's efficiency. Please refer to the theoretical start-up efficiency in this case.

Rated Transmission Capacities

S • A Series

B/W/K/A/AO

Model	RPM	1800		1500		1200		900		600		300		100	
	Reduction Ratio	Input Capacity	Output Torque	Input Capacity	Output Torque	Input Capacity	Output Torque	Input Capacity	Output Torque	Input Capacity	Output Torque	Input Capacity	Output Torque	Input Capacity	Output Torque
		kW	N.m	kW	N.m	kW	N.m	kW	N.m	kW	N.m	kW	N.m	kW	N.m
175	10(9.66)	33.8	1450	30.8	1590	27.3	1750	22.9	1940	18.1	2260	12.0	2880	4.96	3380
	15(14.5)	24.0	1500	21.5	1610	18.8	1750	16.1	2000	12.6	2270	8.34	2840	3.56	3380
	20(19.5)	16.7	1380	14.9	1470	13.2	1620	11.1	1790	8.88	2080	5.77	2560	2.69	3380
	25	11.7	1220	10.6	1330	9.31	1430	7.93	1590	6.32	1840	4.06	2230	1.93	2866
	30(29)	13.9	1590	12.5	1710	10.9	1850	9.43	2060	7.47	2370	4.91	2850	2.18	3380
	40(39)	9.76	1460	8.69	1550	7.67	1680	6.59	1860	5.21	2120	3.43	2580	1.71	3315
	50	7.22	1340	6.39	1410	5.75	1540	4.85	1680	3.86	1900	2.53	2260	1.25	2865
	60(58)	6.02	1290	5.45	1380	4.85	1500	4.09	1630	3.26	1830	2.13	2190	1.03	2745
200	10(10.33)	45.4	2090	41.3	2280	36.6	2510	30.8	2790	24.4	3280	15.8	4080	6.51	4780
	15(15.5)	32.4	2180	29.1	2340	25.4	2540	21.4	2820	16.8	3250	11.2	4120	4.66	4780
	20	23.2	1990	20.6	2110	18.3	2330	15.4	2570	12.2	3000	7.95	3670	3.73	4770
	25	17.1	1800	15.4	1940	13.4	2100	11.4	2320	9.08	2700	5.83	3260	2.75	4210
	30(31)	18.7	2300	16.8	2470	14.6	2660	12.6	2990	10.0	3460	6.51	4110	2.82	4780
	40	13.3	2080	12.1	2260	10.5	2420	9.07	2690	6.99	3000	4.68	3660	2.28	4710
	50	10.2	1940	9.03	2030	8.00	2210	6.81	2420	5.37	2740	3.54	3280	1.72	4160
	60(59)	8.60	1870	7.70	1990	6.87	2170	5.80	2360	4.57	2650	3.00	3160	1.47	4010
225	10	60.5	2710	55.0	2960	49.0	3280	40.9	3630	32.0	4200	21.2	5400	9.30	6760
	15	46.0	3020	41.3	3250	35.9	3520	30.6	3960	23.9	4560	15.6	5700	6.58	6760
	20	33.8	2910	29.7	3060	26.5	3390	22.3	3770	17.6	4370	11.5	5390	5.17	6760
	25	24.6	2620	22.1	2820	19.3	3050	16.3	3370	12.9	3930	8.28	4760	3.87	6140
	30	27.3	3360	24.5	3590	21.5	3910	18.2	4330	14.4	4970	9.35	5980	3.89	6760
	40	19.2	3040	17.6	3330	15.1	3540	13.0	3950	10.0	4420	6.77	5420	3.16	6760
	50	14.4	2810	12.7	2940	11.2	3200	9.55	3500	7.50	3970	4.90	4750	2.36	6030
	60(58)	11.6	2550	10.3	2700	9.17	2930	7.76	3200	6.07	3590	3.99	4280	1.97	5490

Rated Transmission Capacities

S • A Series

B/W/K/A/AO

Model	RPM	1800		1500		1200		900		600		300		100	
	Reduction Ratio	Input Capacity	Output Torque	Input Capacity	Output Torque	Input Capacity	Output Torque	Input Capacity	Output Torque	Input Capacity	Output Torque	Input Capacity	Output Torque	Input Capacity	Output Torque
		kW	N.m	kW	N.m	kW	N.m	kW	N.m	kW	N.m	kW	N.m	kW	N.m
250	10	82.1	3670	75.3	4030	67.0	4480	55.9	4950	44.4	5820	29.2	7420	11.5	8330
	15	58.7	3830	53.9	4220	47.1	4590	39.7	5140	31.0	5890	20.6	7490	8.19	8330
	20(20.5)	43.0	3820	38.3	4070	34.1	4500	28.2	4910	22.3	5700	14.4	7000	6.15	8330
	25(26)	30.5	3390	27.4	3640	23.9	3940	20.3	4390	16.0	5090	10.2	6130	4.71	7820
	30	34.6	4180	31.0	4480	27.2	4890	22.7	5400	18.1	6200	11.9	7580	4.89	8330
	40(41)	24.4	3980	22.1	4310	19.2	4630	16.5	5180	12.7	5770	8.52	7100	3.73	8330
	50(52)	17.6	3570	15.7	3800	13.7	4110	11.8	4550	9.14	5100	5.99	6070	2.87	7680
	60	15.3	3530	13.6	3750	12.0	4070	10.1	4430	7.94	4970	5.20	5940	2.52	7560

- ※ Do NOT exceed the output torque.
- ※ Service Factor 1.(uniform load and 10 hrs. per day.)
- ※ () is actual reduction ratio.
- ※ W Type is up to model 175 and A/AO Type is up to model 250.
- ※ Capacities mentioned above are under a continuous running condition (a stable condition after temperature rise). Short time operation and intermittent operation may heighten lubricant's stirring resistance and lower motor's efficiency. Please refer to the theoretical start-up efficiency in this case.

Allowable thrust load of K Type output shaft

Model	175	200	225	250
Allowable thrust load (N)	13720	14700	17640	23520

Rated Transmission Capacities

S • A Series

B/K

Model	RPM	1800		1500		1200		900		600		300		100	
	Reduction Ratio	Input Capacity	Output Torque	Input Capacity	Output Torque	Input Capacity	Output Torque	Input Capacity	Output Torque	Input Capacity	Output Torque	Input Capacity	Output Torque	Input Capacity	Output Torque
		kW	N.m	kW	N.m	kW	N.m	kW	N.m	kW	N.m	kW	N.m	kW	N.m
300	10(10.33)	*	*	116	6650	105	7000	86.1	7690	68.9	9130	45.3	11700	16.0	11800
	15(14.5)	95.5	6300	86.4	6840	77.0	7590	64.7	8460	50.7	9800	31.8	11800	11.3	11800
	20	69.0	6010	63.5	6620	54.8	7130	46.2	7970	36.3	9200	23.9	11500	8.75	11800
	25(24.5)	52.3	5610	46.4	5960	41.0	6550	34.0	7180	27.0	8300	17.5	10200	7.22	11800
	30	58.1	7140	52.0	7650	45.1	8280	38.0	9210	30.2	10600	17.8	11800	6.59	11800
	40(41)	40.4	6510	36.0	6950	31.8	7620	26.5	8380	21.1	9600	13.8	11600	5.19	11800
	50	29.8	5820	26.9	6280	23.5	6810	20.0	7570	15.6	8500	10.3	10300	4.41	11800
60	23.5	5450	21.0	5810	18.4	6300	15.7	6970	12.1	7750	8.05	9400	3.86	11800	
350	10(10.33)	*	*	170	9200	153	10300	130	11600	102	13600	67.1	17400	23.7	17600
	15	*	*	126	9980	114	11300	94.8	12400	73.9	14300	46.9	17600	16.8	17600
	20	103	9000	95.1	9900	82.3	10700	70.2	12100	54.7	13900	35.5	17400	12.9	17600
	25(24)	76.5	8200	69.0	8900	60.1	9600	50.4	10700	39.9	12400	25.9	15300	10.8	17600
	30(31)	*	*	76.3	11200	66.4	12200	56.4	13700	44.6	15900	26.2	17600	9.77	17600
	40(41)	59.9	9700	53.5	10300	47.4	11400	39.9	12700	31.5	14500	20.2	17400	7.64	17600
	50(49)	44.2	8600	39.9	9300	34.8	10100	29.1	11100	22.9	12600	15.2	15400	6.55	17600
60	35.7	8380	31.9	9000	29.0	9700	23.5	10700	18.3	12000	12.1	14500	5.51	17600	
400	10(10.33)	*	*	*	*	213	14400	184	16500	144	19200	94.8	24800	33.9	25300
	15(15.5)	*	*	*	*	157	15500	134	17600	104	20400	69.3	25300	23.9	25300
	20	*	*	131	13700	116	15100	97.8	16900	75.8	19400	49.9	24600	18.4	25300
	25(25.5)	*	*	98.0	12600	85.3	13700	72.4	15500	56.8	17900	36.5	21900	15.2	25300
	30(29)	*	*	*	*	94.0	17300	79.7	19500	62.0	22400	37.0	25300	13.8	25300
	40(41)	*	*	75.9	14700	66.7	16000	55.8	17800	43.8	20400	28.3	24700	10.9	25300
	50(48)	*	*	55.5	13100	48.9	14300	41.0	15900	32.2	18100	21.0	21900	9.20	25300
60(57)	50.0	11800	45.3	12700	39.2	13700	33.0	15200	25.7	17100	17.0	20800	7.82	25300	

Rated Transmission Capacities

S · A Series

B/K

Model	RPM	1800		1500		1200		900		600		300		100		
		Ratio	Input Capacity	Output Torque	Input Capacity	Output Torque	Input Capacity	Output Torque	Input Capacity	Output Torque	Input Capacity	Output Torque	Input Capacity	Output Torque	Input Capacity	Output Torque
			kW	N.m	kW	N.m	kW	N.m	kW	N.m	kW	N.m	kW	N.m	kW	N.m
450	10(10.33)	*	*	*	*	261	18300	225	21100	177	24700	115	31600	40.5	31650	
	15(16)	*	*	*	*	211	22300	179	25100	139	29100	78.0	31650	28.0	31650	
	20	*	*	198	20800	175	22900	146	25500	114	29600	63.4	31650	23.0	31650	
	25	*	*	160	20900	139	22700	118	25600	92.5	29500	51.5	31650	18.6	31650	
	30(29)	*	*	*	*	142	25800	120	29000	88.4	31650	46.4	31650	17.2	31650	
	40(41)	*	*	112	22300	99.3	24400	82.4	26900	64.5	31100	34.8	31650	13.2	31650	
	50(51)	*	*	89.4	22000	78.5	24000	65.9	26700	51.5	30300	28.8	31650	10.8	31650	
500	60(59)	*	*	76.4	21300	65.5	22800	55.0	25200	42.9	28400	25.7	31650	9.82	31650	
	10(10.67)	*	*	*	*	344	24900	299	28700	236	33900	152	42900	64.2	51900	
	15(15.5)	*	*	*	*	283	29100	241	33000	187	38100	126	50000	50.9	56600	
	20(20.5)	*	*	*	*	224	30300	187	33700	144	38600	94.8	49100	39.1	56600	
	25(26)	*	*	200	27100	176	29800	150	33800	116	38600	74.6	47700	30.0	53100	
	30(32)	*	*	*	*	166	32900	140	36900	108	42400	70.9	52500	28.3	56600	
	40(42)	*	*	*	*	130	33700	108	37200	84.9	42800	54.7	52100	22.3	56600	
	50(53)	*	*	111	28300	98.9	31200	82.2	34300	64.1	39200	41.5	47600	17.1	51400	
60(57)	*	*	102	27900	90.0	30500	75.1	33600	58.6	38300	38.2	46500	15.4	49400		

- ※ Do NOT exceed the output torque.
- ※ Service Factor 1.(uniform load and 10 hrs. per day.)
- ※ * means need to cool down and lubricate compulsorily.
- ※ () is actual reduction ratio.
- ※ W Type is up to model 175 and A/AO Type is up to model 250.
- ※ Capacities mentioned above are under a continuous running condition(a stable condition after temperature rise). Short time operation and intermittent operation may heighten lubricant's stirring resistance and lower motor's efficiency. Please refer to the theoretical start-up efficiency in this case.

B/W/K/A/AO

(%)

Model	RPM		1800	1500	1200	900	600	300	100
	Reduction Ratio								
50	10		80.1	78.9	77.9	76.8	75.1	72.2	68.0
	15		76.3	74.9	73.5	72.2	70.0	66.5	61.6
	20		74.6	73.5	72.5	71.2	68.9	65.4	61.0
	25		69.5	67.7	65.9	64.2	61.5	57.2	51.6
	30		66.6	64.5	62.7	60.9	57.9	53.4	47.6
	40		64.2	62.7	61.2	59.4	56.4	52.1	46.9
	50		56.8	54.4	52.2	50.2	46.9	42.2	36.5
	60		57.5	56.0	54.6	52.4	49.5	45.1	40.1
60	10		80.7	80.1	78.7	77.4	76.1	73.1	68.6
	15		77.2	76.3	75.6	73.0	71.2	67.6	62.2
	20		73.9	72.7	70.8	68.9	66.8	62.7	56.9
	25		73.9	72.6	71.3	70.1	67.6	63.9	59.1
	30		68.0	66.6	64.2	61.9	59.4	54.7	48.4
	40		62.9	61.3	58.6	56.2	53.5	48.5	42.0
	50		63.0	61.2	59.5	58.0	54.6	50.2	44.7
	60		60.1	58.3	56.7	55.0	51.6	47.1	41.8
70	10		81.1	80.6	79.6	78.1	76.6	73.6	69.1
	15		77.7	77.1	75.7	73.8	71.9	68.3	62.9
	20		76.2	75.3	73.5	71.8	70.0	66.2	60.7
	25		74.6	73.1	71.4	69.8	67.6	63.7	58.2
	30		68.8	67.8	65.7	63.0	60.5	55.7	49.1
	40		66.5	65.0	62.6	60.3	57.7	52.9	46.5
	50		64.1	61.9	59.6	57.4	54.5	49.7	43.6
	60		61.4	59.0	56.8	54.7	51.6	46.8	40.9

B/W/K/A/AO

(%)

Model	Reduction Ratio \ RPM	1800	1500	1200	900	600	300	100
		80	10	81.5	81.0	80.4	78.7	77.0
	15	78.3	77.5	76.8	74.6	72.5	68.9	63.6
	20	75.2	74.3	73.4	70.8	68.3	64.2	58.3
	25	73.9	73.1	71.4	69.1	66.9	62.7	56.6
	30	69.7	68.5	67.4	64.2	61.2	56.4	49.9
	40	64.9	63.6	62.2	58.6	55.4	50.3	43.6
	50	63.0	61.9	59.4	56.4	53.6	48.5	41.7
	60	60.8	59.7	56.7	53.9	51.3	46.2	39.4
100	10	82.5	81.7	81.0	80.1	77.9	75.1	70.7
	15	79.5	78.5	77.5	76.3	73.5	70.0	64.8
	20	78.3	77.5	76.8	74.6	72.5	68.9	63.6
	25	76.5	75.8	74.6	72.3	70.2	66.3	60.7
	30	71.5	70.0	68.5	66.6	62.7	57.9	51.3
	40	69.7	68.5	67.4	64.2	61.2	56.4	49.9
	50	66.9	65.8	64.0	60.9	58.0	53.1	46.4
	60	64.7	63.7	61.3	58.3	55.6	50.6	43.8

- ※ Efficiencies mentioned above are under a rated load operation condition.
- ※ Capacities mentioned above are under a continuous running condition (a stable condition after temperature rise). Short time operation and intermittent operation may heighten lubricant's stirring resistance and lower motor's efficiency. Please refer to the theoretical start-up efficiency in this case.

B/BP/W/WP/K/A/AO

Model	Reduction Ratio \ RPM	1800	1500	1200	900	600	300	100
		10	82.8	82.5	81.5	80.7	78.7	76.1
120	15	80.0	79.5	78.3	77.2	74.6	71.2	65.4
	20	77.3	76.6	75.2	73.9	70.8	66.8	60.4
	25	78.3	77.5	76.8	74.6	72.5	68.9	63.6
	30	72.4	71.5	69.7	68.0	64.2	59.4	52.1
	40	68.1	66.9	64.9	62.9	58.6	53.5	45.9
	50	69.7	68.5	67.4	64.2	61.2	56.4	49.9
	60	65.2	63.7	62.2	59.2	55.4	50.2	43.5
	135	10	83.6	83.3	82.5	81.7	80.0	77.5
15		81.2	80.7	79.7	78.6	76.3	73.2	67.9
20		80.3	79.3	78.4	77.3	74.7	71.3	66.3
25		78.9	78.0	77.2	75.4	73.0	69.4	64.3
30		74.5	73.6	72.0	70.4	66.8	62.4	55.4
40		72.8	71.4	70.0	68.1	64.4	59.8	53.4
50		70.6	69.3	68.0	65.3	61.9	57.1	50.7
60		67.7	66.2	64.9	62.0	58.4	53.3	46.7
155	10(9.66)	83.2	83.0	82.7	81.5	80.4	77.0	72.5
	15(14.5)	80.6	80.2	79.8	78.3	76.8	72.5	66.8
	20	79.5	79.2	78.0	76.7	74.3	70.6	64.6
	25	78.4	77.7	76.4	75.1	72.3	68.5	62.3
	30(29)	73.4	72.7	72.1	69.7	67.4	61.2	53.8
	40	71.6	71.1	69.2	67.2	63.7	58.7	50.9
	50	69.8	68.7	66.7	64.9	60.7	55.7	48.2
	60	68.3	66.6	64.8	63.0	58.4	53.3	46.1

B/BP/W/WP/K/A/AO

(%)

Model	Reduction Ratio RPM	1800	1500	1200	900	600	300	100
		175	10(9.66)	83.6	83.4	83.1	82.2	81.0
	15(14.5)	81.2	80.9	80.3	79.3	77.7	73.6	68.3
	20(19.5)	80.0	79.6	79.0	77.5	75.7	71.5	65.6
	25	78.3	77.9	76.9	75.3	73.0	68.7	62.3
	30(29)	74.3	73.9	73.2	71.2	68.8	62.9	55.8
	40(39)	72.4	71.8	70.7	68.4	65.6	59.8	52.2
	50	69.7	69.0	67.3	65.1	61.6	56.0	48.1
	60(58)	69.8	68.7	66.7	64.9	60.7	55.7	48.2
200	10(10.33)	83.8	83.6	83.4	82.6	81.4	78.4	74.3
	15(15.5)	81.5	81.3	80.8	79.8	78.2	74.3	69.2
	20	80.6	80.2	79.8	78.3	76.8	72.5	66.8
	25	79.3	78.8	78.1	76.5	74.6	70.2	64.1
	30(31)	74.9	74.5	73.8	72.1	69.7	63.9	56.9
	40	73.4	72.7	72.1	69.7	67.4	61.2	53.8
	50	71.1	70.5	69.3	66.9	64.0	58.0	50.3
	60(59)	69.7	69.0	67.3	65.1	61.6	56.0	48.1
225	10	84.6	84.5	84.2	83.6	82.4	79.7	76.0
	15	82.6	82.5	82.1	81.2	79.8	76.3	71.6
	20	81.2	80.9	80.5	79.3	77.7	73.6	68.3
	25	80.5	80.1	79.5	78.0	76.3	72.2	66.5
	30	77.0	76.7	76.1	74.5	72.3	67.0	60.5
	40	74.3	73.9	73.2	71.2	68.8	62.9	55.8
	50	73.1	72.5	71.5	69.3	66.6	60.9	53.4
	60(58)	71.1	70.5	69.3	66.9	64.0	58.0	50.3

- ※ Efficiencies mentioned above are under a rated load operation condition.
- ※ () is actual reduction ratio.
- ※ W Type is up to model 175 and A/AO Type is up to model 250.
- ※ Capacities mentioned above are under a continuous running condition (a stable condition after temperature rise). Short time operation and intermittent operation may heighten lubricant's stirring resistance and lower motor's efficiency. Please refer to the theoretical start-up efficiency in this case.

B/K/A/AO

(%)

Model	Reduction Ratio RPM	1800	1500	1200	900	600	300	100
		250	10	84.2	84.1	83.9	83.6	82.3
	15	82.0	81.9	81.7	81.2	79.4	76.0	70.9
	20(20.5)	81.5	81.3	80.8	79.8	78.2	74.3	69.2
	25(26)	80.6	80.2	79.8	78.3	76.8	72.5	66.8
	30	75.8	75.6	75.2	74.4	71.6	66.3	59.3
	40(41)	74.9	74.5	73.8	72.1	69.7	63.9	56.9
	50(52)	73.4	72.7	72.1	69.7	67.4	61.2	53.8
	60	72.4	71.8	70.7	68.4	65.6	59.8	52.2
300	10(10.33)	—	84.6	84.5	84.2	83.2	80.9	76.9
	15(14.5)	82.8	82.7	82.6	82.1	80.7	77.7	72.8
	20	82.0	81.9	81.6	81.2	79.4	75.9	70.9
	25(24.5)	80.8	80.6	80.2	79.5	77.5	73.5	68.1
	30	77.3	77.1	76.8	76.1	73.8	69.0	62.1
	40(41)	75.9	75.7	75.2	74.4	71.5	66.2	59.3
	50	73.6	73.4	72.7	71.5	68.5	62.8	55.5
	60	72.7	72.4	71.6	69.7	67.0	60.8	53.4
350	10(10.33)	—	84.6	84.5	84.3	83.6	81.5	77.4
	15	—	82.7	82.6	82.3	81.2	78.4	73.2
	20	82.1	82.0	81.8	81.3	79.9	76.6	71.3
	25(24)	80.7	80.6	80.4	79.8	77.9	74.1	68.4
	30(31)	—	77.1	76.9	76.3	74.6	70.1	62.7
	40(41)	76.0	75.7	75.5	74.7	72.3	67.3	59.9
	50(49)	73.6	73.4	73.0	72.1	69.1	63.5	55.8
	60	73.6	73.4	72.7	71.5	68.5	62.6	55.5

B/K/A/AO

(%)

Model	Reduction Ratio RPM	1800	1500	1200	900	600	300	100
400	10(10.33)	—	—	84.5	84.4	83.9	82.0	77.8
	15(15.5)	—	—	82.6	82.4	81.8	79.2	73.8
	20	—	82.0	81.9	81.5	80.4	77.4	71.9
	25(25.5)	—	81.0	80.8	80.4	79.0	75.6	69.7
	30(29)	—	—	77.0	76.7	75.5	71.5	63.6
	40(41)	—	75.8	75.6	75.0	73.2	68.5	60.6
	50(48)	—	74.0	73.7	73.0	70.8	65.6	57.4
	60(57)	73.9	73.7	73.3	72.4	69.5	63.9	56.3
450	10(10.33)	—	—	85.3	85.4	84.8	83.5	79.0
	15(16)	—	—	82.9	82.7	82.2	79.6	74.1
	20	—	82.3	82.3	82.2	81.4	78.3	72.1
	25	—	82.2	82.1	81.6	80.2	77.1	71.3
	30(29)	—	—	78.7	78.4	77.3	73.7	66.3
	40(41)	—	76.3	75.4	75.0	73.7	69.3	60.9
	50(51)	—	75.7	75.4	74.6	72.4	67.4	59.9
	60(59)	—	74.2	74.0	73.2	70.5	65.2	57.3
500	10(10.67)	—	—	85.3	84.9	84.6	83.1	79.3
	15(15.5)	—	—	83.3	83.2	82.5	80.4	75.1
	20(20.5)	—	—	82.9	82.9	82.1	79.4	73.7
	25(26)	—	81.7	81.8	81.6	80.4	77.3	71.1
	30(32)	—	—	77.8	77.5	76.2	72.6	65.2
	40(42)	—	—	77.6	76.1	75.2	71.1	63.3
	50(53)	—	75.4	74.7	74.2	72.5	67.7	59.4
	60(57)	—	75.4	74.6	73.9	71.9	66.9	58.8

- ※ Efficiencies mentioned above are under a rated load operation condition.
- ※ () is actual reduction ratio.
- ※ A/AO Type is up to model 250.
- ※ Capacities mentioned above are under a continuous operation condition (stable condition after temperature rise). Short time operation and intermittent operation may heighten lubricant's stirring resistance and lower motor's efficiency. Please refer to the theoretical start-up efficiency in this case.

Input shaft equivalent moment of inertia

S · A Series

B/BP/W/WP/K/A/AO

($10^{-4}\text{kg}\cdot\text{m}^2$)

Model \ Reduction Ratio	10	15	20	25	30	40	50	60
50	0.23	0.21	0.13	0.33	0.20	0.12	0.22	0.09
60	0.49	0.45	0.46	0.58	0.44	0.44	0.21	0.20
70	1.21	1.12	0.77	1.66	1.07	0.73	0.58	0.54
80	2.46	2.31	2.24	1.65	2.21	2.18	1.61	1.35
100	6.93	6.55	3.68	3.48	6.32	3.54	3.39	2.65
120	15.6	14.6	13.9	6.22	14.1	13.6	5.98	7.07
135	21.6	19.6	12.9	10.8	18.5	12.2	10.3	10.6
155	64.0	60.6	34.0	27.9	58.6	32.8	27.2	24.9
175	100	93.9	60.2	51.4	90.2	58.0	50.2	44.9
200	156	144	94.9	82.7	137	90.8	80.1	71.1
225	204	181	147	175	167	139	170	112
250	415	378	222	166	355	208	158	146
300	1113	683	474	380	604	428	350	306
350	1948	1510	1013	776	1309	901	702	602
400	3180	2778	1879	1331	2406	1664	1263	1091

※ GD^2 is 4 times of the value in the table above.

Theoretical start-up efficiencies

S · A Series

B/BP/W/WP/K/A/AO

(%)

Model \ Reduction Ratio	10	15	20	25	30	40	50	60
50	64.7	56.5	56.5	44.7	40.4	40.4	29.2	33.6
60	64.7	56.5	49.9	42.2	40.4	33.9	37.7	34.9
70	64.7	56.5	54.5	40.4	40.4	38.4	35.8	33.3
80	64.7	56.5	49.9	48.8	40.4	33.9	32.8	30.9
100	64.7	56.5	56.5	53.3	40.4	40.4	37.1	34.9
120	64.7	56.5	49.9	56.5	40.4	33.9	40.4	33.1
135	67.3	59.8	58.5	56.5	44.0	42.6	40.4	36.2
155	64.7	56.5	54.7	52.4	40.4	38.6	36.2	34.5
175	65.8	57.9	55.3	51.4	42.0	39.1	35.3	36.2
200	66.5	58.8	56.5	53.3	42.9	40.4	37.1	35.3
225	69.3	62.5	57.9	56.5	47.2	42.0	40.4	37.1
250	67.5	60.0	58.8	56.5	44.3	42.9	40.4	39.1
300	66.5	63.9	59.7	57.7	48.2	43.5	41.3	39.1
350	68.6	62.8	59.9	58.9	46.9	43.6	42.6	40.6
400	70.1	62.4	59.9	58.8	48.9	43.7	43.3	42.0
450	71.2	62.5	59.9	60.3	50.5	43.7	44.1	41.3
500	71.3	63.4	63.1	58.9	47.6	47.3	42.6	42.2

※1. Start-up efficiency is calculated from gears' coefficient of friction at 0 rpm . Lubricant stirring loss, bearing and oil seal's friction loss are not considered.

※2. Start-up efficiency of worm gears is calculated from lead angle and coefficient of friction. Contact us if startup torque is extremely small or huge.

Theoretical start-up efficiency

S · A Series

No-load input torque

Model	50	60	70	80	100	120	135	155	175
No-load input torque (N.m)	0.24	0.27	0.31	0.33	0.40	0.49	0.56	0.67	0.80

※ Torque in this table is the value at 30rpm.

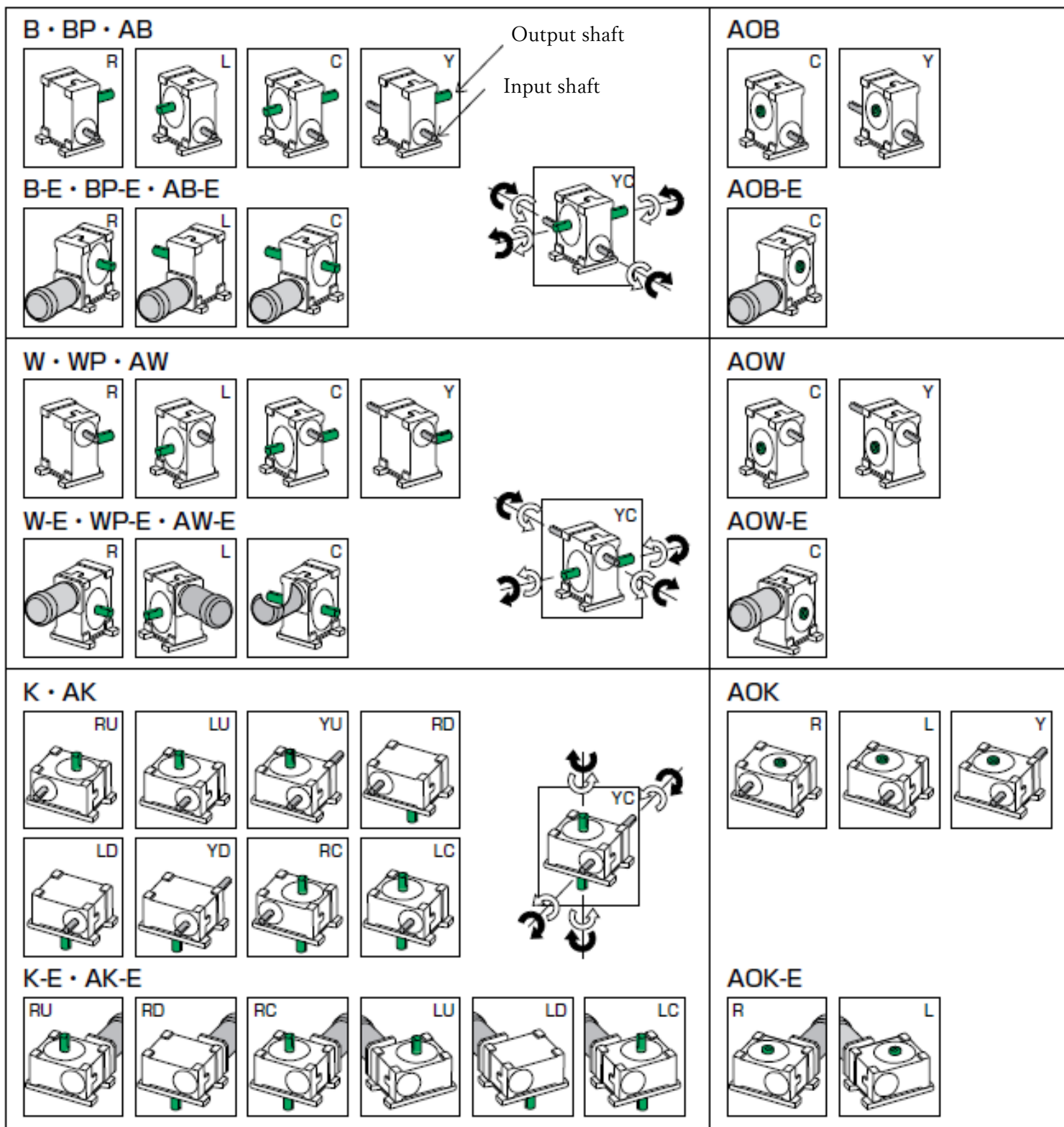
※ Contact us for torque of models greater than 200.

- Shaft arrangement can be decided on the direction of input shaft or output shaft when motor is in the front.

For a double input shaft reducer with a motor or motor adaptor, shaft arrangement should be the direction of output shaft when motor or motor adaptor is in the front. (R/ L/ U /D/ C Type (customized product) is suitable in this case (NOT Y or YC).)

- Shaft arrangement symbols.

Symbol	Output shaft direction		Symbol	Output shaft direction
R	Right		Y	Double input shaft
L	Left		C	Double output shaft
U	Upper		YC	Double input and output shafts
D	Under			



- Directional arrows are the lead direction of each shaft.
- Lead direction can be forward or reverse, nevertheless capacity is the same.

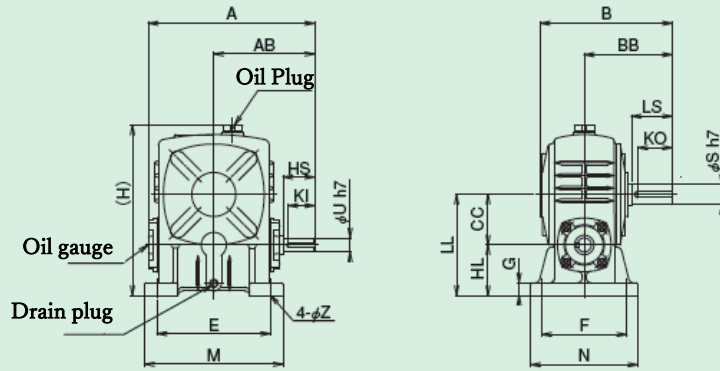
B50-80 B155-175

Single reduction
worm reducer

Dimension Drawings

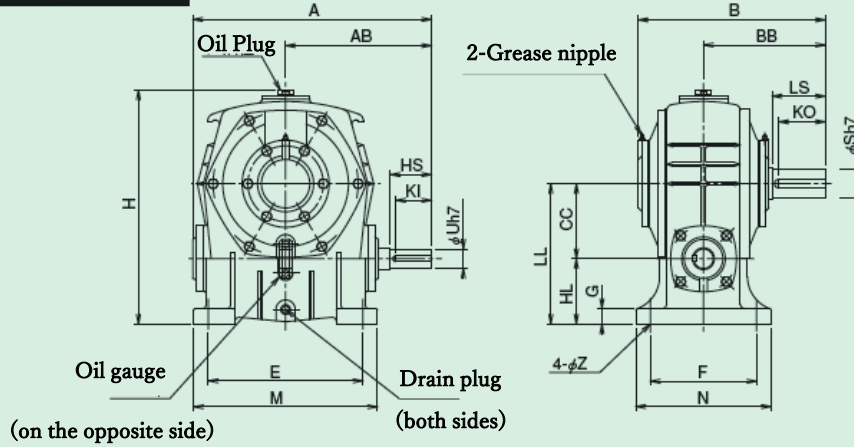
■ Please refer to Rated Transmission Capacities for each model.

B50-80

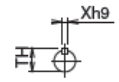


※ Model 50-80 do not have eye-bolts.

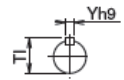
B155-175



Shaft details



Input shaft



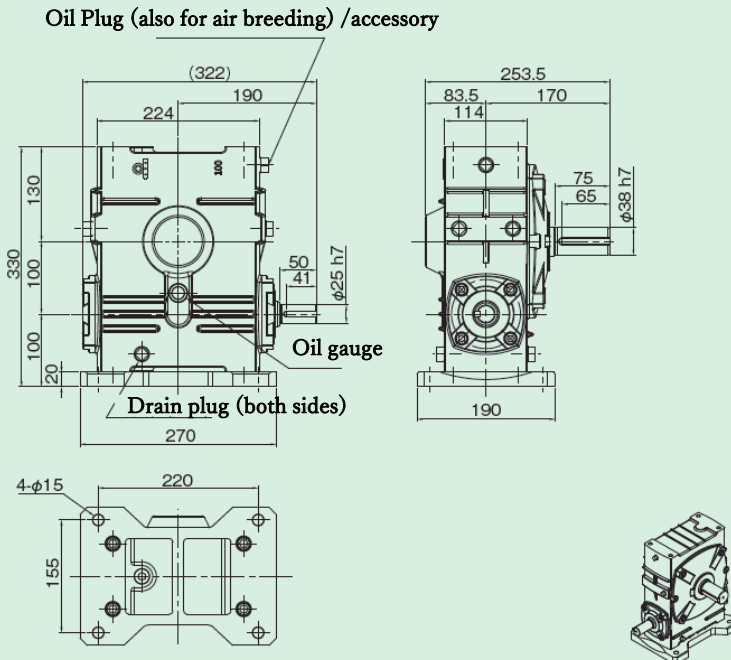
Output shaft

B50-80/B155-175 dimensions

Model	A	AB	B	BB	CC	E	F	G	H	HD	HL	LL	M	N	Z
50	176	105	145	95	50	110	95	15	175	-	50	100	140	120	11
60	196	120	165	110	60	120	105	20	205	-	60	120	150	130	11
70	234	140	195	130	70	150	115	20	238	-	70	140	190	150	15
80	264	160	210	140	80	180	135	20	268	-	80	160	220	170	15
100	These models have been replaced by BP Type.														
120															
135															
155	498	302	390	252	155	320	220	32	481	-	135	290	380	280	20
175	548	325	410	262	175	350	250	37	551	-	160	335	410	310	20

Model	Input shaft					Output shaft					Weight	Lubricant quantity
	HS	KI	Uh7	Xh9	TH	LS	KO	Sh7	Yh9	TI	kg	L
50	30	25	12	4	13.5	40	32	17	5	19.0	7.0	0.20
60	40	32	15	5	17.0	50	42	22	6	24.5	10.0	0.34
70	40	32	18	6	20.5	60	51	28	8	31.0	14.0	0.52
80	50	42	22	6	24.5	65	55	32	10	35.0	20.0	0.68
100	These models have been replaced by BP Type.											
120												
135												
155	85	74	40	12	43.0	110	96	60	18	64.0	120.0	3.70
175	85	73	45	14	48.5	110	96	65	18	69.0	150.0	5.80

BP100



Weight: 38kg

Shaft details

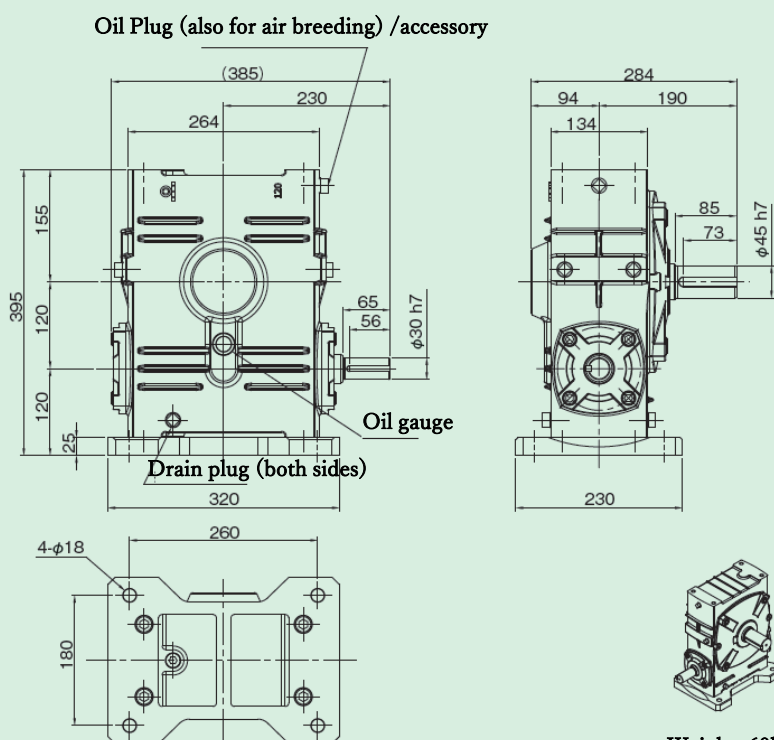


Input shaft



Output shaft

BP120



Weight: 60kg

Shaft details

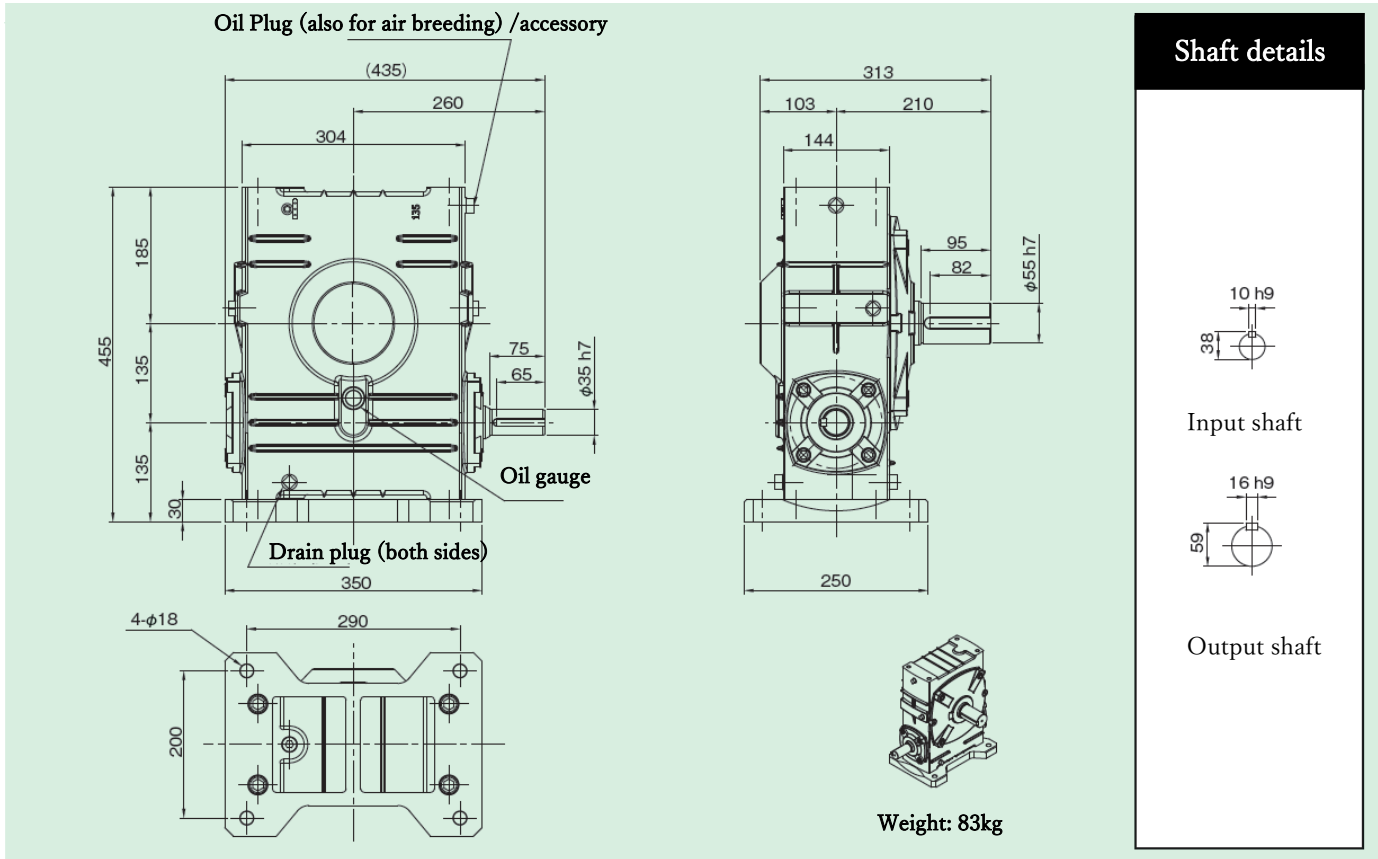


Input shaft



Output shaft

BP135



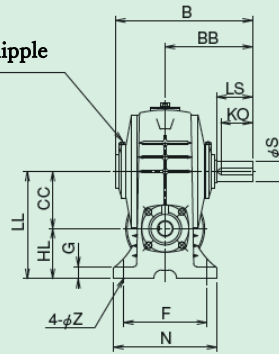
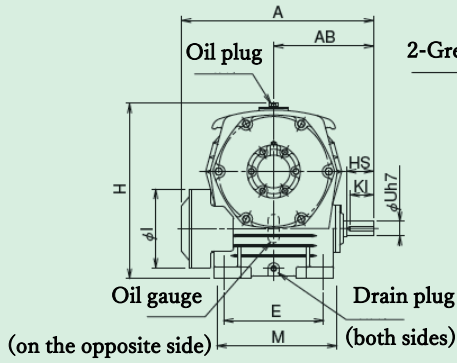
B200-250 B300-500

Single reduction worm reducer

Dimension Drawings

■ Please refer to Rated Transmission Capacities for each model.

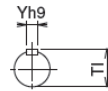
B200-250



Shaft details

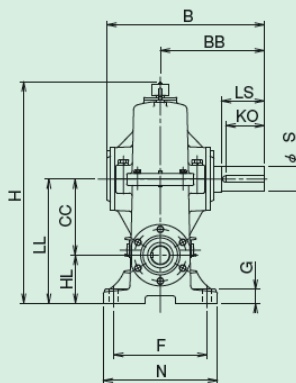
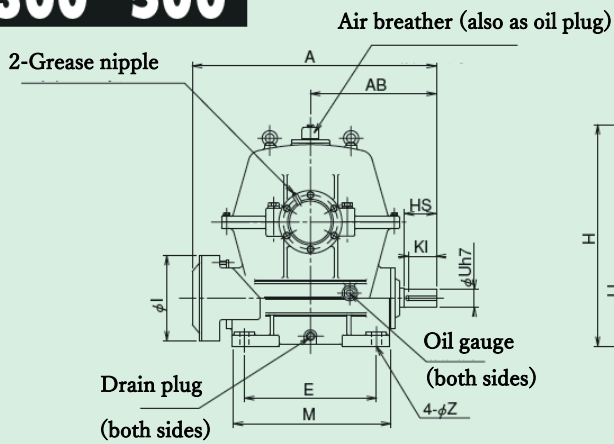


Input shaft



Output shaft

B300-500



B200-250/B300-500 dimensions

Model	A	AB	B	BB	CC	E	F	G	H	HL	I	LL	M	N	Z
200	673	350	478	305	200	350	290	42	611	175	276	375	420	360	22
225	730	375	522	335	225	390	330	45	686	190	297	415	470	410	27
250	810	420	557	360	250	440	380	50	746	200	337	450	520	460	27
300	960	495	622	410	300	520	368	55	875	190	337	490	620	450	36
350	1119	570	748	480	350	597	432	32	1015	215	400	565	700	520	43
400	1229	620	775	500	400	660	470	40	1153	250	440	650	780	580	43
450	1354	695	855	545	450	762	508	40	1254	255	440	705	880	620	43
500	1570	810	935	610	500	890	584	45	1385	290	535	790	1040	710	48

Model	Input shaft					Output shaft					Weight	Lubricant quantity
	HS	KI	Uh7	Xh9	TH	LS	KO	S	Yh9	TI	kg	L
200	95	83	50	14	53.5	125	110	70h7	20	74.5	220.0	6.5
225	95	82	55	16	59.0	140	124	80h7	22	85.0	300.0	8.0
250	110	96	60	18	64.0	155	137	90h7	25	95.0	360.0	11.0
300	125	110	70	20	74.5	170	152	95h7	25	100.0	520.0	14.0
350	145	129	80	22	85.0	190	169	115m6	32	122.0	780.0	28.0
400	150	134	85	22	90.0	200	179	130m6	32	137.0	1100.0	40.0
450	180	164	85	22	90.0	205	182	140m6	36	148.0	1400.0	60.0
500	205	187	95	25	100.0	240	215	170m6	40	179.0	1860.0	92.0

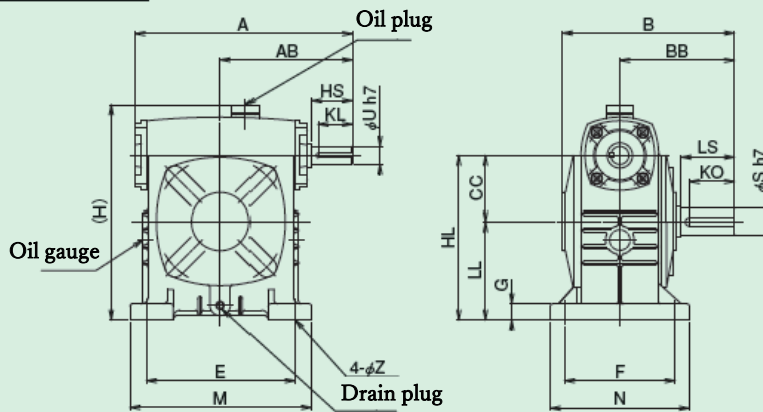
W50-80 W155-175

Single reduction
worm reducer

Dimension Drawings

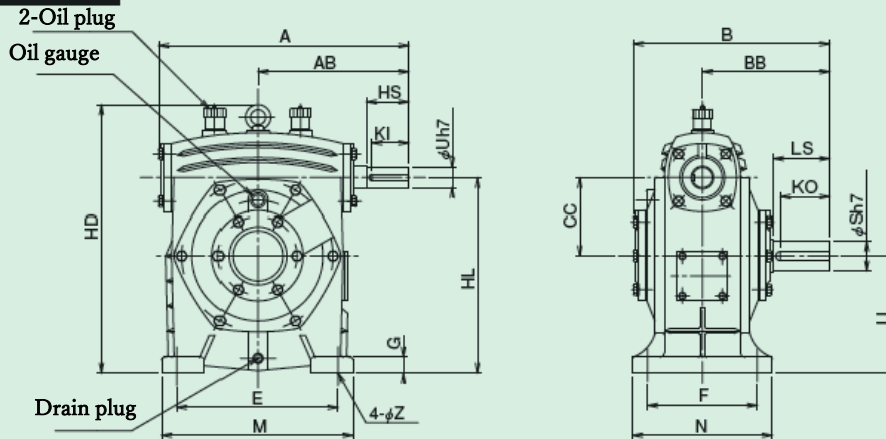
■ Please refer to Rated Transmission Capacities for each model.

W50-80

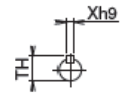


※50-80 do not have eye-bolts.

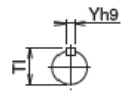
W155-175



Shaft details



Input shaft



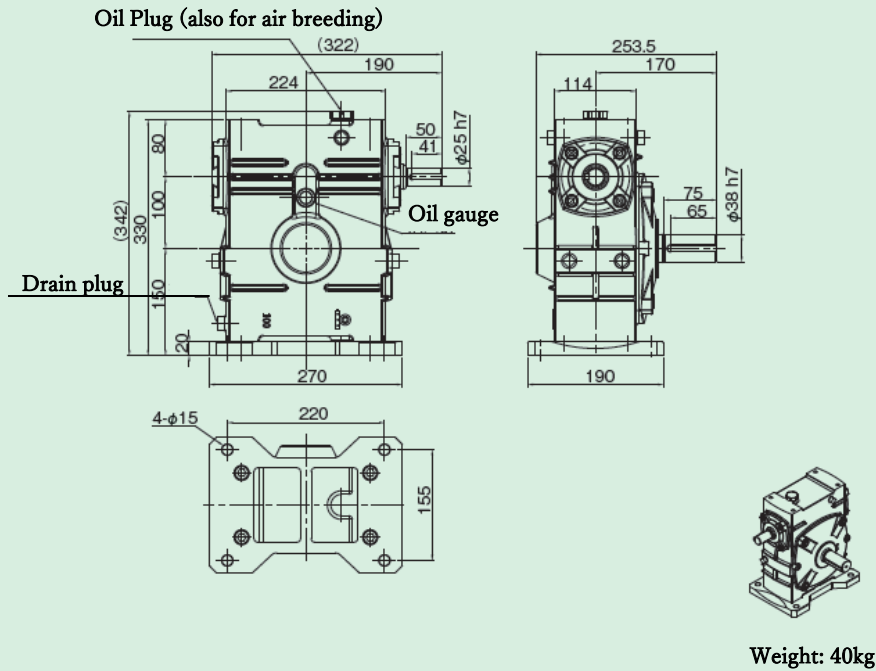
Output shaft

W50-80/W155-175 dimensions

Model	A	AB	B	BB	CC	E	F	H	HD	HL	LL	M	N	G	Z
50	176	105	145	95	50	110	95	170	-	130	80	140	120	15	11
60	196	120	165	110	60	120	105	198	-	150	90	150	130	20	11
70	234	140	195	130	70	150	115	230	-	175	105	190	150	20	15
80	264	160	210	140	80	180	135	265	-	200	120	220	170	20	15
100	These models have been replaced by WP Type.														
120															
135															
155	498	302	387	252	155	320	220	-	536	390	235	380	280	32	20
175	548	325	410	262	175	350	250	-	596	435	260	410	310	37	20

Model	Input shaft					Output shaft					Weight	Lubricant quantity
	HS	KI	Uh7	Xh9	TH	LS	KO	Sh7	Yh9	TI	kg	L
50	30	25	12	4	13.5	40	32	17	5	19.0	7.0	0.36
60	40	32	15	5	17.0	50	42	22	6	24.5	9.0	0.47
70	40	32	18	6	20.5	60	51	28	8	31.0	14.0	0.75
80	50	42	22	6	24.5	65	55	32	10	35.0	20.0	1.20
100	These models have been replaced by WP Type.											
120												
135												
155	85	74	40	12	43.0	110	96	60	18	64.0	116.0	13.00
175	85	73	45	14	48.5	110	96	65	18	69.0	164.0	18.00

WP100



Shaft details

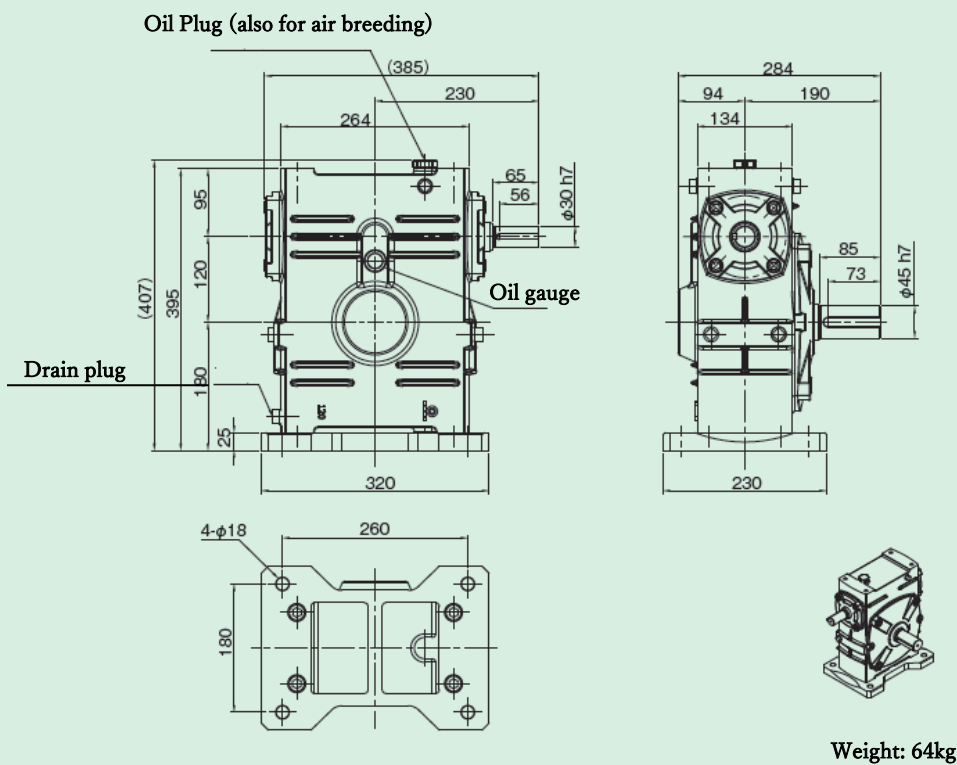


Input shaft



Output shaft

WP120



Shaft details

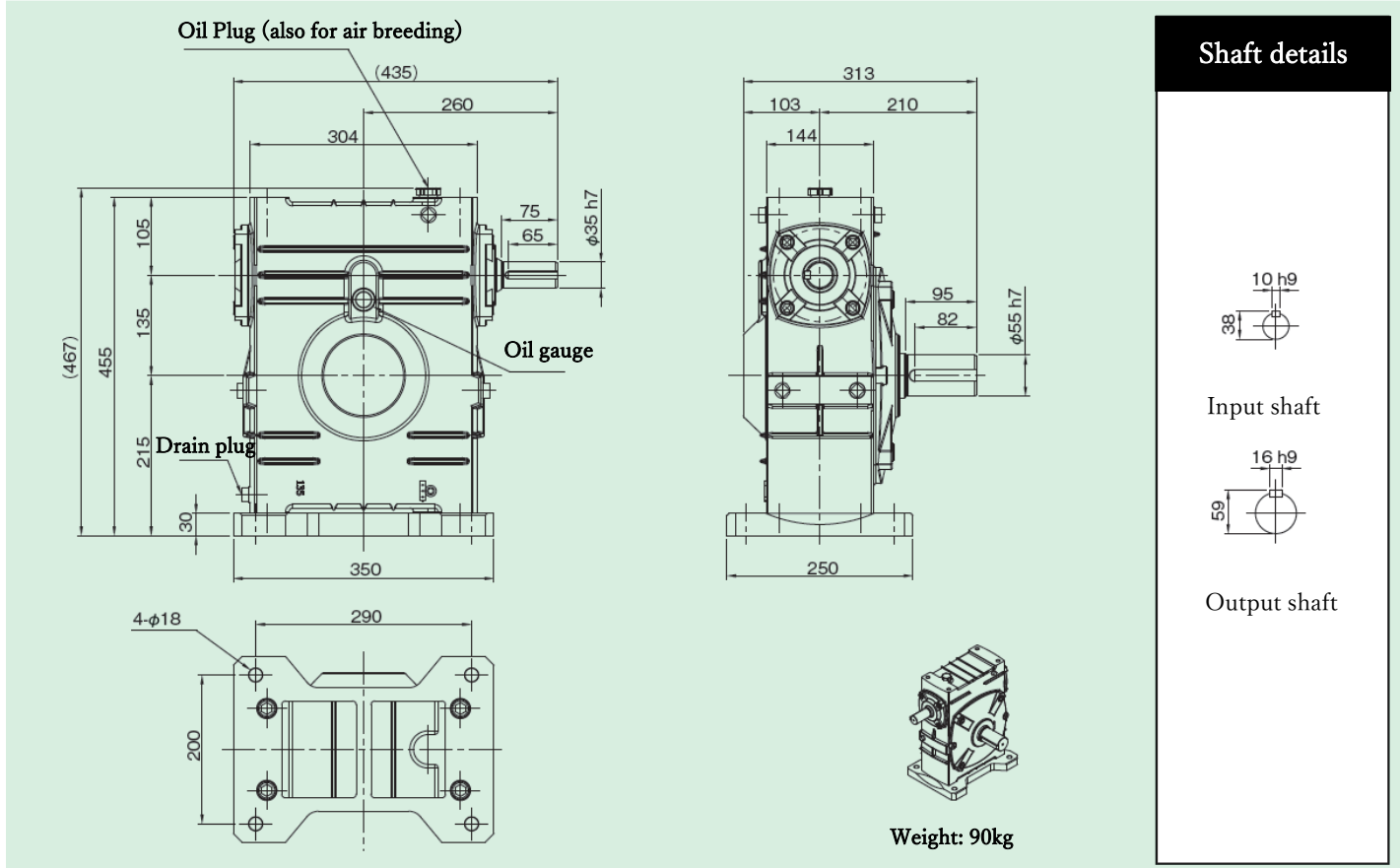


Input shaft



Output shaft

WP135



K50-135 K155-175

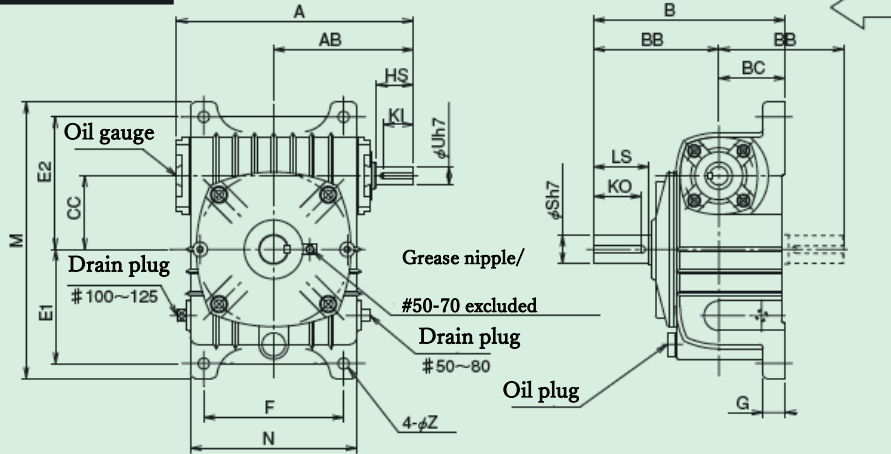
Single reduction

worm reducer

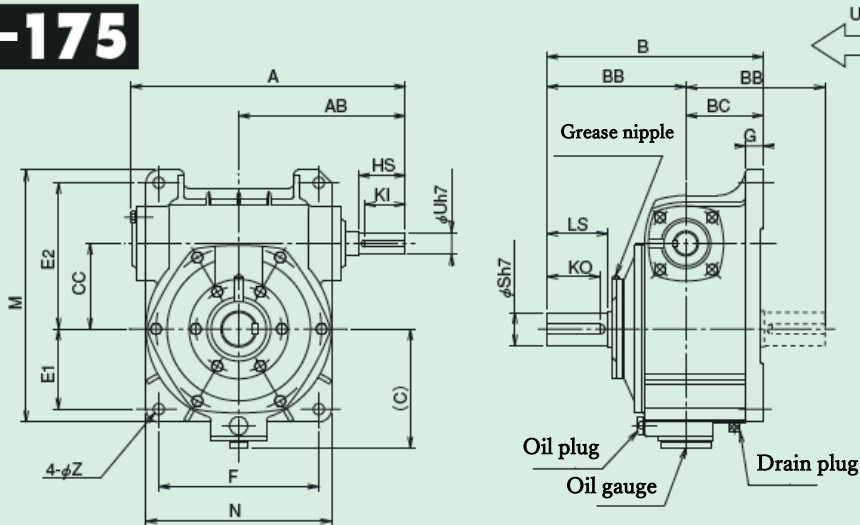
Dimension Drawings

■ Please refer to Rated Transmission Capacities for each model.

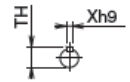
K50-135



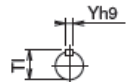
K155-175



Shaft details



Input shaft



Output shaft

K50-135/K155-175 dimensions

Model	A	AB	B	BB	BC	C	CC	E1	E2	F	G	M	N	Z
50	176	105	145	95	50	-	50	93	102	90	14	221	116	11
60	196	120	165	110	55	-	60	105	120	100	15	260	126	11
70	234	140	195	130	65	-	70	120	135	120	20	295	156	15
80	264	160	210	140	70	-	80	130	150	140	20	320	176	15
100	322	190	260	170	90	-	100	155	180	190	30	375	226	15
120	385	230	290	190	100	-	120	185	215	220	30	450	266	18
135	435	260	320	210	110	-	135	210	235	260	35	495	306	18
155	498	302	392	252	140	215	155	145	265	290	32	456	336	20
175	548	325	412	262	150	242	175	167	293	320	39	516	376	20

Model	Input shaft					Output shaft					Weight	Lubricant quantity
	HS	KI	Uh7	Xh9	TH	LS	KO	Sh7	Yh9	TI	kg	L
50	30	25	12	4	13.5	40	32	17	5	19.0	7.0	0.45
60	40	32	15	5	17.0	50	42	22	6	24.5	10.0	0.59
70	40	32	18	6	20.5	60	51	28	8	31.0	14.0	1.16
80	50	42	22	6	24.5	65	55	32	10	35.0	20.0	1.35
100	50	41	25	8	28.0	75	65	38	10	41.0	44.0	3.30
120	65	56	30	8	33.0	85	73	45	14	48.5	68.0	5.30
135	75	65	35	10	38.0	95	82	55	16	59.0	92.0	7.80
155	85	74	40	12	43.0	110	96	60	18	64.0	120.0	8.40
175	85	73	45	14	48.5	110	96	65	18	69.0	150.0	12.00

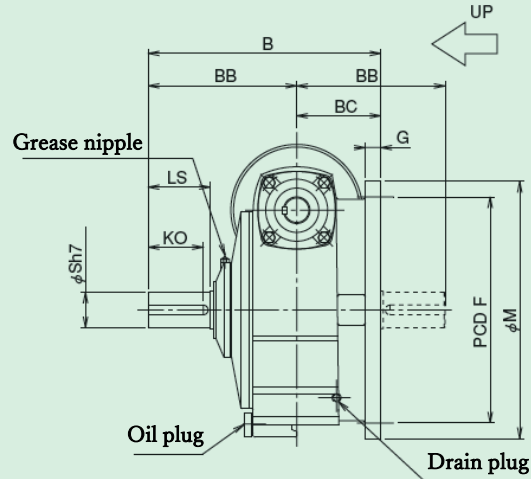
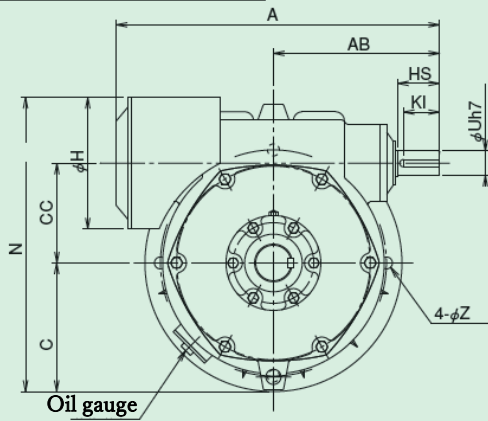
K200-300 K350-500

Single reduction
worm reducer

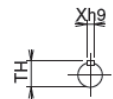
Dimension Drawings

■ Please refer to Rated Transmission Capacities for each model.

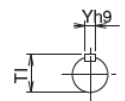
K200-300



Shaft details

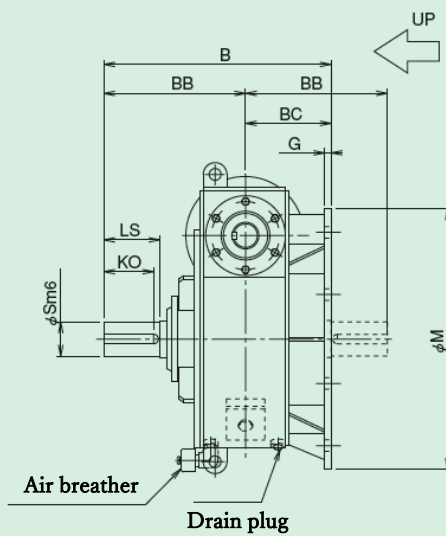
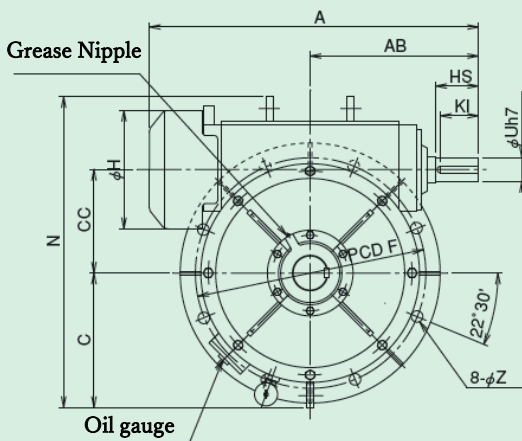


Input shaft



Output shaft

K350-500



※ Case is made of steel plate.

K200-300/K350-500 dimensions

Model	A	AB	B	BB	BC	C	CC	F	G	H	M	N	Z
200	673	350	480	305	175	260	200	450	32	276	510	610	22
225	730	375	525	335	190	290	225	510	35	297	580	663.5	27
250	810	420	560	360	200	320	250	570	35	337	640	738.5	27
300	960	495	645	410	235	375	300	660	42	337	750	868	36
350	1119	570	770	480	290	455	350	780	22	400	880	1052	39
400	1229	620	795	500	295	305	400	860	30	440	960	1172	39
450	1354	695	880	545	335	550	450	960	36	440	1060	1296	39
500	1570	810	980	610	370	611	500	1060	40	535	1160	1446	39

Model	Input shaft					Output shaft					Weight	Lubricant quantity
	HS	KI	Uh7	Xh9	TH	LS	KO	S	Yh9	TI	kg	L
200	95	83	50	14	53.5	125	110	70	20	74.5	225.0	14.0
225	95	82	55	16	59.0	140	124	80	22	85.0	275.0	18.0
250	110	96	60	18	64.0	155	137	90	25	95.0	380.0	23.0
300	125	110	70	20	74.5	170	152	95	25	100.0	560.0	36.0
350	145	129	80	22	85.0	190	169	115	32	122.0	800.0	56.0
400	150	134	85	22	90.0	200	179	130	32	137.0	1130.0	80.0
450	180	164	85	22	90.0	205	182	140	36	148.0	1450.0	120.0
500	205	187	95	25	100.0	240	215	170	40	179.0	1900.0	155.0

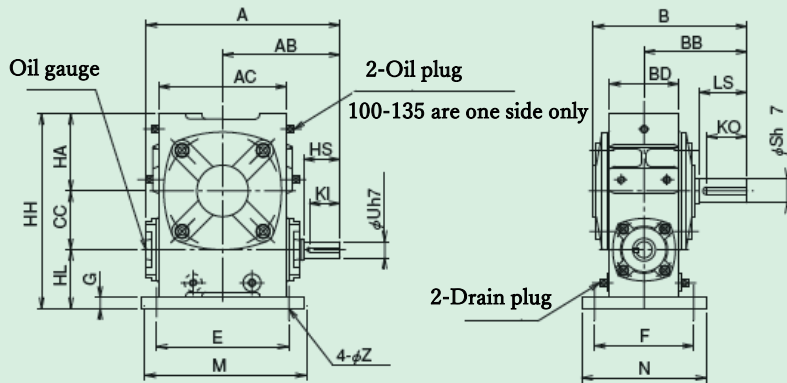
ABP50-175 ABP200-250

Single reduction
worm reducer

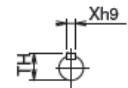
Dimension Drawings

■ Please refer to Rated Transmission Capacities for each model.

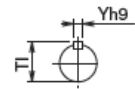
ABP50-175



Shaft details

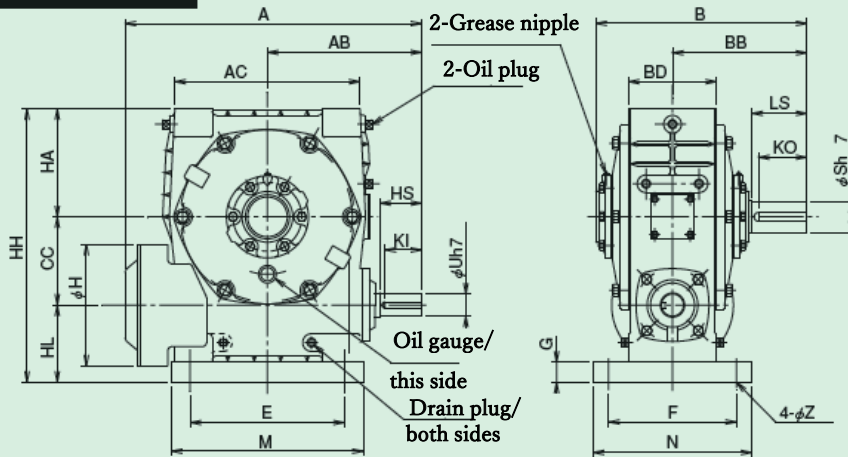


Input shaft



Output shaft

ABP200-250



※ Case of model greater than 200 is made of steel

ABP50-175/ABP200-250 dimensions

Model	A	AB	AC	B	BB	BD	CC	E	F	G	H	HA	HH	HL	M	N	Z
50	176	105	115	143	95	64	50	110	95	10	-	70	170	50	140	120	11
60	196	120	126	164	110	74	60	120	105	12	-	78	198	60	150	130	11
70	234	140	155	195	130	84	70	150	115	15	-	90	230	70	190	150	15
80	264	160	174	210	140	94	80	180	135	15	-	105	265	80	220	170	15
100	322	190	224	260	170	114	100	220	155	20	-	130	330	100	270	190	15
120	385	230	264	291	190	134	120	260	180	25	-	155	395	120	320	230	18
135	435	260	304	320	210	144	135	290	200	30	-	185	455	135	350	250	18
155	498	302	330	390	252	160	155	320	220	32	-	203	493	135	380	280	20
175	548	325	370	410	262	186	175	350	250	37	-	223	558	160	410	310	20
200	673	350	420	478	305	200	200	350	290	45	276	245	620	175	435	360	22
225	730	375	460	522	335	173	225	390	330	45	297	275	690	190	490	410	27
250	810	420	510	557	360	186	250	440	380	50	337	300	750	200	545	460	27

Model	Input shaft					Output shaft					Weight	Lubricant quantity
	HS	KI	Uh7	Xh9	TH	LS	KO	Sh7	Yh9	TI	kg	L
50	30	25	12	4	13.5	40	32	17	5	19.0	7.8	0.3
60	40	32	15	5	17.0	50	42	22	6	24.5	11.0	0.4
70	40	32	18	6	20.5	60	51	28	8	31.0	15.0	0.6
80	50	42	22	6	24.5	65	55	32	10	35.0	23.0	0.6
100	50	41	25	8	28.0	75	65	38	10	41.0	44.0	1.5
120	65	56	30	8	33.0	85	73	45	14	48.5	70.0	2.4
135	75	65	35	10	38.0	95	82	55	16	59.0	93.0	3.3
155	85	74	40	12	43.0	110	96	60	18	64.0	132.0	3.5
175	85	73	45	14	48.5	110	96	65	18	69.0	160.0	6.0
200	95	83	50	14	53.5	125	110	70	20	74.5	260.0	16.0
225	95	82	55	16	59.0	140	124	80	22	85.0	365.0	19.0
250	110	96	60	18	64.0	155	137	90	25	95.0	451.0	28.0

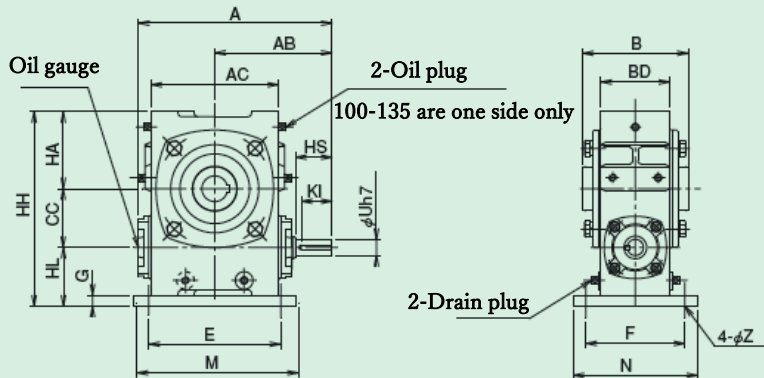
AOBP50-175 AOBP200-250

Single reduction
worm reducer

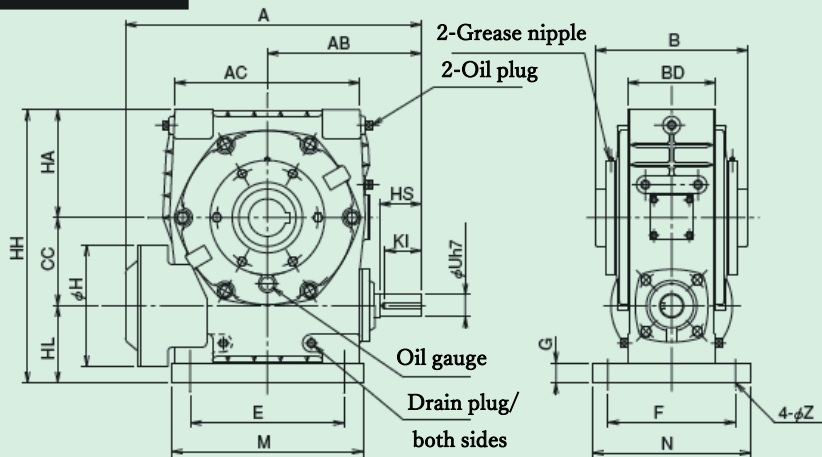
Dimension Drawings

■ Please refer to Rated Transmission Capacities for each model.

AOBP50-175

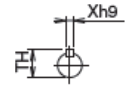


AOBP200-250

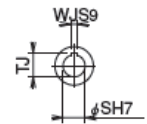


※ Case of model greater than 200 is made of steel

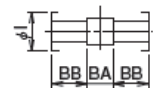
Shaft details



Input shaft



Hollow output Shaft



Output shaft
internal details

AOB50-175/AOBP200-250 dimensions

Model	A	AB	AC	B	BB	BD	CC	E	F	G	H	HA	HH	HL	M	N	Z
50	176	105	115	107	95	64	50	110	95	10	-	70	170	50	140	120	11
60	196	120	126	117	110	74	60	120	105	12	-	78	198	60	150	130	11
70	234	140	155	131	130	84	70	150	115	15	-	90	230	70	190	150	15
80	264	160	174	144	140	94	80	180	135	15	-	105	265	80	220	170	15
100	322	190	224	175	170	114	100	220	155	20	-	130	330	100	270	190	15
120	385	230	264	200	190	134	120	260	180	25	-	155	395	120	320	230	18
135	435	260	304	212	210	144	135	290	200	30	-	185	455	135	350	250	18
155	498	302	330	312	252	160	155	320	220	32	-	203	493	135	380	280	20
175	548	325	370	334	262	186	175	350	250	37	-	223	558	160	410	310	20
200	673	350	420	346	305	200	200	350	290	45	276	245	620	175	435	360	22
225	730	375	460	365	335	173	225	390	330	45	297	275	690	190	490	410	27
250	810	420	510	382	360	186	250	440	380	50	337	300	750	200	545	460	27

Model	Input shaft					Output shaft							Weight	Lubricant quantity
	HS	KI	Uh7	Xh9	TH	B	BA	BB	I	SH7	WJs9	TJ	kg	L
50	30	25	12	4	13.5	107	26	40.5	40	20	6	22.8	7.8	0.17
60	40	32	15	5	17.0	117	26	45.5	45	25	8	28.3	11.0	0.25
70	40	32	18	6	20.5	131	32	49.5	50	30	8	33.3	15.0	0.41
80	50	42	22	6	24.5	144	36	54.0	60	35	10	38.3	23.0	0.57
100	50	41	25	8	28.0	175	48	63.5	70	40	12	43.3	44.0	1.20
120	65	56	30	8	33.0	200	50	75.0	75	45	14	48.8	70.0	2.30
135	75	65	35	10	38.0	212	42	85.0	95	60	18	64.4	93.0	3.00
155	85	74	40	12	43.0	312	82	115.0	110	70	20	74.9	132.0	3.50
175	85	73	45	14	48.5	334	84	125.0	120	80	22	85.4	160.0	6.00
200	95	83	50	14	53.5	346	86	130.0	130	85	22	90.4	260.0	16.00
225	95	82	55	16	59.0	365	95	135.0	150	95	25	100.4	365.0	19.00
250	110	96	60	18	64.0	382	102	140.0	160	105	28	111.4	451.0	28.00

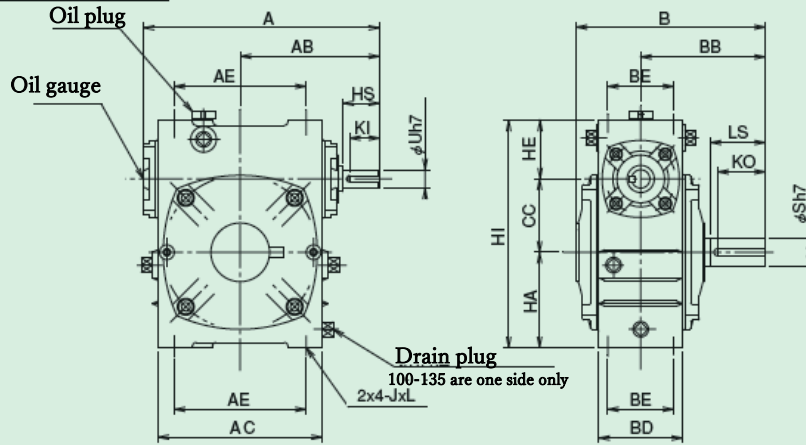
AW50-135 AWP50-135

Single reduction
worm reducer

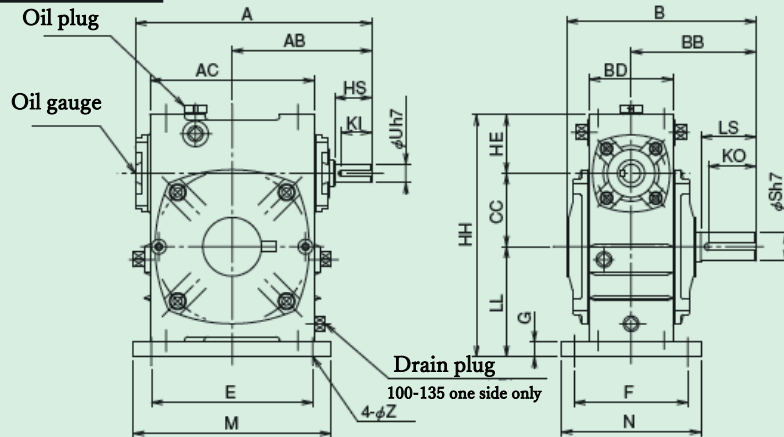
Dimension Drawings

■ Please refer to Rated Transmission Capacities for each model.

AW50-135

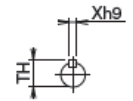


AWP50-135

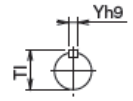


※50-80 do not have eye-bolts.

Shaft details



Input shaft



Output shaft

AW50-135/AWP50-135 dimensions

Model	A	AB	AC	AE	B	BB	BD	BE	CC	E	F	G	HA	HE	HH	HI	LL	M	N	J	L	Z
50	176	105	115	85	143	95	64	50	50	110	95	10	70	40	170	160	80	140	120	M6	14	11
60	196	120	126	105	164	110	74	55	60	120	105	12	78	48	198	186	90	150	130	M8	20	11
70	234	140	155	125	195	130	84	65	70	150	115	15	90	55	230	215	105	190	150	M10	25	15
80	264	160	174	140	210	140	94	70	80	180	135	15	105	65	265	250	120	220	170	M12	28	15
100	322	190	224	180	258	170	114	90	100	220	155	20	130	80	330	310	150	270	190	M12	30	15
120	385	230	264	220	291	190	134	100	120	260	180	25	155	95	395	370	180	320	230	M14	32	18
135	435	260	304	260	317	210	144	110	135	290	200	30	185	105	455	425	215	350	250	M16	35	18

Model	Input shaft					Output shaft					Weight /kg		Lubricant quantity
	HS	KI	Uh7	Xh9	TH	LS	KO	Sh7	Yh9	TI	AW	AWP	L
50	30	25	12	4	13.5	40	32	17	5	19.0	7.0	7.8	0.45
60	40	32	15	5	17.0	50	42	22	6	24.5	10.0	11.0	0.8
70	40	32	18	6	20.5	60	51	28	8	31.0	13.0	15.0	1.1
80	50	42	22	6	24.5	65	55	32	10	35.0	20.0	23.0	1.75
100	50	41	25	8	28.0	75	65	38	10	41.0	40.0	44.0	4.0
120	65	56	30	8	33.0	85	73	45	14	48.5	65.0	70.0	6.9
135	75	65	35	10	38.0	95	82	55	16	59.0	86.0	93.0	10.2

AW155-250

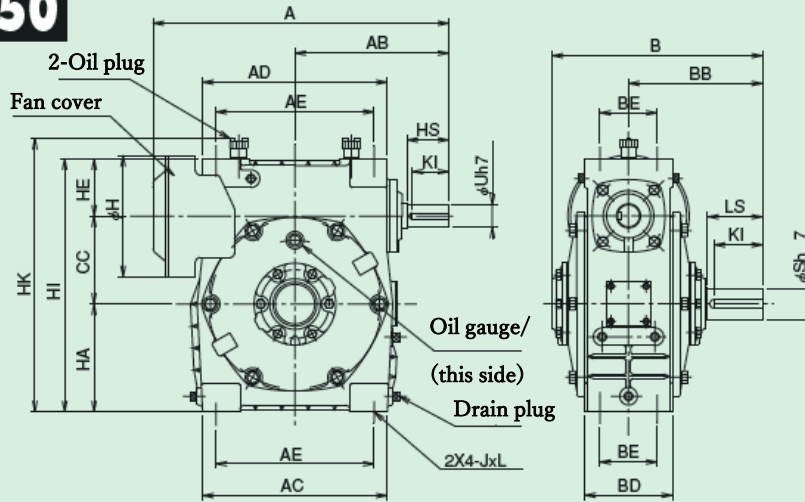
AWP155-250

Single reduction
worm reducer

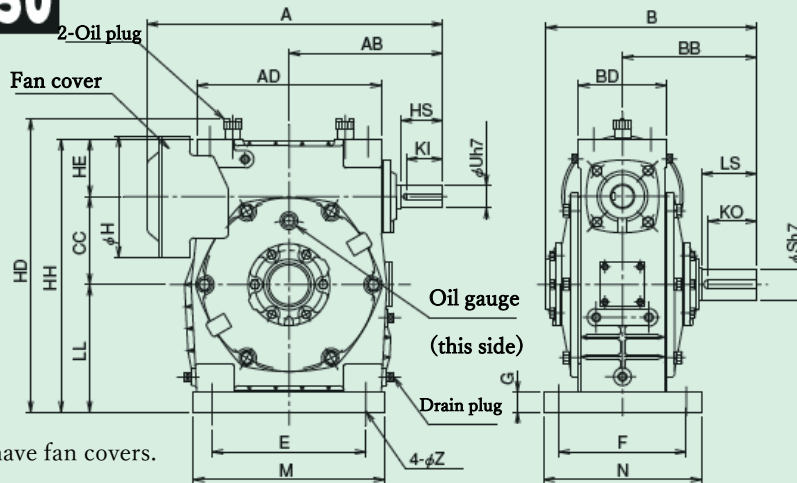
Dimension Drawings

■ Please refer to Rated Transmission Capacities for each model.

AW155-250



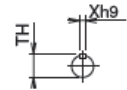
AWP155-250



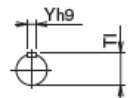
※ 155 and 175 do not have fan covers.

※ Case of model greater than 225 is made of steel plate .

Shaft details



Input shaft



Output shaft

AW155-250/AWP155-250 dimensions

Model	A	AB	AC	AE	AD	B	BB	BD	BE	CC	E	F	HA	G	HD	HE	HH	HI	HK	H	LL	M	N	J	L	Z
155	498	302	330	280	332	387	252	160	120	155	320	220	203	32	540	103	493	461	508	-	235	380	280	M16	25	20
175	548	325	370	320	370	410	262	186	140	175	350	250	223	37	605	123	558	521	568	-	260	410	310	M16	25	20
200	673	350	420	360	420	480	305	200	130	200	350	290	245	45	667	130	620	575	622	276	290	435	360	M18	35	22
225	730	375	460	400	480	516	335	173	130	225	390	330	275	45	726	145	690	645	681	297	320	490	410	M24	40	27
250	810	420	510	460	530	557	360	186	140	250	440	380	300	50	786	150	750	700	736	337	350	545	460	M24	40	27

Model	Input shaft					Output shaft					Weight /kg		Lubricant quantity
	HS	KI	Uh7	Xh9	TH	LS	KO	Sh7	Yh9	TI	AW	AWP	L
155	85	74	40	12	43	110	96	60	18	64	120.0	130.0	10.5
175	85	73	45	14	48.5	110	96	65	18	69	158.0	180.0	16.5
200	95	83	50	14	53.5	125	110	70	20	74.5	233.0	265.0	20.5
225	95	82	55	16	59	140	124	80	22	85	327.0	367.0	25.0
250	110	96	60	18	64	155	137	90	25	95	380.0	451.0	31.0

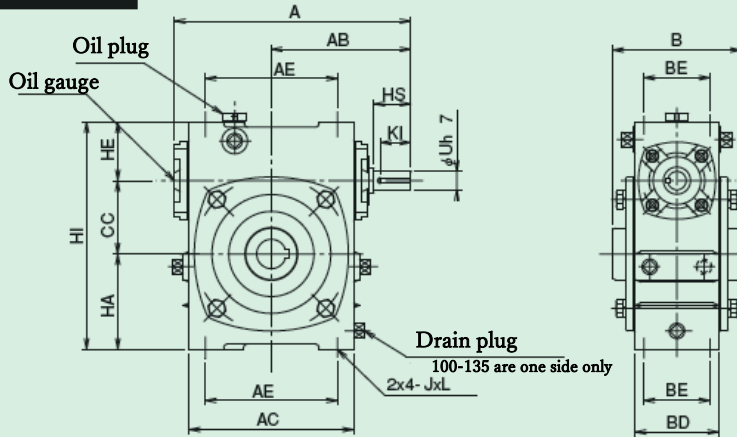
AOW50-135 AOWP50-135

Single reduction
worm reducer

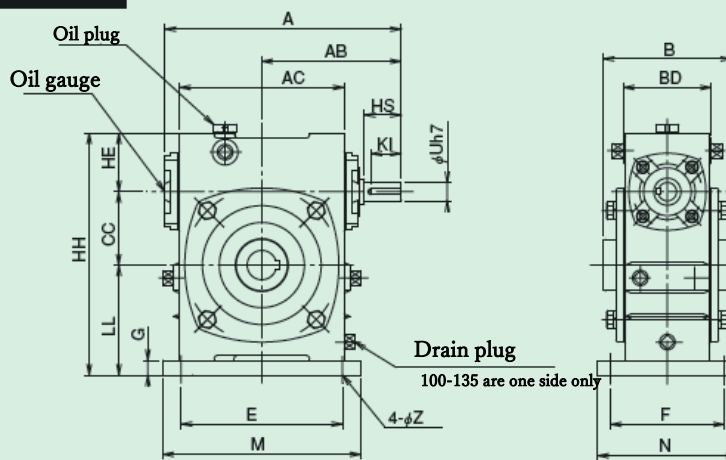
Dimension Drawings

■ Please refer to Rated Transmission Capacities for each model.

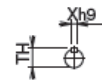
AOW50-135



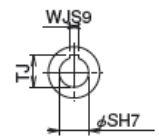
AOWP50-135



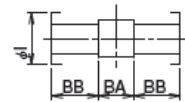
Shaft details



Input shaft



Hollow output shaft



Output shaft internal details

AOW50-135/AOWP50-135 dimensions

Model	A	AB	AC	AE	B	BD	BE	CC	E	F	G	HA	HE	HH	HI	LL	M	N	J	L	Z
50	176	105	115	85	107	64	50	50	110	95	10	70	40	170	160	80	140	120	M6	14	11
60	196	120	126	105	117	74	55	60	120	105	12	78	48	198	186	90	150	130	M8	20	11
70	234	140	155	125	131	84	65	70	150	115	15	90	55	230	215	105	190	150	M10	25	15
80	264	160	174	140	144	94	70	80	180	135	15	105	65	265	250	120	220	170	M12	28	15
100	322	190	224	180	175	114	90	100	220	155	20	130	80	330	310	150	270	190	M12	30	15
120	385	230	264	220	200	134	100	120	260	180	25	155	95	395	370	180	320	230	M14	32	18
135	435	260	304	260	212	144	110	135	290	200	30	185	105	455	425	215	350	250	M16	35	18

Model	Input shaft					Output shaft						Weight /kg		Lubricant quantity
	HS	KI	Uh7	Xh9	TH	BB	BA	I	Sh7	WJs9	TJ	AOW	AOWP	L
50	30	25	12	4	13.5	40.5	26	40	20	6	22.8	7.0	7.8	0.35
60	40	32	15	5	17.0	45.5	26	45	25	8	28.3	10.0	11.0	0.54
70	40	32	18	6	20.5	49.5	32	50	30	8	33.3	14.0	16.0	1.20
80	50	42	22	6	24.5	54.0	36	60	35	10	38.3	20.0	24.0	1.33
100	50	41	25	8	28.0	63.5	48	70	40	12	43.3	40.0	44.0	3.20
120	65	56	30	8	33.0	75.0	50	75	45	14	48.8	63.0	68.0	5.70
135	75	65	35	10	38.0	85.0	42	95	60	18	64.4	85.0	92.0	8.10

AOW155-250

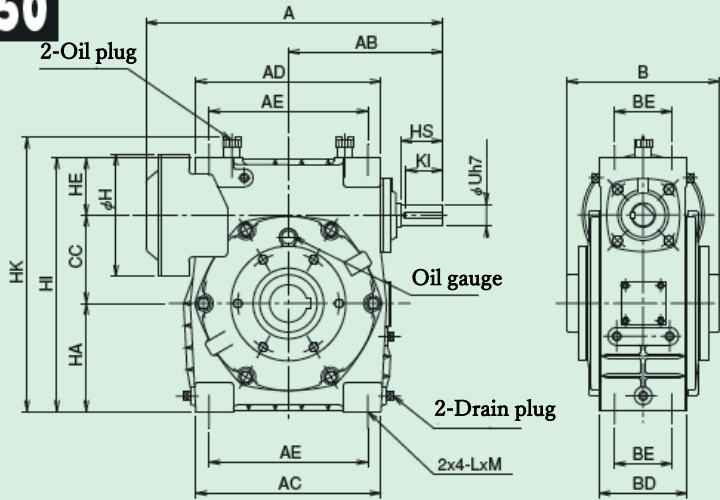
AOWP155-250

Single reduction
worm reducer

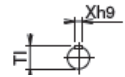
Dimension Drawings

■ Please refer to Rated Transmission Capacities for each model.

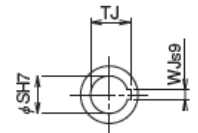
AOW155-250



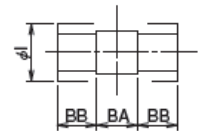
Shaft details



Input shaft

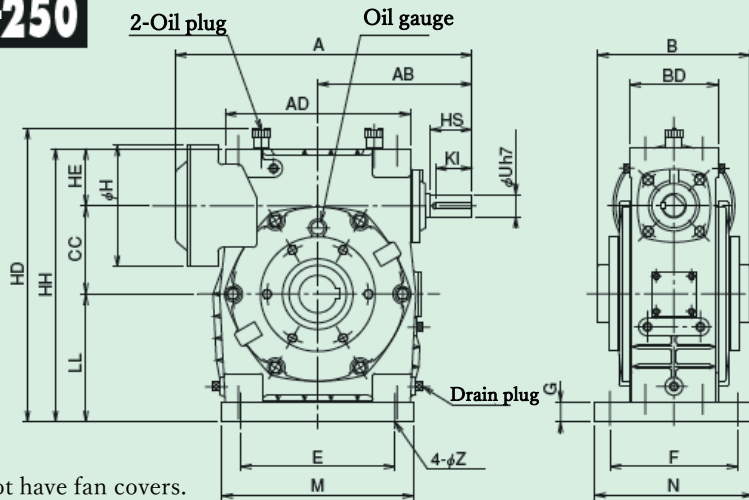


Output shaft



Output shaft internal details

AOWP155-250



※ 155 and 175 do not have fan covers.

※ Case of model greater than 225 is made of steel plate .

AOW155-250/AOWP155-250 dimensions

Model	A	AB	AC	AD	AE	BD	BE	CC	E	F	G	H	HA	HD	HE	HH	HI	HK	LL	M	N	J	L	Z
155	498	302	330	330	280	160	120	155	320	220	32	-	203	540	103	493	461	508	235	380	280	M16	25	20
175	548	325	370	370	320	186	140	175	350	250	37	-	223	605	123	558	521	568	260	410	310	M16	25	20
200	673	350	420	420	360	200	130	200	350	290	45	276	245	667	130	620	575	622	290	435	360	M18	35	22
225	730	375	460	480	400	173	130	225	390	330	45	297	275	726	145	690	645	681	320	490	410	M24	40	27
250	810	420	510	530	460	186	140	250	440	380	50	337	300	786	150	750	700	736	350	545	460	M24	40	27

Model	Input shaft					Output shaft							Weight /kg		Lubricant quantity
	HS	KI	Uh7	Xh9	TH	B	BA	BB	I	Sh7	WJs9	TJ	AOW	AOWP	L
155	85	74	40	12	43.0	312	82	115	110	70	20	74.9	118.0	130.0	10.5
175	85	73	45	14	48.5	334	84	125	120	80	22	85.4	150.0	175.0	16.5
200	95	83	50	14	53.5	346	86	130	130	85	22	90.4	220.0	265.0	21.0
225	95	82	55	16	59.0	365	95	135	150	95	25	100.4	300.0	358.0	25.0
250	110	96	60	18	64.0	382	102	140	160	105	28	111.4	375.0	422.0	31.0

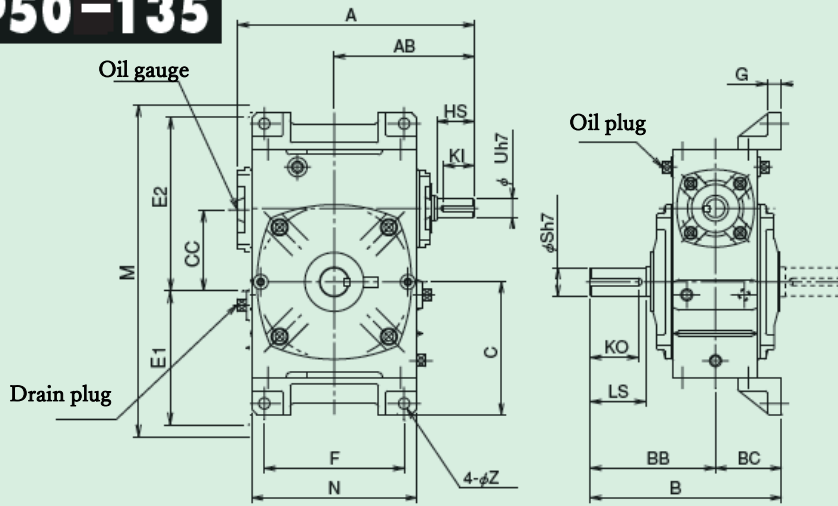
AKP50-135 AKP155-175

Single reduction
worm reducer

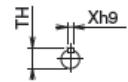
Dimension Drawings

■ Please refer to Rated Transmission Capacities for each model.

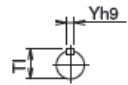
AKP50-135



Shaft details

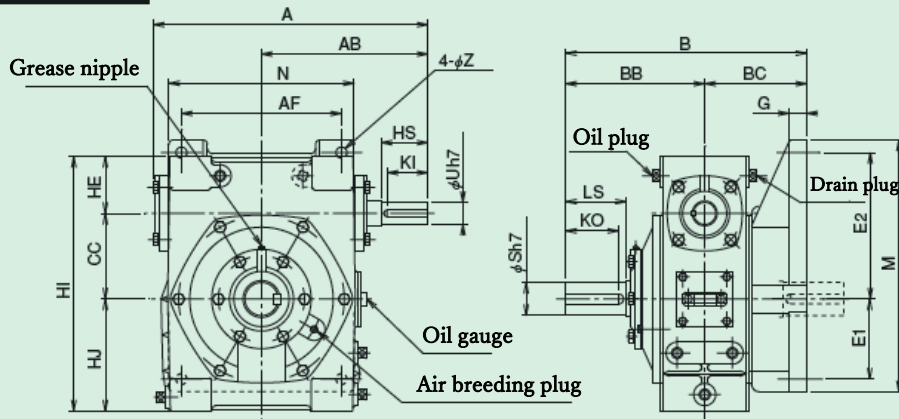


Input shaft



Output shaft

AKP155-175



AKP50-135/AKP155-175 dimensions

Model	A	AB	B	BB	BC	CC	E1	E2	F	G	C	HE	HI	HJ	M	N	Z
50	176	105	145	95	50	50	95	115	90	14	110	-	-	-	240	115	11
60	196	120	165	110	55	60	105	135	100	15	120	-	-	-	270	126	11
70	234	140	195	130	65	70	120	155	120	19	135	-	-	-	305	155	15
80	264	160	210	140	70	80	140	180	140	19	155	-	-	-	350	174	15
100	322	190	260	170	90	100	165	215	190	20	180	-	-	-	410	224	15
120	385	230	290	190	100	120	195	255	220	25	217.5	-	-	-	495	264	18
135	435	260	320	210	110	135	230	285	260	30	252.5	-	-	-	560	304	18
155	498	302	437	252	185	155	145	265	290	32	-	103	461	203	456	336	20
175	548	325	467	262	205	175	167	293	320	39	-	123	521	223	516	376	20

Model	Input shaft					Output shaft					Weight	Lubricant quantity
	HS	KI	Uh7	Xh9	TH	LS	KO	Sh7	Yh9	TI	Kg	L
50	30	25	12	4	13.5	40	32	17	5	19.0	8.0	03
60	40	32	15	5	17.0	50	42	22	6	24.5	11.0	0.6
70	40	32	18	6	20.5	60	51	28	8	31.0	15.0	0.8
80	50	42	22	6	24.5	65	55	32	10	35.0	23.0	1.2
100	50	41	25	8	28.0	75	65	38	10	41.0	46.0	2.9
120	65	56	30	8	33.0	85	73	45	14	48.5	72.0	4.1
135	75	65	35	10	38.0	95	82	55	16	59.0	96.0	6.5
155	85	74	40	12	43.0	110	96	60	18	64.0	135.0	7.5
175	85	73	45	14	48.5	110	96	65	18	69.0	178.0	12.0

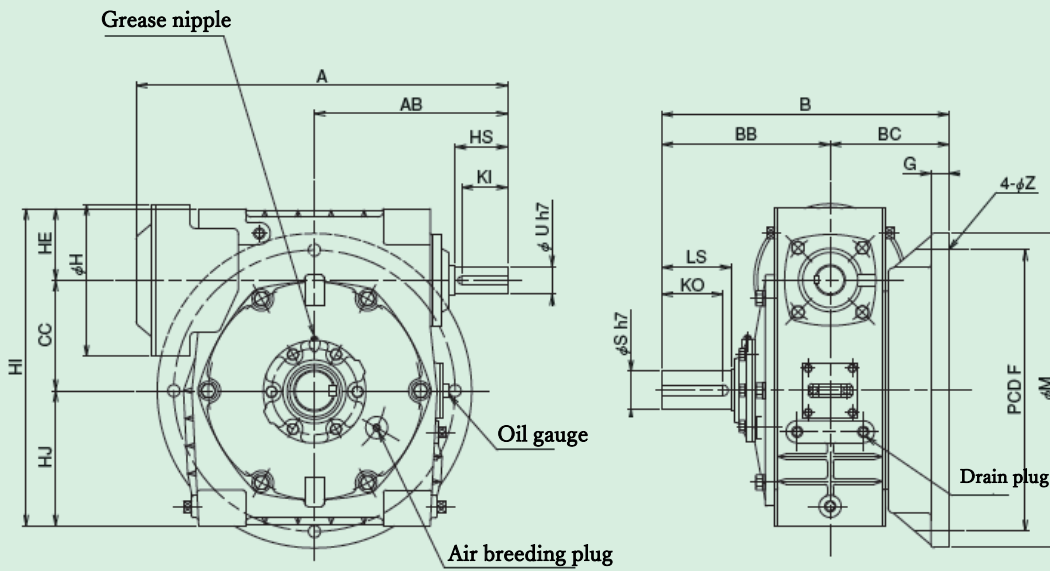
AKP200-250

Single reduction
worm reducer

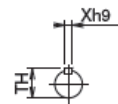
Dimension Drawings

■ Please refer to Rated Transmission Capacities for each model.

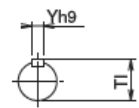
AKP200-250



Shaft details



Input shaft



Output shaft

AKP200-250 dimensions

Model	A	AB	B	BB	BC	CC	F	G	H	HE	HI	HJ	M	Z
200	673	350	520	305	215	200	510	32	276	130	575	245	570	22
225	730	375	570	335	235	225	570	35	297	145	645	275	640	27
250	810	420	610	360	250	250	630	35	337	150	700	300	700	27

Model	Input shaft					Output shaft					Weight	Lubricant quantity
	HS	KI	Uh7	Xh9	TH	LS	KO	Sh7	Yh9	TI	Kg	L
200	95	82	50	14	53.5	125	110	70	20	74.5	280.0	17.0
225	95	82	55	16	59.0	140	124	80	22	85.0	381.0	22.0
250	110	96	60	18	64.0	155	137	90	25	95.0	480.0	29.0

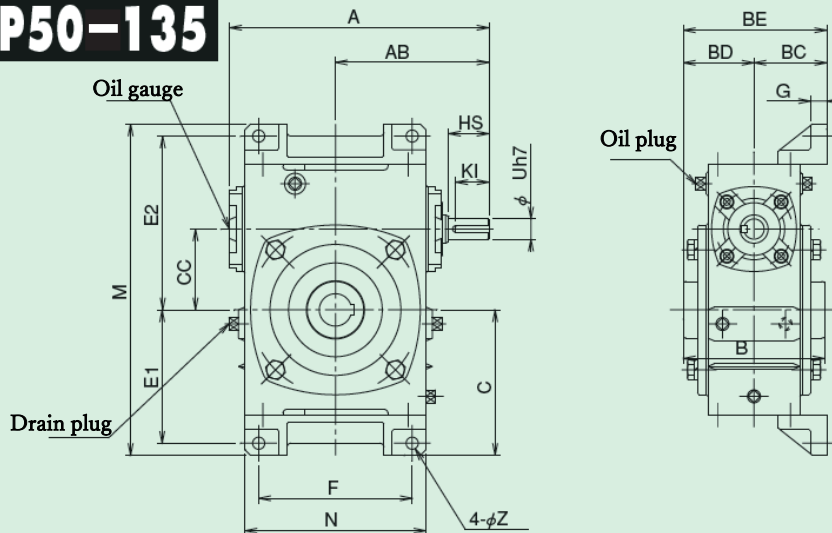
AOKP50-135 AOKP155-175

Single reduction
worm reducer

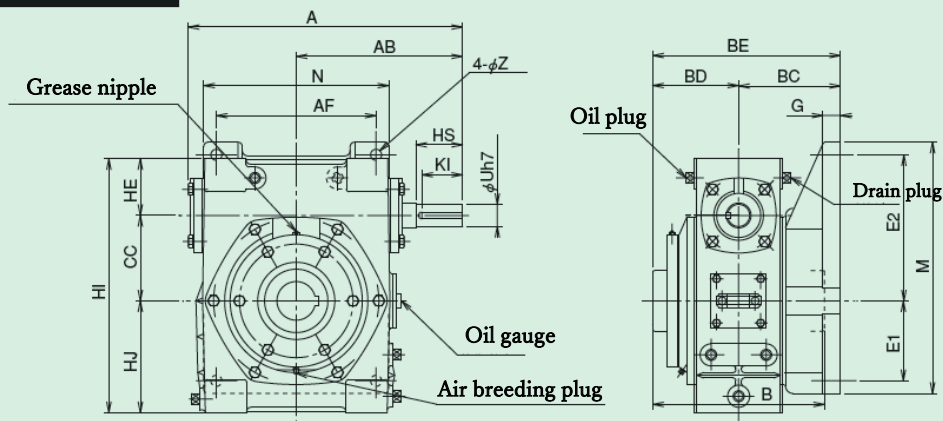
Dimension Drawings

■ Please refer to Rated Transmission Capacities for each model.

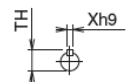
AOKP50-135



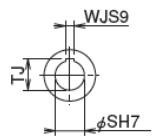
AOKP155-175



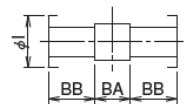
Shaft details



Input shaft



Hollow output shaft



Output shaft internal details

AOKP50-135/AOKP155-175 dimensions

Model	A	AB	BC	BD	BE	C	CC	E1	E2	F	G	HE	HI	HJ	M	N	Z
50	176	105	50	53.5	103.5	110	50	95	115	90	14	-	-	-	240	115	11
60	196	120	55	58.5	113.5	120	60	105	135	100	15	-	-	-	270	126	11
70	234	140	65	65.5	130.5	135	70	120	155	120	19	-	-	-	305	155	15
80	264	160	70	72	142	155	80	140	180	140	19	-	-	-	350	174	15
100	322	190	90	87.5	177.5	180	100	165	215	190	20	-	-	-	410	224	15
120	385	230	100	100	200	217.5	120	195	255	220	25	-	-	-	495	264	18
135	435	260	110	106	216	252.5	135	230	285	260	30	-	-	-	560	304	18
155	498	302	185	156	341	-	155	145	265	290	32	103	461	203	456	336	20
175	548	325	205	167	372	-	175	167	293	320	39	123	521	223	516	376	20

Model	Input shaft					Output shaft							Weight	Lubricant quantity
	HS	KI	Uh7	Xh9	TH	B	BA	BB	I	SH7	WJs9	TJ	Kg	L
50	30	25	12	4	13.5	107	26	40.5	40	20	6	22.8	8.0	0.26
60	40	32	15	5	17.0	117	26	45.5	45	25	8	28.3	11.0	0.44
70	40	32	18	6	20.5	131	32	49.5	50	30	8	33.3	16.0	0.8
80	50	42	22	6	24.5	144	36	54.0	60	35	10	38.3	24.0	1.01
100	50	41	25	8	28.0	175	48	63.5	70	40	12	43.3	46.0	2.4
120	65	56	30	8	33.0	200	50	75.0	75	45	14	48.8	70.0	4.1
135	75	65	35	10	38.0	212	42	85.0	95	60	18	64.4	94.0	5.5
155	85	74	40	12	43.0	312	82	115.0	110	70	20	74.9	141.0	6.2
175	85	73	45	14	48.5	334	84	125.0	120	80	22	85.4	182.0	10.0

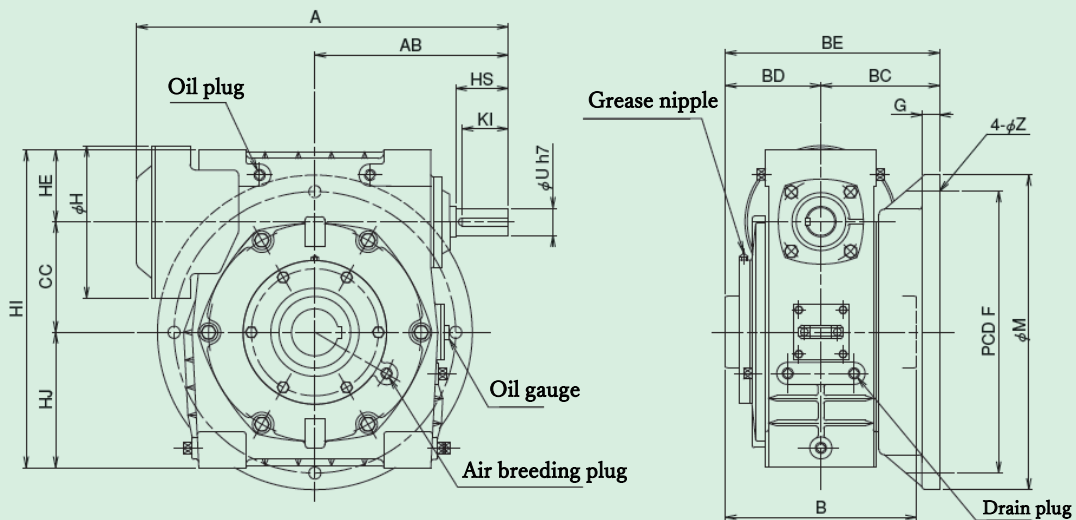
AOKP200-250

Single reduction
worm reducer

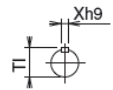
Dimension Drawings

■ Please refer to Rated Transmission Capacities for each model.

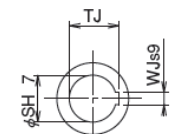
AOKP200-250



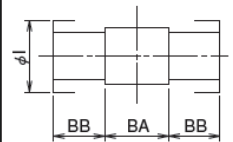
Shaft details



Input shaft



Output shaft



Output shaft internal details

AOKP200-250 dimensions

Model	A	AB	BC	BD	BE	CC	F	G	H	HE	HI	HJ	M	Z
200	673	350	215	173	388	200	510	32	276	130	575	245	570	22
225	730	375	235	182.5	417.5	225	570	35	297	145	645	275	640	27
250	810	420	250	191	441	250	630	35	337	150	700	300	700	27

Model	Input shaft					Output shaft							Weight	Lubricant quantity
	HS	KI	Uh7	Xh9	TH	B	BA	BB	I	SH7	WJs9	TJ	Kg	L
200	95	82	50	14	53.5	346	86	130	130	85	22	90.4	280.0	15.0
225	95	82	55	16	59.0	365	95	135	150	95	25	100.4	381.0	17.0
250	110	96	60	18	64.0	382	102	140	160	105	28	111.4	473.0	22.0