



Certified by ISO 9002

**TRANSDISCO**

*Product  
Guide*

**Variable Speed Drives**



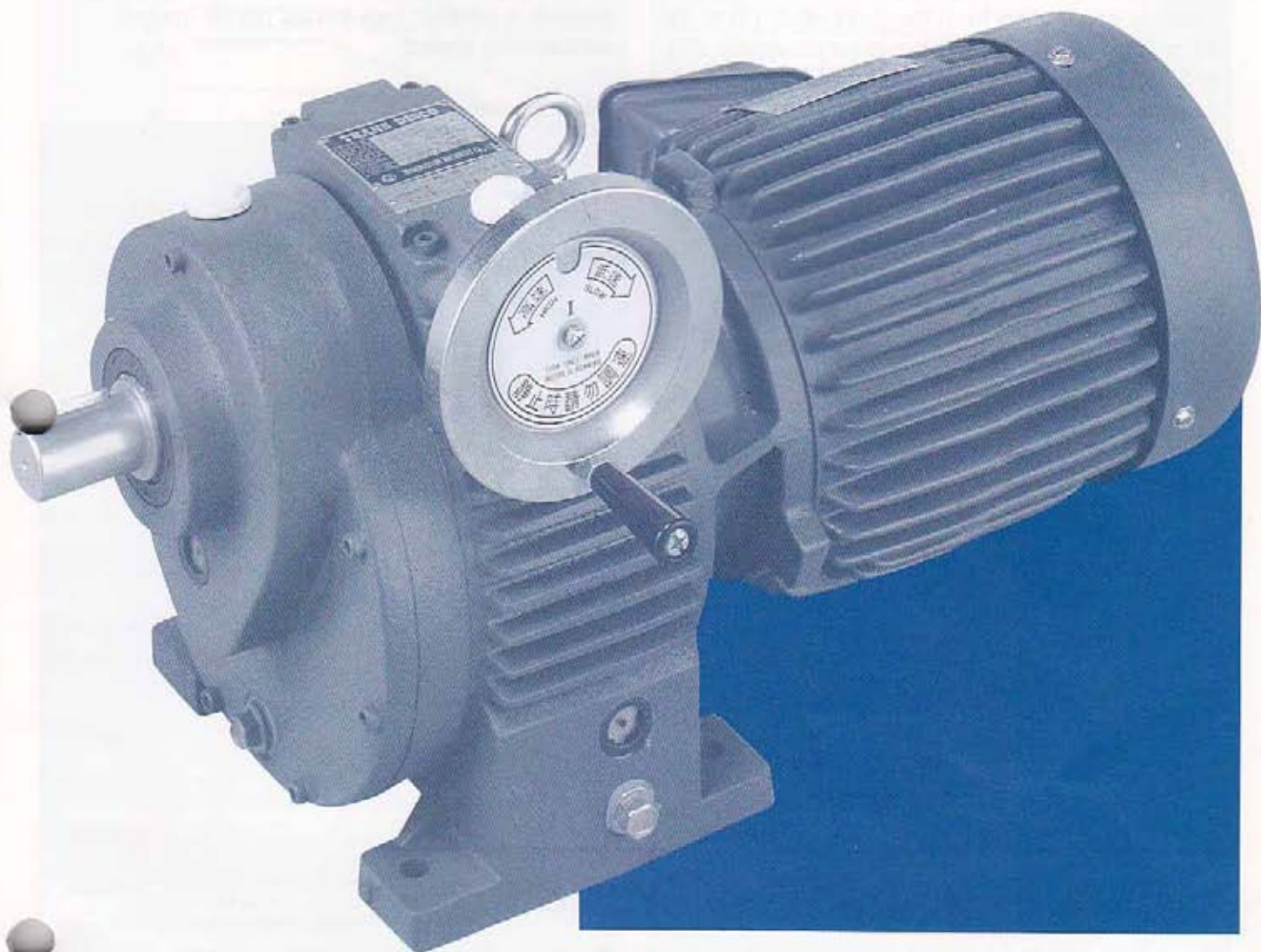
Certificate No.FM37596



**TRANSMISSION MACHINERY CO.,LTD.**

**TRANS DISCO** are made under strict quality control for optimum performance. They feature the best in materials, a wealth of available models, easy maintenance, long service life—the best and most reliable choice for production line applications.

We have achieved the best sales record, and a significantly large market share, through maintaining a growing island-wide sales and service network to meet the demands of all industries.



## Product Features

**TRANS DISCO** variable speed drives are one of the best values on the market today. Made under strict quality control, they are impact resistant, highly efficient, quiet running easy to maintain, and best of all—very durable.

### High load capacity & durability

When correctly aligned these drives produce absolutely no backlash. So they stand up under heavy torque and reversible operation. Their high efficiency and durability result from their uniquely precise construction.

### Wide speed regulation range

Speed change ratio is 1:6. A 4Hp, 60Hz motor, can be operated from 200-1200 RPM, and varied from 0-1200 RPM. DISCO internal hardware is

heat-treated to ensure speed remains stable even after long service, and constant operation.

### Reliable performance

Positive lubrication system; and during operation power train parts bear only low pressure, ensuring durability and trouble-free service.

### Optional combinations available

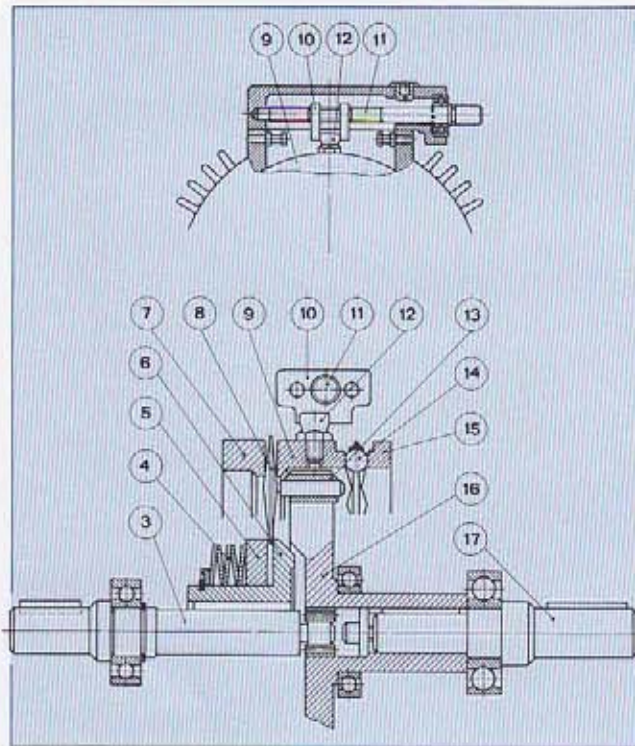
Besides standard models and reduction drives, volute reducers and remote control devices are also available as options, or add-ons. So, even rotation speeds as low as one revolution per minute are simple to achieve.

# How the Trans Disco Work

**TRANS DISCO**

## Principle & structure of variable speed:

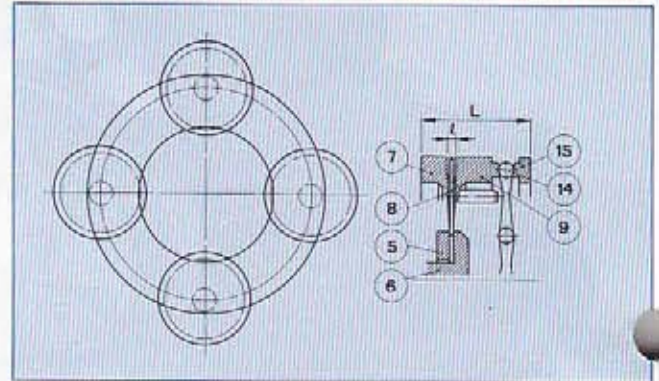
Planetary speed-governing plates (13) rotate along with central hubs (5), (6), clamped tightly in place by the plate springs, while being retained and positioned by the outer ring (7) and the cam (9). Power is transmitted from the input shaft (3) to the left hub (6), transferred to the plate assembly (13) and regulated by the axial plate positions, before passing on to the main bracket (16), and the output shaft.



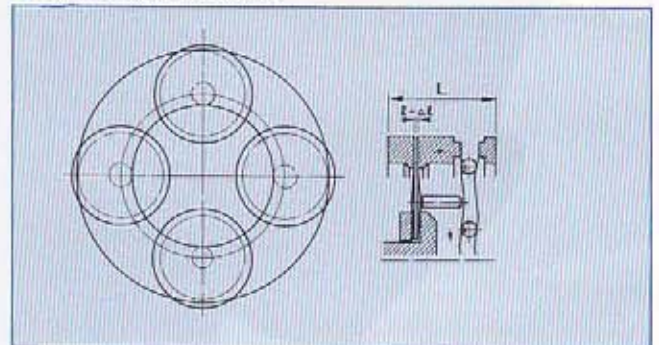
## Speed change:

Speed is adjusted by rotating regulator shaft (11), which moves cam (15.9), increasing or decreasing the plate assembly gap ( $\Delta \delta$ ). A larger gap allows the plates to move outward increasing speed; a smaller gap forces plates inward, decreasing speed.

### ■ At the lowest speed



### ■ At the highest speed



# Calculating Selections

## Choosing a variable-speed selector:

- 1 What are the torque and horsepower requirements? What Kg/m value is needed? Or if using Hp, what value is needed?
- 2 What RPM range is applied?
- 3 What is average daily run time?
- 4 What kinds of loading are used?

Load factors	Average daily run time		
	8 hrs.	8 - 16 hrs.	16 ~ 24 hrs.
Average or steady loads	1.0	1.1	1.2
Light impact, intermittent operation, reversible operation, moderate inertia	1.3	1.4	1.5
Heavy impact, intermittent operation, reversible operation, heavy inertia	1.7	1.9	2.0

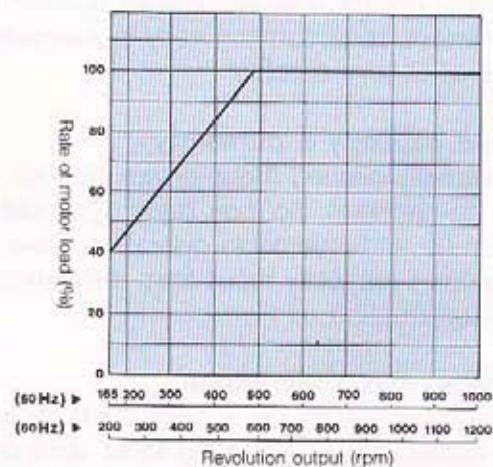
## Torque calculation:

$$T = \frac{974 \times KW}{N}$$

T: Torque (kg·m)  
 KW: Power (kw)  
 N: The maximum revolution at constant torque or the minimum revolution at constant power (rpm)

## Cautions when choosing capacity:

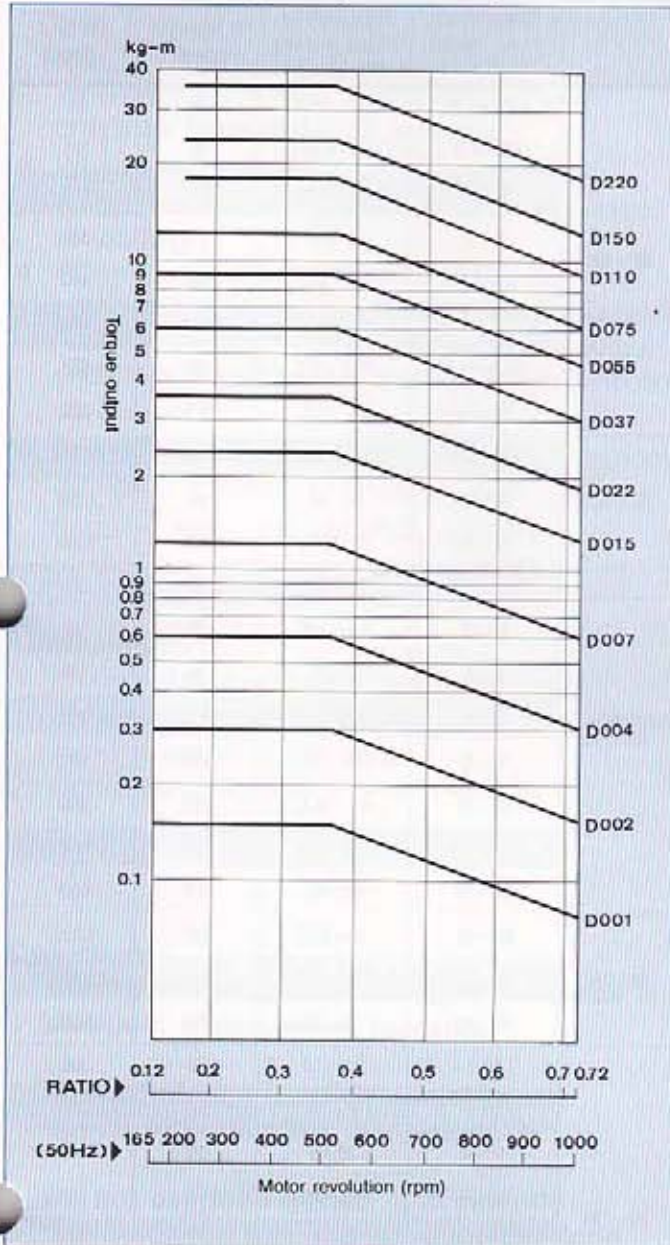
- 1 DISCO output shaft torque is governed by clutch friction coefficient and motor torque.
- 2 DISCO direct drive output shaft RPM varies motor loading as shown below.



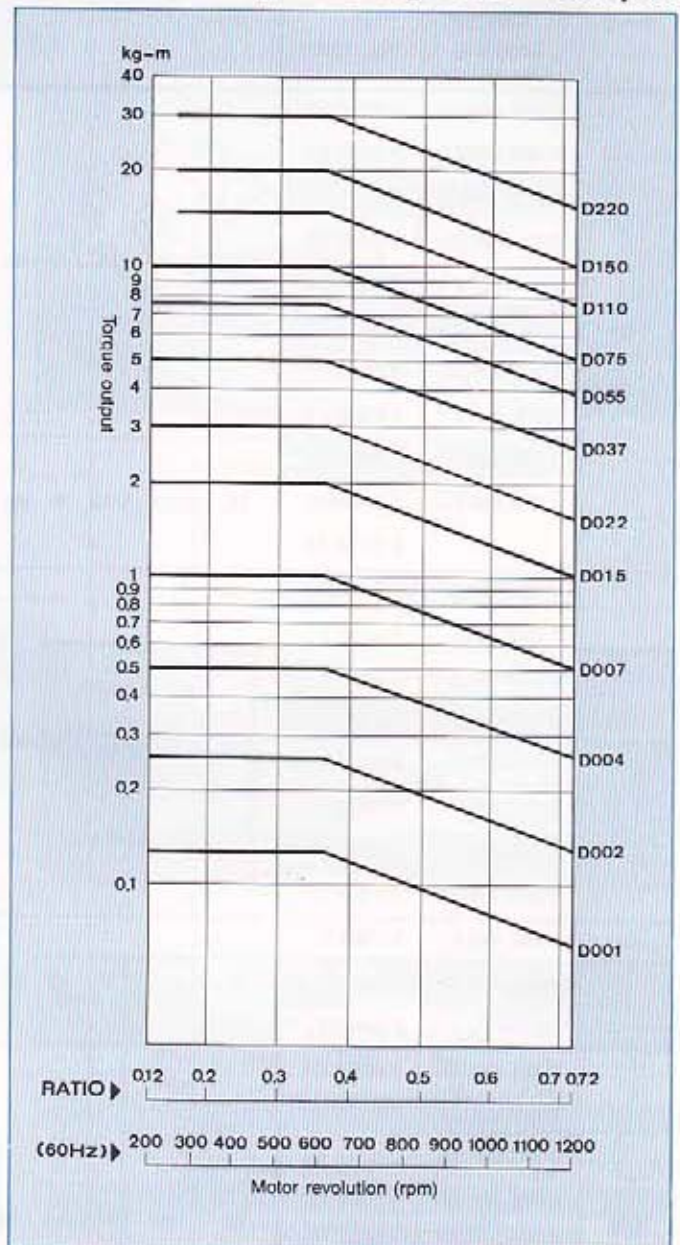
- 3 Input shaft should not exceed 1800 RPM.

# Performance Diagram

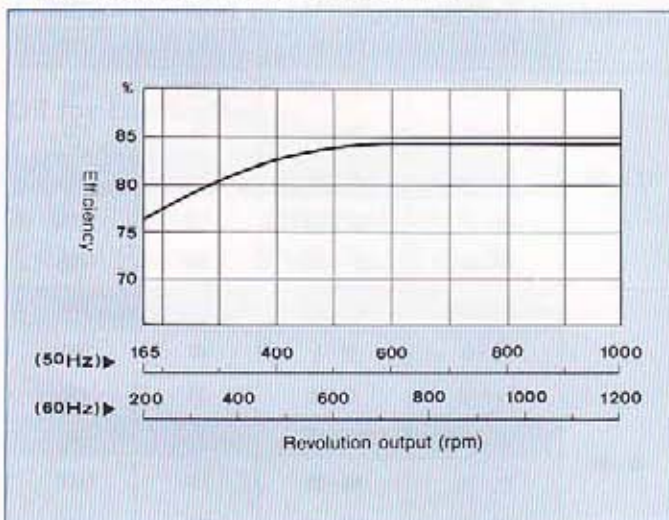
■ Revolution input up to 1500rpm.



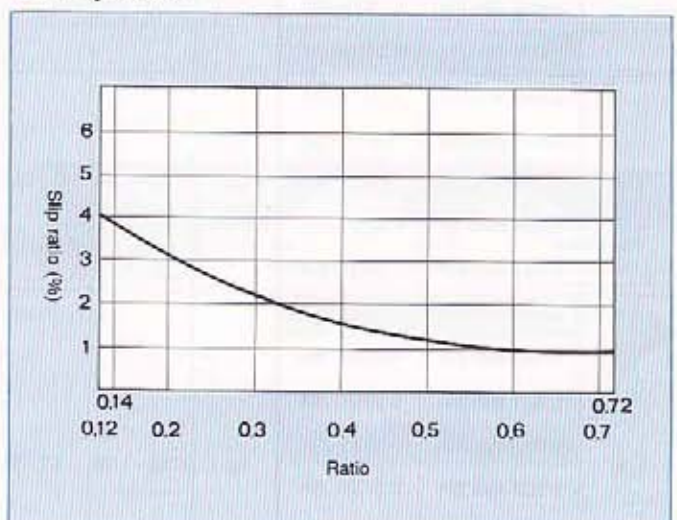
■ Revolution Input during 1500 ~ 1800rpm.



■ Efficiency-revolution curve



■ Slip ratio



# Specifications

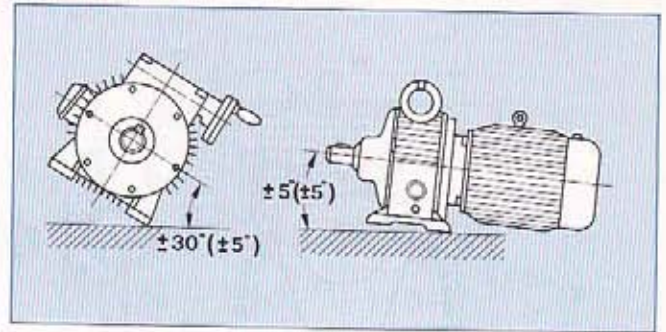
Reduc Ratio	Model		Ratio	Speed	Motor Revolution (rpm)		Torque Output (kg · m)		Allowable Overload (kgs)	
	Direct Coupling with Motor	Two Shaft			50Hz	60Hz	Revolution Input up to 1500 rpm	Revolution Input during 1500-1800rpm	Input Shaft	Output Shaft
1/2.5	D 002A 4MR 2.5	D 002AR 2.5	1.6	1/21-1/3.5	66-400	80-480	0.75-0.38	0.63-0.31	30	70
	D 004A 4MR 2.5	D 004AR 2.5					1.5-0.75	1.24-0.625	40	110
	D 007A 4MR 2.5	D 007AR 2.5					3-1.5	2.5-1.25	50	170
	D 015A 4MR 2.5	D 015AR 2.5					6-3	5-2.5	75	330
	D 022A 4MR 2.5	D 022AR 2.5					9-4.5	7.5-3.75	150	480
	D 037A 4MR 2.5	D 037AR 2.5					15-7.5	12.5-6.25	150	480
	D 055A 4MR 2.5	D 055AR 2.5					22.5-11.3	18.8-9.5	175	650
	D 075A 4MR 2.5	D 075AR 2.5					30-15	25-12.5	175	650
	D 110A 4MR 2.5	D 110AR 2.5	1.5	1/17.5-1/3.5	80-400	96-480	45-22.5	37.5-18.8	185	1,200
D 150A 4MR 2.5	D 110AR 2.5 D 220AR 2.5	60-30					50-25	185	1,200	
1/5	D 002A 4MR 5	D 002AR35	1.6	1/42-1/7	33-200	40-240	1.5-0.75	1.25-0.63	30	70
	D 004A 4MR 5	D 004AR 5					3-1.5	2.5-1.25	40	110
	D 007A 4MR 5	D 007AR 5					6-3	5-2.5	50	170
	D 015A 4MR 5	D 015AR 5					12-6	10-5	75	330
	D 022A 4MR 5	D 022AR 5					18-9	15-7.5	150	480
	D 037A 4MR 5	D 037AR 5					30-15	25-12.5	150	480
	D 055A 4MR 5	D 055AR 5					45-22.5	37.5-18.8	175	650
	D 075A 4MR 5	D 075AR 5					60-30	50-25	175	650
	D 110A 4MR 5	D 110AR 5	1.5	1/35-1/7	40-200	48-240	90-45	75-37.5	185	1,200
D 150A 4MR 5	D 150AR 5 D 220AR 5	120-60					100-50	185	1,200	
1/10	D 002F 4MH 10A	D 002FH 10A	1.6	1/84-1/14	16.5-100	20-120	2.8-1.4	2.3-1.2	30	100
	D 004F 4MR 10A	D 004FR 10A					6-3	5-2.5	40	300
	D 007F 4MR 10A	D 007FR 10A					12-6	10-5	50	450
	D 015F 4MR 10A	D 015FR 10A					24-12	20-10	75	600
	D 022F 4MR 10A	D 022FR 10A					36-18	30-15	150	1,000
	D 037F 4MR 10A	D 037FR 10A					60-30	50-25	150	1,000
	D 055F 4MH 10A	D 055FH 10A					83-41.5	69-34.5	175	740
	D 075F 4MH 10A	D 075FH 10A					110-55	92-46	175	1,150
1/15	D 004F 4MR 15A	D 004FR 15A	1.6	1/126-1/21	11-66.6	13.3-80	9-4.5	7.5-3.75	40	300
	D 007F 4MR 15A	D 007FR 15A					18-9	15-7.5	50	450
	D 015F 4MR 15A	D 015FR 15A					36-18	30-15	75	600
	D 022F 4MR 15A	D 022FR 15A					54-27	45-22.5	150	1,000
	D 037F 4MR 15A	D 037FR 15A					90-45	75-37.5	150	1,000
1/20	D 002F 4MH 20A	D 002FH 20A	1.6	1/168-1/28	8.3-50	10-60	5.5-2.8	4.6-2.3	30	120
	D 004F 4MR 20A	D 004FR 20A					12-6	10-5	40	300
	D 007F 4MR 20A	D 007FR 20A					24-12	20-10	50	450
	D 015F 4MR 20A	D 015FR 20A					48-24	40-20	75	600
	D 022F 4MR 20A	D 022FR 20A					72-36	60-30	150	1,000
	D 037F 4MR 20A	D 037FR 20A					120-60	100-50	150	1,000
	D 055F 4MH 20A	D 055FH 20A					125-77.5	125-69	175	930
D 075F 4MH 20A	D 075FH 20A	220-110	185-92	175	1,450					

# Installation & Lubrication

Dimensions

## Assembly:

- 1 Keep level when installing. If mount is tilted, refer to tolerances at right.
- 2 When mounting tilted, notice oil level and check for leaks at the oil hole bolt.
- 3 When fully assembled, check for vibration, torque deformation, deflection and other forms of loading.
- 4 When fitting output shaft with pulley, gear or sprocket, use screw pressure for assembly-never hammer directly on shaft. For allowable output shaft axial misalignment and horizontal deflection, contact us.
- 5 Provide protection if the surrounding environment includes adverse conditions such as dripping water, sand or dust. Ambient temperature should be not over 40°C.



## Lubrication:

- 1 Proper lubrication bears directly on Disco service life. Before installation, make sure oil level is in the center of the range.
- 2 Lubrication schedule is shown at right.

Disco Part	First time	After 100 hrs.
	Second time	After 500 hrs.
	After third time	Each 1,000 hrs.
Gear Reducer Part	First time	After 500 hrs.
	After second time	Each 2,000 hrs.
Helical Part	First time	After 100 hrs.
	Second time	After 500 hrs.
	After third time	Each 1,000 hrs.

## Operation:

- 1 **Don't change speed setting when device is stopped, always when running.**
- 2 **Under full-load conditions, set to low speed when starting or re-starting.**
- 3 **Do not overload device. If accidentally overloaded in use, device will make loud noise.**
- 4 **Motor current draw values shown at right.**

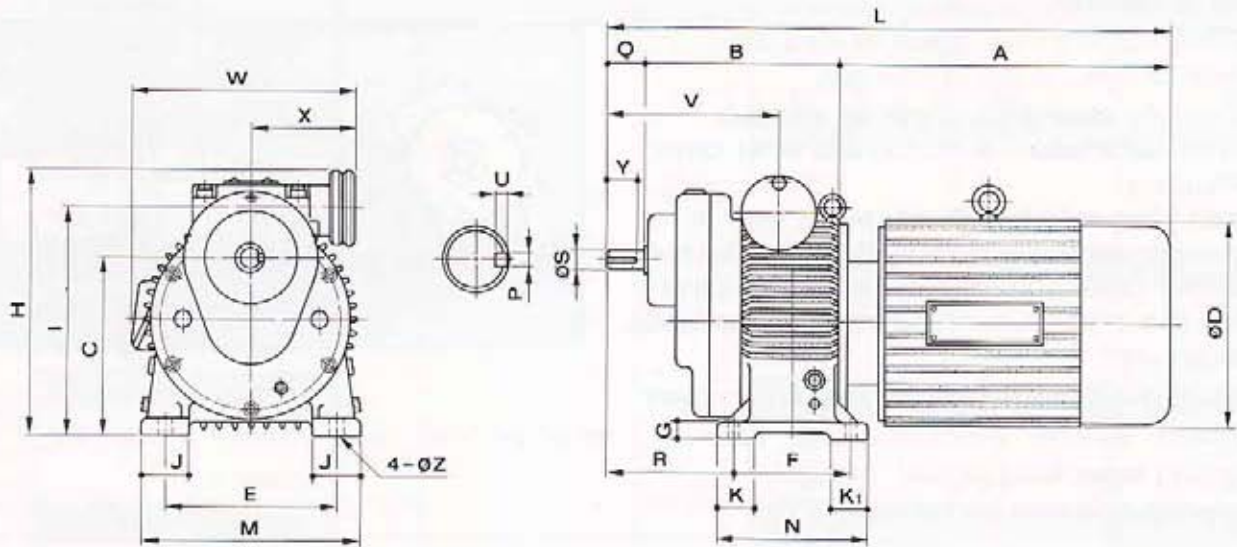
Model	(Amp.)					
	200V 50Hz			220V 60Hz		
	At the lowest rev	330 rpm	500 rpm	At the lowest rev	400 rpm	600 rpm
D 001	0.54	0.58	0.64	0.46	0.46	0.53
D 002	1.07	1.15	1.28	0.84	0.86	1.00
D 004	1.90	2.09	2.38	1.42	1.51	1.83
D 007	2.72	3.14	3.73	2.12	2.38	3.01
D 015	4.16	5.16	6.50	3.28	4.04	5.39
D 022	5.64	7.17	9.20	4.66	5.84	7.63
D 037	7.5	10.3	14.2	6.5	8.62	12.55
D 055	12.4	16.9	22.3	9.8	13.46	18.83
D 075	14.9	20.7	28.4	12.9	17.66	24.93
D 110	23.1	31.6	43.2	18.5	25.57	36.94
D 150	29.8	41.3	56.7	24.5	33.94	48.88

## Oil for Lubrication

- 1 Apollo Petroleum , Oil for machine 32#
- 2 Japan Petroleum **FBK** Oil R&O 32
- 3 Mobil Petroleum **DTE** Oil Light
- 4 Shell Petroleum **Shell** TELUS Oil 32

Part for lubrication	Peripheral temp.	Oil viscosity	Oil brand
Disco part	-10°C -50°C	SAE 10 ISO VG32	Mobil Shell Esso Gulf

## Horizontal Type W/"R" Type Reducer (1/2.5, 1/5)

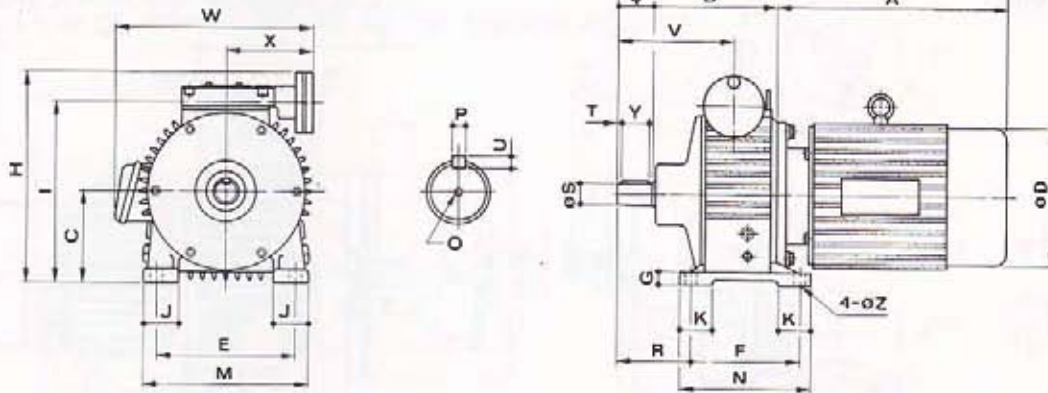


Model	A	B	C	D	E	F	G	H	I	J	K	K <sub>1</sub>	L	M	N	P	Q	R	S (h7)	U	V	W	X	Y	Z	Wt. (kg)
D 002A 4M R2.5 R5	215	139	116	142	110	105	12	188	148	25	25	25	381	140	125	6	30	87	20	6	138	180	110	25	9	31
D 004A 4M R2.5 R5	231	140	135	162	120	105	15	218	177	32	30	30	401	160	135	6	30	84	20	6	134	247	116	25	10	31
D 007A 4M R2.5 R5	232	197	165	177	160	125	15	267	208	45	40	40	464	190	150	8	35	104	25	7	158	296	130	30	12	43
D 015A 4M R2.5 R5	311	201	189	197	180	140	18	313	246	45	45	45	557	225	170	8	45	123	30	7	180	315	130	40	12	69
D 022A 4M R2.5 R5	306	246	224	219	245	230	20	390	298	52	50	50	612	294	270	10	60	123	40	8	225	380	219	55	14	103
D 037A 4M R2.5 R5	358	246	224	235	245	230	20	390	298	52	50	50	664	300	270	10	60	123	40	8	225	391	220	55	14	125
D 055A 4M R2.5 R5	366	373	318	273	315	250	30	523	389	70	80	80	821	365	290	12	82	239	50	8	347	461	250	70	18	252
D 075A 4M R2.5 R5	404	373	318	273	315	250	30	523	389	70	80	80	859	365	290	12	82	239	50	8	347	461	250	70	18	265
D 110A 4M R2.5 R5	494	488	374	317	350	350	32	614	470	85	80	125	1087	460	420	18	105	293	63	12	458	642	352	90	20	350
D 150A 4M R2.5 R5	538	488	374	317	350	350	32	614	470	85	80	125	1131	460	420	18	105	293	63	12	458	642	352	90	20	385

# Dimensions

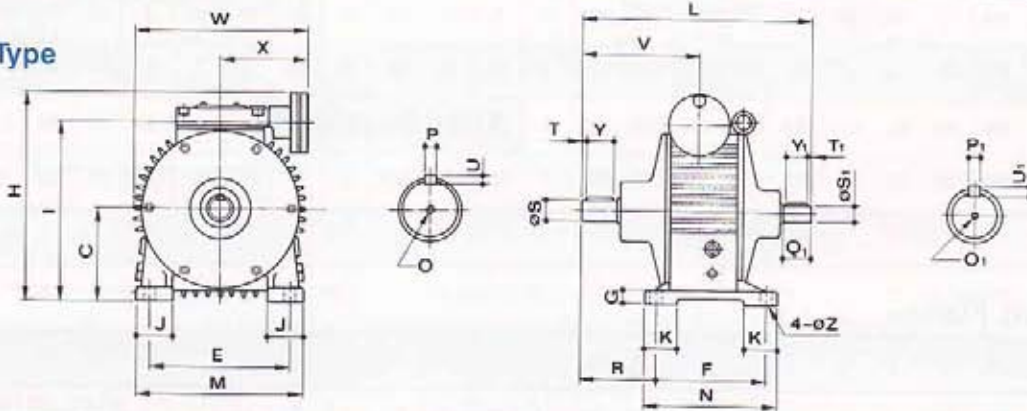
Dimensions

## Horizontal Type W/Motor



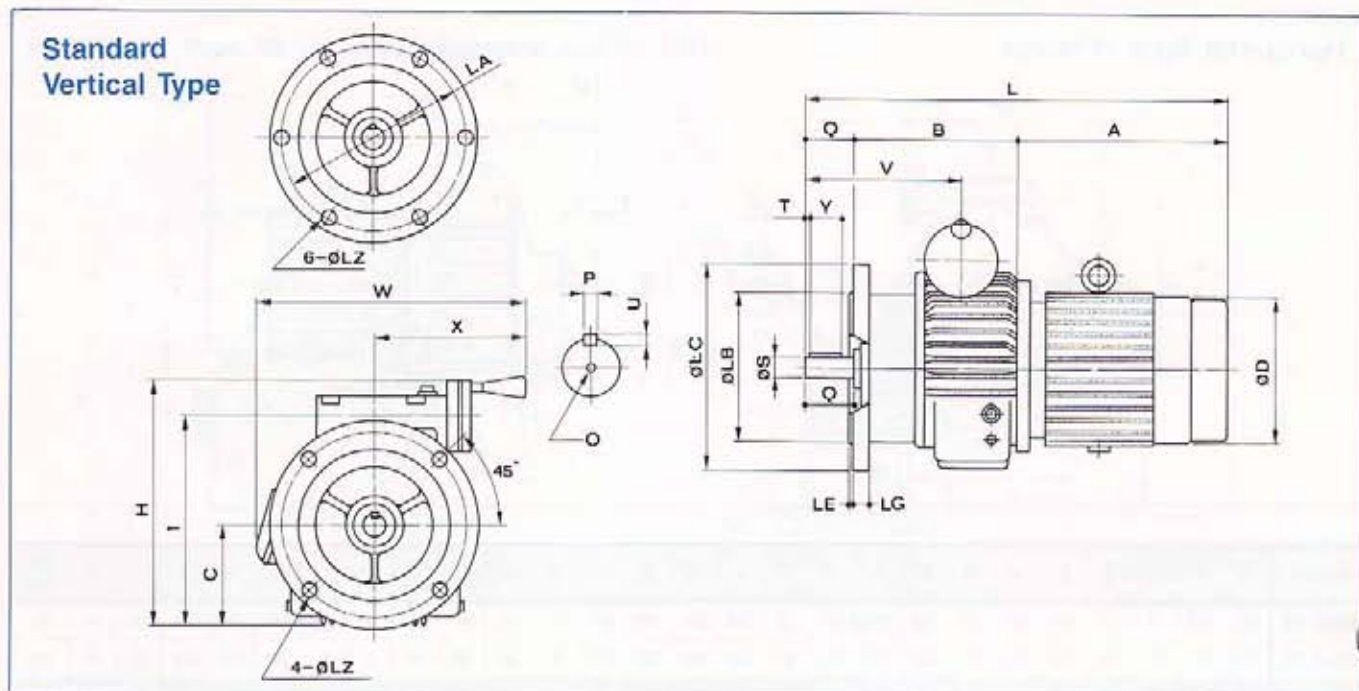
Model	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S (hG)	T	U	V	W	X	Y	Z	Wt. (kg)
D002A 4M	215	100	71	142	110	105	12	185	145	25	25	345	140	125	M5	5	30	48	14	5	5	99	180	122	20	9	16
D004A 4M	231	115	90	162	120	105	15	218	177	32	30	376	160	135	M5	5	30	60	14	5	5	110	247	116	20	10	28
D007A 4M	232	137	106	177	160	125	15	260	208	40	40	409	190	150	M6	6	40	73	20	3	6	129	296	155	32	12	36
D015A 4M	311	173	125	197	180	140	18	313	246	50	45	534	230	165	M6	8	50	100	25	5	7	157	306	155	40	12	60
D022A 4M	343	208	150	219	245	230	20	378	298	55	50	611	294	270	M8	8	60	93	30	5	7	187	378	220	50	14	99
D037A 4M	358	208	150	235	245	230	20	378	298	55	50	628	294	270	M8	8	60	93	30	5	7	187	391	220	50	14	105
D055A 4M	366	249	200	273	315	250	30	475	389	70	80	685	365	290	M10	10	70	103	35	5	8	211	461	250	60	18	178
D075A 4M	404	249	200	273	315	250	30	475	389	70	80	723	365	290	M10	10	70	103	35	5	8	211	461	250	60	18	191
D110A 4M	494	350	224	317	350	350	32	570	470	85	80	954	460	420	M10	12	110	160	50	10	8	325	642	352	90	20	300
D150A 4M	538	350	224	317	350	350	32	570	470	85	80	998	460	420	M10	12	110	160	50	10	8	325	642	352	90	20	325

## Two Shaft Horizontal Type



Model	C	E	F	G	H	I	J	K	L	M	N	O	O <sub>1</sub>	P	P <sub>1</sub>	Q	Q <sub>1</sub>	R	S (hG)	S (hG)	T	T <sub>1</sub>	U	U <sub>1</sub>	V	W	X	Y	Y <sub>1</sub>	Z	Wt. (kg)
D002A	71	110	105	12	185	145	25	25	195	140	125	M5	M5	5	5	30	25	48	14	14	5	3	5	5	99	180	110	20	20	9	8
D004A	90	120	105	15	218	177	32	30	238	160	135	M5	M5	5	5	30	30	60	14	14	5	5	5	5	110	196	116	20	20	10	15
D007A	105	160	125	15	260	208	40	40	269	190	150	M6	M6	6	6	40	30	73	20	19	5	3	6	6	129	225	155	32	25	12	21
D015A	125	180	140	18	313	246	50	45	314	230	165	M6	M6	8	8	50	40	100	25	24	5	4	7	7	157	255	155	40	32	12	36
D022A	150	245	230	20	378	298	55	50	387	294	270	M8	M8	8	8	50	50	93	30	28	5	5	7	7	187	370	220	50	40	14	66
D037A	150	245	230	20	378	298	55	50	397	294	270	M8	M8	8	8	60	60	93	30	28	5	5	7	7	187	370	220	50	40	14	70
D055A	200	315	250	30	475	389	70	80	467	365	290	M10	M10	10	10	70	60	103	35	32	5	5	8	8	211	435	250	60	50	18	116
D075A	200	315	250	30	475	389	70	80	467	365	290	M10	M10	10	10	70	60	103	35	32	5	5	8	8	211	435	250	60	60	18	116
D110A	224	350	350	32	570	470	85	80	637	460	420	M10	M10	12	10	110	82	160	50	40	10	5	8	8	325	592	352	90	70	20	185
D150A	224	350	350	32	570	470	85	80	637	460	420	M10	M10	12	10	110	82	160	50	40	10	5	8	8	325	592	352	90	70	20	190





■ **Larger Flange** (Model D055F 4M and D075F 4M are finished with six flange holes)

Model	A	B	C	D	H	I	L	LA	LB	LC	LE	LG	LZ	O	P	Q	S (h6)	T	U	V	W	X	Y	Wt. (kg)
D 002F 4M	215	100	66	142	182	142	345	130	110	160	3.5	10	10	M5	5	30	14	5	5	99	201	121	20	11
D 004F 4M	231	115	75	162	215	174	367	165	130	200	3.5	12	12	M5	6	30	19	5	7	110	280	149	20	25
D 007F 4M	232	137	104	177	246	205	409	165	130	200	3.5	12	12	M6	8	40	24	3	7	129	307	166	32	35
D 015F 4M	311	173	120	197	308	241	534	215	180	250	4	16	15	M6	8	50	28	5	7	157	341	190	40	58
D 022F 4M	343	208	147	196	375	295	611	265	230	300	4	16	15	M8	10	60	38	5	8	187	378	220	50	91
D 037F 4M	358	208	147	235	375	295	626	265	230	300	4	16	15	M8	10	60	38	5	8	187	391	220	50	108
D 055F 4M	366	249	184	315	459	373	685	300	250	350	5	20	19	M10	12	70	42	5	8	211	461	250	60	188
D 075F 4M	404	249	184	315	459	373	723	300	250	350	5	20	19	M10	12	70	42	5	8	211	461	250	60	201

■ **Standard Flange**

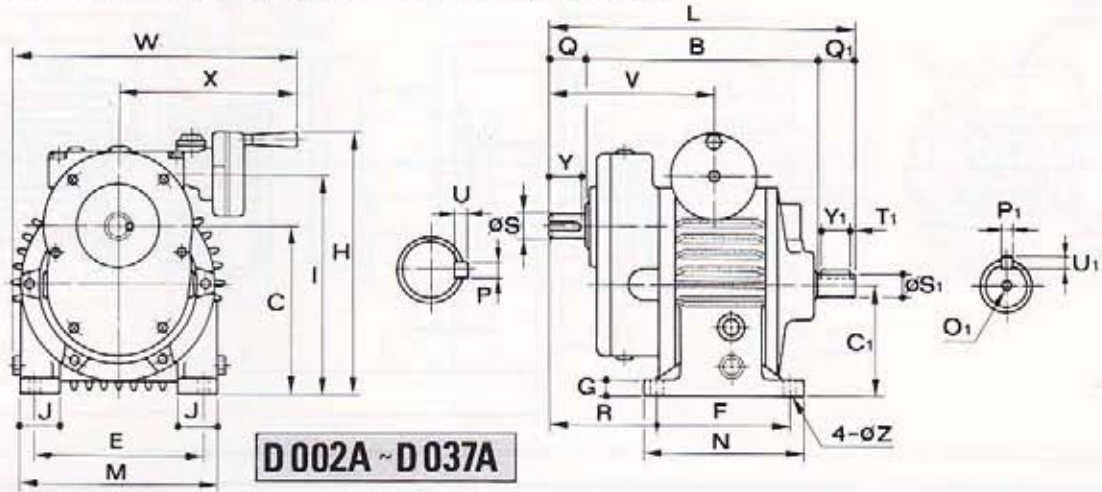
Model	A	B	C	D	H	I	L	LA	LB	LC	LE	LG	LZ	O	P	Q	S (h6)	T	U	V	W	X	Y	Wt. (kg)
D 002F 4M	215	100	66	142	182	142	345	130	110	160	3.5	10	10	M5	5	30	14	5	5	99	201	121	20	11
D 004F 4M	231	115	75	162	215	174	367	130	110	160	3.5	12	12	M5	5	30	14	5	5	110	280	149	20	25
D 007F 4M	232	137	104	177	246	205	409	165	130	200	3.5	12	12	M6	6	40	19	3	6	129	307	166	32	35
D 015F 4M	311	173	120	197	308	241	534	165	130	200	4	16	15	M6	8	50	24	5	7	157	341	190	40	58
D 022F 4M	343	208	147	196	375	295	611	215	180	250	4	16	15	M8	8	60	28	5	7	187	378	220	50	91
D 037F 4M	358	208	147	235	375	295	626	215	180	250	4	16	15	M8	8	60	28	5	7	187	391	220	50	108
D 055F 4M	366	249	184	315	459	373	685	265	230	300	5	20	19	M10	10	70	38	5	8	211	461	250	60	188
D 075F 4M	404	249	184	315	459	373	723	265	230	300	5	20	19	M10	10	70	38	5	8	211	461	250	60	201
D 110F 4M	494	350	200	317	546	446	954	300	250	350	5	24	19	M12	12	110	42	5	8	325	619	347	80	323

# Dimensions

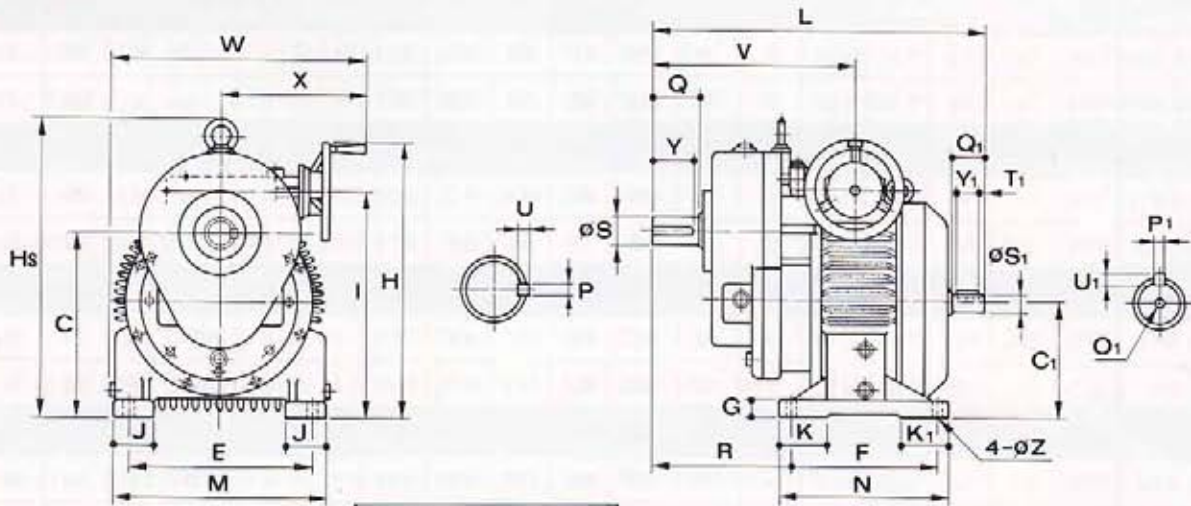
Dimensions

## Two Shaft W/"R" Type Reducer (1/2.5, 1/5)

- D002A and D004A with no hanger ring
- Depth of hole O1: M5=13ℓ, M6=16ℓ, M8=19ℓ, M10=22ℓ M12=3aℓ



**D 002A ~ D 037A**



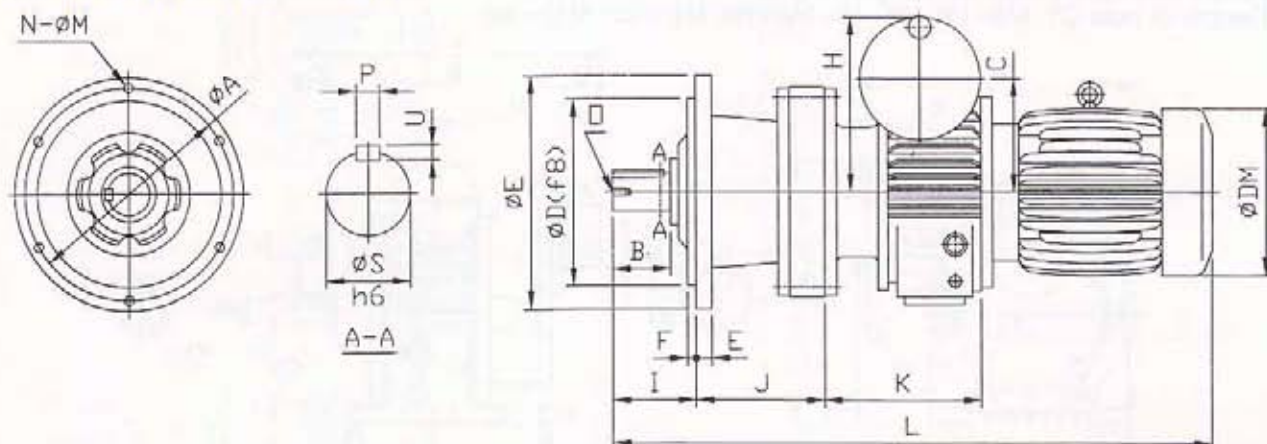
**D 055A ~ D 220A**

Model		B	C	C <sub>1</sub>	E	F	G	H	H <sub>s</sub>	I	J	K	K <sub>1</sub>	L	M	N	O <sub>1</sub>	P	P <sub>1</sub>	Q	Q <sub>1</sub>	R	S (h7)	S <sub>1</sub> (h6)	T <sub>1</sub>	U	U <sub>1</sub>	V	W	X	Y	Y <sub>1</sub>	Z	Wt. (kg)
D 002A	R2.5 R5	179	116	71	110	105	12	188	—	148	25	—	—	231	140	125	M 5	5	5	30	25	87	20	14	3	5	5	135	200	122	25	20	9	10
D 004A	R2.5 R5	187	135	90	120	105	15	218	—	177	32	—	—	247	160	135	M 5	5	5	30	30	84	20	14	5	5	5	134	237	149	25	20	10	17
D 007A	R2.5 R5	207	165	106	160	125	15	249	—	208	38	—	—	272	186	150	M 6	7	5	35	30	104	25	19	3	7	5	158	267	166	30	25	12	23
D 015A	R2.5 R5	251	189	125	180	140	18	313	—	246	48	—	—	336	225	165	M 6	7	7	45	40	123	30	24	4	7	7	180	310	189	40	32	12	40
D 022A	R2.5 R5	315	224	150	245	230	20	378	—	298	52	—	—	425	294	270	M 8	10	7	60	50	123	40	24	5	8	7	225	322	219	55	40	14	71
D 037A	R2.5 R5	325	224	150	245	230	20	378	—	298	52	—	—	435	294	270	M 8	10	7	60	50	123	40	28	5	8	7	225	322	219	55	40	14	75
D 055A	R2.5 R5	461	318	200	315	250	30	475	518	389	70	80	80	603	365	290	M10	12	10	82	60	239	50	32	5	8	8	347	439	249	70	50	18	190
D 075A	R2.5 R5	461	318	200	315	250	30	475	518	389	70	80	80	603	365	290	M10	12	10	82	60	239	50	32	5	8	8	347	439	249	70	50	18	193
D 110A	R2.5 R5	583	374	224	350	350	32	570	609	470	85	80	125	770	460	420	M10	18	10	105	82	293	63	40	5	12	8	458	587	347	90	70	20	240
D 150A	R2.5 R5	583	374	224	350	350	32	570	609	470	85	80	125	770	460	420	M10	18	10	105	82	293	63	40	5	12	8	458	587	347	90	70	20	245
D 220A	R2.5 R5	631	420	250	375	355	35	638	666	510	90	105	140	818	480	415	M12	20	12	105	82	345	75	45	5	13	8	500	612	352	90	70	22	320

# Dimensions

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Vertical Type W/TRANSCYKO Cycloidal Speed Reducer  
TDC-VM Type (1/6~ 1/87)

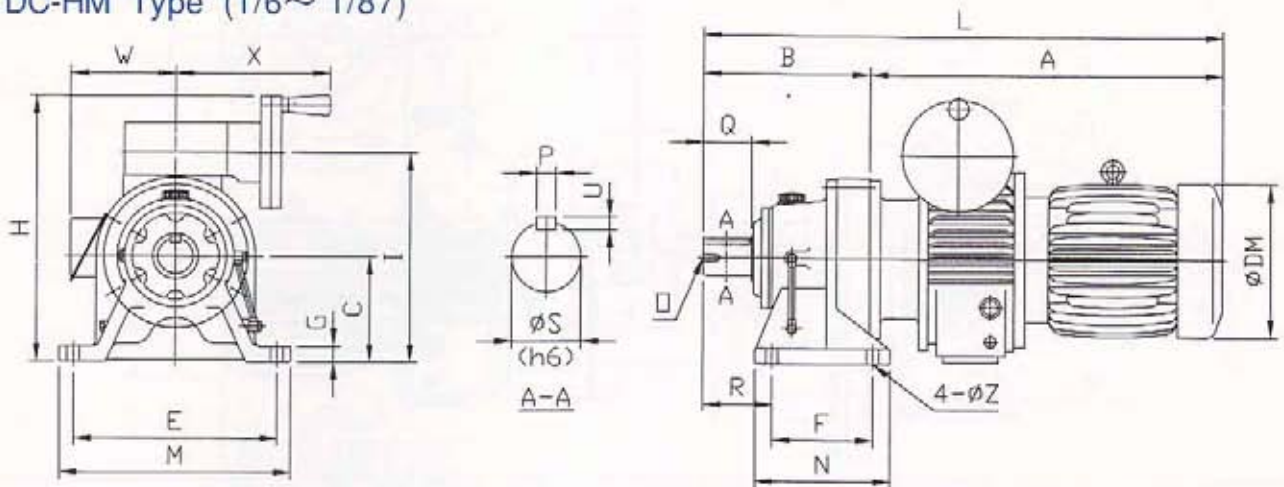


Model	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	S	U	DM
TDC-VM02-608	134	30	76	110	160	3	9	116	42	56	100	413	11	4	—	6	18	6	144
TDC-VM02-609	134	35	76	110	160	3	9	116	48	94	100	457	11	4	—	8	28	7	144
TDC-VM05-609	134	35	99	110	160	3	9	140	48	94	115	488	11	4	—	8	28	7	162
TDC-VM05-610	134	35	99	110	160	3	9	140	48	108	115	502	11	4	—	8	28	7	162
TDC-VM1-609	134	35	101	110	160	3	9	142	48	94	137	511	11	4	—	8	28	7	177
TDC-VM1-610	134	35	101	110	160	3	9	142	48	108	137	525	11	4	—	8	28	7	177
TDC-VM1-611	180	55	101	140	210	4	13	142	69	117	137	555	11	6	M8	10	38	8	177
TDC-VM2-611	180	55	121	140	210	4	13	188	69	117	173	670	11	6	M8	10	38	8	200
TDC-VM2-613	230	61	121	200	260	4	15	188	76	164	173	724	11	6	M10	14	50	9	200
TDC-VM2-614	230	81	121	200	260	4	15	188	96	164	173	744	11	6	M10	14	50	9	200
TDC-VM3-611	180	55	148	140	210	4	13	228	69	117	208	697	11	6	M8	10	38	8	219
TDC-VM3-614	230	81	148	200	260	4	15	228	96	164	208	771	11	6	M10	14	50	9	219
TDC-VM3-616	310	80	148	270	340	4	20	228	89	219	208	819	11	6	M10	18	60	11	219
TDC-VM5-614	230	81	148	200	260	4	15	228	96	164	208	830	11	6	M10	14	50	9	238
TDC-VM5-616	310	80	148	270	340	4	20	228	89	219	208	878	11	6	M10	18	60	11	238
TDC-VM5-617	360	84	148	316	400	5	22	228	94	258	208	922	11	6	M12	20	70	12	238
TDC-VM8-616	310	80	189	270	340	4	20	275	89	219	249	923	11	6	M10	18	60	11	273
TDC-VM8-617	360	84	189	316	400	5	22	275	94	258	249	967	14	8	M12	20	70	12	273
TDC-VM8-618	390	100	189	345	430	5	22	275	110	279	249	1004	18	8	M12	22	80	14	273
TDC-VM10-617	360	84	189	316	400	5	22	275	94	258	249	1005	14	8	M12	20	70	12	273
TDC-VM10-618	390	100	189	345	430	5	22	275	110	279	249	1042	18	8	M12	22	80	14	273
TDC-VM10-619	450	125	189	400	490	6	30	275	145	320	249	1118	18	12	M20	25	95	14	273
TDC-VM15-618	390	100	246	345	430	5	22	346	110	279	350	1233	18	8	M12	22	80	14	334
TDC-VM15-619	450	125	246	400	490	6	30	346	145	320	350	1309	18	12	M20	25	95	14	334

# Dimensions

Dimensions

Horizontal Type W/TRANSCYKO Cycloidal Speed Reducer  
TDC-HM Type (1/6~ 1/87)

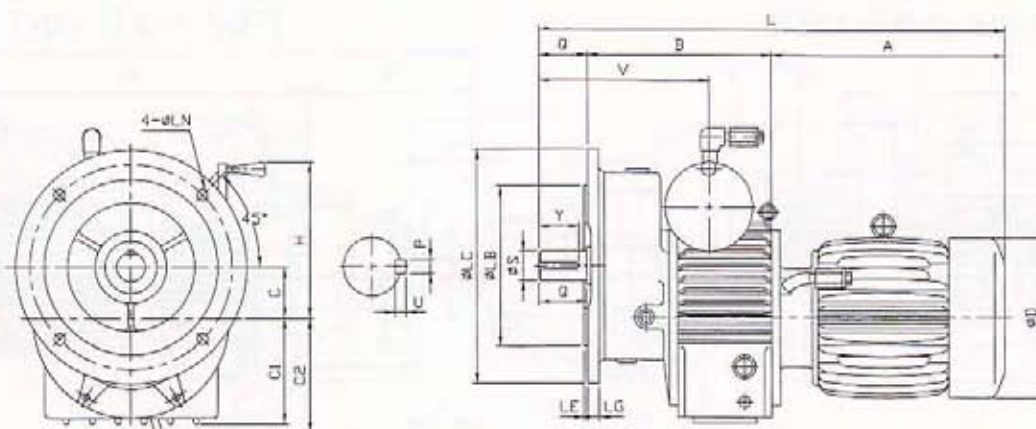


Model	A	B	C	E	F	G	H	I	L	M	N	O	P	Q	R	S	U	W	X	Z	DM
TDC-HM02-608	315	98	80	120	60	10	216	176	413	144	84	—	6	30	47	18	6	115	121	9	144
TDC-HM02-609	315	142	100	150	90	12	216	176	457	184	134	—	8	35	60	28	7	115	121	11	144
TDC-HM05-609	346	142	100	150	90	12	240	199	488	184	134	—	8	35	60	28	7	125	149	11	162
TDC-HM05-610	346	156	100	150	90	12	240	199	502	184	139	—	8	35	60	28	7	125	149	11	162
TDC-HM1-609	369	142	100	150	90	12	242	201	511	184	139	—	8	35	60	28	7	137	166	11	177
TDC-HM1-610	369	156	100	150	90	12	242	201	525	184	139	—	8	35	60	28	7	137	166	11	177
TDC-HM1-611	369	186	120	190	115	15	262	221	555	234	159	M8	10	55	82	38	8	137	166	14	177
TDC-HM2-611	484	186	120	190	115	15	308	241	670	234	159	M8	10	55	82	38	8	150	190	14	200
TDC-HM2-613	484	240	150	290	145	22	338	271	724	334	199	M10	14	70	100	50	9	150	190	18	200
TDC-HM2-614	484	260	150	290	145	22	338	271	744	334	199	M10	14	90	120	50	9	150	190	18	200
TDC-HM3-611	511	186	120	190	115	15	348	268	697	234	159	M8	10	55	82	38	8	173	220	14	219
TDC-HM3-614	511	260	150	290	145	22	378	298	711	334	199	M10	14	90	120	50	9	173	220	18	219
TDC-HM3-616	511	308	160	370	150	25	388	308	819	414	242	M10	18	90	139	60	11	173	220	18	219
TDC-HM5-614	570	260	150	290	145	22	378	298	830	334	199	M10	14	90	120	50	9	182	220	18	238
TDC-HM5-616	570	308	160	370	150	25	388	308	878	414	242	M10	18	90	139	60	11	182	220	18	238
TDC-HM5-617	570	352	200	380	275	30	428	348	922	434	339	M12	20	90	125	70	12	182	220	22	238
TDC-HM8-616	615	308	160	370	150	25	435	349	923	414	242	M10	18	90	139	60	11	218	250	18	273
TDC-HM8-617	615	352	200	380	275	30	475	389	967	434	339	M12	20	90	125	70	12	218	250	22	273
TDC-HM8-618	615	389	220	420	320	30	495	409	1004	474	384	M12	22	110	145	80	14	218	250	22	273
TDC-HM10-617	653	352	200	380	275	30	475	389	1005	434	339	M12	20	90	125	70	12	218	250	22	273
TDC-HM10-618	653	389	220	420	320	30	495	409	1042	474	384	M12	22	110	145	80	14	218	250	22	273
TDC-HM10-619	653	465	250	480	380	35	525	439	1118	534	444	M20	25	135	170	95	14	218	250	26	273
TDC-HM15-618	844	389	220	420	320	30	566	466	1233	474	320	M12	22	110	145	80	14	256	347	22	334
TDC-HM15-619	844	465	250	480	380	35	596	496	1309	534	444	M20	25	135	170	95	14	256	347	26	334

# Dimensions

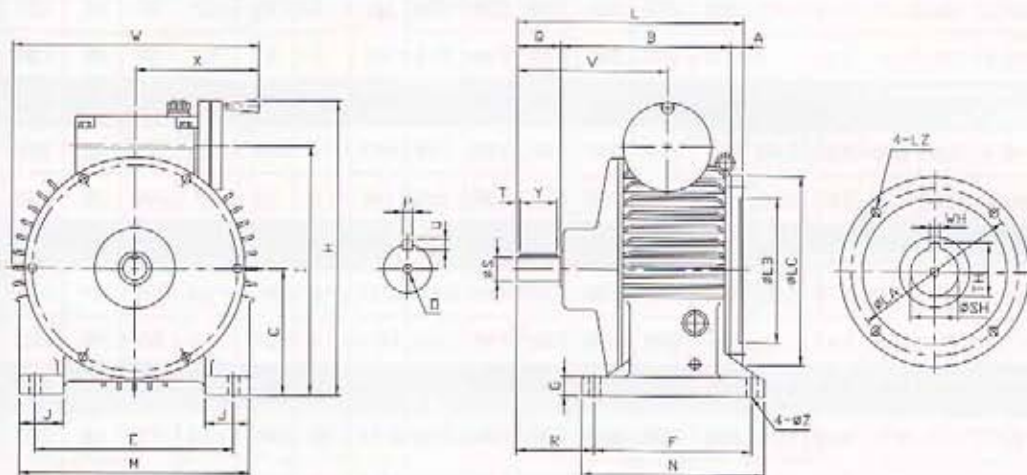
Dimensions

## Vertical Type W/"R" Type Reducer (1/2.5, 1/5)



Model	A	B	C	C1	C2	D	H	H1	L	LA	LB (h7)	LC	LE	LG	LN	P	Q	S (h7)	U	V	W	X	Y	Wt (kg)
D004F R5 R2.5	231	180	45	75	117	162	128	152	441	130	110	160	3.5	12	12	6	30	20	6	134	280	149	25	27
D007F R5 R2.5	232	210	54	104	128	177	143	174	482	165	130	200	3.5	12	12	8	40	25	7	158	308	166	30	40
D015F R5 R2.5	311	220	65	120	142	200	188	193	576	185	130	200	4	16	15	8	45	30	7	180	345	189	40	63
D022F R5 R2.5	343	260	74	147	163	219	228	222	663	215	180	250	4	16	15	10	60	40	8	225	380	219	55	94
D037F R5 R2.5	358	260	74	147	163	238	228	222	678	215	180	250	4	16	15	10	60	40	8	225	396	219	55	123

## DHX

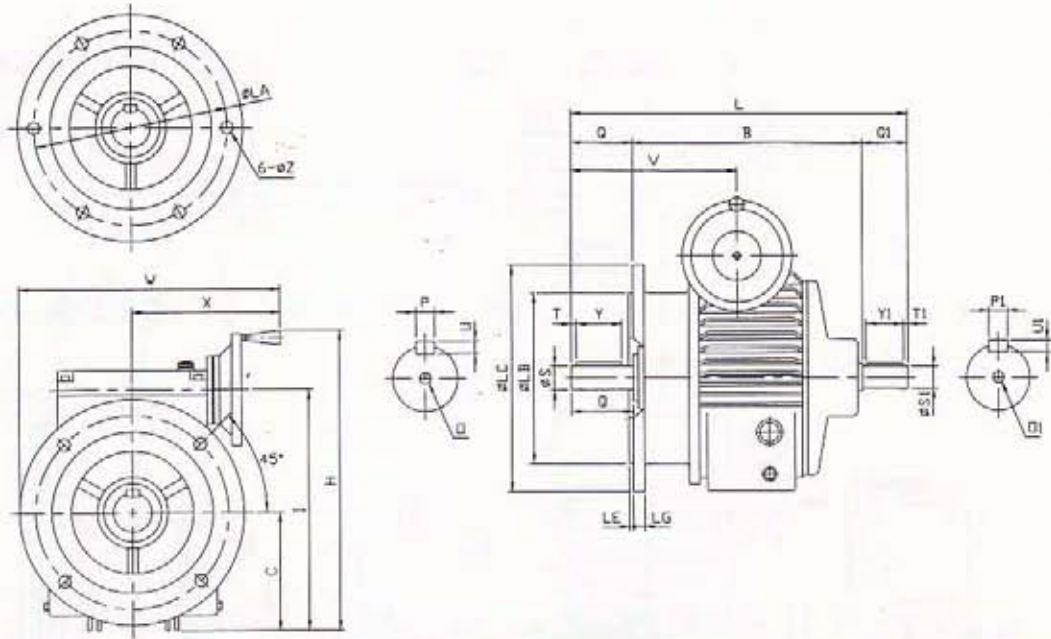


Model	A	B	C	E	F	G	H	I	J	L	M	N	O	P	Q	S	T	U	V	W	X	Y	LA	LB	LC	Wt. (kg)
D002HX	15	100	71	110	105	12	185	145	25	130	140	125	M5	5	30	14	5	5	99	180	121	20	130	110	160	7
D004HX	11	115	90	120	105	15	218	177	32	145	160	135	M5	5	30	14	5	5	110	196	149	20	130	110	160	14
D007HX	14	137	106	160	125	15	260	208	40	177	190	150	M6	6	40	20	3	6	129	225	166	32	165	130	200	18
D015HX	15	173	125	180	140	18	313	246	50	223	230	165	M6	8	50	25	5	7	157	255	190	40	165	130	200	33
D022HX	16	208	150	245	230	20	378	298	55	268	294	270	M8	8	60	30	5	7	187	370	220	50	215	180	250	65
D037HX	16	208	150	245	230	20	378	298	55	268	294	270	M8	8	60	30	5	7	187	370	220	50	215	180	250	67
D055HX	18	249	200	315	250	30	475	389	70	319	365	290	M10	10	70	35	5	8	211	435	250	60	265	230	300	112
D075HX	18	249	200	315	250	30	475	389	70	319	365	290	M10	10	70	35	5	8	211	435	250	60	265	230	300	112
D110HX	18	350	224	350	350	32	570	470	85	460	460	420	M10	12	110	50	10	8	325	592	352	90	300	250	350	180
D150HX	18	350	224	350	350	32	570	470	85	460	460	420	M10	12	110	50	10	8	325	592	352	90	300	250	350	185

# Dimensions

Exploded View

Two Shaft  
Vertical Type



## ■ Larger Flange

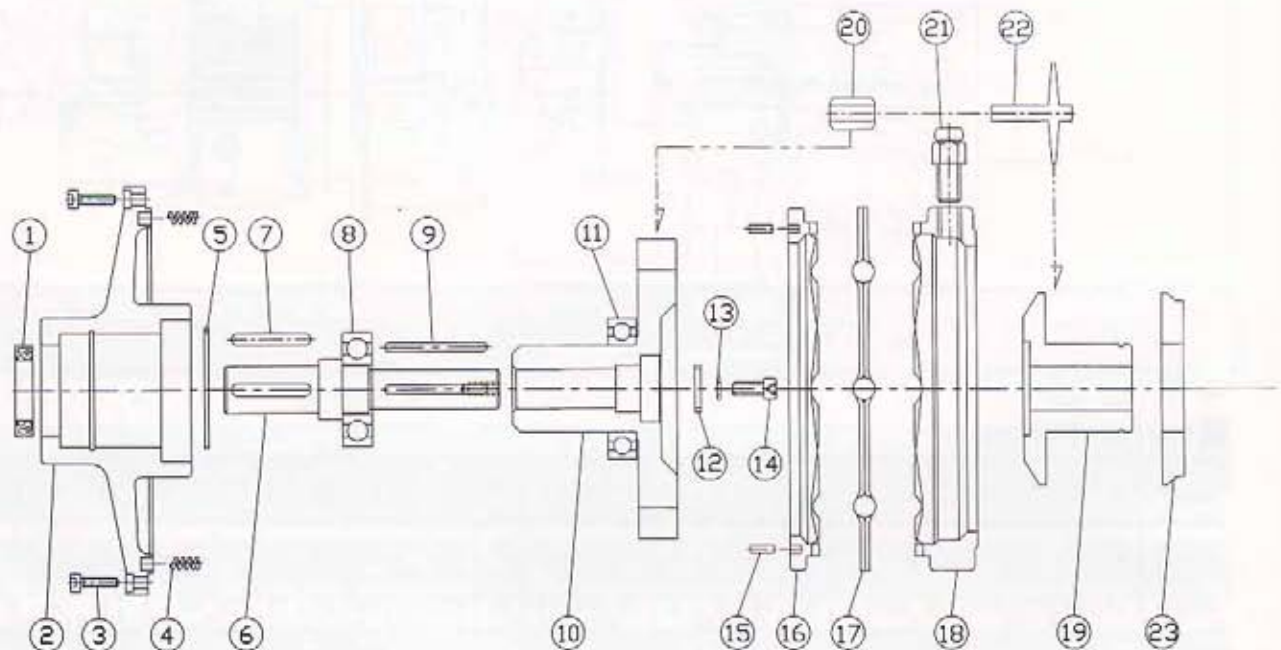
Model	B	C	H	I	L	O	P	Q	S (h6)	T	U	V	W	X	Y	LA	LB	LC	LE	LG	LZ	O1	P1	Q1	S1	T1	U1	Y1	Wt. (kg)
D002F	100	66	182	142	155	M5	5	30	14	5	5	99	201	121	20	130	110	160	3.5	10	10	M5	5	25	14	3	5	20	10
D004F	115	75	215	174	175	M5	6	30	14	5	6	110	229	149	20	165	130	200	3.5	12	12	M5	5	30	14	5	5	20	21
D007F	137	104	246	205	207	M6	8	40	19	3	7	129	266	166	32	165	130	200	3.5	12	12	M6	6	30	19	3	6	25	29
D015F	173	120	308	241	263	M6	8	50	24	5	7	157	290	190	40	215	180	250	4	16	15	M6	8	40	24	4	7	32	46
D022F	208	147	375	295	318	M8	10	60	28	5	8	187	345	220	50	265	230	300	4	16	15	M8	8	50	28	5	7	40	79
D037F	208	147	375	295	318	M8	10	60	28	5	8	187	345	220	50	265	230	300	4	16	15	M8	8	50	28	5	7	40	85
D055F	249	184	459	373	379	M10	12	70	38	5	8	211	400	250	60	300	250	350	5	20	19	M10	10	60	32	5	8	50	129
D075F	249	184	459	373	379	M10	12	70	38	5	8	211	400	250	60	300	250	350	5	20	19	M10	10	60	32	5	8	50	129

## ■ Standard Flange

Model	B	C	H	I	L	O	P	Q	S (h6)	T	U	V	W	X	Y	LA	LB	LC	LE	LG	LZ	O1	P1	Q1	S1	T1	U1	Y1	Wt. (kg)
D002F	140	66	182	142	195	M5	5	30	14	5	5	99	201	121	20	130	110	160	3.5	10	10	M5	5	25	14	3	5	20	10
D004F	161	75	215	174	221	M5	5	30	14	5	5	110	229	149	20	130	110	160	3.5	12	12	M5	5	30	14	5	5	20	18
D007F	173	104	246	205	243	M6	6	40	19	3	6	129	266	166	32	165	130	200	3.5	12	12	M6	6	30	19	3	6	25	25
D015F	224	120	308	241	314	M6	8	50	24	5	7	157	290	190	40	165	130	200	4	16	15	M6	8	40	24	4	7	32	41
D022F	287	147	375	295	397	M8	8	60	28	5	7	187	345	220	50	215	180	250	4	16	15	M8	8	50	28	5	7	40	72
D037F	287	147	375	295	397	M8	8	60	28	5	7	187	345	220	50	215	180	250	4	16	15	M8	8	50	28	5	7	40	78
D055F	337	184	459	373	467	M10	10	70	38	5	8	211	400	250	60	265	230	300	5	20	19	M10	10	60	32	5	8	50	124
D075F	337	184	459	373	467	M10	10	70	38	5	8	211	400	250	60	265	230	300	5	20	19	M10	10	60	32	5	8	50	124
D110F	445	200	546	446	637	M10	12	110	42	5	8	325	522	347	80	300	250	350	5	24	19	M10	12	82	40	5	8	70	196
D150F	445	224	546	446	637	M10	12	110	42	5	8	325	522	347	80	300	250	350	5	24	19	M10	12	82	40	5	8	70	202

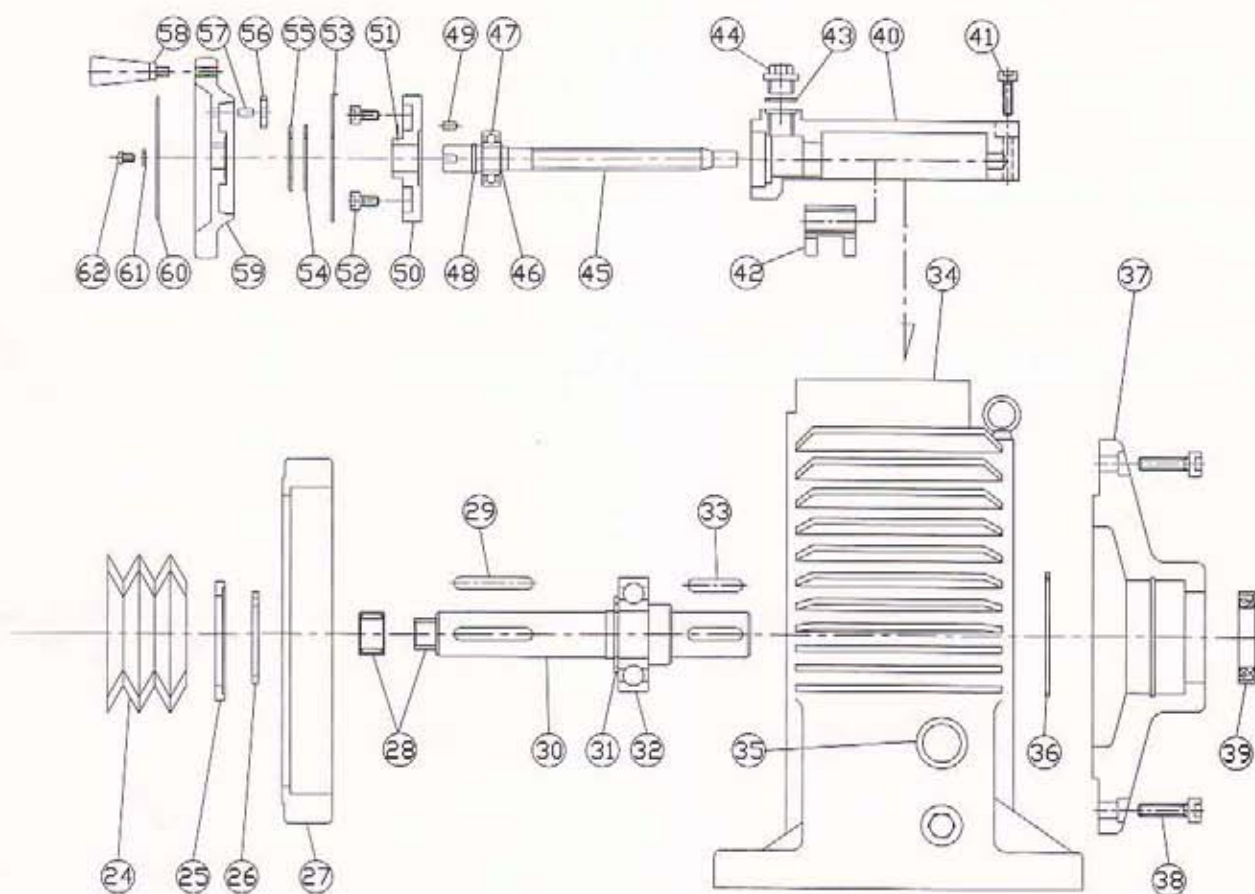
# Exploded View

Dimensions



## Parts List

Ref No.	Name of parts	Q'ty	Ref No.	Name of parts	Q'ty	Ref No.	Name of parts	Q'ty
1	Oil seal	1	26	Circlip	1	51	Elastic pin	1
2	Output cover	1	27	Fixed ring	1	52	Bolt	2
3	Bolt	6	28	Bearing	1	53	Pointer	1
4	Cylindrical spring	6	29	Key	1	54	Differential gear A	1
5	Circlip	1	30	Input shaft	1	55	Differential gear A	1
6	Output shaft	1	31	Circlip	1	56	Opinion	1
7	Key	1	32	Bearing	1	57	Pin	1
8	Bearing	1	33	Key	1	58	Handle	1
9	Key	1	34	Housing	1	59	Handwheel	1
10	Planet carrier	1	35	Oil gauge	2	60	Adjustable indicated plate	1
11	Bearing	1	36	R circlip	1	61	Handwheel washer	1
12	Washer	1	37	Input cover	1	62	Bolt	1
13	Spring washer	1	38	Bolt	6			
14	Bolt	1	39	Oil seal	1			
15	Elastic pin	2	40	Drive cover	1			
16	Fixed cam	1	41	Bolt	4			
17	Thrust bearing	1	42	Regulation pin support	1			
18	Mobile cam	1	43	Gasket	1			
19	Left inner sun	1	44	Plug	1			
20	Planet bushing	4	45	Speed control screw	1			
21	Regulation bolt	1	46	Circlip	1			
22	Planet	5	47	Bearing	1			
23	Right inner sun	1	48	Gasket	1			
24	Dish Springs	5	49	Key	1			
25	Washer	1	50	Indicated plate	1			



## 零件表

件號	零件名稱	數量	件號	零件名稱	數量	件號	零件名稱	數量
1	油封	1	26	扣環	1	51	固定銷	1
2	出心蓋	1	27	固定環	1	52	六角承窩螺栓	2
3	六角承窩螺栓	6	28	軸承	1	53	指針盤	1
4	彈簧	6	29	鍵	1	54	差數齒輪 A	1
5	扣環	1	30	入力軸	1	55	差數齒輪 B	1
6	出力軸	1	31	扣環	1	56	小齒輪	1
7	鍵	1	32	軸承	1	57	銷	1
8	軸承	1	33	鍵	1	58	方向把手	1
9	鍵	1	34	橫形外殼	1	59	手輪	1
10	雨傘	1	35	油鏡	2	60	調速指示板	1
11	軸承	1	36	扣環	1	61	華司	1
12	墊片	1	37	入力蓋	1	62	十字孔螺釘	1
13	彈簧華司	1	38	六角承窩螺栓	6			
14	六角承窩螺栓	1	39	油封	1			
15	彈簧銷	2	40	調速蓋	1			
16	固定凸輪	1	41	六角承窩螺栓	4			
17	止推軸承	1	42	拉塊	1			
18	行走凸輪	1	43	O型環	1			
19	太陽輪	1	44	油栓	1			
20	粉末軸承	4	45	調整螺桿	1			
21	調整螺栓	1	46	扣環	1			
22	行星輪	5	47	軸承	1			
23	太陽輪平板	1	48	O型環	1			
24	盤形彈簧片	5	49	鍵	1			
25	墊片	1	50	刻度盤	1			