PRESIDENT'S MESSAGE

1 In 1960, Mr. Mao Cheng Chen, p resident of the company, and two other colleagues in the department of Mechanical Engineering of the Tainan Engineering College (predecessor of Cheng Gong University) established a company called "Chen Ta Machinery Works". It was named "Chen Ta" in remembrance of, and also giving acknowledgement to, their Alma mater, Cheng Gong University (called Chen Ta in short) from where Mr. Chen and his colleagues had received their specialized mechanical education.

2 Chen Ta Machinery Works specialized in machining jobs such as grinding/re-building of the crankshafts of automobile and vessel engines, cylinder overhaul, and diese stment. Back then, she was the best of her field in southern Taiwan. Due to the excellent technique and the cordial service, the company name was soon well known and the business became prosperous.

3 In 1971, the president realized that the company needed her own product to support a long-term operation. So, the technique cooperation between CHENTA and Mitaka Koki began. Jen Wu Machinery Co., Ltd was established. She started manufacturing her own brand, "CHENTA GEAR REDUCERS". Now the company has about 60 employees, and her products have been marketing to the world under the name of "CHENTA". The major markets are in Taiwan, Asia, and North America. In Taiwan, she remains at the top of the field.

4 Since the beginning of the company, our conviction is to "Gather excellent human resource, and research and manufacture high quality products". Our product policy is targeting at "Guaranteed Quality", "On Time Delivery", "Competitive Prices", "Rational Production", and "International Marketing".

5 With our 40 years of experience in mechanical manufacturing and honest operation, a fine culture has naturally grown inside the cooperation. This spirit is the most precious resource of our company. The motto of our company is based on "INNOVATION", "HONESTY", "DILIGENCE", and "EFFICIENCY".

6 To reach our long term operation goal, based on the company's existing cultural resources, we will: have high expertise in the field; serve our customers with respect; constantly improve ourselves; manufacture high quality and affordable speed reducers for our customers throughout the world, all so that we can grow together with our customers

COMPANY PROFILE

Company Name : JEN WU MACHINERY CO., LTD.
Established : 1971
Capital : NT$20,000,000
Employee: 60 persons
Plant Sizes : Jen Wu Plant 5000M²
Feng Shan Plant 2300M²

CHRONOLOGY

1960 "Chenta Machinery Works" was established at Tzu-Chian 2nd Road, Kaohsiung City. She engaged in engine crankshaft grinding, cylinder and engine overhaul.

1971 Founded"Jen Wu Machinery Co.,Ltd."In Jen WuVillage,Kaohsiung Hsien.Started manufacturing "CHENTA BRAND" worm gear speed reducers (technology provided by Mitaka Koki, Japan). Capital $1.5 million NT dollars

1975 Bought the land in Feng Shan Industrial Zone. Started the construction of standard concrete plant.

1976 Started the export. Smoothly delivered the first order to Chicago,Illinois,USA. Due to excellent company performance, Chen Gong University awarded Mr. Mao-Cheng Chen as an eminent alumnus.

1977 Increased the capital to 3 million NT dollars. The Feng-Shan plant was completed. Combined the Jen Wu plant production into Feng-Shan new plant.

1983 Increased the capital to 10 million NT dollars.

1989 Successfully developed the largest horse power size 400 worm gear reducer in Taiwan for the usage in Taiwan Sugar Mill Company.

1990 Started computerized on-line operation and AutoCAD computer-aided design.

1991 Purchased the largest worm thread grinder in Taiwan. Maximum length of work job is 1500 mm.

1992 Successfully developed size 500 and size 625 large HP worm gear reducers for steel mill application.

1993 Increased the capital to 20 million NT dollars. Established USA branch office - Channel Power Transmission, Inc., developing USA market.

1994 Completed Kwo-Lian Steel Mill Company's 800 HP roller mill gearbox. Customer was pleased with the quality.

1995 Technique interchange with Japan Makishinko. Sent company's cadre members to Japan for training.

1996 5-S Drive: Order, Reorganize, Sweep, Clean, Cultivation (pronounced in Japanese).

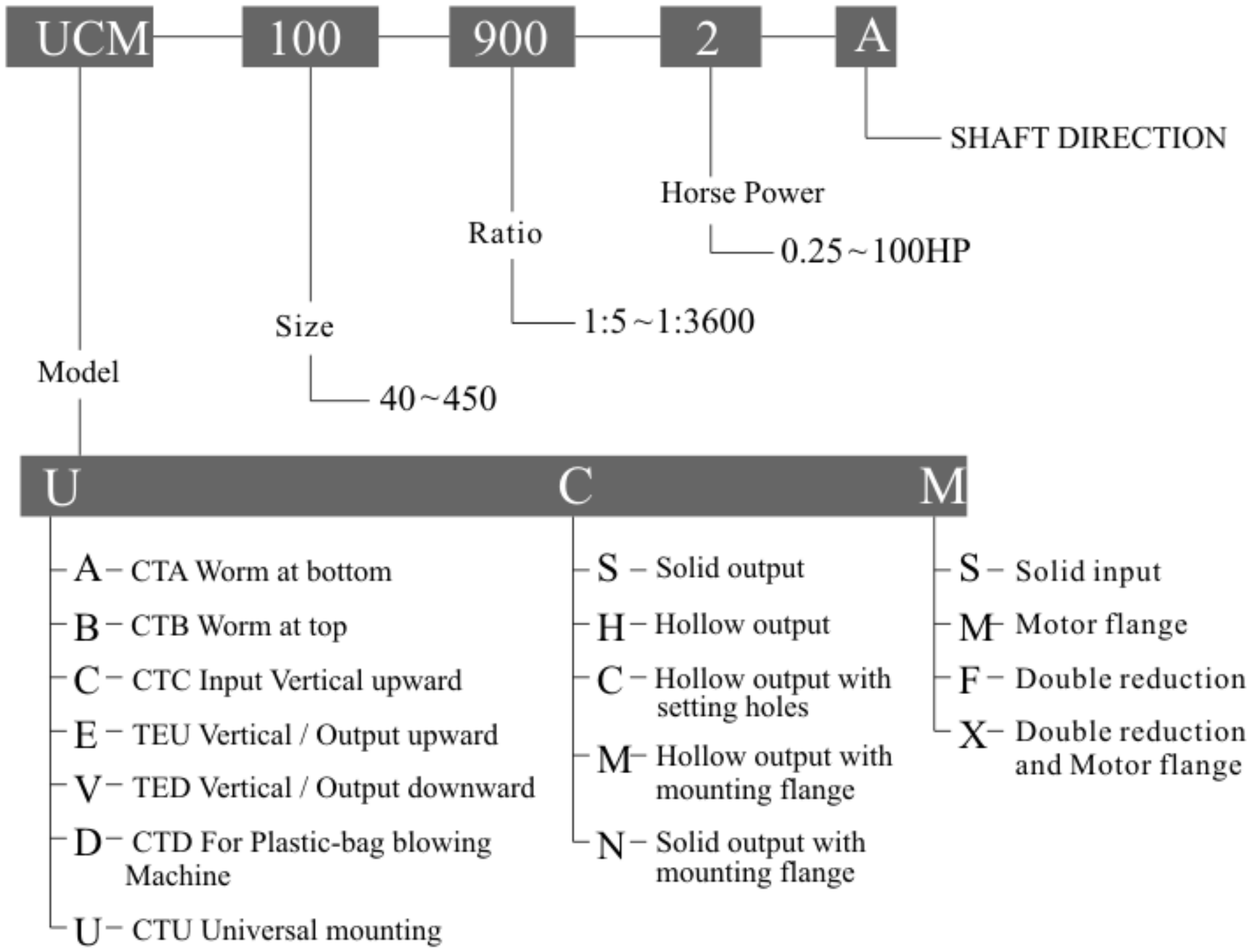
1997 Purchased gear tester from Osaka Seimitsu, Japan. Started manufacturing new product - helical gear reducers

1998 Awarded ISO 9002 international quality certification.

1999 Maiden exhibition of CHENTA speed reducers in the Hannover Messe, Germany.

2000 Completed and start operating in the 5000 M2 modern plant in Jen Wu.

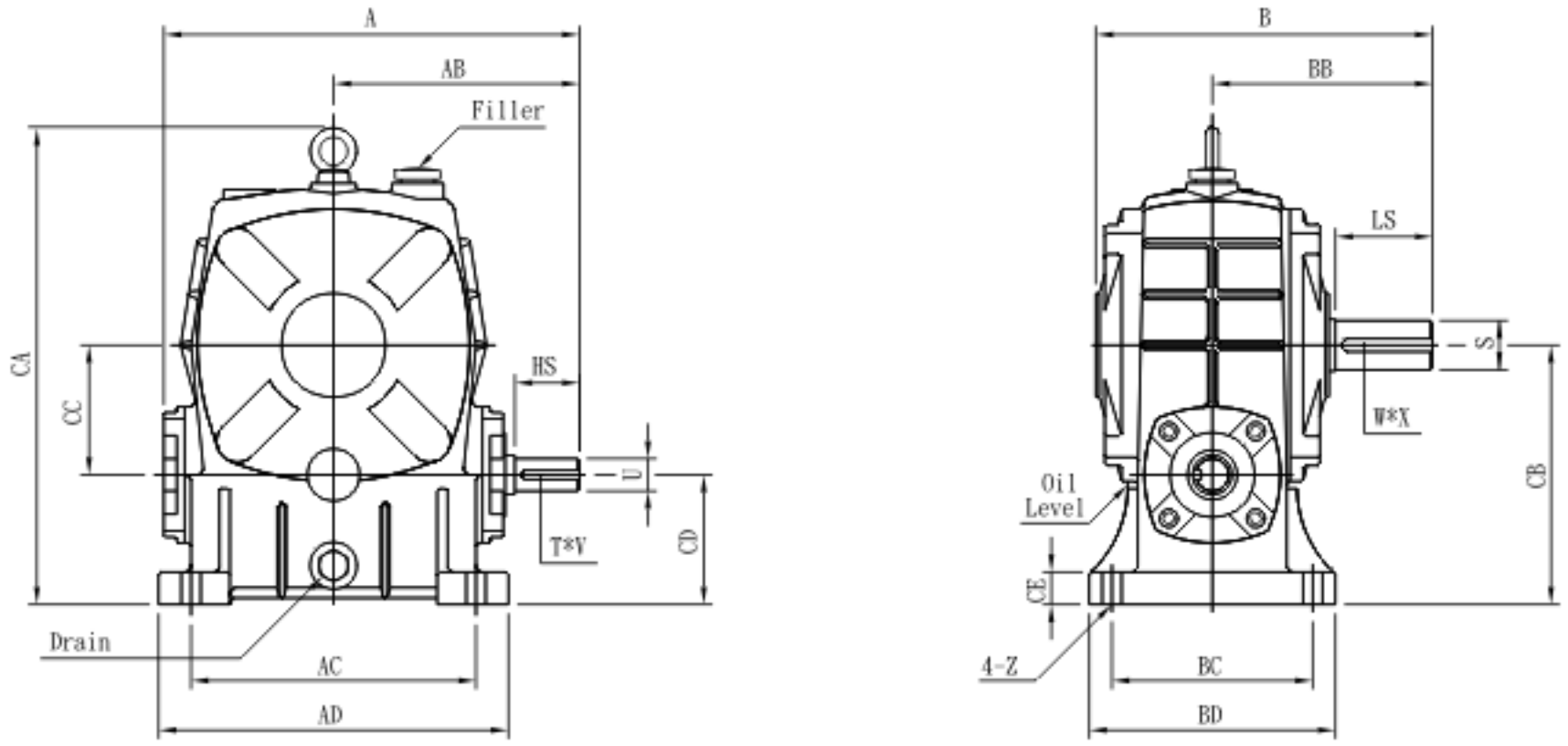
NUMBERING SYSTEMS FOR WORM GEAR:



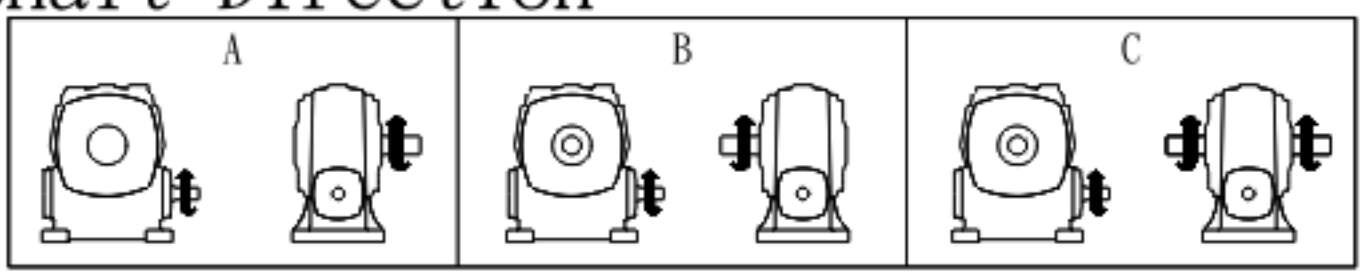
CHENTA CHARACTERISTICS:

- Both IEC and NEMA flange are available
- Ratio from 1:5 to 1:3600
- 1/4 HP to 100 HP
- High quality double lips oil seals
- Heat treated and ground on the threads of worm shaft
- Aluminum bronze (AlBC3) worm wheel with excellent durability
- Wheel hub in high strength of FC-20 cast iron
- Tapered roller bearing on input shaft
- Removable base for universal mounting
- Long lasting service life
- One year limited warranty

INDEX:



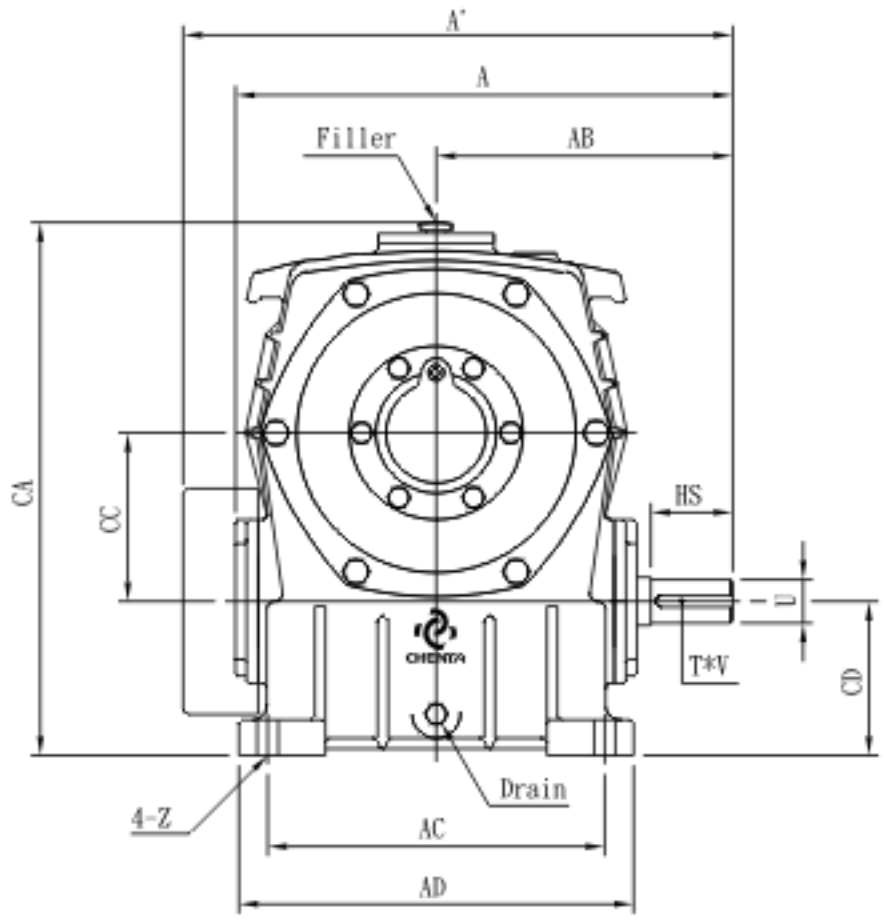
Shaft Direction

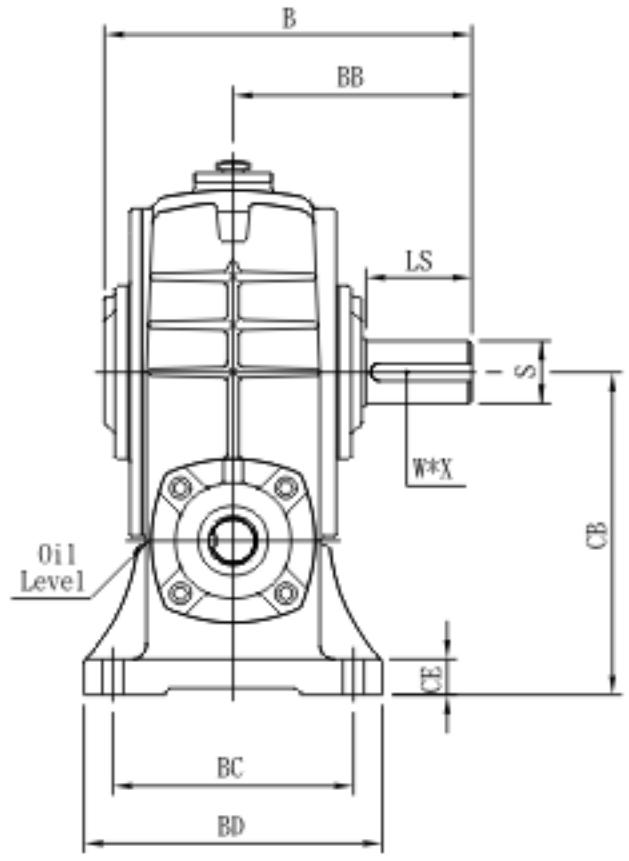


Unit:mm

Size	Ratio	A	AB	AC	AD	B	BB	BC	BD	CA	CB	CC	CD	CE	Z
40	1/10	139	83	70	88	120	78	80	102	135	70	40	30	10	9
50	1/15	181	107	110	140	147	95	95	120	180	100	50	50	18	11
60	1/20	204	124	120	150	168	110	105	130	210	120	60	60	20	11
70	1/30	235	140	150	190	196	130	115	150	240	140	70	70	22	15
80	1/40	265	160	180	220	216	140	135	170	278	160	80	80	23	15
100	1/50	325	192	220	270	260	170	155	190	376	200	100	100	25	15
120	1/60	389	230	260	320	291	190	180	230	435	240	120	120	30	18
135		435	260	290	350	320	210	200	250	490	270	135	135	30	18

Size	Input Shaft			Output Shaft			Ojm (l)	Weight (kg)
	HS	U	T * V	LS	S	W * X		
40	25	12	4 * 2.5	35	16	5 * 3	0.2	4.1
50	30	12	4 * 2.5	40	17	5 * 3	0.22	7
60	40	15	5 * 3	50	22	7 * 4	0.32	9.7
70	40	18	5 * 3	60	28	7 * 4	0.55	14.6
80	50	22	7 * 4	65	32	10 * 4.5	0.77	19.7
100	50	25	7 * 4	75	38	10 * 4.5	1.53	38.4
120	65	30	7 * 4	85	45	12 * 4.5	2.4	63.4
135	75	35	10 * 4.5	95	55	15 * 5	3.25	83.2





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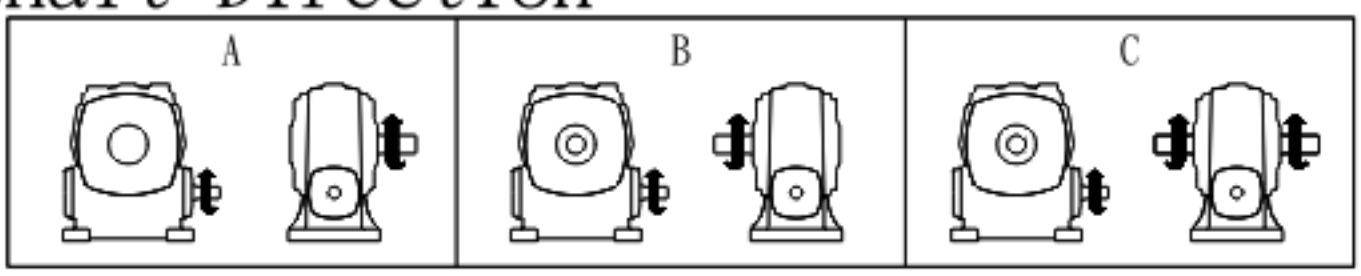
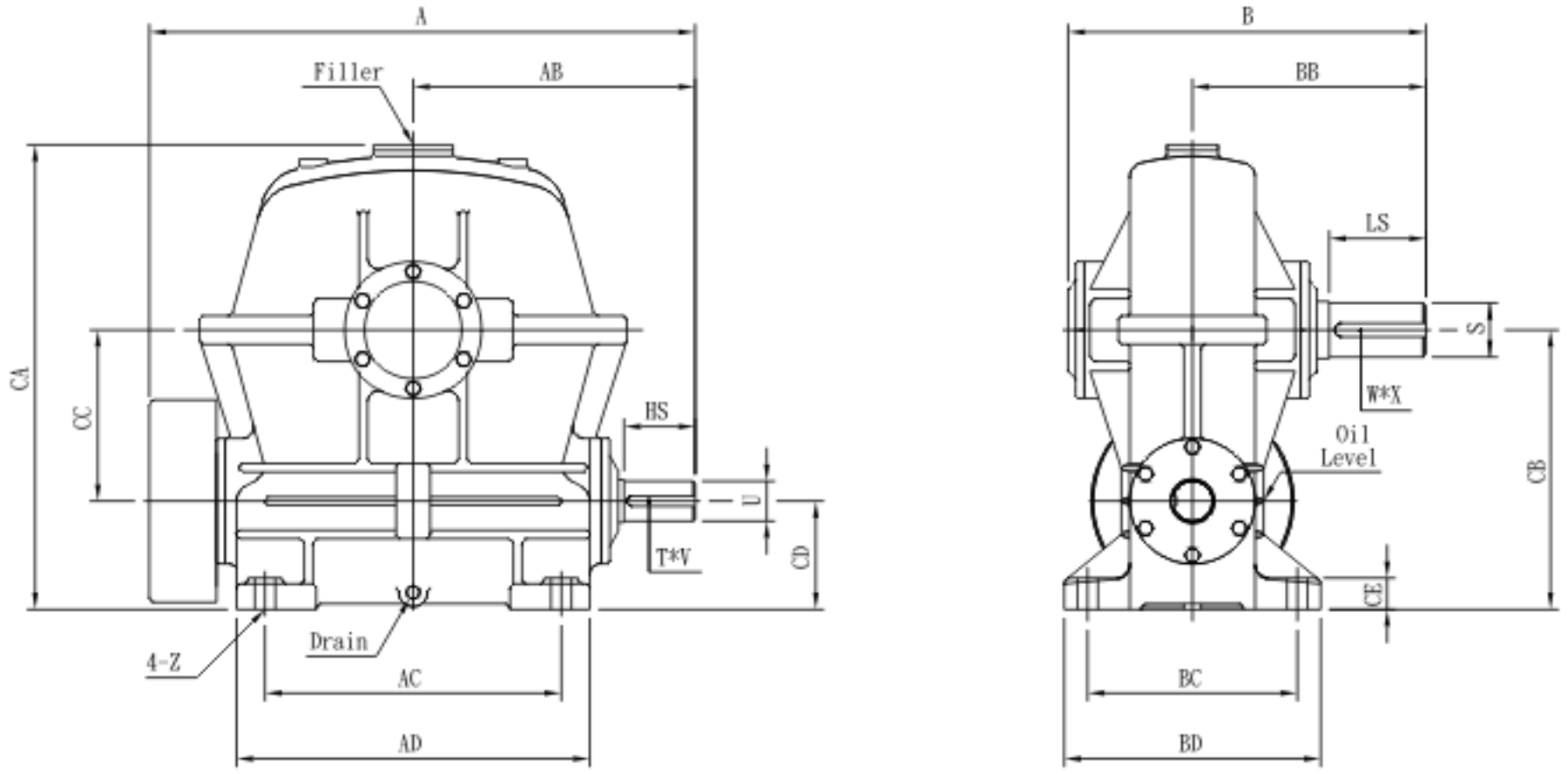


Unit:mm

Size	Ratio	A'	A	AB	AC	AD	B	BB	BC	BD	CA	CB	CC	CD	CE	Z
155	1/10	---	479	286	320	400	377	242	220	280	526	290	155	135	30	20
175	1/15 1/20	---	517	308	350	410	381	248	250	310	536	335	175	160	37	20
200	1/30	697	---	357	350	420	479	305	280	350	637	390	200	190	30	22
225	1/40 1/50	720	---	361	390	470	530	345	330	410	670	415	225	190	35	27
250	1/60	815	---	420	440	520	565	360	380	440	742	450	250	200	40	27

Size	Input Shaft			Output Shaft			Ojm (l)	Weight (kg)
	HS	U	T * V	LS	S	W * X		
155	85	40	10 * 4.5	100	60	15 * 5	4.1	115.3
175	85	45	12 * 4.5	110	65	18 * 6	5.8	158.3
200	95	50	12 * 4.5	125	70	20 * 7	6.5	210
225	95	55	15 * 5	140	80	20 * 7	7	282
250	110	60	15 * 5	145	90	24 * 8	9	337

Remark: Cooling fan supplied for size 200 and above.



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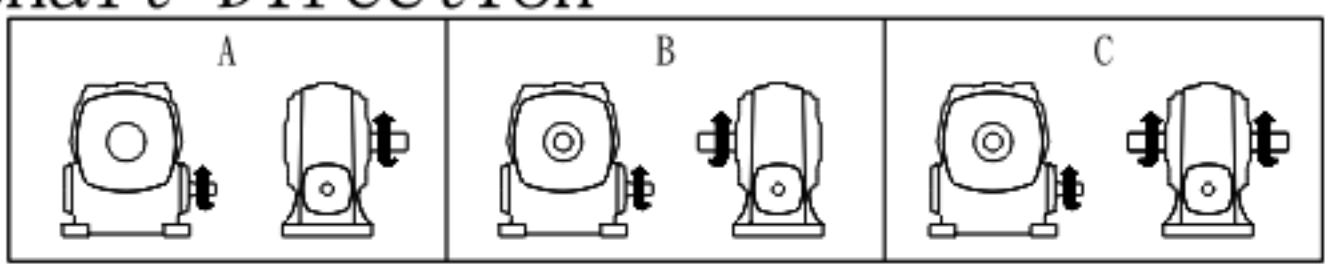
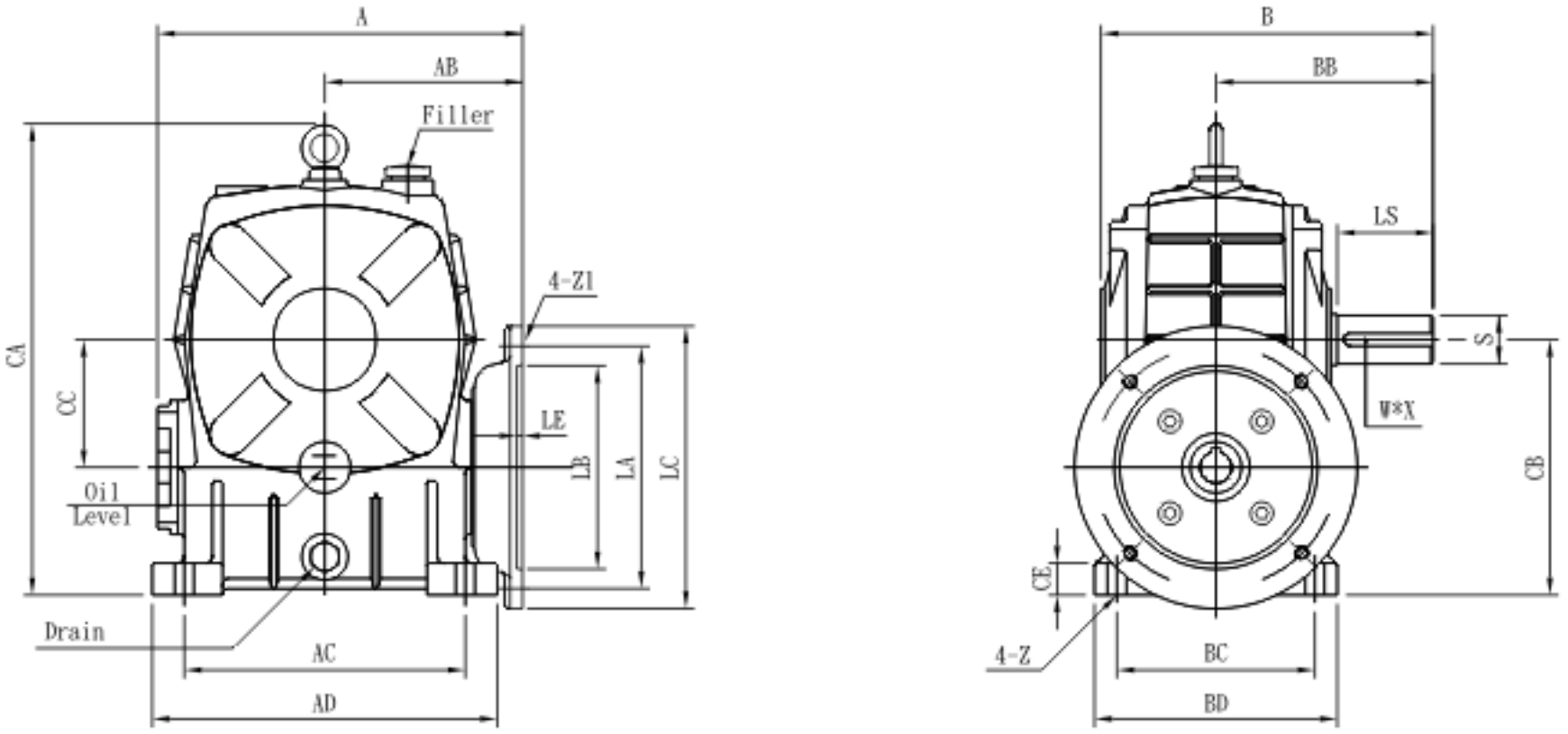


Unit:mm

Size	Ratio	A	AB	AC	AD	B	BB	BC	BD	CA	CB	CC	CD	CE	Z
300	1/10 1/40	958	495	520	620	628	410	368	450	815	490	300	190	45	36
350	1/15 1/20 1/50	1068	570	597	700	748+	480	432	520	940	565	350	215	55	43
400	1/30 1/60	1160	620	660	780	775	500	470	580	1070	650	400	250	55	43

Size	Input Shaft			Output Shaft			Ojm (l)	Weight (kg)
	HS	U	T * V	LS	S	W * X		
300	125	70	18 * 6	170	95	24 * 8	21	496
350	145	80	20 * 7	190	115	32 * 10	30	673
400	150	85	24 * 8	205	130	35 * 11	41	1006



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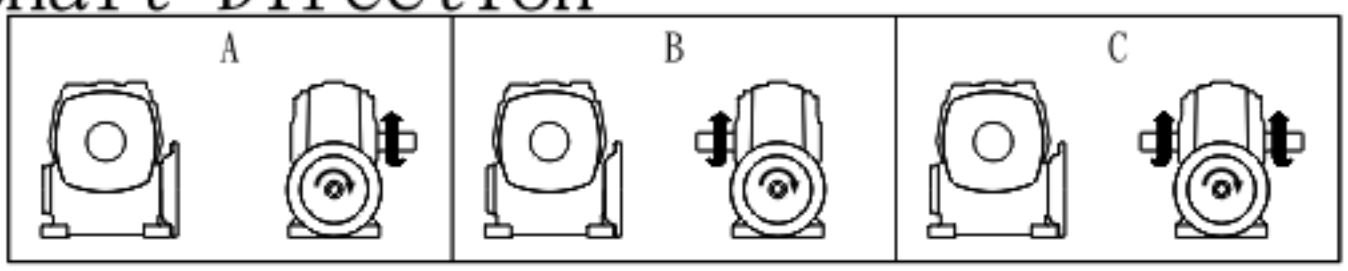
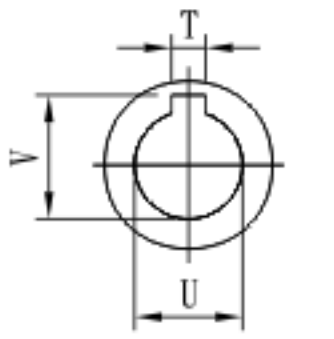


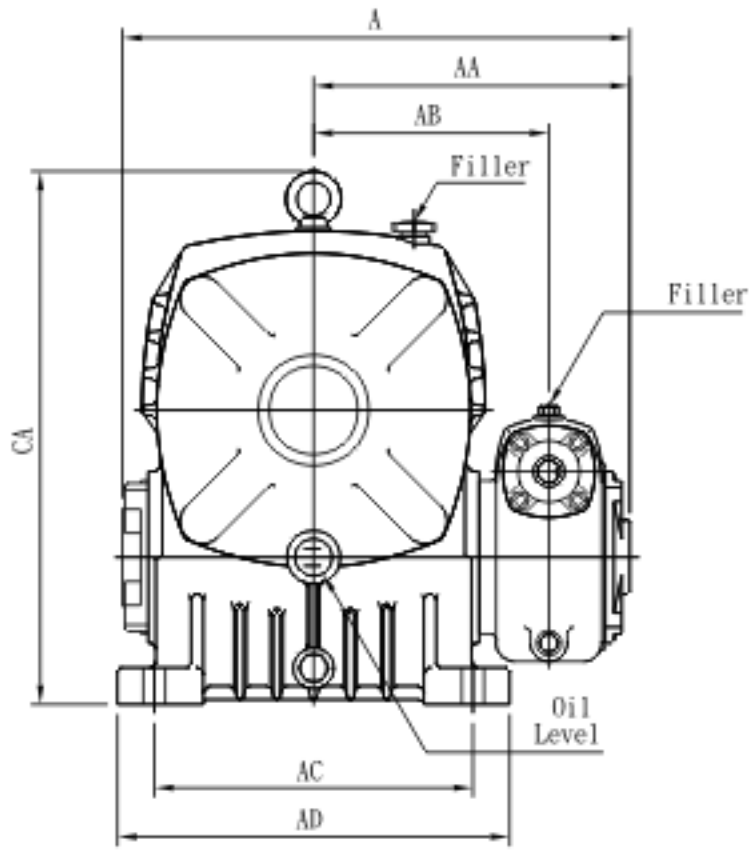
Unit:mm

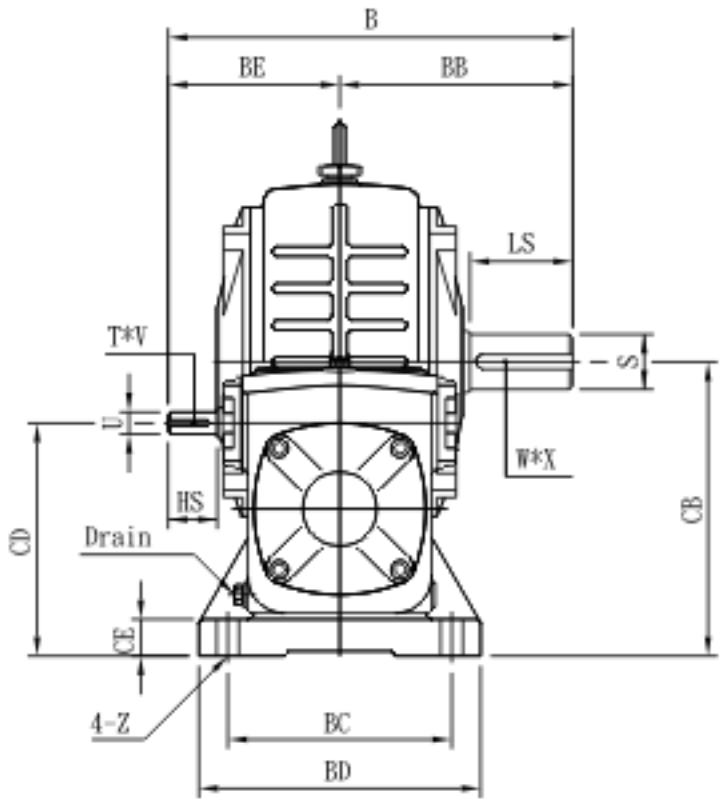
Size	Ratio	A	AB	AC	AD	B	BB	BC	BD	CA	CB	CC	CE	Z	Input Bore		
															U	T	V
50	1/10	214	140	110	140	175	95	95	120	210	100	50	18	11	11 14	4 5	12.8 16
60	1/15	177	97	120	150	190	110	105	130	230	120	60	20	11	11 14	4 5	12.8 16
70	1/20	213 215	118 120	150	190	210 230	130	115	150	255 275	140	70	22	15	14 19	5 6	16 21.8
80	1/30	234	130	180	220	240	140	135	170	300	160	80	20	15	19 24	6 8	21.8 27.3
100	1/40	273 278	140 142	220	270	270 295	170	155	190	350 375	200	100	25	15	24 28	8 8	27.3 31.3
120	1/50	339	180	260	320	315	190	180	230	425	240	120	30	18	28	8	31.3
135	1/60	370 390	195 218	290	350	335 360	210	200	250	475 500	270	135	30	18	28 38	8 10	31.3 41.3

Size	Output Shaft			Flange					HP	Oil (l)	Weight (kg)
	LS	S	W*X	LA	LB	LC	LE	Z1			
50	40	17	5 * 3	130	110	160	4	M8	1/4 1/2	0.22	7.2
60	50	22	7 * 4	130	110	160	4	M8	1/4 1/2	0.32	10
70	60	28	7 * 4	130 165	110 130	160 200	4 5	M8 M10	1/2 1	0.55	15
80	65	32	10 * 4.5	165	130	200	4	M10	1 2	0.77	20.2
100	75	38	10 * 4.5	165 215	130 180	200 250	5	M10 M12	2 3	1.53	39.5
120	85	45	12 * 4.5	215	180	250	5	M10	3 5	2.4	65
135	95	55	15 * 5	215 265	180 230	250 300	5	M12 15	5 7.5	3.25	85.2

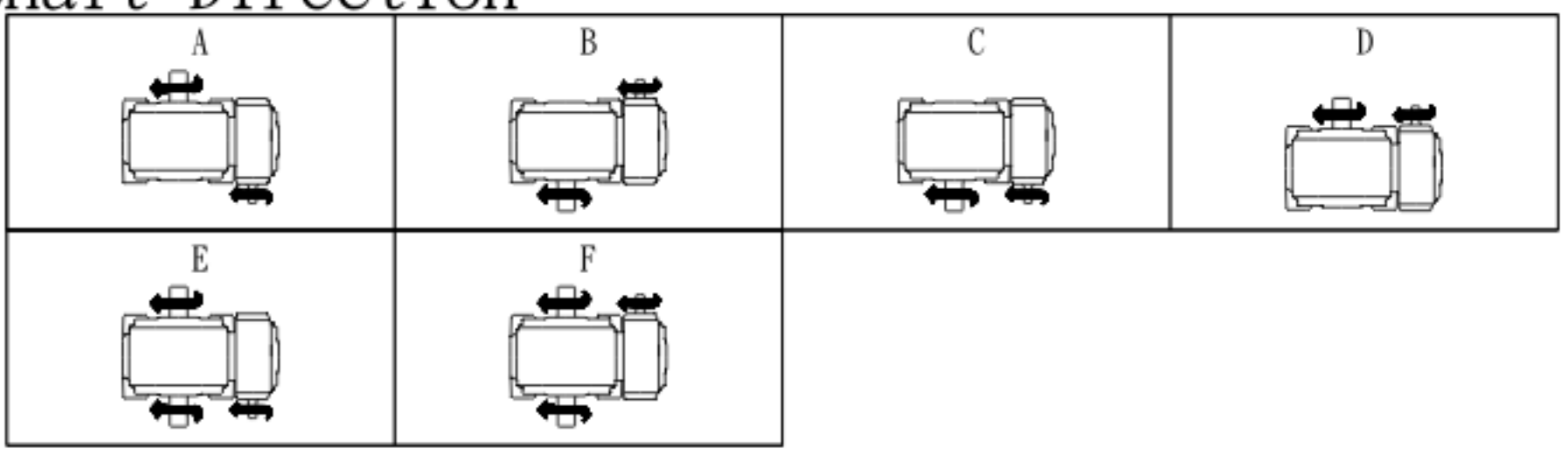


INPUT-BORE VIEW





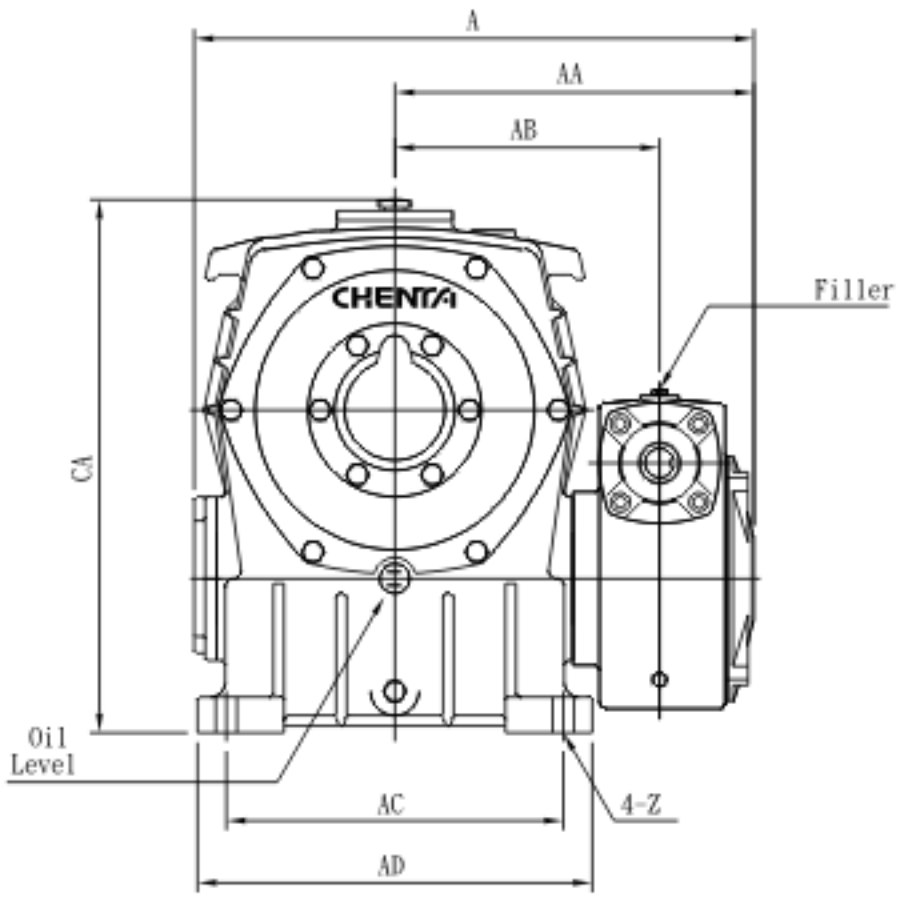
Shaft Direction

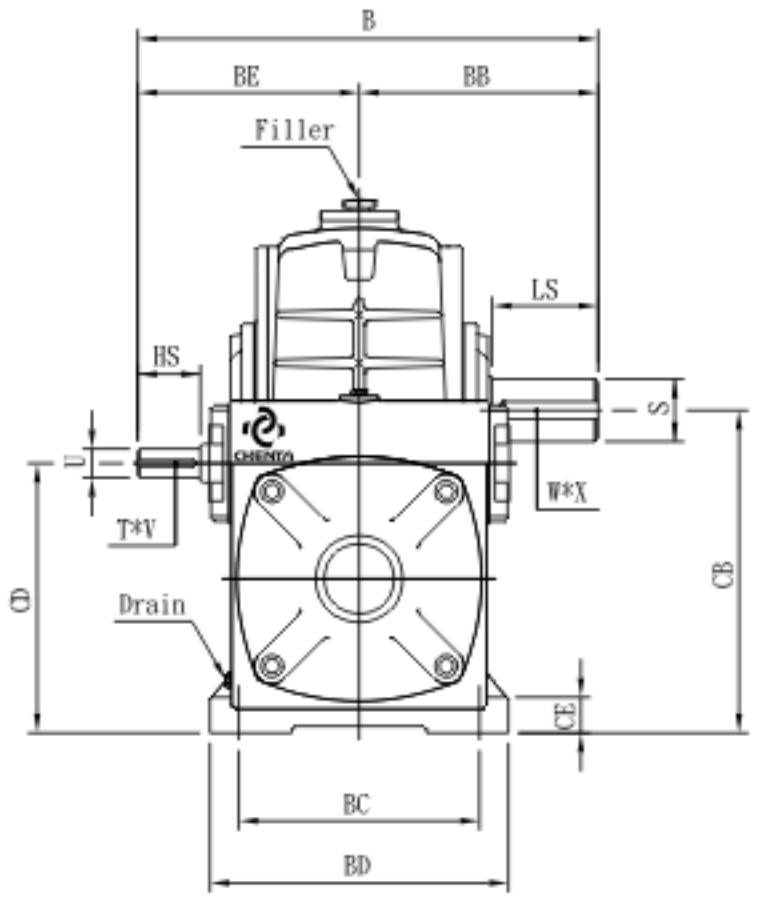


Unit:mm

Size	Ratio	A	AA	AB	AC	AD	B	BB	BC	BD	BE	CA	CB	CD	CE	Z
50-80	1/100 ~ 1/3600	286	184	132	180	220	247	140	135	170	107	278	160	130	23	15
60-100		352	219	161	220	270	294	170	155	190	124	372	200	160	25	15
70-120		417	258	192	260	320	330	190	180	230	140	430	240	190	30	18
80-135		463	287	211	290	350	370	210	200	250	160	491	270	215	30	18

Size	Input Shaft			Output Shaft			Ojm (l)	Weight (kg)
	HS	U	T*V	LS	S	W*X		
50-80	30	12	4*2.5	65	32	10*4.5	1.2	23.8
60-100	40	15	5*3	75	38	10*4.5	2.2	46.6
70-120	40	18	5*3	85	45	12*4.5	3.2	73.5
80-135	50	22	7*4	95	55	15*5	4.3	97.7





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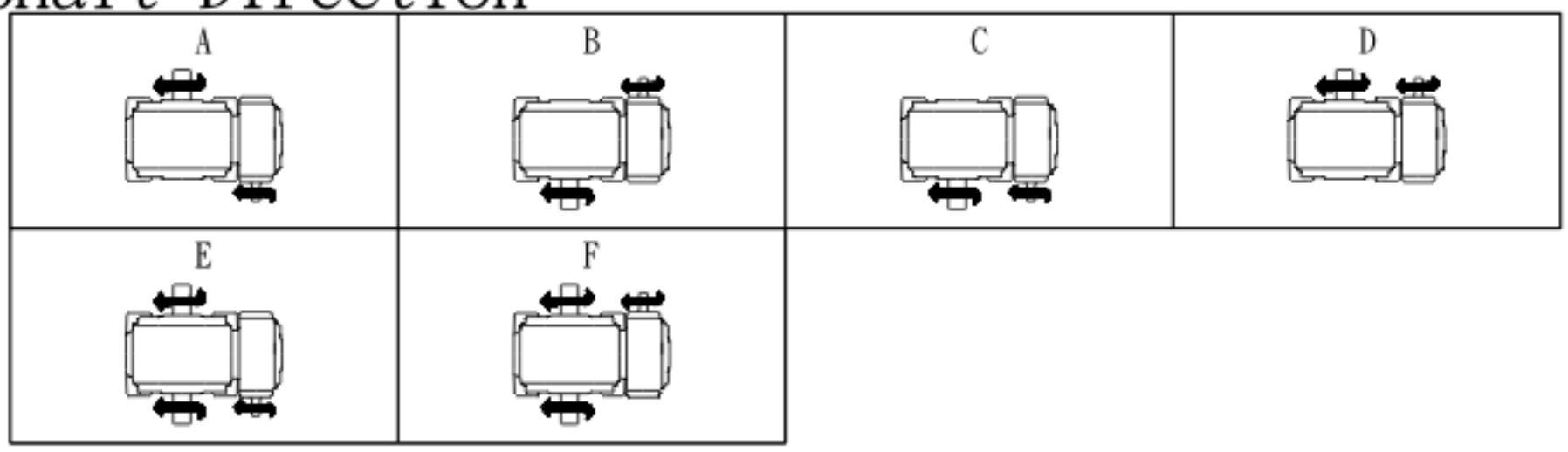
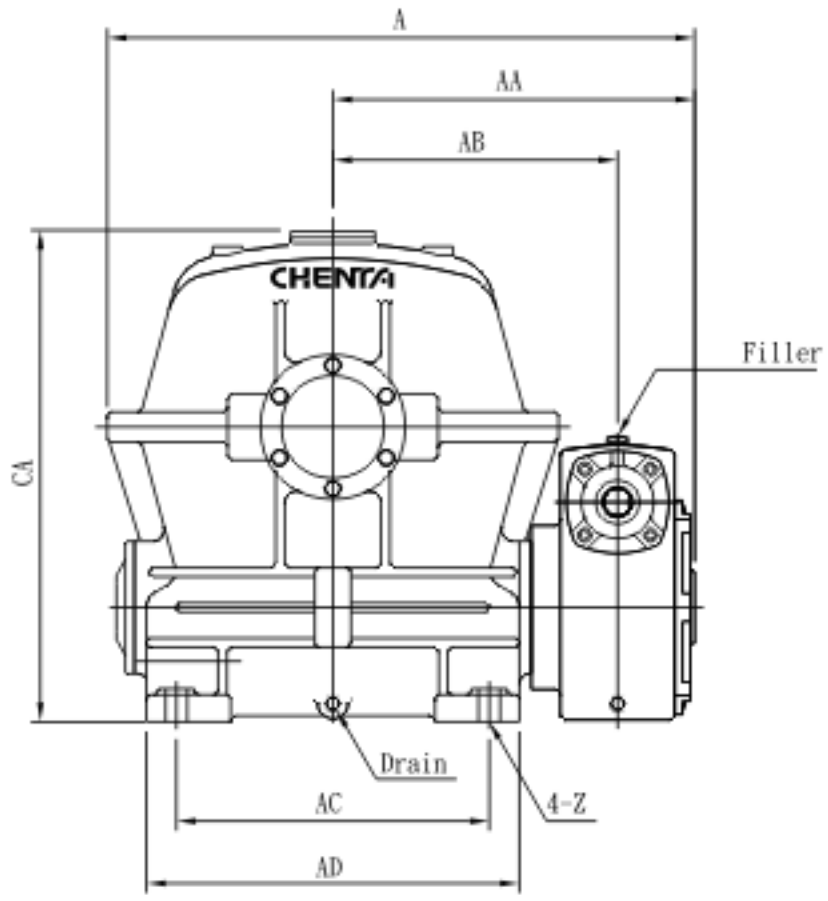
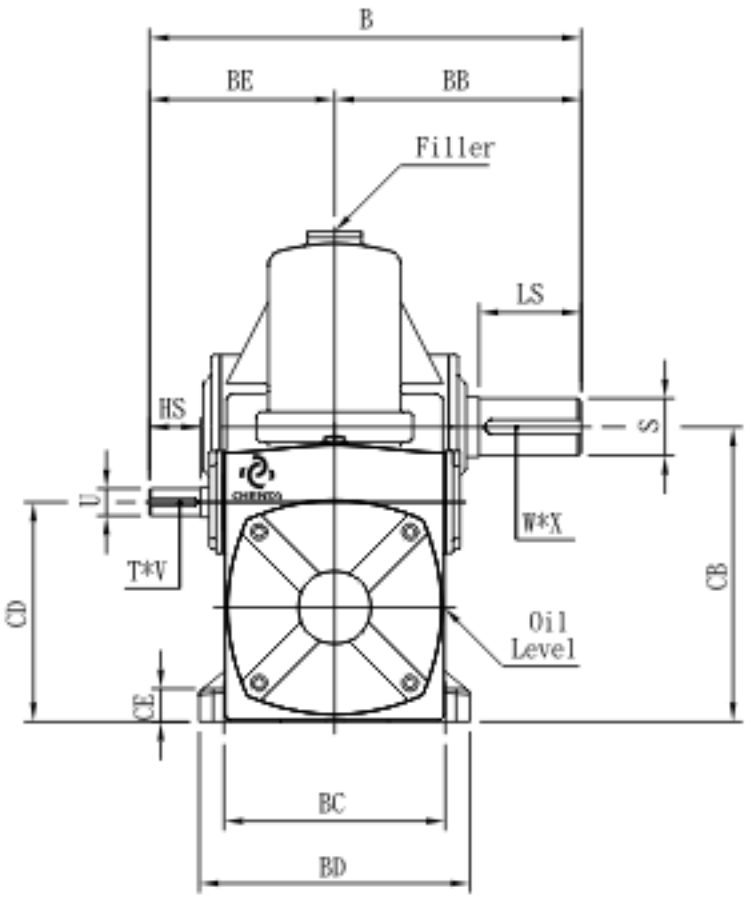


Unit:mm

Size	Ratio	A	AA	AB	AC	AD	B	BB	BC	BD	BE	CA	CB	CD	CE	Z
100-155	1/100 ≀ 1/3600	540	340	257	320	385	434	242	220	280	192	487	290	235	30	20
120-175		585	376	275	350	410	478	248	250	310	230	553	335	280	37	24
120-200		660	414	312.5	350	420	535	305	280	350	230	637	390	310	30	22
135-225		672	425	315	390	470	605	345	330	410	260	680	415	325	35	27
155-250		750	483	365	440	520	646	360	380	440	286	742	450	355	40	27

Size	Input Shaft			Output Shaft			Ojm (l)	Weight (kg)
	HS	U	T*V	LS	S	W*X		
100-155	50	25	7*4	100	60	15*5	6.1	135.5
120-175	65	30	7*4	110	65	18*6	9.2	195.8
120-200	65	30	7*4	125	70	20*7	14.7	258
135-225	75	35	10*4.5	140	80	20*7	17.2	367
155-250	85	40	10*4.5	145	90	24*8	22	428





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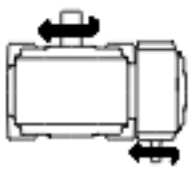
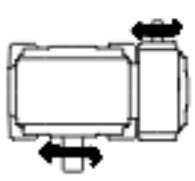
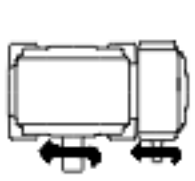
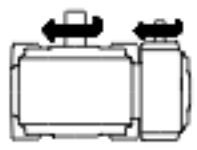
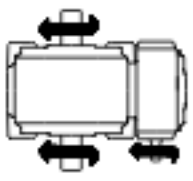
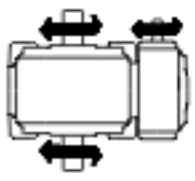
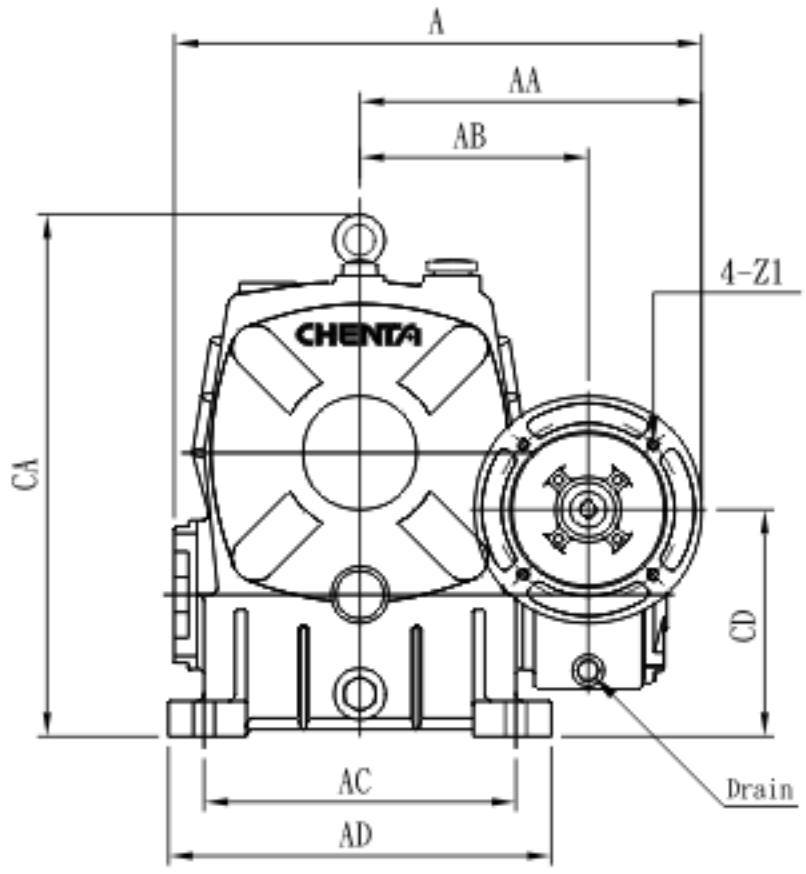
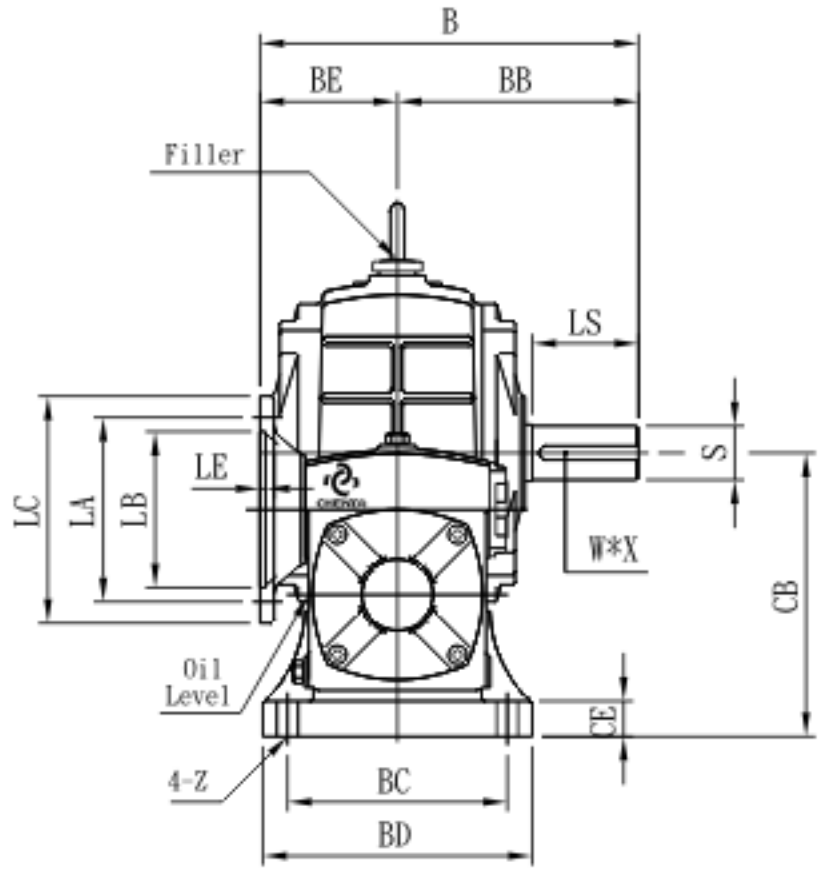
A 	B 	C 	D 
E 	F 		

Unit:mm

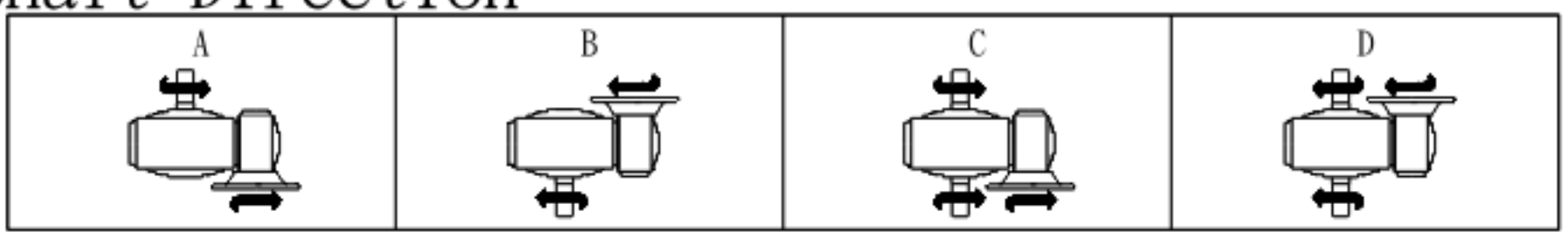
Size	Ratio	A	AA	AB	AC	AD	B	BB	BC	BD	BE	CA	CB	CD	CE	Z
175-300	1/100 ≀ 1/3600	980	601	473	520	620	718	410	368	450	308	840	490	365	55	36
200-350		1060	630	525	597	700	830	480	432	520	350	940	565	415	32	43
225~400		1252	777	620	660	780	875	500	470	580	375	1120	650	475	40	43

Size	Input Shaft			Output Shaft			Ojm (1)	Weight kg
	HS	U	T*V	LS	S	W*X		
175-300	85	45	12* 4.5	170	95	24 * 8	60	560
200-350	95	50	12*4.5	190	115	32*10	80	860
225-400	95	55	15*5	205	130	35*11	110	1215





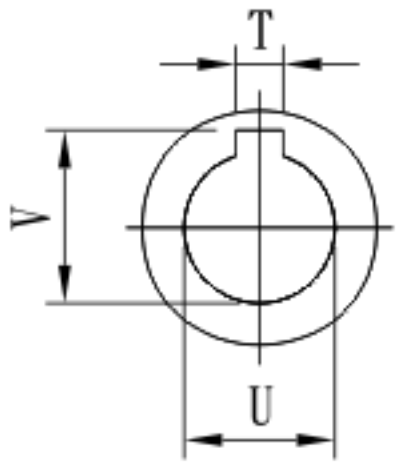
Shaft Direction



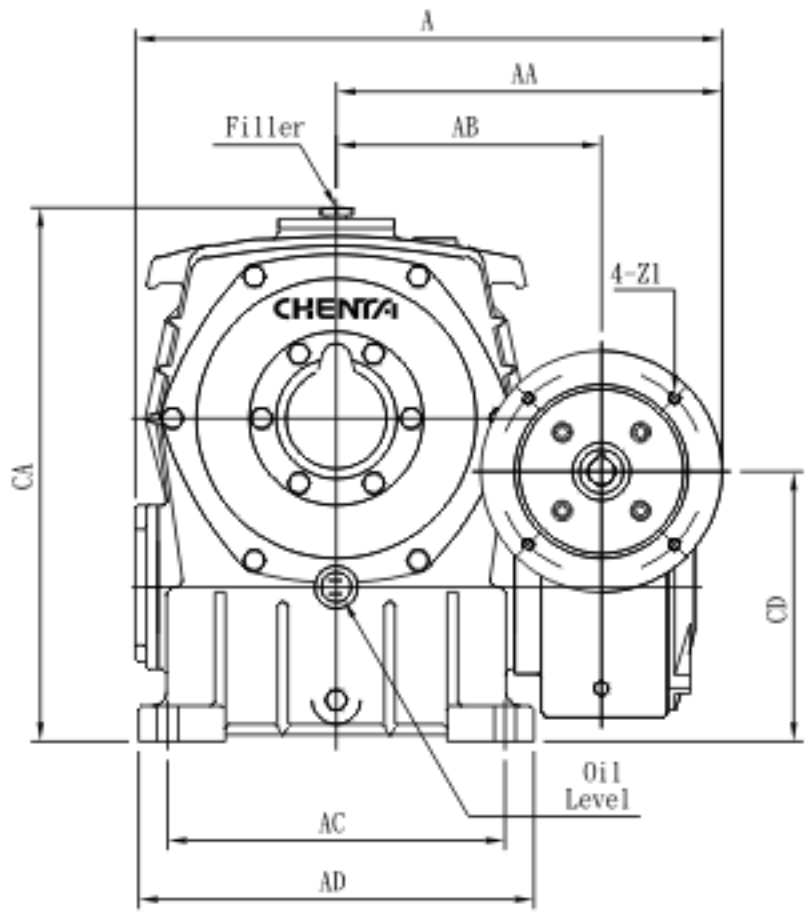
Unit:mm

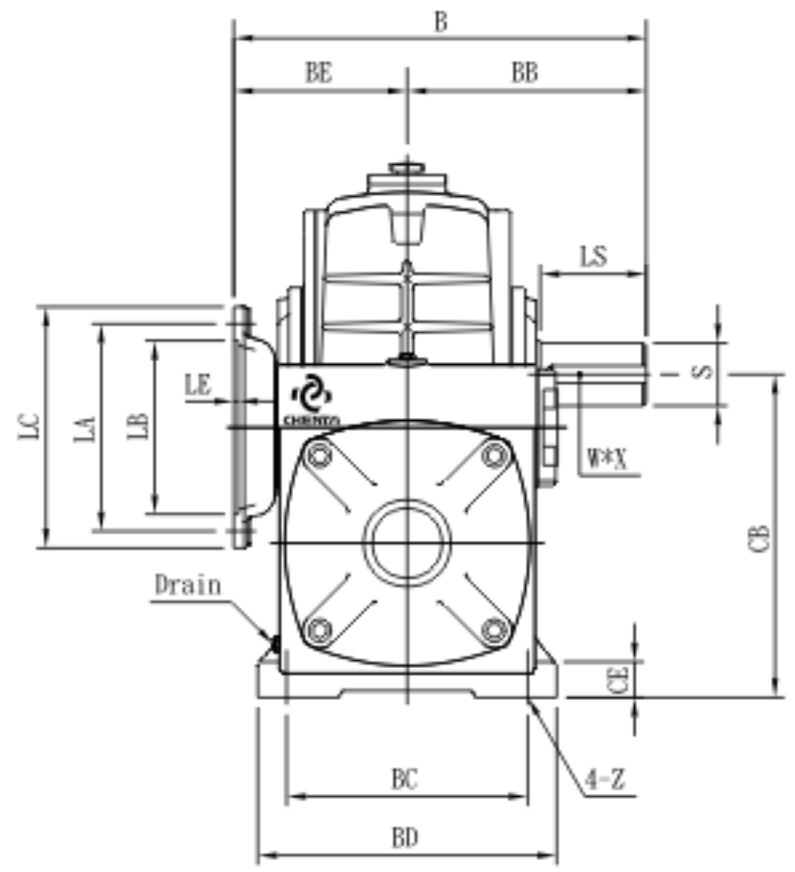
Size	Ratio	A	AA	AB	AC	AD	B	BB	BC	BD	BE	CA	CB	CD	CE	Z	Input Bore		
																	U	T	V
50-80	1/100 ~ 1/3600	316	212	132	180	220	280	140	135	170	140	271	160	130	23	15	11 14	4 5	12.8 16
60-100		372	241	161	220	270	267	170	155	190	97	372	200	160	25	15	11 14	4 5	12.8 16
70-120		428 448	272 292	192	260	320	308 310	190	180	230	118 120	435	240	190	30	18	14 19	5 6	16 21.8
80-135		481	311	211	290	350	340	210	200	250	130	490	270	215	30	18	19 24	6 8	21.8 27.3

Size	Output Shaft			Flange					HP	Ojm (l)	Weight (kg)
	LS	S	W*X	LA	LB	LC	LE	Z1			
50-80	65	32	10*4.5	130	110	160	4	M8	1/4 1/2	1.2	24.9
60-100	75	38	10*4.5	130	110	160	4	M8	1/4 1/2	2.2	48.1
70-120	85	45	12*4.5	130 165	110 130	160 200	4 5	M8 M10	1/2 1	3.2	75.5
80-135	95	55	15*5	165	130	200	5	M10	1 2	4.3	100.2

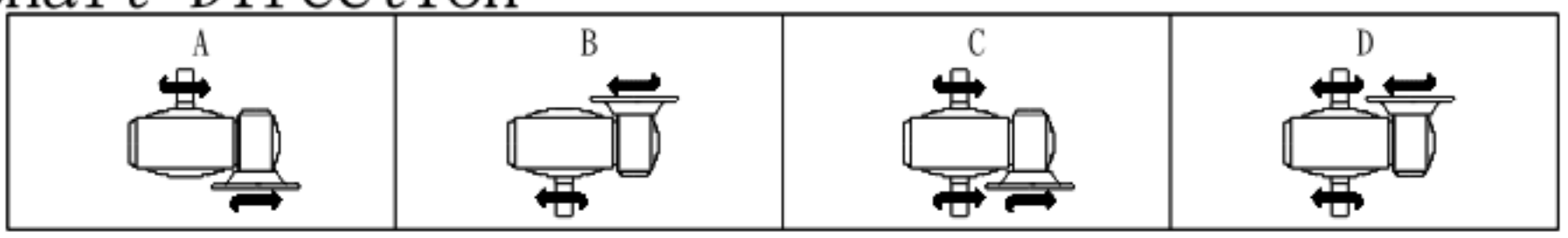


INPUT-BORE VIEW





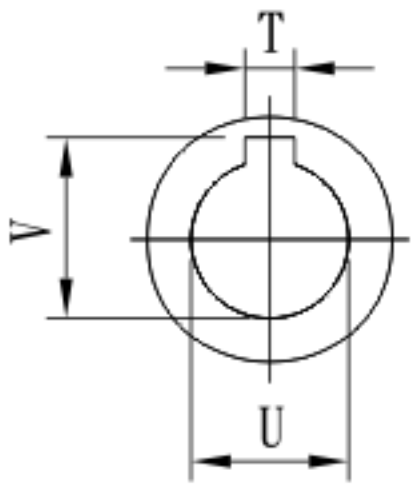
Shaft Direction



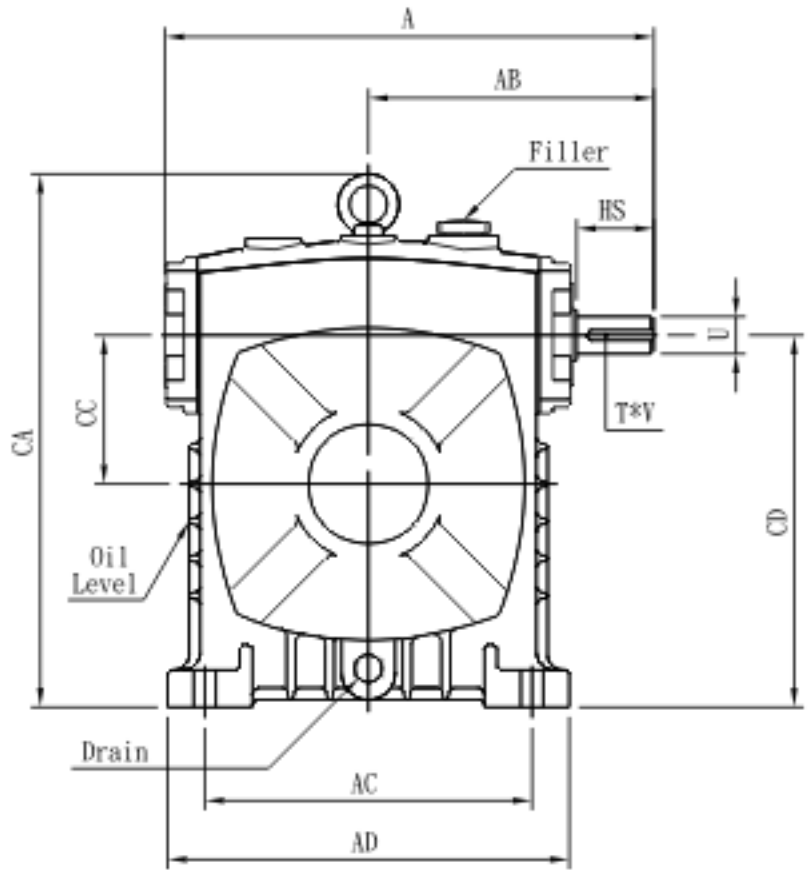
Unit:mm

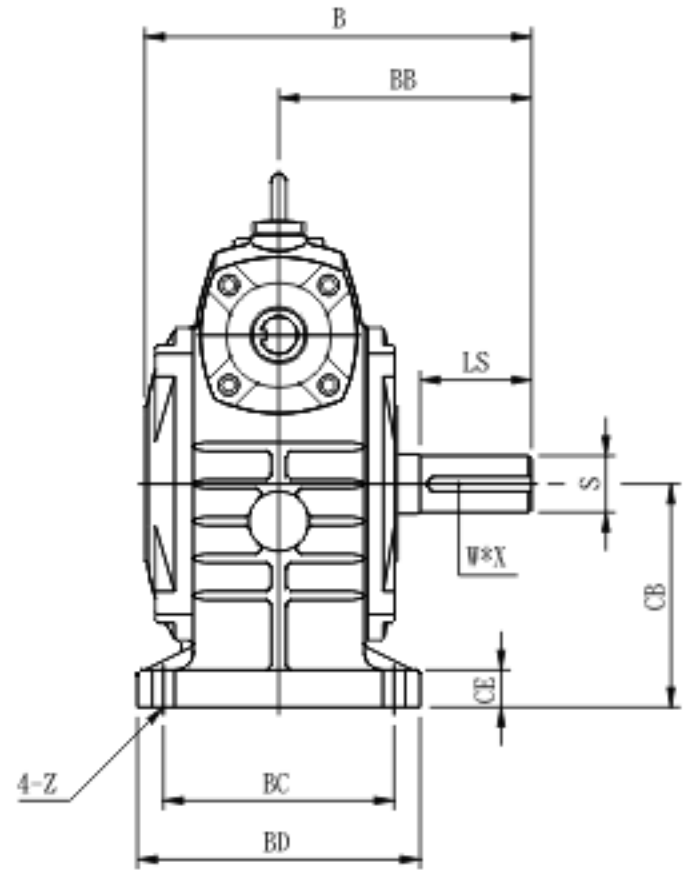
Size	Ratio	A	AA	AB	AC	AD	B	BB	BC	BD	BE	CA	CB	CD	CE	Z	Input Bore U	Input Bore T	Input Bore V
100-155	1/100 ≀ 1/3600	545 574	357 382	257	320	385	382 384	242	220	280	140 142	487	290	235	32	20	24 28	8 8	27.3 31.3
120-175		608	400	275	350	410	428	248	250	310	180	553	335	280	37	24	28	8	31.3
120-200		687	437	312.5	350	420	485	305	280	350	180	637	390	310	30	22	28	8	31.3
135-225		692 717	440 465	315	390	470	540 563	345	330	410	195 218	680	415	325	35	27	28 38	8 10	31.3 41.3
155-250		817	515	365	440	520	596	360	380	440	236	742	450	355	40	27	38	10	41.3

Size	Output Shaft LS	Output Shaft S	Output Shaft W*X	Flange LA	Flange LB	Flange LC	Flange LE	Flange Z1	HP	Ojm (l)	Weight (kg)
100-155	100	60	15*5	165 215	130 180	200 250	5	M10 M12	2 3	6.1	138.7
120-175	110	65	18*6	215	180	250	5	M10	3 5	9.2	199.6
120-200	125	70	20*7	215	180	250	5	M12	5	15	261
135-225	140	80	20*7	215 265	180 230	250 300	5	M12 15	5 7.5	17	365
155-250	145	90	24*8	265	230	300	5	15	10	22	425

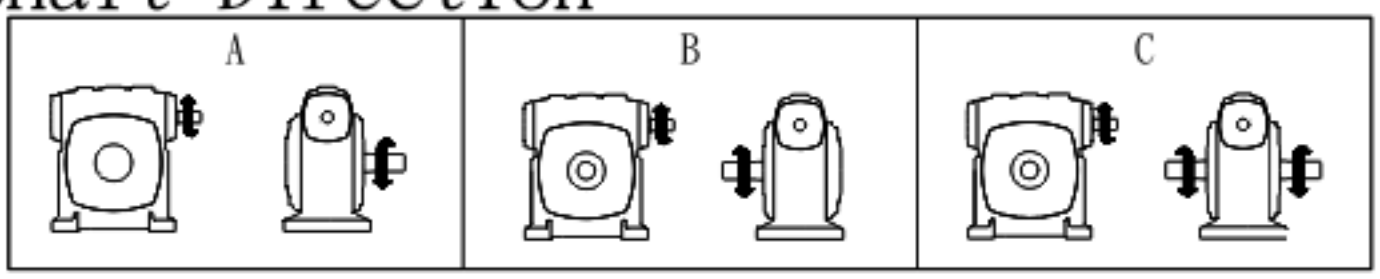


INPUT-BORE VIEW





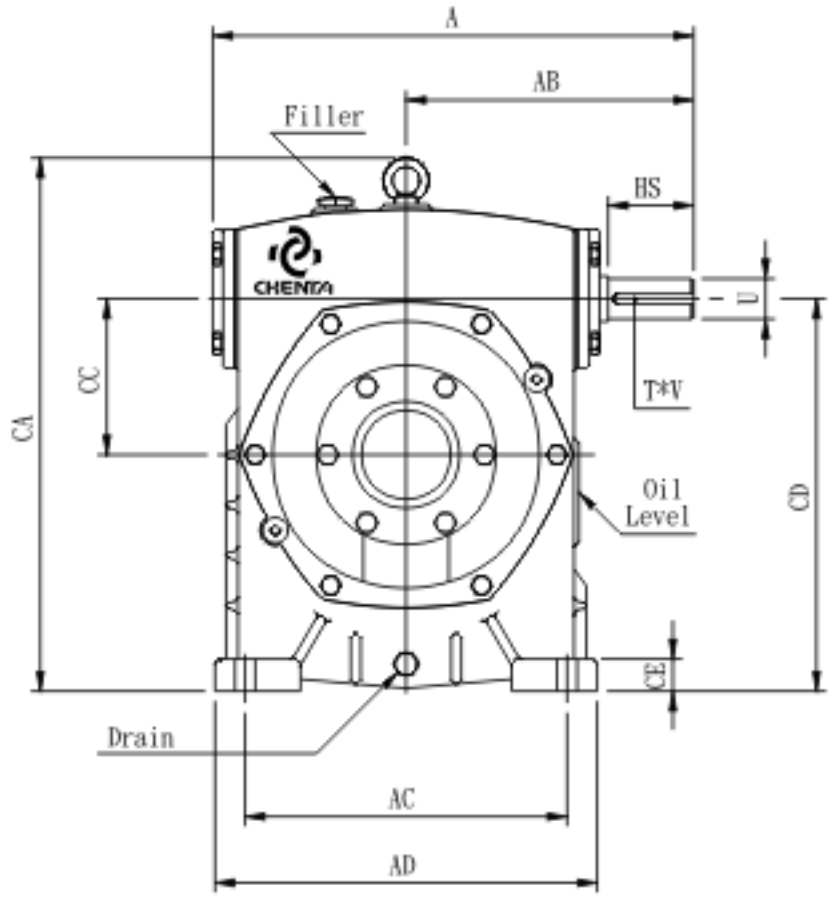
Shaft Direction

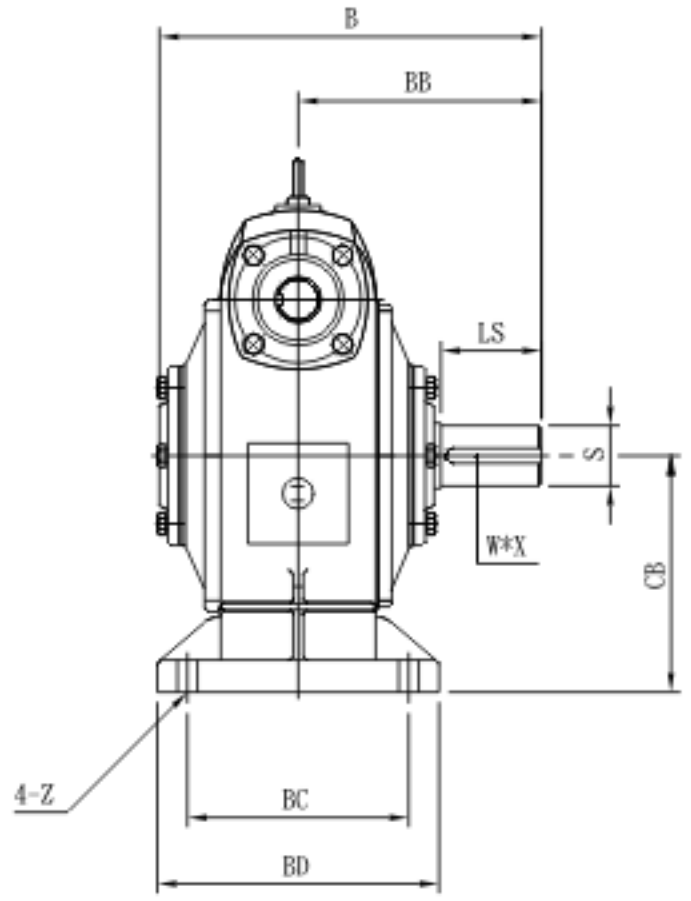


Unit:mm

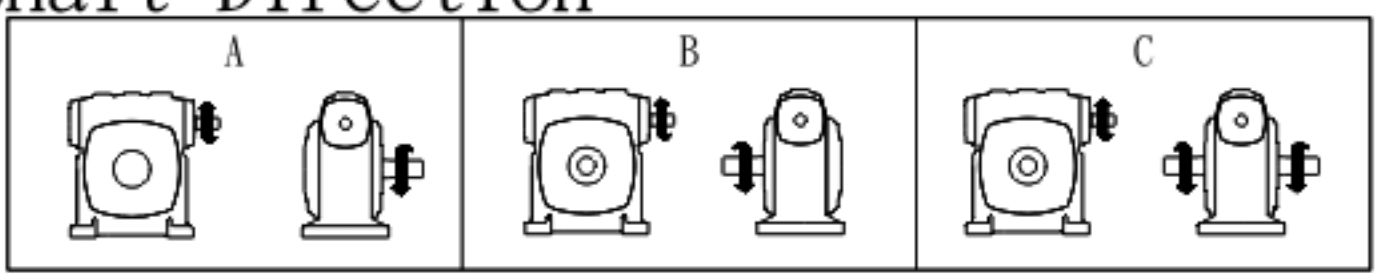
Size	Ratio	A	AB	AC	AD	B	BB	BC	BD	CA	CB	CC	CD	CE	Z
50	1/10	181	107	110	140	147	95	95	120	175	80	50	130	15	11
60	1/15	204	124	120	150	168	110	105	130	200	90	60	150	18	11
70	1/20	235	140	150	190	196	130	115	150	235	105	70	175	20	15
80	1/30	265	160	180	220	216	140	135	170	260	120	80	200	20	15
100	1/40	328	192	220	270	262	170	155	190	359	150	100	250	25	15
120	1/50	389	230	260	320	288	190	180	230	425	180	120	300	30	18
135	1/60	435	260	290	350	320	210	200	250	478	215	135	350	30	18

Size	Input Shaft			Output Shaft			Ojm (l)	Weight (kg)
	HS	U	T * V	LS	S	W * X		
50	30	12	4 * 2.5	40	17	5 * 3	0.4	6.5
60	40	15	5 * 3	50	22	7 * 4	0.5	8.5
70	40	18	5 * 3	60	28	7 * 4	0.8	14
80	50	22	7 * 4	65	32	10 * 4.5	1.2	19
100	50	25	7 * 4	75	38	10 * 4.5	2.2	38
120	65	30	7 * 4	85	45	12 * 4.5	4.2	64
135	75	35	10 * 4.5	95	55	15 * 5	6	85





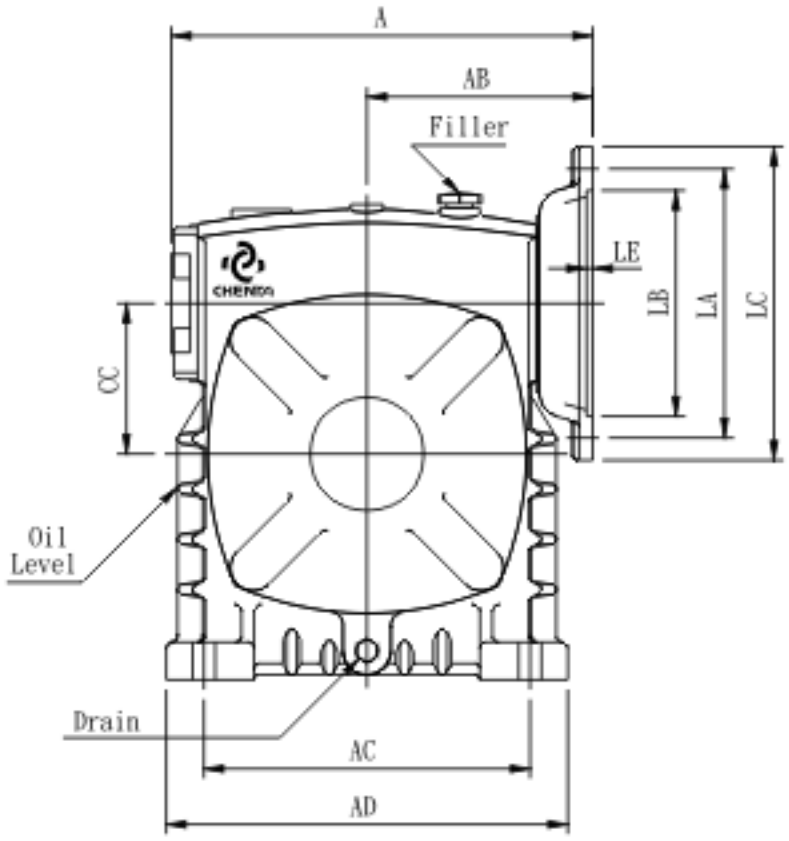
Shaft Direction

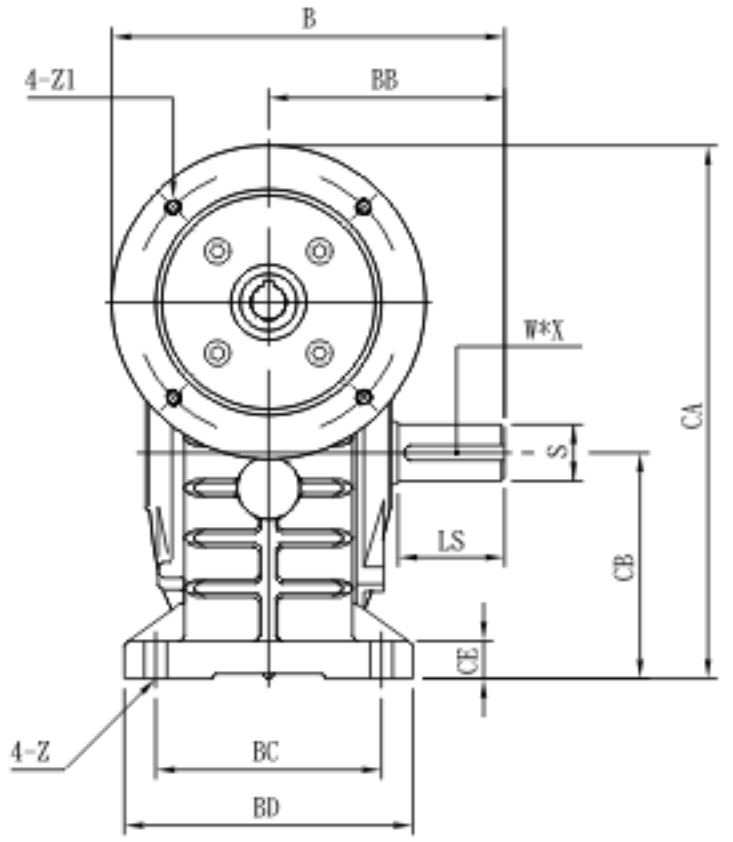


Unit:mm

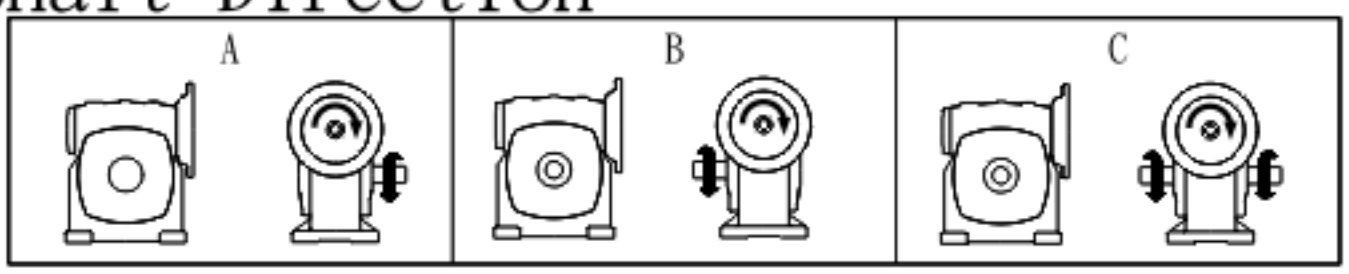
Size	Ratio	A	AB	AC	AD	B	BB	BC	BD	CA	CB	CC	CD	CE	Z
155	1/10 1/15 1/20 1/30 1/40 1/50 1/60	479	286	320	380	381	242	220	280	536	235	155	390	32	20
175		517	308	350	410	381	248	250	310	587	260	175	435	35	20

Size	Input Shaft			Output Shaft			Ojm (l)	Weight (kg)
	HS	U	T * V	LS	S	W * X		
155	85	40	10 * 4.5	100	60	15 * 5	7.4	115
175	85	45	12 * 4.5	110	65	18 * 6	11.5	160





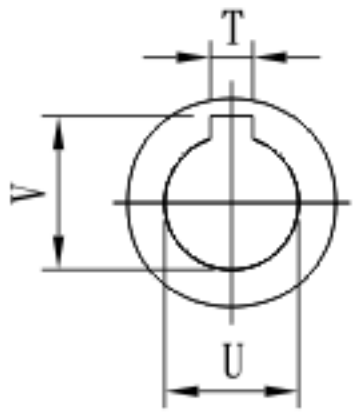
Shaft Direction



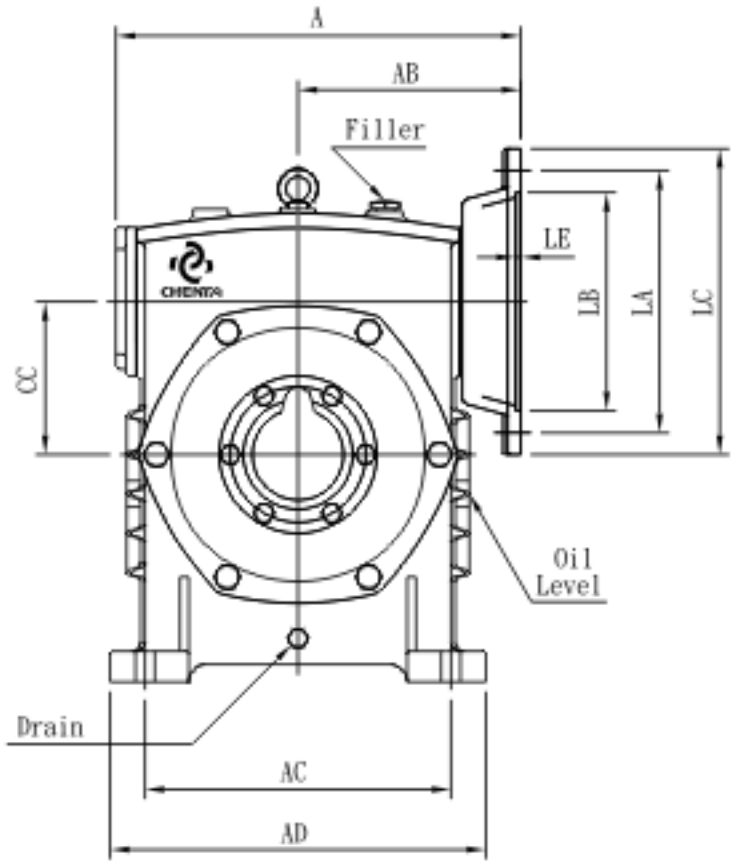
Unit:mm

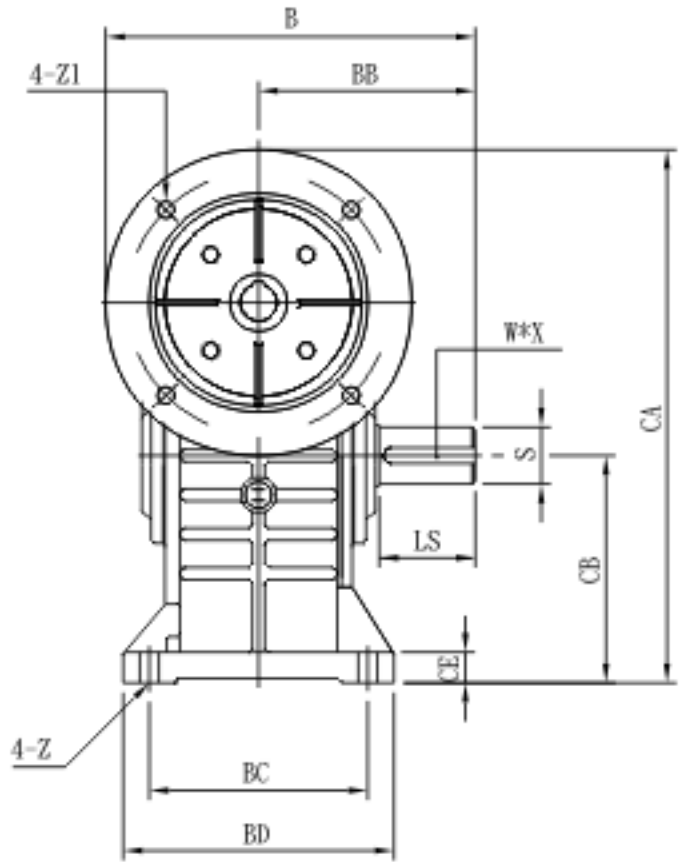
Size	Ratio	A	AB	AC	AD	B	BB	BC	BD	CA	CB	CC	CE	Z	Input Bore U	Input Bore T	Input Bore V
50	1/10	214	140	110	140	175	95	95	120	210	80	50	18	11	11 14	4 5	12.8 16
60	1/15	177	97	120	150	190	110	105	130	230	90	60	20	11	11 14	4 5	12.8 16
70	1/20	213 215	118 120	150	190	210 230	130	115	150	255 275	105	70	22	15	14 19	5 6	16 21.8
80	1/30	234	130	180	220	240	140	135	170	300	120	80	20	15	19 24	6 8	21.8 27.3
100	1/40	273 278	140 142	220	270	270 295	170	155	190	350 375	150	100	25	15	24 28	8 8	27.3 31.3
120	1/50	339	180	260	320	315	190	180	230	425	180	120	30	18	28	8	31.3
135	1/60	370 390	195 218	290	350	335 360	210	200	250	475 500	215	135	30	18	28 38	8 10	31.3 41.3

Size	Output Shaft LS	Output Shaft U	Output Shaft W * X	Flange LA	Flange LB	Flange LC	Flange LE	Flange Z1	HP	Ojm (l)	Weight (kg)
50	40	17	5 * 3	130	110	160	4	M8	1/4 1/2	0.22	7.2
60	50	22	7 * 4	130	110	160	4	M8	1/4 1/2	0.32	10
70	60	28	7 * 4	130 165	110 130	160 200	4 5	M8 M10	1/2 1	0.55	15
80	65	32	10 * 4.5	165	130	200	4	M10	1 2	0.77	20.2
100	75	38	10 * 4.5	165 215	130 180	200 250	5	M10 M12	2 3	1.53	39.5
120	85	45	12 * 4.5	215	180	250	5	M10	3 5	2.4	65
135	95	55	15 * 5	215 265	180 230	250 300	5	M12 15	5 7.5	3.25	85.2

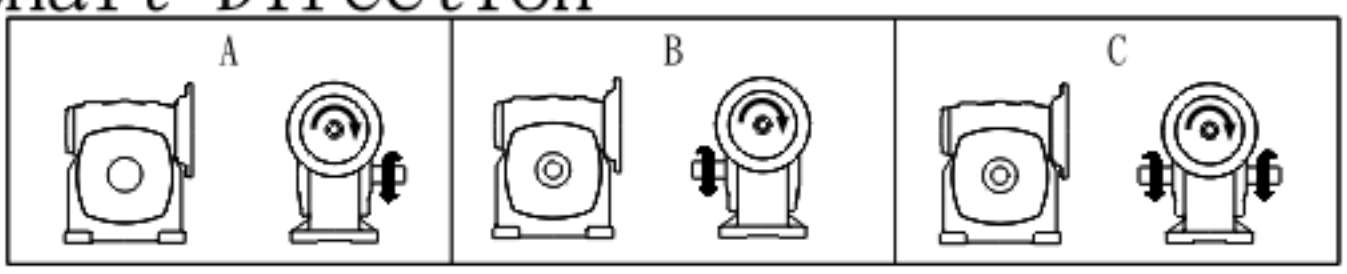


INPUT-BORE VIEW





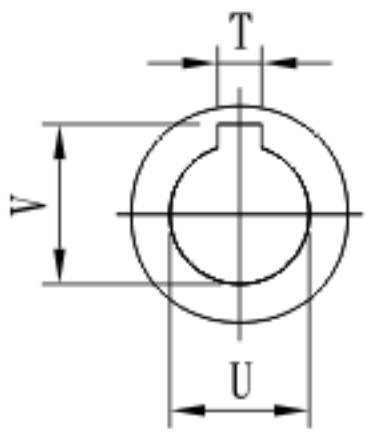
Shaft Direction



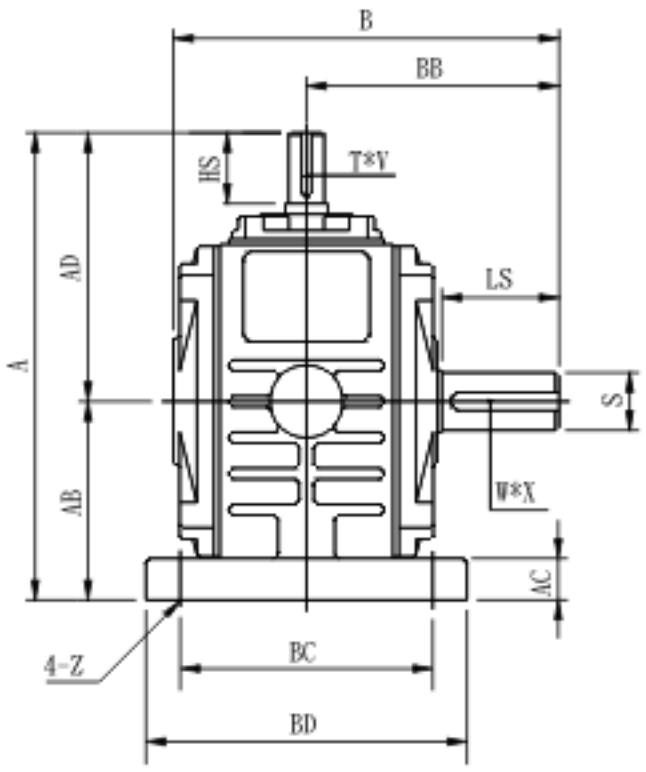
Unit:mm

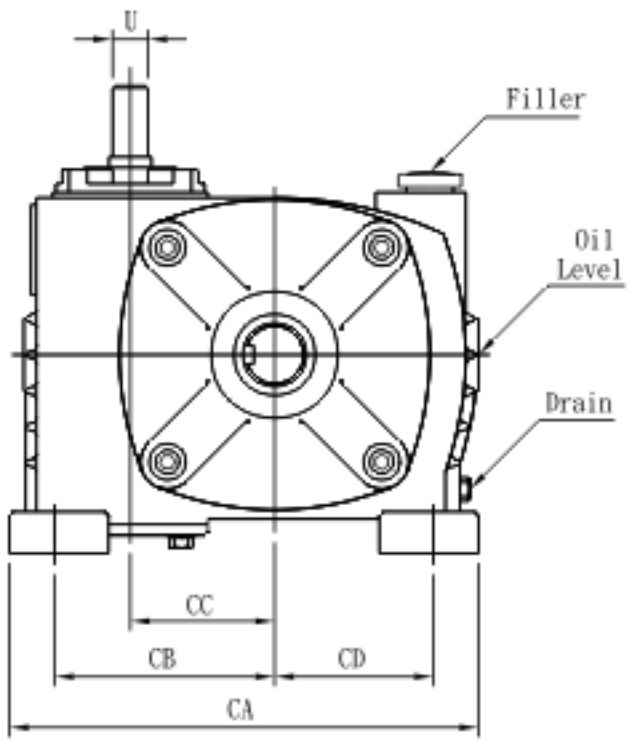
Size	Ratio	A	AB	AC	AD	B	BB	BC	BD	CA	CB	CC	CE	Z	Input Bore		
															U	T	V
155	1/10 1/40 1/15 1/50	430	236	320	380	392	242	220	280	540	235	155	32	20	38	10	41.3
175	1/20 1/60 1/30	420 465	212 255	350	410	398 423	248	250	310	585 610	260	175	35	20	38 42	10 12	41.3 45.3

Size	Output Shaft			Flange					HP	Oil (l)	Weight (kg)
	LS	S	W * X	LA	LB	LC	LE	Z1			
155	100	60	15 * 5	265	230	300	4.5	15	7.5 10	11.5	kg
175	110	65	18 * 6	265 300	230 250	300 350	5 6	M12 19	10 15	7.4	kg

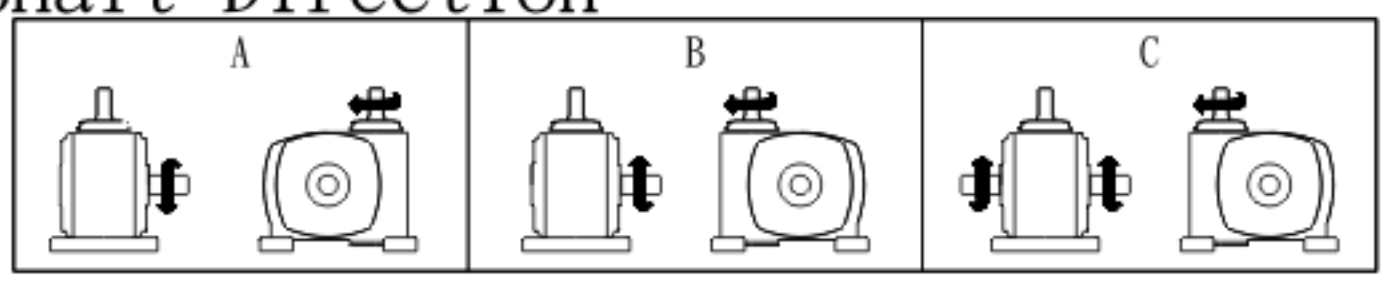


INPUT-BORE VIEW





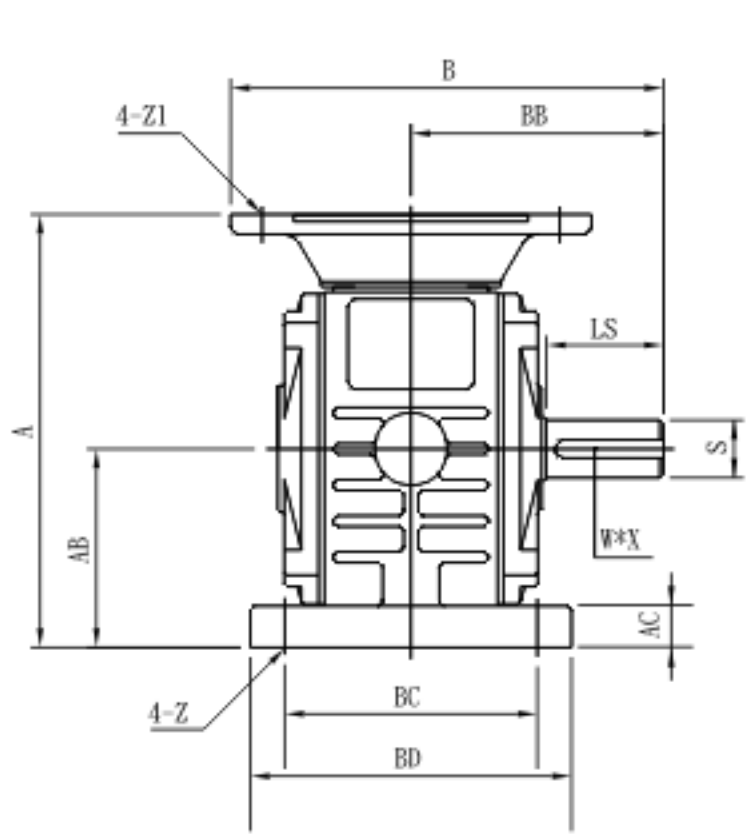
Shaft Direction

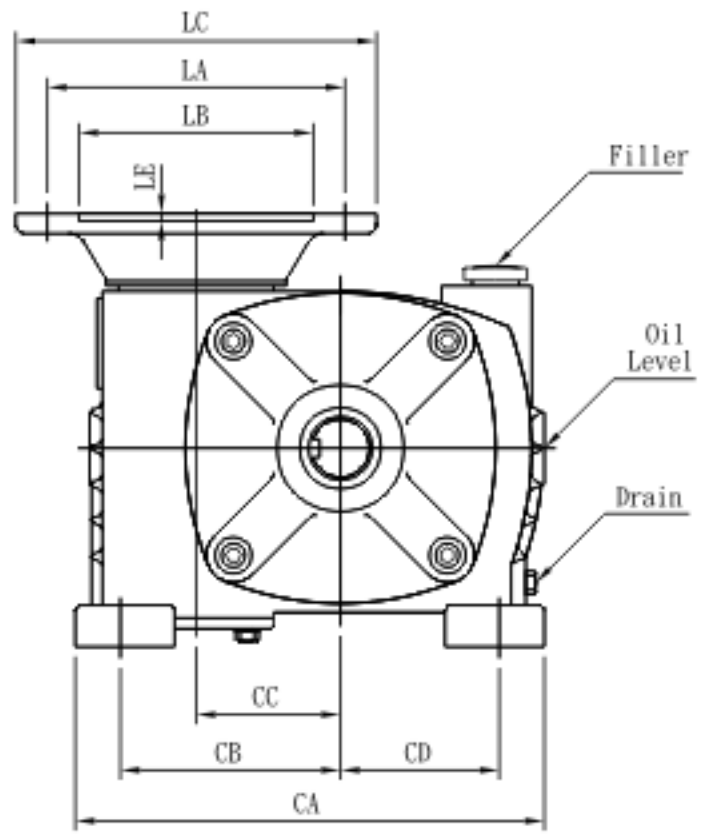


Unit:mm

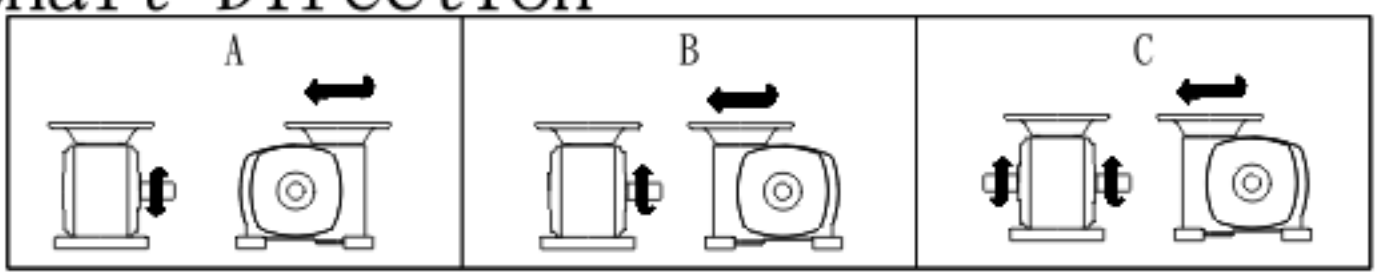
Size	Ratio	A	AB	AC	AD	B	BB	BC	BD	CA	CB	CC	CD	Z
50	1/10	177	70	15	107	147	95	100	125	161	77	50	53	11
60	1/15	214	90	20	124	168	110	105	136	205	98	60	67	11
70	1/20	250	110	20	140	196	130	120	155	196	100	70	55	15
80	1/30	265	105	20	160	216	140	125	160	264	125	80	90	15
100	1/40	327	135	25	192	262	170	170	205	320	157	100	115	15
120	1/50	385	155	30	230	291	190	180	230	352	170	120	120	18
135	1/60	520	170	30	350	320	210	200	250	390	200	135	130	18

Size	Input Shaft			Output Shaft			Ojm (l)	Weight (kg)
	HS	U	T * V	LS	S	W * Y		
50	30	12	4 * 2.5	40	17	5 * 3	0.3	7
60	40	15	5 * 3	50	22	7 * 4	0.5	11
70	40	18	5 * 3	60	28	7 * 4	1	14
80	50	22	7 * 4	65	32	10 * 4.5	1.2	19
100	50	25	7 * 4	75	38	10 * 4.5	2.8	36
120	65	30	7 * 4	85	45	12 * 4.5	4	55
135	75	35	10 * 4.5	95	55	12 * 4.5	5.5	65





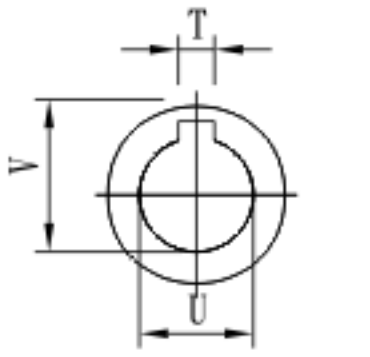
Shaft Direction



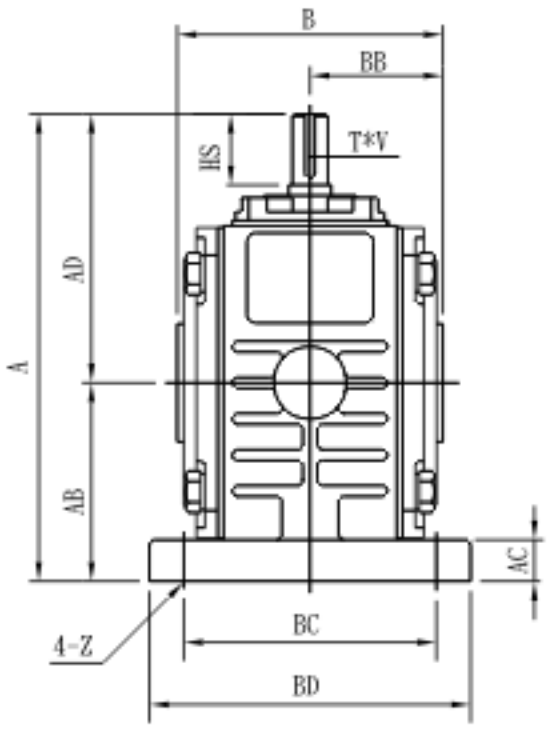
Unit:mm

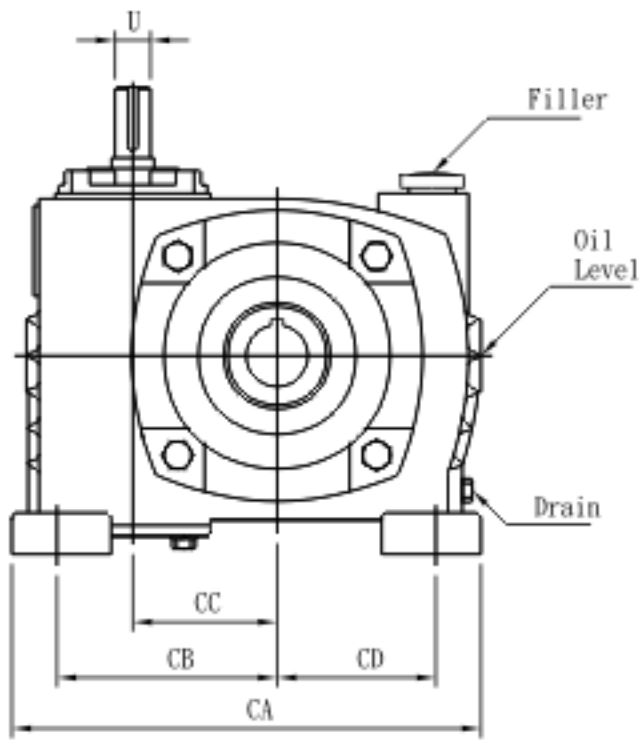
Size	Ratio	A	AB	AC	B	BB	BC	BD	CA	CB	CC	CD	Z	Input Bore		
														U	T	V
50	1/10	162	70	15	175	95	100	125	161	77	50	53	11	11 14	4 5	12.8 16.3
60	1/15	187	90	20	190	110	105	136	205	98	60	67	11	11 14	4 5	12.8 16.3
70	1/20	228 230	110	20	210 240	130	120	155	196	100	70	55	15	14 19	5 6	16.3 21.8
80	1/30	235	105	20	240	140	125	160	264	125	80	90	15	19 24	6 8	21.8 27.3
100	1/40	277 279	135	25	270 295	170	170	205	320	157	100	115	15	24 28	8 8	27.3 31.3
120	1/50	335	155	30	315	190	180	230	352	170	120	120	18	28	8	31.3
135	1/60	365 388	170	30	335 360	210	200	250	390	200	135	130	18	28 30	8 10	31.3 41.5

Size	Output Shaft			Flange					HP	Ojm (l)	Weight (kg)
	LS	S	W * X	LA	LB	LC	LE	Z1			
50	40	17	5 * 3	130	110	160	4	M8	1/4 1/2	0.3	9
60	50	22	7 * 4	130	110	160	4	M8	1/4 1/2	0.5	13
70	60	28	7 * 4	130 165	110 130	160 200	4 5	M8 M10	1/2 1	1	16
80	65	32	10 * 4.5	165	130	200	5	M10	1 2	1.2	23
100	75	38	10 * 4.5	165 215	130 180	200 250	5	M10 M12	2 3	2.8	40
120	85	45	12 * 4.5	215	180	250	5	M12	3 5	4	58
135	95	55	12 * 4.5	215 265	180 230	250 300	5	M12 15	5 7.5	5.5	70

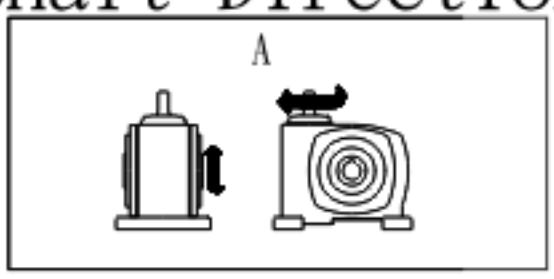


INPUT-BORE VIEW





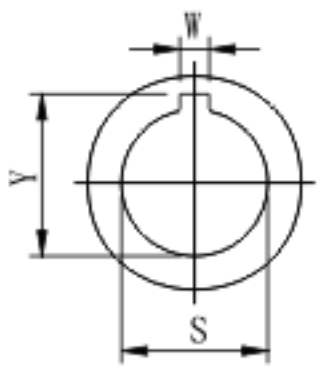
Shaft Direction



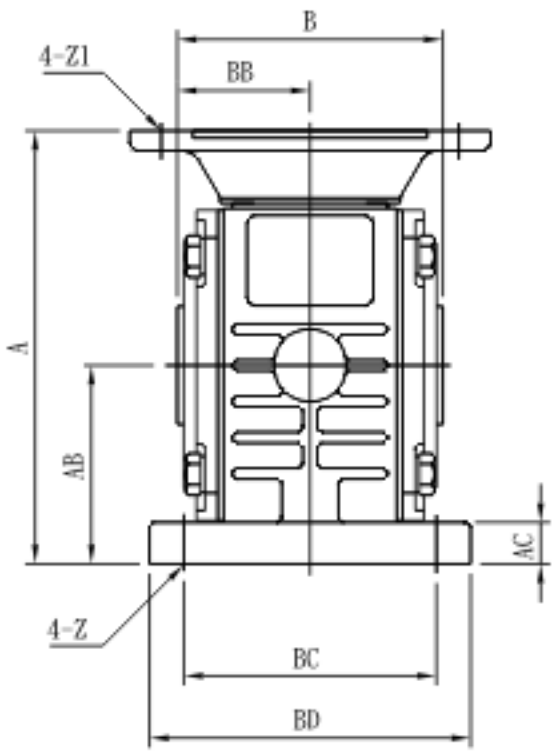
Unit:mm

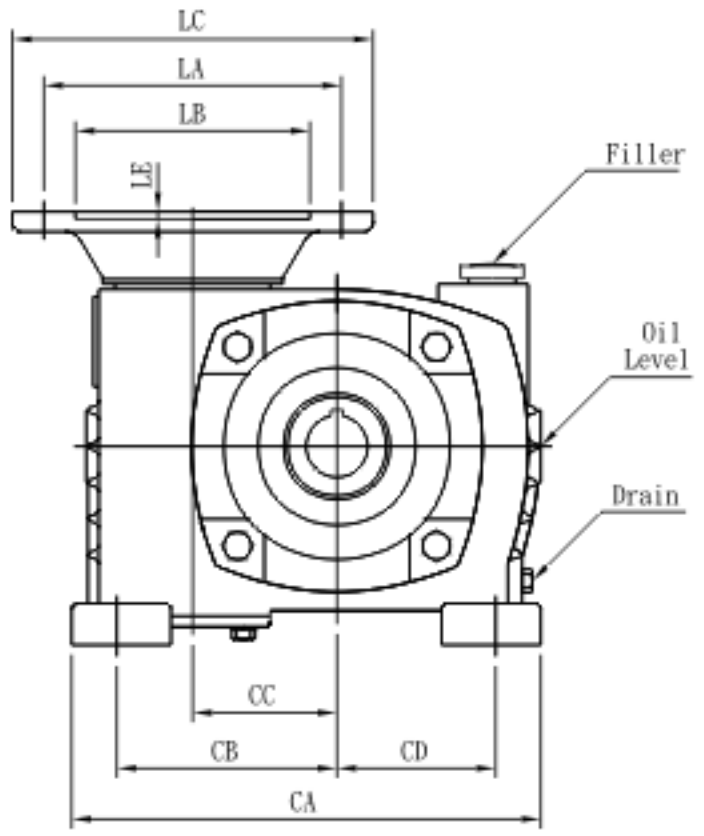
Size	Ratio	A	AB	AC	AD	B	BB	BC	BD	CA	CB	CC	CD	Z
50	1/10	177	70	15	107	110	55	100	125	161	77	50	53	11
60	1/15	214	90	20	124	117	58.5	105	136	205	98	60	67	11
70	1/20	250	110	20	140	130	65	120	155	196	100	70	55	15
80	1/30	265	105	20	160	144	72	125	160	264	125	80	90	15
100	1/40	327	135	25	192	175	87.5	170	205	320	157	100	115	15
120	1/50	385	155	30	230	200	100	180	230	352	170	120	120	18
135	1/60	520	170	30	350	230	115	200	250	390	200	135	130	18

Size	Input Shaft			Output Bore			Ojm (l)	Weight (kg)
	HS	U	T * V	S	W	Y		
50	30	12	4 * 2.5	20	5	22.3	0.3	7
60	40	15	5 * 3.0	25	7	28.0	0.5	11
70	40	18	5 * 3.0	30	8	33.3	1	14
80	50	22	7 * 4.0	35	10	38.5	1.2	19
100	50	25	7 * 4.0	40	12	43.5	2.8	36
120	65	30	7 * 4.0	45	12	48.5	4	53
135	75	35	10 * 4.5	60	15	65.0	5.5	65

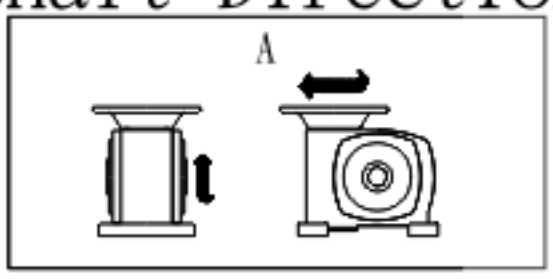


OUTPUT-BORE VIEW





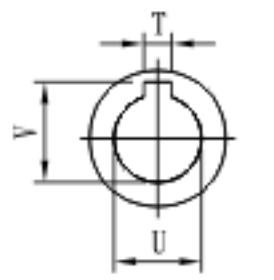
Shaft Direction



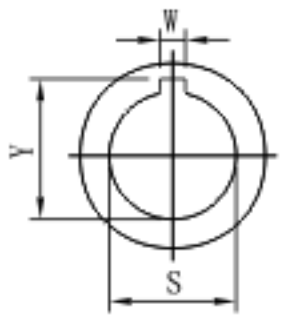
Unit:mm

Size	Ratio	A	AB	AC	B	BB	BC	BD	CA	CB	CC	CD	Z	Input Bore		
														U	T	V
50	1/10	162	70	15	110	55	100	125	161	77	50	53	11	11 14	4 5	12.8 16.3
60	1/15	187	90	20	117	58.5	105	136	205	98	60	67	10	11 14	4 5	12.8 16.3
70	1/20	228 230	110	20	130	65	120	155	196	100	70	55	15	14 19	5 6	16.3 21.8
80	1/30	235	105	20	144	72	125	160	264	125	80	90	15	19 24	6 8	21.8 27.3
100	1/40	277 279	135	25	175	87.5	170	205	320	157	100	115	15	24 28	8 8	27.3 31.3
120	1/50	310	155	30	200	100	180	230	352	170	120	120	18	28	8	31.3
135	1/60	365 388	170	30	230	115	200	250	390	200	135	130	18	28 30	8 10	31.3 41.5

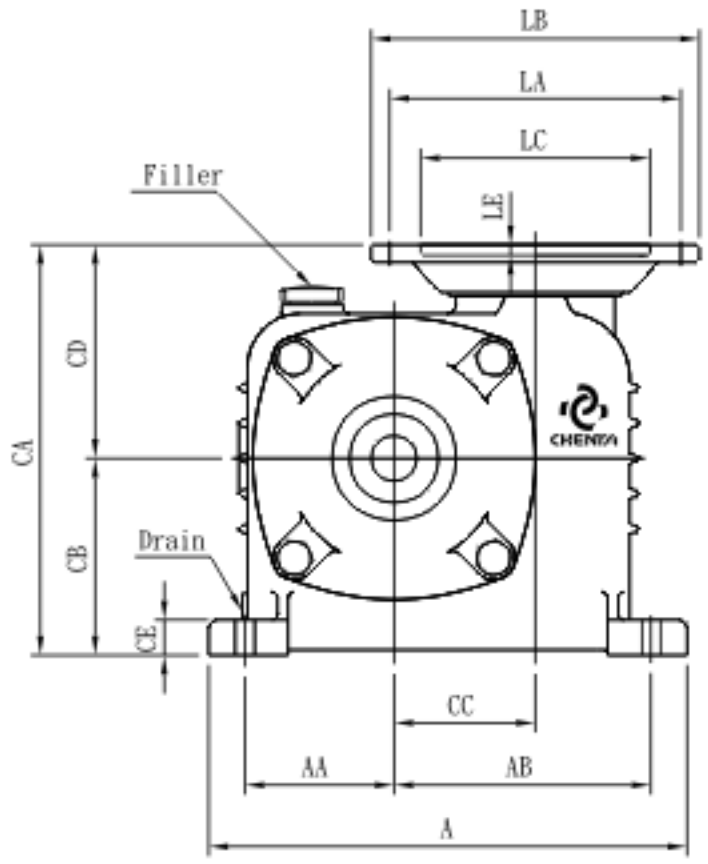
Size	Output Bore			Flange					HP	Ojm (l)	Weight (kg)
	S	W	Y	LA	LB	LC	LE	Z1			
50	20	5	22.3	130	110	160	4	M8	1/4 1/2	0.3	9
60	25	7	28.0	130	110	160	4	M8	1/4 1/2	0.5	13
70	30	8	33.3	130 165	110 130	160 200	4 5	M8 M10	1/2 1	1	16
80	35	10	38.5	165	130	200	5	M10	1 2	1.2	23
100	40	12	43.5	165 215	130 180	200 250	5	M10 M12	2 3	2.8	40
120	45	12	48.5	215	180	250	5	M12	3 5	4	58
135	60	15	65.0	215 265	180 230	250 300	5	M12 15	5 7.5	5.5	70

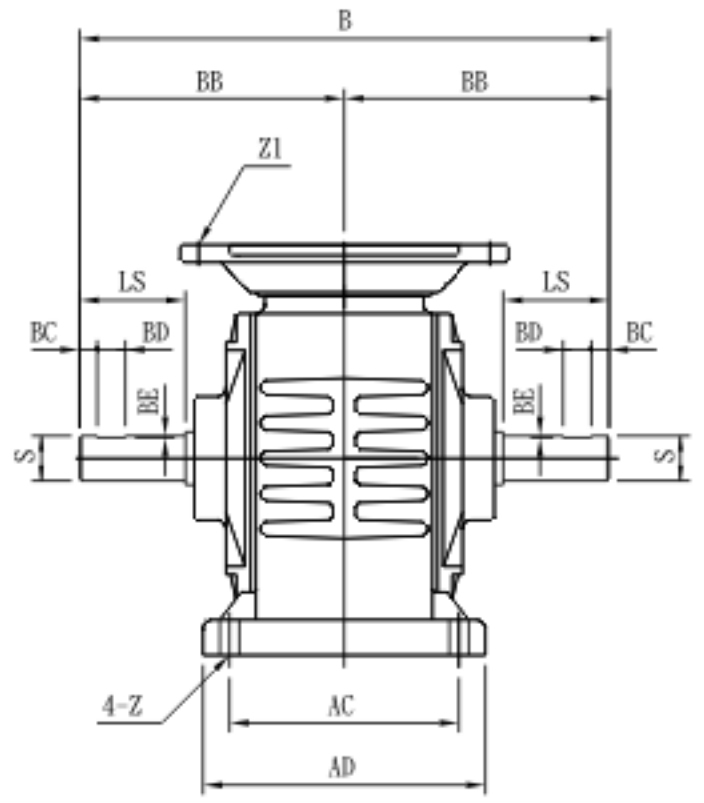


INPUT-BORE VIEW

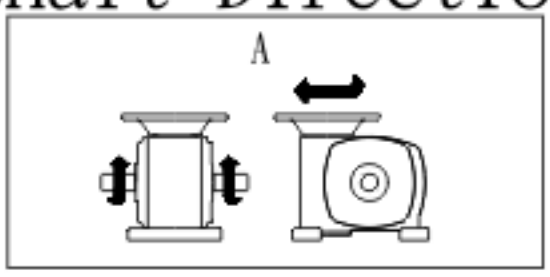


OUTPUT-BORE VIEW





Shaft Direction

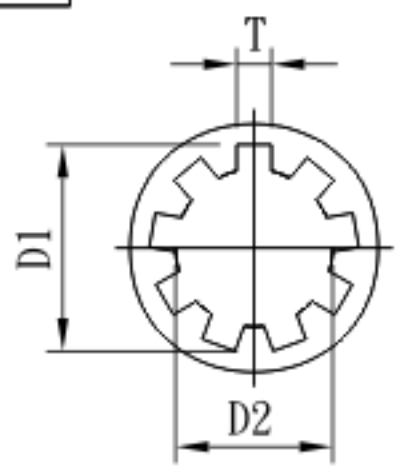


Unit:mm

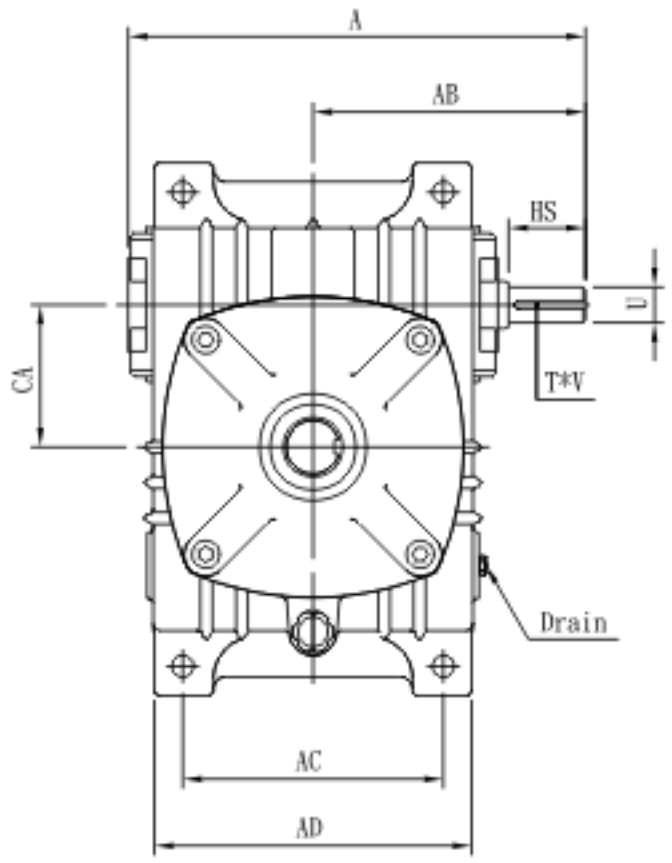
Size	Ratio	A	AA	AB	AC	AD	B	BB	CA	CB	CC	CD	CE	Z	Input Bore		
															D1	D2	T
W80	1/15	265	85	145	130	155	300	155	232	112	80	120	17	1/2"	25	19	4.2

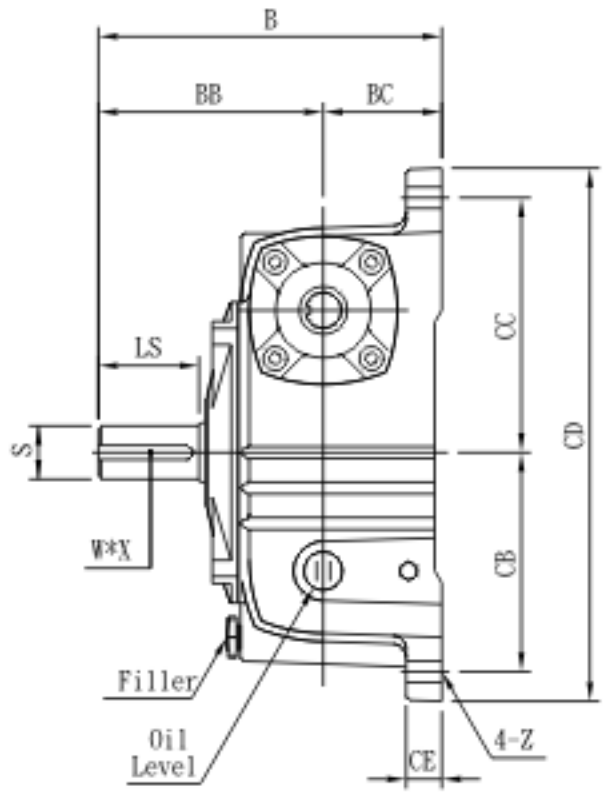
Size	Output Shaft					Flange					HP	Ojm (l)	Weight (kg)
	LS	S	BC	BD	BE	LA	LB	LC	LE	Z1			
W80	60	25.4	10	16	0.9	165	186	130	6	3/8" UNC	1/2	1.2	25

Remark: Output shaft made of stainless steel SUS 304.

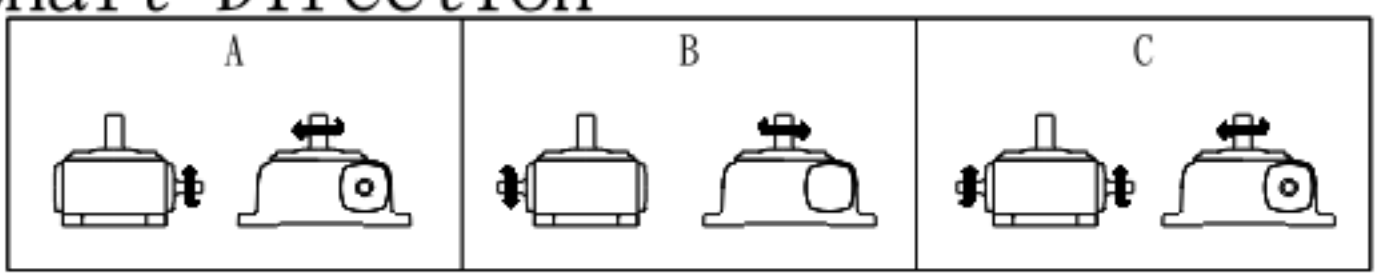


INPUT-BORE VIEW





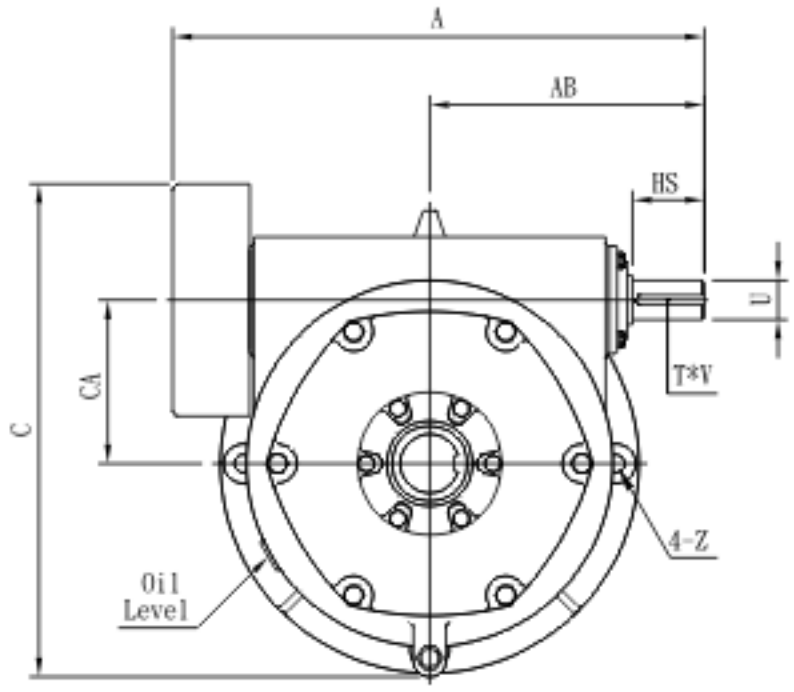
Shaft Direction

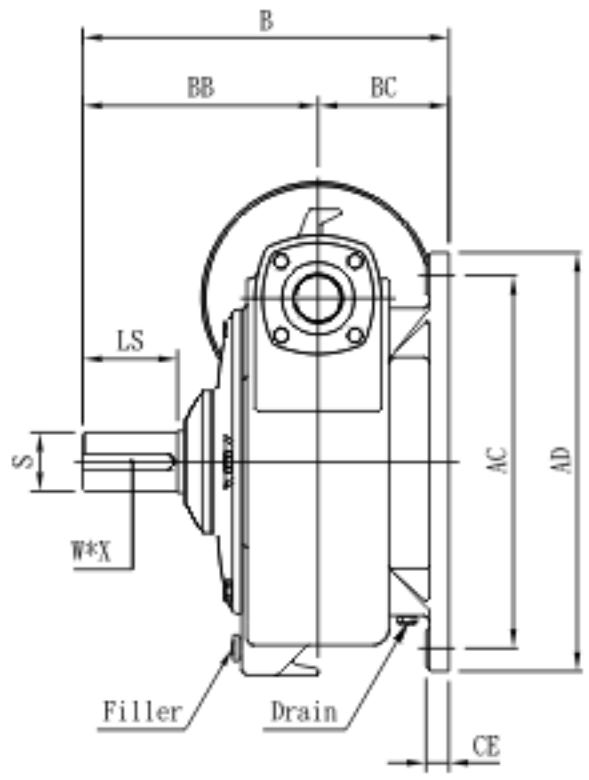


Unit:mm

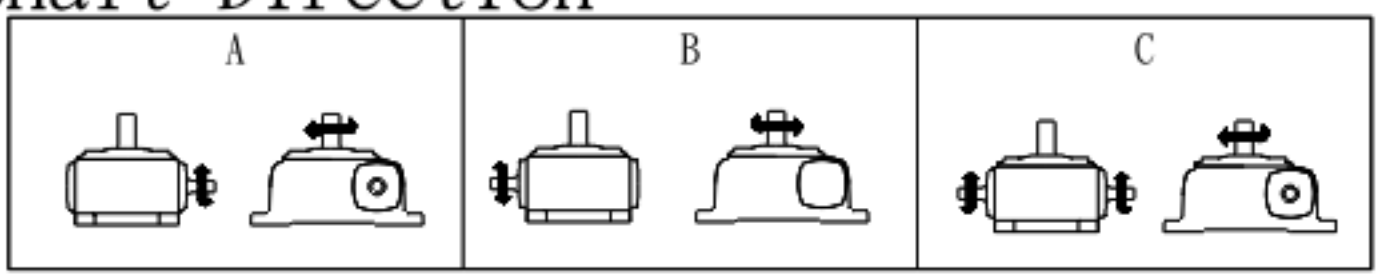
Size	Ratio	A	AB	AC	AD	B	BB	BC	CA	CB	CC	CD	CE	Z
40	1/10	140	83	70	95	120	78	42	40	65	85	180	14	9
50		179	107	90	118	145	95	50	50	93	102	220	18	11
60	1/15	201	124	100	126	165	110	55	60	105	120	260	20	11
70	1/20	235	140	120	156	195	130	65	70	120	135	295	20	15
80	1/30	265	160	140	176	213	140	73	80	130	150	320	20	15
100		328	192	190	226	260	170	90	100	155	180	375	30	15
120	1/40	389	230	220	268	290	190	100	120	185	215	450	30	18
135	1/50	430	260	260	295	320	210	110	135	210	235	495	35	18
155	1/60	479	286	290	336	382	242	140	155	145	265	456	30	20
175		515	308	320	376	398	248	150	175	167	293	516	35	20

Size	Input Shaft			Output Shaft			Ojm (l)	Weight (kg)
	HS	U	T * V	LS	S	W * X		
40	25	12	4 * 2.5	35	16	5 * 3	0.2	4.1
50	30	12	4 * 2.5	40	17	5 * 3	0.4	6.5
60	40	15	5 * 3	50	22	7 * 4	0.6	9
70	40	18	5 * 3	60	28	7 * 4	1.1	13
80	50	22	7 * 4	65	32	10 * 4.5	1.5	18
100	50	25	7 * 4	75	38	10 * 4.5	3.0	42
120	65	30	7 * 4	85	45	12 * 4.5	5.0	66
135	75	35	10 * 4.5	95	55	15 * 5	7.5	90
155	85	40	10 * 4.5	100	60	15 * 5	9.2	115
175	85	45	12 * 4.5	110	65	18 * 6	10.5	155





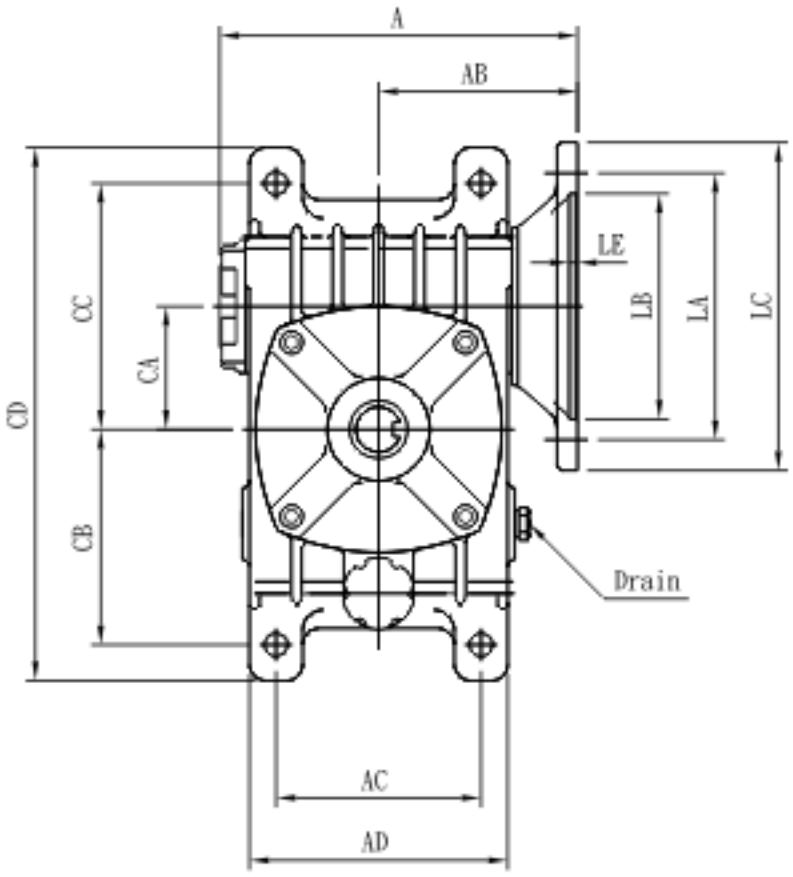
Shaft Direction

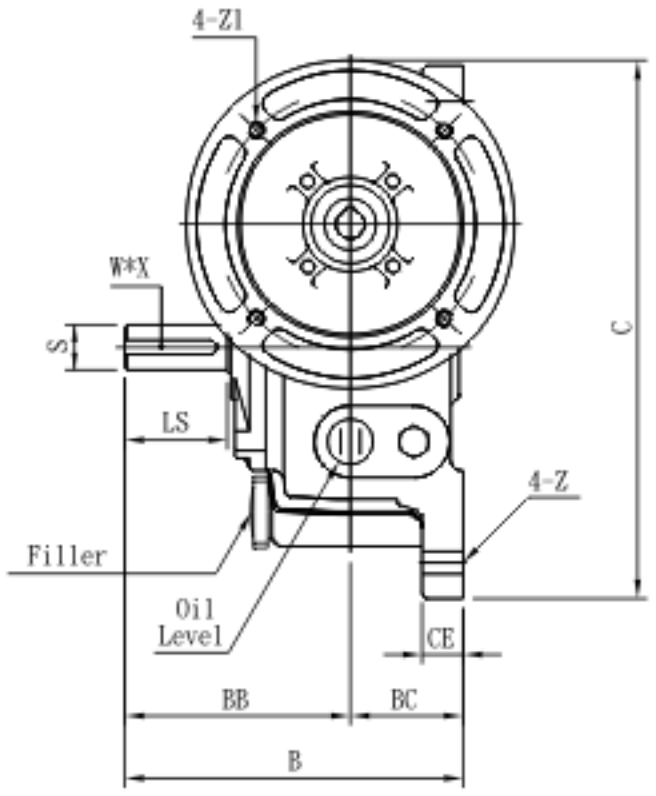


Unit:mm

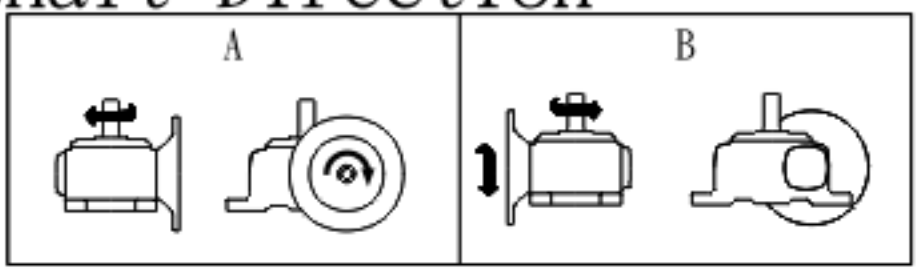
Size	Ratio	A	AB	AC	AD	B	BB	BC	C	CA	CE	Z
200	1/10 1/40	698	357	450	510	495	305	190	643	200	30	22
225	1/15 1/50	709	361	510	580	545	345	200	700	225	35	27
250	1/20 1/50	813	420	570	640	560	360	200	754	250	35	27
300	1/30 1/60	943	495	660	750	645	410	235	853	300	42	36

Size	Input Shaft			Output Shaft			Ojm (l)	Weight (kg)
	HS	U	T * V	LS	S	W * X		
200	95	50	12 * 4.5	125	70	20 * 7	12	220
225	95	55	15 * 5	140	80	20 * 7	17	315
250	110	60	15 * 5	145	90	24 * 8	23	365
300	125	70	18 * 6	170	95	24 * 8	45	520





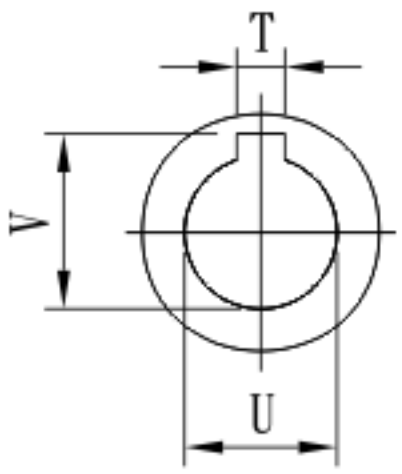
Shaft Direction



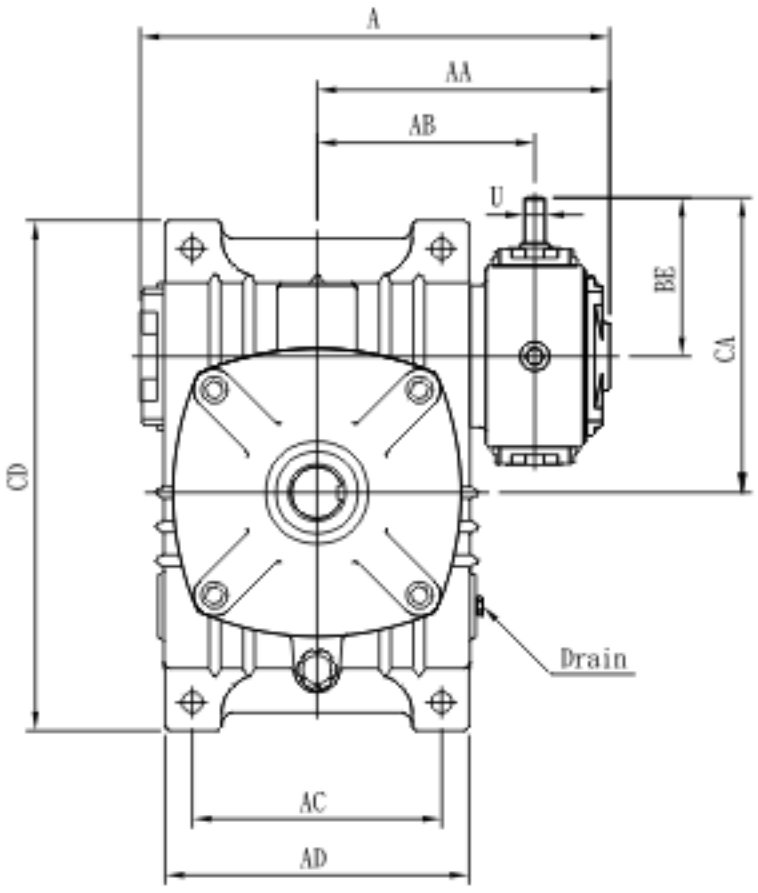
Unit:mm

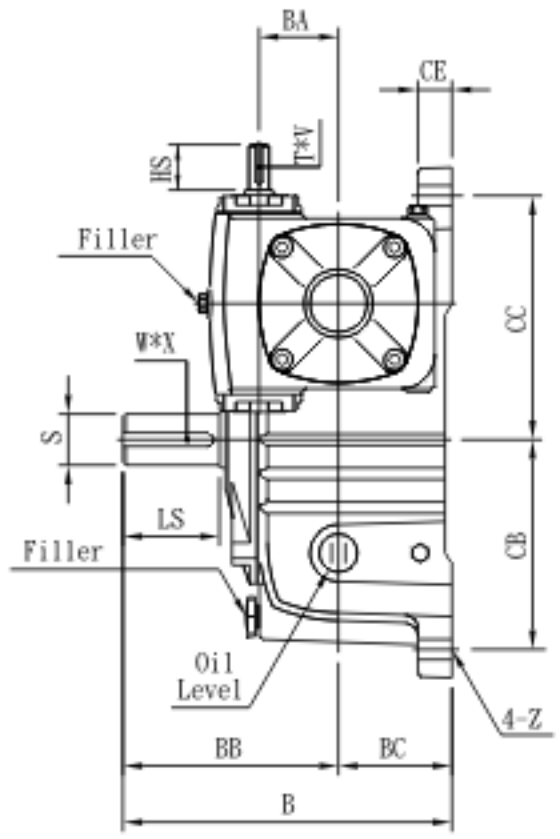
Size	Ratio	A	AB	AC	AD	B	BB	BC	C	CA	CB	CC	CD	CE	Z	Input Bore U	Input Bore T	Input Bore V
50	1/10	214	140	90	116	145	95	50	236	50	93	102	220	18	11	11 14	4 5	12.8 16
60	1/10	177	97	100	126	165	110	55	263	60	105	120	260	20	11	11 14	4 5	12.8 16
70	1/15	213 215	118 120	120	156	195	130	65	290 310	70	120	135	295	20	15	14 19	5 6	16 21.8
80	1/20	235	130	140	176	213	140	73	330	80	130	150	320	20	15	19 24	6 8	21.8 27.3
100	1/30	273 278	140 142	190	226	260	170	90	375 400	100	155	180	375	30	15	24 28	8 8	27.3 31.3
120	1/40	339	180	220	266	290	190	100	455	120	185	215	450	30	18	28	8	31.3
135	1/50	370 378	195 218	260	306	320	210	110	495 520	135	210	235	495	30	18	28 38	8 10	31.3 41.3
155	1/60	430	236	290	336	382	242	140	521	155	145	265	456	30	20	38	10	41.3
175	1/60	420 465	212 255	320	376	398	248	150	552 577	175	167	293	516	35	20	38 42	10 12	41.3 45.3

Size	Output Shaft LS	S	W * X	Flange LA	LB	LC	LE	Z1	HP	Ojm (l)	Weight (kg)
50	40	17	5 * 3	130	110	160	4	M8	1/4 1/2	0.4	6.5
60	50	22	7 * 4	130	110	160	4	M8	1/4 1/2	0.6	9
70	60	28	7 * 4	130 165	110 130	160 210	4 5	M8 M10	1/2 1	1.1	13
80	65	32	10 * 4.5	165	130	200	5	M10	1 2	1.5	18
100	75	38	10 * 4.5	165 215	130 180	200 250	5	M10 M12	2 3	3.0	42
120	85	45	12 * 4.5	215	180	250	5	M10	3 5	5.0	66
135	95	55	15 * 5	215 265	180 230	250 300	5	M12 15	5 7.5	7.5	90
155	100	60	15 * 5	265	230	300	4.5	15	7.5 10	9.2	115
175	110	65	8 * 16	265 300	230 250	300 350	5 6	M12 19	10 15	10.5	155

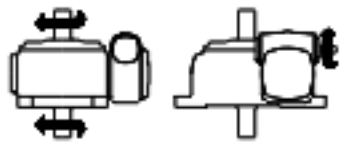
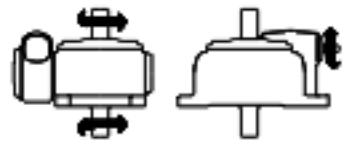


INPUT-BORE VIEW





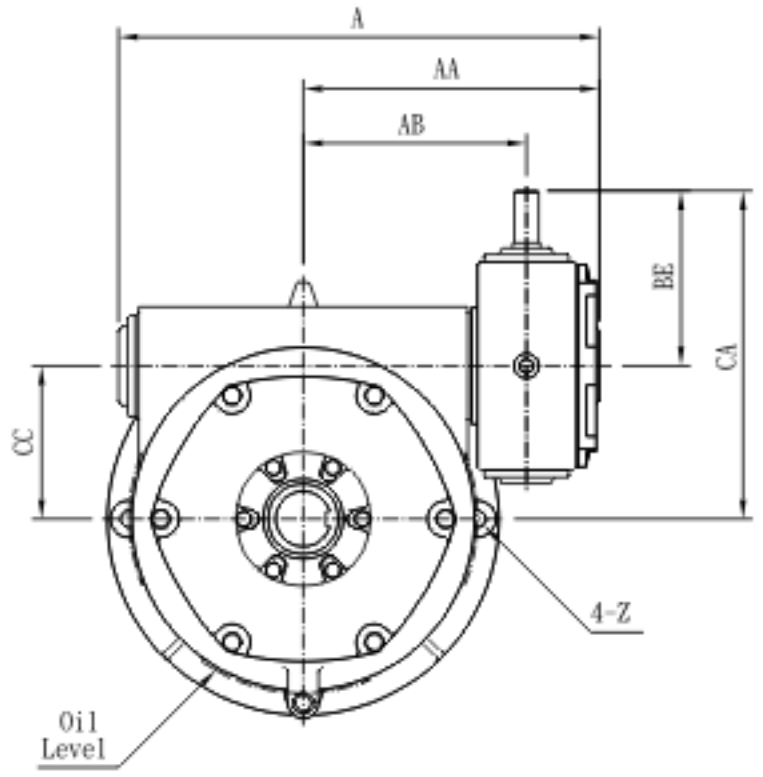
Shaft Direction

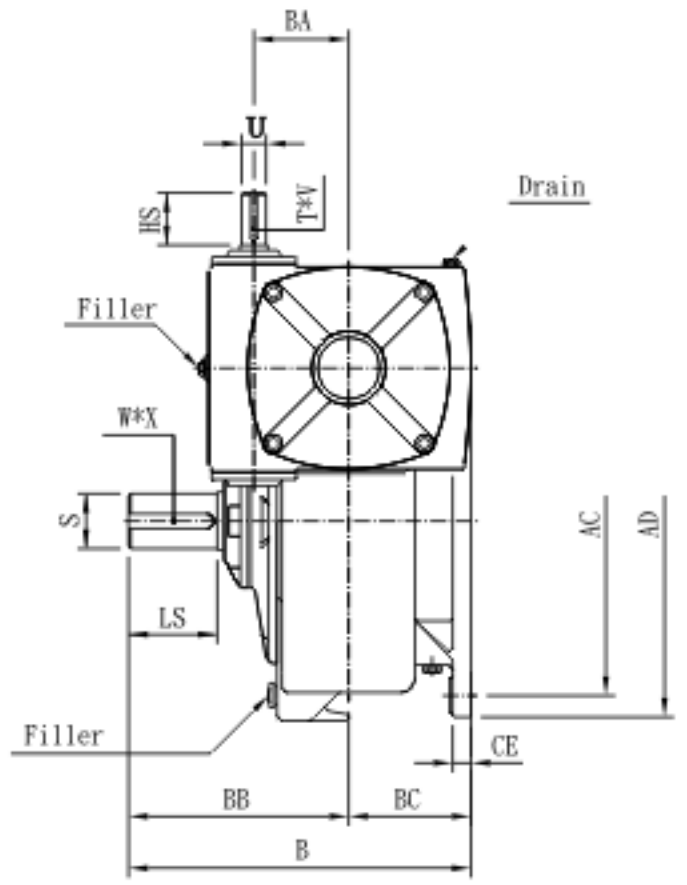
A	B	C	D
			

Unit:mm

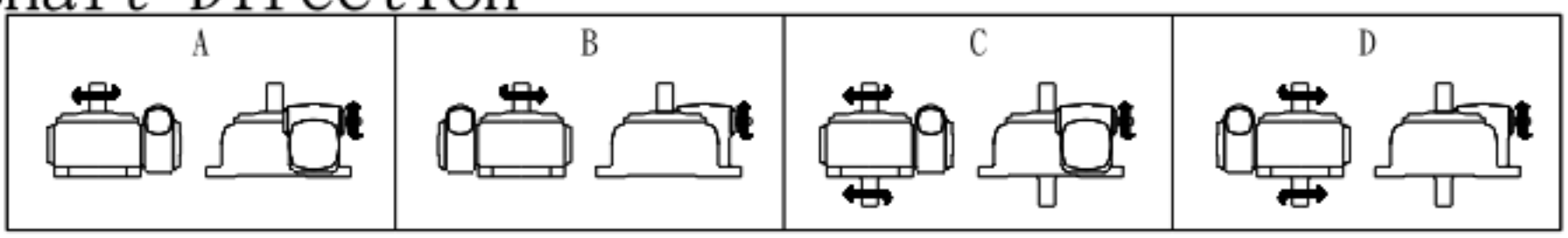
Size	Ratio	A	AA	AB	AC	AD	B	BA	BB	BC	BE	CA	CB	CC	CD	CE	Z
50-80	1/100 ~ 1/3600	289	184	132	140	176	213	50	140	73	107	187	130	150	320	20	15
60-100		352	219	161	190	226	260	60	170	90	124	224	155	180	375	30	15
70-120		417	258	192	220	266	290	70	190	100	140	260	185	215	450	30	18
80-135		462	287	211	260	295	320	80	210	110	160	295	210	235	495	35	18
100-155		540	349	257	290	336	382	100	242	140	192	347	145	265	456	30	20
120-175		585	376	275	320	376	398	120	248	150	230	405	167	293	516	35	20

Size	Input Shaft			Output Shaft			Ojm (l)	Weight (kg)
	HS	U	T * V	LS	S	W * X		
50-80	30	12	4 * 2.5	65	32	10 * 4.5	1.8	24
60-100	40	15	5 * 3	75	38	10 * 4.5	3.8	52
70-120	40	18	5 * 3	85	45	12 * 4.5	6	75
80-135	50	22	7 * 4	95	55	15 * 5	8.5	105
100-155	50	25	7 * 4	100	60	15 * 5	12	135
120-175	65	30	7 * 4	110	65	18 * 6	15	192





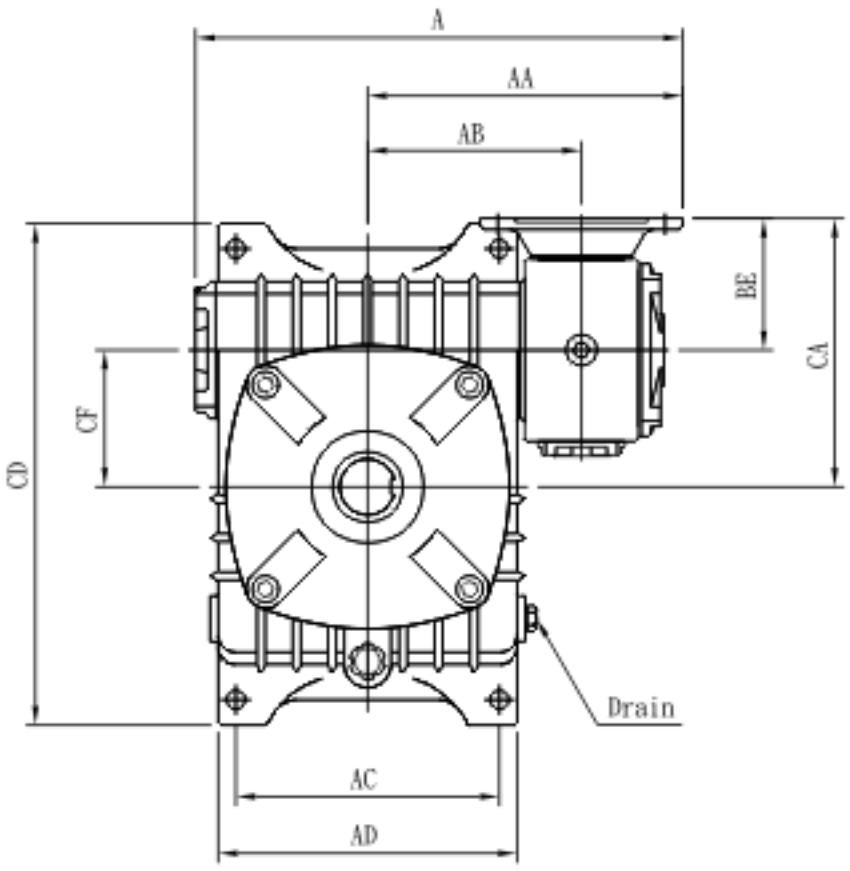
Shaft Direction

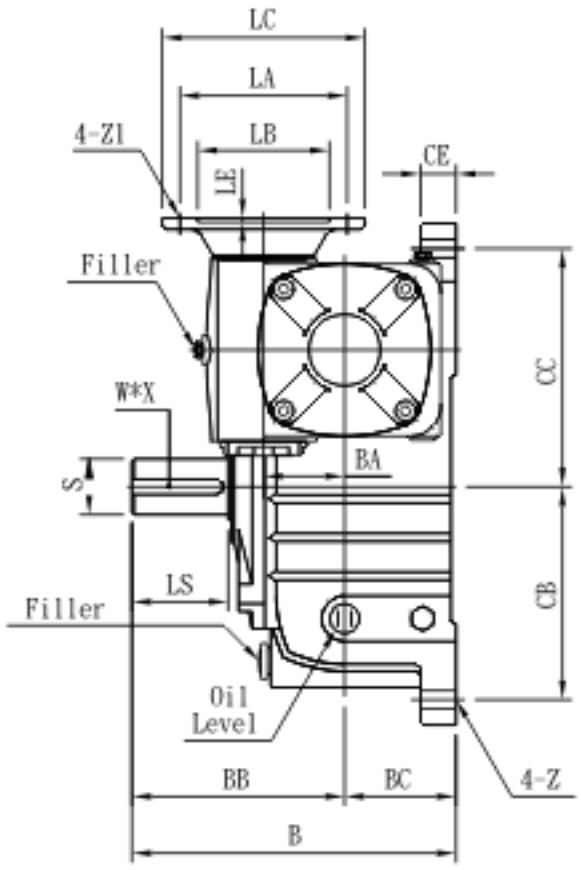


Unit:mm

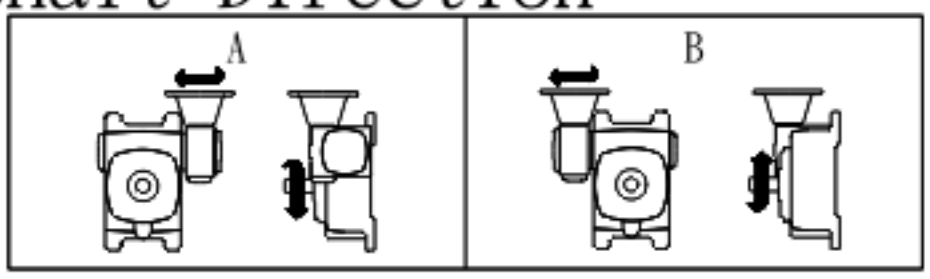
Size	Ratio	A	AA	AB	AC	AD	B	BA	BB	BC	BE	CA	CC	CE	Z
120-200	1/100 ~ 1/3600	653	414	312.5	450	510	495	120	305	190	230	430	200	30	22
135-225		672	425	315	510	580	545	135	345	200	260	485	225	35	27
155-250		786	483	365	570	640	560	155	360	200	286	536	250	35	27
175-300		962	601	473	660	750	645	175	410	235	308	608	300	42	36

Size	Input Shaft			Output Shaft			Ojm (l)	Weight (kg)
	HS	U	T * V	LS	S	W * X		
120-200	65	30	7 * 4	125	70	20 * 7	19	270
135-225	75	35	10 * 4.5	140	80	20 * 7	24	375
155-250	85	40	10 * 4.5	145	90	24 * 8	32	430
175-300	85	45	12 * 4.5	170	95	24 * 8	55	584





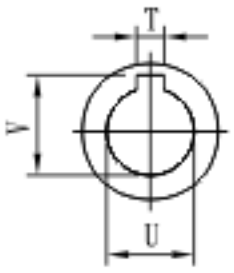
Shaft Direction



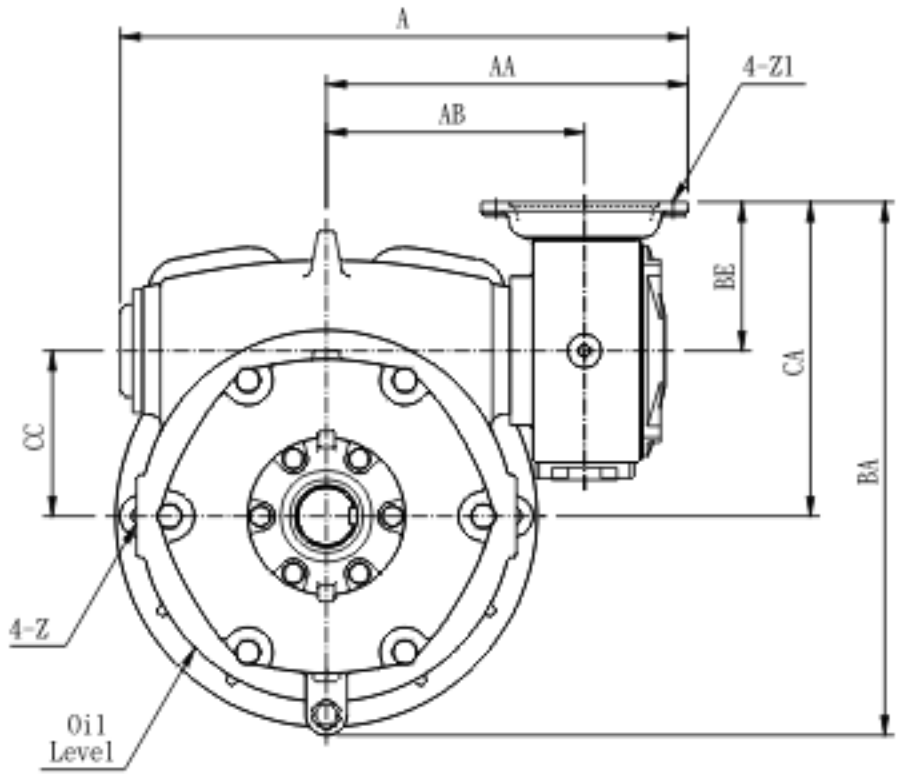
Unit:mm

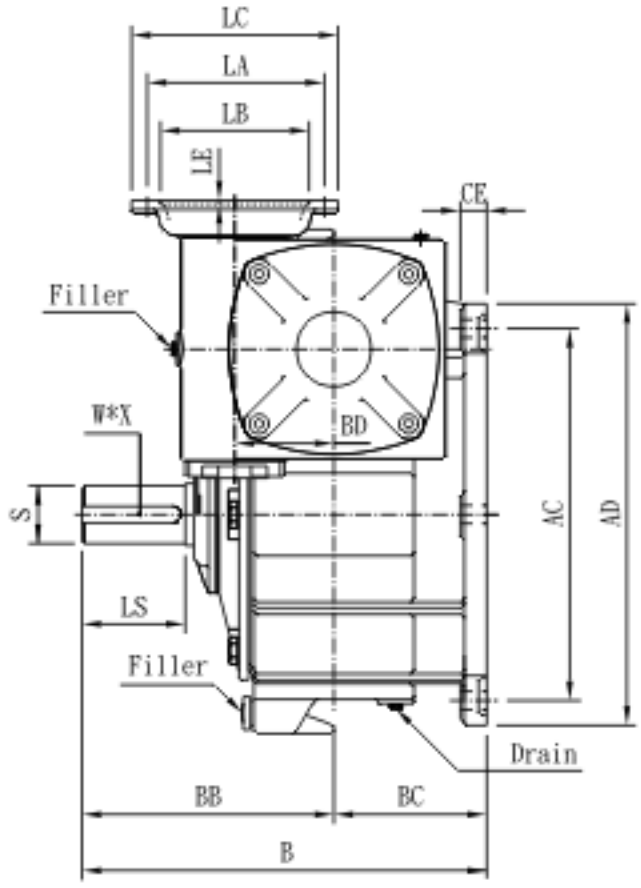
Size	Ratio	A	AA	AB	AC	AD	B	BA	BB	BC	BE	CA	CB	CC	CD	CE	CF	Z
50-80	1/100 ~ 1/3600	317	212	132	140	176	213	50	140	73	140	220	130	150	320	20	80	15
60-100		378	241	161	190	226	260	60	170	90	97	197	155	180	375	30	100	15
70-120		428 448	272 292	192	220	266	290	70	190	100	118 120	238 240	185	215	450	30	120	18
80-135		480	311	211	260	295	320	80	210	110	130	265	210	235	495	30	135	18
100-155		550 574	357 382	257	290	336	382	100	242	140	140 142	277 279	145	265	456	30	155	20
120-175		607	400	275	320	376	398	120	248	150	180	355	167	293	516	35	175	20

Size	Input Bore			Output Shaft			Flange					HP	Oil (1)	Weight (kg)
	U	T	V	LS	S	W * X	LA	LB	LC	LE	Z1			
50-80	11 14	4 5	12.8 16	65	32	10 * 4.5	130	110	160	4	M8	1/4 1/2	1.8	24
60-100	11 14	4 5	12.8 16	75	38	10 * 4.5	130	110	160	4	M8	1/4 1/2	3.8	52
70-120	14 19	5 6	16 21.8	85	45	12 * 4.5	130 165	110 130	160 200	4 5	M8 M10	1/2 1	6	75
80-135	19 24	6 8	21.8 27.3	95	55	15 * 5	165	130	200	5	M10	1 2	8.5	105
100-155	24 28	8 8	27.3 31.3	100	60	15 * 5	165 215	130 180	200 250	5	M10 M12	2 3	12	135
120-175	28	8	31.3	110	65	18 * 6	215	180	250	5	M10	3 5	15	192

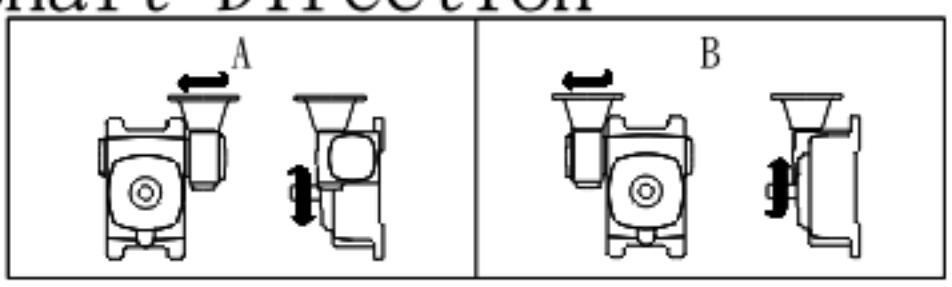


INPUT-BORE VIEW





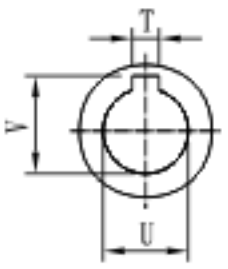
Shaft Direction



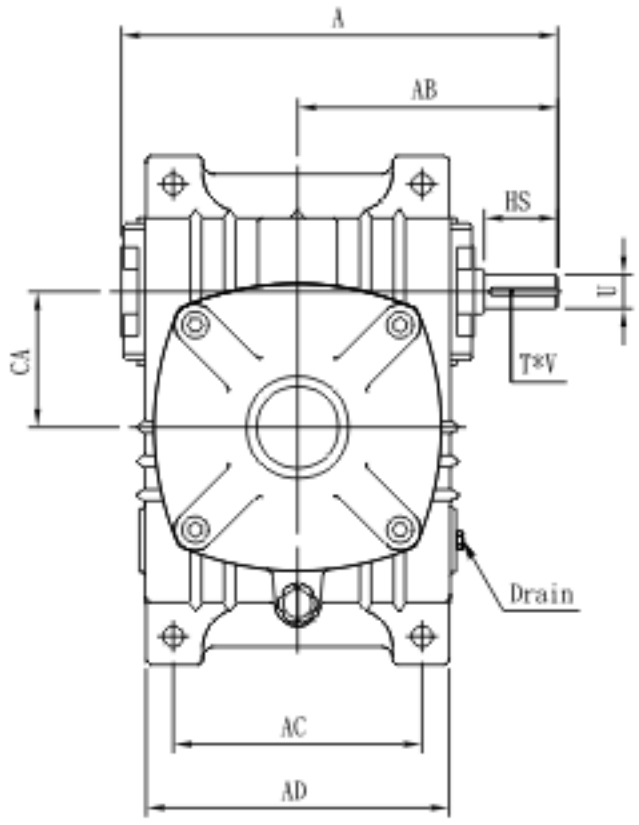
Unit:mm

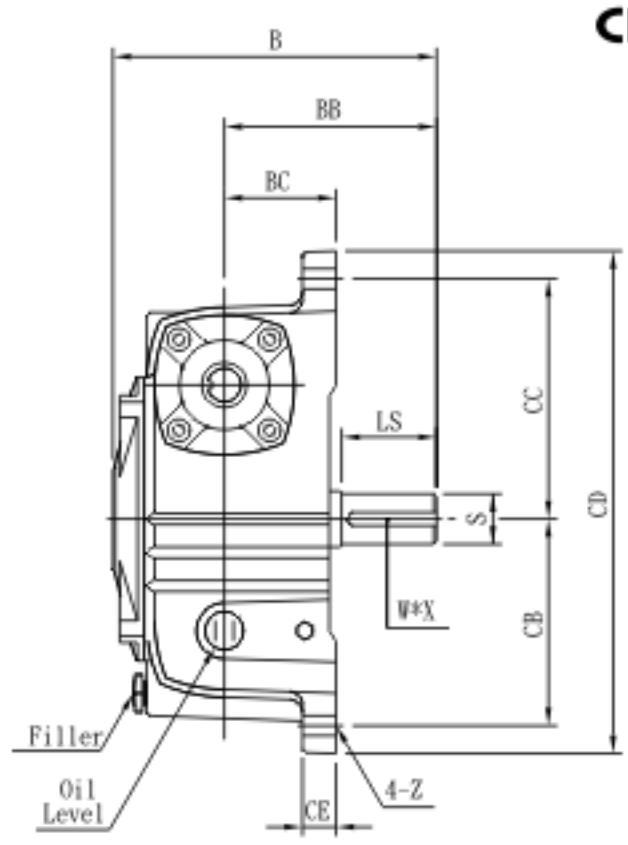
Size	Ratio	A	AA	AB	AC	AD	B	BA	BB	BC	BD	BE	CA	CC	CE	Z
120-200	1/100 ~ 1/3600	687	437	312	450	510	495	645	305	190	120	180	380	200	30	22
135-225		692 717	440 465	315	510	580	545	719 742	345	200	135	195 218	420 443	225	35	27
155-250		817	515	365	570	640	560	812	360	200	155	236	486	250	35	27
175-300		983 1008	623 648	473	660	750	645	890 930	410	235	175	212 255	512 555	300	42	36

Size	Input Bore			Output Shaft			Flange					HP	Ojm (l)	Weight (kg)
	U	T	V	LS	S	W * X	LA	LB	LC	LE	Z1			
120-200	28	8	31.3	125	70	20 * 7	215	180	250	5	M12	3 5	19	270
135-225	28 38	8 10	31.3 41.3	140	80	20 * 7	215 265	180 230	250 300	5	M12 15	5 7.5	24	375
155-250	38	10	41.3	145	90	24 * 8	265	230	300	5	15	7.5 10	32	430
175-300	38 42	10 12	41.3 45.3	170	95	24 * 8	265 300	230 250	300 350	5 6	M12 19	10 15	55	584

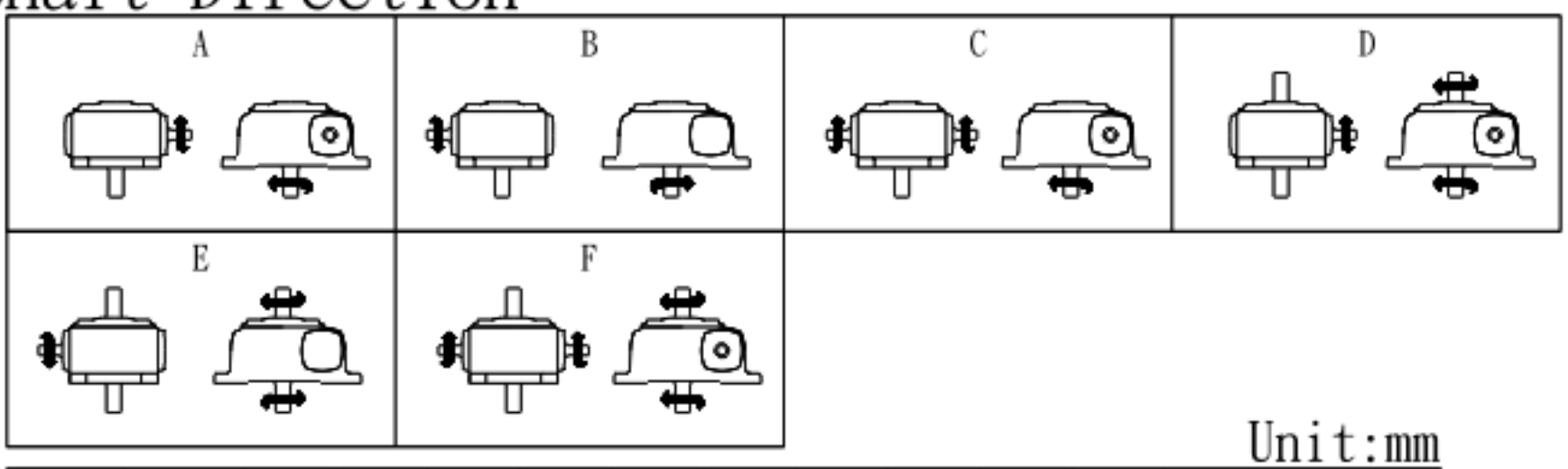


INPUT-BORE VIEW





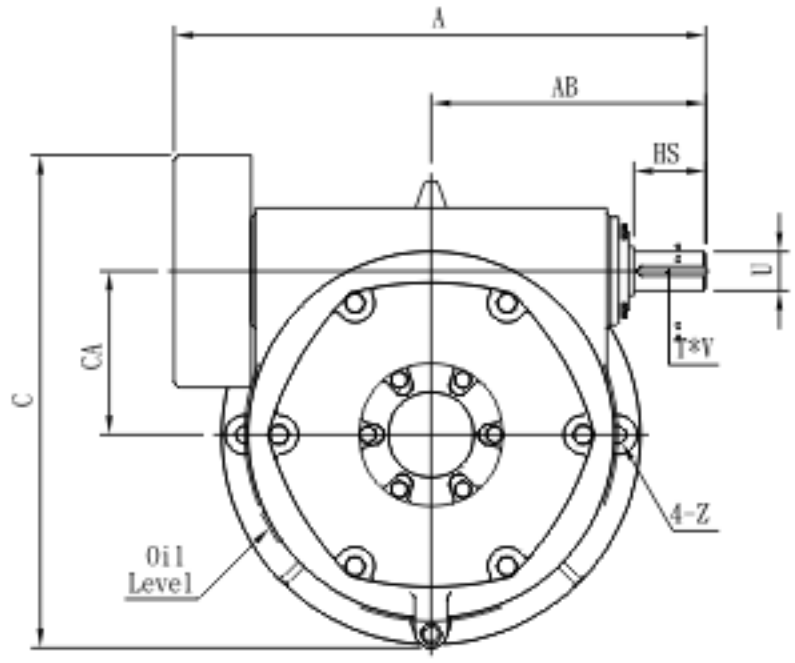
Shaft Direction

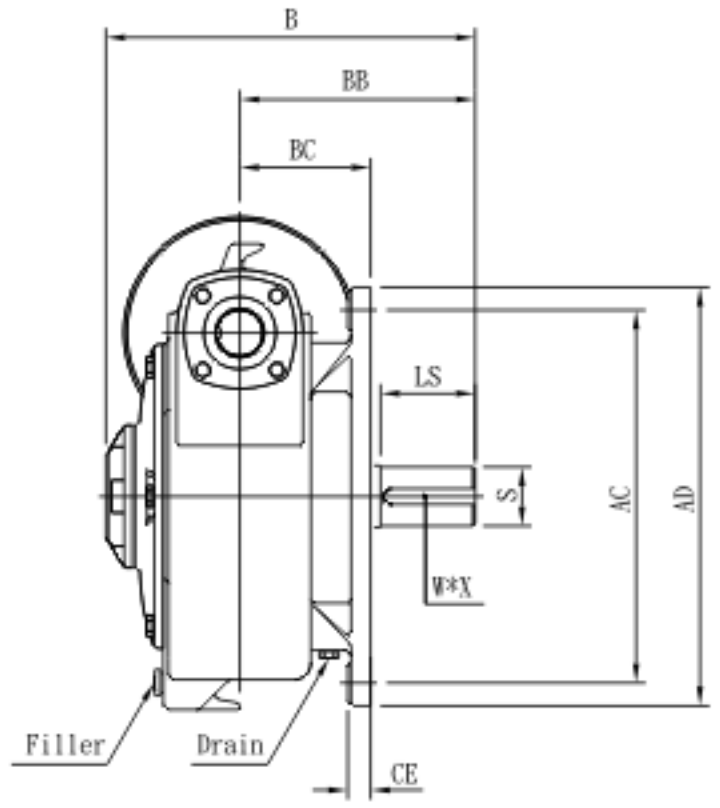


Unit:mm

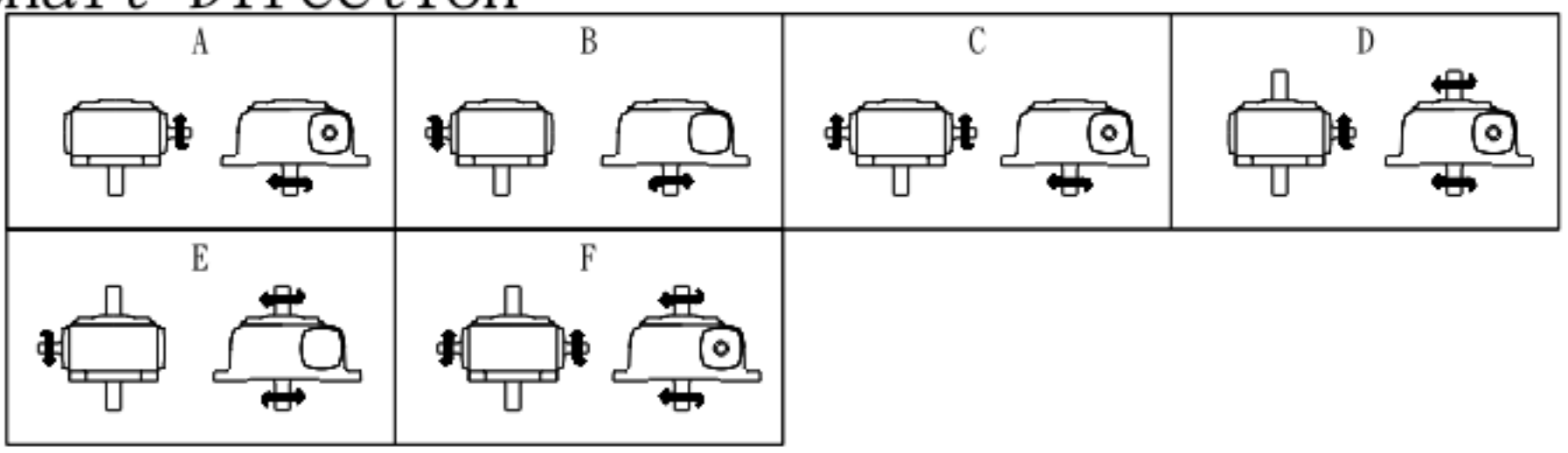
Size	Ratio	A	AB	AC	AD	B	BB	BC	CA	CB	CC	CD	CE	Z
40	1/10	140	83	70	95	118	78	42	40	65	85	180	14	9
50		179	107	90	118	145	95	50	50	93	102	220	18	11
60	1/15	201	124	100	126	168	110	55	60	105	120	260	20	11
70	1/20	235	140	120	156	193	130	65	70	120	135	295	20	15
80	1/30	265	160	140	176	212	140	73	80	130	150	320	20	15
100		328	192	190	226	250	170	90	100	155	180	375	30	15
120	1/40	389	230	220	268	284	190	100	120	185	215	450	30	18
135	1/50	435	260	260	295	322	210	110	135	210	235	495	35	18
155	1/60	479	286	290	336	377	242	140	155	145	265	456	30	20
175		515	308	320	376	382	248	150	175	167	293	516	35	20

Size	Input Shaft			Output Shaft			Ojm (l)	Weight (kg)
	HS	U	T * V	LS	S	W * X		
40	25	12	4 * 2.5	35	16	5 * 3	0.2	4.1
50	30	12	4 * 2.5	40	17	5 * 3	0.4	6.5
60	40	15	5 * 3	50	22	7 * 4	0.6	9
70	40	18	5 * 3	60	28	7 * 4	1.1	13
80	50	22	7 * 4	65	32	10 * 4.5	1.5	18
100	50	25	7 * 4	75	38	10 * 4.5	3.0	42
120	65	30	7 * 4	85	45	12 * 4.5	5.0	66
135	75	35	10 * 4.5	95	55	15 * 5	7.5	90
155	85	40	10 * 4.5	100	60	15 * 5	9.2	115
175	85	45	12 * 4.5	110	65	18 * 6	10.5	155





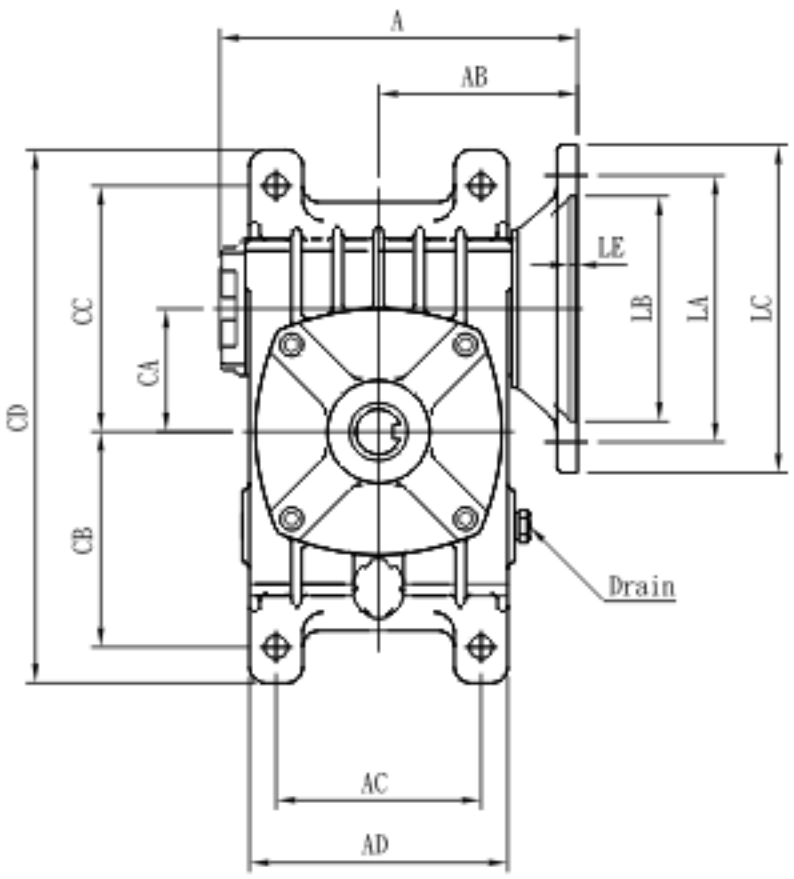
Shaft Direction

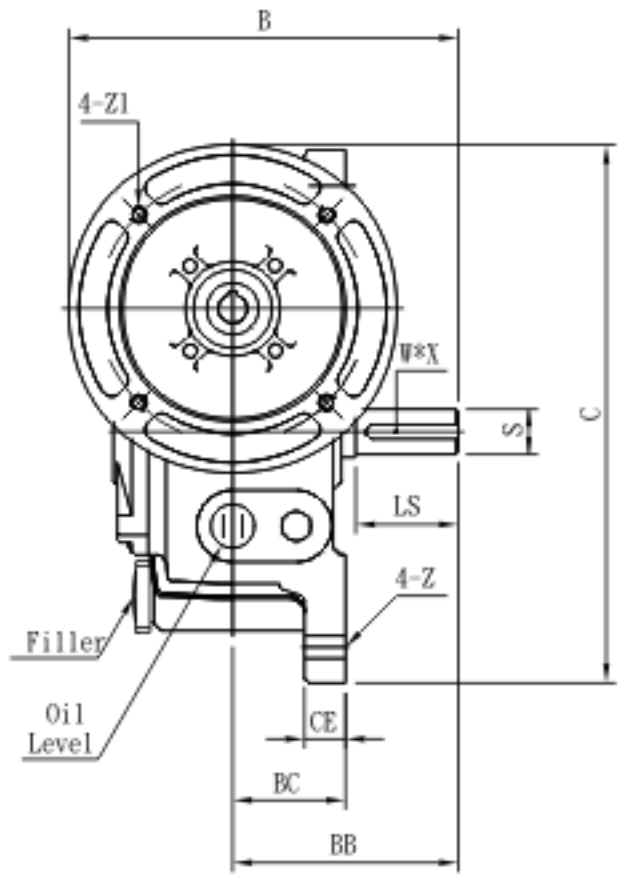


Unit:mm

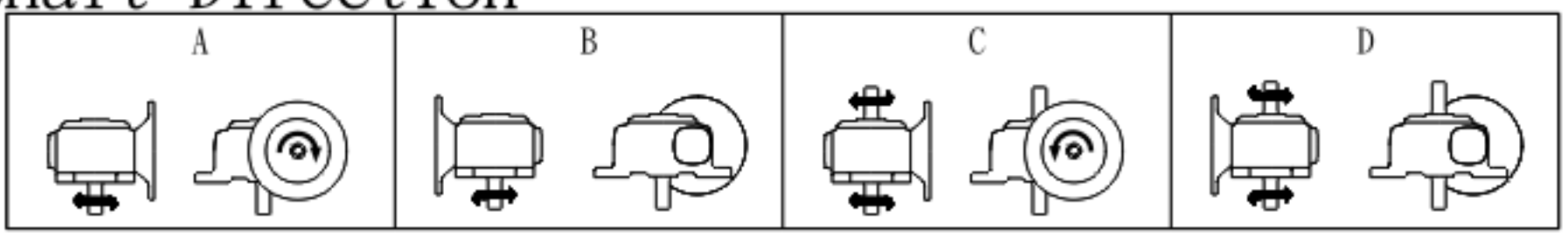
Size	Ratio	A	AB	AC	AD	B	BB	BC	C	CA	CE	Z
200	1/10 1/40	698	357	450	510	483	305	190	643	200	30	22
225	1/15	709	361	510	580	530	345	200	700	225	35	27
250	1/20 1/50	813	420	570	640	565	360	200	754	250	35	27
300	1/30 1/60	943	495	660	750	623	410	235	853	300	42	36

Size	Input Shaft			Output Shaft			Ojm (l)	Weight (kg)
	HS	U	T * V	LS	S	W * X		
200	95	50	12 * 4.5	125	70	20 * 7	12	220
225	95	55	15 * 5.0	140	80	20 * 7	17	315
250	110	60	15 * 5.0	145	90	24 * 8	23	365
300	125	70	18 * 6.0	170	95	24 * 8	45	520





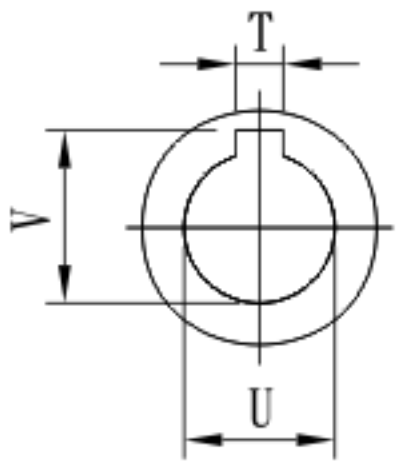
Shaft Direction



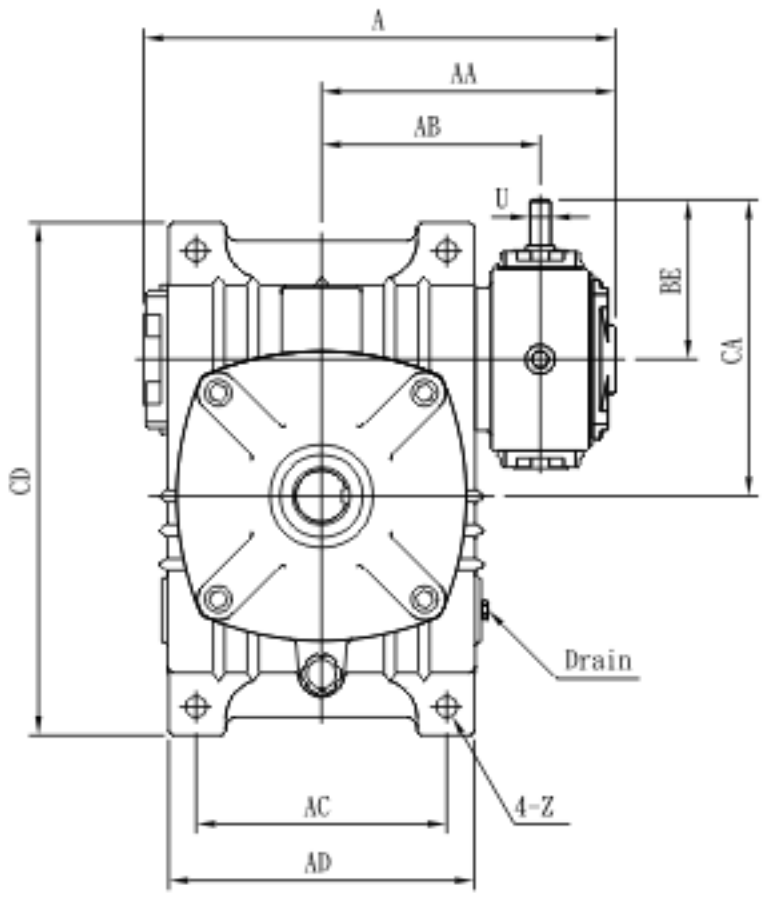
Unit:mm

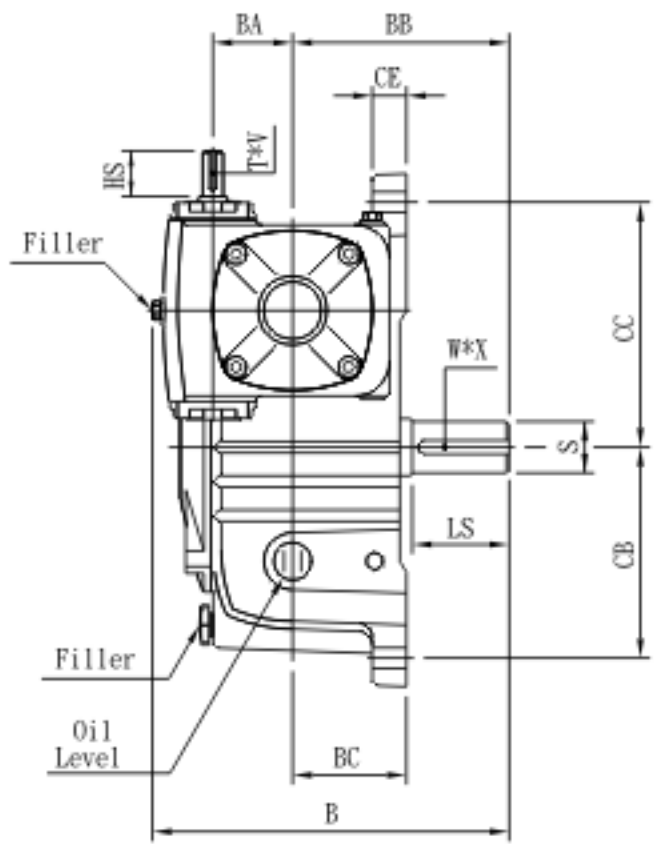
Size	Ratio	A	AB	AC	AD	B	BB	BC	C	CA	CB	CC	CD	CE	Z	Input Bore U	Input Bore T	Input Bore V
50	1/10	214	140	90	116	175	95	50	236	50	93	102	220	18	11	11 14	4 5	12.8 16
60	1/15	177	97	100	126	190	110	55	263	60	105	120	260	20	11	11 14	4 5	12.8 16
70	1/20	213 215	118 120	120	156	210 230	130	65	290 310	70	120	135	295	20	15	14 19	5 6	16 21.8
80	1/30	235	130	140	176	240	140	73	330	80	130	150	320	20	15	19 24	6 8	21.8 27.3
100	1/40	273 278	140 142	190	226	270 295	170	90	375 400	100	155	180	375	30	15	24 28	8 8	27.3 31.3
120	1/50	339	180	220	266	315	190	100	455	120	185	215	450	30	18	28	8	31.3
135	1/60	370 378	195 218	260	306	335 360	210	110	495 520	135	210	235	495	30	18	28 38	8 10	31.3 41.3
155		430	236	290	336	392	242	140	521	155	145	265	456	30	20	38	10	41.3
175		420 465	212 255	320	376	398 423	248	150	552 577	175	167	293	516	35	20	38 42	10 12	41.3 45.3

Size	Output Shaft LS	S	W * X	Flange LA	LB	LC	LE	Z1	HP	Ojm (l)	Weight (kg)
50	40	17	5 * 3	130	110	160	4	M8	1/4 1/2	0.4	6.5
60	50	22	7 * 4	130	110	160	4	M8	1/4 1/2	0.6	9
70	60	28	7 * 4	130 165	110 130	160 210	4 5	M8 M10	1/2 1	1.1	13
80	65	32	10 * 4.5	165	130	200	5	M10	1 2	1.5	18
100	75	38	10 * 4.5	165 215	130 180	200 250	5	M10 M12	2 3	3.0	42
120	85	45	12 * 4.5	215	180	250	5	M10	3 5	5.0	66
135	95	55	15 * 5	215 265	180 230	250 300	5	M12 15	5 7.5	7.5	90
155	100	60	15 * 5	265	230	300	4.5	15	7.5 10	9.2	115
175	110	65	8 * 16	265 300	230 250	300 350	5 6	M12 19	10 15	10.5	155

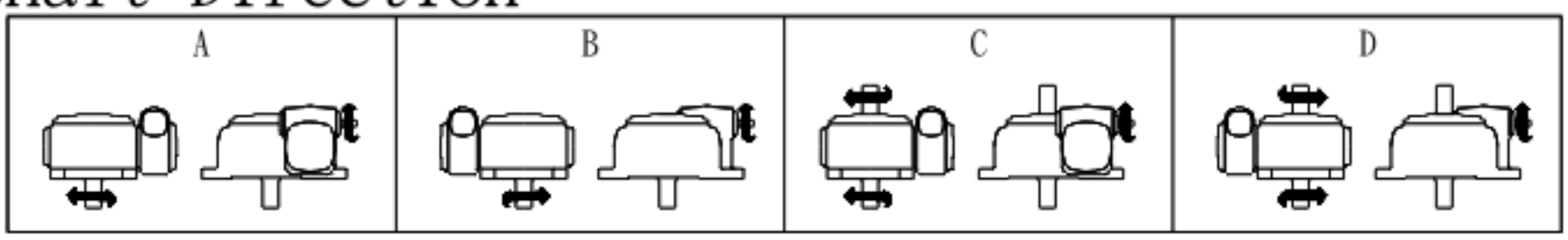


INPUT-BORE VIEW





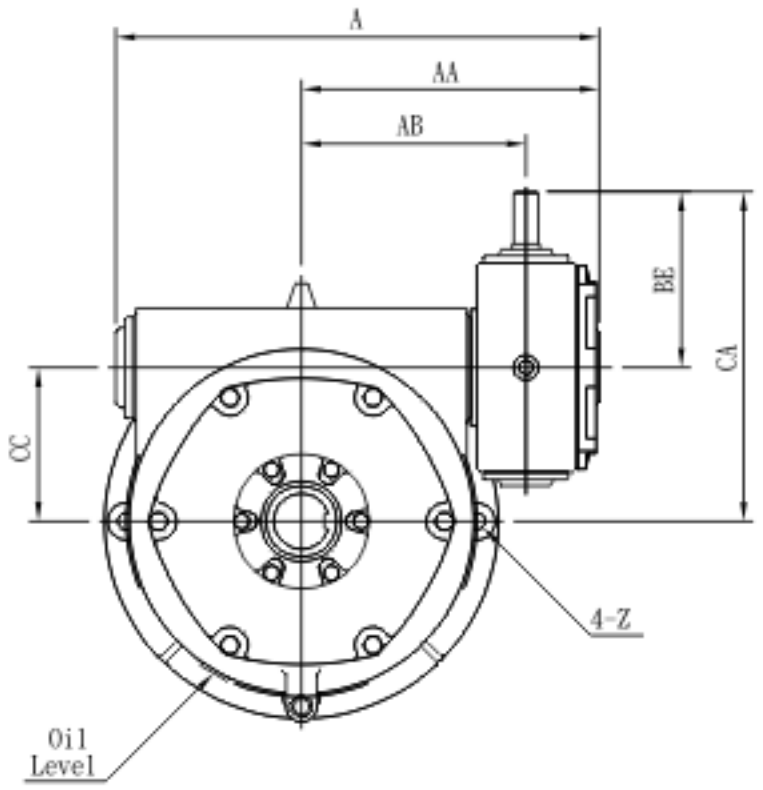
Shaft Direction

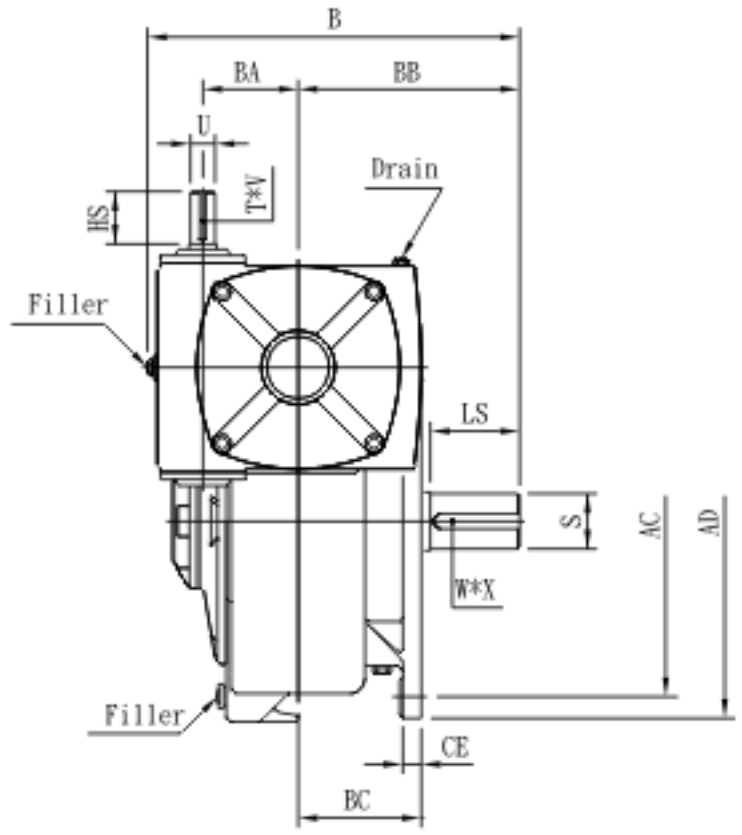


Unit:mm

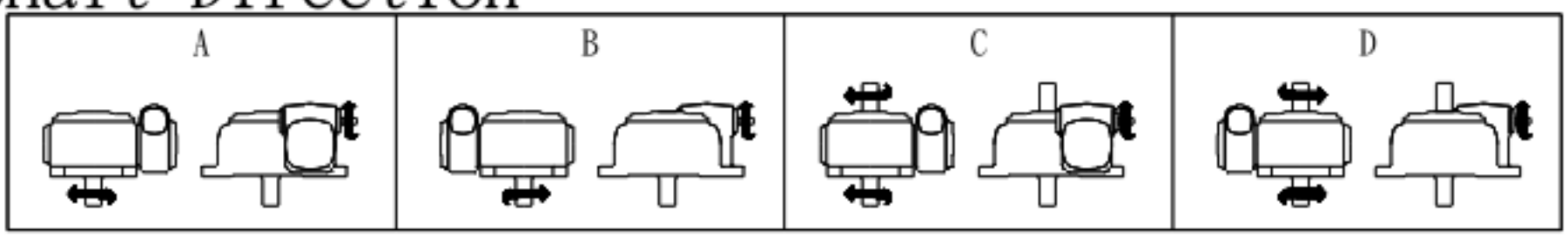
Size	Ratio	A	AA	AB	AC	AD	B	BA	BB	BC	BE	CA	CB	CC	CD	CE	Z
50-80	1/100 ≀ 1/3600	289	184	132	140	176	229	50	229	73	107	187	130	150	320	20	15
60-100		352	219	161	190	226	285	60	285	90	124	224	155	180	375	30	15
70-120		417	258	192	220	266	313	70	313	100	140	260	185	215	450	30	18
80-135		462	287	211	260	295	357	80	357	110	160	295	210	235	495	35	18
100-155		540	349	257	290	336	420	100	242	140	192	347	145	265	456	30	20
120-175		585	376	275	320	376	444	120	248	150	230	405	167	293	516	35	20

Size	Input Shaft			Output Shaft			Oil (l)	Weight (kg)
	HS	U	T * V	LS	S	W * X		
50-80	30	12	4 * 2.5	65	32	10 * 4.5	1.8	24
60-100	40	15	5 * 3	75	38	10 * 4.5	3.8	52
70-120	40	18	5 * 3	85	45	12 * 4.5	6	75
80-135	50	22	7 * 4	95	55	15 * 5	8.5	105
100-155	50	25	7 * 4	100	60	15 * 5	12	135
120-175	65	30	7 * 4	110	65	18 * 6	15	192





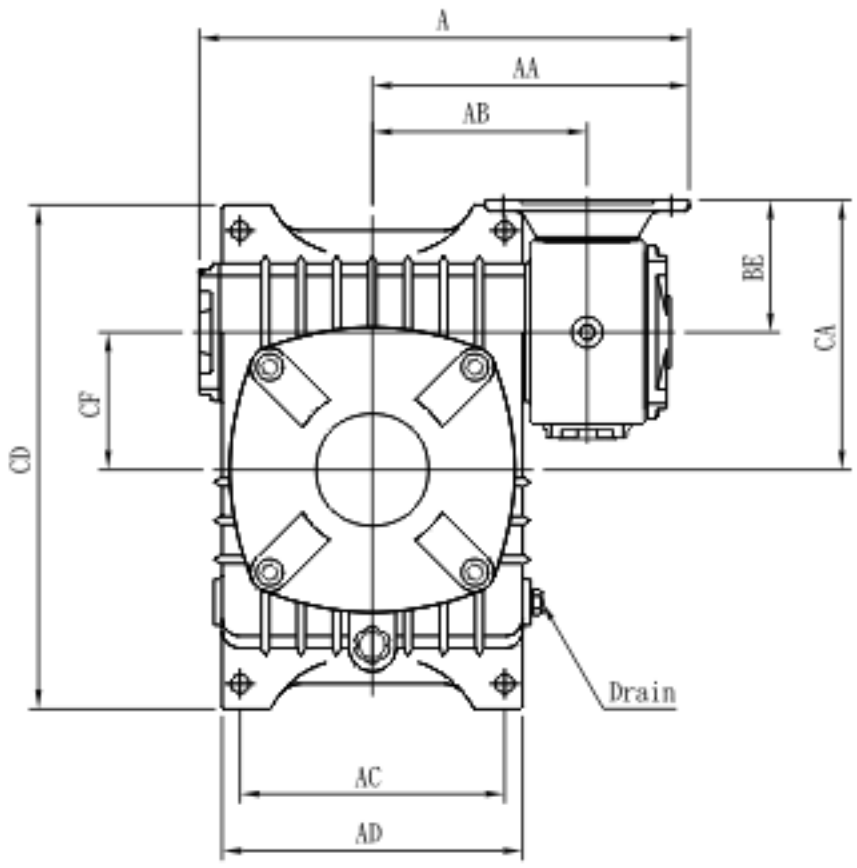
Shaft Direction

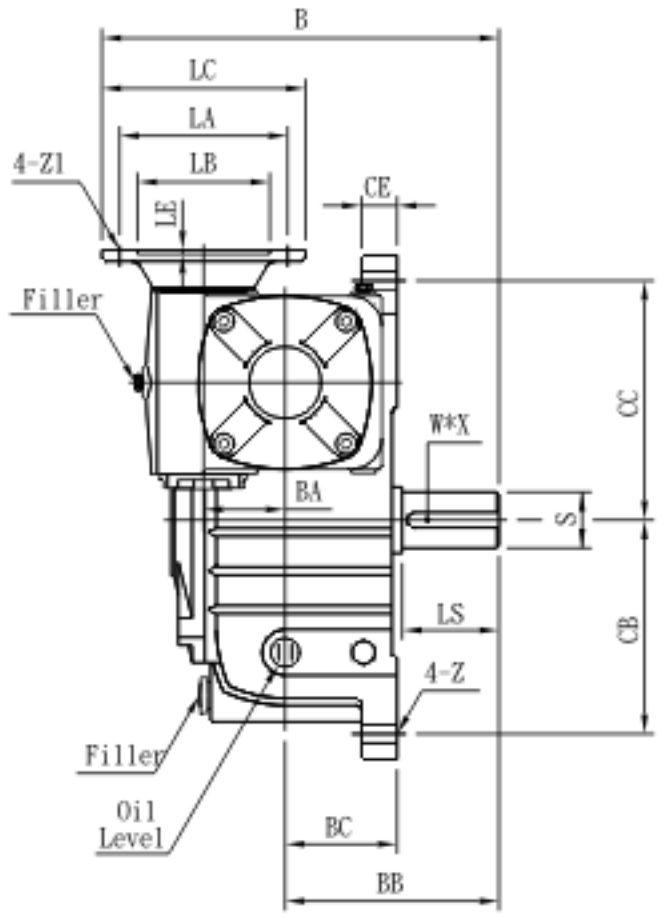


Unit:mm

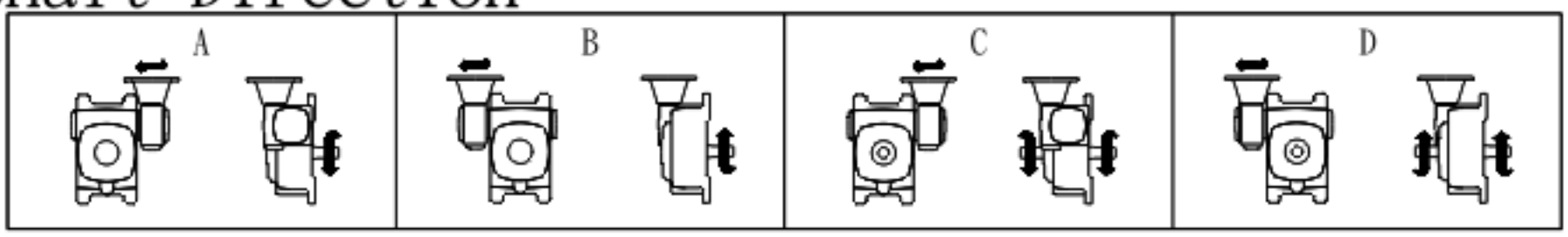
Size	Ratio	A	AA	AB	AC	AD	B	BA	BB	BC	BE	CA	CC	CE	Z
120-200	1/100 ~ 1/3600	653	414	312	450	510	501	120	305	190	230	430	200	30	22
135-225		672	425	315	510	580	586	135	345	200	260	485	225	35	27
155-250		786	483	365	570	640	605	155	360	200	286	536	250	35	27
175-300		962	601	473	660	750	695	175	410	235	308	608	300	42	36

Size	Input Shaft			Output Shaft			Oil (l)	Weight (kg)
	HS	U	T * V	LS	S	W * X		
120-200	65	30	7 * 4	125	70	20 * 7	19	270
135-225	75	35	10 * 4.5	140	80	20 * 7	24	375
155-250	85	40	10 * 4.5	145	90	24 * 8	32	430
175-300	85	45	12 * 4.5	170	95	24 * 8	55	584





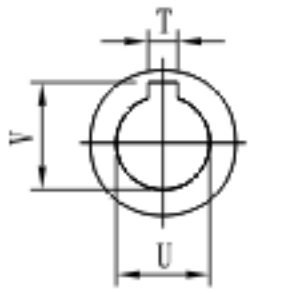
Shaft Direction



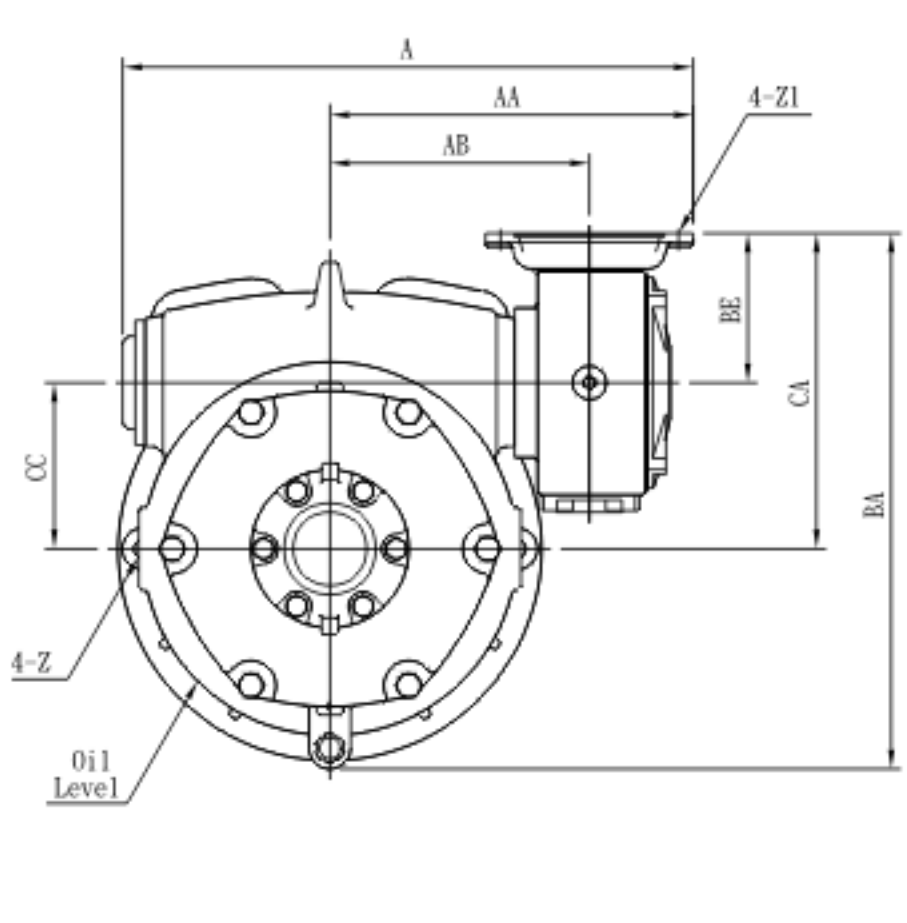
Unit:mm

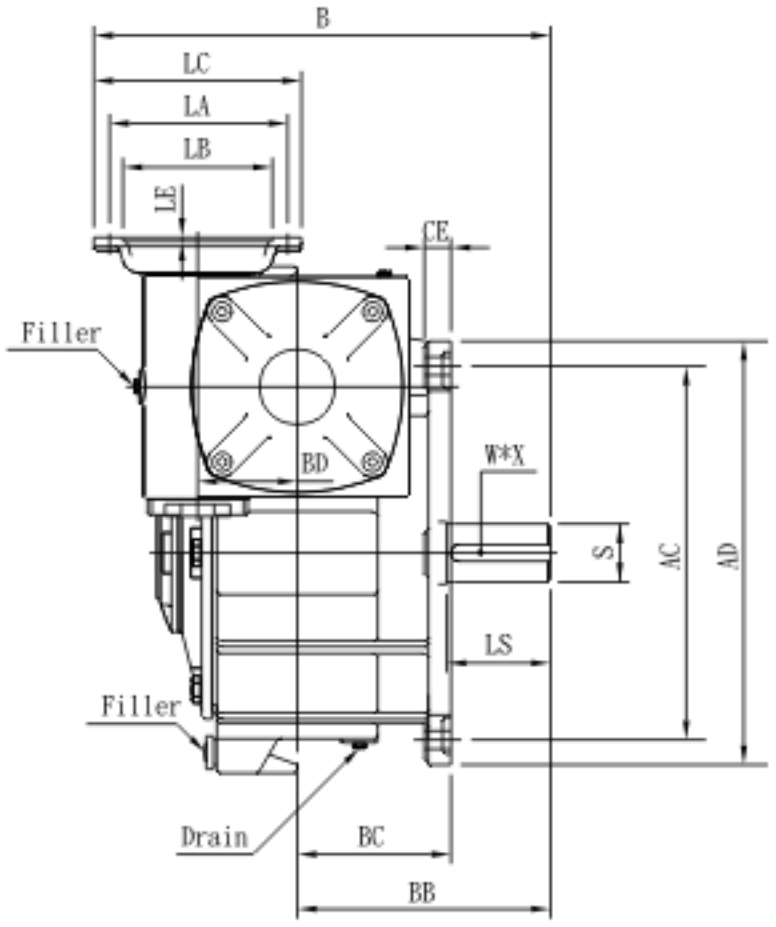
Size	Ratio	A	AA	AB	AC	AD	B	BA	BB	BC	BE	CA	CB	CC	CD	CE	CF	Z
50-80	1/100 ≀ 1/3600	317	212	132	140	176	270	50	140	73	140	220	130	150	320	20	80	15
60-100		378	241	161	190	226	310	60	170	90	97	197	155	180	375	30	100	15
70-120		428 448	272 292	192	220	266	340 360	70	190	100	118 120	238 240	185	215	450	30	120	18
80-135		480	311	211	260	295	390	80	210	110	130	265	210	235	495	30	135	18
100-155		550 574	357 382	257	290	336	442 467	100	242	140	140 142	277 279	145	265	456	30	155	20
120-175		607	400	275	320	376	493	120	248	150	180	355	167	293	516	35	175	20

Size	Input Bore			Output Shaft			Flange					HP	Oil (1)	Weight (kg)
	U	T	V	LS	S	W * X	LA	LB	LC	LE	Z1			
50-80	11 14	4 5	12.8 16	65	32	10 * 4.5	130	110	160	4	M8	1/4 1/2	1.8	24
60-100	11 14	4 5	12.8 16	75	38	10 * 4.5	130	110	160	4	M8	1/4 1/2	3.8	52
70-120	14 19	5 6	16 21.8	85	45	12 * 4.5	130 165	110 130	160 200	5	M8 M10	1/2 1	6	75
80-135	19 24	6 8	21.8 27.3	95	55	15 * 5.0	165	130	200	5	M10	1 2	8.5	105
100-155	24 28	8 8	27.3 31.3	100	60	15 * 5	165 215	130 180	200 250	5	M10 M12	2 3	12	135
120-175	28	8	31.3	110	65	18 * 6	215	180	250	5	M10	3 5	15	192

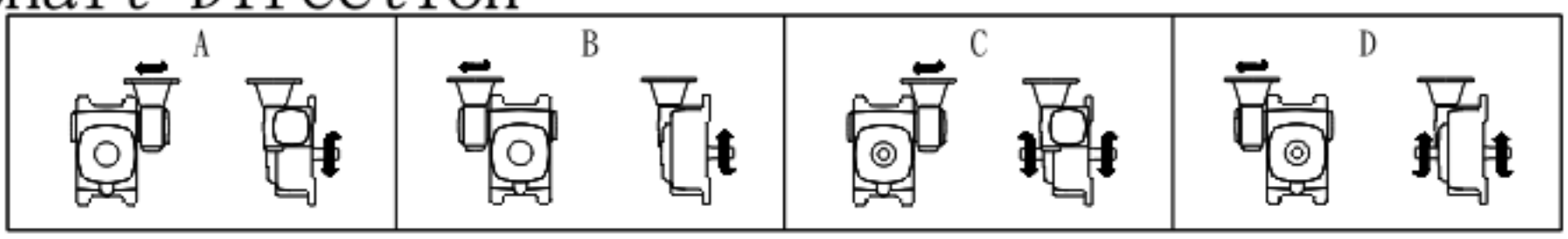


INPUT-BORE VIEW





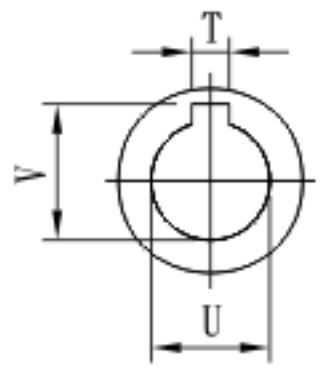
Shaft Direction



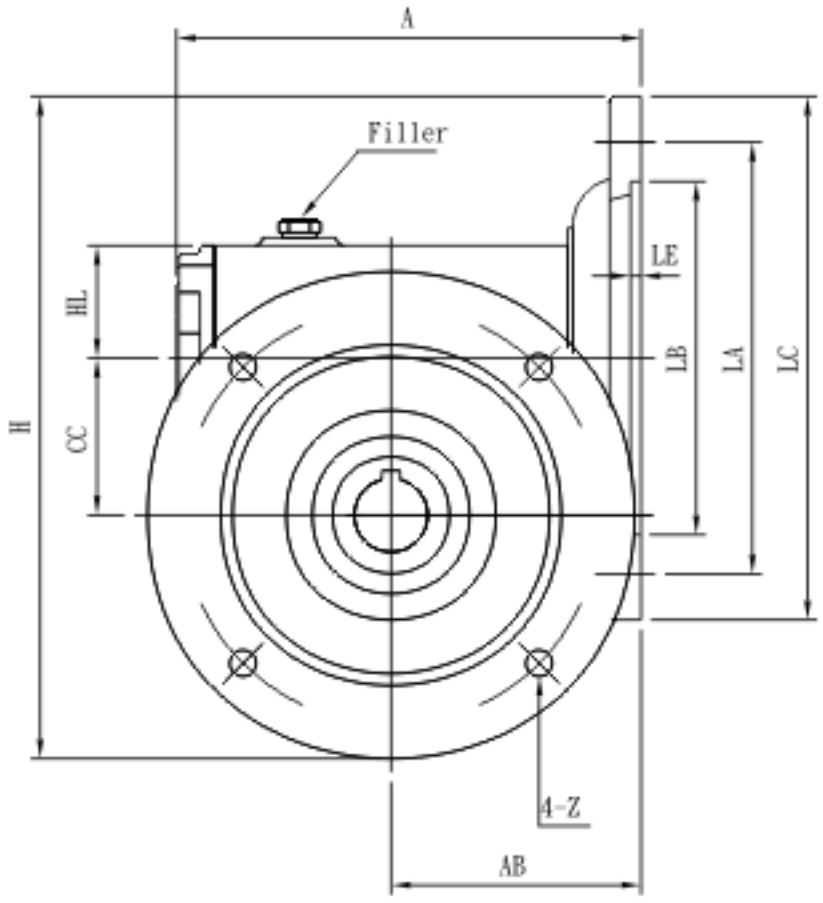
Unit:mm

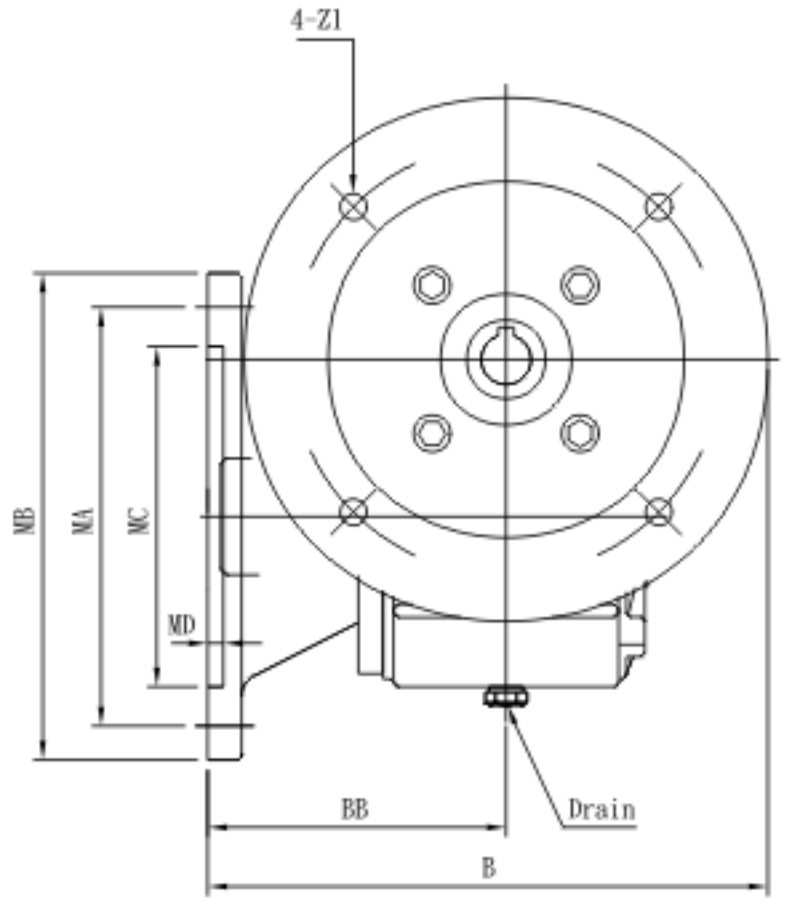
Size	Ratio	A	AA	AB	AC	AD	B	BA	BB	BC	BD	BE	CA	CC	CE	Z
120-200	1/100 ~ 1/3600	687	437	312	450	510	550	645	305	190	120	180	380	200	30	22
135-225		692 717	440 465	315	510	580	605 630	719 742	345	200	135	195 218	420 443	225	35	27
155-250		817	515	365	570	640	665	812	360	200	155	236	486	250	35	27
175-300		983 1008	623 648	473	660	750	735 760	890 930	410	235	175	212 255	512 555	300	42	36

Size	Input Bore			Output Shaft			Flange					HP	Oil (l)	Weight (kg)
	U	T	V	LS	S	W * X	LA	LB	LC	LE	Z1			
120-200	28	8	31.3	125	70	20 * 7	215	180	250	5	M12	3 5	19	270
135-225	28 38	8 10	31.3 41.3	140	80	20 * 7	215 265	180 230	250 300	5	M12 15	5 7.5	24	375
155-250	38	10	41.3	145	90	24 * 8	265	230	300	5	15	7.5 10	32	430
175-300	38 42	10 12	41.3 45.3	170	95	24 * 8	265 300	230 250	300 350	5 6	M12 19	10 15	55	584

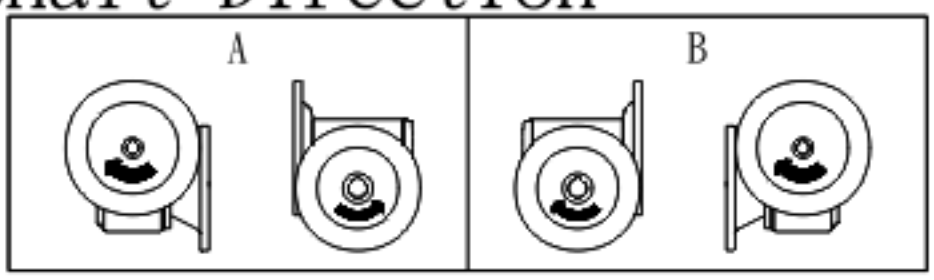


INPUT-BORE VIEW





Shaft Direction

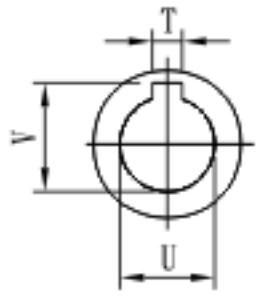


Unit:mm

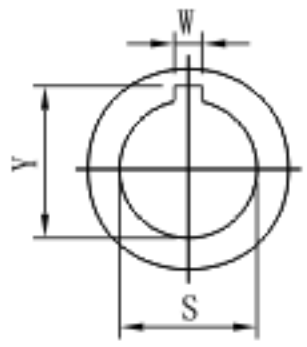
Size	Ratio	A	AB	B	BB	CC	H	HL	MA	MB	MC	MD	Z	Input Bore		
														U	T	V
60	1/10 1/40	170	88	166 170	110.5 114	60	200 233	42	99 160	120 186	75 130	6	10	14	5	16.0
	1/15 1/20 1/50	178	95.5	165 170	110.5 114	60	220 253	42	99 160	120 186	75 130	6	10	19	6	21.8
70	1/30 1/60	213	105	205	130	70	263	52	165	186	140	6	10	24	6	26.8

Size	Output Bore			Flange					HP	Oil (1)	Weight (kg)
	S	W	Y	LA	LB	LC	LE	Z1			
60	28	7	31	130	110	160	4	M8 M10	1/2	0.26	9
	28	7	31	165	160	200	4	M10	1	0.40	12
70	28	7	31	165	130	200	5	M10	2	0.70	18

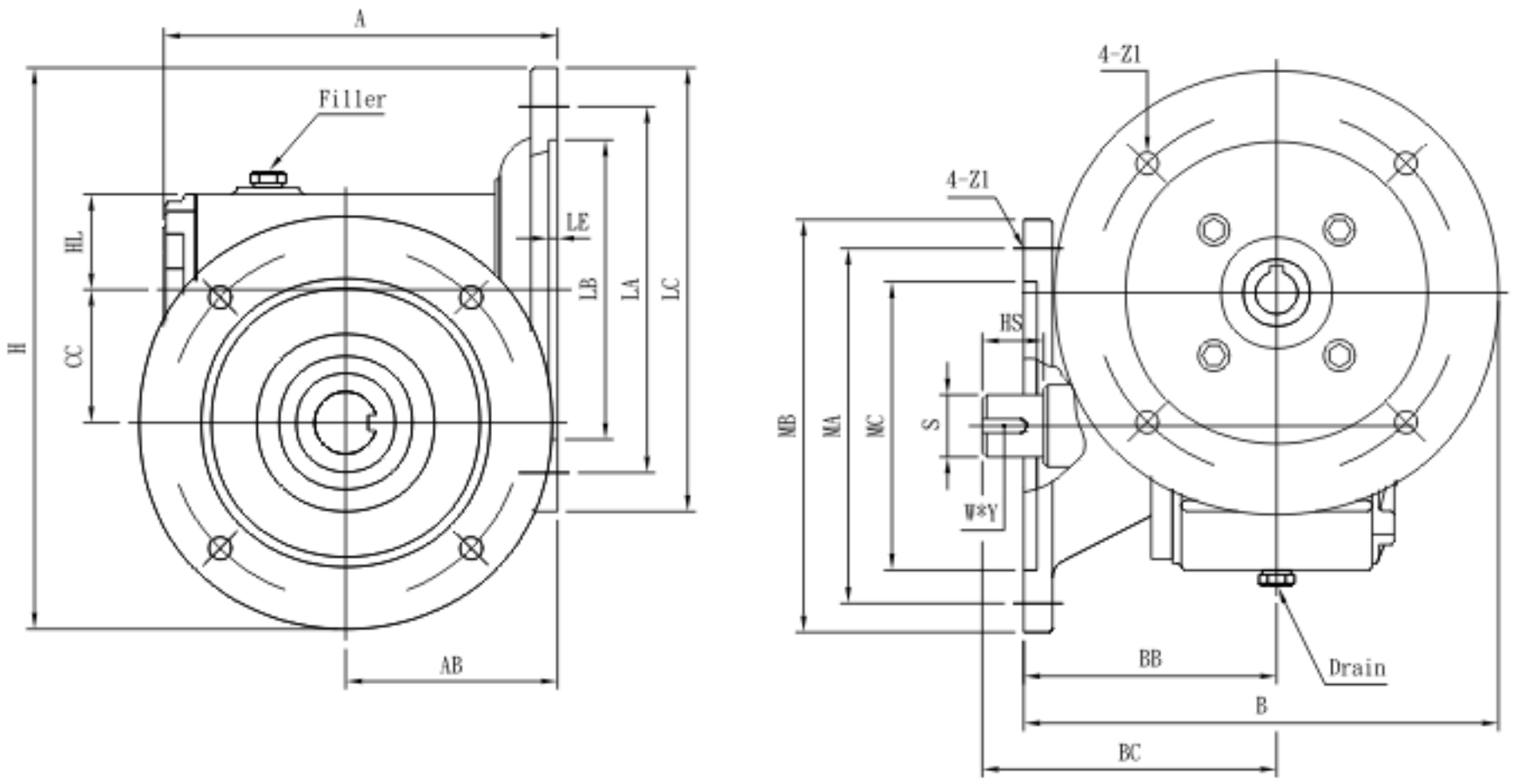
*The depth of hollow output shaft for size 60 is 55 mm.
*The depth of hollow output shaft for size 70 is 43 mm.



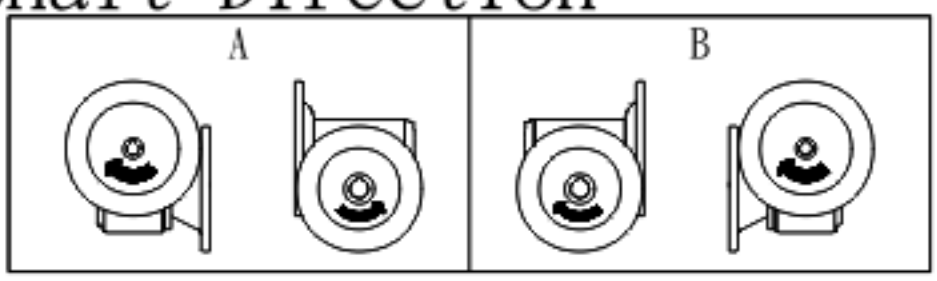
INPUT-BORE VIEW



OUTPUT-BORE VIEW



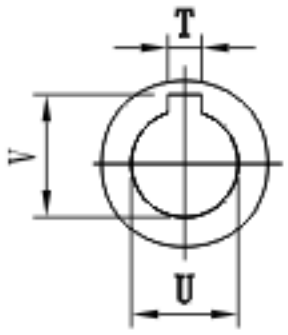
Shaft Direction



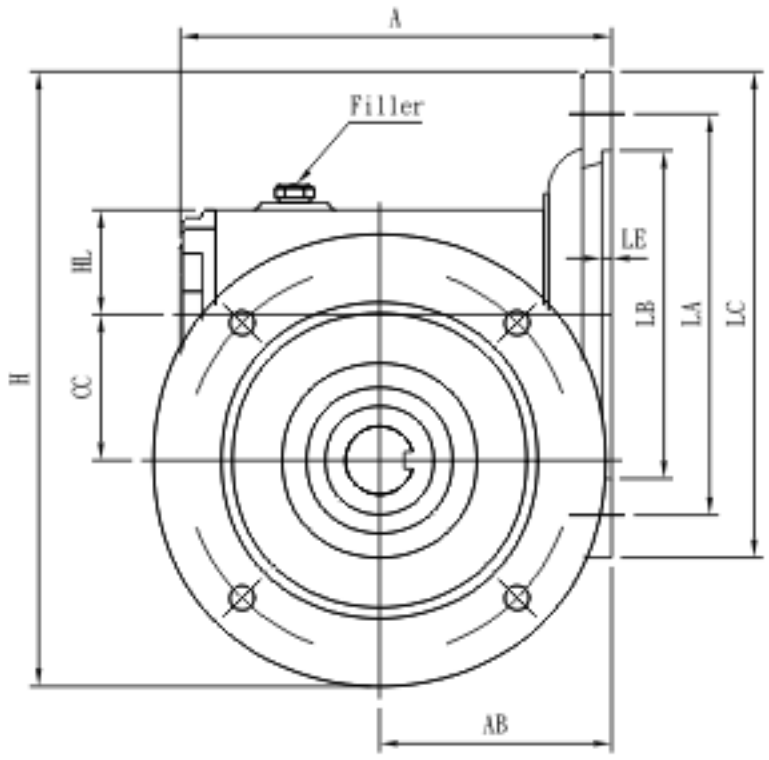
Unit:mm

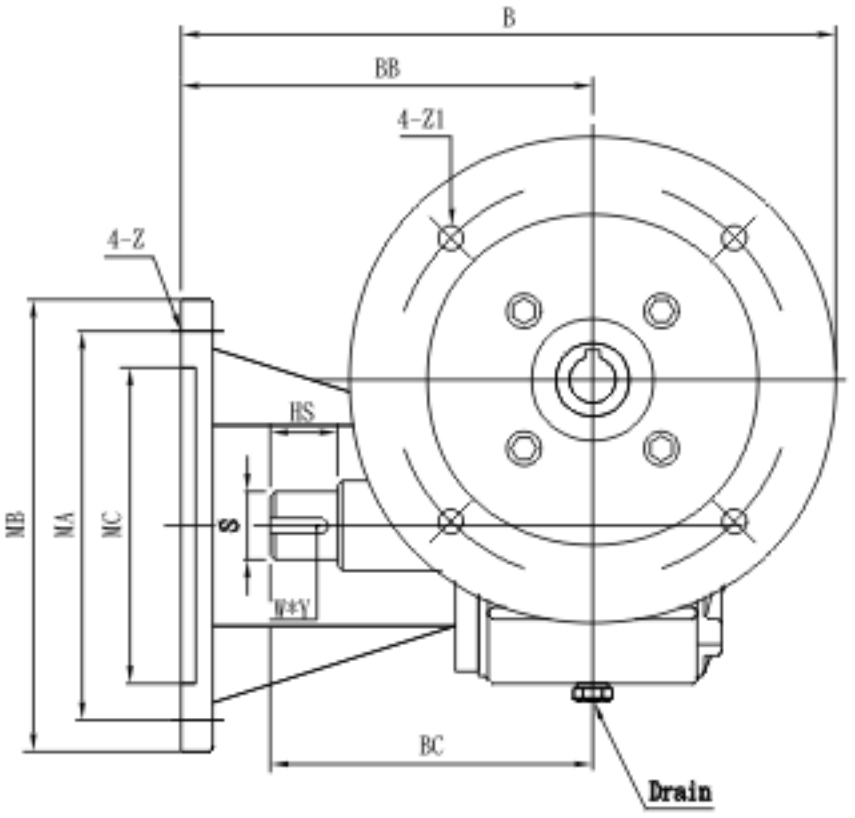
Size	Ratio	A	AB	B	BB	BC	CC	H	HL	MA	MB	MC	Z	Input Bore		
														U	T	V
60	1/10 1/40	170	88	207	127	162	60	220	42	130	160	110	12	14	5	16.0
	1/15 1/50 1/20	178	95.5	227	127	162	60	240	42	130	160	110	12	19	6	21.8
70	1/30 1/60	213	105	250	150	185	70	250	52	130	160	110	12	24	8	27.3

Size	Output Shaft			Flange					HP	Oil (l)	Weight (kg)
	HS	S	W*Y	LA	LB	LC	LE	Z1			
60	35	28	7 * 4	130	110	160	4	M8	1/2	0.40	12
	35	28	7 * 4	165	130	200	4	M10	1	0.40	12
70	35	28	7 * 4	165	130	200	5	M10	2	0.70	18

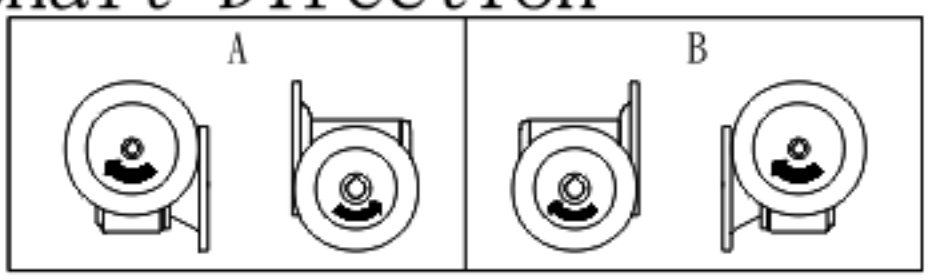


INPUT-BORE VIEW





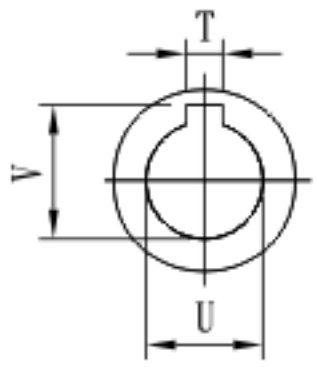
Shaft Direction



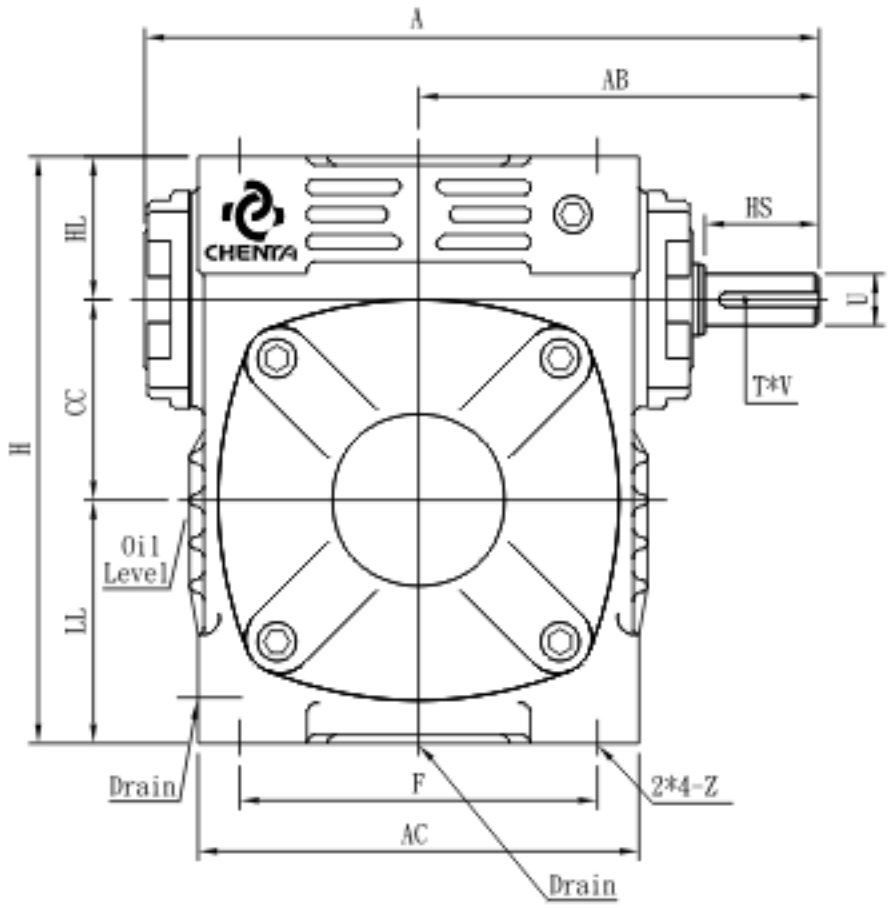
Unit:mm

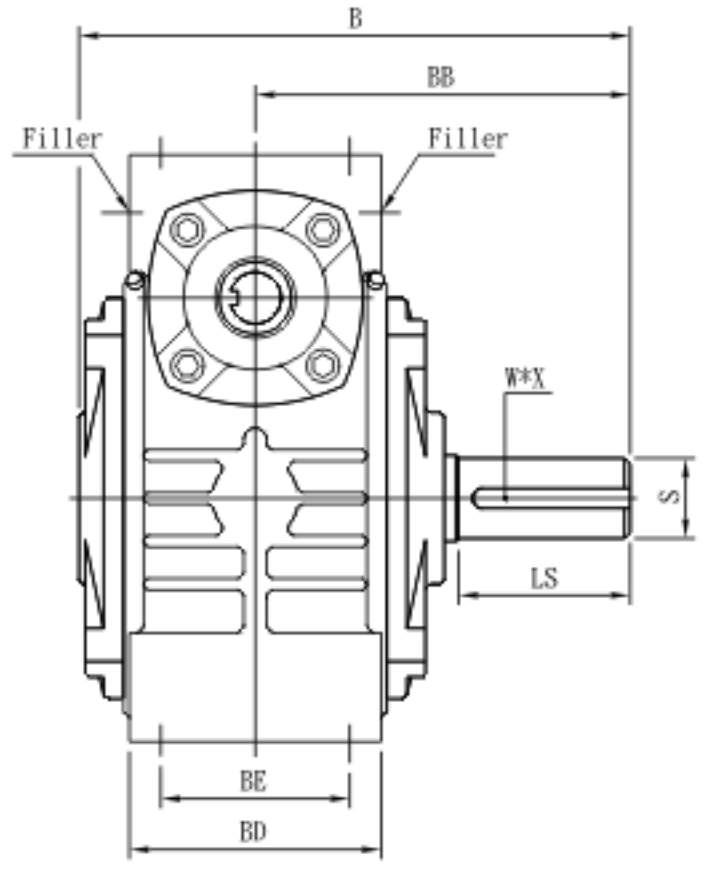
Size	Ratio	A	AB	B	BB	BC	CC	H	HL	MA	MB	MC	Z	Input Bore U	Input Bore T	Input Bore V
60	1/10 1/40	170	88	296	216	121	60	232.5	42	160	185	130	15	14	5	16.0
	1/15 1/20 1/30 1/50	178	95.5	316	216	121	60	252.5	42	160	185	130	15	19	6	21.8
70	1/60	213	105	339	239	185	70	262.5	52	165	185	140	14	24	8	27.3

Size	Output Shaft HS	Output Shaft S	Output Shaft W*Y	Flange LA	Flange LB	Flange LC	Flange LE	Flange Z1	HP	Oil (1)	Weight (kg)
60	45	28	7 * 4	130	110	160	4	M8	1/2	0.40	12
	45	28	7 * 4	165	130	200	4	M10	1	0.40	12
70	35	28	7 * 4	165	130	200	5	M10	2	0.70	18

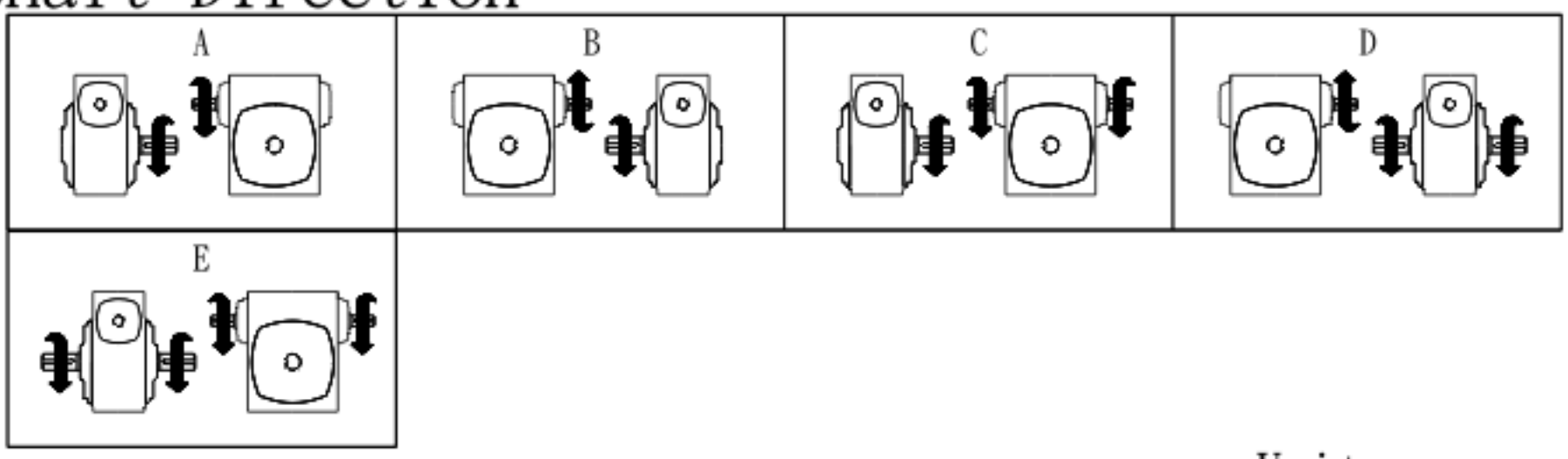


INPUT-BORE VIEW





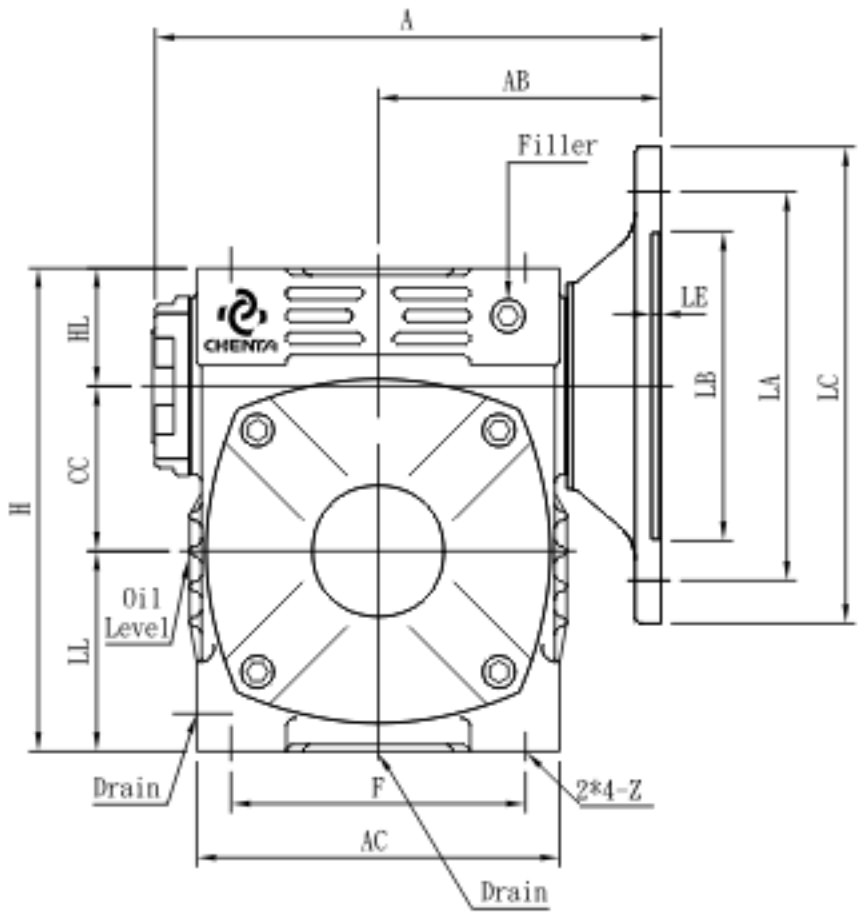
Shaft Direction

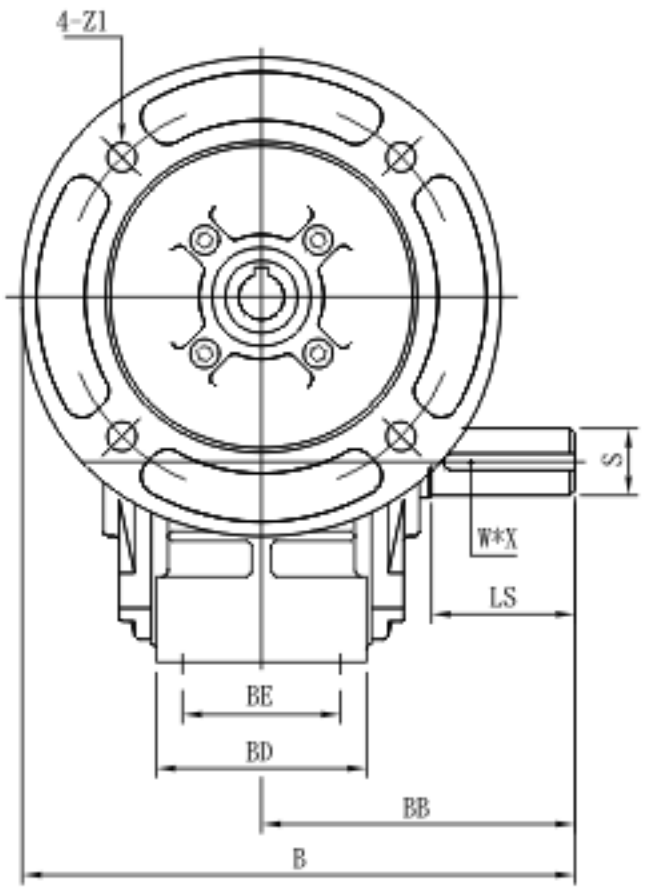


Unit:mm

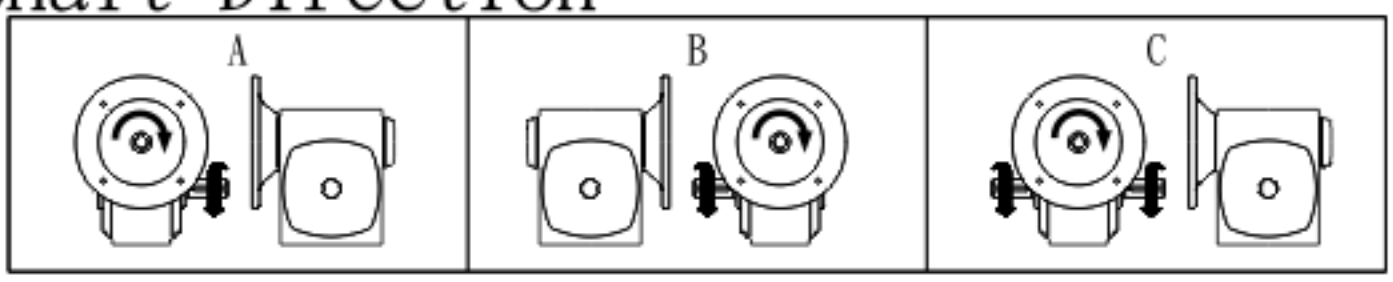
Size	Ratio	A	AB	AC	B	BB	BD	BE	CC	F	H	HL	LL	Z
40	1/10	157	96.5	102	126	84	68	54	40	80	127	34	53	5/16-18 UNC
50	1/15	181	107	115	147	95	68	50	50	90	150	35	65	5/16-18 UNC
60	1/20	204	124	127	168	110	78	54	60	100	177	42	75	3/8-16 UNC
70	1/30	234	140	154	196	130	88	66	70	125	205	50	85	3/8-16 UNC
80	1/40	265	160	175	216	140	97	75	80	145	232	60	92	3/8-16 UNC
100	1/50	325	192	224	262	170	116	91	100	187	310	80	130	1/2-13 UNC
120	1/60	389	230	264	291	190	136	100	120	232	370	95	155	5/8-11 UNC
135		435	260	310	320	210	154	111	135	264	425	105	185	5/8-11 UNC

Size	Input Shaft			Output Shaft			Oil (l)	Weight (kg)
	HS	U	T * V	LS	S	W * X		
40	28	12	4 * 2.5	35	16	5 * 3.0	0.18	5
50	30	12	4 * 2.5	40	17	5 * 3.0	0.26	6
60	40	15	5 * 3.0	50	22	7 * 4.0	0.40	8
70	40	18	5 * 3.0	60	28	7 * 4.0	0.70	14
80	50	22	7 * 4.0	65	32	10 * 4.5	1.15	19
100	50	25	7 * 4.0	75	38	10 * 4.5	2.20	36
120	65	30	7 * 4.0	85	45	12 * 4.5	4.80	48
135	75	35	10 * 4.5	95	55	15 * 5.0	6.30	70





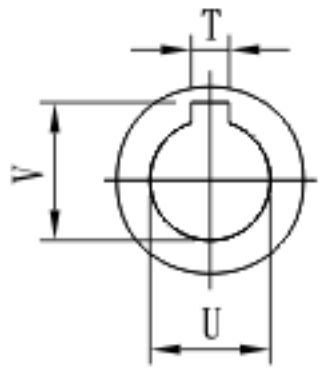
Shaft Direction



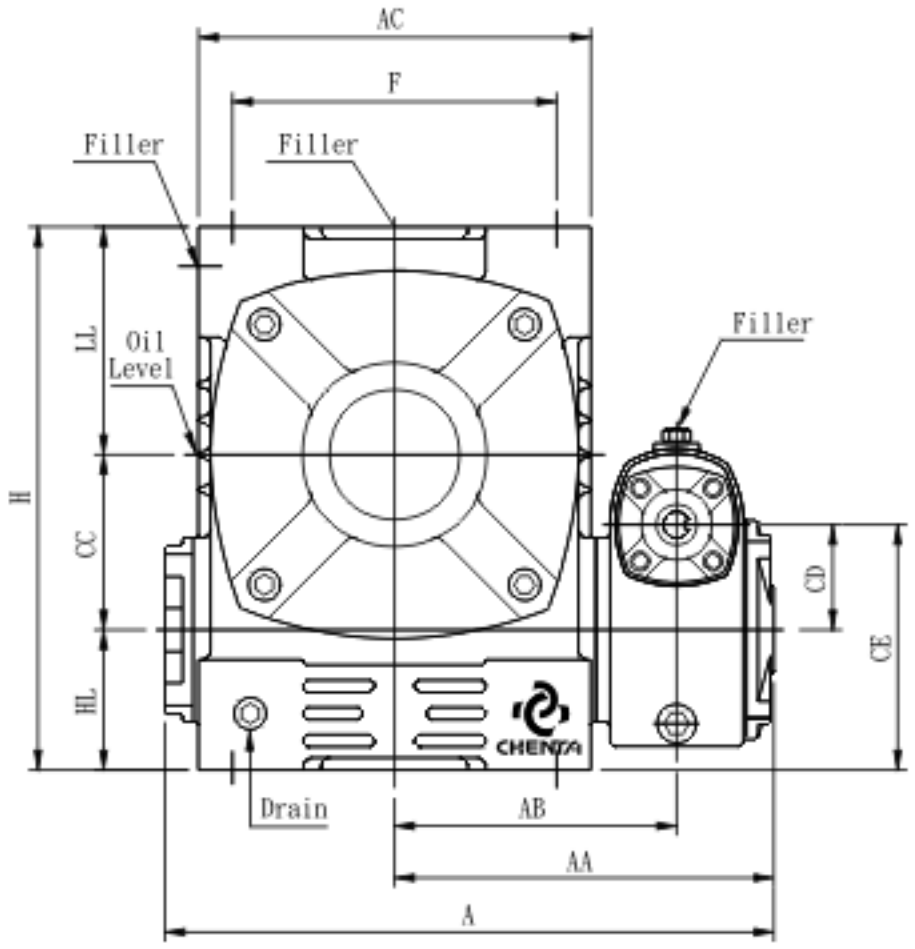
Unit:mm

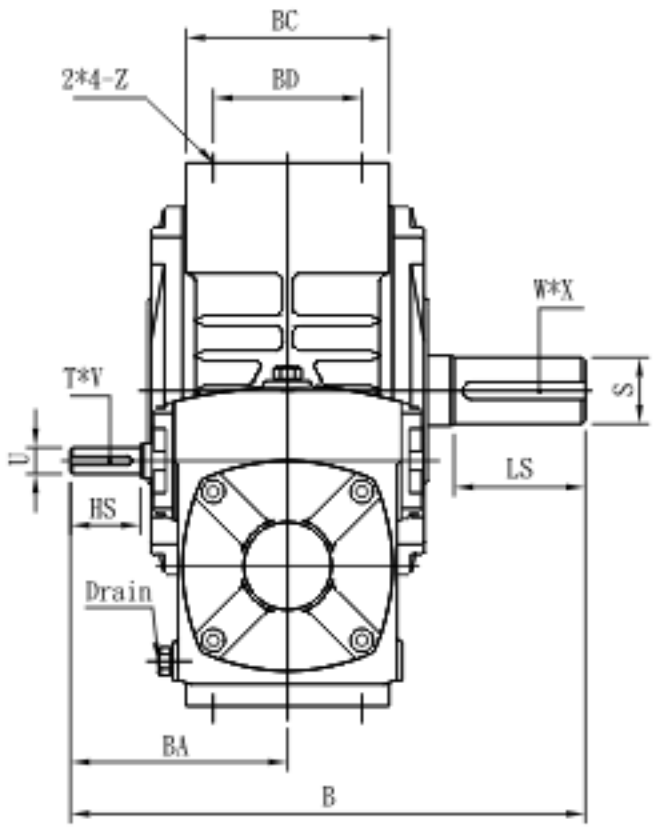
Size	Ratio	A	AB	AC	B	BB	BD	BE	CC	F	H	HL	LL	Z	Input Bore U	Input Bore T	Input Bore V
40	1/10	139	85	102	164	84	68	54	40	80	127	34	53	5/16 UNC-18	11	4	12.8
50	1/15	214	140	115	175	95	68	50	50	90	150	35	65	5/16 UNC-18	11 14	4 5	12.8 16.3
60	1/20	177	97	127	190	110	78	54	60	100	177	42	75	3/8 UNC-16	11 14	4 5	12.8 16.3
70	1/30	213 215	118 120	154	210 230	130	88	66	70	125	205	50	85	3/8 UNC-16	14 19	5 6	16.3 21.8
80	1/40	235	130	175	240	140	97	75	80	145	232	60	92	3/8 UNC-16	19 24	6 8	21.8 27.3
100	1/50	273 275	140 142	224	270 295	170	116	90	100	187	310	80	130	1/2 UNC-13	24 28	8	27.3 31.3
120	1/60	339	180	264	315	190	136	100	120	232	370	95	155	5/8 UNC-11	28	8	31.3
135		370 393	195 218	310	335 360	210	154	111	135	264	425	105	185	5/8 UNC-11	28 38	8 10	31.3 41.5

Size	Output Shaft LS	Output Shaft S	Output Shaft W * X	Flange LA	Flange LB	Flange LC	Flange LE	Flange Z1	HP	Oil (1)	Weight (kg)
40	35	16	5 * 3.0	130	110	160	4	M8	1/4	0.18	6
50	40	17	5 * 3.0	130	110	160	4	M8	1/4 1/2	0.26	7
60	50	22	7 * 4.0	130	110	160	4	M8	1/4 1/2	0.40	9
70	60	28	7 * 4.0	130 165	110 130	160 200	4 5	M8 M10	1/2 1	0.70	16
80	65	32	10 * 4.5	165	130	200	5	M10	1 2	1.15	21
100	75	38	10 * 4.5	165 215	130 180	200 250	5	M10 M12	2 3	2.20	39
120	85	45	12 * 4.5	215	180	250	5	M10	3 5	4.80	52
135	95	55	12 * 4.5	215 265	180 230	250 300	5	M12 M15	5 7.5	6.30	74

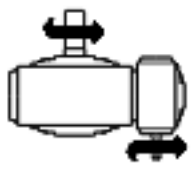
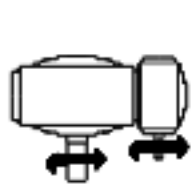
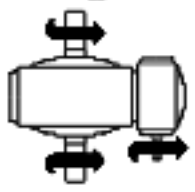
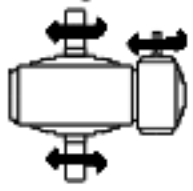


INPUT-BORE VIEW





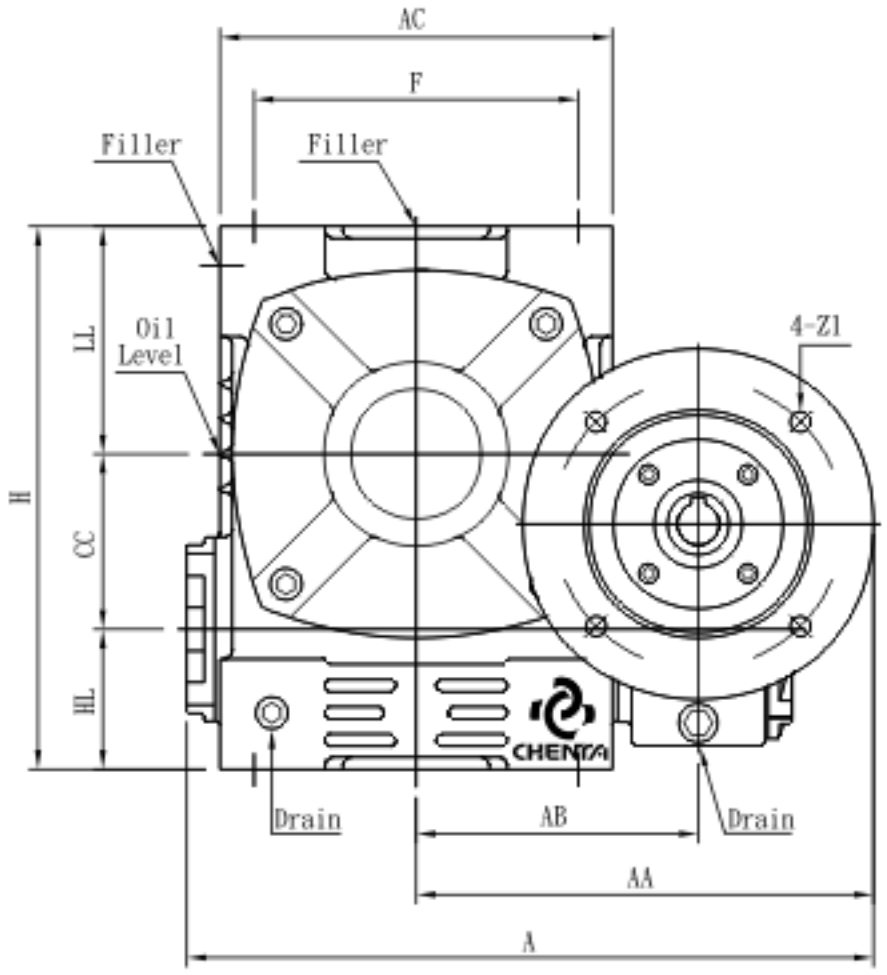
Shaft Direction

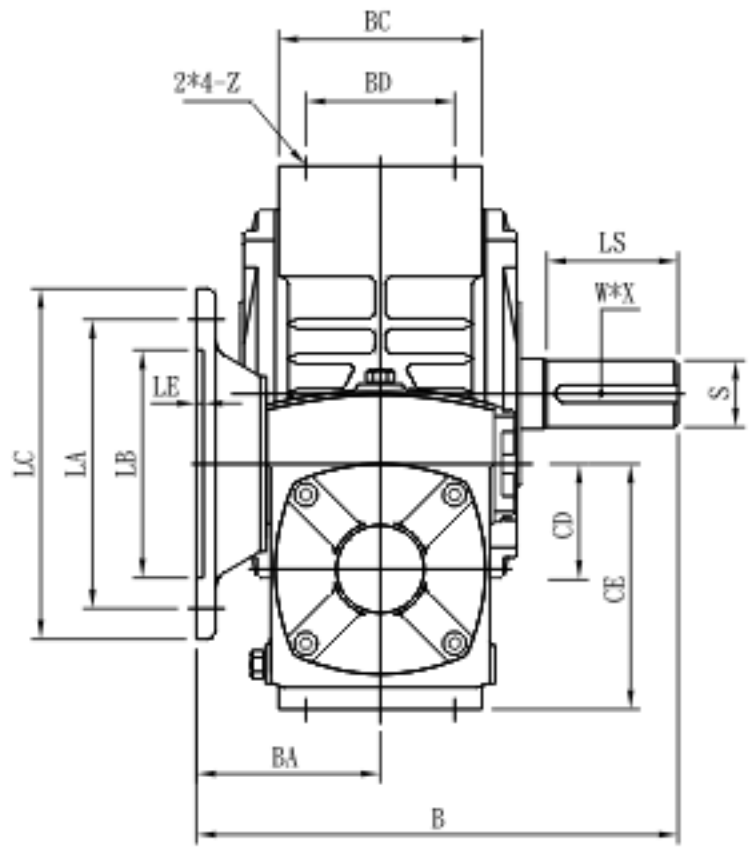
A 	B 	C 	D 
E 	F 		

Unit:mm

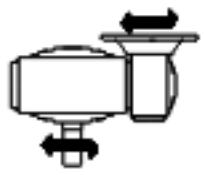
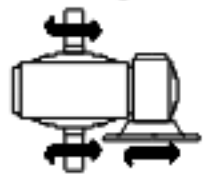
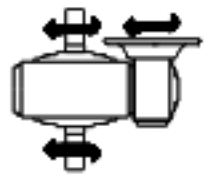
Size	Ratio	A	AA	AB	AC	F	B	BA	BC	BD	CC	CD	CE	H	HL
40-70	1/100 ≀ 1/3600	257	163	113	154	125	167	83	88	66	70	40	90	205	50
50-80		289	184	132	175	145	247	107	97	75	80	50	110	232	60
60-100		352	219	161	224	187	294	124	116	91	100	60	140	310	80
70-120		417	258	192	264	232	330	140	136	100	120	70	165	370	95
80-135		462	287	211	295	264	370	160	154	111	135	80	185	425	105

Size	LL	Z	Input Shaft			Output Shaft			Oil (1)	Weight (kg)
			HS	U	T * V	LS	S	W * X		
40-70	85	3/8 UNC-16	28	12	4 * 2.5	60	28	7 * 4.0	0.65	17
50-80	92	3/8 UNC-16	30	12	4 * 2.5	65	32	10 * 4.5	1.05	23
60-100	130	1/2 UNC-13	40	15	5 * 3.0	75	38	10 * 4.5	1.70	42
70-120	155	5/8 UNC-11	40	18	5 * 3.0	85	45	12 * 4.5	3.00	73
80-135	185	5/8 UNC-11	50	22	7 * 4.0	95	55	15 * 5.0	4.75	84





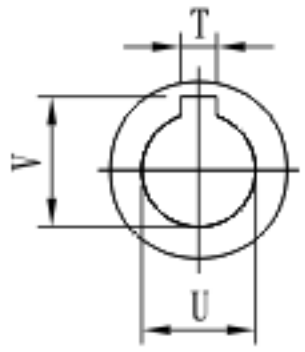
Shaft Direction

A 	B 	C 	D 
E 	F 		

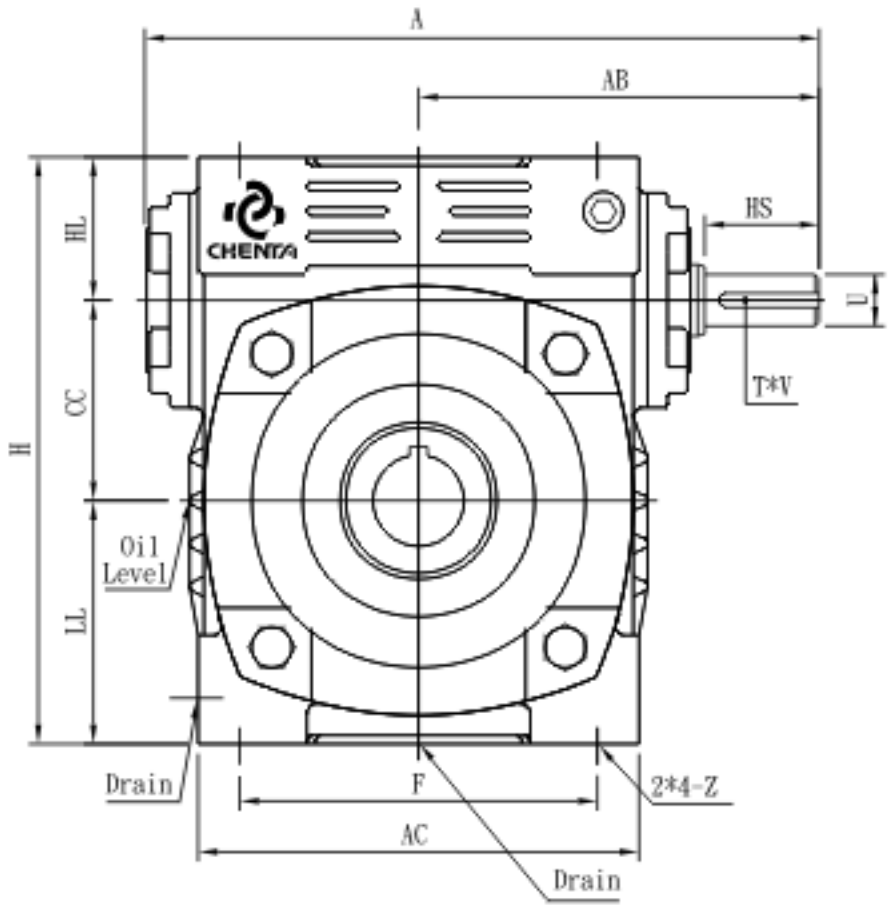
Unit:mm

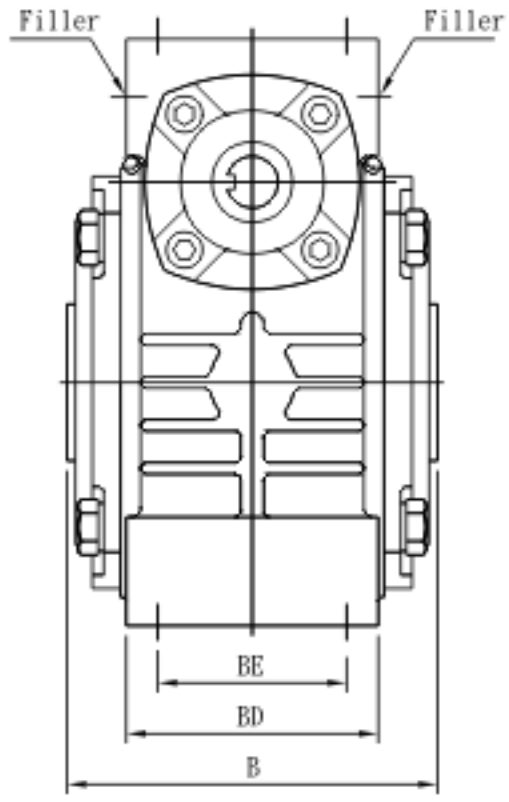
Size	Ratio	A	AA	AB	AC	F	B	BA	BC	BD	CC	CD	CE	H	LL	HL	Z	Input Bore U	Input Bore T	Input Bore V
40-70	1/100 ≀ 1/3600	256	193	113	154	125	169	85	88	66	70	40	90	205	85	50	3/8 UNC-16	11	4	12.8
50-80		264	212	132	175	145	280	140	87	75	80	50	110	232	92	60	3/8 UNC-16	11 14	4 5	12.8 16.3
60-100		299	241	161	224	187	267	97	116	91	100	60	140	310	130	80	1/2 UNC-13	11 14	4 5	12.8 16.3
70-120		338 358	272 292	192	264	232	308 310	118 120	136	100	120	70	165	370	155	95	5/8 UNC-11	14 19	5 6	16.3 21.8
80-135		387	311	211	295	264	340	130	154	111	135	80	185	425	185	105	5/8 UNC-11	19 24	6 8	21.8 27.3

Size	Output Shaft LS	S	W * X	Flange LA	LB	LC	LE	Z1	HP	Oil (l)	Weight (kg)
40-70	60	28	7 * 31.0	130	110	160	4	M8	1/4HP	0.65	18
50-80	65	32	10 * 35.5	130	110	160	4	M8	1/4HP 1/2HP	1.05	24
60-100	75	38	10 * 41.5	130	110	160	4	M8	1/4HP 1/2HP	1.70	43
70-120	85	45	12 * 48.5	130 165	110 130	160 200	5	M8 M10	1/2HP 1HP	3.00	74
80-135	95	55	15 * 60.5	165	130	200	5	M10	1HP 2HP	4.75	87

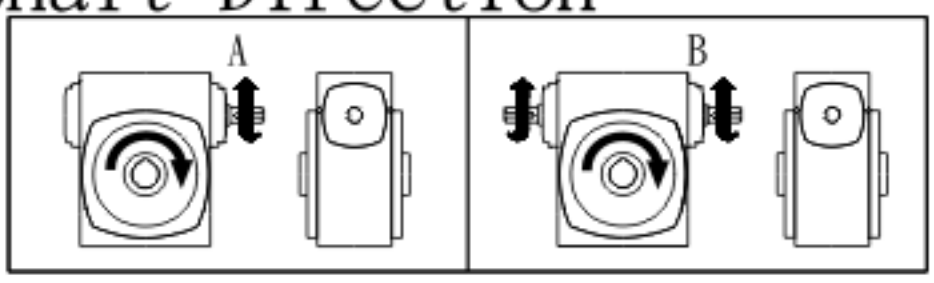


INPUT-BORE VIEW





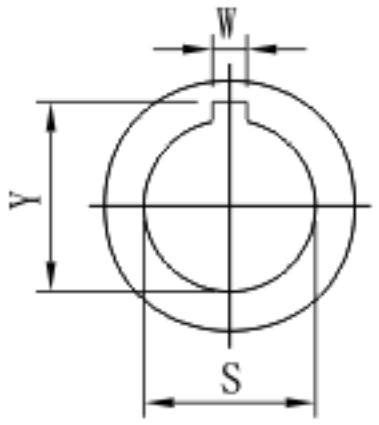
Shaft Direction



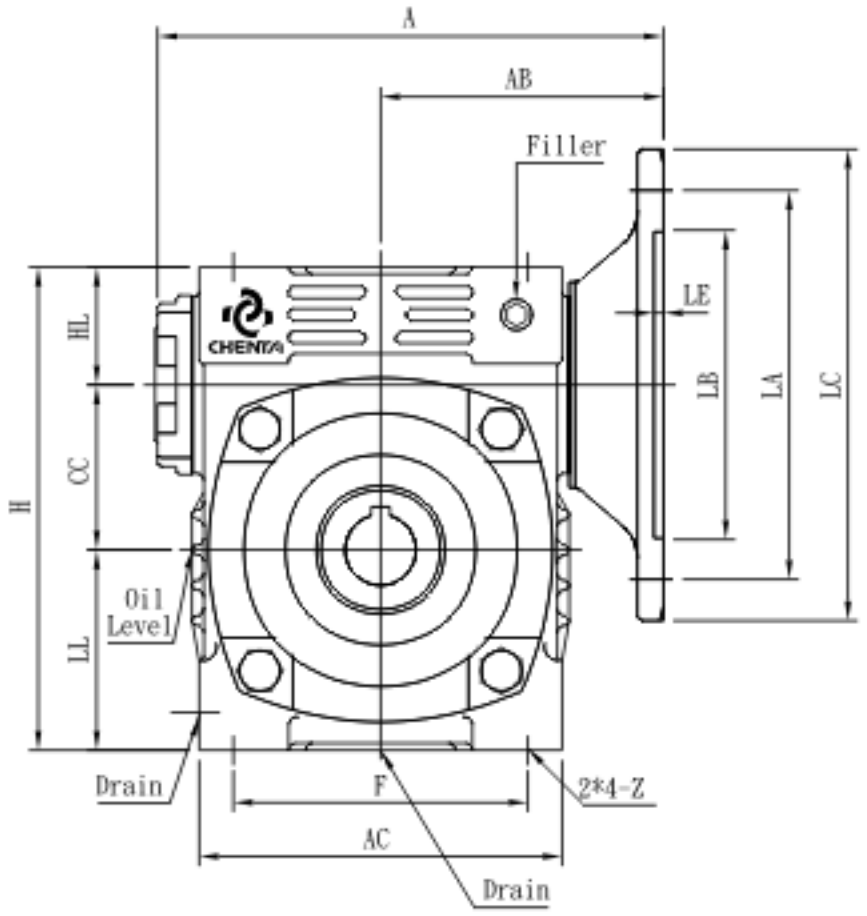
Unit:mm

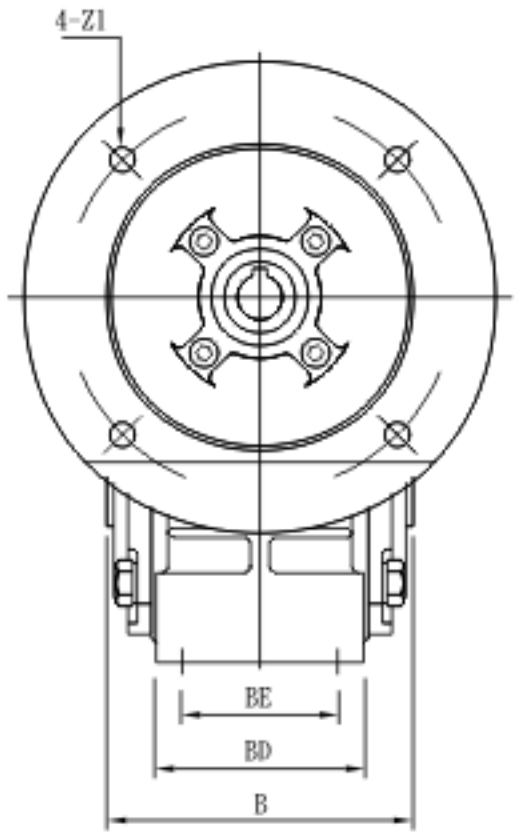
Size	Ratio	A	AB	AC	B	BD	BE	CC	F	H	HL	LL	Z
40	1/10	157	96.5	102	110	68	54	40	80	127	34	53	5/16 UNC-18
50	1/15	181	107	115	110	68	50	50	90	150	35	65	5/16 UNC-18
60	1/20	204	124	127	117	78	54	60	100	177	42	75	3/8 UNC-16
70	1/30	234	140	154	130	88	66	70	125	205	50	85	3/8 UNC-16
80	1/40	265	160	175	144	97	75	80	145	232	60	92	3/8 UNC-16
100	1/50	325	192	224	175	116	91	100	187	310	80	130	1/2 UNC-13
120	1/60	389	230	264	200	136	100	120	232	370	95	155	5/8 UNC-11
135		435	260	310	230	230	111	135	264	425	105	185	5/8 UNC-11

Size	Input Shaft			Output Bore			Oil (1)	Weight (kg)
	HS	U	T * V	S	W	Y		
40	28	12	4 * 2.5	19	5	21.0	0.18	5
50	30	12	4 * 2.5	20	5	22.3	0.26	6
60	40	15	5 * 3.0	25	7	28.0	0.40	8
70	40	18	5 * 3.0	30	8	33.3	0.70	14
80	50	22	7 * 4.0	35	10	38.5	1.15	19
100	50	25	7 * 4.0	40	12	43.5	2.20	36
120	65	30	7 * 4.0	45	12	48.5	4.80	48
135	75	35	10 * 4.5	60	15	65.0	6.30	70

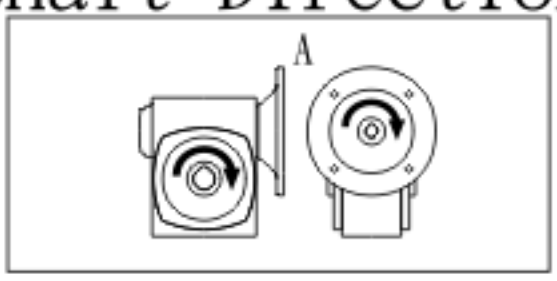


OUTPUT-BORE VIEW





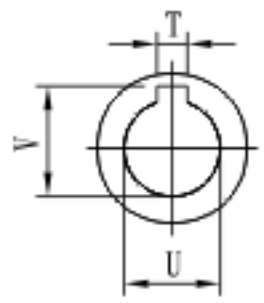
Shaft Direction



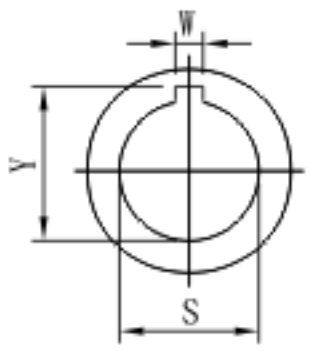
Unit:mm

Size	Ratio	A	AB	AC	B	BD	BE	CC	F	H	HL	LL	Z	Input Bore U	Input Bore T	Input Bore V
40	1/10	139	85	102	110	68	54	40	80	127	34	53	5/16 UNC-18	11	4	12.8
50	1/15	214	140	115	110	68	50	50	90	150	35	65	5/16 UNC-18	11 14	4 5	12.8 16.3
60	1/20	177	97	127	117	78	54	60	100	177	42	75	3/8 UNC-16	11 14	4 5	12.8 16.3
70	1/30	213 215	118 120	154	130	88	66	70	125	205	50	85	3/8 UNC-16	14 19	5 6	16.3 21.8
80	1/40	235	130	175	144	97	75	80	145	232	60	92	3/8 UNC-16	19 24	6 8	21.8 27.3
100	1/50	273 275	140 142	224	175	116	91	100	187	310	80	130	1/2 UNC-13	24 28	8	27.3 31.3
120	1/60	339	180	264	200	136	100	120	232	370	95	155	5/8 UNC-11	28	8	31.3
135		370 393	195 218	310	230	154	111	130	264	425	105	185	5/8 UNC-11	28 38	8 10	31.3 41.5

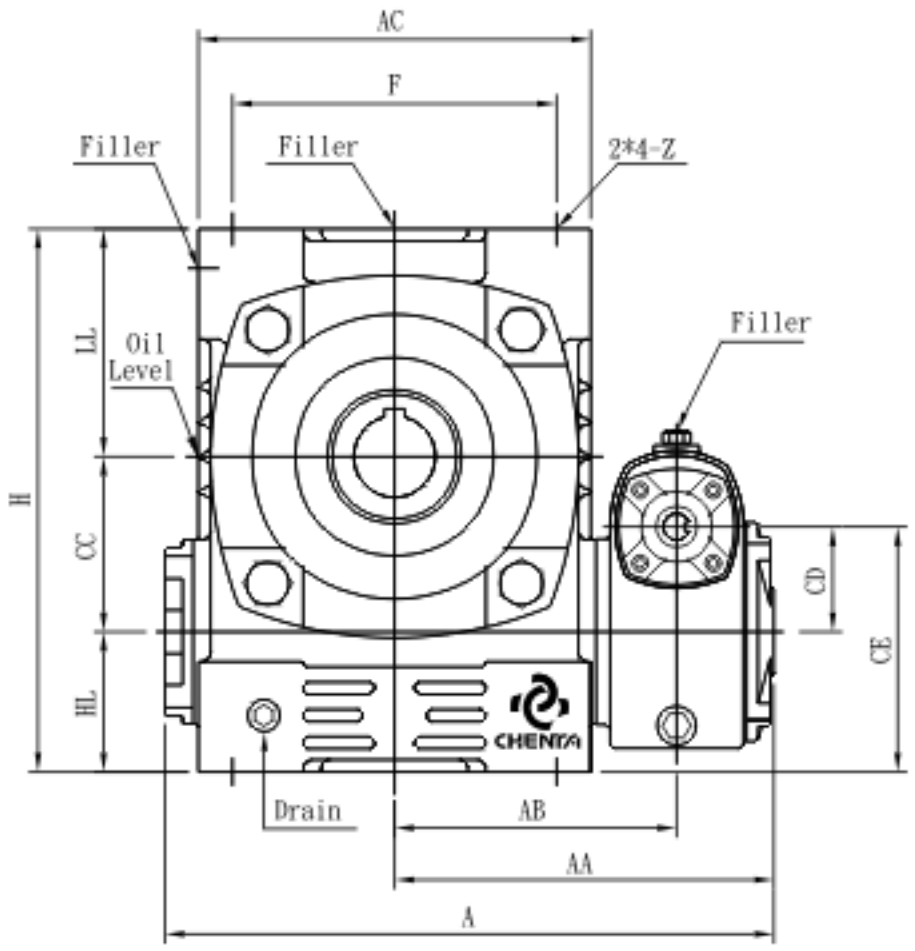
Size	Output Bore S	Output Bore W	Output Bore Y	Flange LA	Flange LB	Flange LC	Flange LE	Flange Z1	HP	Oil (1)	Weight (kg)
40	19	5	21.0	130	110	160	4	M8	1/4	0.18	6
50	20	5	22.3	130	110	160	4	M8	1/4 1/2	0.26	7
60	25	7	28.0	130	110	160	4	M8	1/4 1/2	0.40	9
70	30	8	33.5	130 165	110 130	160 200	4 5	M8 M10	1/2 1	0.70	16
80	35	10	38.5	165	130	200	5	M10	1 2	1.15	21
100	40	12	43.5	165 215	130 180	200 250	5	M10 M12	2 3	2.20	39
120	45	12	48.5	215	180	250	5	M12	3 5	4.80	52
135	60	15	65.0	215 265	180 230	250 300	5	M12 M15	5 7.5	6.30	74

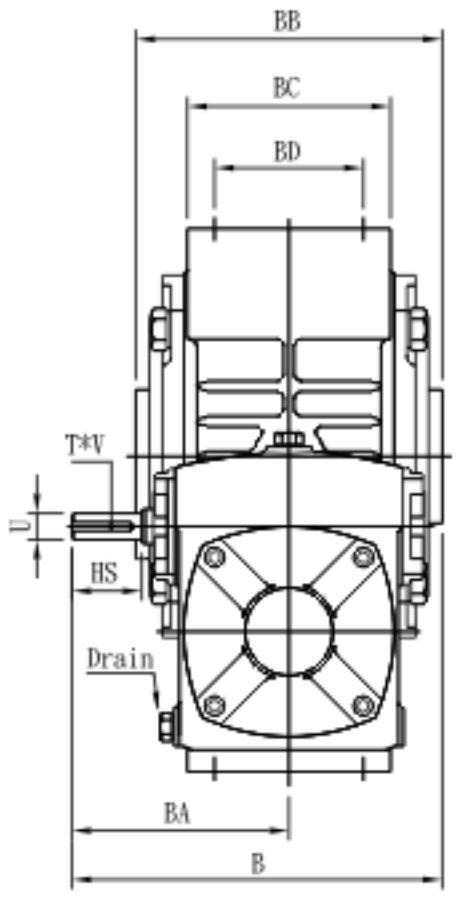


INPUT-BORE VIEW

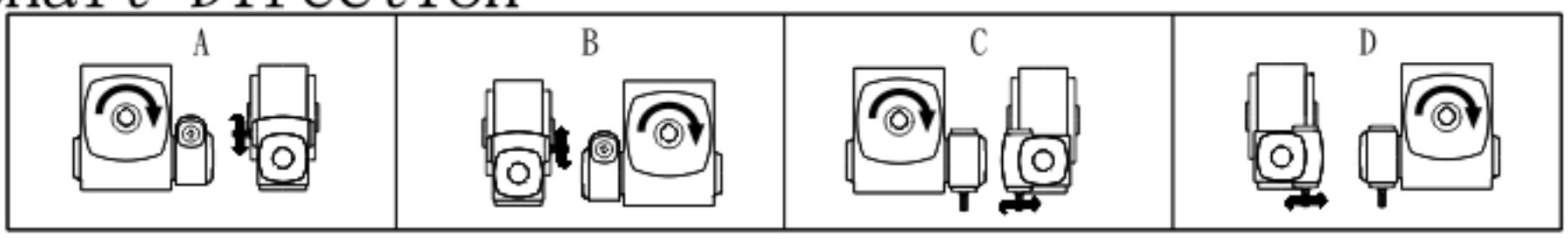


OUTPUT-BORE VIEW





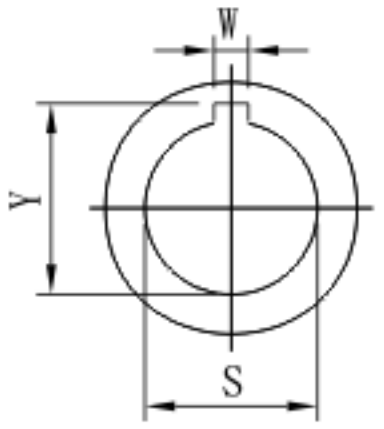
Shaft Direction



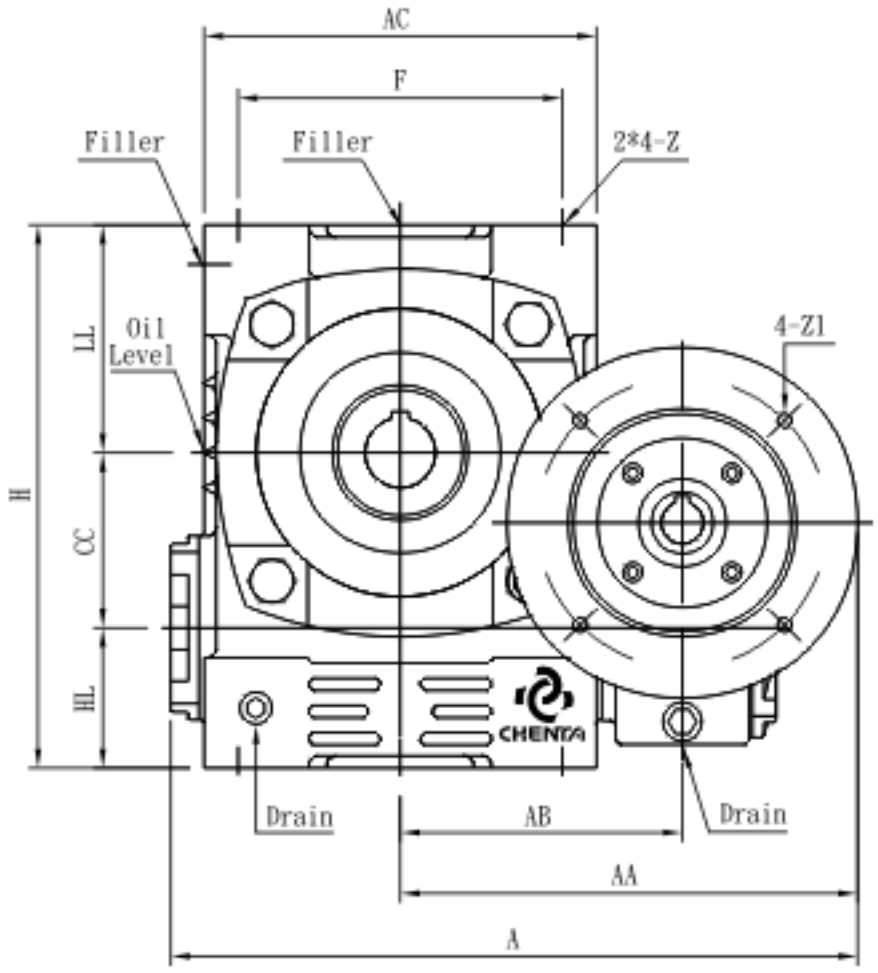
Unit:mm

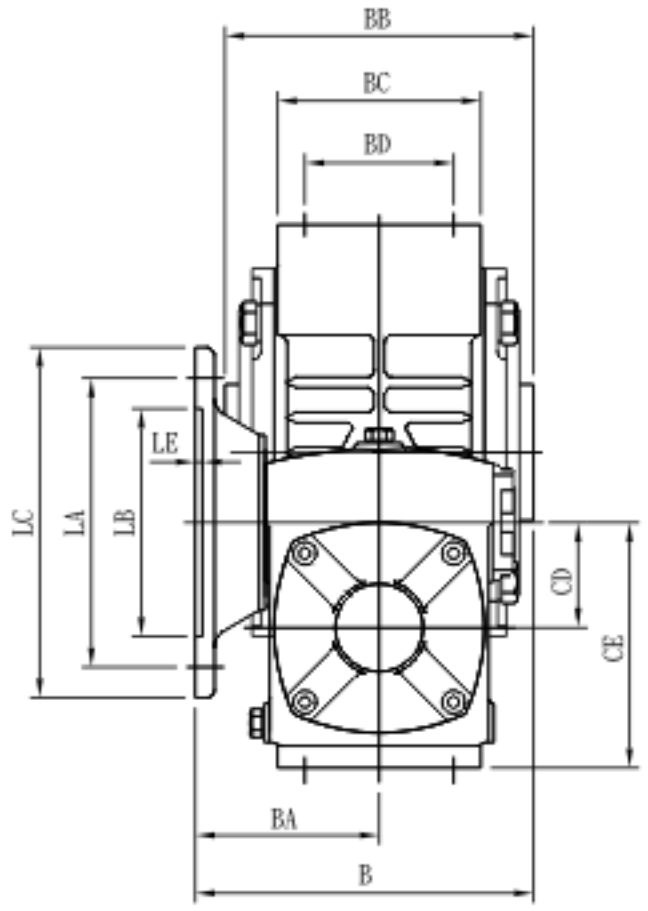
Size	Ratio	A	AA	AB	AC	F	B	BA	BB	BD	BC	CC	CD	CE	H	HL	LL
40-70	1/100 ~ 1/3600	257	163	113	154	125	148	83	130	66	88	70	40	90	205	50	85
50-80		289	184	132	175	145	179	107	144	75	97	80	50	110	232	60	92
60-100		352	219	161	224	187	211.5	124	175	91	116	100	60	140	310	80	130
70-120		417	258	192	264	232	240	140	200	100	136	120	70	165	370	95	155
80-135		462	287	211	295	264	275	160	230	111	154	135	80	185	425	105	185

Size	Z	Input Shaft			Output Bore			Oil (1)	Weight (kg)
		HS	U	T * V	S	W	Y		
40-70	3/8 UNC-16	28	12	4 * 2.5	30	8	33.5	0.65	17
50-80	3/8 UNC-16	30	12	4 * 2.5	35	10	38.5	1.05	23
60-100	1/2 UNC-13	40	15	5 * 3.0	40	12	43.5	1.70	42
70-120	5/8 UNC-11	40	18	5 * 3.0	45	12	48.5	3.00	73
80-135	5/8 UNC-11	50	22	7 * 4.0	60	15	65.0	4.75	84

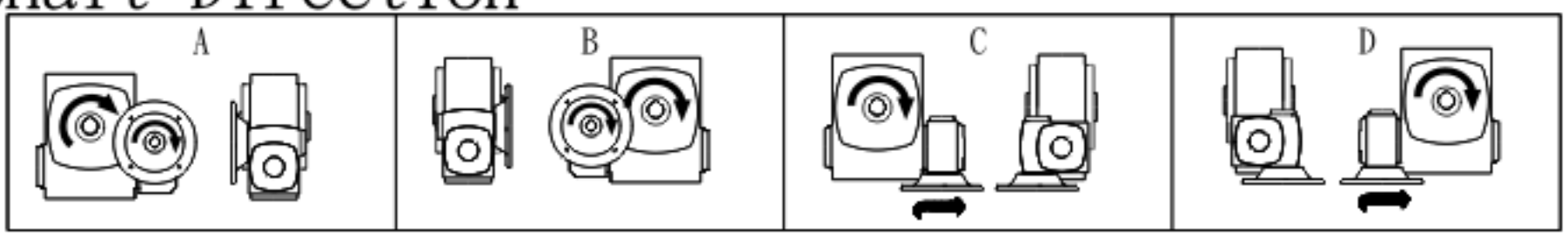


OUTPUT-BORE VIEW





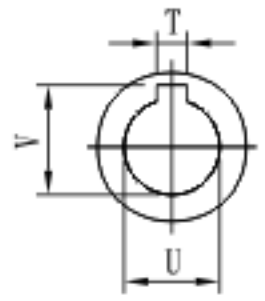
Shaft Direction



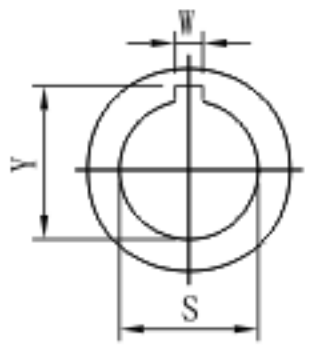
Unit:mm

Size	Ratio	A	AA	AB	AC	F	B	BA	BB	BC	BD	CC	CD	CE	H	HL	LL	Z
40-70	1/100 ≀ 1/3600	256	193	113	154	125	150	85	130	88	66	70	40	90	205	50	85	3/8 UNC-16
50-80		264	212	132	175	145	212	140	144	97	75	80	50	110	232	60	92	3/8 UNC-16
60-100		299	241	161	224	187	184	97	175	116	91	100	60	140	310	80	130	1/2 UNC-13
70-120		338 358	272 292	192	264	232	218 220	118 120	200	136	100	120	70	165	370	95	155	5/8 UNC-11
80-135		387	311	211	295	264	245	130	230	154	111	135	80	185	425	105	185	5/8 UNC-11

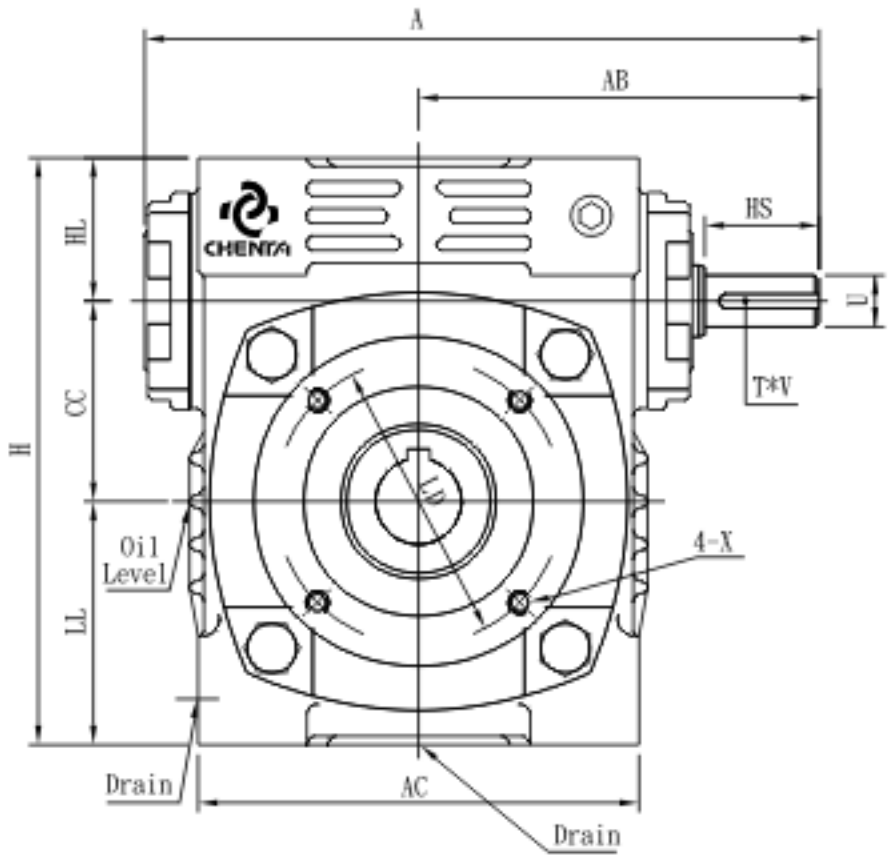
Size	Input Bore			Output Bore			Flange					HP	Oil (l)	Weight (kg)
	U	T	V	S	W	Y	LA	LB	LC	LE	Z1			
40-70	11	4	12.8	30	8	33.5	130	110	160	4	M8	1/4HP	0.65	18
50-80	11 14	4 5	12.8 16.3	35	10	38.5	130	110	160	4	M8	1/4HP 1/2HP	1.05	24
60-100	11 14	4 5	12.8 16.3	40	12	43.5	130	110	160	4	M8	1/4HP 1/2HP	1.70	43
70-120	14 19	5 6	16.3 21.8	45	12	48.5	130 165	110 130	160 200	4 5	M8 M10	1/2HP 1HP	3.00	74
80-135	19 24	6 8	21.8 27.3	60	15	65.0	165	130	200	5	M10	1HP 2HP	4.75	87

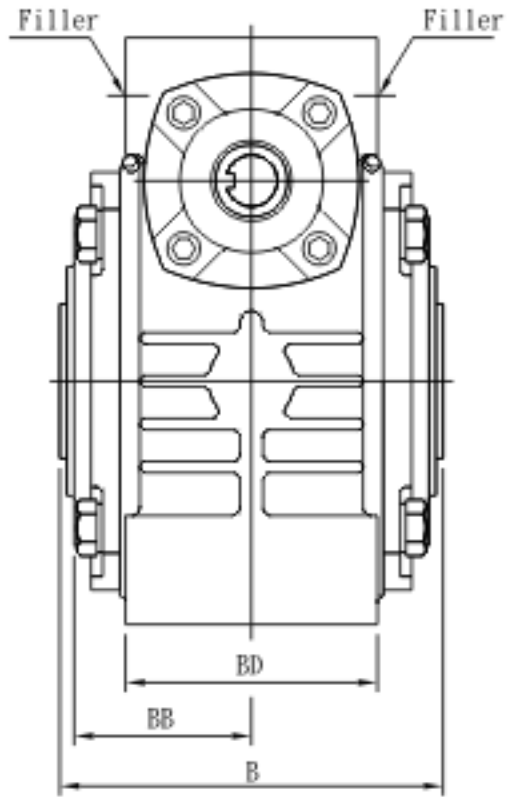


INPUT-BORE VIEW

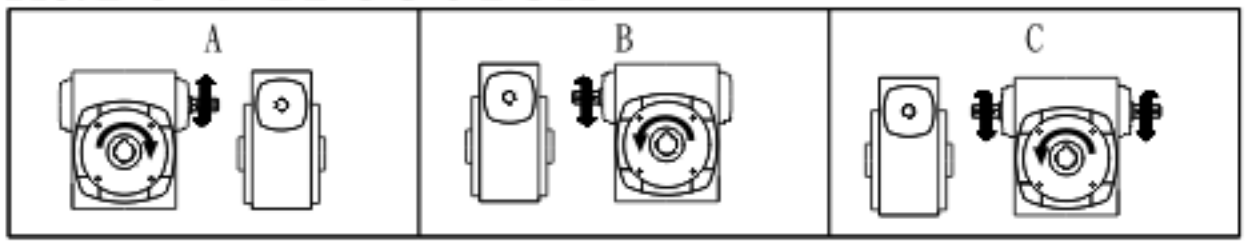


OUTPUT-BORE VIEW





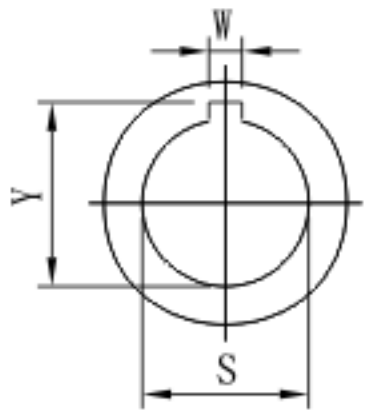
Shaft Direction



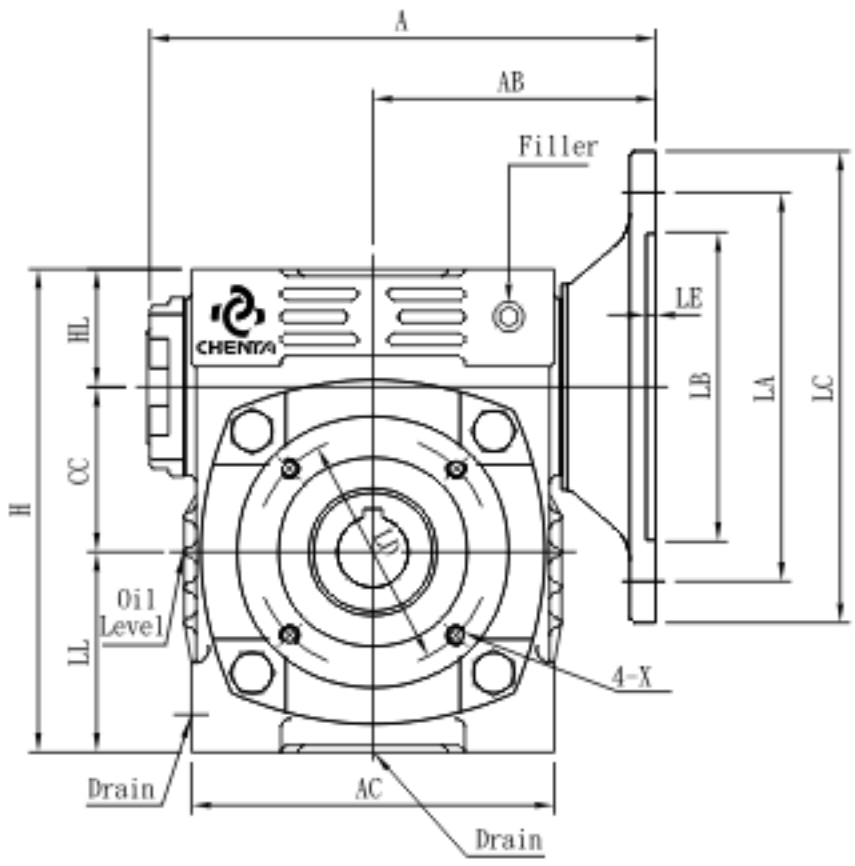
Unit:mm

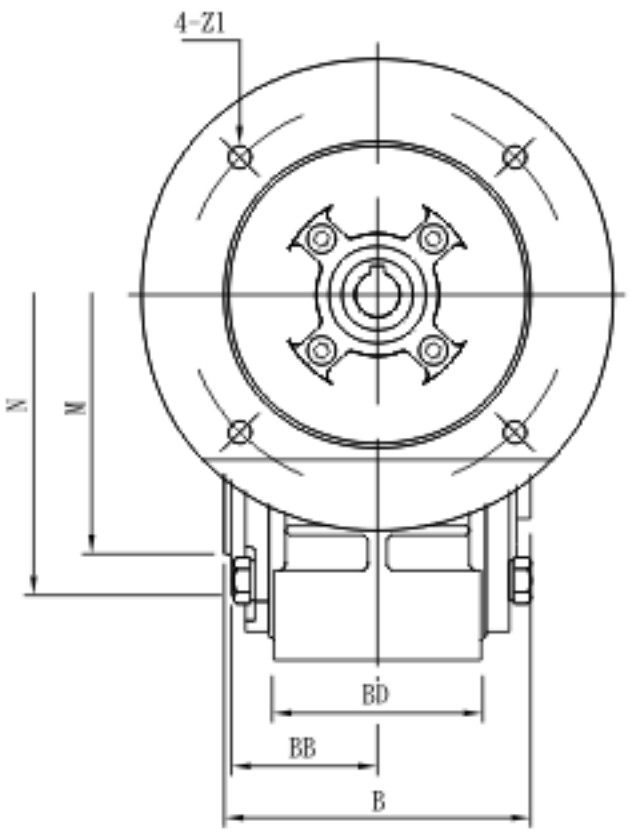
Size	Ratio	A	AB	AC	B	BB	BD	CC	M	N	H	HL	LL	LD	X
50	1/10	181	107	115	110	52	68	50	58	80	150	35	65	70	M6
60	1/15	204	124	127	117	55.5	78	60	70	92	177	42	75	82	M8
70	1/20	234	140	154	130	62	88	70	80	115	205	50	85	100	M8
80	1/30	265	160	175	144	68	97	80	95	135	232	60	92	115	M10
100	1/40	325	192	224	175	83	116	100	110	160	310	80	130	130	M12
120	1/50	389	230	264	200	95	136	120	130	200	370	95	155	165	M12
135	1/60	435	260	310	230	110	154	135	160	233	425	105	185	200	M12

Size	Input Shaft			Output Bore			Oil (1)	Weight (kg)
	HS	U	T * V	S	W	Y		
50	30	12	4 * 2.5	20	5	22.3	0.26	6
60	40	15	5 * 3.0	25	7	28.3	0.40	8
70	40	18	5 * 3.0	30	8	33.5	0.70	14
80	50	22	7 * 4.0	35	10	38.5	1.15	19
100	50	25	7 * 4.0	40	12	43.5	2.20	36
120	65	30	7 * 4.0	45	12	48.5	4.80	48
135	75	35	10 * 4.5	60	15	65.0	6.30	70

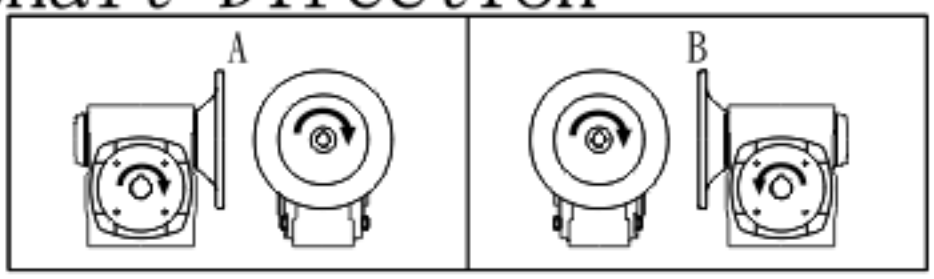


OUTPUT-BORE VIEW





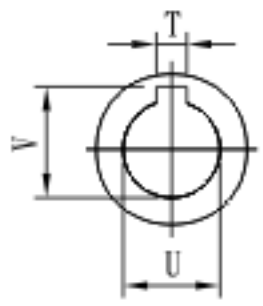
Shaft Direction



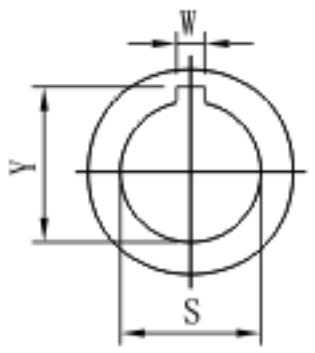
Unit:mm

Size	Ratio	A	AB	AC	B	BB	BD	CC	M	N	H	HL	LL	LD	X	Input Bore		
																U	T	V
50	1/10	214	140	115	110	52	68	50	58	80	150	35	65	70	M6	11 14	4 5	12.8 16.3
60	1/15	177	97	127	117	55.5	78	60	70	96	177	42	75	82	M8	11 14	4 5	12.8 16.3
70	1/20	213 215	118 120	154	130	62	88	70	80	115	205	50	85	100	M8	14 19	5 6	16.3 21.8
80	1/30	235	130	175	144	68	97	80	95	135	232	60	92	115	M10	19 24	6 8	21.8 27.3
100	1/40	273 275	140 142	224	175	83	116	100	110	160	310	80	130	130	M12	24 28	8	27.3 31.3
120	1/50	339	180	264	200	95	136	120	130	200	370	95	155	165	M12	28	8	31.3
135	1/60	370 393	195 218	310	230	110	154	135	160	233	425	105	185	200	M12	28 38	8 10	31.3 41.5

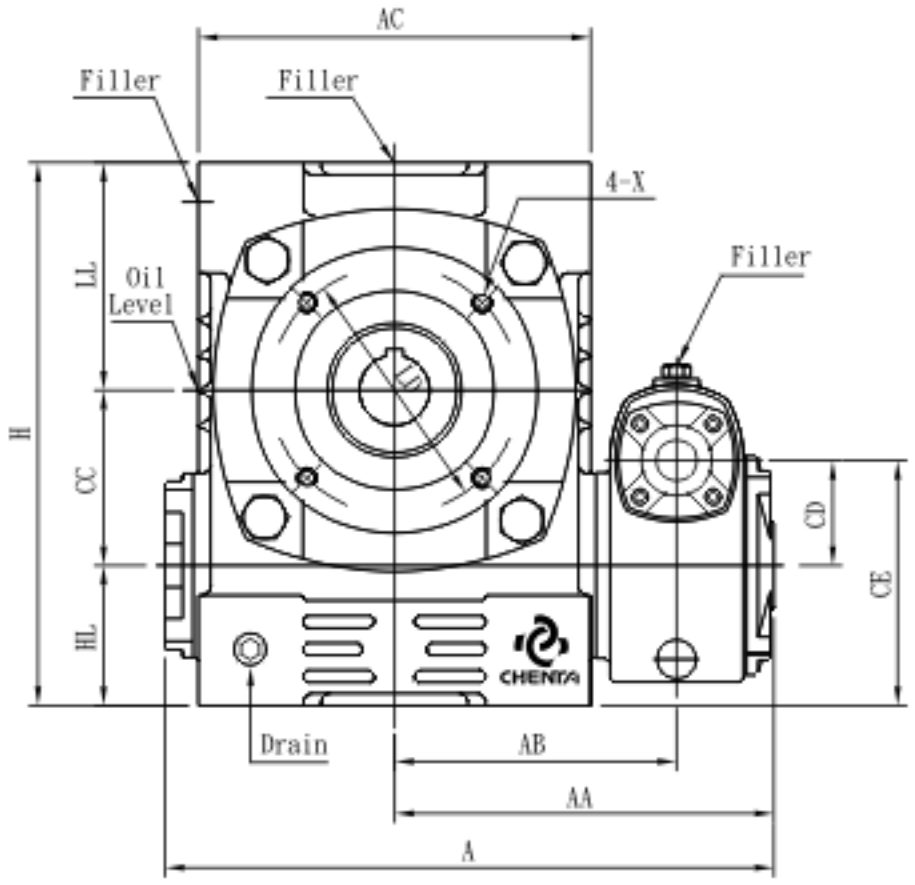
Size	Output Bore			Flange					HP	Oil (1)	Weight (kg)
	S	W	Y	LA	LB	LC	LE	Z1			
50	20	5	22.3	130	110	160	4	M8	1/4HP 1/2HP	0.26	7
60	25	7	28.0	130	110	160	4	M8	1/4HP 1/2HP	0.40	9
70	30	8	33.5	130 165	110 130	160 200	4 5	M8 M10	1/2HP 1HP	0.70	16
80	35	10	38.5	165	130	200	5	M8	1HP 2HP	1.15	21
100	40	12	43.5	165 215	130 180	200 250	5	M10 M12	2HP 3HP	2.20	39
120	45	12	48.5	215	180	250	5	M12	3HP 5HP	4.80	52
135	60	15	65.0	215 265	180 230	250 300	5	M12 15	5HP 7.5HP	6.30	74

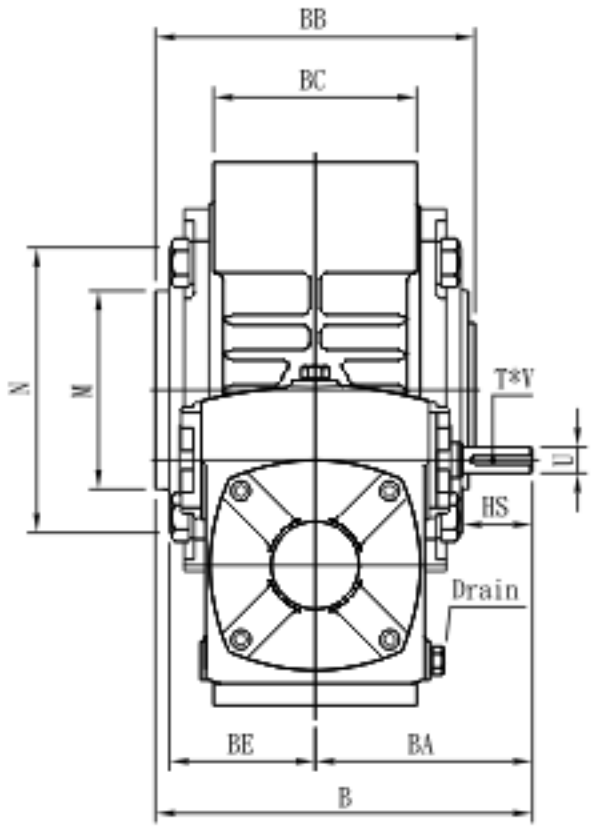


INPUT-BORE VIEW

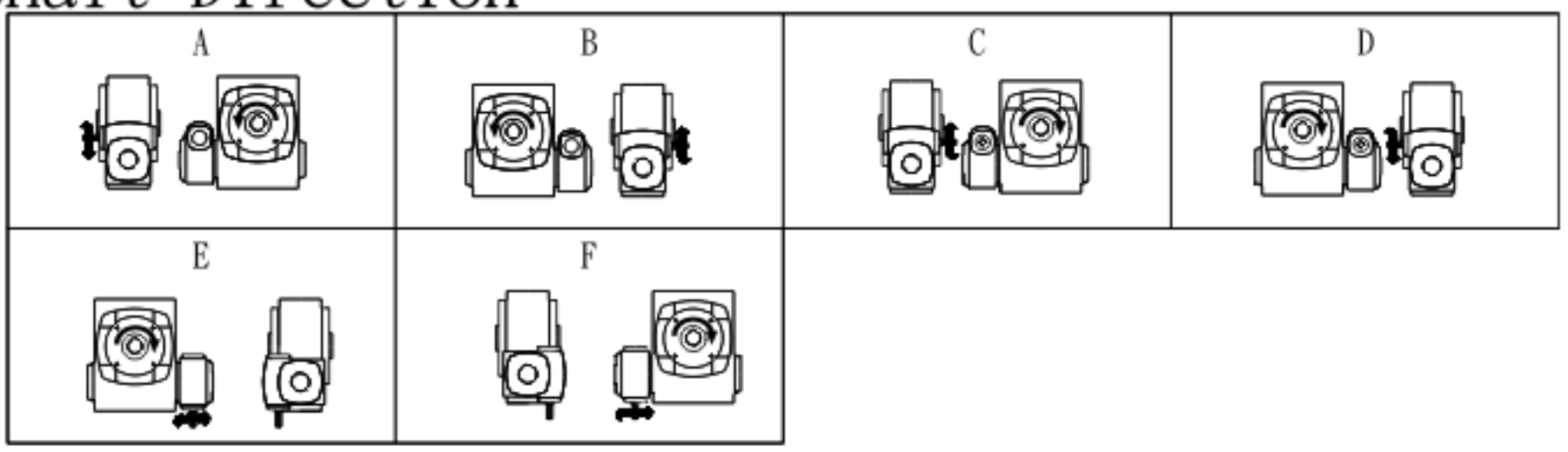


OUTPUT-BORE VIEW





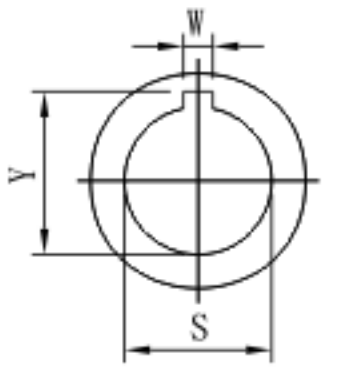
Shaft Direction



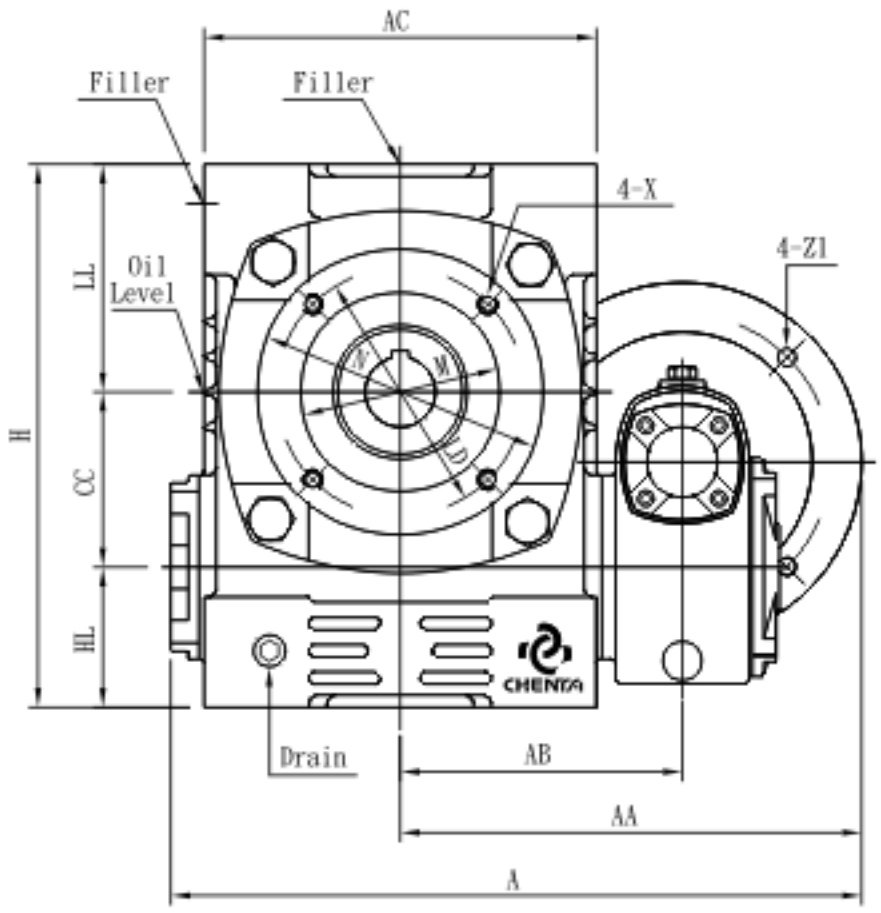
Unit:mm

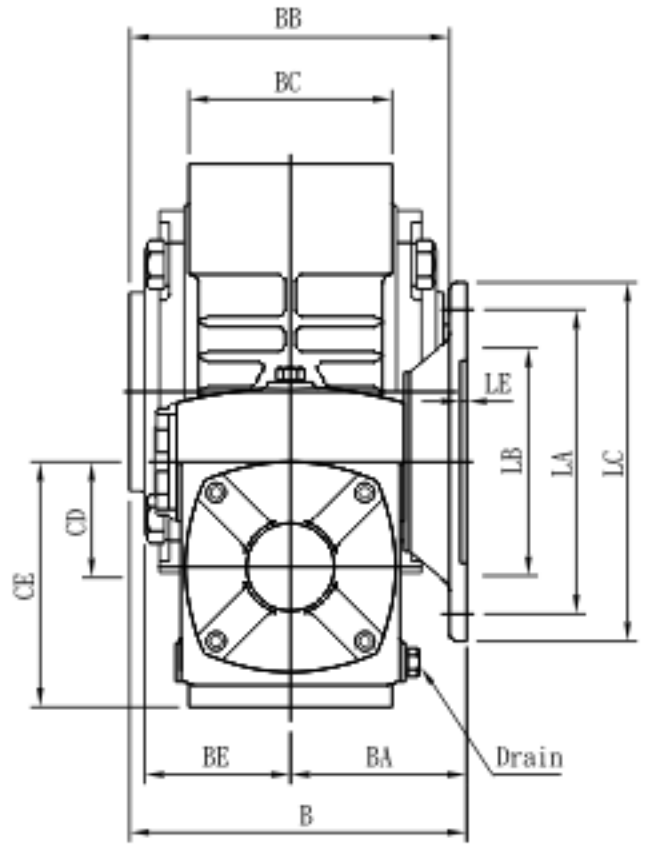
Size	Ratio	A	AA	AB	AC	B	BA	BB	BC	CC	CD	CE	H	HL	LL	BE	LD
40-70	1/100 ≀ 1/3600	257	163	113	154	148	83	130	88	70	40	90	205	50	85	62	100
50-80		289	184	132	175	179	107	144	97	80	50	110	232	60	92	68	115
60-100		352	219	161	224	211.5	124	175	116	100	60	140	310	80	130	83	130
70-120		417	258	192	264	240	140	200	136	120	70	165	370	95	155	95	165
80-135		462	287	211	295	275	160	230	154	135	80	185	425	105	185	110	200

Size	M	N	X	Input Shaft			Output Bore			Oil (1)	Weight (kg)
				HS	U	T * V	S	W	Y		
40-70	80	115	M8	28	12	4 * 2.5	30	8	33.5	0.65	17
50-80	95	135	M10	30	12	4 * 2.5	35	10	38.5	1.05	23
60-100	110	160	M12	40	15	5 * 3.0	40	12	43.5	1.70	42
70-120	130	200	M12	40	18	5 * 3.0	45	12	48.5	3.00	73
80-135	160	233	M12	50	22	7 * 4.0	60	15	65.0	4.75	84

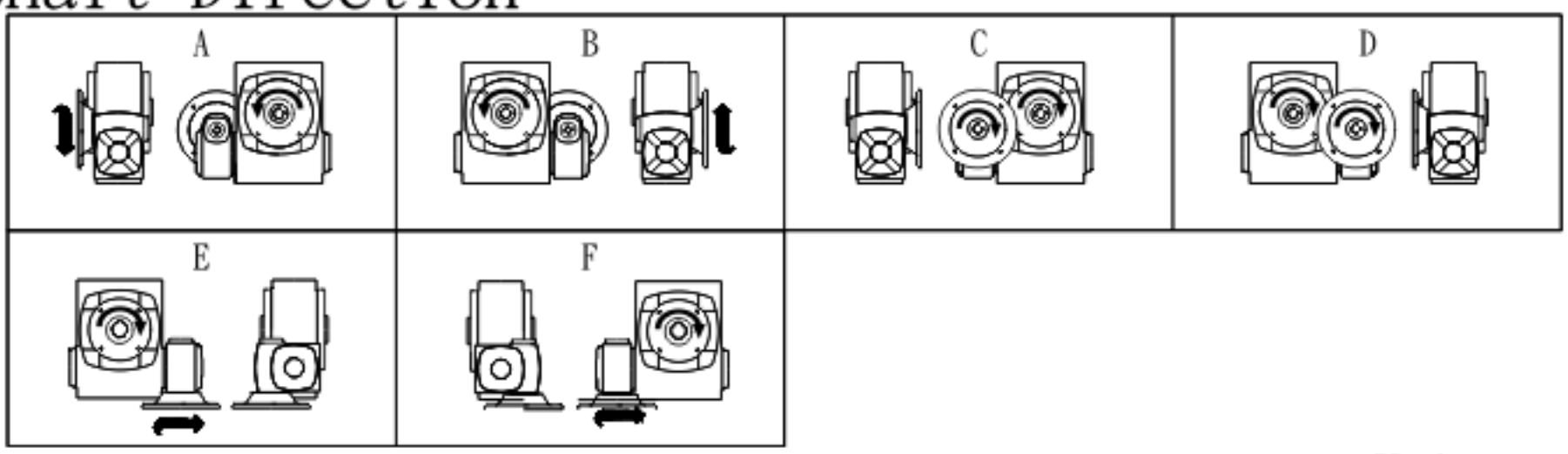


OUTPUT-BORE VIEW





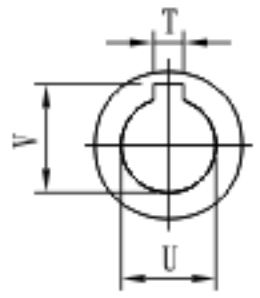
Shaft Direction



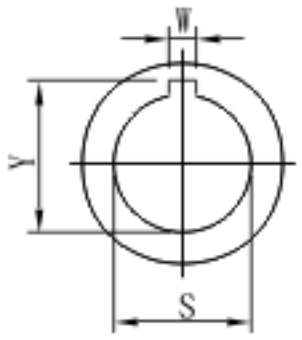
Unit:mm

Size	Ratio	A	AA	AB	AC	B	BA	BB	BC	BE	CC	CD	CE	H	HL	LL	LD	M	N	X
40-70	1/100 ~ 1/3600	256	193	113	154	150	85	130	88	62	70	40	90	205	50	85	100	80	115	M8
50-80		264	212	132	175	212	140	144	97	68	80	50	110	232	60	92	115	95	135	M10
60-100		299	241	161	224	184	97	175	116	83	100	60	140	310	80	130	130	110	160	M12
70-120		338 358	272 292	192	264	218 220	118 120	200	136	95	120	70	165	370	95	155	165	130	200	M12
80-135		387	311	211	295	245	130	230	154	110	135	80	185	425	105	185	200	160	233	M12

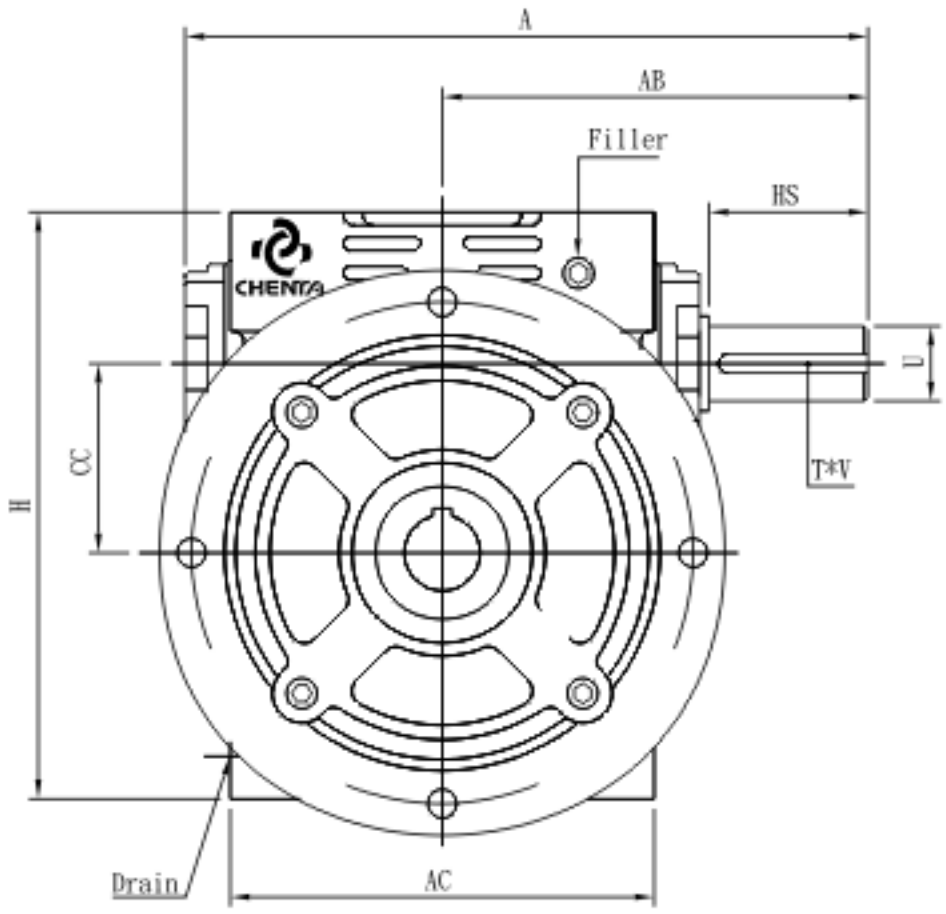
Size	Input Bore			Output Bore			Flange					HP	Oil (1)	Weight (kg)
	U	T	V	S	W	Y	LA	LB	LC	LE	Z1			
40-70	11	4	12.8	30	8	33.5	130	110	160	4	M8	1/4HP	0.65	18
50-80	11 14	4 5	12.8 16.3	35	10	38.5	130	110	160	4	M8	1/4HP 1/2HP	1.05	24
60-100	11 14	4 5	12.8 16.3	40	12	43.5	130	110	160	4	M8	1/4HP 1/2HP	1.70	43
70-120	14 19	5 6	16.3 21.8	45	12	48.5	130 165	110 130	160 200	4 5	M8 M10	1/2HP 1HP	3.00	74
80-135	19 24	6 8	21.8 27.3	60	15	65.0	165	130	200	5	M10	1HP 2HP	4.75	87

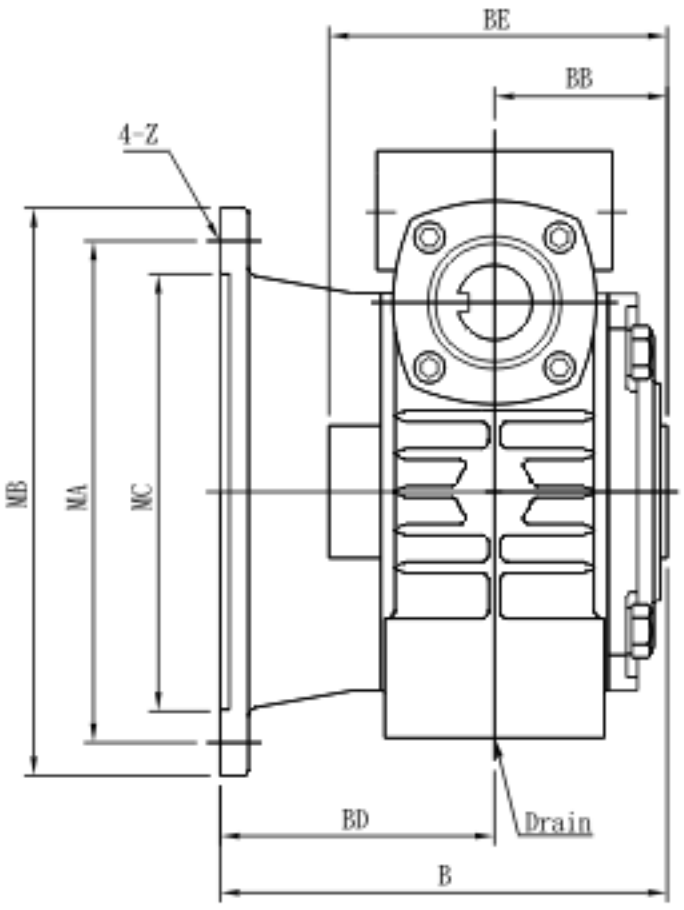


INPUT-BORE VIEW

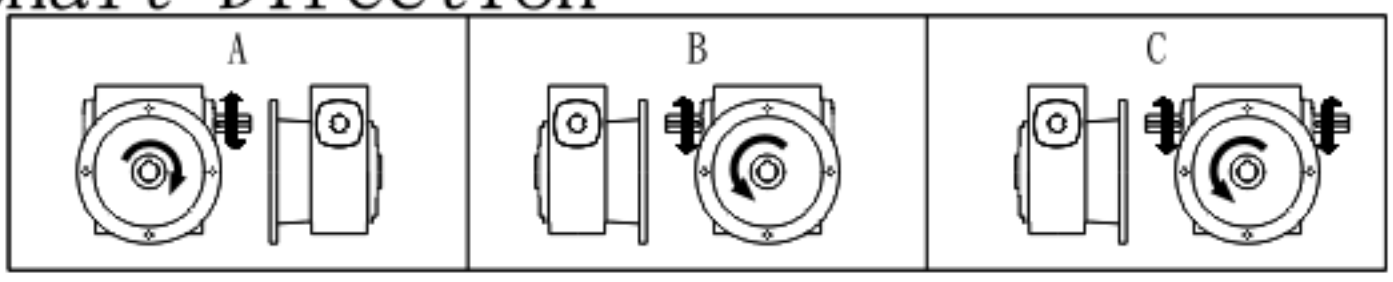


OUTPUT-BORE VIEW





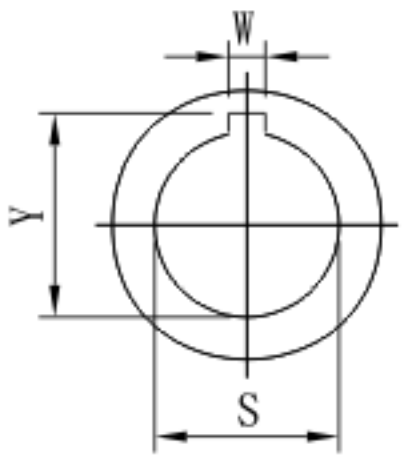
Shaft Direction



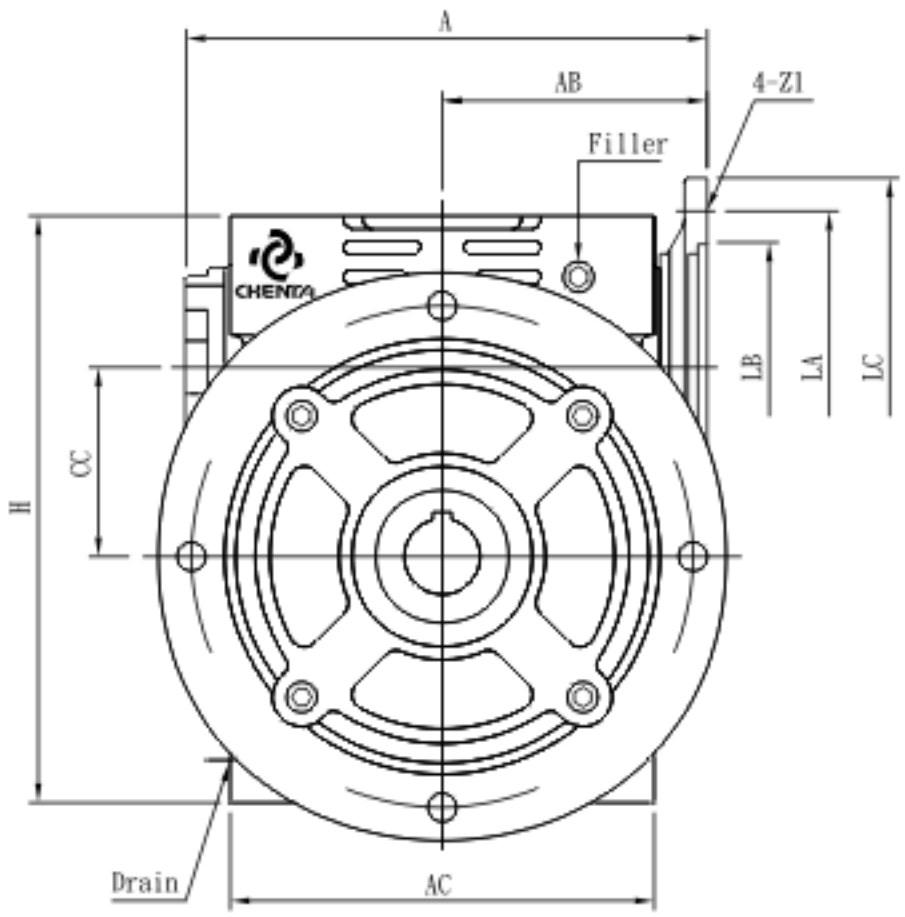
Unit:mm

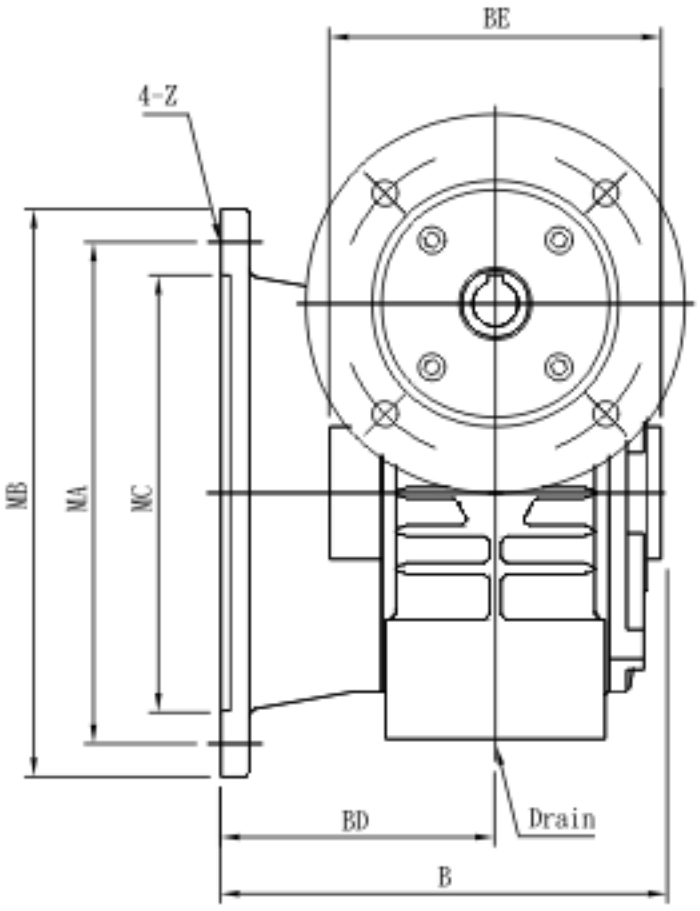
Size	Ratio	A	AB	AC	B	BB	BD	BE	CC	H	MA	MB	MC	Z
50	1/10	181	107	115	151	55	81	110	50	150	150	180	130	11
60	1/15	204	124	127	154.5	58.5	96	117	60	177	150	180	130	11
70	1/20	234	140	154	180	65	115	130	70	205	215	250	180	15
80	1/30	265	160	175	187	72	105	144	80	232	215	250	180	15
100	1/40	325	192	224	232	87.5	144.5	175	100	310	265	300	230	15
120	1/50	389	230	264	245	100	145	200	120	370	300	350	250	19
135	1/60	435	260	310	290	115	175	230	135	425	350	400	300	19

Size	Input Shaft			Output Bore		Oil (1)	Weight kg
	HS	U	T * V	S	W * Y		
50	30	12	4 * 2.5	20	5 * 22.3	0.26	8
60	40	15	5 * 3.0	25	7 * 28.0	0.40	11
70	40	18	5 * 3.0	30	8 * 33.5	0.70	16
80	50	22	7 * 4.0	35	10 * 38.5	1.15	21
100	50	25	7 * 4.0	40	12 * 43.5	2.20	40
120	65	30	7 * 4.0	45	12 * 48.5	4.80	52
135	75	35	10 * 4.5	60	15 * 65.0	6.30	75

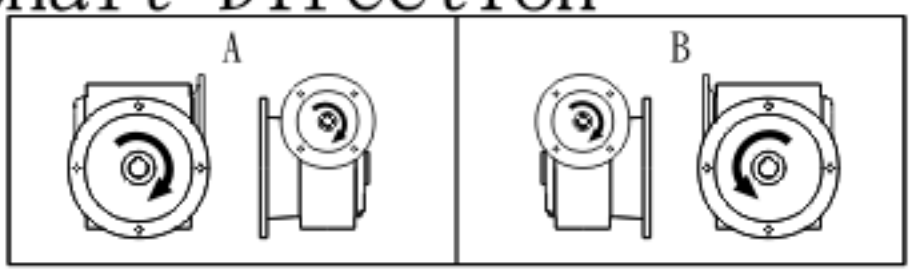


OUTPUT-BORE VIEW





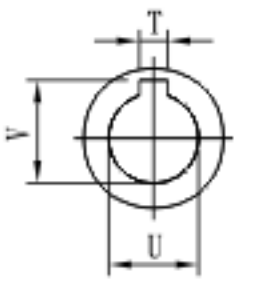
Shaft Direction



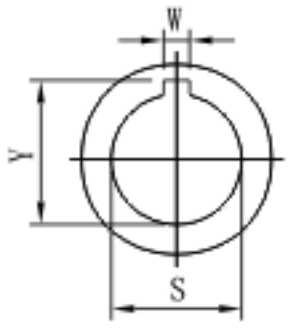
Unit:mm

Size	Ratio	A	AB	AC	B	BD	BE	CC	H	MA	MB	MC	Z	Input Bore U	Input Bore T	Input Bore V
50	1/10	214	140	115	151	81	110	50	150	150	180	130	11	11 14	4 5	12.8 16.3
60	1/15	177	97	127	154.5	96	117	60	177	150	180	130	11	11 14	4 5	12.8 16.3
70	1/20	213 215	118 120	154	180	115	130	70	205	215	250	180	15	14 19	5 6	16.3 21.8
80	1/30	235	130	175	187	105	144	80	232	215	250	180	15	19 24	6 8	21.8 27.3
100	1/40	273 275	140 142	224	232	144.5	175	100	310	265	300	230	15	24 28	8	27.3 31.3
120	1/50	339	180	264	245	145	200	120	370	300	350	250	19	28	8	31.3
135	1/60	370 393	195 218	310	290	175	230	135	425	350	400	300	19	28 38	8 10	31.3 41.5

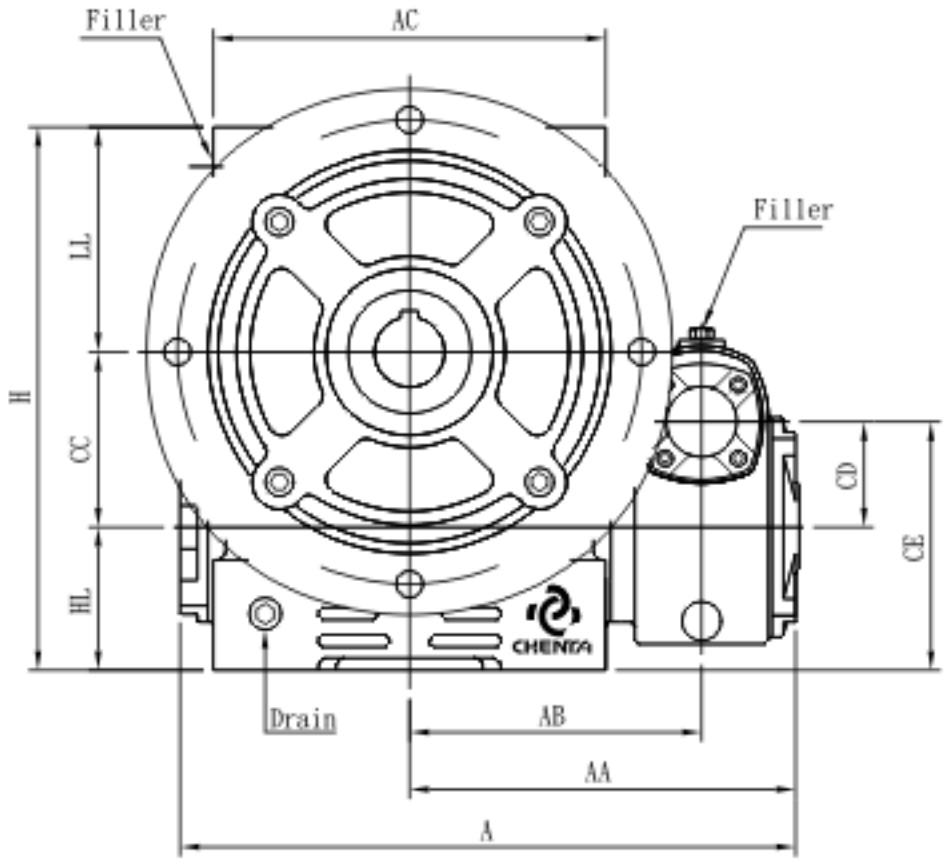
Size	Output Bore S	Output Bore W	Output Bore Y	Flange LA	Flange LB	Flange LC	Flange LE	Flange Z1	HP	Oil (1)	Weight (kg)
50	20	5	22.3	130	110	160	4	M8	1/4 1/2	0.26	9
60	25	7	28.0	130	110	160	4	M8	1/4 1/2	0.40	12
70	30	8	33.5	130 165	110 130	160 200	4	M8 M10	1/2 1	0.70	18
80	35	10	38.5	165	130	200	5	M10	1 2	1.15	24
100	40	12	43.5	165 215	130 180	200 250	5	M10 M12	2 3	2.20	43
120	45	12	48.5	215	180	250	5	M12	3 5	4.80	56
135	60	15	65.0	215 265	180 230	250 300	5	M12 Ø15	5 7.5	6.30	79

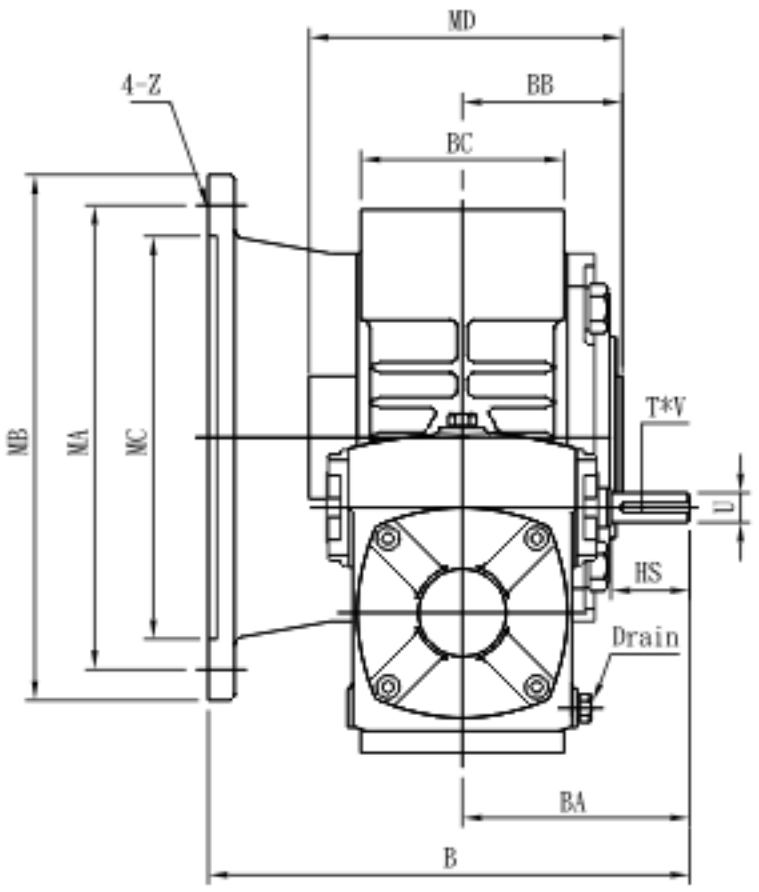


INPUT-BORE VIEW

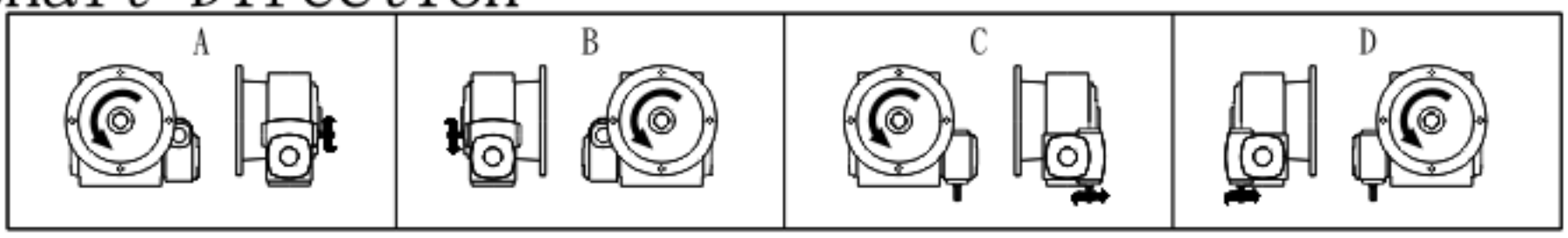


OUTPUT-BORE VIEW





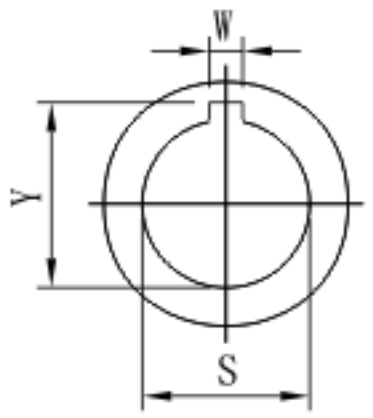
Shaft Direction



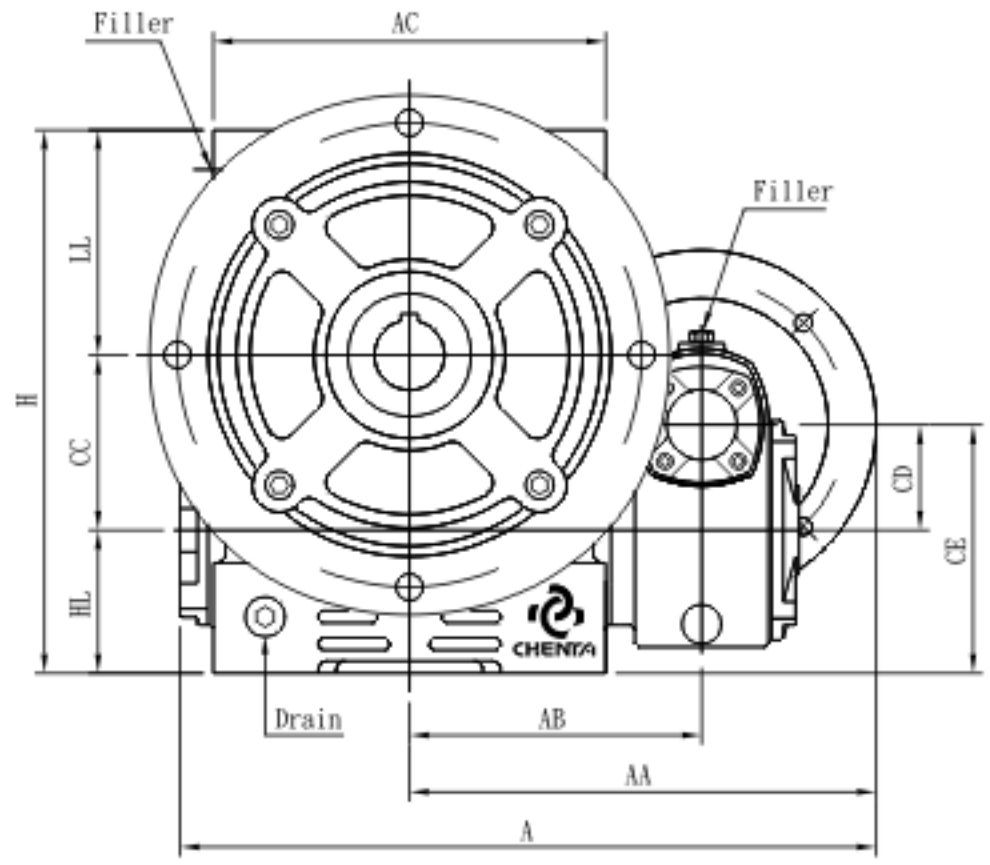
Unit:mm

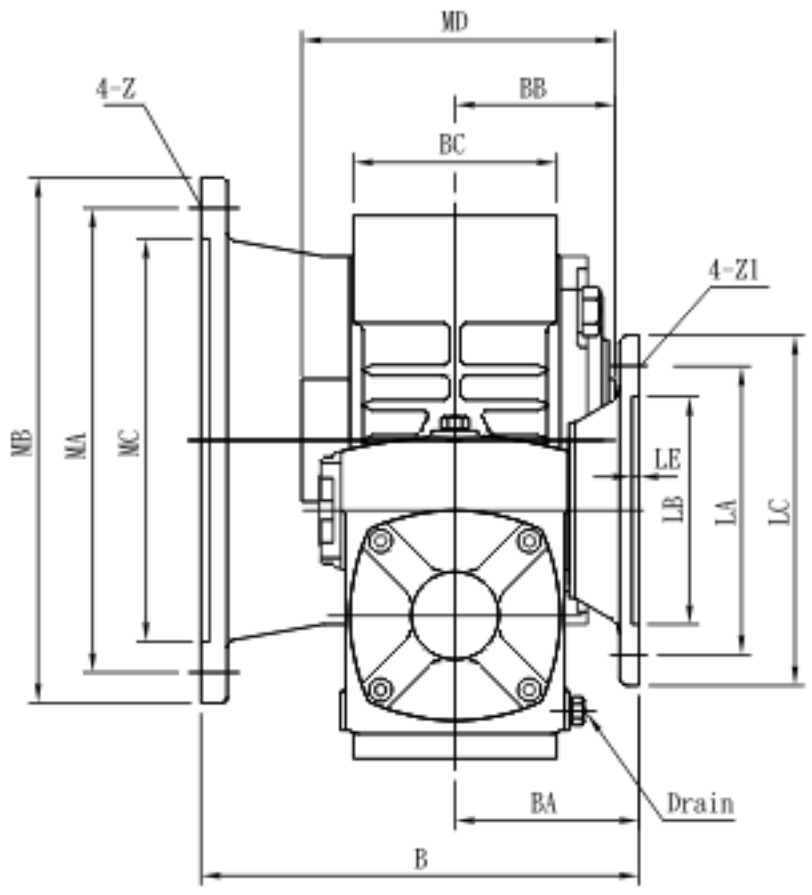
Size	Ratio	A	AA	AB	AC	B	BA	BB	BC	CC	CD	CE	H	HL	LL	Z
40-70	1/100 ≀ 1/3600	280	155	113	154	198	83	65	88	70	40	90	205	50	85	15
50-80		309	184	132	175	212	107	72	97	80	50	110	232	60	92	15
60-100		369	219	161	224	268.5	124	87.5	116	100	60	140	310	80	130	15
70-120		433	258	192	264	285	140	100	136	120	70	165	370	95	155	19
80-135		487	287	211	295	335	160	115	154	135	80	185	425	105	185	19

Size	MB	MA	MC	MD	Input Shaft			Output Bore			Oil (1)	Weight (kg)
					HS	U	T*V	S	W	Y		
40-70	250	215	180	130	28	12	4 * 2.5	30	8	33.5	0.65	20
50-80	250	215	180	144	30	12	4 * 2.5	35	10	38.5	1.05	27
60-100	300	265	230	175	40	15	5 * 3.0	40	12	43.5	1.70	46
70-120	350	300	250	200	40	18	5 * 3.0	45	12	48.5	3.00	77
80-135	400	350	300	230	50	22	7 * 4.0	60	15	65.0	4.75	89

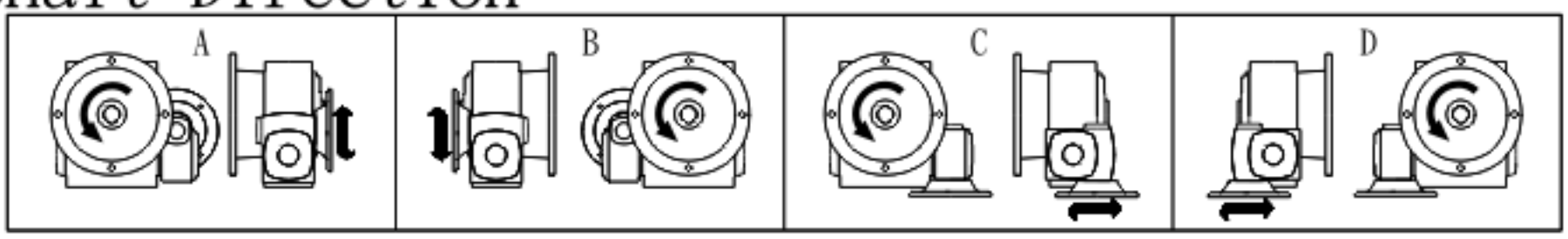


OUTPUT-BORE VIEW





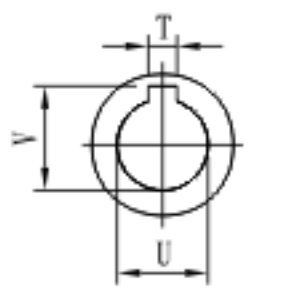
Shaft Direction



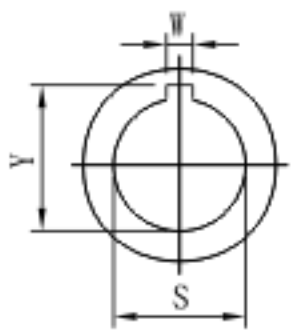
Unit:mm

Size	Ratio	A	AA	AB	AC	B	BA	BB	BC	CC	CD	CE	H	HL	LL	Z	MB	MA	MC	MD
40-70	1/100 ≀ 1/3600	256	193	113	154	200	85	65	88	70	40	90	205	50	85	15	250	215	180	130
50-80		264	212	132	175	245	140	72	97	80	50	110	232	60	92	15	250	215	180	144
60-100		299	241	161	224	241.5	97	87.5	116	100	60	140	310	80	130	15	300	265	230	175
70-120		338 358	272 292	192	264	263 265	118 120	100	136	120	70	165	370	95	155	19	350	300	250	200
80-135		387	311	211	295	305	130	115	154	135	80	185	425	105	185	19	400	350	300	230

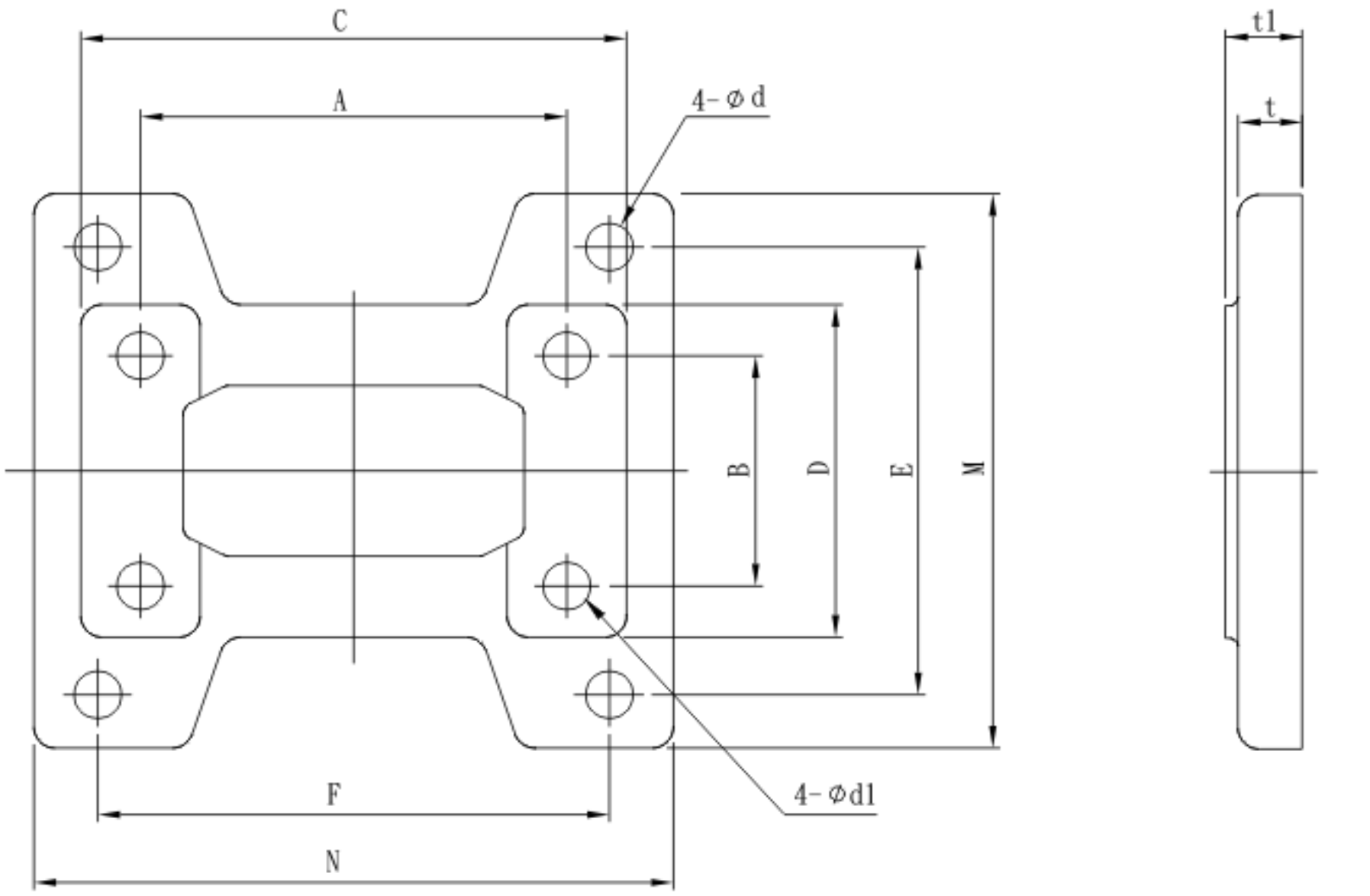
Size	Input Bore			Output Bore			Flange					HP	Oil (1)	Weight (kg)
	U	T	V	S	W	Y	LA	LB	LC	LE	Z1			
40-70	11	4	12.8	30	8	33.5	130	110	160	4	M8	1/4HP	0.65	20
50-80	11 14	4 5	12.8 16.3	35	10	38.5	130	110	160	4	M8	1/4HP 1/2HP	1.05	27
60-100	11 14	4 5	12.8 16.3	40	12	43.5	130	110	160	4	M8	1/4HP 1/2HP	1.70	47
70-120	14 19	5 6	16.3 21.8	45	12	48.5	130 165	110 130	160 200	4 5	M8 M10	1/2HP 1HP	3.00	78
80-135	19 24	6 8	21.8 27.3	60	15	65.0	165	130	200	5	M10	1HP 2HP	4.75	92



INPUT-BORE VIEW



OUTPUT-BORE VIEW



Unit:mm

Size	A	B	C	D	E	F	M	N	t	t1	d	d1
40	80.00	54.00	102	68	90	100	110	125	11	13	10	8.7
50	90.00	50.00	115	68	95	110	120	140	13	15	11	9
60	100.00	54.00	127	78	105	120	130	150	15	18	11	11
70	125.00	66.00	156	92	115	150	150	190	18	20	15	11
80	145.00	75.00	174	100	135	180	170	220	18	20	15	11
100	187.33	90.49	224	120	155	220	190	270	22	25	15	14
120	231.78	100	264	140	180	260	230	320	26	30	18	17
135	263.52	111.25	294	154	200	290	250	350	26	30	18	17

SINGLE REDUCTION GEAR REDUCER

Permissible Transmission Horse Power and Torque on Output Shaft

Duration, 8～10 service hours per day at uniform load OHL = Over Hanging Load

Size	Ratio	Input RPM	1800	1500	1200	900	600	300
40	1/10	1.Input horse power(HP)	0.83	0.77	0.67	0.56	0.43	0.23
		2.Output horse power(HP)	0.65	0.6	0.51	0.43	0.32	0.16
		3.Output torque(kg-m)	2.6	2.8	3.1	3.4	3.8	3.8
		4.Output OHL(kg)	70	70	70	70	70	70
	1/15	1.Input horse power(HP)	0.41	0.37	0.33	0.27	0.2	0.11
		2.Output horse power(HP)	0.28	0.25	0.20	0.17	0.11	0.04
		3.Output torque(kg-m)	2.3	2.5	2.8	3.2	3.5	3.8
		4.Output OHL(kg)	70	70	70	70	70	70
	1/20	1.Input horse power(HP)	0.39	0.35	0.31	0.27	0.2	0.12
		2.Output horse power(HP)	0.27	0.24	0.21	0.17	0.12	0.08
		3.Output torque(kg-m)	2.1	2.3	2.5	2.8	3.1	3.7
		4.Output OHL(kg)	70	70	70	70	70	70
	1/30	1.Input horse power(HP)	0.43	0.4	0.34	0.27	0.2	0.09
		2.Output horse power(HP)	0.28	0.25	0.21	0.16	0.11	0.04
		3.Output torque(kg-m)	3.3	3.5	3.8	3.8	3.8	3.8
		4.Output OHL(kg)	70	70	70	70	70	70
	1/40	1.Input horse power(HP)	0.27	0.24	0.21	0.19	0.15	0.08
		2.Output horse power(HP)	0.15	0.15	0.12	0.11	0.07	0.04
		3.Output torque(kg-m)	2.5	2.6	2.8	3.1	3.4	3.8
		4.Output OHL(kg)	70	70	70	70	70	70
	1/50	1.Input horse power(HP)	0.25	0.23	0.2	0.17	0.12	0.07
		2.Output horse power(HP)	0.15	0.12	0.11	0.11	0.05	0.03
		3.Output torque(kg-m)	2.8	3.0	3.2	3.5	3.8	3.8
		4.Output OHL(kg)	70	70	70	70	70	70
	1/60	1.Input horse power(HP)	0.2	0.19	0.16	0.15	0.11	0.07
		2.Output horse power(HP)	0.11	0.09	0.08	0.07	0.04	0.03
		3.Output torque(kg-m)	2.4	2.6	2.7	3.0	3.2	3.8
		4.Output OHL(kg)	70	70	70	70	70	70

Size	Ratio	Input RPM	1800	1500	1200	900	600	300
50	1/10	1.Input horse power(HP)	1.23	1.16	1.01	0.86	0.58	0.31
		2.Output horse power(HP)	0.99	0.93	0.80	0.67	0.45	0.23
		3.Output torque(kg-m)	3.95	4.47	4.80	5.33	5.43	5.43
		4.Output OHL(kg)	90	100	110	120	140	200
	1/15	1.Input horse power(HP)	0.95	0.85	0.74	0.61	0.41	0.22
		2.Output horse power(HP)	0.73	0.65	0.56	0.45	0.30	0.15
		3.Output torque(kg-m)	4.38	4.64	5.06	5.43	5.43	5.43
		4.Output OHL(kg)	110	120	130	140	160	200
	1/20	1.Input horse power(HP)	0.71	0.63	0.55	0.48	0.35	0.17
		2.Output horse power(HP)	0.50	0.44	0.38	0.32	0.23	0.11
		3.Output torque(kg-m)	4.00	4.25	4.58	5.07	5.43	5.43
		4.Output OHL(kg)	130	140	155	170	200	200
	1/30	1.Input horse power(HP)	0.62	0.55	0.45	0.36	0.25	0.12
		2.Output horse power(HP)	0.42	0.37	0.30	0.23	0.15	0.07
		3.Output torque(kg-m)	5.02	5.31	5.43	5.43	5.34	5.34
		4.Output OHL(kg)	150	170	180	200	200	200
	1/40	1.Input horse power(HP)	0.47	0.43	0.39	0.32	0.22	0.13
		2.Output horse power(HP)	0.28	0.25	0.22	0.17	0.11	0.06
		3.Output torque(kg-m)	4.53	4.82	5.41	5.43	5.43	5.43
		4.Output OHL(kg)	170	180	200	200	200	200
	1/50	1.Input horse power(HP)	0.39	0.37	0.31	0.26	0.18	0.09
		2.Output horse power(HP)	0.23	0.21	0.17	0.14	0.09	0.04
		3.Output torque(kg-m)	4.62	4.91	5.19	5.43	5.43	5.43
		4.Output OHL(kg)	200	200	200	200	200	200
	1/60	1.Input horse power(HP)	0.33	0.30	0.26	0.23	0.15	0.07
		2.Output horse power(HP)	0.18	0.16	0.13	0.11	0.07	0.03
		3.Output torque(kg-m)	4.31	4.61	4.83	5.41	5.43	5.43
		4.Output OHL(kg)	200	200	200	200	200	200

SINGLE REDUCTION GEAR REDUCER

Permissible Transmission Horse Power and Torque on Output Shaft

Duration, 8～10 service hours per day at uniform load OHL = Over Hanging Load

Size	Ratio	Input RPM	1800	1500	1200	900	600	300
60	1/10	1. Input horse power(HP)	2.52	2.01	1.76	1.52	1.19	0.64
		2. Output horse power(HP)	1.78	1.63	1.41	1.20	0.92	0.48
		3. Output torque(kg-m)	7.09	7.82	8.45	9.62	11.0	11.6
		4. Output OHL(kg)	90	100	110	120	140	200
	1/15	1. Input horse power(HP)	1.68	1.53	1.36	1.13	0.89	0.46
		2. Output horse power(HP)	1.32	1.18	1.04	0.85	0.65	0.32
		3. Output torque(kg-m)	7.92	8.50	9.30	10.2	11.6	11.6
		4. Output OHL(kg)	110	120	130	140	160	200
	1/20	1. Input horse power(HP)	1.18	1.06	0.95	0.79	0.64	0.37
		2. Output horse power(HP)	0.89	0.79	0.69	0.57	0.44	0.24
		3. Output torque(kg-m)	7.09	7.58	8.20	9.00	10.4	11.6
		4. Output OHL(kg)	130	140	155	170	200	200
	1/30	1. Input horse power(HP)	1.07	0.98	0.87	0.74	0.52	0.28
		2. Output horse power(HP)	0.75	0.67	0.58	0.48	0.32	0.16
		3. Output torque(kg-m)	9.0	9.60	10.3	11.5	11.6	11.6
		4. Output OHL(kg)	150	170	180	200	200	200
	1/40	1. Input horse power(HP)	0.78	0.71	0.64	0.54	0.43	0.24
		2. Output horse power(HP)	0.51	0.45	0.39	0.32	0.24	0.12
		3. Output torque(kg-m)	8.06	8.60	9.20	10.3	11.5	11.6
		4. Output OHL(kg)	170	180	200	200	200	200
	1/50	1. Input horse power(HP)	0.61	0.55	0.51	0.43	0.35	0.20
		2. Output horse power(HP)	0.36	0.32	0.28	0.23	0.17	0.09
		3. Output torque(kg-m)	7.10	7.60	8.30	9.10	10.2	11.6
		4. Output OHL(kg)	180	200	200	200	200	200
	1/60	1. Input horse power(HP)	0.51	0.47	0.42	0.35	0.29	0.19
		2. Output horse power(HP)	0.29	0.26	0.22	0.18	0.14	0.08
		3. Output torque(kg-m)	6.90	7.40	8.00	8.70	9.70	11.3
		4. Output OHL(kg)	200	200	200	200	200	200

Size	Ratio	Input RPM	1800	1500	1200	900	600	300
70	1/10	1. Input horse power(HP)	3.27	3.01	2.68	2.24	1.75	1.15
		2. Output horse power(HP)	2.69	2.45	2.16	1.79	1.36	0.86
		3. Output torque(kg-m)	10.7	11.7	12.9	14.3	16.3	20.7
		4. Output OHL(kg)	140	150	160	170	200	300
	1/15	1. Input horse power(HP)	2.60	2.37	2.04	1.72	1.36	0.86
		2. Output horse power(HP)	2.04	1.84	1.57	1.30	1.00	0.61
		3. Output torque(kg-m)	12.2	13.2	14.1	15.6	18.0	21.9
		4. Output OHL(kg)	170	180	200	220	250	300
	1/20	1. Input horse power(HP)	1.83	1.66	1.44	1.17	0.86	0.50
		2. Output horse power(HP)	1.42	1.27	1.09	0.87	0.62	0.34
		3. Output torque(kg-m)	11.3	12.1	13.0	13.9	14.7	16.0
		4. Output OHL(kg)	210	230	250	270	300	300
	1/30	1. Input horse power(HP)	1.56	1.41	1.26	1.06	0.85	0.51
		2. Output horse power(HP)	1.12	0.98	0.85	0.71	0.53	0.29
		3. Output torque(kg-m)	13.4	14.2	15.2	17.0	19.0	20.5
		4. Output OHL(kg)	240	260	280	300	300	300
	1/40	1. Input horse power(HP)	1.18	1.07	0.94	0.77	0.56	0.33
		2. Output horse power(HP)	0.81	0.72	0.62	0.49	0.34	0.18
		3. Output torque(kg-m)	12.9	13.7	14.8	15.5	16.2	17.4
		4. Output OHL(kg)	270	280	300	300	300	300
	1/50	1. Input horse power(HP)	0.87	0.79	0.71	0.61	0.50	0.30
		2. Output horse power(HP)	0.52	0.46	0.40	0.33	0.25	0.15
		3. Output torque(kg-m)	10.4	11.0	11.9	13.1	14.8	17.4
		4. Output OHL(kg)	280	300	300	300	300	300
	1/60	1. Input horse power(HP)	0.75	0.68	0.63	0.51	0.43	0.28
		2. Output horse power(HP)	0.44	0.39	0.34	0.27	0.21	0.12
		3. Output torque(kg-m)	10.4	11.1	12.0	13.1	14.7	17.1
		4. Output OHL(kg)	300	300	300	300	300	300

SINGLE REDUCTION GEAR REDUCER

Permissible Transmission Horse Power and Torque on Output Shaft

Duration, 8～10 service hours per day at uniform load OHL = Over Hanging Load

Size	Ratio	Input RPM	1800	1500	1200	900	600	300
80	1/10	1. Input horse power(HP)	4.50	4.36	3.81	3.20	2.57	1.56
		2. Output horse power(HP)	3.72	3.55	3.08	2.56	2.01	1.18
		3. Output torque(kg-m)	14.8	17.0	18.4	20.5	24.0	28.3
		4. Output OHL(kg)	160	180	200	230	270	400
	1/15	1. Input horse power(HP)	3.60	3.27	2.88	2.41	1.97	1.26
		2. Output horse power(HP)	2.84	2.56	2.21	1.83	1.46	0.87
		3. Output torque(kg-m)	17.0	18.4	19.8	21.9	26.2	31.2
		4. Output OHL(kg)	230	240	260	280	330	400
	1/20	1. Input horse power(HP)	2.48	2.25	1.97	1.65	1.32	0.87
		2. Output horse power(HP)	1.91	1.71	1.47	1.21	0.93	0.57
		3. Output torque(kg-m)	15.2	16.3	17.5	19.2	22.3	27.3
		4. Output OHL(kg)	270	280	320	360	400	400
	1/30	1. Input horse power(HP)	2.09	1.90	1.65	1.43	1.14	0.75
		2. Output horse power(HP)	1.51	1.34	1.14	0.96	0.73	0.44
		3. Output torque(kg-m)	18.1	19.2	20.5	22.9	26.2	31.4
		4. Output OHL(kg)	320	340	360	400	400	400
	1/40	1. Input horse power(HP)	1.60	1.47	1.29	1.10	0.86	0.54
		2. Output horse power(HP)	1.08	0.96	0.38	0.68	0.52	0.28
		3. Output torque(kg-m)	17.2	18.3	19.7	21.8	24.7	26.4
		4. Output OHL(kg)	340	360	400	400	400	400
	1/50	1. Input horse power(HP)	1.28	1.17	1.05	0.88	0.72	0.45
		2. Output horse power(HP)	0.84	0.75	0.65	0.53	0.40	0.23
		3. Output torque(kg-m)	16.8	17.8	19.3	21.2	23.9	28.0
		4. Output OHL(kg)	360	400	400	400	400	400
	1/60	1. Input horse power(HP)	1.03	0.95	0.85	0.73	0.58	0.39
		2. Output horse power(HP)	0.62	0.55	0.48	0.39	0.29	0.17
		3. Output torque(kg-m)	14.9	15.7	17.2	18.7	21.0	24.6
		4. Output OHL(kg)	400	400	400	400	400	400

Size	Ratio	Input RPM	1800	1500	1200	900	600	300
100	1/10	1. Input horse power(HP)	6.50	5.98	5.26	4.49	3.51	2.27
		2. Output horse power(HP)	5.73	4.90	4.30	3.64	2.78	1.74
		3. Output torque(kg-m)	21.4	23.4	25.7	29.0	33.2	41.5
		4. Output OHL(kg)	190	200	220	240	300	450
	1/15	1. Input horse power(HP)	5.14	4.49	4.00	3.36	2.65	1.70
		2. Output horse power(HP)	4.10	3.54	3.13	2.59	2.00	1.22
		3. Output torque(kg-m)	23.9	25.4	28.0	31.0	35.8	44.0
		4. Output OHL(kg)	200	250	270	300	340	450
	1/20	1. Input horse power(HP)	4.42	3.99	3.48	2.92	2.31	1.51
		2. Output horse power(HP)	3.35	3.14	2.71	2.23	1.73	1.06
		3. Output torque(kg-m)	28.0	30.0	32.3	35.5	41.3	50.0
		4. Output OHL(kg)	250	270	300	340	450	450
	1/30	1. Input horse power(HP)	3.69	3.33	2.93	2.47	1.97	1.15
		2. Output horse power(HP)	2.70	2.40	2.06	1.71	1.31	0.70
		3. Output torque(kg-m)	32.2	34.4	36.9	40.8	46.8	50.0
		4. Output OHL(kg)	320	340	370	450	450	450
	1/40	1. Input horse power(HP)	2.78	2.52	2.20	1.88	1.48	0.89
		2. Output horse power(HP)	2.00	1.77	1.52	1.26	0.96	0.52
		3. Output torque(kg-m)	31.8	33.8	36.3	40.2	45.7	50.0
		4. Output OHL(kg)	350	380	450	450	450	450
	1/50	1. Input horse power(HP)	2.29	2.06	1.84	1.55	1.23	0.76
		2. Output horse power(HP)	1.59	1.40	1.22	1.00	0.75	0.42
		3. Output torque(kg-m)	31.6	33.4	36.5	40.0	45.0	50.0
		4. Output OHL(kg)	390	450	450	450	450	450
	1/60	1. Input horse power(HP)	1.87	1.70	1.53	1.28	1.02	0.65
		2. Output horse power(HP)	1.26	1.12	0.97	0.80	0.59	0.34
		3. Output torque(kg-m)	30.0	32.0	34.6	38.0	42.4	49.3
		4. Output OHL(kg)	450	450	450	450	450	450

SINGLE REDUCTION GEAR REDUCER

Permissible Transmission Horse Power and Torque on Output Shaft

Duration, 8～10 service hours per day at uniform load OHL = Over Hanging Load

Size	Ratio	Input RPM	1800	1500	1200	900	600	300
120	1/10	1. Input horse power(HP)	10.7	10.1	8.58	7.40	5.75	3.74
		2. Output horse power(HP)	8.89	8.35	7.03	6.01	4.60	2.89
		3. Output torque(kg-m)	35.4	39.9	42.0	47.9	55.0	69.1
		4. Output OHL(kg)	250	260	280	300	350	520
	1/15	1. Input horse power(HP)	8.34	7.46	6.65	5.52	4.55	2.85
		2. Output horse power(HP)	6.68	5.94	5.25	4.30	3.47	2.08
		3. Output torque(kg-m)	39.9	42.6	47.0	51.4	62.1	74.5
		4. Output OHL(kg)	320	340	360	390	440	520
	1/20	1. Input horse power(HP)	6.85	6.31	5.53	4.68	3.70	1.95
		2. Output horse power(HP)	5.40	4.92	4.26	3.53	2.71	1.68
		3. Output torque(kg-m)	43.0	47.0	50.9	56.2	64.6	80.0
		4. Output OHL(kg)	370	390	420	460	520	520
	1/30	1. Input horse power(HP)	6.27	5.68	5.00	4.18	3.39	1.89
		2. Output horse power(HP)	4.64	4.15	3.59	2.92	2.27	1.17
		3. Output torque(kg-m)	55.4	59.4	64.3	69.8	81.4	84.0
		4. Output OHL(kg)	450	470	500	520	520	520
	1/40	1. Input horse power(HP)	4.48	4.07	3.56	3.03	2.44	1.57
		2. Output horse power(HP)	3.13	2.79	2.39	1.97	1.51	0.88
		3. Output torque(kg-m)	49.8	53.2	57.1	62.8	72.2	84.0
		4. Output OHL(kg)	500	500	520	520	520	520
	1/50	1. Input horse power(HP)	3.64	3.28	2.90	2.47	1.91	1.19
		2. Output horse power(HP)	2.61	2.31	2.01	1.66	1.24	0.70
		3. Output torque(kg-m)	52.0	55.2	60.1	66.0	74.2	84.0
		4. Output OHL(kg)	500	520	520	520	520	520
	1/60	1. Input horse power(HP)	2.89	2.65	2.36	2.04	1.45	0.96
		2. Output horse power(HP)	1.98	1.76	1.53	1.26	0.94	0.56
		3. Output torque(kg-m)	47.4	50.4	54.9	60.1	67.6	80.0
		4. Output OHL(kg)	520	520	520	520	520	520

Size	Ratio	Input RPM	1800	1500	1200	900	600	300
135	1/10	1. Input horse power(HP)	17.7	16.5	14.2	12.0	9.54	6.20
		2. Output horse power(HP)	15.0	13.9	11.9	10.0	7.83	4.94
		3. Output torque(kg-m)	59.7	66.4	71.0	79.6	93.5	117
		4. Output OHL(kg)	330	340	360	440	500	810
	1/15	1. Input horse power(HP)	14.6	13.1	11.8	9.80	9.67	4.77
		2. Output horse power(HP)	11.9	10.6	9.45	7.75	6.95	3.56
		3. Output torque(kg-m)	71.0	75.9	84.6	92.5	124	127
		4. Output OHL(kg)	430	460	490	540	590	810
	1/20	1. Input horse power(HP)	10.3	9.26	8.14	6.79	5.36	3.47
		2. Output horse power(HP)	8.39	7.47	6.48	5.33	4.13	2.54
		3. Output torque(kg-m)	66.8	71.3	77.4	84.9	98.6	121
		4. Output OHL(kg)	570	600	660	760	810	810
	1/30	1. Input horse power(HP)	8.76	7.87	6.86	5.82	4.64	3.02
		2. Output horse power(HP)	6.65	5.90	5.07	4.20	3.23	1.96
		3. Output torque(kg-m)	79.4	84.5	90.8	100	116	140
		4. Output OHL(kg)	680	710	770	810	810	810
	1/40	1. Input horse power(HP)	6.44	5.74	5.06	4.38	3.40	2.18
		2. Output horse power(HP)	4.79	4.22	3.64	3.06	2.31	1.36
		3. Output torque(kg-m)	76.3	80.7	86.9	97.4	110	130
		4. Output OHL(kg)	710	770	810	810	810	810
	1/50	1. Input horse power(HP)	4.84	4.41	3.90	3.34	2.61	1.69
		2. Output horse power(HP)	3.52	3.16	2.73	2.26	1.71	1.01
		3. Output torque(kg-m)	70	75.5	81.4	90.1	102	120
		4. Output OHL(kg)	770	810	810	810	810	810
	1/60	1. Input horse power(HP)	3.65	3.58	3.16	2.74	2.11	1.37
		2. Output horse power(HP)	2.55	2.40	2.12	1.76	1.32	0.77
		3. Output torque(kg-m)	60.8	70.0	76.0	83.9	94.4	111
		4. Output OHL(kg)	810	810	810	810	810	810

SINGLE REDUCTION GEAR REDUCER

Permissible Transmission Horse Power and Torque on Output Shaft

Duration, 8～10 service hours per day at uniform load OHL = Over Hanging Load

Size	Ratio	Input RPM	1800	1500	1200	900	600	300
155	1/10	1. Input horse power(HP)	21.7	21.7	19.0	16.2	12.7	8.41
		2. Output horse power(HP)	18.3	18.3	16.0	13.5	10.4	6.70
		3. Output torque(kg-m)	73	84.4	92.3	104	120	154
		4. Output OHL(kg)	750	860	900	990	1130	1700
	1/15	1. Input horse power(HP)	16.9	16.9	15.0	12.5	9.97	6.52
		2. Output horse power(HP)	13.9	13.9	12.2	10	7.80	4.90
		3. Output torque(kg-m)	83	96.3	105	115	135	169
		4. Output OHL(kg)	900	1050	1130	1270	1420	1700
	1/20	1. Input horse power(HP)	15.52	14.0	12.2	10.4	8.24	5.23
		2. Output horse power(HP)	12.6	11.3	9.70	8.20	6.30	3.80
		3. Output torque(kg-m)	100	108	116	130	150	181
		4. Output OHL(kg)	1220	1280	1380	1510	1700	1700
	1/30	1. Input horse power(HP)	12.5	11.3	9.93	8.33	6.81	4.49
		2. Output horse power(HP)	9.50	8.50	7.30	6.00	4.70	2.90
		3. Output torque(kg-m)	109	118	126	138	162	201
		4. Output OHL(kg)	1380	1470	1570	1700	1700	1700
	1/40	1. Input horse power(HP)	9.65	8.81	7.70	6.35	5.31	3.44
		2. Output horse power(HP)	7.15	6.38	5.50	4.40	3.52	2.10
		3. Output torque(kg-m)	114	122	131	140	168	200
		4. Output OHL(kg)	1490	1600	1700	1700	1700	1700
	1/50	1. Input horse power(HP)	7.53	6.86	5.89	4.93	4.14	2.46
		2. Output horse power(HP)	5.40	4.84	4.07	3.30	2.64	1.43
		3. Output torque(kg-m)	107	115	121	131	157	170
		4. Output OHL(kg)	1600	1700	1700	1700	1700	1700
	1/60	1. Input horse power(HP)	6.14	5.43	4.91	4.24	3.38	2.16
		2. Output horse power(HP)	4.29	3.74	3.30	2.75	2.09	1.21
		3. Output torque(kg-m)	102	107	118	131	149	173
		4. Output OHL(kg)	1700	1700	1700	1700	1700	1700

Size	Ratio	Input RPM	1800	1500	1200	900	600	300
175	1/10	1. Input horse power(HP)	30.7	30.7	27.7	23.0	18.2	11.8
		2. Output horse power(HP)	26.1	26.1	23.4	19.3	15.0	9.50
		3. Output torque(kg-m)	104	120	135	148	173	219
		4. Output OHL(kg)	850	980	1050	1130	1300	2000
	1/15	1. Input horse power(HP)	24.4	24.4	21.5	18.3	14.1	9.40
		2. Output horse power(HP)	20.2	20.2	17.6	14.8	11.2	7.20
		3. Output torque(kg-m)	120	140	152	170	194	249
		4. Output OHL(kg)	1050	1210	1300	1420	1630	2000
	1/20	1. Input horse power(HP)	21.0	19.0	16.9	14.0	10.9	7.11
		2. Output horse power(HP)	17.2	15.4	13.5	11.1	8.40	5.25
		3. Output torque(kg-m)	133	143	157	172	195	244
		4. Output OHL(kg)	1280	1350	1450	1600	2000	2000
	1/30	1. Input horse power(HP)	17.7	15.8	14.2	11.9	9.54	6.11
		2. Output horse power(HP)	13.6	12.0	10.6	8.70	6.70	4.00
		3. Output torque(kg-m)	157	166	183	200	232	278
		4. Output OHL(kg)	1420	1580	1630	2000	2000	2000
	1/40	1. Input horse power(HP)	13.2	11.9	10.5	8.82	7.22	4.56
		2. Output horse power(HP)	9.87	8.72	7.56	6.19	4.83	2.83
		3. Output torque(kg-m)	153	162	176	193	225	264
		4. Output OHL(kg)	1670	1760	2000	2000	2000	2000
	1/50	1. Input horse power(HP)	9.60	8.98	7.87	7.12	5.47	3.54
		2. Output horse power(HP)	7.00	6.40	5.50	4.84	3.52	2.09
		3. Output torque(kg-m)	139	153	164	192	210	249
		4. Output OHL(kg)	1900	2000	2000	2000	2000	2000
	1/60	1. Input horse power(HP)	7.73	6.88	6.08	5.22	4.12	2.70
		2. Output horse power(HP)	5.70	5.00	4.30	3.61	2.72	1.64
		3. Output torque(kg-m)	132	139	149	167	189	226
		4. Output OHL(kg)	2000	2000	2000	2000	2000	2000

SINGLE REDUCTION GEAR REDUCER

Permissible Transmission Horse Power and Torque on Output Shaft

Duration, 8～10 service hours per day at uniform load OHL = Over Hanging Load

Size	Ratio	Input RPM	1800	1500	1200	900	600	300
200	1/10	1. Input horse power(HP)	52.6	39.4	35.0	29.7	23.0	15.0
		2. Output horse power(HP)	44.0	33.6	29.7	25.0	19.1	12.2
		3. Output torque(kg-m)	181	165	183	205	235	300
		4. Output OHL(kg)	1000	1150	1200	1300	1400	2200
	1/15	1. Input horse power(HP)	39.5	31.2	27.7	23.3	18.0	11.9
		2. Output horse power(HP)	32.1	25.9	22.8	19.0	14.4	9.20
		3. Output torque(kg-m)	198	192	210	234	266	340
		4. Output OHL(kg)	1200	1350	1440	1520	1670	2200
	1/20	1. Input horse power(HP)	27.6	27.6	24.2	20.3	15.8	10.3
		2. Output horse power(HP)	22.5	22.5	19.6	16.2	12.3	7.70
		3. Output torque(kg-m)	180	215	234	258	293	367
		4. Output OHL(kg)	1200	1450	1590	1720	2200	2200
	1/30	1. Input horse power(HP)	22.6	22.6	18.8	15.1	12.2	7.90
		2. Output horse power(HP)	17.4	17.4	14.2	11.2	8.70	5.34
		3. Output torque(kg-m)	208	257	262	276	322	394
		4. Output OHL(kg)	1400	1650	1800	2200	2200	2200
	1/40	1. Input horse power(HP)	17.9	16.3	14.5	11.9	9.58	6.19
		2. Output horse power(HP)	13.6	12.2	10.7	8.61	6.61	4.00
		3. Output torque(kg-m)	216	233	255	274	315	382
		4. Output OHL(kg)	1750	1850	2200	2200	2200	2200
	1/50	1. Input horse power(HP)	13.2	11.9	10.6	9.00	7.20	4.61
		2. Output horse power(HP)	9.80	8.62	7.54	6.23	4.74	2.80
		3. Output torque(kg-m)	195	206	225	248	283	334
		4. Output OHL(kg)	2000	2200	2200	2200	2200	2200
	1/60	1. Input horse power(HP)	10.8	9.77	8.49	7.41	6.11	3.75
		2. Output horse power(HP)	7.82	6.93	5.90	5.00	3.90	2.20
		3. Output torque(kg-m)	184	196	208	235	275	310
		4. Output OHL(kg)	2200	2200	2200	2200	2200	2200

Size	Ratio	Input RPM	1800	1500	1200	900	600	300
225	1/10	1. Input horse power(HP)	71.2	52.3	52.3	43.5	33.8	22.1
		2. Output horse power(HP)	60.2	44.8	44.8	37.0	28.5	18.3
		3. Output torque(kg-m)	239	214	267	294	340	437
		4. Output OHL(kg)	1050	1100	1300	1400	1500	2500
	1/15	1. Input horse power(HP)	56.8	46.0	40.7	34.2	26.4	17.3
		2. Output horse power(HP)	46.9	38.7	34.0	28.3	21.5	13.7
		3. Output torque(kg-m)	280	277	304	338	385	490
		4. Output OHL(kg)	1300	1400	1500	1600	1800	2500
	1/20	1. Input horse power(HP)	38.6	38.6	33.6	27.9	22.0	14.3
		2. Output horse power(HP)	31.9	31.9	27.5	23.1	17.5	11.0
		3. Output torque(kg-m)	254	304	328	367	418	525
		4. Output OHL(kg)	1400	1600	1800	2000	2500	2500
	1/30	1. Input horse power(HP)	31.5	31.5	27.0	20.3	18.2	11.7
		2. Output horse power(HP)	24.8	24.8	21.0	17.6	13.5	8.30
		3. Output torque(kg-m)	296	355	376	420	483	594
		4. Output OHL(kg)	1700	1900	2200	2500	2500	2500
	1/40	1. Input horse power(HP)	22.5	22.5	19.2	15.8	12.6	8.12
		2. Output horse power(HP)	17.2	17.2	14.4	11.6	8.90	5.40
		3. Output torque(kg-m)	274	328	344	369	425	515
		4. Output OHL(kg)	2000	2200	2500	2500	2500	2500
	1/50	1. Input horse power(HP)	18.1	16.3	14.3	12.3	9.81	6.25
		2. Output horse power(HP)	13.6	12.0	10.4	8.60	6.60	3.90
		3. Output torque(kg-m)	270	286	310	342	394	465
		4. Output OHL(kg)	2300	2500	2500	2500	2500	2500
	1/60	1. Input horse power(HP)	15.1	13.6	11.9	10.1	8.05	5.27
		2. Output horse power(HP)	11.2	9.90	8.50	7.00	5.30	3.20
		3. Output torque(kg-m)	259	275	295	324	368	444
		4. Output OHL(kg)	2500	2500	2500	2500	2500	2500

SINGLE REDUCTION GEAR REDUCER

Permissible Transmission Horse Power and Torque on Output Shaft

Duration, 8～10 service hours per day at uniform load OHL = Over Hanging Load

Size	Ratio	Input RPM	1800	1500	1200	900	600	300
250	1/10	1. Input horse power(HP)	96.5	65.8	65.8	55.3	43.5	28.1
		2. Output horse power(HP)	81.3	56.3	56.3	46.9	36.5	23.1
		3. Output torque(kg-m)	323	269	336	373	435	551
		4. Output OHL(kg)	1100	1200	1500	1600	1700	2700
	1/15	1. Input horse power(HP)	72.3	51.6	51.6	43.7	33.9	22.3
		2. Output horse power(HP)	59.3	43	43.0	36.0	27.5	17.5
		3. Output torque(kg-m)	354	308	385	430	492	626
		4. Output OHL(kg)	1360	1400	1800	2000	2300	2700
	1/20	1. Input horse power(HP)	42.3	42.3	42.3	35.6	27.5	17.9
		2. Output horse power(HP)	34.8	34.8	34.8	29.0	22.0	13.8
		3. Output torque(kg-m)	277	332	425	473	538	675
		4. Output OHL(kg)	1600	1700	2300	2550	2700	2700
	1/30	1. Input horse power(HP)	34.9	34.9	34.9	29.8	23.2	15.4
		2. Output horse power(HP)	27	27	27.0	22.6	17.1	10.7
		3. Output torque(kg-m)	322	387	483	539	612	766
		4. Output OHL(kg)	1900	2000	2460	2700	2700	2700
	1/40	1. Input horse power(HP)	27.9	27.9	24.5	20.8	16.5	10.7
		2. Output horse power(HP)	21.5	21.5	18.5	15.4	11.1	7.24
		3. Output torque(kg-m)	342	420	452	502	577	708
		4. Output OHL(kg)	2200	2500	2700	2700	2700	2700
	1/50	1. Input horse power(HP)	22.8	20.6	18.2	15.4	12.3	7.80
		2. Output horse power(HP)	17.4	15.5	13.4	11.1	8.49	5.04
		3. Output torque(kg-m)	360	385	416	460	528	626
		4. Output OHL(kg)	2500	2700	2700	2700	2700	2700
	1/60	1. Input horse power(HP)	18.7	16.9	14.7	12.8	10.1	6.41
		2. Output horse power(HP)	14.1	12.5	10.7	9.00	6.80	4.00
		3. Output torque(kg-m)	336	358	383	430	487	573
		4. Output OHL(kg)	2700	2700	2700	2700	2700	2700

Size	Ratio	Input RPM	1800	1500	1200	900	600	300
300	1/10	1. Input horse power(HP)	146	133	120	101	78	52
		2. Output horse power(HP)	123	111	100	84	65	42
		3. Output torque(kg-m)	516	563	631	704	814	1056
		4. Output OHL(kg)	2590	2710	2860	3090	3460	3800
	1/15	1. Input horse power(HP)	115	105	92	78	61	40
		2. Output horse power(HP)	96	87.2	76	64	49	31
		3. Output torque(kg-m)	564	616	679	757	874	1106
		4. Output OHL(kg)	2910	3040	3210	3480	380	3800
	1/20	1. Input horse power(HP)	86	79	68	58	45	30
		2. Output horse power(HP)	70	65	56	47	36	22
		3. Output torque(kg-m)	573	631	680	759	876	1100
		4. Output OHL(kg)	3150	3280	3500	3790	3800	3800
	1/30	1. Input horse power(HP)	69	62	54	45	36	23
		2. Output horse power(HP)	54	48	42	35	27	16
		3. Output torque(kg-m)	658	706	765	848	976	1196
		4. Output OHL(kg)	3560	3800	3800	3800	3800	3800
	1/40	1. Input horse power(HP)	53	47	41	34	28	18
		2. Output horse power(HP)	40	35	31	25	19	12
		3. Output torque(kg-m)	665	710	771	849	979	1186
		4. Output OHL(kg)	3800	3800	3800	3800	3800	3800
	1/50	1. Input horse power(HP)	40	36	32	28	21	14
		2. Output horse power(HP)	30	27	23	20	14	9
		3. Output torque(kg-m)	612	659	713	828	888	1074
		4. Output OHL(kg)	3800	3800	3800	3800	3800	3800
	1/60	1. Input horse power(HP)	32	28	25	21	16	11
		2. Output horse power(HP)	23	21	18	15	11	6
		3. Output torque(kg-m)	571	608	660	729	811	980
		4. Output OHL(kg)	3800	3800	3800	3800	3800	3800

SINGLE REDUCTION GEAR REDUCER

Permissible Transmission Horse Power and Torque on Output Shaft

Duration, 8～10 service hours per day at uniform load OHL = Over Hanging Load

Size	Ratio	Input RPM	1800	1500	1200	900	600	300
350	1/10	1. Input horse power(HP)	-	185	165	141	110	73
		2. Output horse power(HP)	-	156	139	118	92	59
		3. Output torque(kg-m)	-	788	876	993	1161	1493
		4. Output OHL(kg)	-	3260	3430	3680	4080	4890
	1/15	1. Input horse power(HP)	-	153	138	115	90	59
		2. Output horse power(HP)	-	127	114	94	73	46
		3. Output torque(kg-m)	-	926	1044	1152	1332	1706
		4. Output OHL(kg)	-	3680	3850	4170	4650	5100
	1/20	1. Input horse power(HP)	140	129	111	95	74	48
		2. Output horse power(HP)	115	106	91	77	59	37
		3. Output torque(kg-m)	933	1030	1111	1257	1441	1798
		4. Output OHL(kg)	3900	4000	4320	4640	5100	5100
	1/30	1. Input horse power(HP)	-	89	78	66	52	34
		2. Output horse power(HP)	-	69	60	50	38	24
		3. Output torque(kg-m)	-	1043	1133	1263	1461	1792
		4. Output OHL(kg)	-	4870	5100	5100	5100	5100
	1/40	1. Input horse power(HP)	79	70	62	52	41	27
		2. Output horse power(HP)	59	53	47	39	29	18
		3. Output torque(kg-m)	991	1061	1171	1297	1475	1782
		4. Output OHL(kg)	5100	5100	5100	5100	5100	5100
	1/50	1. Input horse power(HP)	62	56	49	41	44	29
		2. Output horse power(HP)	46	42	36	30	31	19
		3. Output torque(kg-m)	926	999	1081	1197	1357	1647
		4. Output OHL(kg)	5100	5100	5100	5100	5100	5100
	1/60	1. Input horse power(HP)	48	43	38	32	25	16
		2. Output horse power(HP)	36	32	28	23	17	10
		3. Output torque(kg-m)	872	933	1011	1115	1249	1512
		4. Output OHL(kg)	5100	5100	5100	5100	5100	5100

Size	Ratio	Input RPM	1800	1500	1200	900	600	300
400	1/10	1. Input horse power(HP)	-	277	245	211	165	709
		2. Output horse power(HP)	-	235	208	179	139	90
		3. Output torque(kg-m)	-	1182	1308	1501	1752	2258
		4. Output OHL(kg)	-	3830	4100	4290	4770	5690
	1/15	1. Input horse power(HP)	-	214	193	159	125	81
		2. Output horse power(HP)	-	177	160	131	102	64
		3. Output torque(kg-m)	-	1337	1509	1653	1931	2421
		4. Output OHL(kg)	-	4340	4520	4950	5480	6730
	1/20	1. Input horse power(HP)	-	168	148	125	97	63
		2. Output horse power(HP)	-	137	121	102	78	49
		3. Output torque(kg-m)	-	1340	1746	1654	1895	2405
		4. Output OHL(kg)	-	4910	5190	5610	6290	7000
	1/30	1. Input horse power(HP)	-	137	121	102	81	51
		2. Output horse power(HP)	-	107	94	79	62	37
		3. Output torque(kg-m)	-	1509	1660	1869	2190	2638
		4. Output OHL(kg)	-	5320	5670	6090	6740	7000
	1/40	1. Input horse power(HP)	-	100	88	73	58	37
		2. Output horse power(HP)	-	75	66	55	42	25
		3. Output torque(kg-m)	-	1509	1651	1829	2121	2534
		4. Output OHL(kg)	-	6350	6810	7000	7000	7000
	1/50	1. Input horse power(HP)	-	79	69	58	45	30
		2. Output horse power(HP)	-	59	52	58	33	20
		3. Output torque(kg-m)	-	1393	1525	1673	1914	2331
		4. Output OHL(kg)	-	7000	7000	7000	7000	7000
	1/60	1. Input horse power(HP)	-	65	56	47	37	24
		2. Output horse power(HP)	-	48	42	47	26	16
		3. Output torque(kg-m)	-	1347	1456	1610	1810	2201
		4. Output OHL(kg)	-	7000	7000	7000	7000	7000

DOUBLE REDUCTION GEAR REDUCER

Permissible Transmission Horse Power and Torque on Output Shaft

Duration, 8～10 service hours per day at uniform load OHL = Over Hanging Load

Size	Ratio	Input RPM	1800	1500	1200	900
34 ≀ 60	1/200	1. Input horse power(HP)	0.29	0.25	0.19	0.16
		2. Output horse power(HP)	0.14	0.12	0.09	0.07
		3. Output torque(kg-m)	11.6	11.6	11.6	11.6
		4. Output OHL(kg)	200	200	200	200
	1/300	1. Input horse power(HP)	0.20	0.18	0.14	0.12
		2. Output horse power(HP)	0.09	0.08	0.06	0.05
		3. Output torque(kg-m)	11.6	11.6	11.6	11.6
		4. Output OHL(kg)	200	200	200	200
	1/400	1. Input horse power(HP)	0.16	0.14	0.12	0.10
		2. Output horse power(HP)	0.07	0.06	0.05	0.04
		3. Output torque(kg-m)	11.6	11.6	11.6	11.6
		4. Output OHL(kg)	200	200	200	200
	1/500	1. Input horse power(HP)	0.16	0.14	0.11	0.09
		2. Output horse power(HP)	0.06	0.05	0.04	0.03
		3. Output torque(kg-m)	11.6	11.6	11.6	11.6
		4. Output OHL(kg)	200	200	200	200
	1/600	1. Input horse power(HP)	0.13	0.11	0.09	0.06
		2. Output horse power(HP)	0.05	0.04	0.03	0.02
		3. Output torque(kg-m)	11.6	11.6	11.6	11.6
		4. Output OHL(kg)	200	200	200	200
	1/800	1. Input horse power(HP)	0.11	0.09	0.06	0.03
		2. Output horse power(HP)	0.04	0.03	0.02	0.01
		3. Output torque(kg-m)	11.6	11.6	11.6	11.6
		4. Output OHL(kg)	200	200	200	200
	1/900	1. Input horse power(HP)	0.10	0.09	0.06	0.03
		2. Output horse power(HP)	0.03	0.03	0.02	0.01
		3. Output torque(kg-m)	11.6	11.6	11.6	11.6
		4. Output OHL(kg)	200	200	200	200

Size	Ratio	Input RPM	1800	1500	1200	900
50 ≀ 80	1/200	1. Input horse power(HP)	0.68	0.66	0.57	0.46
		2. Output horse power(HP)	0.35	0.33	0.28	0.22
		3. Output torque(kg-m)	28.2	31.7	33.7	35.0
		4. Output OHL(kg)	400	400	400	400
	1/300	1. Input horse power(HP)	0.59	0.52	0.42	0.32
		2. Output horse power(HP)	0.28	0.24	0.19	0.14
		3. Output torque(kg-m)	33.7	35.0	35.0	35.0
		4. Output OHL(kg)	400	400	400	400
	1/400	1. Input horse power(HP)	0.52	0.43	0.35	0.29
		2. Output horse power(HP)	0.22	0.18	0.14	0.11
		3. Output torque(kg-m)	35.0	35.0	35.0	35.0
		4. Output OHL(kg)	400	400	400	400
	1/500	1. Input horse power(HP)	0.43	0.37	0.33	0.25
		2. Output horse power(HP)	0.17	0.14	0.12	0.09
		3. Output torque(kg-m)	35.0	35.0	35.0	35.0
		4. Output OHL(kg)	400	400	400	400
	1/600	1. Input horse power(HP)	0.35	0.30	0.27	0.20
		2. Output horse power(HP)	0.14	0.12	0.10	0.07
		3. Output torque(kg-m)	35.0	35.0	35.0	35.0
		4. Output OHL(kg)	400	400	400	400
	1/800	1. Input horse power(HP)	0.32	0.28	0.21	0.16
		2. Output horse power(HP)	0.11	0.09	0.07	0.05
		3. Output torque(kg-m)	35.0	35.0	35.0	35.0
		4. Output OHL(kg)	400	400	400	400
	1/900	1. Input horse power(HP)	0.29	0.24	0.18	0.16
		2. Output horse power(HP)	0.10	0.08	0.06	0.05
		3. Output torque(kg-m)	35.0	35.0	35.0	35.0
		4. Output OHL(kg)	400	400	400	400

Size	Ratio	Input RPM	1800	1500	1200	900
40 ≀ 70	1/200	1. Input horse power(HP)	0.57	0.49	0.40	0.32
		2. Output horse power(HP)	0.30	0.25	0.20	0.16
		3. Output torque(kg-m)	23.8	24.7	25.0	25.0
		4. Output OHL(kg)	300	300	300	300
	1/300	1. Input horse power(HP)	0.42	0.35	0.29	0.22
		2. Output horse power(HP)	0.21	0.17	0.14	0.10
		3. Output torque(kg-m)	25.0	25.0	25.0	25.0
		4. Output OHL(kg)	300	300	300	300
	1/400	1. Input horse power(HP)	0.34	0.29	0.23	0.19
		2. Output horse power(HP)	0.16	0.13	0.10	0.08
		3. Output torque(kg-m)	25.0	25.0	25.0	25.0
		4. Output OHL(kg)	300	300	300	300
	1/500	1. Input horse power(HP)	0.28	0.25	0.20	0.16
		2. Output horse power(HP)	0.12	0.10	0.08	0.06
		3. Output torque(kg-m)	25.0	25.0	25.0	25.0
		4. Output OHL(kg)	300	300	300	300
	1/600	1. Input horse power(HP)	0.24	0.22	0.18	0.14
		2. Output horse power(HP)	0.10	0.09	0.07	0.05
		3. Output torque(kg-m)	25.0	25.0	25.0	25.0
		4. Output OHL(kg)	300	300	300	300
	1/800	1. Input horse power(HP)	0.21	0.16	0.14	0.12
		2. Output horse power(HP)	0.08	0.06	0.05	0.04
		3. Output torque(kg-m)	25.0	25.0	25.0	25.0
		4. Output OHL(kg)	300	300	300	300
	1/900	1. Input horse power(HP)	0.21	0.19	0.16	0.10
		2. Output horse power(HP)	0.07	0.06	0.05	0.03
		3. Output torque(kg-m)	25.0	25.0	25.0	25.0
		4. Output OHL(kg)	300	300	300	300

Size	Ratio	Input RPM	1800	1500	1200	900
60 ≀ 100	1/200	1. Input horse power(HP)	1.13	0.96	0.79	0.59
		2. Output horse power(HP)	0.63	0.52	0.42	0.31
		3. Output torque(kg-m)	50.0	50.0	50.0	50.0
		4. Output OHL(kg)	450	450	450	450
	1/300	1. Input horse power(HP)	0.75	0.65	0.56	0.43
		2. Output horse power(HP)	0.42	0.35	0.28	0.21
		3. Output torque(kg-m)	50.0	50.0	50.0	50.0
		4. Output OHL(kg)	450	450	450	450
	1/400	1. Input horse power(HP)	0.62	0.53	0.44	0.35
		2. Output horse power(HP)	0.31	0.26	0.21	0.16
		3. Output torque(kg-m)	50.0	50.0	50.0	50.0
		4. Output OHL(kg)	450	450	450	450
	1/500	1. Input horse power(HP)	0.53	0.45	0.38	0.28
		2. Output horse power(HP)	0.25	0.21	0.17	0.12
		3. Output torque(kg-m)	50.0	50.0	50.0	50.0
		4. Output OHL(kg)	450	450	450	450
	1/600	1. Input horse power(HP)	0.46	0.39	0.34	0.25
		2. Output horse power(HP)	0.21	0.17	0.14	0.10
		3. Output torque(kg-m)	50.0	50.0	50.0	50.0
		4. Output OHL(kg)	450	450	450	450
	1/800	1. Input horse power(HP)	0.39	0.32	0.26	0.22
		2. Output horse power(HP)	0.16	0.13	0.10	0.08
		3. Output torque(kg-m)	50.0	50.0	50.0	50.0
		4. Output OHL(kg)	450	450	450	450
	1/900	1. Input horse power(HP)	0.38	0.34	0.28	0.21
		2. Output horse power(HP)	0.14	0.12	0.09	0.07
		3. Output torque(kg-m)	50.0	50.0	50.0	50.0
		4. Output OHL(kg)	450	450	450	450

DOUBLE REDUCTION GEAR REDUCER

Permissible Transmission Horse Power and Torque on Output Shaft

Duration, 8～10 service hours per day at uniform load OHL = Over Hanging Load

Size	Ratio	Input RPM	1800	1500	1200	900
70 ≀ 120	1/200	1. Input horse power(HP)	1.94	1.66	1.37	1.06
		2. Output horse power(HP)	1.05	0.88	0.70	0.53
		3. Output torque(kg-m)	84.0	84.0	84.0	84.0
		4. Output OHL(kg)	520	520	520	520
	1/300	1. Input horse power(HP)	1.40	1.20	1.00	0.76
		2. Output horse power(HP)	0.70	0.58	0.47	0.35
		3. Output torque(kg-m)	84.0	84.0	84.0	84.0
		4. Output OHL(kg)	520	520	520	520
	1/400	1. Input horse power(HP)	1.10	0.93	0.76	0.59
		2. Output horse power(HP)	0.53	0.44	0.35	0.26
		3. Output torque(kg-m)	84.0	84.0	84.0	84.0
		4. Output OHL(kg)	520	520	520	520
	1/500	1. Input horse power(HP)	0.97	0.83	0.70	0.53
		2. Output horse power(HP)	0.42	0.35	0.28	0.21
		3. Output torque(kg-m)	84.0	84.0	84.0	84.0
		4. Output OHL(kg)	520	520	520	520
	1/600	1. Input horse power(HP)	0.81	0.69	0.57	0.44
		2. Output horse power(HP)	0.35	0.29	0.23	0.17
		3. Output torque(kg-m)	84.0	84.0	84.0	84.0
		4. Output OHL(kg)	520	520	520	520
	1/800	1. Input horse power(HP)	0.63	0.56	0.44	0.36
		2. Output horse power(HP)	0.26	0.22	0.17	0.13
		3. Output torque(kg-m)	84.0	84.0	84.0	84.0
		4. Output OHL(kg)	520	520	520	520
	1/900	1. Input horse power(HP)	0.62	0.52	0.44	0.37
		2. Output horse power(HP)	0.23	0.19	0.15	0.12
		3. Output torque(kg-m)	84.0	84.0	84.0	84.0
		4. Output OHL(kg)	520	520	520	520

Size	Ratio	Input RPM	1800	1500	1200	900
100 ≀ 155	1/200	1. Input horse power(HP)	4.25	3.72	3.25	2.67
		2. Output horse power(HP)	2.41	2.07	1.76	1.42
		3. Output torque(kg-m)	192	198	210	226
		4. Output OHL(kg)	1700	1700	1700	1700
	1/300	1. Input horse power(HP)	3.32	2.95	2.58	2.10
		2. Output horse power(HP)	1.76	1.52	1.29	1.01
		3. Output torque(kg-m)	210	218	231	242
		4. Output OHL(kg)	1700	1700	1700	1700
	1/400	1. Input horse power(HP)	2.71	2.44	2.06	1.58
		2. Output horse power(HP)	1.41	1.22	1.01	0.76
		3. Output torque(kg-m)	225	234	242	242
		4. Output OHL(kg)	1700	1700	1700	1700
	1/500	1. Input horse power(HP)	2.36	2.06	1.68	1.32
		2. Output horse power(HP)	1.18	1.01	0.81	0.61
		3. Output torque(kg-m)	236	242	242	242
		4. Output OHL(kg)	1700	1700	1700	1700
	1/600	1. Input horse power(HP)	2.19	1.86	1.55	1.19
		2. Output horse power(HP)	1.01	0.84	0.67	0.50
		3. Output torque(kg-m)	242	242	242	242
		4. Output OHL(kg)	1700	1700	1700	1700
	1/800	1. Input horse power(HP)	1.68	1.46	1.21	0.95
		2. Output horse power(HP)	0.76	0.63	0.51	0.38
		3. Output torque(kg-m)	242	242	242	242
		4. Output OHL(kg)	1700	1700	1700	1700
	1/900	1. Input horse power(HP)	2.23	1.86	1.50	1.13
		2. Output horse power(HP)	0.67	0.56	0.45	0.34
		3. Output torque(kg-m)	242	242	242	242
		4. Output OHL(kg)	1700	1700	1700	1700

Size	Ratio	Input RPM	1800	1500	1200	900
80 ≀ 135	1/200	1. Input horse power(HP)	2.98	2.52	2.05	1.58
		2. Output horse power(HP)	1.73	1.44	1.15	0.87
		3. Output torque(kg-m)	140	140	140	140
		4. Output OHL(kg)	810	810	810	810
	1/300	1. Input horse power(HP)	2.09	1.77	1.48	1.16
		2. Output horse power(HP)	1.15	0.96	0.77	0.58
		3. Output torque(kg-m)	140	140	140	140
		4. Output OHL(kg)	810	810	810	810
	1/400	1. Input horse power(HP)	1.64	1.41	1.16	0.89
		2. Output horse power(HP)	0.87	0.72	0.58	0.43
		3. Output torque(kg-m)	140	140	140	140
		4. Output OHL(kg)	810	810	810	810
	1/500	1. Input horse power(HP)	1.40	1.20	0.97	0.79
		2. Output horse power(HP)	0.69	0.58	0.46	0.35
		3. Output torque(kg-m)	140	140	140	140
		4. Output OHL(kg)	810	810	810	810
	1/600	1. Input horse power(HP)	1.20	1.06	0.84	0.67
		2. Output horse power(HP)	0.58	0.48	0.38	0.29
		3. Output torque(kg-m)	140	140	140	140
		4. Output OHL(kg)	810	810	810	810
	1/800	1. Input horse power(HP)	0.95	0.83	0.70	0.55
		2. Output horse power(HP)	0.43	0.36	0.29	0.22
		3. Output torque(kg-m)	140	140	140	140
		4. Output OHL(kg)	810	810	810	810
	1/900	1. Input horse power(HP)	1.10	0.96	0.81	0.66
		2. Output horse power(HP)	0.38	0.32	0.26	0.20
		3. Output torque(kg-m)	140	140	140	140
		4. Output OHL(kg)	810	810	810	810

Size	Ratio	Input RPM	1800	1500	1200	900
120 ≀ 175	1/200	1. Input horse power(HP)	5.66	5.12	4.35	3.56
		2. Output horse power(HP)	3.40	2.97	2.48	1.99
		3. Output torque(kg-m)	271	284	296	317
		4. Output OHL(kg)	2000	2000	2000	2000
	1/300	1. Input horse power(HP)	4.44	3.94	3.43	2.76
		2. Output horse power(HP)	2.48	2.16	1.83	1.44
		3. Output torque(kg-m)	296	309	327	345
		4. Output OHL(kg)	2000	2000	2000	2000
	1/400	1. Input horse power(HP)	3.73	3.30	2.80	2.18
		2. Output horse power(HP)	2.00	1.73	1.44	1.08
		3. Output torque(kg-m)	318	331	345	345
		4. Output OHL(kg)	2000	2000	2000	2000
	1/500	1. Input horse power(HP)	3.14	2.73	2.26	1.75
		2. Output horse power(HP)	1.68	1.44	1.16	0.87
		3. Output torque(kg-m)	334	345	345	345
		4. Output OHL(kg)	2000	2000	2000	2000
	1/600	1. Input horse power(HP)	2.91	2.50	2.05	1.60
		2. Output horse power(HP)	1.44	1.20	0.96	0.72
		3. Output torque(kg-m)	345	345	345	345
		4. Output OHL(kg)	2000	2000	2000	2000
	1/800	1. Input horse power(HP)	2.35	2.01	1.67	1.31
		2. Output horse power(HP)	1.08	0.90	0.72	0.45
		3. Output torque(kg-m)	345	345	345	345
		4. Output OHL(kg)	2000	2000	2000	2000
	1/900	1. Input horse power(HP)	3.20	2.66	2.13	1.60
		2. Output horse power(HP)	0.96	0.80	0.64	0.48
		3. Output torque(kg-m)	345	345	345	345
		4. Output OHL(kg)	2000	2000	2000	2000

DOUBLE REDUCTION GEAR REDUCER

Permissible Transmission Horse Power and Torque on Output Shaft

Duration, 8～10 service hours per day at uniform load OHL = Over Hanging Load

Size	Ratio	Input RPM	1800	1500	1200	900
120 ≀ 200	1/200	1. Input horse power(HP)	8.18	7.26	6.29	5.17
		2. Output horse power(HP)	4.82	4.18	3.53	2.81
		3. Output torque(kg-m)	384	399	421	448
		4. Output OHL(kg)	2200	2200	2200	2200
	1/300	1. Input horse power(HP)	6.16	5.45	4.74	3.84
		2. Output horse power(HP)	3.52	3.05	2.58	2.04
		3. Output torque(kg-m)	421	437	462	488
		4. Output OHL(kg)	2200	2200	2200	2200
	1/400	1. Input horse power(HP)	5.06	4.50	3.83	2.96
		2. Output horse power(HP)	2.81	2.47	2.04	1.53
		3. Output torque(kg-m)	447	471	488	488
		4. Output OHL(kg)	2200	2200	2200	2200
	1/500	1. Input horse power(HP)	4.37	3.82	3.14	2.46
		2. Output horse power(HP)	2.37	2.04	1.63	1.23
		3. Output torque(kg-m)	473	488	488	488
		4. Output OHL(kg)	2200	2200	2200	2200
	1/600	1. Input horse power(HP)	4.01	3.42	2.83	2.18
		2. Output horse power(HP)	2.04	1.70	1.36	1.02
		3. Output torque(kg-m)	488	488	488	488
		4. Output OHL(kg)	2200	2200	2200	2200
	1/800	1. Input horse power(HP)	3.13	2.67	2.19	1.72
		2. Output horse power(HP)	1.53	1.28	1.02	0.76
		3. Output torque(kg-m)	488	488	488	488
		4. Output OHL(kg)	2200	2200	2200	2200
	1/900	1. Input horse power(HP)	3.32	2.87	2.39	1.85
		2. Output horse power(HP)	1.36	1.14	0.91	0.58
		3. Output torque(kg-m)	488	488	488	488
		4. Output OHL(kg)	2200	2200	2200	2200

Size	Ratio	Input RPM	1800	1500	1200	900
155 ≀ 250	1/200	1. Input horse power(HP)	14.0	12.6	10.8	8.93
		2. Output horse power(HP)	8.71	7.74	6.48	5.18
		3. Output torque(kg-m)	693	739	774	825
		4. Output OHL(kg)	2700	2700	2700	2700
	1/300	1. Input horse power(HP)	11.0	9.74	8.50	6.54
		2. Output horse power(HP)	6.48	5.60	4.75	3.56
		3. Output torque(kg-m)	774	803	850	850
		4. Output OHL(kg)	2700	2700	2700	270
	1/400	1. Input horse power(HP)	9.16	8.09	6.60	5.09
		2. Output horse power(HP)	5.18	4.45	3.56	2.67
		3. Output torque(kg-m)	824	850	850	850
		4. Output OHL(kg)	2700	2700	2700	2700
	1/500	1. Input horse power(HP)	7.62	6.47	5.28	4.10
		2. Output horse power(HP)	4.27	3.56	2.85	2.14
		3. Output torque(kg-m)	850	850	850	850
		4. Output OHL(kg)	2700	2700	2700	2700
	1/600	1. Input horse power(HP)	6.93	5.97	4.88	3.81
		2. Output horse power(HP)	3.56	2.97	2.37	1.78
		3. Output torque(kg-m)	850	850	850	850
		4. Output OHL(kg)	2700	2700	2700	2700
	1/800	1. Input horse power(HP)	5.40	4.64	3.82	3.01
		2. Output horse power(HP)	2.67	2.23	1.78	1.34
		3. Output torque(kg-m)	850	850	850	850
		4. Output OHL(kg)	2700	2700	2700	2700
	1/900	1. Input horse power(HP)	5.31	4.56	3.74	2.97
		2. Output horse power(HP)	2.37	1.98	1.58	1.19
		3. Output torque(kg-m)	850	850	850	850
		4. Output OHL(kg)	2700	2700	2700	2700

Size	Ratio	Input RPM	1800	1500	1200	900
135 ≀ 225	1/200	1. Input horse power(HP)	11.0	9.86	8.50	7.03
		2. Output horse power(HP)	6.85	5.98	5.02	4.03
		3. Output torque(kg-m)	545	571	599	642
		4. Output OHL(kg)	2500	2500	2500	2500
	1/300	1. Input horse power(HP)	8.65	7.65	6.65	5.37
		2. Output horse power(HP)	5.02	4.35	3.66	2.89
		3. Output torque(kg-m)	599	623	655	690
		4. Output OHL(kg)	2500	2500	2500	2500
	1/400	1. Input horse power(HP)	7.19	6.39	5.39	4.18
		2. Output horse power(HP)	4.03	3.49	2.89	2.17
		3. Output torque(kg-m)	642	666	690	690
		4. Output OHL(kg)	2500	2500	2500	2500
	1/500	1. Input horse power(HP)	6.27	5.43	4.44	3.46
		2. Output horse power(HP)	3.40	2.89	2.31	1.73
		3. Output torque(kg-m)	676	690	690	690
		4. Output OHL(kg)	2500	2500	2500	2500
	1/600	1. Input horse power(HP)	5.64	4.83	4.02	3.10
		2. Output horse power(HP)	2.89	2.41	1.93	1.45
		3. Output torque(kg-m)	690	690	690	690
		4. Output OHL(kg)	2500	2500	2500	2500
	1/800	1. Input horse power(HP)	4.42	3.79	3.15	2.46
		2. Output horse power(HP)	2.17	1.80	1.45	1.08
		3. Output torque(kg-m)	690	690	690	690
		4. Output OHL(kg)	2500	2500	2500	2500
	1/900	1. Input horse power(HP)	4.21	3.63	3.10	2.43
		2. Output horse power(HP)	1.92	1.61	1.28	0.96
		3. Output torque(kg-m)	690	690	690	690
		4. Output OHL(kg)	2500	2500	2500	2500

Size	Ratio	Input RPM	1800	1500	1200	900
175 ≀ 300	1/200	1. Input horse power(HP)	15.8	13.9	12.0	9.9
		2. Output horse power(HP)	9.7	8.4	7.1	5.7
		3. Output torque(kg-m)	1012	1059	1122	1195
		4. Output OHL(kg)	3800	3800	3800	3800
	1/300	1. Input horse power(HP)	12.3	10.9	9.1	7.1
		2. Output horse power(HP)	7.1	6.2	5.1	3.8
		3. Output torque(kg-m)	1122	1170	1200	1200
		4. Output OHL(kg)	3800	3800	3800	3800
	1/400	1. Input horse power(HP)	10.2	8.6	7.0	5.5
		2. Output horse power(HP)	5.7	4.7	3.8	2.8
		3. Output torque(kg-m)	1197	1200	1200	1200
		4. Output OHL(kg)	3800	3800	3800	3800
	1/500	1. Input horse power(HP)	8.2	7.0	5.7	4.5
		2. Output horse power(HP)	4.4	3.7	3.0	2.2
		3. Output torque(kg-m)	1200	1200	1200	1200
		4. Output OHL(kg)	3800	3800	3800	3800
	1/600	1. Input horse power(HP)	7.5	6.4	5.2	4.1
		2. Output horse power(HP)	3.8	3.2	2.5	1.9
		3. Output torque(kg-m)	1200	1200	1200	1200
		4. Output OHL(kg)	3800	3800	3800	3800
	1/800	1. Input horse power(HP)	5.9	5.0	4.1	3.2
		2. Output horse power(HP)	2.8	2.4	1.9	1.4
		3. Output torque(kg-m)	1200	1200	1200	1200
		4. Output OHL(kg)	3800	3800	3800	3800
	1/900	1. Input horse power(HP)	5.7	4.9	4.0	3.2
		2. Output horse power(HP)	2.5	2.1	1.7	1.3
		3. Output torque(kg-m)	1200	1200	1200	1200
		4. Output OHL(kg)	3800	3800	3800	3800

DOUBLE REDUCTION GEAR REDUCER

Permissible Transmission Horse Power and Torque on Output Shaft

Duration, 8～10 service hours per day at uniform load OHL = Over Hanging Load

Size	Ratio	Input RPM	1800	1500	1200	900
200 ≀ 350	1/200	1. Input horse power(HP)	24.5	21.6	17.9	13.8
		2. Output horse power(HP)	15.2	13.2	10.7	8.0
		3. Output torque(kg-m)	1700	1773	1800	1800
		4. Output OHL(kg)	5100	5100	5100	5100
	1/300	1. Input horse power(HP)	18.3	15.5	12.6	9.8
		2. Output horse power(HP)	10.7	8.9	7.2	5.4
		3. Output torque(kg-m)	1800	1800	1800	1800
		4. Output OHL(kg)	5100	5100	5100	5100
	1/400	1. Input horse power(HP)	14.6	12.4	10.1	7.9
		2. Output horse power(HP)	8.3	6.9	5.5	4.2
		3. Output torque(kg-m)	1800	1800	1800	1800
		4. Output OHL(kg)	5100	5100	5100	5100
	1/500	1. Input horse power(HP)	12.0	10.2	8.5	6.5
		2. Output horse power(HP)	6.7	5.5	4.4	3.3
		3. Output torque(kg-m)	1800	1800	1800	1800
		4. Output OHL(kg)	5100	5100	5100	5100
	1/600	1. Input horse power(HP)	10.5	8.9	7.2	5.7
		2. Output horse power(HP)	5.4	4.5	3.6	2.7
		3. Output torque(kg-m)	1800	1800	1800	1800
		4. Output OHL(kg)	5100	5100	5100	5100
	1/800	1. Input horse power(HP)	8.4	7.1	5.9	4.6
		2. Output horse power(HP)	4.2	3.5	2.8	2.1
		3. Output torque(kg-m)	1800	1800	1800	1800
		4. Output OHL(kg)	5100	5100	5100	5100
	1/900	1. Input horse power(HP)	7.8	6.7	5.5	4.3
		2. Output horse power(HP)	3.7	3.1	2.5	1.8
		3. Output torque(kg-m)	1800	1800	1800	1800
		4. Output OHL(kg)	5100	5100	5100	5100

Size	Ratio	Input RPM	1800	1500	1200	900
225 ≀ 400	1/200	1. Input horse power(HP)	32.9	28.8	25.0	20.1
		2. Output horse power(HP)	20.7	18.0	15.3	11.9
		3. Output torque(kg-m)	2239	2342	2482	2580
		4. Output OHL(kg)	7000	7000	7000	7000
	1/300	1. Input horse power(HP)	25.5	22.4	18.2	14.1
		2. Output horse power(HP)	15.3	13.2	10.6	7.9
		3. Output torque(kg-m)	2482	2580	2580	2580
		4. Output OHL(kg)	7000	7000	7000	7000
	1/400	1. Input horse power(HP)	20.6	17.4	14.2	11.1
		2. Output horse power(HP)	11.9	9.9	7.9	6.0
		3. Output torque(kg-m)	2580	2580	2580	2580
		4. Output OHL(kg)	7000	7000	7000	7000
	1/500	1. Input horse power(HP)	16.8	14.3	11.7	9.1
		2. Output horse power(HP)	9.5	7.9	6.4	4.8
		3. Output torque(kg-m)	2580	2580	2580	2580
		4. Output OHL(kg)	7000	7000	7000	7000
	1/600	1. Input horse power(HP)	14.9	12.6	10.3	8.0
		2. Output horse power(HP)	7.9	6.6	5.3	4.0
		3. Output torque(kg-m)	2580	2580	2580	2580
		4. Output OHL(kg)	7000	7000	7000	7000
	1/800	1. Input horse power(HP)	11.8	10.0	8.2	6.4
		2. Output horse power(HP)	6.0	5.0	4.0	3.0
		3. Output torque(kg-m)	2580	2580	2580	2580
		4. Output OHL(kg)	7000	7000	7000	7000
	1/900	1. Input horse power(HP)	11.5	9.8	8.1	6.3
		2. Output horse power(HP)	5.5	4.6	3.7	2.7
		3. Output torque(kg-m)	2580	2580	2580	2580
		4. Output OHL(kg)	7000	7000	7000	7000

IMPORTANT NOTICE:

For getting better contact ratio of gears meshing, the actual ratios of the following sizes among our products were designed to be not integral ratio. Your special attention will be required and appreciated.

1. For ratio 1:10, sizes 50, 60, 70, 80, 100, 120, 135, 155, 175 and 225, the actual ratio is 10.3333:1.

2. For ratio 1:20, sizes 50, 60, 70, 80, 100, 120, 135, 155 and 175, the actual ratio is 20.5:1.

3. For ratio 1:5, sizes 60 and 70, the actual ratio is 5.25:1.

REFERENCE FOR DESIGNER:

Motor			
	DC Motor	AC Motor	
		Single Phase	Three Phase
AMP =	(HPx746)/(VOLTxEFF) (kwx1000)/VOLTS	(HPx746)/(VOLTxEFFxPF) (kwx1000)/(VOLTxPF)	(HPx746)/(VOLTxEFFxPFx1.73) (kwx1000)/(VOLTxPFx1.73)
KW =	(AMPxVOLT)/1000	(AMPxV OLTxPF)/1000	(AMPxVOLTxPFx1.73)/1000
HP =	(AMPxVOLTxEFF)/746	(AMPxVOLTxEFFxPF)/746	(AMPxVOLTxEFFxPFx1.73)/746
PF=Performance Factor (about 80%) EFF=Efficiency (between 80～90%) For more information, please contact with motor maker			

Formulas			
Want to know	Code	Formulas	Unit
rqu∃o	T	T = F x R	(kgfm)
Torque	T	T = (716.2 x Hp) / N	(kgfm)
Torque	T	T = (974 x kW) / N	(kgfm)
HP	Hp	Hp = (T x N) / 716.2	(Hp)
kW	kW	kw = (T x N) / 974	(kW)
HP	Hp	Hp = (F x V) / 75	(Hp)
kW	kW	kw= (F x V) / 102	(kW)
SPEED	V	V = (π x D x N) / 60	(m/sec)
RATIO	i	i = N1 / N2	
Dynamic moment	GD^2	$GD^2 = 364 \times (F \times V^2 \times N^2)$	kgm^2
F : Weight(kg) N : output r.p.m.		D : Diameter(m) R : Radius(m)	

Conversion Factors					
1kW	1HP	1kgf-m	1Nm	1in-lb	1ft-lb
1.34HP	0.746kW	9.807 N-m	0.10197kgf-m	0.1129 N-m	1.356 N-m
1.36PS	1.01PS	7.233ft-lb	0.7375ft-lb	0.0115kgf-m	0.1383kgf-m
102.0kgf-m/s	76.07kgf-m/s	86.796in-lb	8.85070in-lb	0.083ft-lb	12in-lb

Selection of Lubricant Oil

Normal duty at input 600 r.p.m. and above

Environment temperature (℃)	China Petroleum company (Taiwan)	ISO VG	Mobil	Shell
-30 ~ -15	HD 100	VG 100	Mobilgear 627	Omala 100
-15 -3	HD 150	VG 150	Mobilgear 629	Omala 150
-3 23	HD 220	VG 220	Mobilgear 630	Omala 220
23 40	HD 320	VG 320	Mobilgear 632	Omala 320
40 80	HD 460	VG 460	Mobilgear 634	Omala 460

Heavy duty at input 600 r.p.m. and above

Environment temperature (℃)	China Petroleum company (Taiwan)	ISO VG	Mobil	Shell
-30 ~ -15	HD 150	VG 150	Mobilgear 629	Omala 150
-15 -3	HD 220	VG 220	Mobilgear 630	Omala 220
-3 23	HD 320	VG 320	Mobilgear 632	Omala 320
23 40	HD 460	VG 460	Mobilgear 634	Omala 460
40 80	HD 680	VG 680	Mobilgear 636	Omala 680

Part Specification

ASS・BSS・USS(CTA.CTB.CTU)

Size	Shaft Input			Shaft Output		
	Bearing	Oil Seal	Key	Bearing	Oil Seal	Key
40	6202	15.25.6	4*4*22	6203	17.30.7	5*5*30 5*5*26
50	6203	17.30.7	4*4*25	6204	20.35.8	5*5*35 7*7*30
60	30204	20.35.8	5*5*35	6205	25.40.8	7*7*45 10*8*30
70	30205	25.40.8	5*5*35	6206	30.50.11	7*7*55 10*8*45

Size	Shaft Input			Shaft Output		
	Bearing	Oil Seal	Key	Bearing	Oil Seal	Key
80	30206	30.50.11	7*7*45	6207	35.55.11	10*8*60 10*8*50
100	30207	35.55.11	7*7*45	6208	40.62.12	10*8*70 12*8*60
120	30308	40.62.12	7*7*60	6210	50.72.12	12*8*80 15*10*75
135	30309	45.68.12	10*8*70	6212	60.82.12	15*10*90 18*12*80
155	30309	45.68.12	10*8*80	32213	65.88.12	15*10*95 20*13*95
175	30311	50.72.12	12*8*80	32214	70.95.13	18*12*105 20*13*100
200	30311*2 6311	52.75.12	12*8*90	32215	75.100.13	20*13*120 24*16*135
225	30312*2 6312	57.75.12	15*10*90	32217	85.120.13	20*13*135 24*16*135
250	30313*2 6313	62.85.12	15*10*105	32219	95.120.13	24*16*140 28*18*150

ESS, VSS(CTE-U, D)

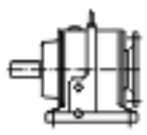
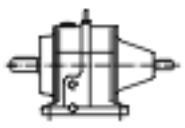
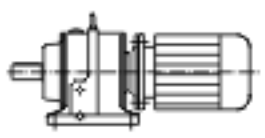
Size	Shaft Input			Shaft Output		
	Bearing	Oil Seal	Key	Bearing	Oil Seal	Key
40	6202	15.25.6	4*4*22	6203	17.30.7	5*5*30 5*5*26
50	6203	17.30.7	4*4*25	30204	20.35.8	5*5*35 7*7*30
60	30204	20.35.8	5*5*35	30205	25.40.8	7*7*45 10*8*30
70	30205	25.40.8	5*5*35	30206	30.50.11	7*7*55 10*8*45
80	30206	30.50.11	7*7*45	30207	35.55.11	10*8*60 10*8*50
100	30207	35.55.11	7*7*45	6208	40.62.12	10*8*70 12*8*60
120	30308	40.62.12	7*7*60	30210	50.72.12	12*8*80 15*10*75
135	30309	45.68.12	10*8*70	30212	60.82.12	15*10*90 18*12*80
155	30309	45.68.12	10*8*80	32213	65.88.12	15*10*95 20*13*95
175	30311	50.72.12	12*8*80	32214	70.95.13	18*12*105 20*13*100
200	30311*2 6311	52.75.12	12*8*90	32215	75.100.13	20*13*120 24*16*135
225	30312*2 6312	57.75.12	15*10*90	32217	85.120.13	20*13*135 24*16*135
250	30313*2 6313	62.85.12	15*10*105	32219	95.120.13	24*16*140 28*18*150

Bore Input & Hollow Output

Type	Bore Input			Bore output	
	Bearing	Oil Seal	Power	Bearing	Oil Seal
40	6203 6203NR	25.35.8	1/4HP	6006	30.50.8
50	30202	00.35.5 25.35.8	1/4HP 1/2HP	6008	40.62.12
60	6005 6204	25.38.8	1/4HP 1/2HP	6009	45.68.12
70	30205 32004	25.40.8 00.40.5 35.42.7	1/2HP 1HP	6010	50.72.12
80	30206 32007	35.50.11	1HP 2HP	6012	60.82.12
100	6207 6207NR	40.55.8 40.62.12	2HP 3HP	6012	60.82.12
120	30308 32210	50.72.12	3HP 5HP	6014	70.95.13
135	30309 30309 32211	45.68.12 55.75.12	5HP $7\frac{1}{2}$ HP	6219	95.120.13

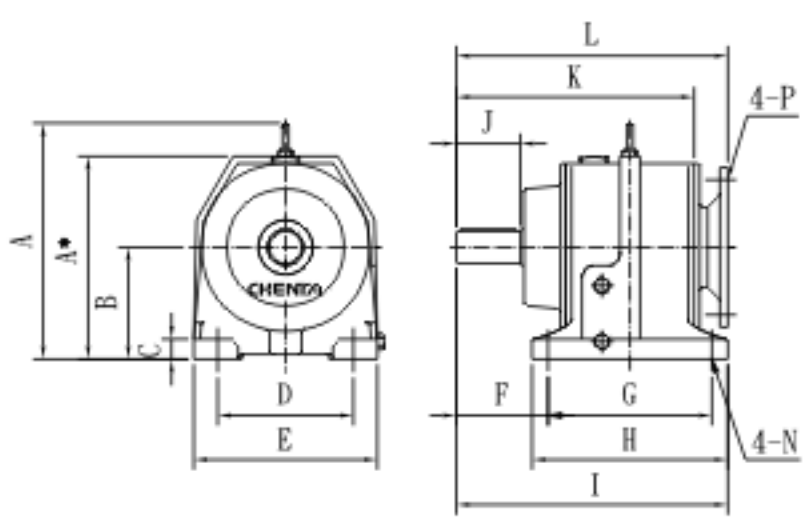
(Remark: the oil seal spec. 00 means Blind Oil Seal.)

NUMBERING SYSTEMS FOR HELICAL GEAR:

N	H	R	046	30	01	A
Helical Gear	Mounting Orientation	Input Coupling Method	Size	Reduction Ratio	Horsepower	Mounting Position
	H:Foot Mounting	R:  D:  M: 	046: Type 46 058: Type 58 065: Type 65 085: Type 85 105: Type 105 130: Type 130 145: Type 145	1/5 1/10 1/20 1/30 1/40 1/50 1/60	H:0.5HP 01:1.0HP 02:2.0HP 03:3.0HP 05:5.0HP 7H:7.5HP 10:10HP ≀ 75:75HP	Detail:Page 76

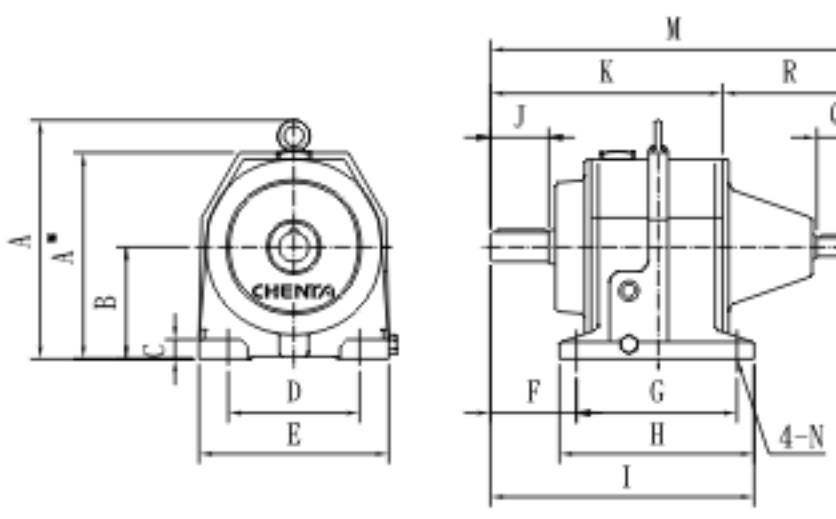
Dimension

Model:HR



Output Shaft　　Input Shaft Bore

Model:HD



Output Shaft　　Input Shaft

Unit: mm

Size	HP	L	P	A * (A)	B	C	D	E	F	G	H	I	J	K	M	N
46	1/2	231	M8	* 166	90	15	110	150	75	130	160	220	50	192	329.5	9
	1	242	M10													
	2	237														
58	1/2	274	M8	240	115	20	135	195	90	165	200	273	60	238	376	14
	1	282	M10													
	2	295														
	3	288	M12													
65	1	340	M10	287	140	25	170	230	115	205	245	240	80	298	446	18
	2	352														
	3,5	366	M12													
	$7\frac{1}{2}$	368														
85	2	428	M10	350	180	26	215	290	140	260	310	425	100	377	541	18
	3,5	442	M12													
	$7\frac{1}{2}$	467														
	10	450														

Size	HP	Q	R	Input Shaft			Output Shaft			oil (1)
				T	U	V	W	S	X	
46	1/2	40	137.5	5	16	18	8	25	28	0.5
	1									
	2									
58	1/2	40	138	6	19	21.5	8	30	33	1.1
	1									
	2									
	3									
65	1	50	148	8	24	27	12	40	43	1.7
	2									
	3,5									
	$7\frac{1}{2}$									
85	2	60	164	8	28	31	14	50	53.5	3.5
	3,5									
	$7\frac{1}{2}$									
	10									

Unit: mm

Size	HP	L	P	A * (A)	B	C	D	E	F	G	H	I	J	K	M	N
105	5	492	M12	* 426	225	30	250	340	160	310	365	498	120	430	651	22
	7½,10	533														
	15, 20	534	M16													
130	7½,10	585	M12	495	250	30	290	400	185	370	440	590	140	523	782	26
	25~40	654	M16													
	50	690														
145	30, 40	340	M16	555	315	60	340	450	220	205	490	670	170	589	896	33
	50~75	352														

Size	HP	Q	R	Input Shaft			Output Shaft			Oil (1)
				T	U	V	W	S	X	
105	7½	80	221	10	38	41	18	60	64	6
	10									
	15, 20									
130	7½, 10	110	259	12	42	45	20	70	74.5	10.5
	25~40									
	50									
145	30, 40	110	307	16	55	59	25	90	95	20
	50~75									

Remarks:

1. Except size 46, all other sizes were supplied with eye-bolt lifting hook.
2. The input bore diameter is according to IEC motor shaft. And to attach with NEMA motor is available by customer's request.
3. For 4 Pole 50 HP, 60 HP & 75 HP motors, the flange is supplied with eight bolt holes.

Selection Table of HP & Size

INPUT RPM:1750/1450

Input HP	Ratio	Size
1/2	5	46
	10	46
	20	46
	30	46
	40	46
	50	46
	60	58

Input HP	Ratio	Size
7 1/2	5	65
	10	65
	20	85
	30	105
	40	105
	50	105
	60	130

Input HP	Ratio	Size
30	5	130
	10	130
	20	145
	30	145
	40	145

Input HP	Ratio	Size
1	5	46
	10	46
	20	46
	30	58
	40	58
	50	58
	60	65

Input HP	Ratio	Size
10	5	85
	10	85
	20	105
	30	105
	40	130
	50	130
	60	130

Input HP	Ratio	Size
40	5	130
	10	130
	20	145
	30	145

Input HP	Ratio	Size
2	5	46
	10	46
	20	58
	30	65
	40	65
	50	85
	60	85

Input HP	Ratio	Size
15	5	105
	10	105
	20	105
	30	130
	40	130
	50	145
	60	145

Input HP	Ratio	Size
50	5	130
	10	130
	20	145

Input HP	Ratio	Size
3	5	58
	10	58
	20	65
	30	65
	40	85
	50	85
	60	85

Input HP	Ratio	Size
20	5	105
	10	105
	20	130
	30	130
	40	145
	50	145
	60	145

Input HP	Ratio	Size
60	5	145
	10	145
	20	145

Input HP	Ratio	Size
5	5	65
	10	65
	20	85
	30	85
	40	105
	50	105
	60	105

Input HP	Ratio	Size
25	5	130
	10	130
	20	130
	30	130
	40	145
	50	145
	60	145

Input HP	Ratio	Size
75	5	145
	10	145

INPUT RPM:1750,Permissible
Transmission Horse Power and Torque on Ouput shaft

Size	Ratio	Input HP	Output Torque	OHL	Suggest HP
46	1/5	2.50	4.64	158.9	0.5 1 2
	1/10	2.35	8.85	199.8	0.5 1 2
	1/20	1.50	10.17	290.6	0.5 1
	1/30	1.00	10.28	413.1	0.5
	1/40	0.62	9.22	324.6	0.5
	1/50	0.54	9.42	345.0	0.5
	1/60	—	—	—	—

Size	Ratio	Input HP	Output Torque	OHL	Suggest HP
130	1/5	58.3	164.75	1594.0	30 40 50
	1/10	56.6	334.12	2179.2	30 40 50
	1/20	28.3	199.27	2633.2	20 25
	1/30	26.0	286.19	2951.0	15 20 25
	1/40	18.7	264.99	3768.2	10 15
	1/50	14.1	241.67	3391.4	10
	1/60	13.3	296.79	3541.2	7.5 10

Size	Ratio	Input HP	Output Torque	OHL	Suggest HP
58	1/5	5.00	8.06	186.1	3
	1/10	4.80	17.70	372.3	3
	1/20	2.80	18.86	404.1	2
	1/30	1.66	19.08	590.2	1
	1/40	1.41	19.49	499.4	1
	1/50	1.25	20.67	594.7	1
	1/60	1.04	20.73	771.8	0.5

Size	Ratio	Input HP	Output Torque	OHL	Suggest HP
145	1/5	93	247.44	5584.2	60 75
	1/10	90	482.17	6174.4	60 75
	1/20	73	697.04	6719.2	50 60
	1/30	58.3	790.94	6818.0	40 50
	1/40	37.5	779.99	7471.0	20 25 30
	1/50	33.3	700.49	7899.6	15 20 25
	1/60	29.2	712.01	6764.6	15 20 25

Size	Ratio	Input HP	Output Torque	OHL	Suggest HP
65	1/5	7.5	14.26	717.3	5 7.5
	1/10	7.3	26.10	812.7	5 7.5
	1/20	4.5	32.21	1171.3	3
	1/30	4.0	40.28	1135.0	2 3
	1/40	2.8	20.81	1293.9	2
	1/50	—	—	—	—
	1/60	1.8	38.02	1407.4	1

＊UNIT: TORQUE:KG-M

OVERHUNG LOAD(OHL):KG

SERVICE FACTOR:1.2

Duration: 8 ～ 10 service hours per day at uniform load

Size	Ratio	Input HP	Output Torque	OHL	Suggest HP
85	1/5	16.6	31.19	1066.9	10
	1/10	15.6	61.15	1770.6	10
	1/20	10.6	77.16	1952.2	5 7.5
	1/30	7.1	74.85	2043.0	5
	1/40	5.0	67.31	2646.8	3 5
	1/50	5.0	87.90	2905.6	2 3 5
	1/60	4.2	86.33	2678.6	2 3

Size	Ratio	Input HP	Output Torque	OHL	Suggest HP
105	1/5	25.0	48.57	1634.4	15 20
	1/10	22.0	98.14	2179.2	15 20
	1/20	18.7	138.07	2451.6	10 15
	1/30	13.3	146.77	2179.2	7.5 10
	1/40	9.3	133.24	2088.4	5 7.5
	1/50	9.3	161.12	2724.0	5 7.5
	1/60	7.1	149.82	3268.8	5

INPUT RPM:1450,Permissible

Transmission Horse Power and Torque on Ouput shaft

Size	Ratio	Input HP	Output Torque	OHL	Suggest HP
46	1/5	2.25	5.59	158.9	0.5 1 2
	1/10	2.11	10.62	199.8	0.5 1 2
	1/20	1.35	12.20	290.6	0.5 1
	1/30	0.87	12.33	413.1	0.5
	1/40	0.55	11.06	324.6	0.5
	1/50	0.48	11.30	345.0	0.5
	1/60	—	—	—	—

Size	Ratio	Input HP	Output Torque	OHL	Suggest HP
130	1/5	52.47	197.70	1594.0	30 40 50
	1/10	50.94	400.00	2179.2	30 40 50
	1/20	25.47	239.12	2633.2	20 25
	1/30	23.40	343.40	2951.0	15 20 25
	1/40	16.83	317.98	3768.2	10 15
	1/50	12.69	290.00	3391.4	10
	1/60	13.30	356.15	3541.2	7.5 10

Size	Ratio	Input HP	Output Torque	OHL	Suggest HP
58	1/5	4.5	9.672	186.1	3
	1/10	4.32	21.24	372.3	3
	1/20	2.52	22.632	404.1	2
	1/30	1.49	22.896	590.2	1
	1/40	1.27	23.388	499.4	1
	1/50	1.125	24.80	594.7	1
	1/60	0.94	24.87	771.8	0.5

Size	Ratio	Input HP	Output Torque	OHL	Suggest HP
145	1/5	83.7	296.93	5584.2	60 75
	1/10	8.1	578.60	6174.4	60 75
	1/20	65.70	836.45	6719.2	50 60
	1/30	52.47	949.13	6818.0	40 50
	1/40	33.75	935.99	7471.0	20 25 30
	1/50	29.97	840.59	7899.6	15 20 25
	1/60	26.28	854.41	6764.6	15 20 25

Size	Ratio	Input HP	Output Torque	OHL	Suggest HP
65	1/5	6.75	17.11	717.3	5 7.5
	1/10	6.5	31.32	812.7	5 7.5
	1/20	4.05	38.65	1171.3	3
	1/30	3.57	48.33	1135.0	2 3
	1/40	2.52	24.97	1293.9	2
	1/50	—	—	—	—
	1/60	1.62	45.62	1407.4	1

＊UNIT: TORQUE:KG-M

OVERHUNG LOAD(OHL):KG

SERVICE FACTOR:1.2

Duration: 8 ～ 10 service hours per day at uniform load

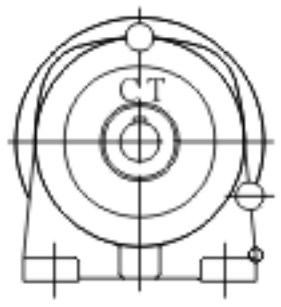
Size	Ratio	Input HP	Output Torque	OHL	Suggest HP
85	1/5	14.94	37.43	1066.9	10
	1/10	14.04	73.38	1770.6	10
	1/20	9.54	92.59	1952.2	5 7.5
	1/30	6.39	89.82	2043.0	5
	1/40	4.48	80.77	2646.8	3 5
	1/50	4.48	105.48	2905.6	2 3 5
	1/60	3.78	103.57	2678.6	2 3

Size	Ratio	Input HP	Output Torque	OHL	Suggest HP
105	1/5	22.5	58.28	1634.4	15 20
	1/10	19.8	117.76	2179.2	15 20
	1/20	16.83	165.68	2451.6	10 15
	1/30	11.97	176.12	2179.2	7.5 10
	1/40	8.37	159.88	2088.4	5 7.5
	1/50	8.37	193.34	2724.0	5 7.5
	1/60	6.39	179.78	3268.8	5

Mounting Positions:

Please assign before order, otherwise mounting position A will be supplied.

A



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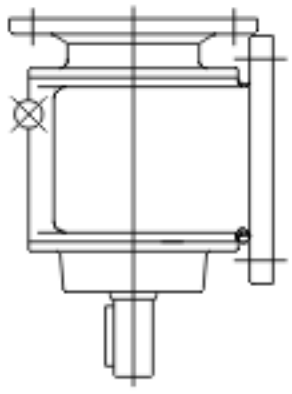

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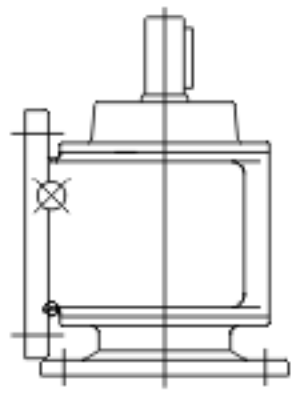

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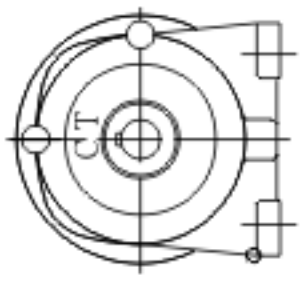

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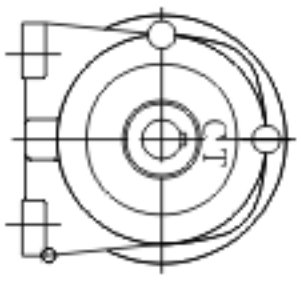
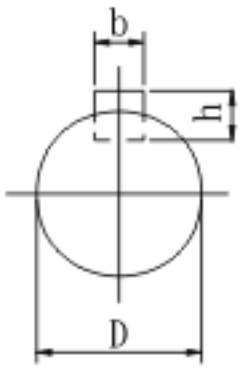


- Filler
- Level Gauge
- Drain
- Filler & Level Gauge

Tolerance for Key & Shaft:



Diameter	Tolerance
< 55 mm	k6
≥ 55 mm	m6

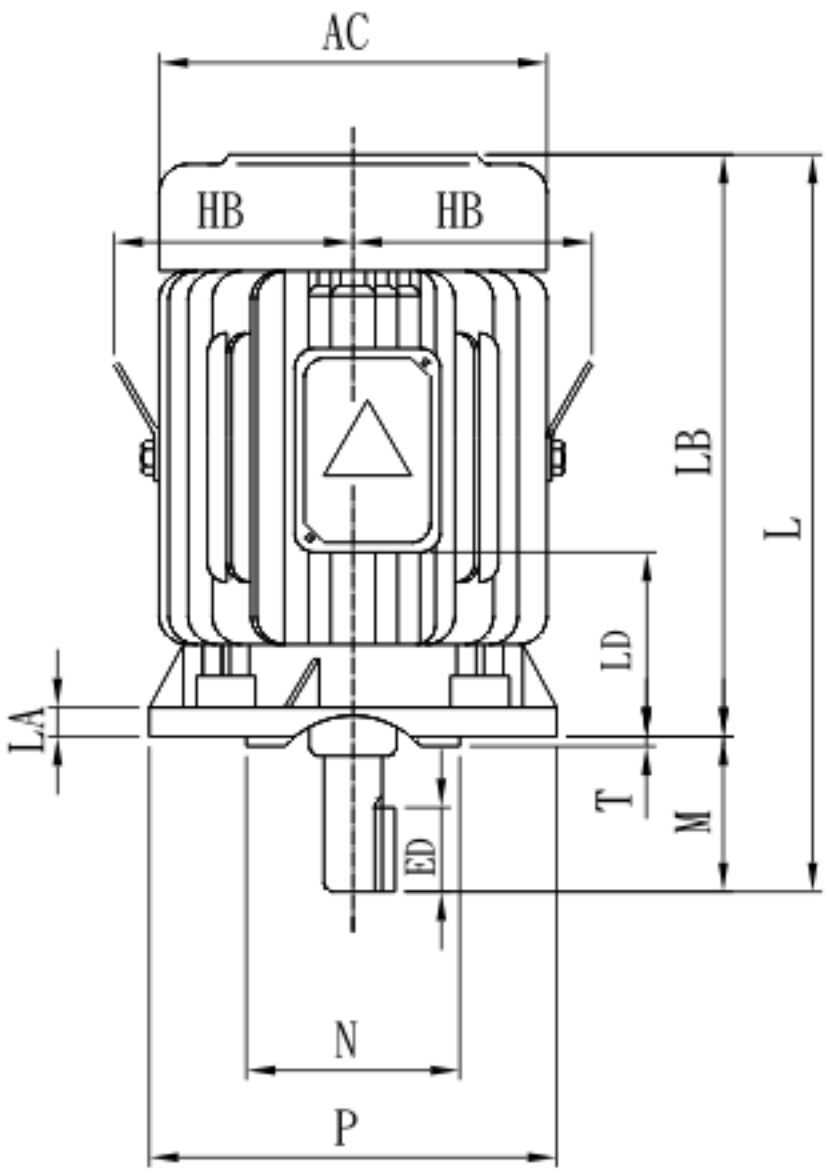
Unit:mm

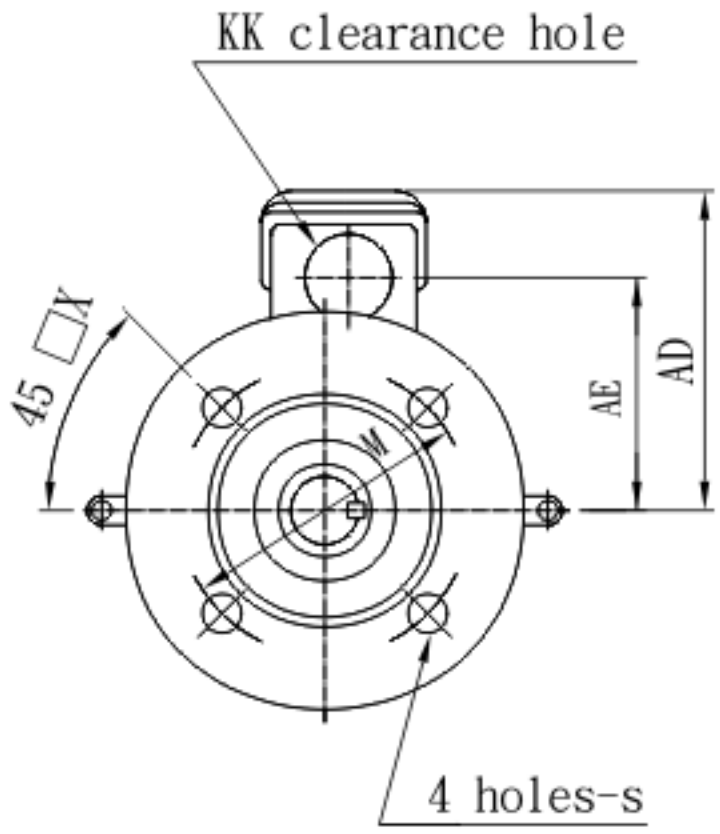
b		h		b		h	
5	0 -0.03	5	0 -0.03	12	0 -0.043	8	0 -0.09
6		6		14		9	
8	0 -0.036	7	0 -0.036	18		11	
10		8		20	0 -0.052	12	0 -0.11

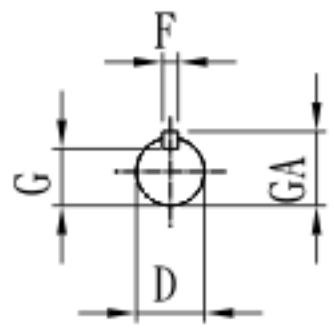
Table of Lubricant:

Output speed > 100 r.p.m., Mobilgear 630 or equivalent
Output speed < 100 r.p.m., Mobilgear 632 or equivalent

IEC STANDARD
Motor Dimensions Reference

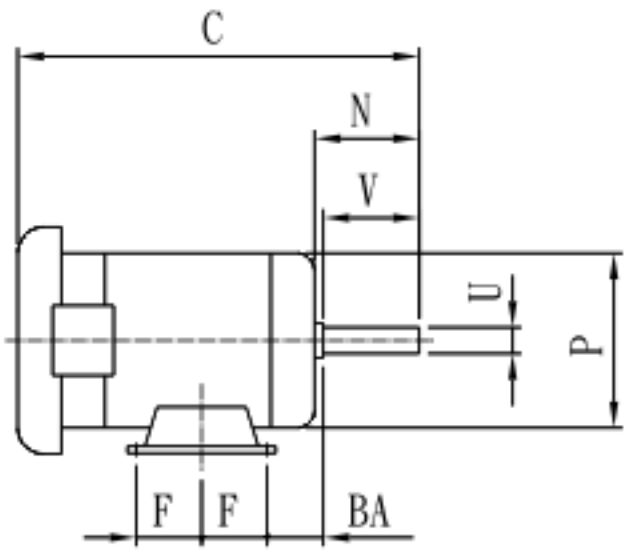


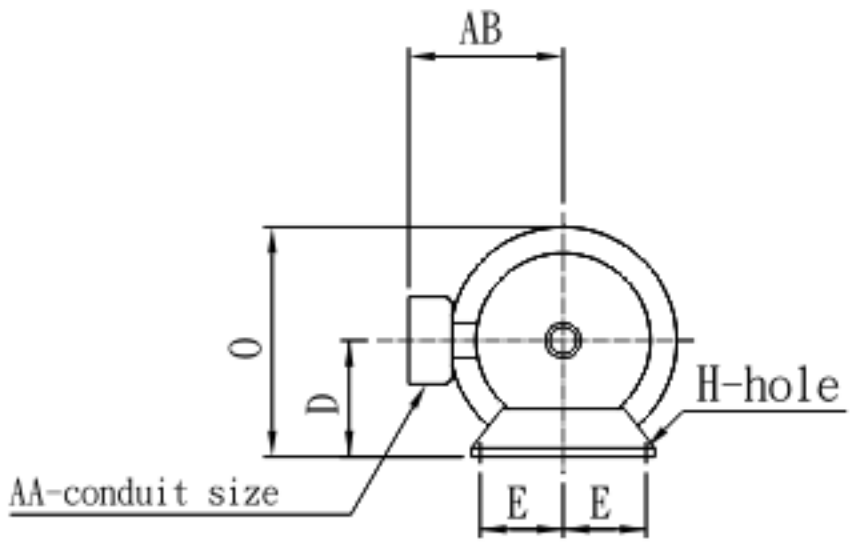


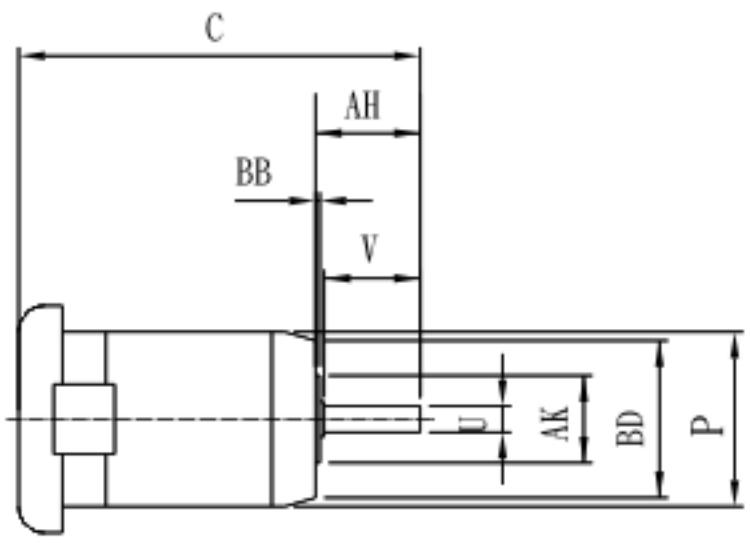


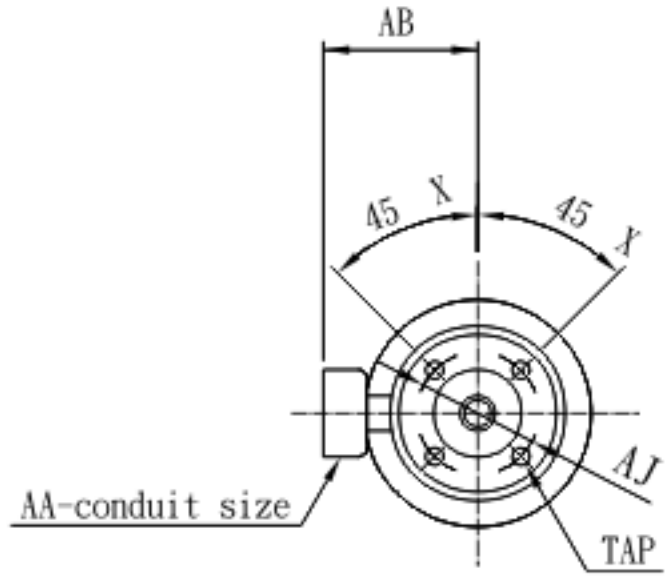
OUTPUT(HP)				IEC FRAME	AC	AD	AE	HB	KK	L	LA	LB	LD	M	N	P	S	T	END OF SHAFT					
2P	4P	6P	8P																D	E	ED	F	G	GA
1/4	1/4	---	---	63	144	115	88	---	22	238	12	215	74	130	110	160	10	3.5	11	23	10	4	8.5	12.5
1/2	1/2	1/4	---	71	162	125	98	---	22	266	12	236	82	130	110	160	10	3.5	14	30	14	5	11.0	16.0
1	1	1/2	1/4	80	177	137	117	---	22	272	12	232	60	165	130	200	12	3.5	19	40	25	6	15.5	21.5
2 3	2	1	1/2	90L	200	150	130	---	22	361	12	311	113	165	130	200	12	3.5	24	50	32	8	20.0	27.0
---	3	2	1	100L	219	173	140	140	28	363	16	303	88	215	180	250	14.5	4.0	28	60	40	8	24.0	31.0
5	5	3	2	112M	238	182	149	150	28	422	16	362	135	215	180	250	14.5	4.0	28	60	40	8	24.0	31.0
7-1/2 10	7-1/2	5	3	132S	273	218	175	169	35	446	20	366	97	265	230	300	14.5	4.0	38	80	56	10	33.0	41.0
---	10	7-1/2	5	132M	273	218	175	169	35	484	20	404	116	265	230	300	14.5	4.0	38	80	56	10	33.0	41.0
15 20	15	10	7-1/2	160M	334	256	213	217	35	604	20	494	151	300	250	350	18.5	5.0	42	110	80	12	37.0	45.0
25	20	15	10	160L	334	256	213	217	35	648	20	538	173	300	250	350	18.5	5.0	42	110	80	12	37.0	45.0
30	---	---	---	180MA	382	301	245	241	52	667	20	557	170	350	300	400	18.5	5.0	48	110	80	14	42.5	51.5
---	25 30	20	15	180MC	382	301	245	241	52	667	20	558	170	350	300	400	18.5	5.0	48	110	80	14	42.5	51.5
40	---	---	---	180LA	382	301	245	241	52	705	20	595	189	350	300	400	18.5	5.0	55	110	80	16	49.0	59.0
---	40	25 30	20	180LC	382	301	245	241	52	705	20	595	189	350	300	400	18.5	5.0	55	110	80	16	49.0	59.0
50 60	---	---	---	200LA	420	334	274	260	65	768	20	658	194	400	350	450	18.5	5.0	55	110	80	16	49.0	59.0
---	50 60	50 60	25 30	200LC	420	334	274	260	65	798	20	658	194	400	350	450	18.5	5.0	60	140	110	18	53.0	64.0
75	---	---	---	225SA	458	382	307	286	92	781	22	671	190.5	500	450	550	18.5	5.0	55	110	80	16	49.0	59.0
---	75	60	40	225SC	458	382	307	286	92	811	22	671	190.5	500	450	550	18.5	5.0	65	140	110	18	58.0	69.0

NEMA STANDARD
Motor Dimensions Reference



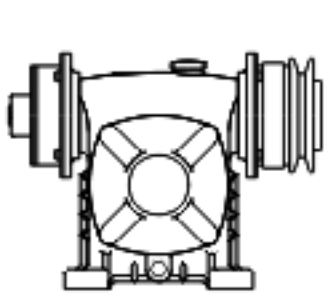




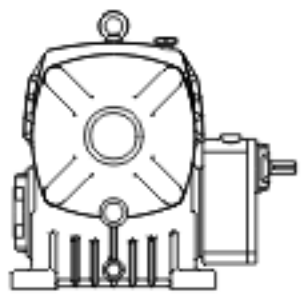


NEMA FRAME	D	E	F	H	MIN N	D	P	U	MIN V	AA	AB	AH	AJ	AK	BA	BB	BD	TAP
48	3	2-1/8	1-3/8	11/32 SLOT	1-7/8	5-7/8	5-11/16	1/2	1-1/2	1/2	4-3/8	1-11/16	3-3/4	3	2-1/2	5/32	5-5/8	1/2-20
56	3-1/2	2-7/16	1-1/2	11/32 SLOT	2-1/4	6-7/8	6-5/8	5/8	1-7/8	1/2	5	2-1/16	5-7/8	4-1/2	2-3/4	5/32	6-1/2	3/8-16
143T 145T	3-1/2	2-3/4	2 2-1/2	11/32	2	6-7/8	6-5/8	7/8	2	3/4	5-1/4	2-1/8	5-7/8	4-1/2	2-1/4	5/32	6-1/2	3/8-16
182 184 182T 184T	4-1/4	3-3/4	2-1/4 2-3/4 2-1/4 2-3/4	13/32	2 2-3/4	8-11/16	7-7/8	7/8 1-1/8	2 2-3/4	3/4	5-7/8	2-1/8 2-7/8	5-7/8 7-1/4	4-1/2 8-1/2	2-3/4	5/32 1/4	6-1/2 9	3/8-16 1/2-13
213 215 213T 215T	5-1/4	4-1/4	2-3/4 3-1/2 2-3/4 3-1/2	13/32	3-3/8	10-1/4	9-9/16	1-1/8 1-3/8	2-3/4 3-3/8	3/4	7-3/8	3 3-3/8	7-1/4	8-1/2	3-1/2	1/4	9	1/2-13
254U 256U 254T 256T	6-1/4	5	4-1/8 5 4-1/8 5	17/32	4-1/4	13	13-1/2	1-3/8 1-5/8	3-1/2 4	1	9-5/8	3-3/4 4	7-1/4	8-1/2	4-1/4	1/4	10	1/2-13

Illustration for special models: (by customer order)



CT-BCB



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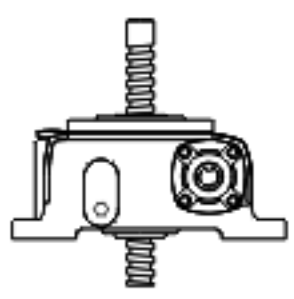

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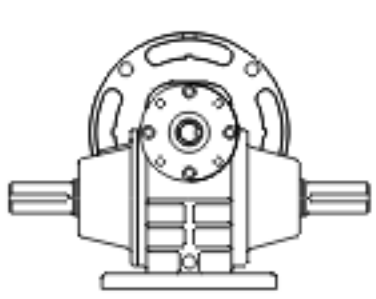

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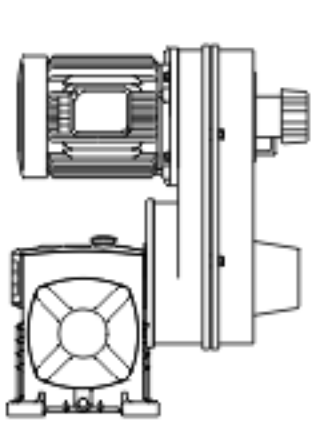

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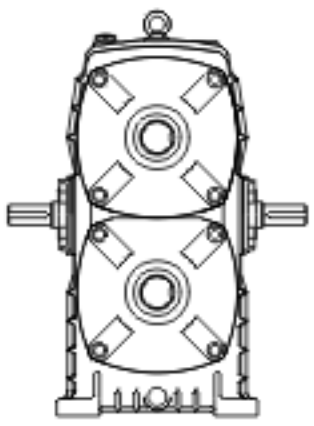
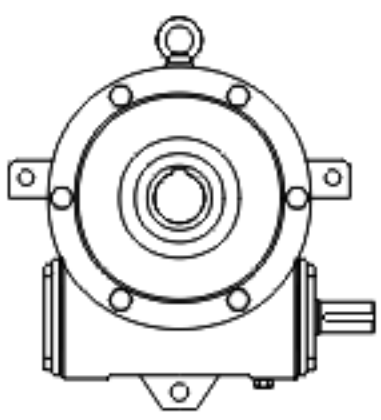
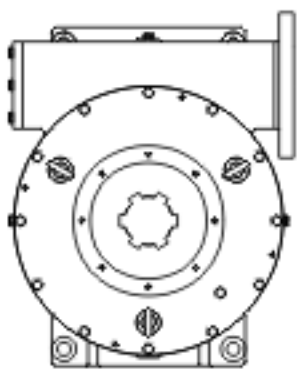


CT-TAB



CT-RHS



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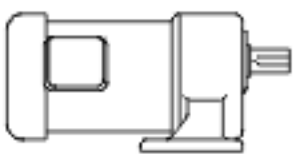
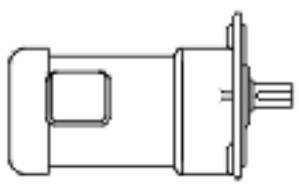
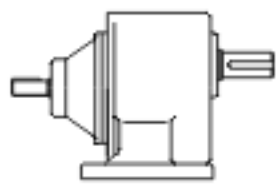


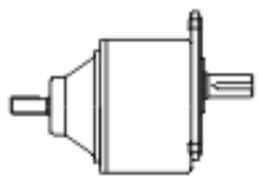
SHM
GEAR MOTOR



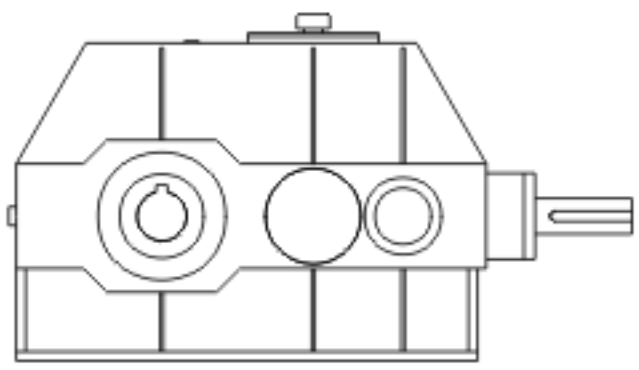
SVM
GEAR MOTOR



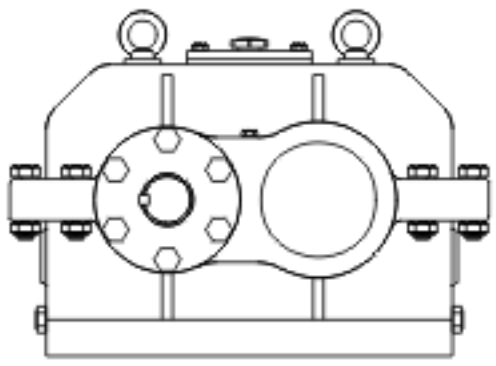
SHD



SVD



GEAR BOX
BEVEL HELICAL GEAR



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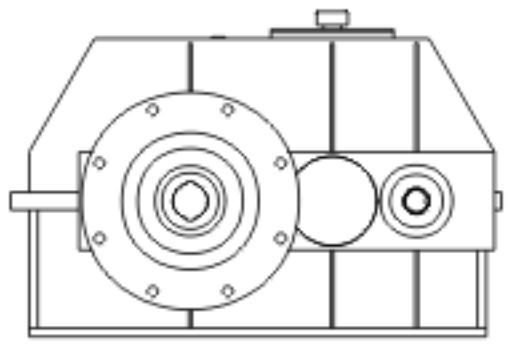
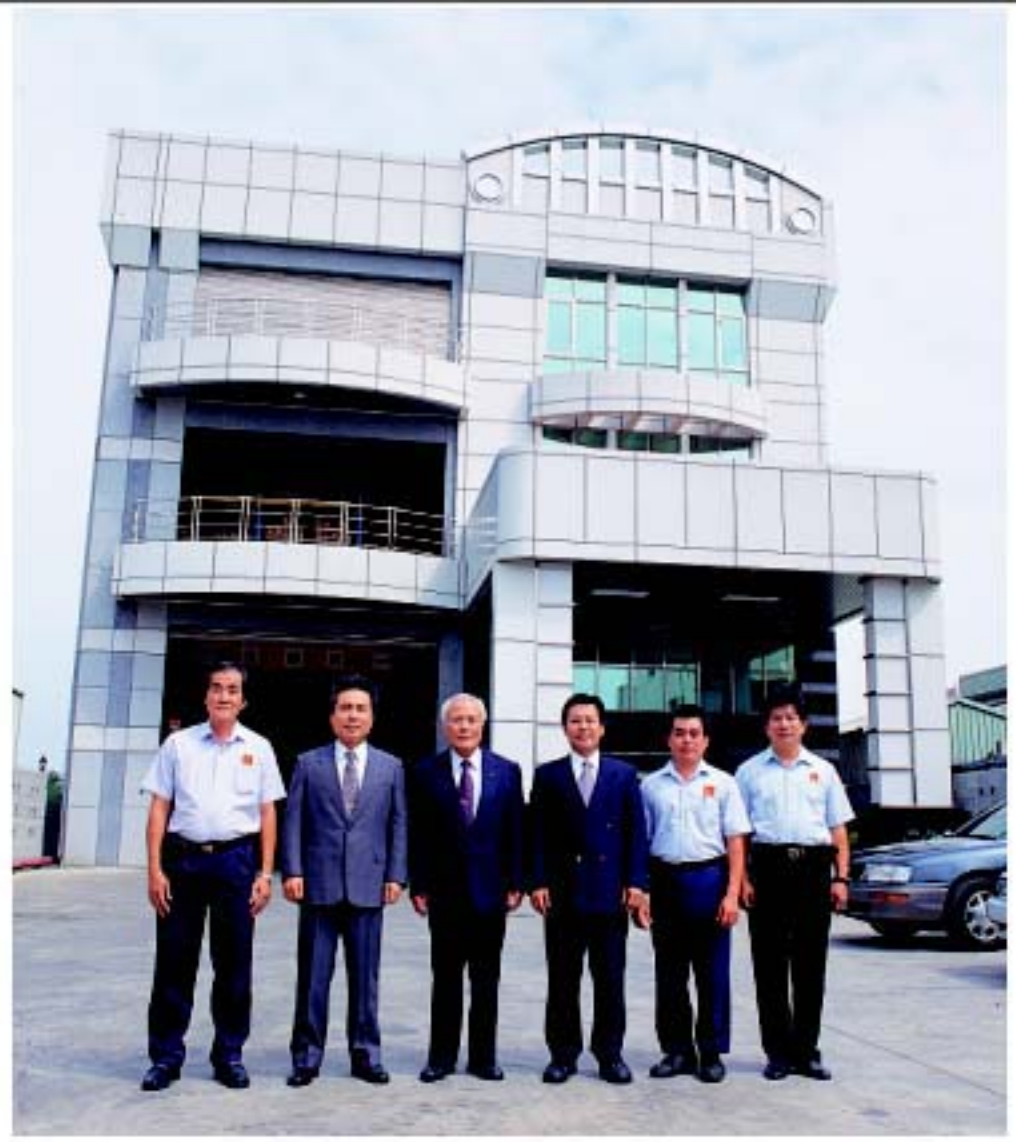
HELICAL GEAR



GEAR BOX WITH FLANGE
HELICAL GEAR



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