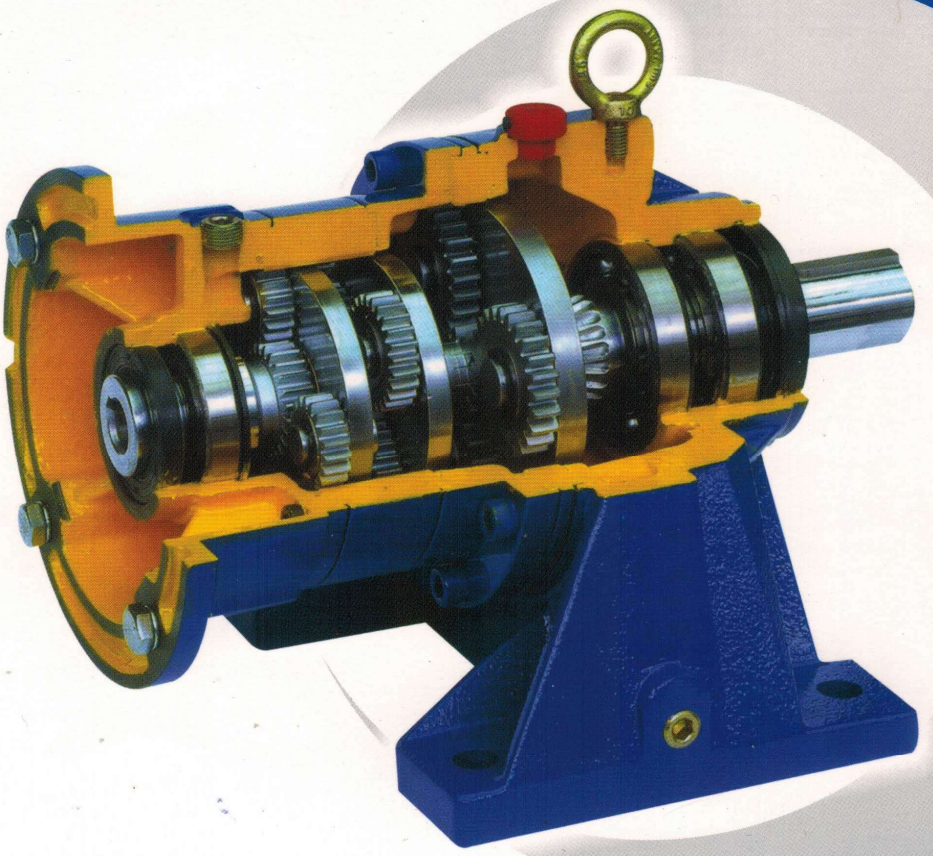
WaT

EURO GEAR

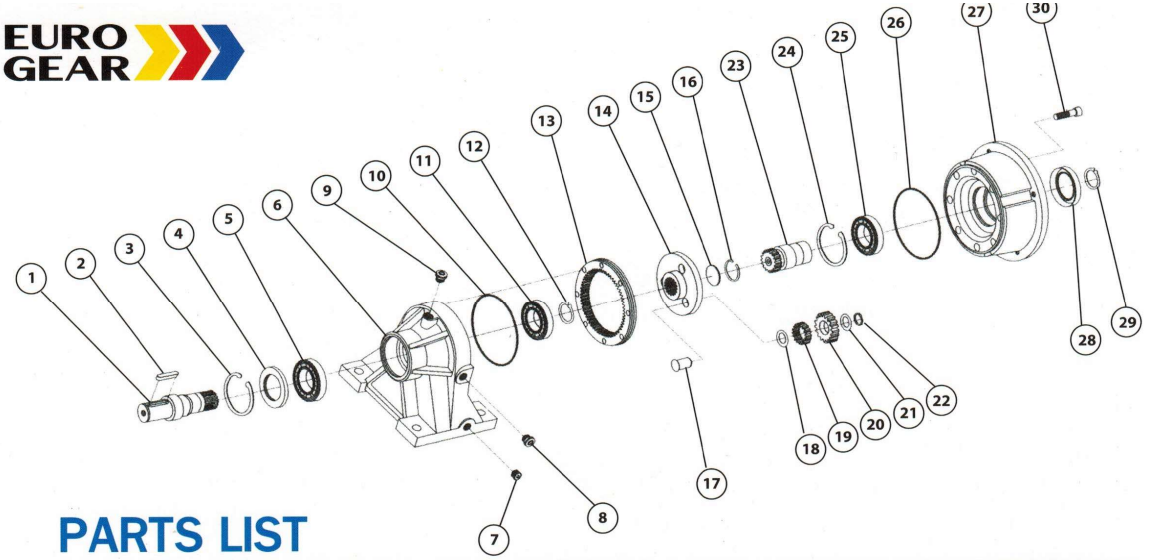
Planetary Gear Reducer

QUALITY SYSTEM ISO9001 WAT MOTORS



WaT EURO GEAR

PM EXPLODED DRAWINGS

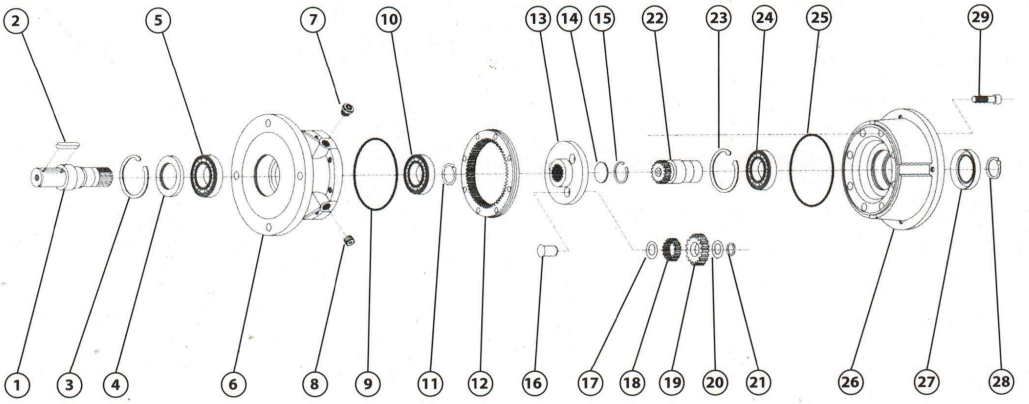


PARTS LIST

NO	PARTS NAME	NO	PARTS NAME	NO	PARTS NAME	NO	PARTS NAME	NO	PARTS NAME
1	OUTPUT SHAFT	7	DRAIN PLUG	13	INTERNAL GEAR RING	19	NEEDLE ROLLER BEARING	25	BEARING-INPUT SHAFT
2	KEY - OUTPUT SHAFT	8	OIL GAUGE	14	PLANETARY CARRIER	20	PLANETARY GEAR	26	O - RING
3	SNAP RING	9	BREATHER PLUG	15	THRUST COPPER	21	SHIM	27	INPUT FLANGE
4	OIL SEAL - OUTPUT SHAFT	10	O - RING	16	SNAP RING	22	SNAP RING	28	OIL SEAL - INPUT SHAFT
5	BEARING - OUTPUT SHAFT	11	BEARING - OUTPUT SHAFT	17	NEEDLE ROLLER PIN	23	SUN GEAR	29	SNAP RING
6	HOUSING	12	SNAP RING	18	SHIM	24	SNAP RING	30	HEX SOCKET CAP SCREW

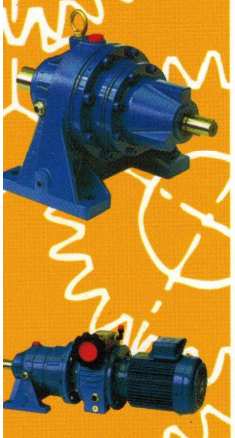


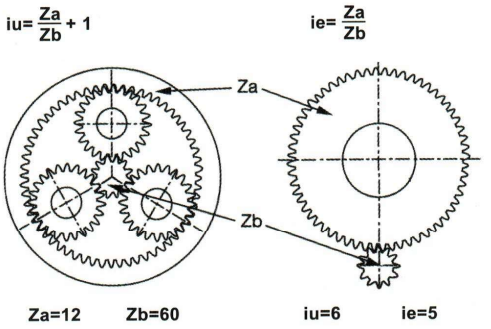
FM EXPLODED DRAWINGS



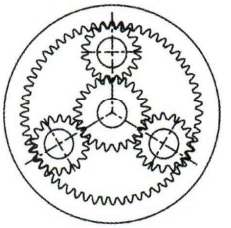
PARTS LIST

NO	PARTS NAME	NO	PARTS NAME	NO	PARTS NAME	NO	PARTS NAME	NO	PARTS NAME
1	OUTPUT SHAFT	7	BREATHER PLUG	13	PLANETARY CARRIER	19	PLANETARY GEAR	25	O - RING
2	KEY OUTPUT SHAFT	8	OIL GAUGE	14	THRUST COPPER	20	SHIM	26	INPUT FLANGE
3	SNAP RING	9	O - RING	15	SNAP RING	21	SNAP RING	27	OIL SEAL - INPUT SHAFT
4	OIL SEAL - OUTPUT SHAFT	10	BEARING - OUTPUT SHAFT	16	NEEDLE ROLLER PIN	22	SUN GEAR	28	SNAP RING
5	BEARING - OUTPUT SHAFT	11	SNAP RING	17	SHIM	23	SNAP RING	29	HEX SOCKET CAP SCREW
6	HOUSING	12	INTERNAL GEAR RING	18	NEEDLE ROLLER BEARING	24	BEARING - INPUT SHAFT	30	

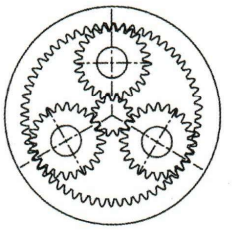




Lower reduction ratio



Higher reduction ratio



High reduction ratio

As compared with ordinary gear set, planetary gear box can achieve higher ratio than an ordinary gear set , when equivalent teeth are used.

Za = 12T , Zb = 60T 20%

And from the above drawings, if Za=12T, Zb=60T, more than 20% ratio can be achieved by planetary gear box.

With inner ring gear, changing only planetary gears and the Sun gear in the middle can get different ratio.

By increasing stages of a gear reducer, higher ratio can be got.

Form the drawings above, high ratio comes by multiplying dfferent ratio together.

With proper dimensions, lower stages can achieve the same ratio and thus save space and cost.

High efficiency, less bulky and weight.

Planetary gear box comprises stages of gears. Gears are well located and running force goes to six points, therfore, gears engage well, In contrast, only one tooth is engaged in an ordinary gear; so, with the same torque, lower force acts on planetary gear box. Meanwhile, for the same load, a lighter, smaller planetary gear box can get needed effect.

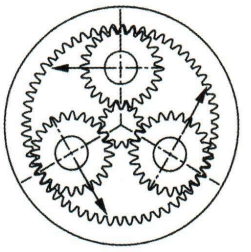
A planetary gear box is noiseless due to an average force, less bulky and nice to look, It saves 1/4 as much volume and weight as an ordinary gear box is. And every gear undergoes heat treatment and grinding, and therefore, not only abrasion but noises are lessened, and efficiency rises.

High burden

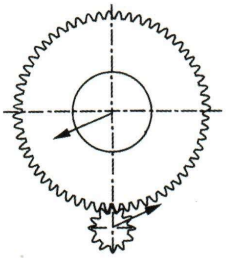
A planetary gear system diverges the transmitting Force of gears. Torque is thus transmited to output shaft. and burden is 0. In a parallelshaft transmitting device, this burden, however, has to be supported by the bearings that hold gear, So, in a planetary - type box, the bearings holding output & input shafts support only foreign force that falls on the 2 shafts. Whereas, traditional gears will bear force coming form its inside, and that by its bearings.

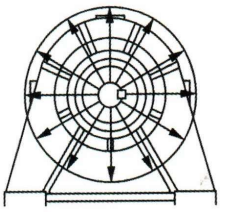
Planetary - typed gear box can bear high radial burden that comes from input / output shafts, but a traditional one can't.

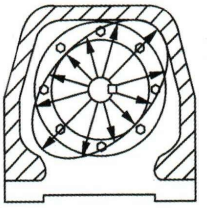
Planetary gear Wheelwork



Spurgear Wheelwork



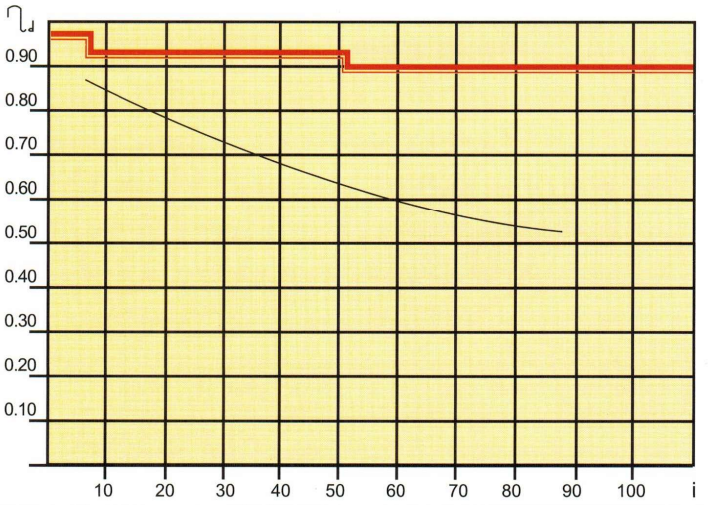




$\frac{P}{1}$ - $\frac{M}{2}$ - $\frac{32}{3}$ - $\frac{5.77}{4}$ - $\frac{2}{5}$

NO	Description	Inatance
1	Types	p - Horizontal, Vertical
2	Input options	M ,S Flange - typed, Shaft - typed
3	Model	24, 32, 38, 50, 55, 60, 80, 90, 120,
4	Ratio	1/3.48, 1/3.57, 1/4.09, 1/4.26.....
5	Input HP	1/4HP. 1/2HP, 1HP,.....



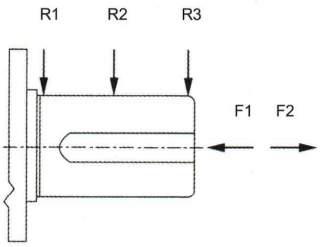


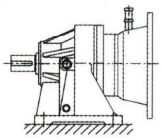
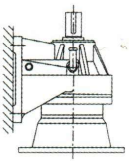
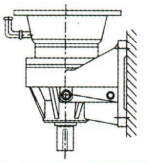
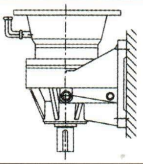
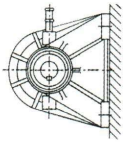
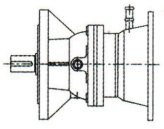
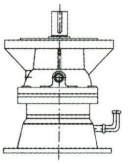
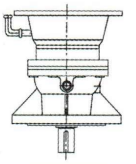
Planetary
Traditional
Effciency
i Ratio

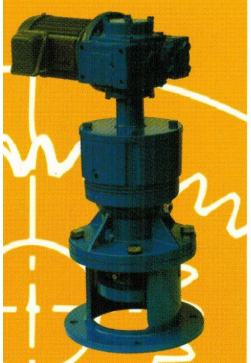
Efficiency Table		
Stage	Ratio	Effciency
L1	3.48~7.2	97%
L2	12.1~51.8	95%
L3	63~373	92%
L4	403~2687	90%

The Maximum Tolerate Value (kg)

Type	R1	R2	R3	F1	F2
24	1000	600	420	600	600
32	1360	800	560	800	800
38(H)	1900	1100	750	2000	1500
50(H)	1900	1100	750	2000	1500
55	6000	3800	2800	5500	4400
60	6000	3800	2800	5500	4400
80	9500	4500	3500	9000	5000
90	17000	11000	8000	10000	6000
120	32000	21000	16000	20000	11000



Installation	Type	Installation	Type	Installation	Type
	P1		P2		P3
	P4		P5		
	F1		F2		F3







After using first 100 hours, the interior of the reducing gear should be cleaned up and refill new oil. And then, after every 2500 hours of usage replaces new oil again.

Please contact with our company if the gear reducer will be used in special conditions, such as high temperature, low speed, heavy load, and forced lubrication and so on.

Insufficient lubricant oil may lead to the rapid wears of worm gear and low efficiency.

Excessive lubricant oil may lead to oil may lea to oil leakage.

Please fill in adequate lubricant oil to above half of the oil gauge.

1 (TABLE 1)

Load Factor Table

Prime Mover	Driven machine Load Classfication	Duration of Service per day			
		Occasional 0.5 hours.	Intermittent 2 hours.	8-10 hours.	10-24 hours.
Electric Motor	Uniform	0.80	0.90	1.00	1.00
	Medium Shock	0.90	1.00	1.25	1.50
	Heavy Shock	1.00	1.25	1.50	1.75

2 (TABLE 2)

O.H.L. Factor Table

Type	Parameter
Sprocket	1.00
Gear	1.25
V-Belt	1.50
Flat Belt	2.50

Converston Table
Meter (m) = inches (in) x 0.0254
Meter (m) = feet (ft) x 0.3048
Kilograms (Kg) = tons (t) x 1016.047
Kilograms (Kg) = pounds (lb) x 0.45359
Newton (N) = pounds - force (lbf) x 4.448222
Newton metro (Nm) = pound foot (lb ft) x 1.355818
Newton metro (Nm) = Kilograms meter (Kgm) x 9.81
DaNm = Nm/10

Formula
M (kgm) = 716.2 x Hp / n
Hp = M x n / 716.2
Kw = Hp x 0.735

Term translation
M = Torque
n = Output RPM
Hp = HP value

1 HP, 1/30.7, 100%, ?

n = 1500 x 1/30.7 = 48.85 r.p.m., M = 716.2 x H / n M = 716.2 x 1/48.85 = 14.66 (Kgm). 14.66 Kgm

With: Input HP, Ratios 1/30.7, given that transmitting efficiency is 100% find its output torque?

First, find output RPM, n = 1500 x HP/n, then M = 716.2 x 1/48.85 = 14.66 (Kgm), output torque is 14.66 Kgm

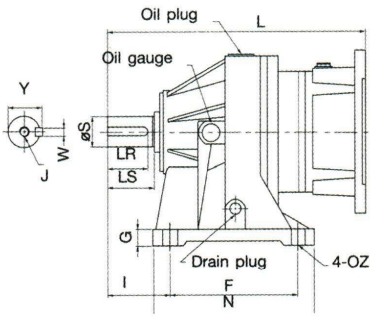
TYPE SELECT TABLE - 1450 R. P.M. (Input With 1450 RPM)

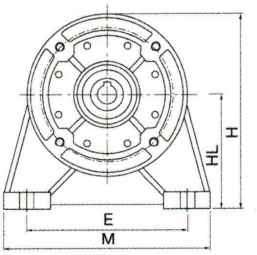
INPUT HP	RANGE OF RATIO	SIZE	INPUT HP	RANGE OF RATIO	SIZE	INPUT HP	RANGE OF RATIO	SIZE
1/4 HP	1/3.57~1/2936.8	24L1, L2, L3		1/3.48~1/85	38L1, L2, L3		1/3.6~1/7.5	55L1
	1/3.57~1/73.7	24L1, L2		1/90~1/134	55L3		1/12.5~1/43	60L2
12/ HP	1/87.1~1/221	32L2, L3	5 HP	1/136~1/184	60L3	20 HP	1/46~1/125	80L2, L3
	1/239~1/494	38L3, L4		1/188~1/546	80L3, L4		1/139~1/192	90L3
	1/503~1/1041	50L4		1/603~1/1022	90L4		1/193~1/649	120L3, L4
	1/3.48~1/116	32L1, L2, L3		1/3.48~1/7.2	38L1		1/3.6~1/7.5	55L1
	1/131~1/221	38L3		1/12.1~1/51.8	50L2		1/12.5~1/43	60L2
1 HP	1/239~1/616	50L3, L4		1/53~1/96.7	55L3	25 HP	1/46~1/125	80L2, L3
	1/618~1/756	55L4	7.5 HP	1/104~1/141	60L3		1/139~1/192	90L3
	1/801~1/869	60L4		1/146~1/455	80L3, L4		1/193~1/649	120L3, L4
	1/906~1/2442	80L4		1/492~1/546	90L4		1/3.6~1/7.5	60L1
	1/3.48~1/41.5	32L1, L2		1/586~1/1814	120L4	30 HP	1/12.5~1/46	80L2
	1/51.8~1/177	38L2, L3		1/3.48~1/7.2	50L1		1/51~1/303	120L3
2 HP	1/192~1/221	50L3		1/12.5~1/54	55L2		1/3.43~1/6.23	80L1
	1/230~1/456	60L3, L4	10 HP	1/63~1/107	60L3	40 HP	1/12.3~1/46	90L2
	1/492~1/591	80L4		1/113~1/234	80L3		1/51~1/176	120L3
	1/3.48~1/7.2	32L1, L2		1/270~1/455	90L3, L4	50 HP	1/3.43~1/6.23	90L1
	1/12.1~1/85	38L2, L3		1/501~1/1814	120L4		1/14.2~1/40.5	120L2
3 HP	1/87.2~1/221	50L3		1/3.48~1/7.2	50L1	75 HP	1/3.43~1/6.23	90L1
	1/230~1/276	60L3		1/12.5~1/30.7	55L2		1/14.2~1/40.5	120L2
	1/278~1/1022	80L3, L4	15 HP	1/35.8~1/54	60L2	100 HP	1/3.43~1/6.23	90L1
				1/60~1/191	80L3		1/14.2~1/40.5	120L2
				1/199~1/234	290L3	150 HP	1/4.14~1/6.5	120L1
				1/252~1/990	120L3, L4			



WaT EURO GEAR

Type : PM

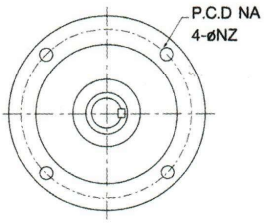


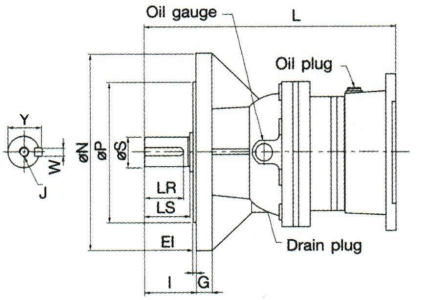


TYPE SELECT TABLE - 1450 R. P.M. (Input With 1450 RPM)

Size	E	F	G	H	HL	I	J	M	N	Z	Output Shaft					IEC
											LR	LS	S	W	Y	
24	140	90	13	150	90	53	M8	170	120	12	30	35	24	8	27	63A-71B
32	170	125	20	185	110	70	M10	210	155	12	40	50	32	10	35	71B-90L
38	200	160	25	233	140	78	M2	260	200	18	50	58	38	10	41	71B-112M
38H				283	190											132L
50	200	160	25	233	140	102	M16	260	200	18	70	82	50	14	53.5	90L-160L
50H				283	190											132L-160M
55	300	250	35	332	210	142	M16	370	305	22	80	95	55	16	59	90L-106L
60	300	250	35	332	210	152	M20	370	305	22	90	105	60	18	64	90L-180L
80	365	356	45	425	250	175	P.C.D 55 3M-M12	445	436	28	110	130	80	22	85	100LA-200L
90	365	356	45	425	250	215	P.C.D 55 3M-M12	445	436	28	150	170	90	25	95	100LA-225S
120	457	470	40	503	280	275	P.C.D 70 3M-M16	560	590	28	180	200	120	32	127	200LA-280S

Type : FM





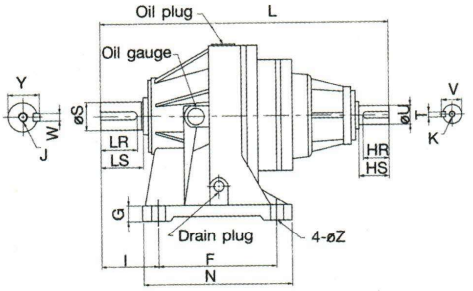
DIMENSION *in millimeter

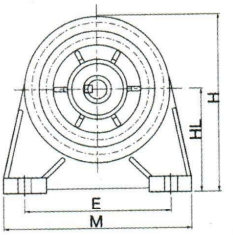
Size	G	I	IE	J	N	NA	NZ	P	Output Shaft					IEC
									LR	LS	S	W	Y	
24	12	44	4	M8	160	130	10	110	30	35	24	8	27	63A-71B
32	16	59	4	M10	200	165	12	130	40	50	32	10	35	71B-90L
38	20	67	4	M12	250	215	16	180	50	58	38	10	41	71B-112M
38H					300	265	16	230						132L
50	20	91	4	M16	250	215	16	180	70	82	50	14	53.5	90L-160L
50H					300	265	16	230						132L-160M
55	20	104	4	M16	350	300	19	250	80	95	55	16	59	90L-160L
60	20	114	4	M20	350	300	19	250	90	105	60	18	64	90L-180L
80	27	140	4	P.C.D 55 3M-M12	450	400	22	350	110	130	80	22	85	100LA-200L
90	27	180	4	P.C.D 55 3M-M12	450	400	22	350	150	170	90	25	95	100LA-225S
120	32	200	4	P.C.D 70 3M-M16	550	500	28	450	180	200	120	32	127	200LA-280S







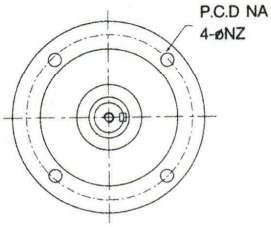


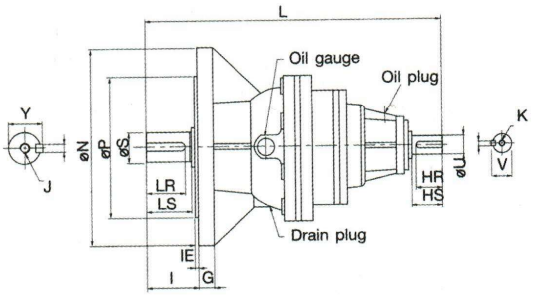


Type : PS

DIMENSION *in millimeter

Size	E	F	G	H	HL	I	J	M	N	Z	Output Shaft				
											LR	LS	S	W	Y
24	140	90	13	150	90	53	M8	170	120	12	30	35	24	8	27
32	170	125	20	185	110	70	M10	210	155	12	40	50	32	10	35
38	200	160	25	233	140	78	M12	260	200	18	50	58	38	10	41
38H				283	190										
50	200	160	25	233	140	102	M16	260	200	18	70	82	50	14	53.5
50H				283	190										
55	300	250	35	332	210	142	M16	370	305	22	80	95	55	16	59
60	300	250	35	332	210	152	M20	370	305	22	90	105	60	18	64
80	365	356	45	425	250	175	P.C.D.55 3-M12	445	436	28	110	130	80	22	85
90	365	356	45	425	250	215	P.C.D.55 3-M12	445	436	28	150	170	90	25	95
120	457	470	40	503	280	275	P.C.D.70 3-M16	560	590	28	180	200	120	32	127





Type : FS

DIMENSION *in millimeter

Size	G	I	IE	J	N	NA	NZ	P	Output Shaft				
									LR	LS	S	W	Y
24	12	44	4	M8	160	130	10	110	30	35	24	8	27
32	16	59	4	M10	200	165	12	130	40	50	32	10	35
38	20	67	4	M12	250	215	16	180	50	58	38	10	41
38H					300	265	16	230					
50	20	160	4	M16	250	215	16	180	70	82	50	14	53.5
38H					300	265	16	230					
55	20	104	4	M16	350	300	19	250	80	95	55	16	59
60	20	114	4	M20	350	300	19	250	90	105	60	18	64
80	27	140	4	P.C.D 55 3M-M12	450	400	22	350	110	130	80	22	85
90	27	180	4	P.C.D 55 3M-M12	450	400	22	350	150	170	90	25	95
120	32	200	4	P.C.D 70 3M-M16	550	500	28	450	180	200	120	32	127



LENGTH TABLE
*in millimeter PM, FM

1 Stage

Size / HP		24	32	38	38H	50	50H		60	80	90	120
1/4, 1/2	L	191	231	*	*	*	*	*	*	*	*	*
1, 2		196	231	289	289	324	324	*	*	*	*	*
3, 5		*	236	294	294	329	329	*	*	*	*	*
7.5, 10		*	*	304	304	339	339	385	414	*	*	*
15, 20		*	*	333	333	368	368	401	429	*	*	*
25, 30		*	*	*	*	*	*	401	429	*	*	*

2 Stage

Size / HP		24	32	38	38H	50	50H	55	60	80	90	120
1/4, 1/2	L	221	264	320	320	*	*	*	*	*	*	*
1, 2		226	264	320	320	377	377	399	439	*	*	*
3, 5		*	269	325	325	382	382	404	444	*	*	*
7.5, 10		*	*	*	*	392	392	414	454	631	724	*
15, 20		*	*	*	*	421	421	443	483	646	739	*
25, 30		*	*	*	*	*	*	*	*	646	739	*

3 Stage

Size / HP		24	32	38	38H	50	50H	55	60	80	90	120
1/4, 1/2	L	251	296	353	353	409	409	430	*	*	*	*
1, 2		256	296	353	353	409	409	430	492	644	749	*
3, 5		*	301	358	358	414	414	435	497	649	754	*
7.5, 10		*	*	*	*	*	*	*	507	659	764	1017
15, 20		*	*	*	*	*	*	*	536	688	793	1032
25, 30		*	*	*	*	*	*	*	*	*	*	1032

4 Stage

Size / HP		24	32	38	38H	50	50H	55	60	80	90	120
1/4, 1/2	L	281	329	385	385	441	441	463	523	676	*	*
1, 2		286	329	385	385	441	441	463	523	676	802	1042
3, 5		*	334	390	390	446	446	468	528	681	807	1047
7.5, 10		*	*	*	*	*	*	*	*	*	817	1057
15, 20		*	*	*	*	*	*	*	*	*	846	1086
25, 30		*	*	*	*	*	*	*	*	*	*	*







LENGTH TABLE PS, FS

1 Stage

Size	24	32	38	38H	50	50H	55	60	80	90	120
L	252	298	361	361	396	396	516	544	713	790	1059
HS	30	40	58	58	58	58	82	82	105	105	130
HR	20	35	45	45	45	45	70	70	90	90	110
U	19	24	38	38	38	38	50	50	60	60	80
T	6	8	10	10	10	10	14	14	18	18	22
V	21.5	27	41	41	41	41	53.5	53.5	64	64	85
K	M6	M8	M10	M10	M10	M10	M12	M12	M14	M14	P.C.D 55 3-M12

2 Stage

Size	24	32	38	38H	50	50H	55	60	80	90	120
L	282	331	388	388	449	449	470	510	760	855	1083
HS	30	40	40	40	58	58	58	58	82	82	105
HR	20	35	35	35	45	45	45	45	70	70	90
U	19	24	24	24	38	38	38	38	50	50	60
T	6	8	8	8	10	10	10	10	14	14	18
V	21.5	27	27	27	41	41	41	41	53.5	53.5	4
K	M6	M8	M8	M8	M10	M10	M10	M10	M12	M12	M14

3 Stage

Size	24	32	38	38H	50	50H	55	60	80	90	120
L	312	363	421	421	477	477	498	563	714	821	1168
HS	30	40	40	40	40	40	58	58	58	58	82
HR	20	35	35	35	35	35	45	45	45	45	70
U	19	24	24	24	24	24	38	38	38	38	50
T	6	8	8	8	8	8	10	10	10	10	14
V	21.5	27	27	27	27	27	41	41	41	41	53.5
K	M6	M8	M8	M8	M8	M8	M10	M10	M10	M10	M12

4 Stage

Size	24	32	38	38H	50	50H	55	60	80	90	120
L	342	396	453	453	510	510	530	591	742	874	1134
HS	30	40	40	40	40	40	40	40	58	58	58
HR	20	35	35	35	35	35	35	35	45	45	45
U	19	24	24	24	24	24	24	24	38	38	38
T	6	8	8	8	8	8	8	8	40	10	10
V	21.5	27	27	27	27	27	27	27	41	41	41
K	M6	M8	M8	M8	M8	M8	M10	M10	M10	M10	M10

Type (output shaft)	(1 Stage) - L1					
	Ratio		Output Rpm	Torque Kg-m	Apply HP HP	Safe factor
24	3.58	C	419	1.71	1	10.14
	4.94	A	303	2.36	1	12.09
	5.79	B	259	2.77	1	7.36
	7.09	C	211	3.39	1	5.12
	9.38	C	159	4.48	1	3.87
32	3.48	C	431	8.31	5.5	3.56
	4.26	A	352	10.17	5.5	5.02
	5.77	B	259	13.78	5.5	2.74
	7.20	C	208	17.19	5.5	1.72
38	3.48	C	431	16.62	10	4.30
	4.26	A	352	20.34	10	6.01
	5.77	B	259	27.55	10	3.33
	7.20	C	208	34.38	10	2.08
50	3.48	C	431	24.93	15	6.34
	4.26	A	352	30.54	15	8.01
	5.77	B	259	41.32	15	4.57
	7.20	C	208	51.57	15	3.07
55	3.60	C	416	34.38	20	7.27
	4.25	A	352	40.59	20	8.04
	5.33	B	281	50.93	20	5.61
	6.20	C	241	59.21	20	4.22
	7.50	D	200	71.62	20	2.99
60	3.60	C	416	51.56	30	9.39
	4.25	A	352	60.87	30	10.55
	5.33	B	281	76.39	30	7.33
	6.20	C	241	88.80	30	5.45
	7.50	D	200	107.43	30	3.89
80	3.43	C	437	81.85	50	13.38
	4.09	A	366	97.66	50	15.91
	5.25	B	285	125.33	50	10.12
	6.23	C	240	148.74	50	7.36
90	3.43	C	437	163.70	100	9.96
	4.09	A	366	195.32	100	11.74
	5.25	B	285	250.67	100	7.32
	6.23	C	240	297.49	100	5.48
120	4.14	A	362	296.71	150	22.33
	5.40	B	277	386.74	150	13.17
	6.50	C	230	465.53	150	8.97

Type (output shaft)	(2 Stage) - L2						(2 Stage) - L2					
	Ratio		Output Rpm	Torque Kg-m	Apply HP HP	Safe factor	Ratio		Output Rpm	Torque Kg-m	Apply HP HP	Safe factor
24	12.79	C	117	6.11	1	2.84	66.48	C	22	15.88	0.5	1.10
	17.67	A	84	8.44	1	3.39	87.89	C	17	10.49	0.25	1.66
	20.70	B	72	9.89	1	2.07						
	24.42	A	61	11.66	1	2.45						
	25.36	C	59	12.11	1	1.43						
	28.59	A	52	13.65	1	2.09						
	33.47	B	44	15.98	1	1.28						
	33.53	C	44	16.02	1	1.09						
	35.04	A	42	16.73	1	1.71						
	41.03	B	36	19.59	1	1.04						
	46.32	A	32	22.12	1	1.29						
	50.28	C	29	12.00	1	1.45						
	54.24	B	27	12.96	1	1.58						
32	12.11	C	123	11.57	2	2.56	41.54	B	36	19.84	1	1.91
	14.84	A	101	14.17	2	3.60	51.84	C	28	24.76	1	1.20
	18.17	A	82	17.36	2	2.94						
	20.08	B	74	19.18	2	1.97						
	24.60	A	60	23.49	2	2.17						
	25.06	C	59	23.93	2	1.23						
	30.69	A	48	29.32	2	1.74						
	33.28	B	45	31.79	2	1.18						
38	12.11	C	123	28.92	5.5	2.46	41.54	B	36	59.50	3	1.54
	14.84	A	101	35.42	5.5	3.45	51.84	C	28	49.51	2	1.44
	18.17	A	82	43.39	5.5	2.81						
	20.08	B	74	47.93	5.5	1.91						
	24.60	A	60	58.72	5.5	2.08						
	25.06	C	59	59.82	5.5	1.19						
	30.69	A	48	73.28	5.5	1.66						
	33.28	B	45	79.46	5.5	1.15						
50	12.11	C	123	57.83	10	2.74	41.54	B	36	148.75	7.5	1.27
	14.84	A	101	30.54	10	3.45	51.84	C	28	123.76	5.5	1.28
	18.17	A	82	86.78	10	2.82						
	20.08	B	74	95.86	10	1.97						
	24.60	A	60	117.44	10	2.09						
	25.06	C	59	119.64	10	1.32						
	30.69	A	48	146.56	10	1.67						
	33.28	B	45	158.92	10	1.19						
55	12.53	C	119	89.73	15	2.79	26.10	D	57	186.93	15	1.13
	14.79	A	101	105.93	15	3.08	26.43	C	56	189.31	15	1.32
	15.35	C	97	109.92	15	2.28	30.60	A	49	219.16	15	1.49
	18.12	A	82	129.77	15	2.52	30.77	B	48	220.37	15	1.29
	18.56	B	80	132.93	15	2.15	31.97	D	46	152.67	10	1.40
	20.77	C	72	148.75	15	1.68	35.77	C	41	170.79	10	1.42
	21.58	C	69	154.53	15	1.62	38.40	B	39	275.02	15	1.04
	22.74	B	65	162.85	15	1.76	43.27	D	34	206.59	10	1.03
	24.52	A	61	175.61	15	1.86	44.64	C	33	213.14	10	1.17
	25.92	C	57	185.64	15	1.35	54.00	D	27	193.37	7.5	1.10
60	12.53	C	119	119.03	20	4.06	26.10	D	57	249.23	20	1.67
	14.79	A	101	141.23	20	4.54	26.43	C	56	252.40	20	1.65
	15.35	C	97	146.55	20	3.30	30.60	A	49	292.20	20	2.19
	18.12	A	82	173.01	20	3.71	30.77	B	48	293.82	20	1.90
	18.56	B	80	177.23	20	3.16	31.97	D	46	305.32	20	1.36
	20.77	C	72	198.33	20	2.44	35.77	C	41	341.57	20	1.41
	21.58	C	69	206.03	20	2.35	38.40	B	39	366.69	20	1.52
	22.74	B	65	217.12	20	2.58	43.27	D	34	413.18	20	1.01
	24.52	A	61	234.14	20	2.74	44.64	C	33	426.28	20	1.13
	25.92	C	57	247.52	20	1.95	54.00	D	27	386.74	15	1.08
80	12.34	C	121	176.79	30	6.19	25.36	C	59	363.30	30	4.27
	14.57	C	102	208.72	30	5.25	25.71	C	58	368.33	30	2.97
	14.73	A	101	210.95	30	7.36	26.48	C	56	379.31	30	2.88
	17.39	A	86	249.04	30	6.24	28.00	B	53	401.07	30	3.16
	18.29	C	82	261.92	30	4.18	30.68	A	48	439.48	30	3.53
	18.90	B	79	270.72	30	4.68	32.55	B	46	466.24	30	2.72
	21.26	C	70	304.48	30	3.59	33.23	B	45	475.99	30	2.30
	21.82	A	68	312.52	30	4.97	38.63	C	38	553.35	30	1.98
	22.31	B	67	319.60	30	3.97	39.38	B	38	564.01	30	2.25
	22.43	C	66	321.30	30	3.41	46.73	C	32	669.36	30	1.63
90	12.34	C	121	294.66	50	5.53	25.36	C	59	605.51	50	3.78
	14.57	C	102	347.87	50	4.68	25.71	C	58	613.89	50	2.65
	14.73	A	101	351.58	50	6.52	26.48	C	56	632.18	50	2.58
	17.39	A	86	415.06	50	5.52	28.00	B	53	668.45	50	2.74
	18.29	C	82	436.54	50	3.73	30.68	A	48	732.47	50	3.13
	18.90	B	79	451.20	50	4.06	32.55	B	46	777.07	50	2.36
	21.26	C	70	507.47	50	3.21	33.23	B	45	793.32	50	2.05
	21.82	A	68	520.87	50	4.40	38.63	C	38	922.24	50	1.76
	22.31	B	67	532.67	50	3.44	39.38	B	38	940.01	50	1.95
	22.43	C	66	535.50	50	3.04	46.73	C	32	1115.61	50	1.46
120	14.20	A	105	678.20	100	9.77	25.81	A	58	1232.49	100	5.37
	16.95	A	88	809.21	100	8.18	26.59	C	56	12696.63	100	3.29
	18.51	B	81	883.99	100	5.76	28.35	B	52	1353.62	100	3.76
	21.75	A	68	1038.48	100	6.38	33.65	B	44	1606.47	100	3.17
	22.09	B	67	1054.77	100	4.83	34.13	C	43	1629.35	100	2.56
	22.29	C	67	1064.06	100	3.92	40.50	C	37	1933.74	100	2.16



WaT EURO GEAR

Type (output shaft)	(3 Stage) - L3						(3 Stage) - L3						(3 Stage) - L3					
	Ratio		Output Rpm	Torque Kg-m	Apply HP HP	Safe factor	Ratio		Output Rpm	Torque Kg-m	Apply HP HP	Safe factor	Ratio		Output Rpm	Torque Kg-m	Apply HP HP	Safe factor
24	45.76	C	32	10.92	0.5	1.58	165.70	A	9	19.77	0.25	1.44	356.54	C	4	21.29	0.125	0.81
	63.22	A	23	15.09	0.5	1.89	173.13	A	8	20.66	0.25	1.38	384.62	B	3	22.96	0.125	0.88
	74.02	B	20	17.67	0.5	1.15	179.85	C	8	10.73	0.12	1.61	434.28	A	3	25.92	0.125	1.10
	87.33	A	17	20.84	0.5	1.36	193.67	B	7	11.55	0.12	1.76	471.38	C	3	28.14	0.125	0.61
	90.72	C	16	10.83	0.25	1.60	194.02	B	7	11.58	0.12	1.76	508.51	B	2	30.35	0.125	0.67
	102.26	A	14	24.41	0.5	1.16	202.72	A	7	24.20	0.25	1.18	623.22	C	2	37.20	0.125	0.46
	119.74	B	12	14.29	0.25	1.42	228.89	A	6	27.33	0.25	1.04	823.97	C	1	49.20	0.125	0.35
	119.95	C	12	14.31	0.25	1.21	237.36	B	6	14.17	0.125	1.43						
	120.64	A	12	14.40	0.25	1.98	248.45	A	6	14.83	0.125	1.92						
	125.33	A	11	14.96	0.25	1.90	268.01	A	5	16.00	0.125	1.78						
	141.26	A	10	16.86	0.25	1.69	290.91	B	5	17.37	0.125	1.17						
	146.75	B	10	17.51	0.25	1.16	313.82	B	4	18.73	0.125	1.08						
	165.40	A	9	19.74	0.25	1.44	328.48	A	4	19.61	0.125	1.45						
32	42.14	C	35	20.12	1	1.46	106.82	A	14	25.50	0.50	1.99	221.00	A	6	26.39	0.25	1.93
	51.63	A	29	49.31	2	1.03	115.83	B	12	27.66	0.50	1.36	239.64	B	6	28.61	0.25	1.31
	63.25	A	23	30.20	1	1.68	130.86	A	11	31.24	0.50	1.63	299.08	B	5	35.71	0.25	1.05
	69.87	B	21	33.36	1	1.13	141.90	A	10	33.88	0.50	1.50	373.25	C	4	22.28	0.125	1.32
	77.48	A	19	37.00	1	1.37	144.55	B	10	34.51	0.50	1.09						
	85.59	A	17	40.87	1	1.24	177.09	A	8	42.28	0.50	1.20						
	87.19	C	17	20.82	1	1.42	180.40	C	8	21.54	0.25	1.37						
	104.85	A	14	50.07	1	1.01	192.02	B	7	22.92	0.25	1.64						
38	42.14	C	35	60.37	3	1.18	106.82	A	14	102.00	2.00	1.19	221.00	A	6	105.53	1.00	1.15
	51.63	A	29	73.96	3	1.65	115.83	B	12	55.31	1.00	1.65	239.64	B	6	57.22	0.50	1.60
	63.25	A	23	90.60	3	1.35	130.86	A	11	62.48	1.00	1.95	299.08	B	5	71.41	0.50	1.28
	69.87	B	21	66.72	2	1.37	141.90	A	10	67.76	1.00	1.80	373.25	C	4	44.55	0.25	1.60
	77.48	A	19	110.99	3	1.10	144.55	B	10	69.02	1.00	1.32						
	85.59	A	17	81.74	2	1.49	177.09	A	8	84.55	1.00	1.44						
	87.19	C	17	41.64	1	1.71	180.40	C	8	43.07	0.50	1.65						
	104.85	A	14	100.13	2	1.22	192.02	B	7	91.68	1.00	1.00						
50	42.14	C	35	100.62	5.5	1.57	106.82	A	14	153.01	3.00	1.59	221.00	A	6	211.05	2.00	1.15
	51.63	A	29	123.26	5.5	1.98	115.83	B	12	165.92	3.00	1.13	239.64	B	6	114.43	1.00	1.64
	63.25	A	23	151.00	5.5	1.62	130.86	A	11	187.44	3.00	1.30	299.08	B	5	142.82	1.00	1.32
	69.87	B	21	166.80	5.5	1.13	141.90	A	10	203.26	3.00	1.20	373.25	C	4	89.11	0.50	1.77
	77.48	A	19	184.97	5.5	1.32	144.55	B	10	138.04	2.00	1.36						
	85.59	A	17	204.34	5.5	1.19	177.09	A	8	169.10	2.00	1.44						
	87.19	C	17	124.90	3	1.26	180.40	C	8	86.14	1.00	1.83						
	104.85	A	14	150.19	3	1.62	192.02	B	7	183.36	2.00	1.02						
55	53.41	C	28	191.26	8	1.31	124.48	C	12	178.31	3.00	1.41	221.54	B	6	211.58	2.00	1.35
	63.00	A	23	225.79	8	1.45	131.17	B	11	187.82	3.00	1.53	230.21	D	6	109.85	1.00	1.95
	72.28	C	20	172.55	8	1.44	133.63	B	11	191.33	3.00	1.50	257.54	C	5	245.70	2.00	1.02
	77.24	A	19	276.60	8	1.18	136.31	D	11	195.15	3.00	1.10	276.48	B	5	263.80	2.00	1.09
	85.33	A	17	305.57	8	1.07	141.46	A	10	202.51	3.00	1.62	311.54	D	4	148.75	1.00	1.44
	90.20	C	16	215.35	5	1.16	150.58	D	9	143.79	2.00	1.49	321.48	C	4	153.37	1.00	1.63
	96.93	B	15	227.43	5	1.25	163.71	B	9	234.49	3.00	1.22	388.80	D	3	185.55	1.00	1.16
	104.53	A	14	249.54	5	1.38	177.51	B	8	254.28	3.00	1.13						
	107.08	B	14	255.62	5	1.11	184.46	D	8	176.15	2.00	1.22						
	112.68	C	13	161.40	3	1.54	190.31	C	7	181.55	2.00	1.38						
60	53.41	C	28	255.02	10	1.90	124.48	C	12	445.77	7.50	1.09	221.54	B	6	528.96	5.00	1.06
	63.05	A	23	299.54	10	2.15	131.17	B	11	469.54	7.50	1.20	230.21	D	6	329.54	3.00	1.27
	72.28	C	20	345.24	10	1.41	133.63	B	11	478.32	7.50	1.18	257.54	C	5	368.55	3.00	1.32
	77.24	A	19	368.80	10	1.75	136.31	D	11	325.25	5.00	1.29	276.48	B	5	395.69	3.00	1.42
	85.33	A	17	407.01	10	1.58	141.46	A	10	506.27	7.50	1.27	311.54	D	4	297.49	2.00	1.41
	90.20	C	16	430.70	10	1.13	150.58	D	9	359.47	5.00	1.17	321.48	C	4	460.09	3.00	1.06
	96.93	B	15	454.88	10	1.24	163.71	B	9	390.81	5.00	1.44	388.80	D	3	371.09	2.00	1.13
	104.53	A	14	499.10	10	1.29	177.51	B	8	423.79	5.00	1.33						
	107.08	B	14	511.25	10	1.10	184.46	D	8	264.22	3.00	1.59						
	112.68	C	13	403.51	8	1.20	190.31	C	7	453.87	5.00	1.07						
80	43.00	C	34	410.55	20	2.67	125.18	A	11	1194.67	20.00	1.31	201.60	B	7	962.64	10.00	1.32
	50.71	C	29	602.11	20	1.82	138.77	B	10	993.81	15.00	1.28	227.16	B	6	1083.51	10.00	1.18
	60.50	A	24	577.58	20	2.70	146.33	A	10	1048.10	15.00	1.49	234.36	B	6	1119.07	10.00	1.14
	62.78	A	23	599.33	20	2.60	152.77	C	9	1094.00	15.00	1.01	269.60	C	5	964.37	7.50	1.14
	77.65	B	19	741.41	20	1.72	157.09	A	9	1124.93	15.00	1.39	278.14	C	5	994.73	7.50	1.11
	80.57	B	18	769.28	20	1.65	167.86	B	8	1201.68	15.00	1.06	284.50	B	5	1013.49	7.50	1.26
	89.49	C	16	854.15	20	1.29	177.01	A	8	1266.87	15.00	1.23	336.46	C	4	802.92	5.00	1.37
	93.01	A	16	888.04	20	1.75	187.78	B	7	896.37	10.00	1.42						
	100.31	A	14	957.49	20	1.63	191.72	C	7	914.69	10.00	1.20						
	113.27	B	13	1081.06	20	1.18	199.22	C	7	951.13	10.00	1.16						
90	43.00	C	34	615.83	30	2.65	125.18	A	11	1792.00	30.00	1.28	201.60	B	7	1443.96	15.00	1.27
	50.71	C	29	726.37	30	2.25	138.77	B	10	1656.34	25.00	1.11	227.16	B	6	1625.27	15.00	1.13
	60.50	A	24	866.37	30	2.65	146.33	A	10	1746.83	25.00	1.32	234.36	B	6	1678.60	15.00	1.10
	62.78	A	23	899.00	30	2.56	152.77	C	9	1458.66	20.00	1.12	269.60	C	5	1285.82	10.00	1.27
	77.65	B	19	1112.12	30	1.65	157.09	A	9	2249.85	30.00	1.02	278.14	C	5	1326.30	10.00	1.23
	80.57	B	18	1153.92	30	1.59	167.86	B	8	1602.24	20.00	1.15	283.50	B	5	1351.32	10.00	1.36
	89.49	C	16	1281.22	30	1.28	177.01	A	8	1689.15	20.00	1.36	336.46	C	4	1605.83	10.00	1.02
	93.01	A	16	1332.06	30	1.73	187.78	B	7	1792.74	20.00	1.03						
	100.31	A	14	1436.23	30	1.60	191.72	C	7	1372.03	15.00	1.19						
	113.27	B	13	1621.59	30	1.14	199.22	C	7	1426.70	15.00	1.15						
120	51.13	A	29	1220.52	50	5.43	109.71	A	13	2617.69	50.00	5.37	182.00	C	8	3472.49	40.00	1.21
	61.01	A	24	1456.29	50	4.55	120.49	B	12	2876.31	50.00	1.78	193.60	A	7	4620.65	50.00	1.44
	72.03	A	20	1719.16	50	3.86	134.85	A	11	3217.43	50.00	2.06	208.61	B	7	4980.53	50.00	1.03
	78.30	A	19	1869.00	50	3.55	143.00	B	10	3413.73	50.00	1.50	252.35	B	5	4814.79	40.00	1.06
	92.44	A	16	2206.41	50	3.01	151.20	B	9	3609.88	50.00	1.42	303.75	C	4	3624.50	25.00	1.16
	105.08	A	14	2507.71	50	2.65	175.77	B	8	4193.21	50.00	1.22						





Type (output shaft)	(4 Stage) - L4						(4 Stage) - L4						(4 Stage) - L4					
	Ratio		Output Rpm	Torque Kg-m	Apply HP HP	Safe factor	Ratio		Output Rpm	Torque Kg-m	Apply HP HP	Safe factor	Ratio		Output Rpm	Torque Kg-m	Apply HP HP	Safe factor
24	163.70	C	9	9.77	0.125	1.78	165.70	A	9	19.77	0.25	1.44	356.54	C	4	21.29	0.125	0.81
	226.13	A	6	26.97	0.25	1.06	173.13	A	8	20.66	0.25	1.38	384.62	B	3	22.96	0.125	0.88
	264.78	B	5	15.79	0.125	1.30	179.85	C	8	10.73	0.12	1.61	434.28	A	3	25.92	0.125	1.10
	312.38	A	4	18.62	0.125	1.54	193.67	B	7	11.55	0.12	1.76	471.38	C	3	28.14	0.125	0.61
	324.51	C	4	19.34	0.125	1.48	194.02	B	7	11.58	0.12	1.76	508.51	B	2	30.35	0.125	0.67
	363.90	A	4	21.68	0.125	1.32	202.72	A	7	24.20	0.25	1.18	623.22	C	2	37.20	0.125	0.46
	428.29	B	3	25.51	0.125	0.80	228.89	A	6	27.33	0.25	1.04	823.97	C	1	49.20	0.125	0.35
	429.04	C	3	25.58	0.125	0.68	237.36	B	6	14.17	0.125	1.43	855.44	A	1	53.04	0.125	0.54
	431.52	A	3	25.73	0.125	1.11	248.45	A	6	14.83	0.125	1.92	956.98	A	1	57.03	0.125	0.50
	125.33	A	11	14.96	0.25	1.90	268.01	A	5	16.00	0.125	1.78	1001.66	A	1	59.69	0.125	0.48
	141.26	A	10	16.86	0.25	1.69	290.91	B	5	17.37	0.125	1.17	1130.99	A	1	67.32	0.125	0.43
	146.75	B	10	17.51	0.25	1.16	313.82	B	4	18.73	0.125	1.08	1227.62	A	1	72.79	0.125	0.40
	165.40	A	9	19.74	0.25	1.44	328.48	A	4	19.61	0.125	1.45	1324.31	A	1	78.54	0.125	0.37
32	403.08	B	3	24.01	0.125	1.57	818.62	A	1	48.66	0.125	1.05	2153.35	B	0	127.90	0.125	0.30
	447.00	A	3	26.65	0.125	1.92	942.16	A	1	55.96	0.125	0.92	2687.38	C	0	159.88	0.125	0.19
	493.79	A	3	29.45	0.125	1.74	1021.64	A	1	60.91	0.125	0.84						
	557.86	A	2	33.29	0.125	1.54	1107.82	B	1	65.83	0.125	0.58						
	604.92	A	2	36.10	0.125	1.42	1275.01	A	1	75.88	0.125	0.68						
	616.26	A	2	36.70	0.125	1.39	1382.57	B	1	82.14	0.125	0.46						
	668.24	B	2	39.80	0.125	0.95	1591.21	A	0	94.25	0.125	0.55						
	754.94	A	1	44.99	0.125	1.14	1725.44	B	0	102.91	0.125	0.37						
38	403.82	B	3	48.14	0.25	1.91	818.62	A	1	97.31	0.25	1.26						
	447.00	A	3	106.58	0.50	1.15	942.16	A	1	111.91	0.25	1.10						
	493.79	A	3	117.80	0.50	1.04	1021.64	A	1	121.81	0.25	1.01						
	557.86	A	2	66.57	0.25	1.84	1275.01	A	1	75.88	0.12	1.62						
	604.92	A	2	72.20	0.25	1.70	1591.22	A	0	94.25	0.12	1.32						
	616.25	A	2	73.39	0.25	1.67	1725.44	B	0	102.91	0.12	0.90						
	668.24	B	2	79.58	0.25	1.16	2153.35	B	0	127.90	0.12	0.72						
	754.94	A	1	89.98	0.25	1.36												
50	403.08	B	3	96.01	0.50	1.97	942.17	A	1	223.82	0.50	1.10						
	455.38	A	3	217.03	1.00	1.13	1021.64	A	1	243.61	0.50	1.01						
	493.79	A	3	235.60	1.00	1.04	1107.83	B	1	131.66	0.25	1.44						
	557.86	A	2	133.130	0.50	1.84	1275.01	A	1	151.74	0.25	1.62						
	604.92	A	2	144.40	0.50	1.70	1382.57	B	1	164.27	0.25	1.15						
	668.24	B	2	159.16	0.50	1.19	1591.22	A	0	188.48	0.25	1.30						
	754.94	A	1	179.90	0.50	1.36	1725.44	B	0	102.91	0.12	1.84						
	818.63	A	1	194.60	0.50	1.26	2153.35	B	0	127.90	0.12	1.48						
55	413.23	B	3	197.30	1.00	1.45	816.10	A	1	194.62	0.50	1.68	1370.21	C	1	163.51	0.25	1.52
	453.98	A	3	216.38	1.00	1.51	862.72	C	1	205.81	0.50	1.22	1440.17	D	1	171.83	0.25	1.24
	492.27	A	3	234.82	1.00	1.39	896.23	C	1	213.16	0.50	1.18	1586.30	A	0	189.27	0.25	1.72
	556.14	A	2	265.26	1.00	1.23	939.26	A	1	224.23	0.50	1.45	1657.52	D	0	197.84	0.25	1.08
	603.05	A	2	287.63	1.00	1.14	1018.49	A	1	243.11	0.50	1.34	1990.66	B	0	237.49	0.25	1.54
	649.45	C	2	155.03	0.50	1.61	1024.12	B	1	244.43	0.50	1.17	2243.08	D	0	133.82	0.12	1.60
	697.90	B	2	166.56	0.50	1.72	1178.68	B	1	281.30	0.50	1.01	2314.14	C	0	137.94	0.12	1.81
	752.61	A	2	179.00	0.50	1.83	1271.08	A	1	303.47	0.50	1.07	2799.36	D	0	167.02	0.12	1.28
	766.71	A	1	182.71	0.50	1.79	1278.11	B	1	152.51	0.25	1.87						
	801.13	D	1	190.48	0.50	1.13	1343.69	C	1	160.29	0.25	1.56						
60	413.23	B	3	394.60	2.00	1.42	662.27	C	2	316.03	1.00	1.53	1064.21	D	1	253.97	0.50	1.64
	445.63	A	3	425.55	2.00	1.51	697.90	B	2	333.11	1.00	1.68	1097.93	C	1	261.96	0.50	1.85
	453.98	A	3	433.40	2.00	1.48	718.14	C	2	342.84	1.00	1.41	1178.68	B	1	281.34	0.50	1.99
	465.04	B	3	444.01	2.00	1.26	752.61	A	1	359.35	1.00	1.78	1278.11	B	1	305.02	0.50	1.84
	492.27	A	3	470.10	2.00	1.36	766.71	A	1	365.96	1.00	1.75	1328.14	D	1	316.90	0.50	1.32
	556.14	A	2	531.10	2.00	1.21	795.61	C	1	379.74	1.00	1.27	1485.80	C	1	354.55	0.50	1.36
	603.05	A	2	575.72	2.00	1.11	862.72	C	1	411.84	1.00	1.17	1586.30	A	0	378.54	0.50	1.69
	614.35	A	2	586.56	2.00	1.09	896.23	C	1	427.83	1.00	1.13	1657.52	D	0	395.69	0.50	1.05
	637.51	C	2	304.37	1.00	1.59	944.45	B	1	450.72	1.00	1.24	2243.08	D	0	267.63	0.25	1.56
	650.09	C	2	310.44	1.00	1.56	1018.49	A	1	486.21	1.00	1.32	2799.36	D	0	334.04	0.25	1.25
80	371.57	A	4	887.04	5.00	1.75	844.20	A	1	1209.11	3.00	1.28	1941.12	C	0	926.52	1.00	1.18
	396.53	A	3	946.60	5.00	1.64	901.31	A	1	1291.23	3.00	1.21	2041.20	B	0	974.42	1.00	1.30
	455.19	A	3	1086.46	5.00	1.43	941.77	A	1	1348.78	3.00	1.16						
	490.18	A	3	1169.88	5.00	1.33	1022.21	A	1	1462.63	3.00	1.07						
	546.68	A	2	1305.03	5.00	1.19	1101.97	C	1	1051.68	2.00	1.04						
	603.95	C	2	864.976	3.00	1.79	1131.50	A	1	1080.24	2.00	1.44						
	669.70	A	2	959.197	3.00	1.62	1274.48	A	1	1216.99	2.00	1.27						
	701.57	B	2	1004.95	3.00	1.26	1451.52	B	1	692.65	1.00	1.83						
	754.62	A	1	1080.78	3.00	1.44	1590.55	A	0	759.49	1.00	2.04						
	800.57	B	1	1146.53	3.00	1.10	1722.68	C	0	822.27	1.00	1.33						
90	396.53	A	3	1893.20	10.00	1.21	901.31	A	1	2150.75	5.00	1.06	1687.39	B	0	1611.24	2.00	1.14
	455.19	A	3	2173.59	10.00	1.05	941.77	A	1	2247.96	5.00	1.02	1722.68	C	0	822.27	1.00	1.98
	490.18	A	3	1755.39	7.50	1.30	1021.21	A	1	1436.23	3.00	1.59	1941.12	C	0	926.52	1.00	1.76
	546.68	A	2	1957.54	7.50	1.17	1131.05	A	1	1619.14	3.00	1.41	2041.20	B	0	974.42	1.00	1.88
	611.75	A	2	2190.66	7.50	1.04	1156.68	B	1	1656.59	3.00	1.10	2422.52	C	0	1155.16	1.00	1.41
	669.00	A	2	1599.33	5.00	1.43	1274.48	A	1	1825.48	3.00	1.25						
	701.57	B	2	1675.63	5.00	1.09	1314.85	A	1	1883.08	3.00	1.21						
	754.62	A	1	1802.06	5.00	1.27	1434.39	C	1	1369.40	2.00	1.19						
	800.57	B	1	1146.53	3.00	1.60	1555.39	C	0	1484.35	2.00	1.10						
	844.20	A	1	2015.95	5.00	1.13	1590.55	A	0	1518.98	2.00	1.51						
120	333.81	A	4	4781.04	30.00	1.38	606.22	A	2	5787.47	20.00	1.14	906.45	B	1	4327.49	10.00	1.17
	370.73	A	4	5310.43	30.00	1.24	650.81	A	2	6214.31	20.00	1.06	955.86	B	1	4561.78	10.00	1.11
	403.68	A	3	5782.02	30.00	1.14	695.43	A	2	4980.52	15.00	1.33	999.77	B	1	4771.48	10.00	1.07
	451.73	A	3	6469.73	30.00	1.02	756.56	A	1	5417.55	15.00	1.22	1116.92	A	1	5332.83	10.00	1.24
	494.53	A	3	5901.45	25.00	1.12	794.25	A	1	5687.13	15.00	1.16	1393.91	A	1	4987.46	7.50	1.33
	545.47	A	2	6510.90	25.00	1.01	850.21	C	1	4057.79	10.00	1.03	1816.89	B	0	4335.35	5.00	1.17





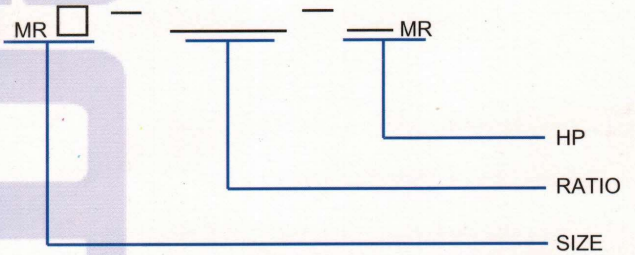


IN ORDER TO DEEP IMPROVING AND CREATING FOR NEW SERIES OF PLANETARY PRODUCTS, WE DEVELOPING HIGH PERFORMANCE PRODUCTS FOR AGITATOR FIELD. RIGID HOUSING WITH SPECIAL PLANETARY GEAR DESIGN MADES PERFECT QUALITY.



PERFORMANCE : HIGH TORQUE, SMALL BODY, LIGHT WEIGHT AND FIXED / VARIABLE SPEED RUNNING.

PRODUCTS DESIGNATION

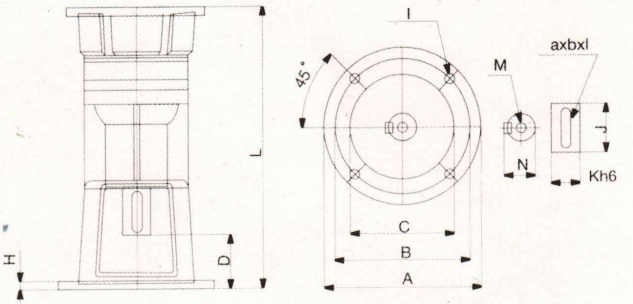


PRODUCTS CODE, RATIO, TORQUE&RATING REFER TO PAGE11,.12&13.

SPECIALIST PLANETARY AGITATOR GEAR REDUCER.

Type : MR





DIM. TABLE (mm)

SIZE	A	B	C	D	H	I	OUTPUT SHAFT					KEY		IEC MOTOR FRAME
							J	Kh6	M	N	a	b	l	
24	180	155	109	60	10	4 - 10	40	24	M8	27	8	7	30	63A-71B
32	210	185	146	75	12	4 - 12	50	32	M10	35	10	8	40	71B-90L
38	280	240	185	105	15	4 - 16	75	38	M16	41	10	8	65	71B-112M
50	280	240	185	86	15	4 - 16	75	50	M16	35.5	14	9	65	132L
55	350	310	240	120	20	4 - 16	90	55	M16	59	16	10	85	90L-160M
60	350	310	240	130	20	4 - 16	90	60	M20	64	18	11	85	90L-180M
80	490	430	340	150	25	4 - 22	114	80	BCD-55 3-N12	85	22	14	104	100LA-200L
90	490	430	340	150	25	4 - 22	114	90	BCD-55 3-M12	95	25	14	104	100LA-200L

1 STAGE		2 STAGE		3 STAGE		4 STAGE	
SIZE	L	SIZE	L	SIZE	L	SIZE	L
24	247	24	277	24	306	24	335
32	318	32	357	32	389	32	428
38	435	38	461	38	527	38	507
50	498	50	486	50	513	50	559
55	655	55	610	55	638	55	688
60	653	60	610	60	662	60	688
80	790	80	900	80	943	80	991
90	790	90	900	90	943	90	991





