



Engineering Motion >>>> For Better Tomorrow

In-Line Helical Gear Reducers

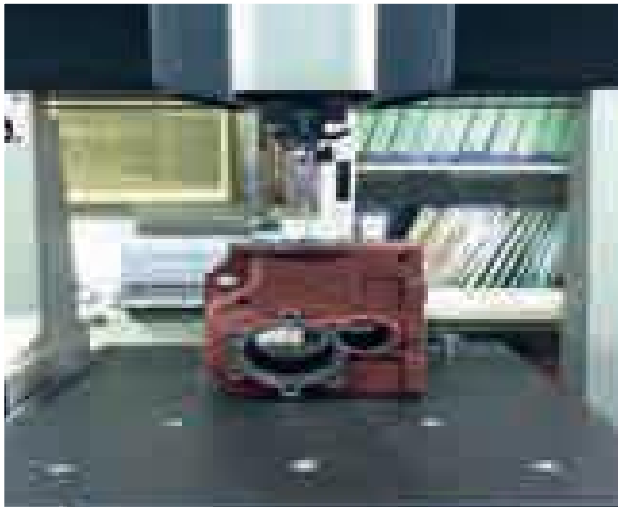
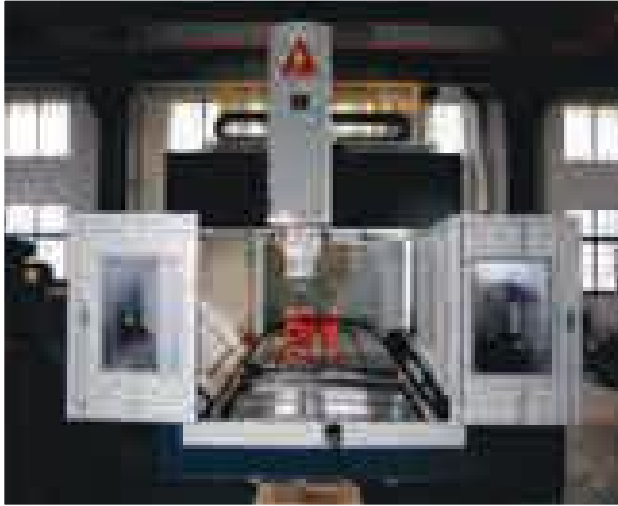


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1.1 In-line Helical Gear Reducers

Advantages

1

- 1>Design Concepts: The combination of standardization and modularization allows interchangeability with international leading brands, while keeping structure rigidity and compactness.
- 2>Energy Efficiency: Leveraging the advantage of high accuracy of helical gears, the reducers perform at 90% efficiency with higher stability and lower noise level.
- 3>Ratios Coverage: The ratio ranges between 1/1.3 ~ 1/27788, providing wide range of ratio accommodation, with 1-3 stages of reduction.
- 4>Loading Capacity: Available with power ranges from 1/4HP up to 150HP, depending on different requirements and applications.
- 5>Tensile Strength: Pinion and gears are made with 20CrMo alloy steel plus carburizing heat treatment to enhance performance; the input pinion is equipped with double bearing support to provide stability at high speed.
- 6>Complete Series: Vertical and horizontal mounting along various input mechanism ensure our products meet wide range of applications.
- 7>Installation Flexibility: All models are designed for a choice of mounting position (M1~M6) specified by customers.
- 8>Appearance Aesthetics: The reducers are designed with modern exterior while maintaining high rigidity.

1.2 Operation Manual

- This operation manual is to help you install and operate speed reducer correctly. To avoid damages to the speed reducers, proper installation and operation is very crucial. This manual also includes official recommendations on maintenance for an extended lifespan of speed reducers.
- Every FENNER speed reducer passed strict inspection and testing before being properly packaged for shipping. Upon receipt of the speed reducer, please check for any shortage or damage of parts during transit. Please be sure to contact Fenner for identification of responsible carrier and made record of the issue. We are committed to excellence in quality and devoted to solving problems for our clients.

I. Installation

1. Flexible couplings are preferred when input shaft connects directly to the motor; gear couplings are preferred on the output shaft's connection to the application.
2. Install on a stable base with good air ventilation; the accessibility of oil filling / draining should be considered.
3. The input shaft of the reducer and the motor shaft should be in alignment within the tolerance allowance.
4. After installation, please turn the input shaft manually first to check for any locking.
5. No-load running test should be performed first; any abnormality should be corrected prior to regular operation.

II. Lubrication

1. The first oil change should be performed after 500 hrs of operation; subsequent oil change is needed every 2,500 hrs of operation. Nevertheless, a regular check on oil level and conditions are recommended.
2. Please fill only with compatible specifications of oil and do not mix oil of different specifications in a single unit.
3. The interior of the reducer should be flushed and drained before filling with fresh oil.
4. Please shut the reducer immediately for inspection if the temperature rises above 80°C or any abnormal noise occurred. Restart only after the issues identified and cleared.
5. Lubricant recommendation: MOBIL Gear 632, SHELL Omala 320, MOBIL Mobilube HD80W-90, SHELL Spirax E.P 90.
6. Unless specified otherwise by the customer, every FENNER speed reducer is supplied with appropriate amount of lubrication according to different installation position before shipping. If customer prefers to fill in the lubricant oil post shipment, please follow the instruction section of this catalog.

III. Storage

1. If the speed reducer is not for immediate installation, please keep the unit away from humidity and heat sources. After extended period of storage, please contact our service personnel for instruction on restoring the original performance prior to installation.

IV. Attachments the parts on reducer's shaft

1. Notice: Avoid heavy impact on shafts! It may cause bearing damages and undermines bearing performances. If bearings are to be replaced, we recommend heating method, which heats the bearing above 80°C , that would allow a clear fit on the shafts and reduce the damage to the bearing. For the tolerance of shaft's diameter, please refer to the specification in catalog.
2. While installing the coupling, make sure to check the alignment of coupling and shaft of speed reducer properly to eliminate the damage on bearings and reduce to vibration frequency and abnormal wear.
3. To avoid overload on the bearings of output shaft, please refer to the OHL (overhung loading) in catalog. For exceeding axial load, please contact our service engineer for consultation.
4. The actual application of following factors such as input and output speed, direction of rotation, installation site and over axial and radial loading should be carefully examined.

V. Installation & Operation

1. The underlying factors should be taken into consideration:
 - * Ambient temperature below 40°C
 - * Location with good air ventilation
 - * Proper positions for oil plug and drain plug
 - * Sufficient space for periodical inspection, maintenance, and replacement
2. It is necessary for the unit to be installed on a flat, stable and rigid base for accurate alignment to prevent damages to the reducer's housing.
3. The suggested tolerance of flatness on base:
 - * For size 50 or smaller, < 0.1mm/m
 - * For size 60 or bigger, <0.2mm/m
4. To avoid the lubricant splash out during the transportation, breather plug with red pin inserted into air breathing hole. Please remove the red pin before start-up.
5. Before installation, please check the input horsepower and ratio to be the same as the punched name plate of reducer.

VI. Caution

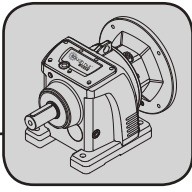
Caution! The power should be turned off before removal or replacement of the reducer.

1. Oil level and quality lubricant is key point of daily maintenance. Please refer to our suggestion to change the lubricant periodically according to operation frequency site situation.
2. Check the alignment of coupling, the tightness of chain, and nuts and keep the reducer away from excessive dust and grease externally .

General Problems & Improvements

The following lists are general problem situations. In case that other problems happen, please contact us directly to get more information.

CAUSE	REASON	IMPROVEMENT
I. Overheat	<ol style="list-style-type: none"> 1. Overload 2. Lubricant oil overfill or shortage 3. Improper lubricant oil 4. Extra friction on oil seal(lack of lubricant) 	<ol style="list-style-type: none"> 1. Adjust to proper loading 2. Add lubricant to the level of oil gauge 3. Chang proper lubricant oil 4. Lip lubricant at oil seal
II. Noise	<ol style="list-style-type: none"> 1. Consistent noise { improper gears contact; bearing damaged 2. Screaming noise { bearing gap too small; lubricant oil shortage 3. Inconsistent noise { some object insert; bearing damaged 	<ol style="list-style-type: none"> 1. { Repair gears; Replace bearing 2. { Replace bearing; Fill in lubricant oil 3. { Remove debris & replace lubricant oil: Replace bearing
III. Vibration	<ol style="list-style-type: none"> 1. Gear wear 2. Debris inside 3. Bearing worn-out or damaged 4. Bolt loose 	<ol style="list-style-type: none"> 1. Replace gear 2. Remove debris & replace lubricant oil 3. Replace bearing 4. Tighten bolt
IV. Oil Leakage	<ol style="list-style-type: none"> 1. Oil seal damage 2. Gasket damage 3. Loose drain plug 4. Loose covers or flange 	<ol style="list-style-type: none"> 1. Replace oil seal 2. Replace gasket 3. Tighten drain plug 4. Tighten the bolts
V. Input and Output Shaft Fail	<ol style="list-style-type: none"> 1. Gear-bound caused by overheat 2. Bearing damage 3. Debris between gears 	<ol style="list-style-type: none"> 1. Adjust or replace gears 2. Replace bearing 3. Remove debris; clean inside then replace lubricant oil
VI. Input shaft fail to drive output shaft	<ol style="list-style-type: none"> 1. Gear wear 2. Damage to key connecting gear and output shaft 3. Input shaft rupture 4. Output shaft rupture 	<ol style="list-style-type: none"> 1. Replace gears 2. Replace key 3. Replace input shaft 4. Replace output shaft
VII. Gear Worn-out	<ol style="list-style-type: none"> 1. Overload 2. Improper lubricant oil 3. Lubricant oil shortage 4. Excessive ambient temperature 	<ol style="list-style-type: none"> 1. Adjust to proper loading 2. Change proper lubricant oil 3. Refill lubricant oil 4. Ventilation improvement



Helical Gear Units

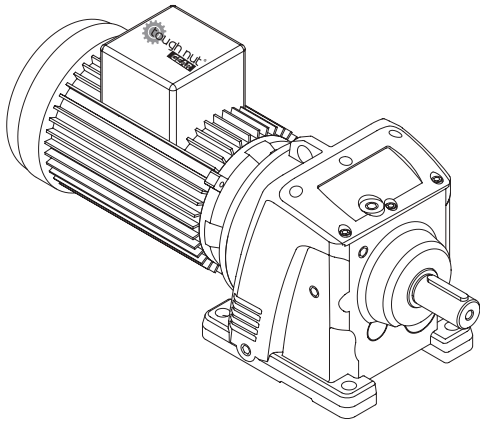
Variants

2.1 Variants

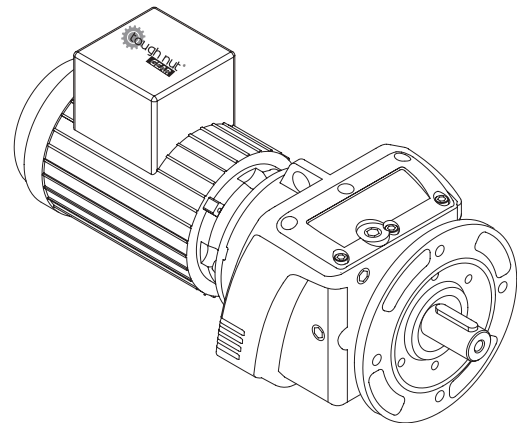
Couple with Motor

FH...

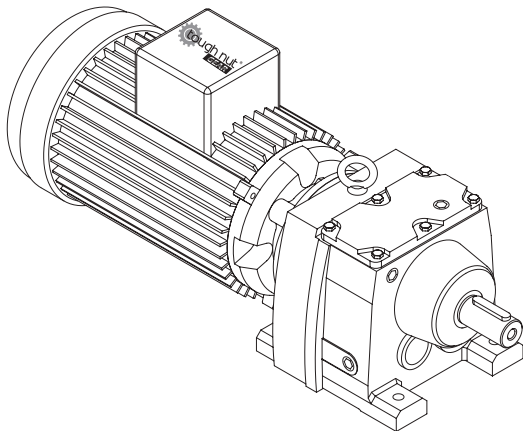
2



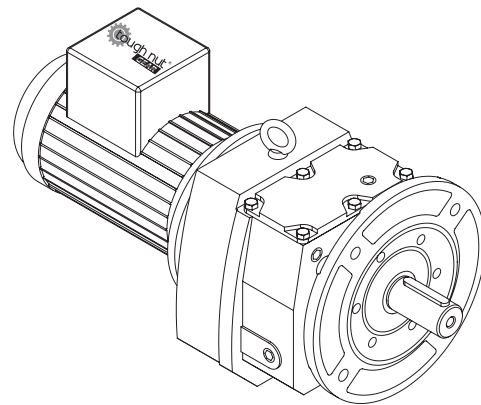
FLHM...



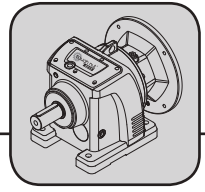
FLVM...



FMHM...

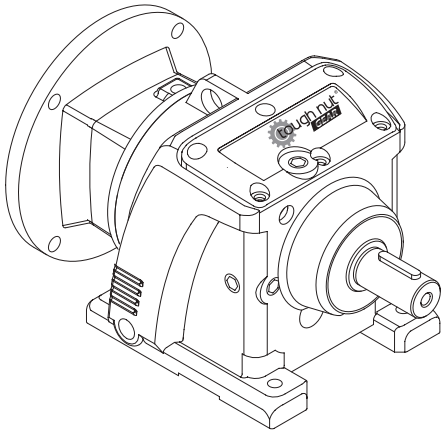


FMVM...

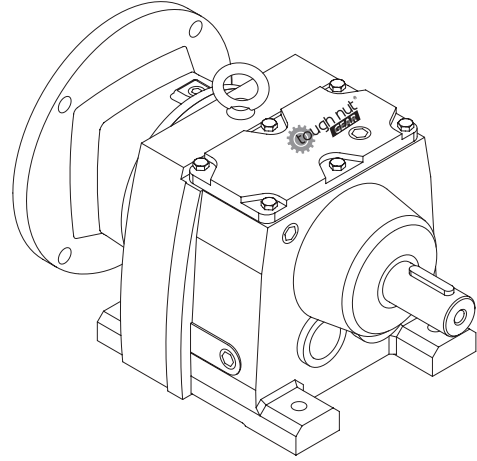


Input Flange

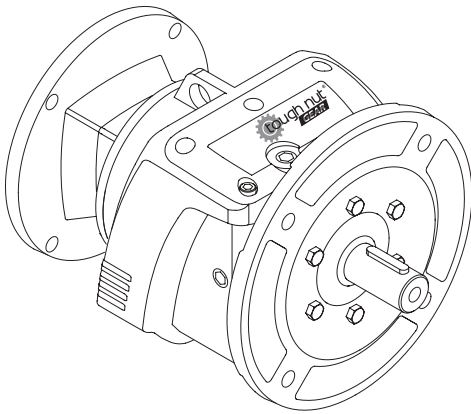
FH...



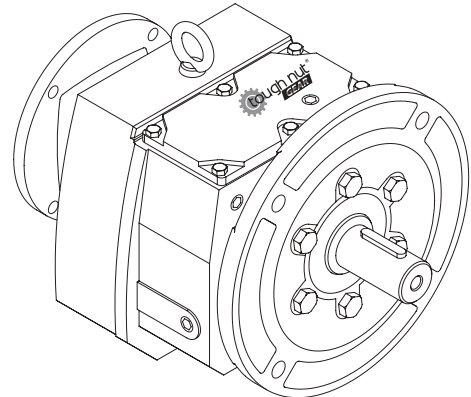
FLH-F...



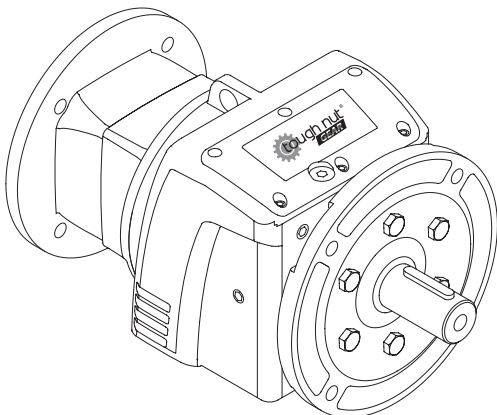
FMH-F...



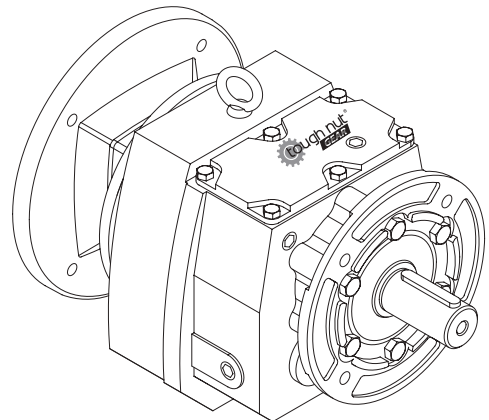
FLV-FL...



FMV-FL...

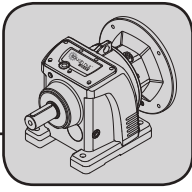


FLWF...



FMWF...

2

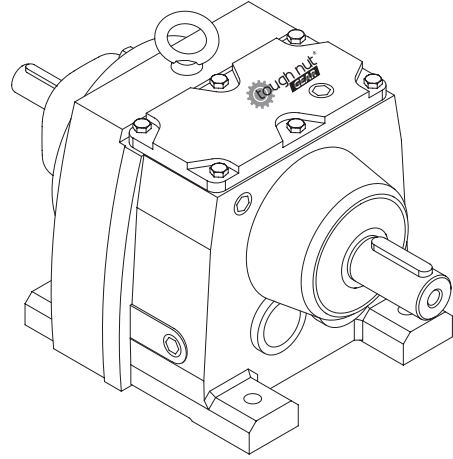
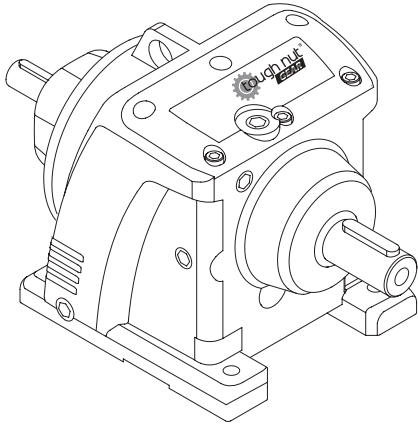


Helical Gear Units

Variants

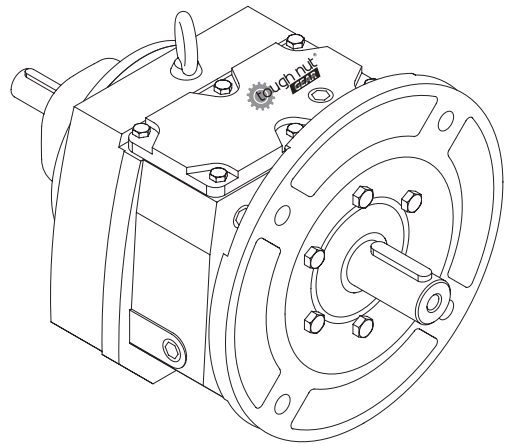
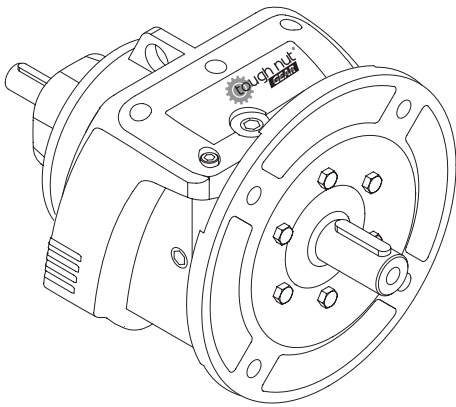
Solid Input Shaft

FH...



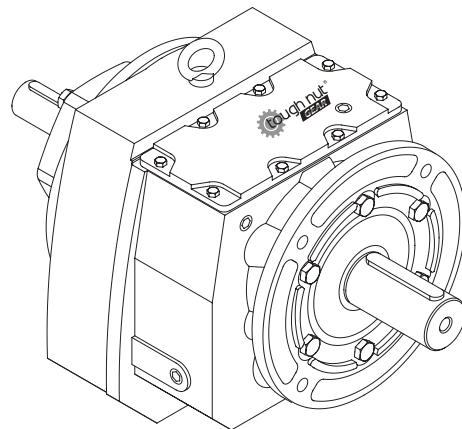
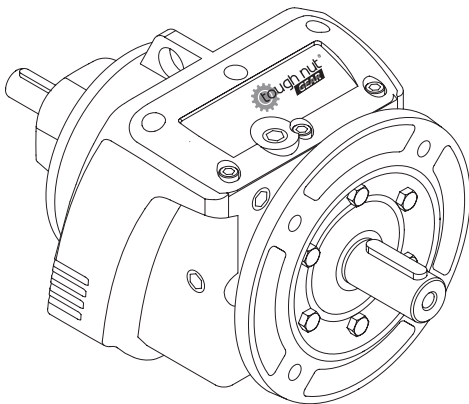
FLHD...

FMVD...



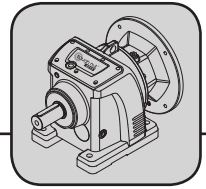
FLWD...

FMWD...

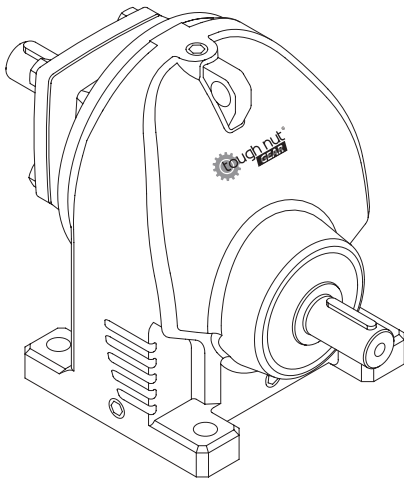


FLWD...

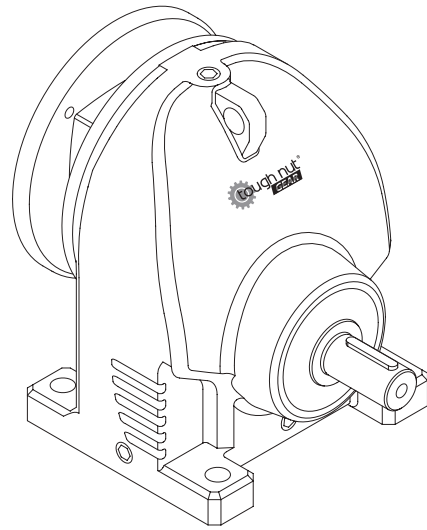
FMWD...



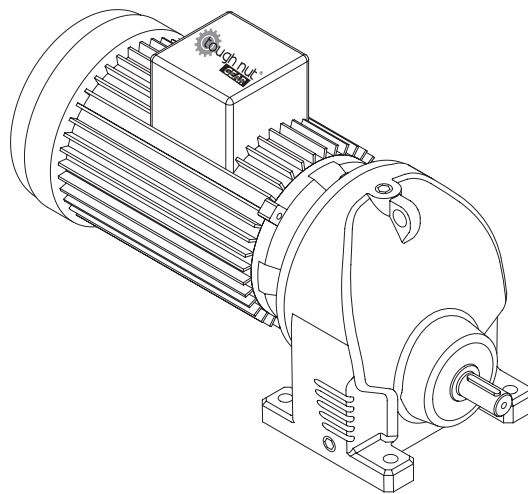
FH...



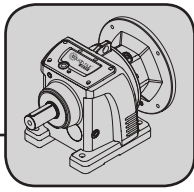
FXHD...



FXHF...



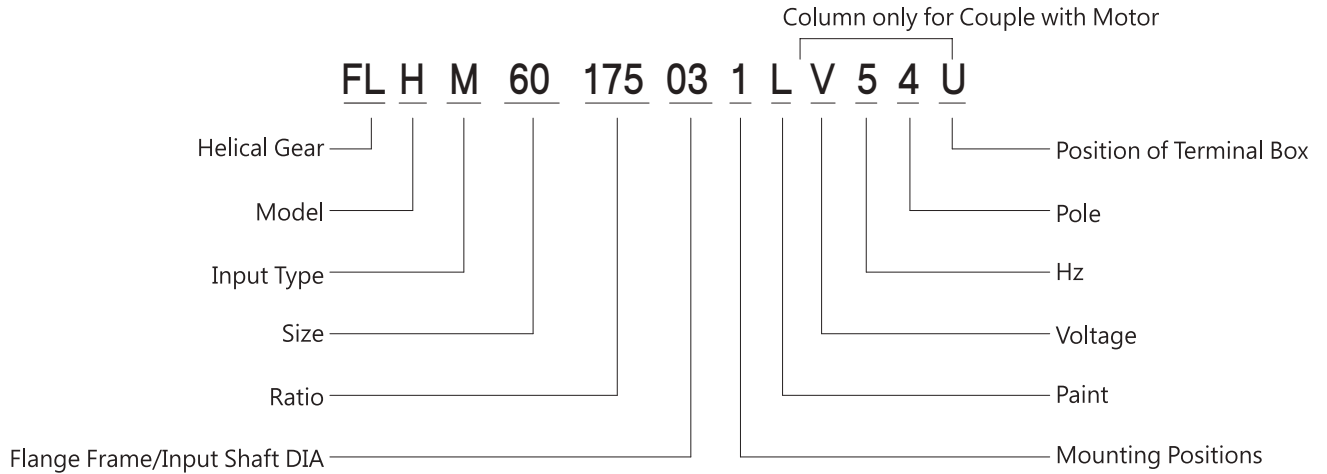
FXHM...



Helical Gear Units

Order Code for Helical Unit

2.2 Order Code



Model

- FXH (Foot Mounting)
- FLH (Foot Mounting)
- FLV (Flange Mounting)
- FMH (Foot Mounting)
- FMV (Flange Mounting)

Input Type

- F Input Flange IEC B5
- B Input Flange IEC B14
- D Solid Input Shaft
- M Couple With Motor

Size

- 20
- 25
- 30
- 35
- 35*
- 40
- 50
- 60
- 70
- 90
- 110
- 120

Ratio

- 004 : 1/4
- }
- 201 : 1/201

Flange Frame/ Input Shaft DIA

IEC Standard 4-Pole		Input Shaft DIA
QQ : 1/4HP	25 : 25HP	16 : Ø16
HH : 1/2HP	30 : 30HP	19 : Ø19
01 : 1HP	40 : 40HP	24 : Ø24
02 : 2HP	50 : 50HP	28 : Ø28
03 : 3HP	60 : 60HP	38 : Ø38
05 : 5HP	75 : 75HP	42 : Ø42
07 : 7.5HP	100 : 100HP	48 : Ø48
10 : 10HP	125 : 125HP	55 : Ø55
15 : 15HP	150 : 150HP	70 : Ø70
20 : 20HP		

Mounting Positions

M1、M2、M3、M4、M5、M6

Paint

L : Blue

Voltage

2 : 220/380	C : 220/400	H : 200/346
4 : 240/415	D : 230/400	K : 208/220
5 : 220/440	E : 230/440	M : 208/240
A : 220/230	F : 240/480	N : 380/660
B : 220/240	G : 120/208	V : 208~480

Hz

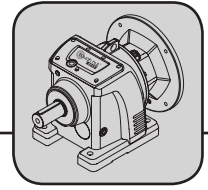
5 : 50Hz

Pole

- 2 : 2P
- 4 : 4P
- 6 : 6P
- 8 : 8P

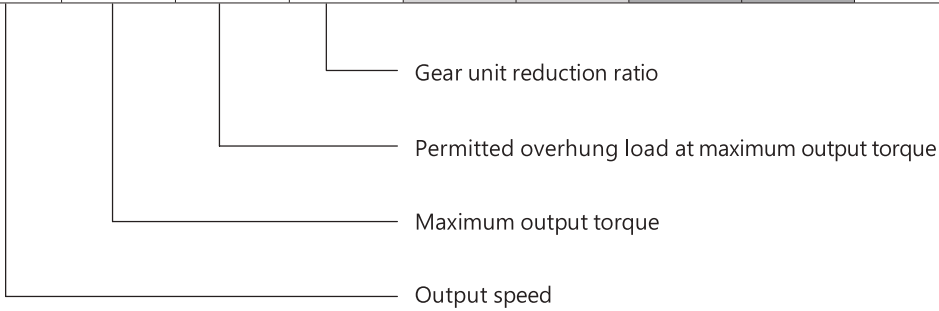
Position of Terminal Box

U、D、L、R



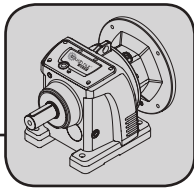
2.3 Input Combinations

FH40, ne=1400 1/min				750 Nm						Input shaft mm
na [1/min]	Mamax [Nm]	FRa [N]	i	71	80	90L	100L	112M	132S	
7	750	8620	194.80							Ø19
8	750	8620	170.05							
9	750	8620	153.87							
10	750	8620	140.70							
11	750	8620	124.34							
13	750	8620	109.54							
16	750	8620	89.80							
17	750	8620	84.62							
19	750	8100	73.05							
24	750	7320	57.73							
26	750	7060	53.24							
30	750	6670	46.90							
36	665	6100	39.31							



Standard

Input Flange / Solid Input Shaft - Standard
Couple with motor - Customization accepted
Please contact our customer service

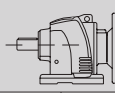
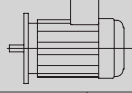


Helical Gear Units

Information on Selection Tables

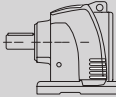

2.4 Selection Tables

FL/M/X..F/..M

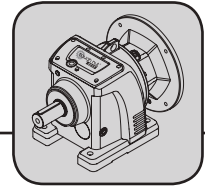
Pm [kW]	na [1/min]	Ma [Nm]	i	FRa [N]	fs			m [kg]
[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]

- [1] Rated power driving motor
- [2] Output speed
- [3] Output torque
- [4] Gear unit reduction ratio
- [5] Permissible overhung load output side
- [6] Service factor
- [7] Gear unit size
- [8] Motor type
- [9] Weight

FL/M/X..D

i	na [1/min]	Mamax [Nm]	Pe [kW]	FRa [N]	FRe [N]	 ... 	m [kg]	
[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]

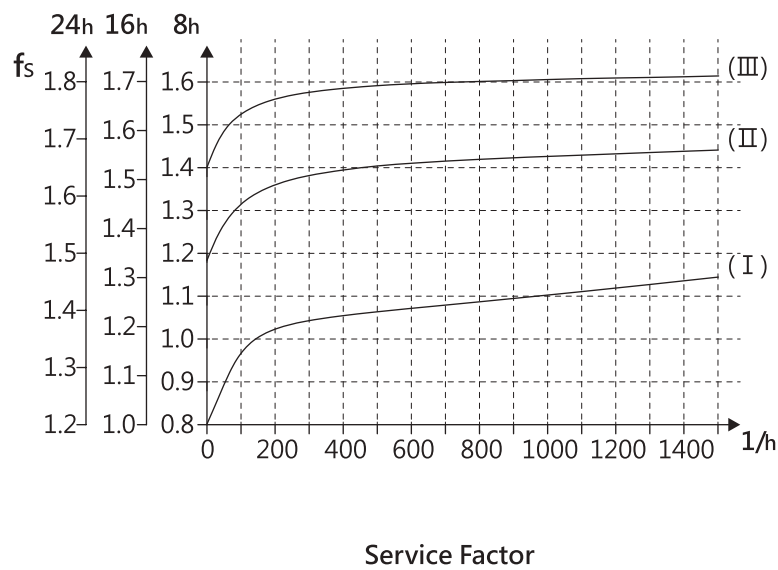
- [1] Gear unit reduction ratio
- [2] Output speed
- [3] Maximum permitted output torque
- [4] Calculated drive power of the gear unit
- [5] Permitted overhung load at maximum output torque
- [6] Permitted overhung load on the input side
- [7] Gear unit size
- [8] Input shaft diameter
- [9] Weight



2.5 Determining The Service Factor

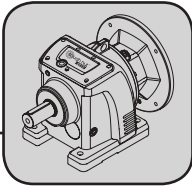
The service factor is determined along with the daily operating time (hours/day), operating condition (continuous or intermittent) and level of load; for a proper gear selection, please determine the service factor accordingly.

$$M_a \times f_s \leq M_{max}$$



- Load Classification**
- I Light shocks : mass acceleration factor ≤ 0.2
 - II Moderate shocks : mass acceleration factor ≤ 3
 - III Heavy shocks : mass acceleration factor ≤ 10

$$\text{Mass acceleration factor} = \frac{\text{all exterior moments of inertia}}{\text{moments of inertia drive motors}}$$



Helical Gear Units

Determining the Service Factor

2

[All exterior moments of inertia] - recalculated to motor speed, formula

$$J_x = J \times \left(\frac{n}{n_M} \right)^2$$

J_x : mass moment of inertia scaled down to the motor shaft

J : mass moment of inertia with reference to the output speed of the gear unit

n : output speed of the gear unit

n_M : motor speed

Calculation of service factor

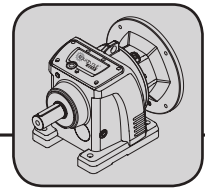
$$f_s = \frac{M_{amax}}{M_a}$$

M_{amax} : the maximum permitted continuous torque

M_a : output torque of the gear unit

EX

If the mass acceleration factor is 2.5 (Moderate shocks II), the operating time is 14 hours per day in an intermittent condition by 300 times per hour. We can acquire $f_s=1.51$ from the f_s chart; according to selection tables, we will know to select the gear unit with $f_s \geq 1.51$.



2.6 Tolerances

Shaft heights

The following tolerances apply to the indicated dimensions:

h	≤ 250 mm	→ -0.5 mm
h	> 250 mm	→ -1 mm

Foot-mounted gear units: Check the mounted motor because it may project below the mounting surface.

Shaft ends

Diameter tolerance:

∅	≤ 50 mm	→ k6
∅	> 50 mm	→ m6

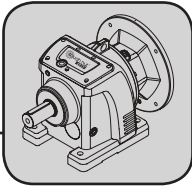
Center bores

∅	> 24...30 mm	→ M10	∅	> 50...85 mm	→ M20
∅	> 30...38 mm	→ M12	∅	> 85...130 mm	→ M24
∅	> 38...50 mm	→ M16			

Output Flanges

Centering shoulder tolerance:

∅	h7
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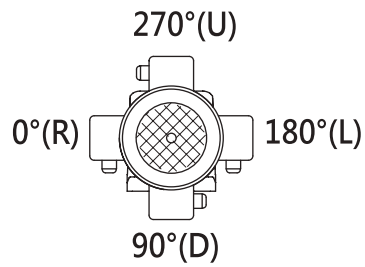
Helical Gear Units
Mounting Position

2.7 Mounting Positions

FH-F20~120

Position of Terminal Box

Standard position "U", unless specific requirements



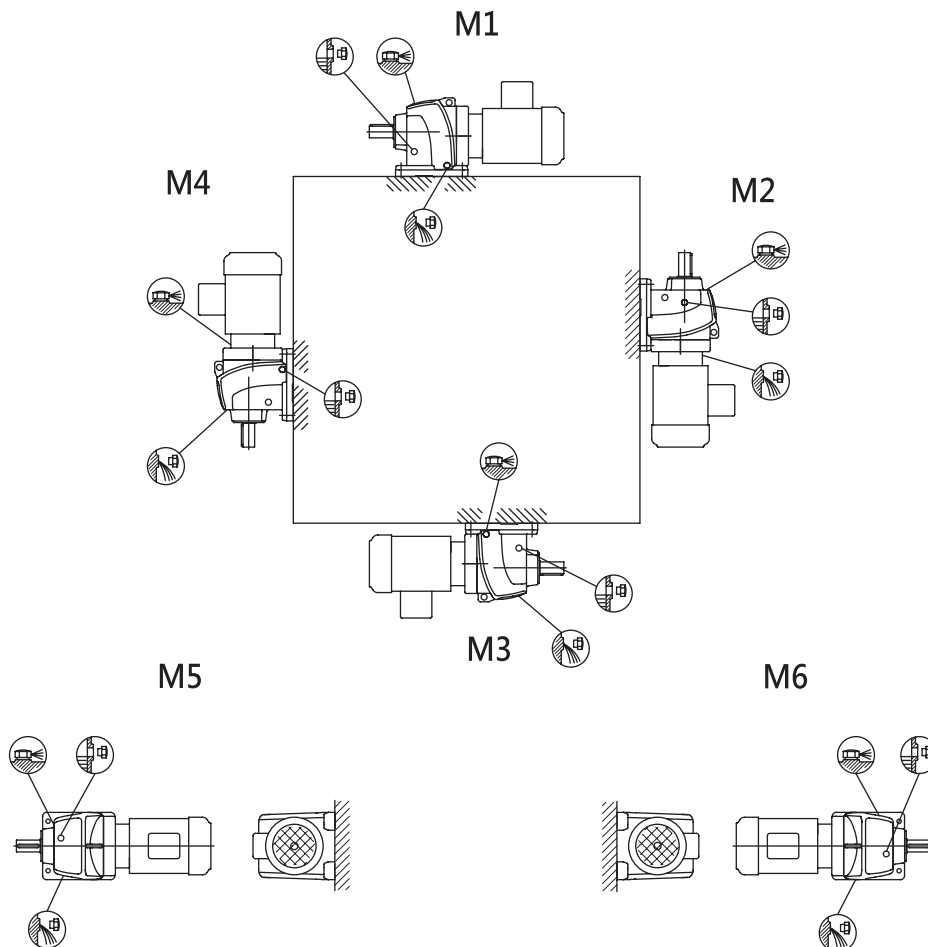
Breather

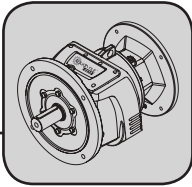


Oil Drain



Oil Level

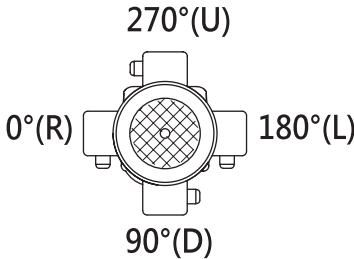




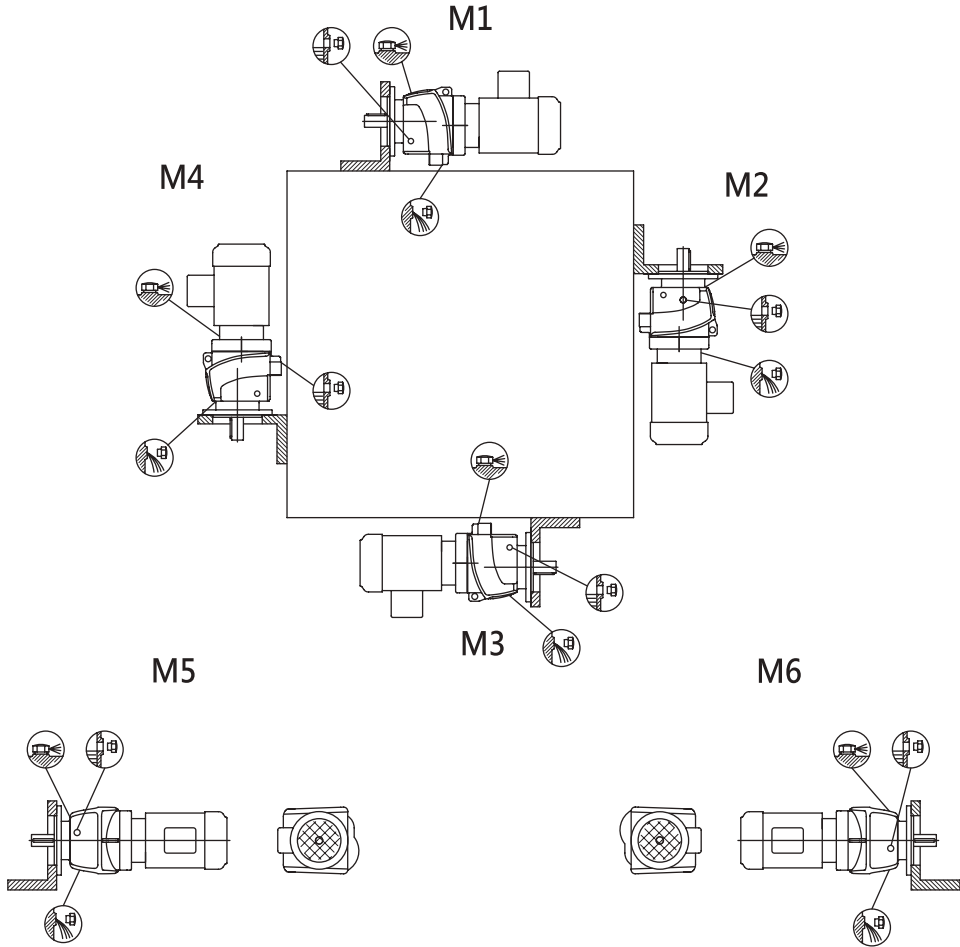
FH-FL 20~120

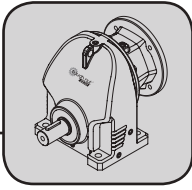
Position of Terminal Box

Standard position "U", unless specific requirements



-  Breather
-  Oil Drain
-  Oil Level





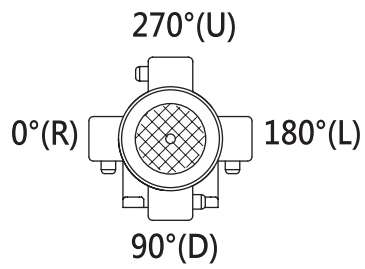
Helical Gear Units

Mounting Position

FXH 20~60

Position of Terminal Box

Standard position "U", unless specific requirements



Breather

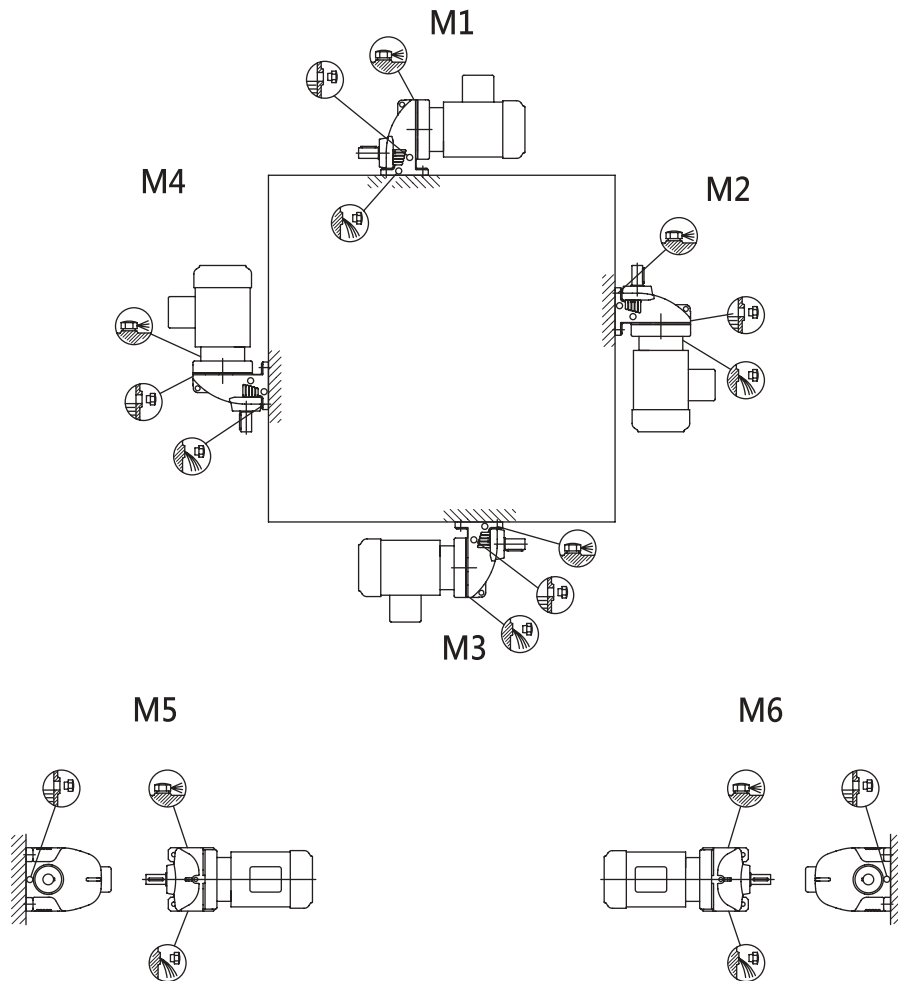


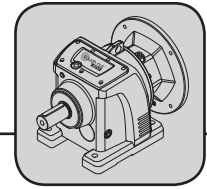
Oil Drain



Oil Level

2





2.8 Lubricant Volume

FH-F type

Gearunits	OilVolume(liters)					
	M1	M2	M3	M4	M5	M6
FH20	0.25	0.55	0.35	0.55	0.35	0.35
FH25	0.30	0.85	0.95	1.05	0.75	0.95
FH30	0.70	1.60	1.50	1.65	1.50	1.50
FH35	0.80	1.90	1.70	2.10	1.70	1.70
FH35*	1.10	2.60	2.80	3.20	1.80	2.00
FH40	1.20	3.80	3.60	4.10	2.50	3.40
FH50	2.30	6.70	7.20	7.70	6.30	6.50
FH60	4.60	11.70	11.70	13.40	11.30	11.70
FH70	6.00	16.30	16.90	19.20	13.20	15.90
FH90	10.00	28.00	29.50	31.50	25.00	25.00
FH110	15.40	46.50	48.00	52.00	39.50	41.00
FH120	27.00	82.00	78.00	88.00	66.00	69.00

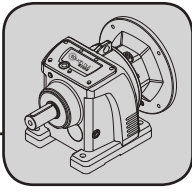
FH-FL type

Gearunits	OilVolume(liters)					
	M1	M2	M3	M4	M5	M6
FH20	0.25	0.55	0.35	0.55	0.35	0.35
FH25	0.35	0.90	0.20	1.05	0.75	0.95
FH30	0.65	1.60	1.50	1.65	1.50	1.50
FH35	0.80	1.80	1.70	2.00	1.70	1.70
FH35*	1.20	2.70	2.70	2.60	1.90	2.10
FH40	1.20	3.80	3.30	4.10	2.40	3.00
FH50	2.40	6.80	7.10	7.70	6.30	6.40
FH60	5.10	11.90	11.20	14.00	11.20	11.80
FH70	6.30	15.90	17.00	19.20	13.10	15.90
FH90	9.50	27.00	29.00	32.50	25.00	25.00
FH110	16.40	47.00	48.00	52.00	42.00	42.00
FH120	26.00	82.00	78.00	88.00	65.00	71.00

FX type

Gear units	Oil Volume (liters)					
	M1	M2	M3	M4	M5	M6
FX20	0.60	0.80	1.30	1.30	0.90	0.90
FX25	0.80	0.80	1.70	1.90	1.10	1.10
FX30	1.10	1.50	2.60	2.70	1.60	1.60
FX40	1.70	2.50	4.80	4.80	2.90	2.90
FX50	2.10	3.40	7.40	7.00	4.80	4.80
FX60	3.90	5.60	11.60	11.90	7.70	7.70

* Recommendations



Helical Gear Units
Lubricant Selection

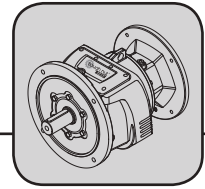
Lubricant Volume & Lubricant Selection

Standard Load, Input 600 RPM or more.				
Temperature(C°)	中油 CPC	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 Load, Input 600 RPM or more.				
Temperature(C°)	中油 CPC	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



output RPM<100R.P.M, please use CPC HD-220 E.P. lubricant or equivalent

output PRM<100R.P.M, please use CPC HD-320 E.P. lubricant or equivalent



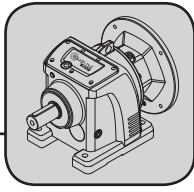
3.1 1400Rpm Input Combinations

FH Series

FH20 , ne=1400 1/min								85 Nm
na [1/min]	Mamax [Nm]	FRa [N]	i	56	63	71	80	Input shaft mm
 1								
18	85	1770	79.85					Ø16
20	85	1770	68.70					
24	85	1770	59.23					
28	85	1770	49.90					
31	85	1770	45.45					
35	85	1770	39.61					
40	85	1770	35.17					
48	85	1630	29.36					
57	85	1480	24.76					
71	85	1290	19.69					
 2								
93	71	1270	15.02					Ø16
111	67	1210	12.65					
139	61	1130	10.04					
188	54	1030	7.44					
280	47	920	4.99					
346	43	860	4.05					



3

Standard
 Input Flange / Solid Input Shaft - Standard
 Not available



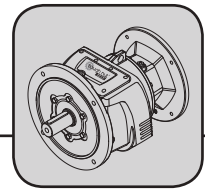
Helical Gear Units
Input Combinations



1400 Input Rpm

FH25 , ne=1400 1/min								200 Nm
na [1/min]	Mamax [Nm]	FRa [N]	i	63	71	80	90L	Input shaft mm
								
10	200	4950	138.36					Ø16
12	200	4950	119.28					
14	200	4950	100.51					
15	200	4950	91.53					
18	200	4920	79.77					
18	200	4840	76.66					
20	200	4660	69.81					
23	200	4410	60.84					
26	200	4200	54.03					
27	200	4060	52.24					
32	200	3770	44.01					
35	200	3630	40.08					Ø19
40	200	3410	34.93					
45	200	3240	31.02					
54	200	2990	25.89					
								
57	197	3010	24.50					Ø19
63	193	2890	22.09					
70	189	2780	19.95					
78	188	2650	17.89					
89	189	2500	15.75					
107	181	2330	13.07					
119	175	2250	11.73					
140	166	2130	10.02					
165	157	2020	8.50					
208	133	1880	6.74					
243	126	1780	5.75					
287	119	1690	4.88					
350	112	1580	4.00					

3

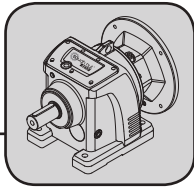
Standard
 Input Flange / Solid Input Shaft - Standard
 Not available



FH30 , ne=1400 1/min										300 Nm
na [1/min]	Mamax [Nm]	FRa [N]	i	63	71	80	90L	100L	112M	Input shaft mm
										
8	300	5420	178.83							Ø16
9	300	5420	160.40							
10	300	5420	138.19							
11	300	5420	126.22							
13	300	5420	110.34							
14	300	5420	99.46							
16	300	5420	89.82							
17	300	5420	80.58							
18	300	5420	77.84							
20	300	5420	70.91							
22	300	5420	63.37							
24	300	5420	58.84							
26	300	5420	52.84							
31	300	5420	45.13							
34	300	5420	41.51							
38	300	5420	37.28							
44	300	4900	31.83							
51	300	4570	27.19							
56	300	4400	25.01							
62	300	4200	22.46							
										
57	300	4620	24.70							
61	300	4480	23.02							
68	300	4260	20.49							
76	300	4070	18.37							
92	300	3740	15.18							
124	285	3330	11.27							
174	255	2980	8.06							
206	215	2760	6.79							
288	191	2470	4.85							
351	178	2310	3.99							

3



Standard
 Input Flange / Solid Input Shaft - Standard
 Not available



Helical Gear Units

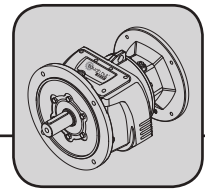
Input Combinations

1400 Input Rpm

FH35 , ne=1400 1/min										450 Nm
na [1/min]	Mamax [Nm]	FRa [N]	i	63	71	80	90L	100L	112M	Input shaft mm
										
8	450	7110	182.99							Ø16
9	450	7110	164.13							
10	450	7110	141.40							
11	450	7110	129.16							
12	450	7110	112.90							
14	450	7110	101.77							
15	450	7110	91.91							
17	450	6920	82.45							
18	450	6830	79.65							
19	450	6560	72.56							
22	450	6250	64.84							
23	450	6060	60.21							
26	450	5780	54.07							
30	450	5390	46.18							
33	450	5190	42.48							
37	439	4990	38.14							
43	363	4640	32.33							
51	345	4400	27.61							
55	335	4280	25.40							
61	324	4130	22.81							
										
55	382	4350	25.27							Ø19
59	373	4250	23.55							
67	359	4090	20.96							
74	346	3940	18.80							
90	325	3700	15.53							
121	294	3350	11.53							
170	263	3000	8.24							
203	217	2770	6.89							Ø24
284	194	2480	4.93							
345	182	2320	4.06							

3

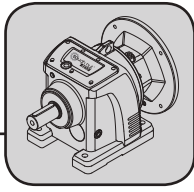
Standard
 Input Flange / Solid Input Shaft - Standard
 Not available



FH35* , ne=1400 1/min										600 Nm
na [1/min]	Mamax [Nm]	FRa [N]	i	63	71	80	90L	100L	112M	Input shaft mm
7	600	7560	199.88							Ø19
8	600	7560	169.10							
9	600	7560	151.03							
10	600	7560	140.75							
11	600	7560	125.28							
12	600	7560	112.34							
14	600	7560	98.69							
15	600	7560	92.80							
18	600	7390	78.59							
20	600	6980	68.90							
22	600	6320	63.07							
24	600	6480	58.23							
27	600	6170	52.21							
31	600	5820	45.87							
34	500	5570	41.22							
36	490	5460	38.75							
44	560	5070	32.02							
49	440	4940	28.77							
61	500	4540	22.90							
58	510	4620	24.14							Ø19
66	490	4430	21.33							
74	470	4250	18.79							
91	440	3980	15.41							Ø24
112	410	3710	12.53							
141	380	3430	9.90							
231	260	2940	6.06							
267	250	2800	5.23							
338	230	2590	4.14							

3



Standard
 Input Flange / Solid Input Shaft - Standard
 Not available



Helical Gear Units

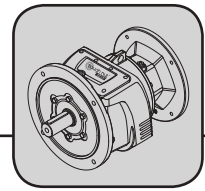
Input Combinations

1400 Input Rpm

FH40 , ne=1400 1/min										750 Nm
na [1/min]	Mamax [Nm]	FRa [N]	i	71	80	90L	100L	112M	132S	Input shaft mm
										
7	750	8620	194.80							Ø19
8	750	8620	170.05							
9	750	8620	153.87							
10	750	8620	140.70							
11	750	8620	124.34							
13	750	8620	109.54							
16	750	8620	89.80							
17	750	8620	84.62							
19	750	8100	73.05							
24	750	7320	57.73							
26	750	7060	53.24							
30	750	6670	46.90							
36	665	6100	39.31							
39	655	5980	36.23							
44	625	5700	31.97							
55	575	5270	25.27						Ø24	
										
60	660	5080	23.31							Ø19
77	605	4670	18.08							Ø24
94	570	4370	14.83							Ø24
106	545	4200	13.21							Ø38
118	525	4050	11.85							
128	515	3940	10.91							
152	485	3730	9.21							
242	350	3220	5.78							
293	330	3020	4.78							
347	310	2860	4.03							

3

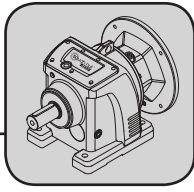
Standard
 Input Flange / Solid Input Shaft - Standard
 Not available



FH50 , ne=1400 1/min											1550 Nm
na [1/min]	Mamax [Nm]	FRa [N]	i	80	90L	100L	112M	132S	132M	160M	Input shaft mm
7	1550	16900	201.38								Ø19
8	1550	16900	179.70								
9	1550	16900	161.11								
10	1550	16900	137.42								
11	1550	16900	122.17								
12	1550	16900	112.52								
16	1550	16900	87.27								
20	1485	16900	71.60								
22	1430	16900	63.77								
23	1415	16900	61.54								
26	1360	16900	54.81								
28	1310	16500	49.16								
31	1275	16100	45.27								
37	1205	15200	38.20								
44	950	14400	31.73								
58	870	13100	24.29								
70	815	12300	20.06								
61	1015	12800	22.83								Ø38
71	970	12200	19.83								
80	930	11700	17.51								
92	890	11200	15.29								Ø42
108	840	10600	12.98								
124	805	10100	11.33								
131	785	9930	10.66								
153	750	9440	9.15								
207	570	8590	6.78								
243	540	8130	5.75								
296	505	7610	4.73								
345	480	7240	4.06								

3

Standard
 Input Flange / Solid Input Shaft - Standard
 Not available



Helical Gear Units

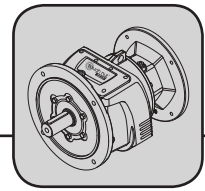
Input Combinations



1400 Input Rpm

FH60 , ne=1400 1/min											3000 Nm
na [1/min]	Mamax [Nm]	FRa [N]	i	100L	112M	132S	132M	160M	160L	180M	Input shaft mm
3											
7	3000	18100	199.06								Ø28
8	3000	18100	181.06								
8	3000	18100	166.33								
10	3000	18100	144.53								
11	3000	18100	127.61								
13	3000	18100	111.42								
14	3000	18100	97.76								
15	3000	18100	94.59								
16	3000	18100	85.35								
17	3000	18100	82.59								
18	3000	18100	77.70								
19	3000	18100	72.46								
21	3000	18100	66.71								
22	3000	18100	63.27								
24	3000	18100	59.52								
27	3000	18100	51.10								
31	2850	17500	44.57								
37	2760	16400	37.84								
48	2525	15000	28.98								
55	2415	14300	25.31								
3											
42	2785	16700	33.00								Ø42
48	2720	15800	29.10								
66	2570	14000	21.23								Ø48
83	2545	12600	16.96								
103	2375	11700	13.56								
140	2145	10500	10.00								
165	1670	9980	8.49								
206	1545	9260	6.78								
258	1435	8590	5.42								
350	1300	7760	4.00								

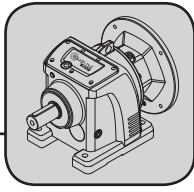
3

Standard
 Input Flange / Solid Input Shaft - Standard
 Not available



FH70 , ne=1400 1/min													4300 Nm
na [1/min]	Mamax [Nm]	FRa [N]	i	132S	132M	160M	160L	180M	180L	200L	225S	225M	Input shaft mm
													
12	4300	29500	115.50										Ø38
13	4300	29500	106.76										
14	4300	29500	103.02										
16	4300	29500	86.50										
18	4300	28600	79.95										
21	4300	26400	68.27										
22	4300	25700	62.90										Ø42
26	4300	23600	53.71										
26	4300	23900	53.00										
31	4300	21800	44.50										Ø48
35	4300	20800	39.52										
41	4130	19500	34.23										
48	3805	18500	29.23										
55	3745	17700	25.52										
64	3450	16800	21.79										
107	2600	14200	13.09										
													
57	3795	17400	24.40										Ø48
64	3650	16700	21.77										
97	3090	14600	14.38										
134	2860	13100	10.44										
311	1820	9980	4.50										
350	1755	9600	4.00										

Standard
 Input Flange / Solid Input Shaft - Standard
 Not available



Helical Gear Units

Input Combinations

1400 Input Rpm

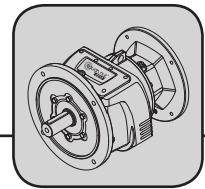
FH90 , ne=1400 1/min												7000 Nm
na [1/min]	Mamax [Nm]	FRa [N]	i	160M	160L	180M	180L	200L	225S	225M	250M	Input shaft mm
12	7000	37500	117.25									Ø42
13	7000	37500	107.80									
14	7000	37500	99.66									
15	7000	37500	91.63									
18	7000	37400	79.05									
20	7000	35600	70.35									
24	7000	32900	59.14									Ø48
26	7000	31500	54.38									
28	7000	29800	50.13									
31	7000	28600	44.49									
32	7000	27700	43.25									
40	7000	25000	35.39									
43	7000	24100	32.81									Ø55
58	6250	20500	24.24									
68	5930	19500	20.68									
96	5280	17300	14.60									
60	2790	28500	23.45									Ø42
65	2870	27400	21.56									
82	2770	24900	17.15									
94	4330	21000	14.96									Ø55
102	4250	20200	13.75									
138	4470	17100	10.12									
174	3710	16400	8.05									
288	2270	15000	4.87									
347	2220	13900	4.04									



3

Standard

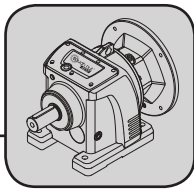
Input Flange / Solid Input Shaft - Standard

Not available



FH110 , ne=1400 1/min														13000 Nm
na [1/min]	Mamax [Nm]	FRa [N]	i	160M	160L	180M	180L	200L	225S	225M	250M	280S	280M	Input shaft mm
														
12	13000	62700	117.29											Ø42
13	13000	62700	109.03											
14	13000	62700	99.44											Ø48
16	13000	62700	89.86											
17	13000	62700	83.30											
20	13000	62700	70.80											
23	13000	61300	60.38											
28	12990	56800	50.49											Ø55
31	12500	54600	44.98											
34	12190	53200	41.70											
40	11550	50400	35.44											
46	10950	47800	30.23											Ø70
55	10320	45100	25.27											
70	9540	41700	19.99											
														
90	8785	38400	15.62											Ø70
105	8335	36400	13.32											
137	7460	33400	10.24											
280	5875	26300	5.00											
337	5525	24700	4.16											

Standard
 Input Flange / Solid Input Shaft - Standard
 Not available



Helical Gear Units

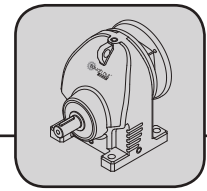
Input Combinations

1400 Input Rpm

FH120 , ne=1400 1/min															18000 Nm
na [1/min]	Mamax [Nm]	FRa [N]	i	160M	160L	180M	180L	200L	225S	225M	250M	280S	280M	315S	Input shaft mm
8	18000	88200	178.17												Ø42
8	18000	88200	169.42												
9	18000	88200	158.37												
10	18000	88200	139.60												
12	18000	88200	121.56												Ø48
13	18000	86000	109.89												
14	18000	83400	101.64												
16	18000	78700	88.17												
17	18000	75800	80.58												
20	18000	71400	69.80												Ø55
23	18000	67300	60.56												
26	18000	61700	53.92												
29	18000	58900	48.52												
32	18000	56200	43.86												Ø70
40	18000	50800	35.19												
50	16900	46800	27.86												
66	15400	42700	21.19												
59	18000	44500	23.78												Ø55
70	17400	41400	19.89												Ø70
89	16100	38400	15.77												
103	15400	36600	13.66												
135	14000	33400	10.39												
275	9600	26500	5.10												
356	7600	25700	3.93												

3

Standard
 Input Flange / Solid Input Shaft - Standard
 Not available



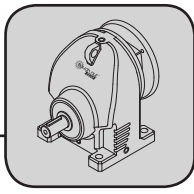
FXH Series

FXH20 , ne=1400 1/min										65Nm
na [1/min]	Mamax [Nm]	FRa [N]	i	63	71	80	90L	100L	112M	Input shaft mm
256	37	2240	5.47							Ø19
287	38	2150	4.88							
308	65	720	4.55							
346	65	920	4.05							
386	65	360	3.63							
439	64	220	3.19							
467	62	215	3.00							
628	53	195	2.23							
881	43	175	1.59							Ø24
1069	42	165	1.31							

FXH25 , ne=1400 1/min										96Nm
na [1/min]	Mamax [Nm]	FRa [N]	i	63	71	80	90L	100L	112M	Input shaft mm
223	43	2790	6.27							Ø19
256	75	2070	5.47							
283	75	1530	4.95							
309	82	1430	4.53							
398	87	570	3.52							
484	96	240	2.89							
515	89	235	2.72							Ø24
596	82	220	2.35							
753	74	205	1.86							
864	66	195	1.62							
1000	61	185	1.4							

FXH30 , ne=1400 1/min									169Nm
na [1/min]	Mamax [Nm]	FRa [N]	i	80	90L	100L	112M	132S	Input shaft mm
173	56	5410	8.09						Ø19
187	54	5290	7.50						
209	102	4100	6.69						
233	105	3920	6.00						
273	103	3540	5.12						
295	122	2160	4.74						Ø24
308	133	1780	4.55						
334	143	1170	4.19						
373	153	740	3.75						
431	169	390	3.25						Ø38
524	132	360	2.67						
588	135	350	2.38						
657	130	335	2.13						
714	115	325	1.96						
843	103	310	1.66						

Standard
 Input Flange / Solid Input Shaft - Standard
 Not available



Helical Gear Units

Input Combinations

1400 Input Rpm

FXH40 , ne=1400 1/min										305 Nm
na [1/min]	Mamax [Nm]	FRa [N]	i	100L	112M	132S	132M	160M	160L	Input shaft mmmm
255	212	3620	5.50							Ø28
289	216	3150	4.85							
316	289	1220	4.43							
371	305	940	3.77							Ø38
395	300	500	3.54							
439	284	470	3.19							
495	267	450	2.83							Ø42
556	251	430	2.52							
619	236	420	2.26							
654	229	405	2.14							
686	235	400	2.04							
838	197	375	1.67							

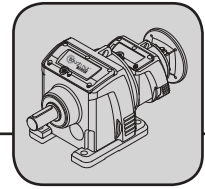
FXH50 , ne=1400 1/min												525 Nm	
na [1/min]	Mamax [Nm]	FRa [N]	i	100L	112M	132S	132M	160M	160L	180M	180L	200L	Input shaft mm
248	375	7420	5.65										Ø28
282	400	6390	4.96										Ø38
317	525	3720	4.42										Ø42
367	525	4070	3.81										
402	525	2380	3.48										Ø48
456	525	2920	3.07										
522	525	810	2.68										Ø48
603	490	750	2.32										
622	465	740	2.25										
660	465	730	2.12										
741	437	700	1.89										
819	454	680	1.71										

FXH60 , ne=1400 1/min													810 Nm	
na [1/min]	Mamax [Nm]	FRa [N]	i	100L	112M	132S	132M	160M	160L	180M	180L	200L	225S	Input shaft mm
219	415	8530	6.38											Ø28
255	430	7940	5.50											Ø38
286	685	5030	4.90											Ø42
339	795	2450	4.13											
415	785	1330	3.37											Ø48
449	810	1260	3.12											
609	705	810	2.30											
733	630	780	1.91											
1007	510	670	1.39											





Standard

Input Flange / Solid Input Shaft - Standard

Not available

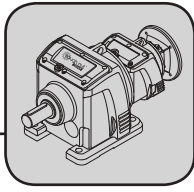


Double Reduction

FH30 FH25 , ne=1400 1/min				300 Nm		
na [1/min]	Mamax [Nm]	FRa [N]	i	63	71	80
 3  3						
0.10	300	5420	13761			
0.11	300	5420	12428			
0.12	300	5420	11863			
0.13	300	5420	10714			
0.15	300	5420	9103			
0.18	300	5420	7933			
0.20	300	5420	6943			
0.23	300	5420	6051			
0.26	300	5420	5373			
0.29	300	5420	4853			
0.32	300	5420	4378			
0.35	300	5420	3987			
0.40	300	5420	3474			
0.45	300	5420	3085			
0.54	300	5420	2575			
 2  3						
0.49	300	5420	2835			
0.55	300	5420	2542			
0.57	300	5420	2444			
0.64	300	5420	2191			
0.83	300	5420	1682			
0.96	300	5420	1465			
1.09	300	5420	1283			
1.25	300	5420	1118			
1.26	300	5420	1107			
1.41	300	5420	993			
1.73	300	5420	809			
1.90	300	5420	736			
2.18	300	5420	642			
2.46	300	5420	570			
2.94	300	5420	476			

3

Standard
 Input Flange / Solid Input Shaft - Standard
 Not available



Helical Gear Units

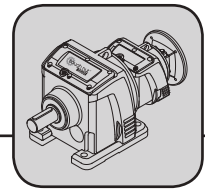
Input Combinations



1400 Input Rpm

FH30 FH25, ne=1400 1/min				300 Nm		
na [1/min]	Mamax [Nm]	FRa [N]	i	63	71	80
3 2						
0.57	300	5420	2437			
0.64	300	5420	2197			
0.71	300	5420	1984			
0.79	300	5420	1780			
0.89	300	5420	1566			
1.08	300	5420	1300			
1.20	300	5420	1167			
1.40	300	5420	997			
1.66	300	5420	845			
2.09	300	5420	670			
2.45	300	5420	572			
2.89	300	5420	485			
3.52	300	5420	398			
2 2						
3.11	300	5420	450			
3.45	300	5420	406			
3.82	300	5420	366			
4.26	300	5420	329			
4.84	300	5420	289			
5.83	300	5420	240			
6.49	300	5420	216			
7.60	300	5420	184			
8.97	300	5420	156			
11.31	300	5420	124			
13.24	300	5420	106			

3

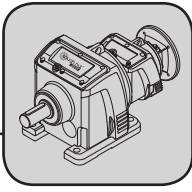
Standard
 Input Flange / Solid Input Shaft - Standard
 Not available



FH35 FH25 , ne=1400 1/min				450 Nm		
na [1/min]	Mamax [Nm]	FRa [N]	i	63	71	80
						
0.10	450	7110	14081			
0.12	450	7110	12139			
0.14	450	7110	10228			
0.15	450	7110	9315			
0.17	450	7110	8413			
0.19	450	7110	7331			
0.22	450	7110	6417			
0.25	450	7110	5498			
0.29	450	7110	4801			
0.31	450	7110	4479			
0.34	450	7110	4079			
0.39	450	7110	3555			
0.44	450	7110	3157			
0.53	450	7110	2635			
0.59	450	7110	2380			
0.68	450	7110	2062			
						
0.46	450	7110	3015			
0.50	450	7110	2809			
0.55	450	7110	2540			
0.61	450	7110	2313			
0.69	450	7110	2016			
0.79	450	7110	1764			
0.91	450	7110	1538			
1.03	450	7110	1365			
1.26	450	7110	1112			
1.38	450	7110	1013			
1.59	450	7110	883			
1.79	450	7110	784			
2.14	450	7110	654			
2.30	450	7110	610			
2.58	450	7110	543			
2.88	450	7110	487			
3.48	450	7110	402			

3





Standard
 Input Flange / Solid Input Shaft - Standard
 Not available



Helical Gear Units

Input Combinations

1400 Input Rpm

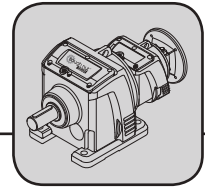
FH35 FH25 , ne=1400 1/min							450 Nm
na [1/min]	Mamax [Nm]	FRa [N]	i	63	71	80	90L
 3  2							
0.77	450	7110	1821				
0.80	450	7110	1759				
0.85	450	7110	1645				
0.97	450	7110	1447				
1.05	450	7110	1330				
1.17	450	7110	1194				
1.37	450	7110	1020				
1.62	450	7110	865				
2.04	450	7110	686				
2.39	450	7110	586				
2.82	450	7110	496				
3.44	450	7110	407				
3.81	450	7110	368				
 2  2							
3.77	450	7110	371				
4.24	450	7110	330				
4.55	450	7110	308				
5.07	450	7110	276				
5.93	450	7110	236				
6.52	450	7110	215				
8.82	450	7110	159				
9.63	450	7110	145				
10.33	450	7110	136				

3

 Standard

 Input Flange / Solid Input Shaft - Standard

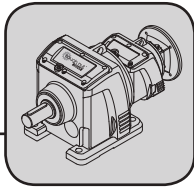
 Not available



FH35* FH25 , ne=1400 1/min				600 Nm		
na [1/min]	Mamax [Nm]	FRa [N]	i	63	71	80
0.09	600	7560	15543			
0.10	600	7560	13400			
0.12	600	7560	11290			
0.14	600	7560	10282			
0.15	600	7560	9033			
0.18	600	7560	7843			
0.20	600	7560	6835			
0.24	600	7560	5868			
0.27	600	7560	5155			
0.31	600	7560	4503			
0.36	600	7560	3924			
0.40	600	7560	3485			
0.48	600	7560	2908			
0.58	600	7560	2403			
0.55	600	7560	2545			
0.65	600	7560	2144			
0.72	600	7560	1953			
0.82	600	7560	1702			
0.86	600	7560	1635			
0.94	600	7560	1489			
1.08	600	7560	1298			
1.21	600	7560	1153			
1.49	600	7560	939			
1.64	600	7560	855			
1.88	600	7560	745			
2.12	600	7560	662			
2.53	600	7560	552			
2.88	600	7560	487			

3

Standard
 Input Flange / Solid Input Shaft - Standard
 Not available



Helical Gear Units

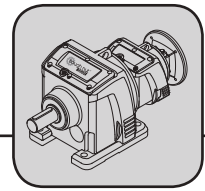
Input Combinations



1400 Input Rpm

FH35* FH25 , ne=1400 1/min							600 Nm
na [1/min]	Mamax [Nm]	FRa [N]	i	63	71	80	90L
0.64	600	7560	2180				
0.70	600	7560	2010				
0.76	600	7560	1851				
0.79	600	7560	1769				
0.90	600	7560	1554				
0.95	600	7560	1468				
1.06	600	7560	1318				
1.24	600	7560	1126				
1.47	600	7560	954				
1.67	600	7560	839				
1.85	600	7560	757				
2.17	600	7560	646				
2.55	600	7560	548				
3.12	600	7560	449				
3.77	600	7560	371				
3.29	600	7560	426				
3.67	600	7560	382				
4.17	600	7560	336				
4.73	600	7560	296				
5.02	600	7560	279				
5.59	600	7560	250				
6.35	600	7560	221				
6.55	600	7560	214				
7.72	600	7560	181				
8.77	600	7560	160				

3

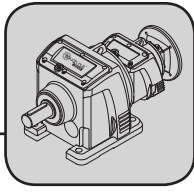
Standard
 Input Flange / Solid Input Shaft - Standard
 Not available



FH40 FH25 , ne=1400 1/min				750 Nm		
na [1/min]	Mamax [Nm]	FRa [N]	i	63	71	80
						
0.08	750	8620	16783			
0.09	750	8620	14831			
0.11	750	8620	13066			
0.11	750	8620	12497			
0.12	750	8620	11381			
0.14	750	8620	9918			
0.16	750	8620	8680			
0.19	750	8620	7565			
0.21	750	8620	6717			
0.24	750	8620	5918			
0.28	750	8620	4984			
0.32	750	8620	4343			
0.36	750	8620	3857			
0.43	750	8620	3219			
0.49	750	8620	2836			
						
0.43	750	8620	3225			
0.50	750	8620	2780			
0.60	750	8620	2343			
0.66	750	8620	2134			
0.75	750	8620	1859			
0.78	750	8620	1787			
0.86	750	8620	1627			
0.99	750	8620	1418			
1.11	750	8620	1259			
1.27	750	8620	1100			
1.36	750	8620	1026			
1.50	750	8620	934			
1.72	750	8620	814			
1.94	750	8620	723			
2.32	750	8620	603			
2.50	750	8620	561			

3

Standard
 Input Flange / Solid Input Shaft - Standard
 Not available



Helical Gear Units

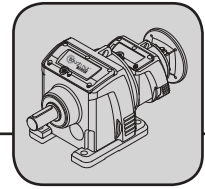
Input Combinations



1400 Input Rpm

FH40 FH25 , ne=1400 1/min							750 Nm
na [1/min]	Mamax [Nm]	FRa [N]	i	63	71	80	90L
1 2							
0.58	750	8620	2419				
0.63	750	8620	2225				
0.72	750	8620	1958				
0.76	750	8620	1838				
0.86	750	8620	1625				
0.96	750	8620	1459				
1.12	750	8620	1246				
1.33	750	8620	1056				
1.50	750	8620	931				
1.67	750	8620	838				
1.96	750	8620	715				
2.31	750	8620	607				
2.62	750	8620	534				
2.81	750	8620	497				
3.20	750	8620	438				
3.77	750	8620	371				
4.45	750	8620	315				
1 2							
2.72	750	8620	515				
3.01	750	8620	465				
3.36	750	8620	417				
3.81	750	8620	367				
4.60	750	8620	305				
5.12	750	8620	273				
5.99	750	8620	234				
7.07	750	8620	198				

3

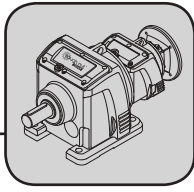
Standard
 Input Flange / Solid Input Shaft - Standard
 Not available



FH50 FH35 , ne=1400 1/min							1550 Nm
na [1/min]	Mamax [Nm]	FRa [N]	i	63	71	80	90L
							
0.08	1550	16900	17276				
0.09	1550	16900	15969				
0.10	1550	16900	14323				
0.11	1550	16900	12340				
0.12	1550	16900	11271				
0.17	1550	16900	8021				
0.19	1550	16900	7195				
0.22	1550	16900	6332				
0.25	1550	16900	5659				
0.30	1550	16900	4718				
0.38	1550	16900	3707				
0.42	1550	16900	3329				
0.50	1550	16900	2821				
0.58	1550	16900	2410				
0.63	1550	16900	2216				
							
0.43	1550	16900	3228				
0.47	1550	16900	2948				
0.54	1550	16900	2577				
0.60	1550	16900	2323				
0.67	1550	16900	2098				
0.74	1550	16900	1882				
0.77	1550	16900	1818				
0.85	1550	16900	1656				
0.95	1550	16900	1480				
1.02	1550	16900	1374				
1.13	1550	16900	1234				
1.33	1550	16900	1054				
1.53	1550	16900	916				
1.66	1550	16900	842				
1.85	1550	16900	756				
2.18	1550	16900	641				
2.56	1550	16900	548				

3

Standard
 Input Flange / Solid Input Shaft - Standard
 Not available



Helical Gear Units

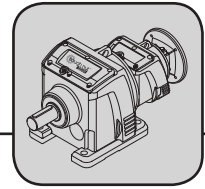
Input Combinations

1400 Input Rpm

FH50 FH35 , ne=1400 1/min										1550 Nm
na [1/min]	Mamax [Nm]	FRa [N]	i	63	71	80	90L	100L	112M	
3 2										
0.85	1550	16900	1641							
1.03	1550	16900	1355							
1.26	1550	16900	1112							
1.39	1550	16900	1006							
1.70	1550	16900	826							
1.90	1550	16900	735							
2.22	1550	16900	632							
2.37	1550	16900	590							
2.68	1550	16900	522							
2.84	1550	16900	494							
3.18	1550	16900	440							
3.71	1550	16900	378							
4.49	1550	16900	312							
5.32	1550	16900	263							
6.05	1550	16900	231							
6.99	1550	16900	200							
2 2										
2.60	1550	16900	538							
2.93	1550	16900	479							
3.39	1550	16900	412							
3.89	1550	16900	360							
4.55	1550	16900	308							
5.32	1550	16900	263							
6.12	1550	16900	229							
6.93	1550	16900	202							

3

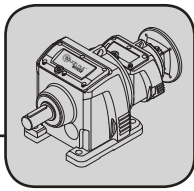
Standard
 Input Flange / Solid Input Shaft - Standard
 Not available



FH60 FH35 , ne=1400 1/min				3000 Nm		
na [1/min]	Mamax [Nm]	FRa [N]	i	63	71	80
3 3						
0.07	3000	18100	20389			
0.08	3000	18100	18287			
0.09	3000	18100	15755			
0.10	3000	18100	14391			
0.11	3000	18100	12580			
0.12	3000	18100	11339			
0.14	3000	18100	10241			
0.16	3000	18100	8875			
0.21	3000	18100	6709			
0.23	3000	18100	6024			
0.27	3000	18100	5146			
0.18	3000	18100	7786			
0.31	3000	18100	4514			
0.35	3000	18100	4018			
0.40	3000	18100	3477			
2 3						
0.30	3000	18100	4666			
0.33	3000	18100	4262			
0.38	3000	18100	3726			
0.47	3000	18100	3002			
0.52	3000	18100	2675			
0.58	3000	18100	2397			
0.65	3000	18100	2161			
0.80	3000	18100	1750			
0.83	3000	18100	1691			
0.91	3000	18100	1541			
1.02	3000	18100	1377			
1.10	3000	18100	1278			
1.27	3000	18100	1099			
1.43	3000	18100	980			
1.53	3000	18100	917			
1.73	3000	18100	810			
1.91	3000	18100	733			

3





Standard
 Input Flange / Solid Input Shaft - Standard
 Not available



Helical Gear Units

Input Combinations

1400 Input Rpm

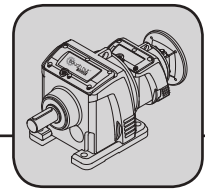
FH60 FH35 , ne=1400 1/min										3000 Nm
na [1/min]	Mamax [Nm]	FRa [N]	i	63	71	80	90L	100L	112M	
 3 										
0.47	3000	18100	3006							
0.50	3000	18100	2816							
0.60	3000	18100	2336							
0.67	3000	18100	2095							
0.76	3000	18100	1838							
0.81	3000	18100	1730							
0.90	3000	18100	1553							
1.00	3000	18100	1402							
1.09	3000	18100	1285							
1.28	3000	18100	1091							
1.47	3000	18100	952							
1.68	3000	18100	835							
1.82	3000	18100	768							
2.08	3000	18100	674							
2.38	3000	18100	588							
2.80	3000	18100	500							
3.21	3000	18100	436							
3.65	3000	18100	384							
4.18	3000	18100	335							
4.77	3000	18100	293							
5.80	3000	18100	241							
6.76	3000	18100	207							
 2 										
2.29	3000	18100	610							
2.56	3000	18100	547							
3.10	3000	18100	452							
3.68	3000	18100	380							
4.17	3000	18100	336							
4.93	3000	18100	284							
5.72	3000	18100	245							
6.15	3000	18100	228							





3

 Standard

 Input Flange / Solid Input Shaft - Standard

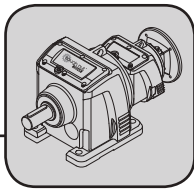
 Not available



FH70 FH40 , ne=1400 1/min								4300 Nm
na [1/min]	Mamax [Nm]	FRa [N]	i	71	80	90L	100L	112M
 3  3								
0.07	4300	29500	20068					
0.08	4300	29500	17519					
0.10	4300	29500	14495					
0.11	4300	29500	12810					
0.12	4300	29500	11285					
0.15	4300	29500	9251					
0.16	4300	29500	8718					
0.18	4300	29500	7767					
0.21	4300	29500	6765					
0.24	4300	29500	5947					
0.28	4300	29500	4993					
0.30	4300	29500	4605					
0.35	4300	29500	4049					
0.37	4300	29500	3816					
0.41	4300	29500	3400					
0.47	4300	29500	2961					
0.52	4300	29500	2683					
0.60	4300	29500	2330					
 2  3								
0.38	4300	29500	3701					
0.42	4300	29500	3349					
0.46	4300	29500	3062					
0.52	4300	29500	2706					
0.59	4300	29500	2384					
0.72	4300	29500	1955					
0.76	4300	29500	1842					
0.78	4300	29500	1788					
0.88	4300	29500	1590					
1.11	4300	29500	1256					
1.21	4300	29500	1159					
1.37	4300	29500	1021					
1.64	4300	29500	856					
1.74	4300	29500	806					
2.01	4300	29500	696					
2.55	4300	29500	550					

3

Standard
 Input Flange / Solid Input Shaft - Standard
 Not available



Helical Gear Units

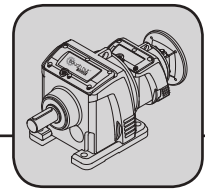
Input Combinations





1400 Input Rpm

FH70 FH40 , ne=1400 1/min										4300 Nm
na [1/min]	Mamax [Nm]	FRa [N]	i	71	80	90L	100L	112M	132S	
0.75	4300	29500	1862							
0.92	4300	29500	1528							
1.03	4300	29500	1361							
1.15	4300	29500	1221							
1.25	4300	29500	1124							
1.48	4300	29500	949							
1.76	4300	29500	796							
2.35	4300	29500	596							
2.85	4300	29500	492							
3.37	4300	29500	415							
4.02	4300	29500	349							
4.66	4300	29500	300							
5.52	4300	29500	253							
6.55	4300	29500	214							
7.42	4300	29500	189							
3.17	4300	29500	441							
3.56	4300	29500	393							
4.18	4300	29500	335							
4.84	4300	29500	289							
5.90	4300	29500	237							
6.23	4300	29500	225							
6.99	4300	29500	200							
7.37	4300	29500	190							
8.22	4300	29500	170							

3

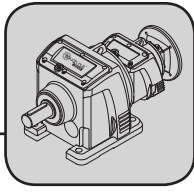
Standard
 Input Flange / Solid Input Shaft - Standard
 Not available



FH90 FH40 , ne=1400 1/min								7000 Nm
na [1/min]	Mamax [Nm]	FRa [N]	i	71	80	90L	100L	112M
 3  3								
0.06	7000	37500	22840					
0.07	7000	37500	19938					
0.08	7000	37500	18041					
0.08	7000	37500	16497					
0.10	7000	37500	14579					
0.11	7000	37500	12843					
0.13	7000	37500	10529					
0.16	7000	37500	8565					
0.19	7000	37500	7280					
0.21	7000	37500	6769					
0.22	7000	37500	6243					
0.24	7000	37500	5739					
0.28	7000	37500	5056					
0.33	7000	37500	4237					
0.35	7000	37500	3993					
0.41	7000	37500	3447					
0.48	7000	37500	2930					
 2  3								
0.31	7000	37500	4568					
0.35	7000	37500	3988					
0.39	7000	37500	3608					
0.42	7000	37500	3299					
0.48	7000	37500	2916					
0.55	7000	37500	2569					
0.66	7000	37500	2106					
0.77	7000	37500	1824					
0.82	7000	37500	1713					
0.89	7000	37500	1575					
1.03	7000	37500	1354					
1.12	7000	37500	1249					
1.27	7000	37500	1100					
1.52	7000	37500	922					
1.61	7000	37500	869					
1.87	7000	37500	750					
2.03	7000	37500	689					

3



Standard
 Input Flange / Solid Input Shaft - Standard
 Not available



Helical Gear Units

Input Combinations

1400 Input Rpm

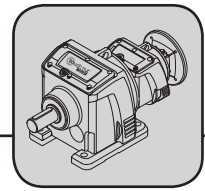
FH90 FH40 , ne=1400 1/min										7000 Nm
na [1/min]	Mamax [Nm]	FRa [N]	i	71	80	90L	100L	112M	132S	
										
0.51	7000	37500	2733							
0.56	7000	37500	2513							
0.60	7000	37500	2323							
0.66	7000	37500	2120							
0.78	7000	37500	1802							
0.90	7000	37500	1549							
1.01	7000	37500	1389							
1.09	7000	37500	1279							
1.30	7000	37500	1080							
1.53	7000	37500	918							
1.68	7000	37500	834							
1.92	7000	37500	728							
2.06	7000	37500	678							
2.50	7000	37500	560							
2.96	7000	37500	473							
3.22	7000	37500	434							
3.79	7000	37500	369							
4.39	7000	37500	319							
4.94	7000	37500	284							
5.87	7000	37500	238							
6.93	7000	37500	202							
7.81	7000	37500	179							
										
2.56	7000	37500	547							
2.79	7000	37500	503							
3.30	7000	37500	424							
3.59	7000	37500	390							
4.02	7000	37500	348							
4.52	7000	37500	310							
4.92	7000	37500	285							





3

 Standard

 Input Flange / Solid Input Shaft - Standard

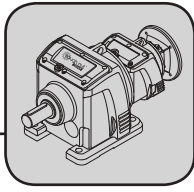
 Not available



FH110 FH40 , ne=1400 1/min									13000 Nm	
na [1/min]	Mamax [Nm]	FRa [N]	i	71	80	90L	100L	112M	132S	
 3 										
0.06	13000	62700	22847							
0.07	13000	62700	21238							
0.08	13000	62700	18540							
0.08	13000	62700	16776							
0.09	13000	62700	15340							
0.10	13000	62700	13556							
0.12	13000	62700	11942							
0.14	13000	62700	9791							
0.17	13000	62700	8415							
0.19	13000	62700	7264							
0.22	13000	62700	6294							
0.26	13000	62700	5294							
0.30	13000	62700	4664							
0.35	13000	62700	4038							
0.40	13000	62700	3486							
0.49	13000	62700	2873							
 3 										
0.55	13000	62700	2541							
0.60	13000	62700	2318							
0.71	13000	62700	1971							
0.78	13000	62700	1798							
0.87	13000	62700	1617							
0.97	13000	62700	1440							
1.08	13000	62700	1292							
1.18	13000	62700	1190							
1.39	13000	62700	1004							
1.67	13000	62700	839							
1.96	13000	62700	716							
2.22	13000	62700	630							
2.69	13000	62700	520							
3.26	13000	62700	429							
2.69	13000	62700	521							
2.95	13000	62700	475							
3.38	13000	62700	414							

3

Standard
 Input Flange / Solid Input Shaft - Standard
 Not available



Helical Gear Units

Input Combinations

1400 Input Rpm

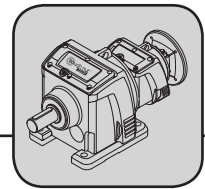
FH110 FH50 , ne=1400 1/min							13000 Nm
na [1/min]	Mamax [Nm]	FRa [N]	i	112M	132S	132M	160M
2.72	13000	62700	515				
3.17	13000	62700	442				
3.47	13000	62700	403				
3.84	13000	62700	365				
4.18	13000	62700	335				
4.87	13000	62700	287				
5.72	13000	62700	245				
6.59	13000	62700	213				
7.67	13000	62700	182				
8.28	13000	62700	169				



3

Standard

Input Flange / Solid Input Shaft - Standard

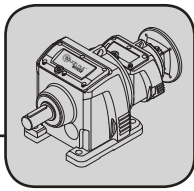
Not available



FH120 FH60 , ne=1400 1/min										18000 Nm
na [1/min]	Mamax [Nm]	FRa [N]	i	100L	112M	132S	132M	160M	160L	180M
										
0.05	18000	88200	27788							
0.06	18000	88200	22010							
0.07	18000	88200	20220							
0.08	18000	88200	17569							
0.09	18000	88200	15513							
0.10	18000	88200	14023							
0.11	18000	88200	12244							
0.12	18000	88200	11324							
0.13	18000	88200	10394							
0.15	18000	88200	9379							
0.16	18000	88200	8539							
0.18	18000	88200	7897							
0.20	18000	88200	6952							
0.23	18000	88200	6050							
0.25	18000	88200	5578							
0.31	18000	88200	4505							
0.34	18000	88200	4118							
0.39	18000	88200	3591							
0.46	18000	88200	3049							
										
0.54	18000	88200	2581							
0.59	18000	88200	2367							
0.68	18000	88200	2061							
0.75	18000	88200	1863							
0.85	18000	88200	1648							
0.94	18000	88200	1490							
1.15	18000	88200	1216							
1.36	18000	88200	1032							
1.50	18000	88200	933							
1.70	18000	88200	825							
1.88	18000	88200	745							
2.12	18000	88200	659							
2.54	18000	88200	551							
2.93	18000	88200	478							
3.41	18000	88200	411							
3.70	18000	88200	378							
4.26	18000	88200	328							
4.87	18000	88200	287							

3







Standard
 Input Flange / Solid Input Shaft - Standard
 Not available



Helical Gear Units

Input Combinations

1400 Input Rpm

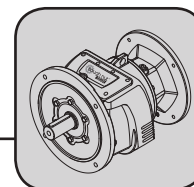
FH120 FH70 , ne=1400 1/min													18000 Nm	
na [1/min]	Mamax [Nm]	FRa [N]	i	100L	112M	132S	132M	160M	160L	180M	180L	200L	225S	225M
 2  3														
0.51	18000	88200	2747											
0.55	18000	88200	2539											
0.57	18000	88200	2450											
0.61	18000	88200	2297											
0.68	18000	88200	2057											
0.74	18000	88200	1901											
0.86	18000	88200	1624											
0.94	18000	88200	1496											
1.03	18000	88200	1358											
1.11	18000	88200	1261											
1.32	18000	88200	1058											
1.49	18000	88200	940											
1.72	18000	88200	814											
2.01	18000	88200	695											
2.31	18000	88200	607											
2.70	18000	88200	518											
 3  2														
3.97	18000	88200	353											
4.81	18000	88200	291											
5.14	18000	88200	272											
6.33	18000	88200	221											
7.10	18000	88200	197											
8.85	18000	88200	158											
 2  2														
2.89	18000	88200	485											
3.64	18000	88200	385											
4.20	18000	88200	333											
4.90	18000	88200	286											
5.64	18000	88200	248											
6.74	18000	88200	208											
8.50	18000	88200	165											

3

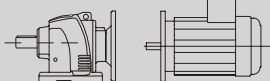
 Standard

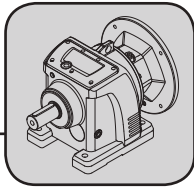
 Input Flange / Solid Input Shaft - Standard

 Not available



3.2 1400Rpm Selection Tables FR..F/..M

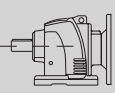
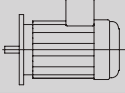
Pm [kW]	na [1/min]	Ma [Nm]	i	FRa [N]	fs		m [kg]	
0.12 (0.16HP)	0.07	14475	21238	62700	0.90	FMH110 FH40 FMV110 FH40 FMV110 FH40	63 404	
	0.08	12635	18540	62700	1.03			396
	0.08	11433	16776	62700	1.14			380
	0.09	10454	15340	62700	1.24			
	0.10	9239	13556	62700	1.41			
	0.12	8139	11942	62700	1.60			
	0.14	6672	9791	62700	1.95			
	0.17	5735	8415	62700	2.27			
	0.19	4951	7264	62700	2.63			
	0.22	4289	6294	62700	3.03			
0.26	3608	5294	62700	3.60				
	0.11	8753	12843	37500	0.80	FMH90 FH40 FMV90 FH40 FMW90 FH40	63 264	
	0.13	7176	10529	37500	0.98			275
	0.16	5837	8565	37500	1.20			259
	0.19	4962	7280	37500	1.41			
	0.21	4613	6769	37500	1.52			
	0.22	4254	6243	37500	1.65			
	0.24	3911	5739	37500	1.79			
	0.28	3446	5056	37500	2.03			
	0.18	5293	7767	29500	0.81	FMH70 FH40 FMV70 FH40 FMW70 FH40	63 182	
	0.21	4610	6765	29500	0.93			185
	0.24	4053	5947	29500	1.06			174
	0.28	3403	4993	29500	1.26			
	0.30	3138	4605	29500	1.37			
	0.35	2760	4049	29500	1.56			
	0.37	2600	3816	29500	1.65			
	0.41	2317	3400	29500	1.86			
	0.47	2018	2961	29500	2.13			
	0.38	2600	3701	29500	1.65	FMH70 FH40 FMV70 FH40 FMW70 FH40	63 171	
	0.42	2353	3349	29500	1.83			175
	0.46	2152	3062	29500	2.00			164
	0.52	1901	2706	29500	2.26			
	0.59	1675	2384	29500	2.57			
	0.72	1373	1955	29500	3.13			
	0.31	3077	4514	18100	0.98	FLM60 FH35 FLV60 FH35 FLW60 FH35	63 110	
	0.35	2738	4018	18100	1.10			117
	0.40	2370	3477	18100	1.27			106
	0.30	3278	4666	18100	0.92	FLM60 FH35 FLV60 FH35 FLW60 FH35	63 108	
	0.33	2995	4262	18100	1.00			112
	0.38	2618	3726	18100	1.15			101
	0.47	2109	3002	18100	1.42			
	0.52	1879	2675	18100	1.60			
	0.58	1684	2397	18100	1.78			
	0.65	1518	2161	18100	1.98			
	0.80	1230	1750	18100	2.44			
	0.83	1188	1691	18100	2.53			
	0.47	2112	3006	18100	1.42	FLM60 FH35 FLV60 FH35 FLW60 FH35	63 109	
	0.50	1978	2816	18100	1.52			116
	0.60	1641	2336	18100	1.83			105
	0.67	1472	2095	18100	2.04			
	0.76	1291	1838	18100	2.32			
	0.81	1216	1730	18100	2.47			
	0.90	1091	1553	18100	2.75			
	1.00	985	1402	18100	3.05			
	1.09	903	1285	18100	3.32			
	1.28	766	1091	18100	3.92			
	0.58	1642	2410	16900	0.91	FLH50 FH35 FLV50 FH35 FLW50 FH35	63 77	
	0.63	1511	2216	16900	0.99			81
	0.71	1347	1977	16900	1.11			77

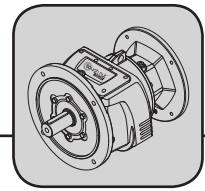


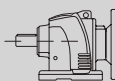
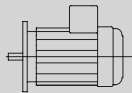
Helical Gear Units

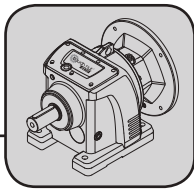
Selection Tables[kW]

1400 Input Rpm

Pm [kW]	na [1/min]	Ma [Nm]	i	FRa [N]	fs	 	m [g]	
0.12 (0.16HP)	0.54	1811	2577	16900	0.83	FLH50 FH35 FLV50 FH35 FLW50 FH35	63	75
	0.60	1632	2323	16900	0.92			
	0.67	1474	2098	16900	1.02			
	0.74	1322	1882	16900	1.13			
	0.77	1277	1818	16900	1.17			
0.85	1164	1656	16900	1.29				
0.85	1153	1641	16900	1.30				
1.03	952	1355	16900	1.58				
1.26	781	1112	16900	1.92	FLH50 FH35	63	77	
1.39	707	1006	16900	2.12	FLV50 FH35		80	
1.70	580	826	16900	2.59	FLW50 FH35		76	
1.90	517	735	16900	2.90				
2.22	444	632	16900	3.38				
2.37	415	590	16900	3.62				
1.11	885	1259	8620	0.85	FLH40 FH25	63	39	
1.27	773	1100	8620	0.97	FLV40 FH25		45	
1.36	721	1026	8620	1.04	FLW40 FH25		41	
1.50	656	934	8620	1.14				
1.12	876	1246	8620	0.86				
1.33	742	1056	8620	1.01	FLH40 FH25	63	40	
1.50	654	931	8620	1.15	FLV40 FH25		46	
1.67	589	838	8620	1.27	FLW40 FH25		42	
1.96	503	715	8620	1.49				
2.31	426	607	8620	1.76				
2.72	373	515	8620	2.01				
3.01	337	465	8620	2.23	FLH40 FH25	63	38	
3.36	302	417	8620	2.48	FLV40 FH25		44	
3.81	266	367	8620	2.82	FLW40 FH25		40	
4.60	221	305	8620	3.40				
1.64	601	855	7560	1.00				
1.88	600	745	7560	1.15	FLH35* FH25	63	34	
2.12	465	662	7560	1.29	FLV35* FH25		35	
2.53	388	552	7560	1.55	FLW35* FH25		33	
2.88	342	487	7560	1.76				
1.67	589	839	7560	1.02				
1.85	532	757	7560	1.13	FLH35* FH25	63	35	
2.17	454	646	7560	1.32	FLV35* FH25		36	
2.55	385	548	7560	1.56	FLW35* FH25		34	
3.12	316	449	7560	1.90				
3.77	261	371	7560	2.30				
1.79	551	784	7110	0.82	FLH35 FH25	63	28	
2.14	460	654	7110	0.98	FLV35 FH25		31	
2.30	428	610	7110	1.05	FLW35 FH25		29	
2.04	482	686	7110	0.93				
2.39	411	586	7110	1.09	FLH35 FH25	63	28	
2.82	349	496	7110	1.29	FLV35 FH25		31	
3.44	286	407	7110	1.57	FLW35 FH25		29	
3.81	258	368	7110	1.74				
3.77	269	371	7110	1.68				
4.24	239	330	7110	1.88	FLH35 FH25	63	28	
4.55	223	308	7110	2.02	FLV35 FH25		30	
5.07	200	276	7110	2.25	FLW35 FH25		28	
5.93	171	236	7110	2.63				
6.52	156	215	7110	2.89				
2.89	341	485	5420	0.88	FLH30 FH25		63	27
3.52	280	398	5420	1.07	FLV30 FH25	27		
					FLW30 FH25	26		
3.11	326	450	5420	0.92				
3.45	294	406	5420	1.02		63		
3.82	265	366	5420	1.13	FLH30 FH25		26	



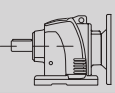
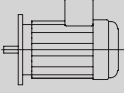
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0.12 (0.16HP)	4.26	238	329	5420	1.26	FLV30 FH25 FLW30 FH25	63	26	
	4.84	210	289	5420	1.43			25	
	5.83	174	240	5420	1.73				
	6.49	156	216	5420	1.92				
	7.60	133	184	5420	2.25				
	7.00	149	199.88	7560	4.02	FH-F35 FH-F35*	63	26	
	8.28	126	169.10	7560	4.75			24	
	9.27	113	151.03	7560	5.32			22	
	9.95	105	140.75	7560	5.71				
	7.65	137	182.99	7110	3.29	FH-F35 FH-F35*	63	20	
	8.53	123	164.13	7110	3.67			23	
	9.90	106	141.40	7110	4.26			21	
	10.84	96	129.16	7110	4.67				
	12.40	84	112.90	7110	5.34				
	13.76	76	101.77	7110	5.92				
	7.83	134	178.83	5420	2.25	FH-F30 FH-FL30	63	19	
	8.73	120	160.40	5420	2.50			17	
	10.13	103	138.19	5420	2.91			17	
	11.09	94	126.22	5420	3.18				
	12.69	82	110.34	5420	3.64				
14.08	74	99.46	5420	4.04					
15.59	67	89.82	5420	4.47					
17.37	60	80.58	5420	4.99					
17.99	58	77.84	5420	5.16					
19.74	53	70.91	5420	5.67					
10.12	103	138.36	4950	1.94	FH-F25 FH-FL25	63	11		
11.74	89	119.28	4950	2.25			12		
13.93	75	100.51	4950	2.66			11		
15.30	68	91.53	4950	2.93					
17.55	60	79.77	4950	3.36					
18.26	57	76.66	4950	3.49					
20.05	52	69.81	4950	3.84					
23.01	45	60.84	4950	4.40					
25.91	40	54.03	4950	4.96					
26.80	39	52.24	4930	5.13					
23.64	44	59.23	1770	1.92	FH20 FH-FL20	63	8		
28.05	37	49.90	1770	2.28			8		
30.80	34	45.45	1770	2.50					
35.35	30	39.61	1770	2.87					
39.81	26	35.17	1770	3.24					
47.69	22	29.36	1770	3.88					
56.53	18	24.76	1770	4.60					
71.10	15	19.69	1770	5.78					
223.29	5	6.27	3030	8.64	FX25	63	12		
255.94	4	5.47	2900	10.00					
282.83	4	4.95	2790	10.00					
255.94	4	5.47	2520	8.50	FX20	63	10		
286.89	4	4.88	2430	9.83					
307.69	4	4.55	2360	10.00					
0.18 (0.25HP)	0.09	15681	15340	62700	0.83	FMH110 FH40 FMV110 FH40 FMW110 FH40	63	404	
	0.10	13858	13556	62700	0.94			396	
	0.12	12208	11942	62700	1.06			380	
	0.14	10008	9791	62700	1.30				
	0.17	8602	8415	62700	1.51				
	0.19	7426	7264	62700	1.75				
	0.22	6434	6294	62700	2.02				
	0.26	5412	5294	62700	2.40				
	0.30	4768	4664	62700	2.73				
	0.35	4128	4038	62700	3.15				
	0.40	3564	3486	62700	3.65				

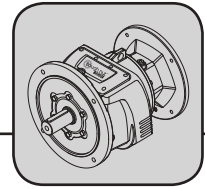


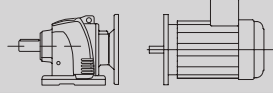
Helical Gear Units

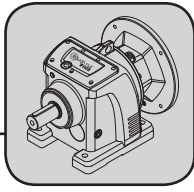
Selection Tables[kW]

1400 Input Rpm

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0.18 (0.25HP)	0.16	8756	8565	37500	0.80	FMH90 FH40 FMV90 FH40 FMW90 FH40	63	264
	0.19	7442	7280	37500	0.94			
	0.21	6919	6769	37500	1.01			
	0.22	6381	6243	37500	1.10			
	0.24	5867	5739	37500	1.19			
	0.28	5169	5056	37500	1.35			
	0.33	4332	4237	37500	1.62			
0.35	4082	3993	37500	1.71				
	0.31	4814	4568	37500	1.45	FMH90 FH40 FMV90 FH40 FMW90 FH40	63	252
	0.35	4203	3988	37500	1.67			
	0.39	3803	3608	37500	1.84			
	0.42	3477	3299	37500	2.01			
	0.48	3073	2916	37500	2.28			
	0.30	4708	4605	29500	0.91	FMH70 FH40 FMV70 FH40 FMW70 FH40	63	182
	0.37	3901	3816	29500	1.10			
	0.47	3027	2961	29500	1.42			
	0.38	3901	3701	29500	1.10	FMH70 FH40 FMV70 FH40 FMW70 FH40	63	171
	0.42	3529	3349	29500	1.22			
	0.46	3227	3062	29500	1.33			
	0.52	2852	2706	29500	1.51			
	0.59	2513	2384	29500	1.71			
	0.72	2060	1955	29500	2.09			
	0.75	1963	1862	29500	2.19	FMH70 FH40 FMV70 FH40 FMW70 FH40	63	180
	0.92	1610	1528	29500	2.67			
	1.03	1434	1361	29500	3.00			
	1.15	1287	1221	29500	3.34			
	0.52	2819	2675	18100	1.06	FLH60 FH35 FLV60 FH35 FLW60 FH35	63	108
	0.58	2526	2397	18100	1.19			
	0.65	2277	2161	18100	1.32			
	0.80	1845	1750	18100	1.63			
	0.83	1782	1691	18100	1.68			
	0.91	1624	1541	18100	1.85			
	1.02	1451	1377	18100	2.07			
	1.10	1347	1278	18100	2.23			
	1.27	1159	1099	18100	2.59			
	1.43	1033	980	18100	2.90			
	1.53	966	917	18100	3.11			
	1.73	853	810	18100	3.52			
	1.91	772	733	18100	3.88			
	0.50	2968	2816	18100	1.01	FLH60 FH35 FLV60 FH35 FLW60 FH35	63	109
	0.60	2462	2336	18100	1.22			
	0.67	2207	2095	18100	1.36			
	0.95	1560	1480	16900	0.96	FLH50 FH35 FLV50 FH35 FLW50 FH35	63	75
	1.02	1448	1374	16900	1.04			
	1.13	1301	1234	16900	1.15			
	1.33	1111	1054	16900	1.35			
	1.53	965	916	16900	1.55			
	1.66	888	842	16900	1.69			
	0.85	1729	1641	16900	0.87	FLH50 FH35 FLV50 FH35 FLW50 FH35	63	77
	1.03	1428	1355	16900	1.05			
	1.26	1172	1112	16900	1.28			
	1.39	1060	1006	16900	1.41			
	1.70	870	826	16900	1.72			
	1.90	775	735	16900	1.94			
	1.72	858	814	8620	0.87	FLH40 FH25 FLV40 FH25 FLW40 FH25	63	39
	1.94	762	723	8620	0.98			
	2.32	636	603	8620	1.18			
	2.50	591	561	8620	1.27			
	1.67	883	838	8620	0.85			
	1.96	754	715	8620	0.99	FLH40 FH25 FLV40 FH25	63	40
	2.31	639	607	8620	1.17			



Pm [kW]	na [1/min]	Ma [Nm]	i	FRa [N]	fs		m [g]	
0.18 (0.25HP)	2.72	559	515	8620	1.34	FLH40 FH25 FLV40 FH25 FLW40 FH25 63	38	
	3.01	505	465	8620	1.48		44	
	3.36	453	417	8620	1.66		40	
	3.81	399	367	8620	1.88			
	4.60	331	305	8620	2.27			
	5.12	297	273	8620	2.52			
	2.53	582	552	7560	1.03		FLH35* FH25	34
	2.88	513	487	7560	1.17		FLV35* FH25	35
	0						FLW35* FH25	33
	2.17	681	646	7560	0.88		FLH35* FH25	35
2.55	578	548	7560	1.04	FLV35* FH25	36		
3.12	474	449	7560	1.27	FLW35* FH25	34		
3.77	391	371	7560	1.53				
3.29	462	426	7560	1.30				
3.67	415	382	7560	1.45	FLH35* FH25	33		
4.17	365	336	7560	1.64	FLV35* FH25	35		
4.73	322	296	7560	1.87	FLW35* FH25	33		
5.02	303	279	7560	1.98				
2.88	513	487	7110	0.88				
3.48	424	402	7110	1.06	FLH35 FH25	28		
2.82	523	496	7110	0.86	FLV35 FH25	31		
3.44	429	407	7110	1.05	FLW35 FH25	29		
3.81	387	368	7110	1.16				
3.77	403	371	7110	1.12				
4.24	359	330	7110	1.25				
4.55	334	308	7110	1.35	FLH35 FH25	28		
5.07	300	276	7110	1.50	FLV35 FH25	30		
5.93	256	236	7110	1.75	FLW35 FH25	28		
6.52	233	215	7110	1.93				
8.82	172	159	7110	2.61				
4.26	357	329	5420	0.84				
4.84	314	289	5420	0.95	FLH30 FH25	26		
5.83	261	240	5420	1.15	FLV30 FH25	26		
6.49	234	216	5420	1.28	FLW30 FH25	25		
7.60	200	184	5420	1.50				
7.00	224	199.88	7560	2.68				
8.28	189	169.10	7560	3.17				
9.27	169	151.03	7560	3.55				
9.95	158	140.75	7560	3.81	FH-F35*	63	26	
11.17	140	125.28	7560	4.28	FH-FL35*		24	
12.46	126	112.34	7560	4.77			22	
14.19	111	98.69	7560	5.43				
15.09	104	92.80	7560	5.77				
7.65	205	182.99	7110	2.20				
8.53	184	164.13	7110	2.45				
9.90	158	141.40	7110	2.84				
10.84	145	129.16	7110	3.11	FH-F35	63	20	
12.40	126	112.90	7110	3.56	FH-FL35		23	
13.76	114	101.77	7110	3.95			21	
15.23	103	91.91	7110	4.37				
16.98	92	82.45	7110	4.87				
17.58	89	79.65	7110	5.04				
19.29	81	72.56	7110	5.54				
7.83	200	178.83	5420	1.50				
8.73	180	160.40	5420	1.67				
10.13	155	138.19	5420	1.94				
11.09	141	126.22	5420	2.12	FH-F30	63	19	
12.69	124	110.34	5420	2.43	FH-FL30		17	
14.08	111	99.46	5420	2.69				
15.59	101	89.82	5420	2.98				
17.37	90	80.58	5420	3.32				

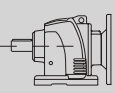
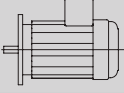
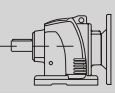
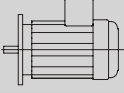
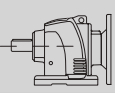
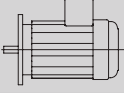


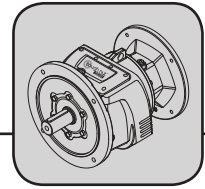
Helical Gear Units

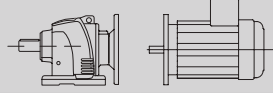
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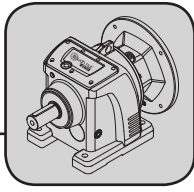
1400 Input Rpm

3

Pm [kW]	na [1/min]	Ma [Nm]	i	FRa [N]	fs			m [g]			
0.18 (0.25HP)	17.99	87	77.84	5420	3.44						
	19.74	79	70.91	5420	3.78						
	22.09	71	63.37	5420	4.23						
	23.79	66	58.84	5420	4.55						
	26.50	59	52.84	5420	5.07						
	31.02	51	45.13	5420	5.93						
	10.12	155	138.36	4950	1.29				FH-F25 FH-FL25	63	11
	11.74	134	119.28	4950	1.50						
	13.93	113	100.51	4950	1.78						
	15.30	103	91.53	4950	1.95						
	17.55	89	79.77	4950	2.24						
	18.26	86	76.66	4950	2.33						
	20.05	78	69.81	4950	2.56						
	23.01	68	60.84	4950	2.93						
	25.91	61	54.03	4895	3.31						
	26.80	59	52.24	4825	3.42						
	31.81	49	44.01	4590	4.06						
	34.93	45	40.08	4465	4.45						
	40.08	39	34.93	4285	5.11						
	45.13	35	31.02	4135	5.76						
23.64	66	59.23	1770	1.28	FH-F20 FH-FL20	63	8				
28.05	56	49.90	1770	1.52							
30.80	51	45.45	1770	1.67							
35.35	44	39.61	1770	1.92							
39.81	39	35.17	1770	2.16							
47.69	33	29.36	1770	2.59							
56.53	28	24.76	1770	3.06							
71.10	22	19.69	1770	3.85							
93.22	17	15.02	1770	4.12	FH-F20 FH-FL20	63	8				
110.64	15	12.65	1770	4.57							
139.40	12	10.04	1750	5.26	FX25	63	12				
223.29	7	6.27	3020	5.76							
255.94	7	5.47	2890	6.67							
282.83	6	4.95	2770	6.67							
309.05	5	4.53	2710	6.67							
255.94	7	5.47	2500	5.67	FX25	63	10				
286.89	6	4.88	2420	6.56							
307.69	5	4.55	2340	6.67							
345.68	5	4.05	2280	6.67							
385.67	4	3.63	2180	15.06							
438.87	4	3.19	2090	16.78							
466.67	4	3.00	2050	17.28							
627.80	3	2.23	1865	19.89							
0.25 (0.34HP)	0.14	13901	9791	62700	0.94						
	0.17	11947	8415	62700	1.09						
	0.19	10314	7264	62700	1.26						
	0.22	8936	6294	62700	1.45				FMH110 FH40 FMV110 FH40 FMW110 FH40	71	404
	0.26	7517	5294	62700	1.73						
	0.30	6622	4664	62700	1.96						
	0.35	5733	4038	62700	2.27						
	0.40	4950	3486	62700	2.63						
	0.49	4079	2873	62700	3.19						
	0.24	8149	5739	37500	0.86				FMH90 FH40 FMV90 FH40 FMW90 FH40	71	264
	0.28	7179	5056	37500	0.98						
	0.33	6016	4237	37500	1.16						
	0.35	5669	3993	37500	1.23						
	0.31	6686	4568	37500	1.05				FMH90 FH40 FMV90 FH40 FMW90 FH40	71	252
	0.35	5837	3988	37500	1.20						
	0.39	5281	3608	37500	1.33						
	0.42	4829	3299	37500	1.45						
	0.48	4268	2916	37500	1.64						



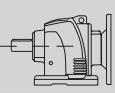
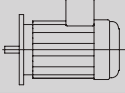
Pm [kW]	na [1/min]	Ma [Nm]	i	FRa [N]	fs		m [g]	
0.25 (0.34HP)	0.51	4000	2733	37500	1.75	FMH90 FH40 FMV90 FH40 FMW90 FH40	71	261 273 257
	0.56	3678	2513	37500	1.90			
	0.60	3400	2323	37500	2.06			
	0.66	3103	2120	37500	2.26			
	0.78	2637	1802	37500	2.65			
	0.90	2267	1549	37500	3.09			
	1.01	2034	1389	37500	3.44			
	1.09	1873	1279	37500	3.74			
0.47	4204	2961	29500	1.02	FMH70 FH40 FMV70 FH40 FMW70 FH40	71	182 185 174	
0.46	4482	3062	29500	0.96	FMH70 FH40 FMV70 FH40 FMW70 FH40	71	171 175 164	
0.75	2726	1862	29500	1.58	FMH70 FH40 FMV70 FH40 FMW70 FH40	71	180 183 172	
0.92	2237	1528	29500	1.92				
1.03	1992	1361	29500	2.16				
1.15	1787	1221	29500	2.41				
1.25	1645	1124	29500	2.61				
1.48	1388	949	29500	3.10				
1.76	1166	796	29500	3.69				
0.80	2562	1750	18100	1.17	FLH60 FH35 FLV60 FH35 FLW60 FH35	71	108 112 101	
0.83	2475	1691	18100	1.21				
0.76	2690	1838	18100	1.12	FLH60 FH35 FLV60 FH35 FLW60 FH35	71	109 116 105	
0.81	2533	1730	18100	1.18				
0.90	2272	1553	18100	1.32				
1.00	2052	1402	18100	1.46				
1.09	1880	1285	18100	1.60				
1.28	1596	1091	18100	1.88				
1.47	1394	952	18100	2.15				
1.68	1223	835	18100	2.45				
1.82	1124	768	18100	2.67				
2.08	986	674	18100	3.04				
1.13	1806	1234	16900	0.83	FLH50 FH35 FLV50 FH35 FLW50 FH35	71	75 79 75	
1.33	1543	1054	16900	0.97				
1.53	1341	916	16900	1.12				
1.66	1233	842	16900	1.22				
1.26	1628	1112	16900	0.92	FLH50 FH35 FLV50 FH35 FLW50 FH35	71	77 80 76	
1.70	1208	826	16900	1.24				
1.90	1076	735	16900	1.39				
2.22	925	632	16900	1.62				
2.37	864	590	16900	1.74				
2.68	764	522	16900	1.96				
3.18	644	440	16900	2.33				
5.32	385	263	16900	3.89				
2.50	821	561	8620	0.91				FLH40 FH25 FLV40 FH25 FLW40 FH25
2.62	782	534	8620	0.96	FLH40 FH25 FLV40 FH25 FLW40 FH25	71	40 46 42	
2.81	728	497	8620	1.03				
3.20	641	438	8620	1.17				
3.77	543	371	8620	1.38				
4.45	461	315	8620	1.63				
2.72	777	515	8620	0.97	FLH40 FH25 FLV40 FH25 FLW40 FH25	71	38 44 40	
3.01	702	465	8620	1.07				
3.36	629	417	8620	1.19				
3.81	554	367	8620	1.35				
4.60	460	305	8620	1.63				
5.12	413	273	8620	1.82				
5.99	353	234	8620	2.13				

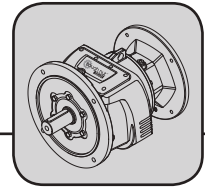


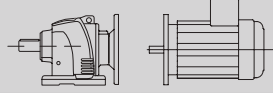
Helical Gear Units

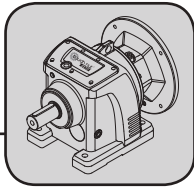
Selection Tables[kW]

1400 Input Rpm

Pm [kW]	na [1/min]	Ma [Nm]	i	FRa [N]	fs			m [g]
0.25 (0.34HP)	3.77	543	371	7560	1.10	FLH35* FH25 FLV35* FH25 FLW35* FH25	71	35 36 34
	3.29	642	426	7560	0.93	FLH35* FH25 FLV35* FH25 FLW35* FH25	71	33 35 33
	3.67	576	382	7560	1.04			
	4.17	507	336	7560	1.18			
	4.73	447	296	7560	1.34			
	5.02	421	279	7560	1.43			
	5.59	378	250	7560	1.59			
	6.35	333	221	7560	1.80			
	6.55	323	214	7560	1.86			
	7.72	274	181	7560	2.19			
8.77	241	160	7560	2.49				
	4.24	498	330	7110	0.90	FLH35 FH25 FLV35 FH25 FLW35 FH25	71	28 30 28
	4.55	464	308	7110	0.97			
	5.07	417	276	7110	1.08			
	5.93	356	236	7110	1.26			
	6.52	324	215	7110	1.39			
	8.82	239	159	7110	1.88			
	9.63	219	145	7110	2.05			
		5.83	362	240	5420			
6.49		325	216	5420	0.92			
7.60		278	184	5420	1.08			
8.97		236	156	5420	1.27			
	7.19	303	194.80	8620	2.47	FH-F40 FH-FL40	71	32 37 33
	8.23	265	170.05	8620	2.84			
	9.10	239	153.87	8620	3.13			
	9.95	219	140.70	8620	3.43			
	11.26	193	124.34	8620	3.88			
	12.78	170	109.54	8620	4.40			
	15.59	140	89.80	8620	4.80			
	16.54	132	84.62	8620	4.80			
	7.00	311	199.88	7560	1.93	FH-F35* FH-FL35*	71	26 24 22
	8.28	263	169.10	7560	2.28			
	9.27	235	151.03	7560	2.55			
	9.95	219	140.75	7560	2.74			
	11.17	195	125.28	7560	3.08			
	12.46	175	112.34	7560	3.43			
	14.19	154	98.69	7560	3.91			
	15.09	144	92.80	7560	4.16			
	17.81	122	78.59	7560	4.80			
	20.32	107	68.90	7560	4.80			
		7.65	285	182.99	7110			
8.53		255	164.13	7110	1.76			
9.90		220	141.40	7110	2.05			
10.84		201	129.16	7110	2.24			
12.40		176	112.90	7110	2.56			
13.76		158	101.77	7110	2.84			
15.23		143	91.91	7110	3.15			
16.98		128	82.45	7110	3.51			
17.58		124	79.65	7110	3.63			
19.29		113	72.56	7110	3.99			
21.59		101	64.84	7110	4.46			
23.25		94	60.21	7110	4.80			
25.89		84	54.07	7110	4.80			
		7.83	278	178.83	5420	1.08		
	8.73	250	160.40	5420	1.20			
	10.13	215	138.19	5420	1.40			
	11.09	196	126.22	5420	1.53			
	12.69	172	110.34	5420	1.75			



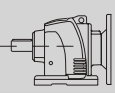
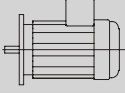
Pm [kW]	na [1/min]	Ma [Nm]	i	FRa [N]	fs		m [g]	
0.25 (0.34HP)	14.08	155	99.46	5420	1.94	FH-F30 FH-FL30	71	19
	15.59	140	89.82	5420	2.15			
	17.37	125	80.58	5420	2.39			
	17.99	121	77.84	5420	2.48			
	19.74	110	70.91	5420	2.72			
	22.09	99	63.37	5420	3.04			
	23.79	92	58.84	5420	3.28			
	26.50	82	52.84	5420	3.65			
	31.02	70	45.13	5420	4.27			
	33.73	65	41.51	5420	4.65			
37.56	58	37.28	5420	4.80				
10.12	215	138.36	4950	0.93	FH-F25 FH-FL25	71	11	
	11.74	186	119.28	4950				1.08
	13.93	156	100.51	4950				1.28
	15.30	142	91.53	4950				1.40
	17.55	124	79.77	4950				1.61
	18.26	119	76.66	4950				1.68
	20.05	109	69.81	4950				1.84
	23.01	95	60.84	4935				2.11
	25.91	84	54.03	4780				2.38
	26.80	81	52.24	4705				2.46
	31.81	68	44.01	4485				2.92
	34.93	62	40.08	4370				3.21
	40.08	54	34.93	4205				3.68
	45.13	48	31.02	4060				4.14
54.07	40	25.89	3855	4.80				
57.14	39	24.50	3800	5.01	FH-F25 FH-FL25	71	11	
	63.39	35	22.09	3680				5.44
	70.19	32	19.95	3570				5.92
39.81	55	35.17	1770	1.55	FH-F20 FH-FL20	71	8	
	47.69	46	29.36	1770				1.86
	56.53	39	24.76	1770				2.21
	71.10	31	19.69	1770				2.77
93.22	24	15.02	1770	2.97	FH-F20 FH-FL20	71	8	
	110.64	20	12.65	1770				3.29
	139.40	16	10.04	1690				3.79
	188.09	12	7.44	1570				4.56
280.41	8	4.99	1400	5.82	FX25	71	12	
	223.29	10	6.27	3000				4.15
	255.94	9	5.47	2870				4.80
	282.83	8	4.95	2750				4.80
	309.05	7	4.53	2690				4.80
	397.73	6	3.52	2470				14.95
	514.71	4	2.72	2280				19.77
255.94	9	5.47	2480	4.08	FX20	71	10	
	286.89	8	4.88	2400				4.72
	307.69	8	4.55	2320				4.80
	345.68	7	4.05	2260				4.80
	385.67	6	3.63	2160				10.84
	438.87	5	3.19	2075				12.08
	466.67	5	3.00	2035				12.44
	627.80	4	2.23	1850				14.32
	880.50	3	1.59	1660				16.20
	1068.70	2	1.31	1565				19.32
0.37 (0.5HP)	0.19	15264	7264	62700	0.85	FMH110 FH40 FMV110 FH40 FMW110 FH40	71	404
	0.22	13225	6294	62700	0.98			
	0.26	11125	5294	62700	1.17			
	0.30	9801	4664	62700	1.33			
	0.35	8486	4038	62700	1.53			
	0.40	7325	3486	62700	1.77			
	0.49	6037	2873	62700	2.15			

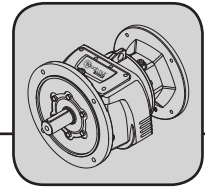


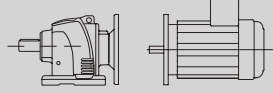
Helical Gear Units

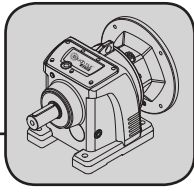
Selection Tables[kW]

1400 Input Rpm

Pm [kW]	na [1/min]	Ma [Nm]	i	FRa [N]	fs			m [kg]	
0.37 (0.5HP)	0.35	8390	3993	37500	0.83	FMH90 FH40	71	264	
						FMV90 FH40		275	
						FMW90 FH40		259	
		0.35	8639	3988	37500	0.81			
		0.39	7816	3608	37500	0.90	FMH90 FH40	71	252
		0.42	7147	3299	37500	0.98	FMV90 FH40		264
		0.48	6316	2916	37500	1.11	FMW90 FH40		248
		0.55	5564	2569	37500	1.26			
		0.66	4562	2106	37500	1.53			
		0.51	5921	2733	37500	1.18			
		0.56	5443	2513	37500	1.29			
		0.60	5032	2323	37500	1.39			
		0.66	4592	2120	37500	1.52	FMH90 FH40	71	261
		0.78	3903	1802	37500	1.79	FMV90 FH40		273
		0.90	3356	1549	37500	2.09	FMW90 FH40		257
	1.01	3010	1389	37500	2.33				
	1.09	2771	1279	37500	2.53				
	1.30	2339	1080	37500	2.99				
	1.53	1988	918	37500	3.52				
	0.72	4234	1955	29500	1.02				
	0.76	3990	1842	29500	1.08				
	0.78	3872	1788	29500	1.11	FMH70 FH40	71	171	
	0.88	3444	1590	29500	1.25	FMV70 FH40		175	
	1.11	2722	1256	29500	1.58	FMW70 FH40		164	
	1.21	2510	1159	29500	1.71				
	1.37	2211	1021	29500	1.94				
	0.75	4035	1862	29500	1.07				
	0.92	3310	1528	29500	1.30				
	1.03	2948	1361	29500	1.46	FMH70 FH40	71	180	
	1.15	2645	1221	29500	1.63	FMV70 FH40		183	
	1.25	2435	1124	29500	1.77	FMW70 FH40		172	
	1.48	2055	949	29500	2.09				
	1.76	1725	796	29500	2.49				
	1.10	2769	1278	18100	1.08	FLH60 FH35	71	108	
	1.27	2382	1099	18100	1.26	FLV60 FH35		112	
						FLW60 FH35		101	
	1.00	3037	1402	18100	0.99				
	1.09	2783	1285	18100	1.08				
	1.28	2362	1091	18100	1.27				
	1.47	2063	952	18100	1.45				
	1.68	1810	835	18100	1.66	FLH60 FH35	71	109	
	1.82	1664	768	18100	1.80	FLV60 FH35		116	
	2.08	1460	674	18100	2.05	FLW60 FH35		105	
	2.38	1275	588	18100	2.35				
	2.80	1082	500	18100	2.77				
	3.21	945	436	18100	3.18				
	3.65	831	384	18100	3.61				
	4.18	726	335	18100	4.13				
	1.66	1825	842	16900	0.82	FLH50 FH35	71	75	
	1.85	1639	756	16900	0.92	FLV50 FH35		79	
	2.18	1389	641	16900	1.08	FLW50 FH35		75	
	1.90	1593	735	16900	0.94				
	2.22	1369	632	16900	1.10				
	2.37	1279	590	16900	1.17	FLH50 FH35	71	77	
	2.68	1131	522	16900	1.33	FLV50 FH35		80	
	3.18	952	440	16900	1.57	FLW50 FH35		76	
	5.32	570	263	16900	2.63				
	6.05	501	231	16900	2.99				
	2.60	1201	538	16900	1.25	FLH50 FH35	71	74	
	2.93	1069	479	16900	1.40	FLV50 FH35		78	



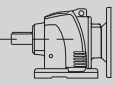
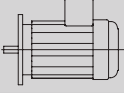
Pm [kW]	na [1/min]	Ma [Nm]	i	FRa [N]	fs		m [g]
0.37 (0.5HP)	3.39	921	412	16900	1.63	FLW50 FH35	74
	3.89	804	360	16900	1.87		
	3.77	804	371	8620	0.93		
	4.45	682	315	8620	1.10	FLH40 FH25 FLV40 FH25 FLW40 FH25	71 46 42
	3.36	931	417	8620	0.81	FLH40 FH25 FLV40 FH25 FLW40 FH25	71
	3.81	820	367	8620	0.91		
	4.60	680	305	8620	1.10		
	5.12	611	273	8620	1.23		
	5.99	522	234	8620	1.44		
	7.07	442	198	8620	1.70		
	4.73	661	296	7560	0.91	FLH35* FH25 FLV35* FH25 FLW35* FH25	71
	5.02	623	279	7560	0.96		
	5.59	559	250	7560	1.07		
	6.35	492	221	7560	1.22		
	6.55	477	214	7560	1.26		33
	7.19	448	194.80	8620	1.67	FH-F40 FH-FL40	71
	8.23	392	170.05	8620	1.92		
	9.10	354	153.87	8620	2.12		
	9.95	324	140.70	8620	2.32		
	11.26	286	124.34	8620	2.62		
	12.78	252	109.54	8620	2.97		
	15.59	207	89.80	8620	3.24		
	16.54	195	84.62	8620	3.24		
	19.17	168	73.05	8620	4.46		
	24.25	133	57.73	8620	5.64		
	7.00	460	199.88	7560	1.30	FH-F35* FH-FL35*	71
	8.28	389	169.10	7560	1.54		
	9.27	348	151.03	7560	1.73		
	9.95	324	140.75	7560	1.85		
	11.17	288	125.28	7560	2.08		
	12.46	259	112.34	7560	2.32		
	14.19	227	98.69	7560	2.64		
	15.09	214	92.80	7560	2.81		
	17.81	181	78.59	7560	3.24		
	20.32	159	68.90	7560	3.24		
	22.20	145	63.07	7560	3.24		
	24.04	134	58.23	7560	3.24		
	26.81	120	52.21	7560	3.24		
	30.52	106	45.87	7560	5.68		
	33.97	95	41.22	7310	5.28		
	36.12	89	38.75	7175	5.50		
	7.65	421	182.99	7110	1.07	FH-F35 FH-FL35	71
	8.53	378	164.13	7110	1.19		
	9.90	326	141.40	7110	1.38		
	10.84	297	129.16	7110	1.51		
	12.40	260	112.90	7110	1.73		
	13.76	234	101.77	7110	1.92		
	15.23	212	91.91	7110	2.13		
	16.98	190	82.45	7110	2.37		
	17.58	183	79.65	7110	2.45		
	19.29	167	72.56	7110	2.69		
	21.59	149	64.84	7110	3.01		
	23.25	139	60.21	7110	3.24		
	25.89	124	54.07	7090	3.24		
	30.32	106	46.18	6775	3.24		
	32.96	98	42.48	6610	3.24		
	36.70	88	38.14	6405	3.24		
	43.31	74	32.33	6035	4.88		
	50.70	64	27.61	5760	5.42		
	55.12	58	25.40	5615	5.73		

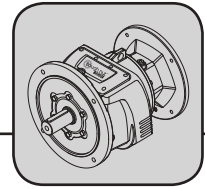


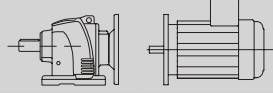
Helical Gear Units

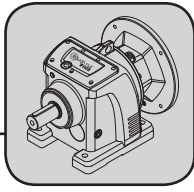
Selection Tables[kW]

1400 Input Rpm

Pm [kW]	na [1/min]	Ma [Nm]	i	FRa [N]	fs			m [g]
0.37	8.73	369	160.40	5420	0.81			
(0.5HP)	10.13	318	138.19	5420	0.94			
	11.09	291	126.22	5420	1.03			
	12.69	254	110.34	5420	1.18			
	14.08	229	99.46	5420	1.31			
	15.59	207	89.82	5420	1.45			
	17.37	186	80.58	5420	1.62			
	17.99	179	77.84	5420	1.67			
	19.74	163	70.91	5420	1.84	FH-F30		19
	22.09	146	63.37	5420	2.06	FH-FL30	71	17
	23.79	135	58.84	5420	2.21			17
	26.50	122	52.84	5420	2.47			
	31.02	104	45.13	5420	2.89			
	33.73	96	41.51	5420	3.14			
	37.56	86	37.28	5420	3.24			
	43.98	73	31.83	5420	4.09			
	51.49	63	27.19	5420	4.79			
	55.98	58	25.01	5420	5.21			
	62.34	52	22.46	5410	5.80			
	56.68	59	24.70	5420	5.12	FH-F30		18
	60.82	55	23.02	5420	5.49	FH-FL30	71	17
								16
	13.93	231	100.51	4950	0.86			
	15.30	211	91.53	4950	0.95			
	17.55	184	79.77	4950	1.09			
	18.26	176	76.66	4950	1.13			
	20.05	161	69.81	4860	1.24			
	23.01	140	60.84	4705	1.43	FH-F25		11
	25.91	124	54.03	4575	1.61	FH-FL25	71	12
	26.80	120	52.24	4490	1.66			11
	31.81	101	44.01	4310	1.97			
	34.93	92	40.08	4210	2.17			
	40.08	80	34.93	4060	2.49			
	45.13	71	31.02	3935	2.80			
	54.07	60	25.89	3750	3.24			
	57.14	58	24.50	3705	3.24			
	63.39	52	22.09	3595	3.24	FH-F25		11
	70.19	47	19.95	3495	3.24	FH-FL25	71	11
	78.24	42	17.89	3385	3.24			10
	88.90	37	15.75	3260	5.06			
	107.14	31	13.07	3085	5.83			
	39.81	81	35.17	1770	1.05			
	47.69	68	29.36	1770	1.26	FH-F20		8
	56.53	57	24.76	1770	1.49	FH-FL20	71	8
	71.10	45	19.69	1770	1.87			
	93.22	36	15.02	1720	2.00			
	110.64	30	12.65	1670	2.22			
	139.40	24	10.04	1600	2.56	FH-F20		8
	188.09	18	7.44	1490	3.08	FH-FL20	71	7
	280.41	12	4.99	1350	3.93			
	345.74	10	4.05	1280	4.46			
	255.94	13	5.47	2850	3.24			
	282.83	12	4.95	2710	3.24			
	309.05	11	4.53	2670	3.24			
	397.73	9	3.52	2440	10.10			
	484.43	7	2.89	2310	13.59	FX25	71	12
	514.71	7	2.72	2260	13.36			
	595.74	6	2.35	2155	14.23			
	752.69	5	1.86	2005	16.26			
	864.20	4	1.62	1915	16.63			



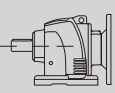
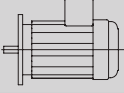
Pm [kW]	na [1/min]	Ma [Nm]	i	FRa [N]	fs		m [g]	
0.37 (0.5HP)	255.94	13	5.47	2440	2.76	FX20	71	10
	286.89	12	4.88	2370	3.19			
	307.69	11	4.55	2280	3.24			
	345.68	10	4.05	2240	3.24			
	385.67	9	3.63	2125	7.32			
	438.87	8	3.19	2045	8.16			
	466.67	7	3.00	2005	8.41			
	627.80	5	2.23	1830	9.68			
	880.50	4	1.59	1645	10.95			
	1068.70	3	1.31	1555	13.05			
0.55 (0.74HP)	0.30	14569	4664	62700	0.89	FMH110 FH40 FMV110 FH40 FMW110 FH40	80	406
	0.35	12614	4038	62700	1.03			398
	0.40	10889	3486	62700	1.19			382
	0.49	8974	2873	62700	1.45			
	0.55	8184	2541	62700	1.59			
	0.60	7464	2318	62700	1.74			
	0.71	6347	1971	62700	2.05			404
	0.78	5789	1798	62700	2.25			395
	0.87	5208	1617	62700	2.50			380
	0.97	4638	1440	62700	2.80			
1.08	4161	1292	62700	3.12				
1.18	3831	1190	62700	3.39				
0.55	8271	2569	37500	0.85	FMH90 FH40 FMV90 FH40 FMW90 FH40	80	254 265 250	
0.51	8801	2733	37500	0.80				
0.56	8092	2513	37500	0.87				
0.60	7481	2323	37500	0.94				
0.66	6826	2120	37500	1.03				
0.78	5802	1802	37500	1.21	FMH90 FH40	80	263	
0.90	4988	1549	37500	1.40	FMV90 FH40		275	
1.01	4474	1389	37500	1.56	FMW90 FH40		259	
1.09	4120	1279	37500	1.70				
1.30	3476	1080	37500	2.01				
1.53	2955	918	37500	2.37				
1.68	2685	834	37500	2.61				
1.11	4046	1256	29500	1.06				
1.21	3732	1159	29500	1.15	FMH70 FH40		80	173
1.37	3287	1021	29500	1.31	FMV70 FH40			176
1.64	2755	856	29500	1.56	FMW70 FH40	166		
1.74	2596	806	29500	1.66				
2.01	2241	696	29500	1.92				
0.92	4921	1528	29500	0.87				
1.03	4383	1361	29500	0.98	FMH70 FH40	80		181
1.15	3931	1221	29500	1.09	FMV70 FH40		185	
1.25	3620	1124	29500	1.19	FMW70 FH40		174	
1.48	3054	949	29500	1.41				
1.76	2564	796	29500	1.68				
1.73	2608	810	18100	1.15	FLH60 FH35		80	110
1.91	2360	733	18100	1.27	FLV60 FH35			114
					FLW60 FH35	103		
1.28	3512	1091	18100	0.85				
1.47	3066	952	18100	0.98				
1.68	2690	835	18100	1.12				
1.82	2474	768	18100	1.21				
2.08	2170	674	18100	1.38	FLH60 FH35	80	111	
2.38	1895	588	18100	1.58	FLV60 FH35		118	
2.80	1609	500	18100	1.87	FLW60 FH35		107	
3.21	1404	436	18100	2.14				
3.65	1235	384	18100	2.43				

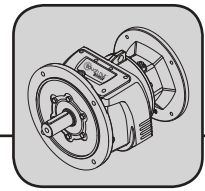


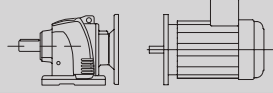
Helical Gear Units

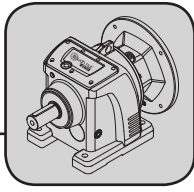
Selection Tables[kW]

1400 Input Rpm

Pm [kW]	na [1/min]	Ma [Nm]	i	FRa [N]	fs			m [kg]
0.55 (0.74HP)	4.18	1079	335	18100	2.78			
	4.77	945	293	18100	3.18			
	5.80	777	241	18100	3.86			
	2.68	1681	522	16900	0.89			
	2.84	1590	494	16900	0.94	FLH50 FH35		79
	3.18	1416	440	16900	1.06	FLV50 FH35	80	82
	3.71	1217	378	16900	1.23	FLW50 FH35		78
	4.49	1005	312	16900	1.49			
	2.93	1589	479	16900	0.94	FLH50 FH35		76
	3.39	1369	412	16900	1.10	FLV50 FH35	80	80
	3.89	1196	360	16900	1.25	FLW50 FH35		76
	5.12	908	273	8620	0.83	FLH40 FH25		40
	5.99	776	234	8620	0.97	FLV40 FH25	80	46
	7.07	657	198	8620	1.14	FLW40 FH25		42
	6.95	689	201.38	16900	2.18			
	7.79	615	179.70	16900	2.18			
	8.69	551	161.11	16900	2.18	FL-F50		63
	10.19	470	137.42	16900	2.18	FL-FL50	80	67
	11.46	418	122.17	16900	3.71			61
	12.44	385	112.52	16900	4.03			
	16.04	299	87.27	16900	5.19			
	9.10	527	153.87	8620	1.42			
	9.95	482	140.70	8620	1.56			
	11.26	426	124.34	8620	1.76			
	12.78	375	109.54	8620	2.00			
	15.59	307	89.80	8620	2.18			
	16.54	290	84.62	8620	2.18	FL-F40		34
	19.17	250	73.05	8620	3.00	FL-FL40	80	39
	24.25	198	57.73	8620	3.80			35
	26.30	182	53.24	8620	4.12			
	29.85	161	46.90	8490	4.67			
	35.62	135	39.31	7995	4.96			
	38.64	127	36.23	7855	5.16			
	43.78	109	31.97	7520	5.69			
	11.17	429	125.28	7560	1.40			
	12.46	384	112.34	7560	1.56			
	14.19	338	98.69	7560	1.78			
	15.09	318	92.80	7560	1.89			
	17.81	269	78.59	7560	2.18			
	20.32	236	68.90	7560	2.18	FL-F35*		28
	22.20	216	63.07	7560	2.18	FL-FL35*	80	25
	24.04	199	58.23	7560	2.18			23
	26.81	179	52.21	7560	2.18			
	30.52	157	45.87	7425	3.82			
	33.97	141	41.22	7110	3.55			
	36.12	133	38.75	6990	3.70			
	43.72	110	32.02	6695	5.08			
	48.66	98	28.77	6420	4.51			
	57.99	85	24.14	6145	5.95	FL-F35*		27
						FL-FL35*	80	24
								23
	15.23	315	91.91	7110	1.43			
	16.98	282	82.45	7110	1.59			
	17.58	273	79.65	7110	1.65			
	19.29	248	72.56	7110	1.81			
	21.59	222	64.84	7110	2.03	FL-F35	80	
	23.25	206	60.21	7040	2.18	FL-FL35		22
	25.89	185	54.07	6845	2.18			24
	30.32	158	46.18	6565	2.18			23
	32.96	145	42.48	6420	2.18			
	36.70	131	38.14	6230	2.18			



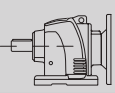
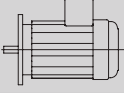
Pm [kW]	na [1/min]	Ma [Nm]	i	FRa [N]	fs		m [g]	
0.55 (0.74HP)	43.31	111	32.33	5860	3.28			
	50.70	95	27.61	5610	3.65			
	55.12	87	25.40	5480	3.86			
	61.38	78	22.81	5315	4.14			
	55.39	89	25.27	5530	4.29			
	59.44	83	23.55	5420	4.49	FH-F35	21	
	66.78	74	20.96	5235	4.86	FH-FL35	80	21
	74.47	66	18.80	5070	5.22			20
	90.15	55	15.53	4785	5.93			
	22.09	217	63.37	5420	1.38			
	23.79	201	58.84	5420	1.49			
	26.50	181	52.84	5420	1.66			
	31.02	154	45.13	5420	1.94	FH-F30		20
	33.73	142	41.51	5420	2.11	FH-FL30		19
	37.56	128	37.28	5420	2.18		80	18
	43.98	109	31.83	5420	2.75			
	51.49	93	27.19	5420	3.22			
	55.98	86	25.01	5420	3.51			
	62.34	77	22.46	5290	3.90			
	56.68	87	24.70	5420	3.44			
	60.82	81	23.02	5375	3.69	FH-F30		19
	68.33	72	20.49	5195	4.15	FH-FL30		18
	76.20	65	18.37	5030	4.63		80	17
	92.25	54	15.18	4750	5.60			
	34.93	137	40.08	3965	1.46	FH-F25		14
	40.08	120	34.93	3850	1.67	FH-FL25		13
	45.13	106	31.02	3750	1.88		80	12
	54.07	89	25.89	3590	2.18			
	57.14	86	24.50	3560	2.18			
	63.39	78	22.09	3470	2.18			
	70.19	70	19.95	3380	2.18			
	78.24	63	17.89	3280	2.18	FH-F25		13
	88.90	56	15.75	3170	3.40	FH-FL25		13
	107.14	46	13.07	3010	3.93		80	12
	119.32	41	11.73	2920	4.22			
	139.69	35	10.02	2790	4.68			
	164.77	30	8.50	2655	5.23			
	207.81	24	6.74	2470	5.60			
	93.22	53	15.02	1500	1.35			
	110.64	45	12.65	1490	1.50			
	139.40	35	10.04	1450	1.72	FH-F20		9
	188.09	26	7.44	1390	2.07	FH-FL20		8
	280.41	18	4.99	1280	2.64		80	
	345.74	14	4.05	1220	3.00			
	255.94	20	5.47	2810	2.18			
	282.83	18	4.95	2660	2.18			
	309.05	16	4.53	2630	2.18			
	397.73	13	3.52	2400	6.79			
	484.43	11	2.89	2280	9.14	FX25		14
	514.71	10	2.72	2230	8.99		80	
	595.74	9	2.35	2130	9.58			
	752.69	7	1.86	1985	10.94			
	864.20	6	1.62	1895	11.19			
	307.69	17	4.55	2210	2.18			
	345.68	15	4.05	2200	2.18			
	385.67	13	3.63	2075	4.93			
	438.87	12	3.19	2000	5.49			
	466.67	11	3.00	1965	5.65	FX20		12
	627.80	8	2.23	1795	6.51		80	
	880.50	6	1.59	1620	7.36			
	1068.70	5	1.31	1540	8.78			

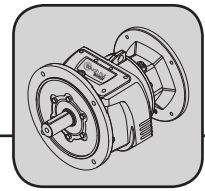


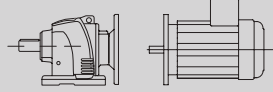
Helical Gear Units

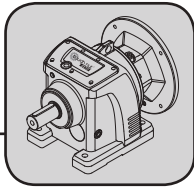
Selection Tables[kW]

1400 Input Rpm

Pm [kW]	na [1/min]	Ma [Nm]	i	FRa [N]	fs			m [kg]
0.75 (1HP)	0.55	11159	2541	62700	1.16	FMH110 FH40 FMV110 FH40 FMW110 FH40	80	404 395 380
	0.60	10178	2318	62700	1.28			
	0.71	8655	1971	62700	1.50			
	0.78	7894	1798	62700	1.65			
	0.87	7101	1617	62700	1.83			
	0.97	6325	1440	62700	2.06			
	1.08	5673	1292	62700	2.29			
1.18	5224	1190	62700	2.49				
0.77	0.77	8011	1824	37500	0.87	FMH90 FH40 FMV90 FH40 FMW90 FH40	80	254 265 250
	0.82	7522	1713	37500	0.93			
	0.89	6916	1575	37500	1.01			
	1.03	5944	1354	37500	1.18			
	1.12	5482	1249	37500	1.28			
0.78	0.78	7912	1802	37500	0.88	FMH90 FH40 FMV90 FH40 FMW90 FH40	80	263 275 259
	0.90	6802	1549	37500	1.03			
	1.01	6101	1389	37500	1.15			
	1.09	5618	1279	37500	1.25			
	1.30	4740	1080	37500	1.48			
	1.53	4029	918	37500	1.74			
	1.68	3661	834	37500	1.91			
	1.92	3196	728	37500	2.19			
1.37	1.37	4483	1021	29500	0.96	FMH70 FH40 FMV70 FH40 FMW70 FH40	80	173 176 166
	1.64	3757	856	29500	1.14			
	1.74	3540	806	29500	1.21			
1.48	1.48	4165	949	29500	1.03	FMH70 FH40 FMV70 FH40 FMW70 FH40	80	181 185 174
	1.76	3497	796	29500	1.23			
	2.35	2616	596	29500	1.64			
	2.85	2161	492	29500	1.99			
	3.37	1823	415	29500	2.36			
	4.02	1531	349	29500	2.81			
2.08	2.08	2959	674	18100	1.01	FLH60 FH35 FLV60 FH35 FLW60 FH35	80	111 118 107
	2.38	2584	588	18100	1.16			
	2.80	2194	500	18100	1.37			
	3.21	1915	436	18100	1.57			
	3.65	1685	384	18100	1.78			
	4.18	1471	335	18100	2.04			
	4.77	1288	293	18100	2.33			
	5.80	1060	241	18100	2.83			
3.71	3.71	1659	378	16900	0.90	FLH50 FH35 FLV50 FH35 FLW50 FH35	80	79 82 78
	4.49	1370	312	16900	1.09			
	5.32	1156	263	16900	1.30			
	6.05	1016	231	16900	1.48			
3.89	3.89	1630	360	16900	0.92	FLH50 FH35 FLV50 FH35 FLW50 FH35	80	76 80 78
	4.55	1394	308	16900	1.08			
	5.32	1191	263	16900	1.26			
6.95	6.95	940	201.38	16900	1.60	FH-F50 FH-FL50	80	63 67 61
	7.79	839	179.70	16900	1.60			
	8.69	752	161.11	16900	1.60			
	10.19	641	137.42	16900	1.60			
	11.46	570	122.17	16900	2.72			
	12.44	525	112.52	16900	2.95			
	16.04	407	87.27	16900	3.81			
	19.55	334	71.60	16900	4.45			
	21.95	298	63.77	16900	4.80			
	22.75	287	61.54	16900	4.92			
	25.54	256	54.81	16900	5.31			
	28.48	229	49.16	16900	5.71			



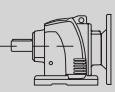
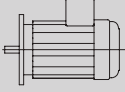
Pm [kW]	na [1/min]	Ma [Nm]	i	FRa [N]	fs		m [g]
0.75 (1HP)	9.10	718	153.87	8620	1.04	FH-F40 FH-FL40	80
	9.95	657	140.70	8620	1.14		
	11.26	580	124.34	8620	1.29		
	12.78	511	109.54	8620	1.47		
	15.59	419	89.80	8620	1.60		
	16.54	395	84.62	8620	1.60		
	19.17	341	73.05	8620	2.20		
	24.25	269	57.73	8620	2.78		
	26.30	248	53.24	8605	3.02		
	29.85	219	46.90	8310	3.43		
	35.62	183	39.31	7820	3.64		
	38.64	173	36.23	7690	3.78		
	43.78	149	31.97	7375	4.17		
	55.40	118	25.27	6890	4.88		
	60.06	112	23.31	6770	5.89		
		11.17	585	125.28	7560		
12.46		524	112.34	7560	1.14		
14.19		461	98.69	7560	1.30		
15.09		433	92.80	7560	1.39		
17.81		367	78.59	7560	1.60		
20.32		322	68.90	7560	1.60		
22.20		294	63.07	7560	1.60		
24.04		272	58.23	7560	1.60		
26.81		244	52.21	7465	1.60		
30.52		214	45.87	7220	2.80		
33.97		192	41.22	6890	2.60		
36.12		181	38.75	6785	2.71		
43.72		149	32.02	6550	3.72		
48.66		134	28.77	6270	3.31		
61.14		107	22.90	5955	4.66		
		57.99	116	24.14	6035	4.36	FH-F35* FH-FL35*
	65.63	103	21.33	5820	4.73		
	74.49	90	18.79	5610	5.15		
	90.87	74	15.41	5290	5.88		
	15.23	429	91.91	7110	1.05	FH-F35 FH-FL35	80
	16.98	385	82.45	7110	1.17		
	17.58	372	79.65	7110	1.21		
	19.29	339	72.56	7010	1.33		
	21.59	303	64.84	6845	1.49		
	23.25	281	60.21	6735	1.60		
	25.89	252	54.07	6575	1.60		
	30.32	216	46.18	6335	1.60		
	32.96	198	42.48	6205	1.60		
	36.70	178	38.14	6040	1.60		
	43.31	151	32.33	5665	2.41		
	50.70	129	27.61	5445	2.68		
	55.12	119	25.40	5325	2.83		
	61.38	106	22.81	5175	3.04		
	55.39	122	25.27	5400	3.14	FH-F35 FH-FL35	80
	59.44	113	23.55	5300	3.30		
	66.78	101	20.96	5130	3.56		
	74.47	90	18.80	4975	3.83		
	90.15	75	15.53	4710	4.35		
	121.43	55	11.53	4310	5.31		

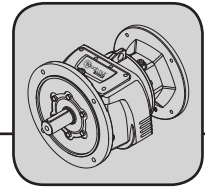


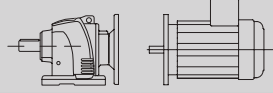
Helical Gear Units

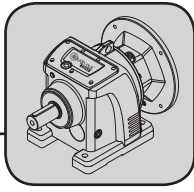
Selection Tables[kW]

1400 Input Rpm

Pm [kW]	na [1/min]	Ma [Nm]	i	FRa [N]	fs			m [g]
0.75 (1HP)	22.09	296	63.37	5420	1.01	FH-F30 FH-FL30	80	20 19 18
	23.79	275	58.84	5420	1.09			
	26.50	247	52.84	5420	1.22			
	31.02	211	45.13	5420	1.42			
	33.73	194	41.51	5420	1.55			
	37.56	174	37.28	5420	1.60			
	43.98	149	31.83	5420	2.02			
	51.49	127	27.19	5415	2.36			
	55.98	117	25.01	5300	2.57			
	62.34	105	22.46	5150	2.86			
56.68	119	24.70	5360	2.52	FH-F30 FH-FL30	80	19 18 17	
60.82	111	23.02	5255	2.71				
68.33	99	20.49	5090	3.04				
76.20	88	18.37	4935	3.39				
92.25	73	15.18	4670	4.11				
124.25	54	11.27	4280	5.27				
34.93	187	40.08	3695	1.07	FH-F25 FH-FL25	80	14 13 12	
40.08	163	34.93	3615	1.23				
45.13	145	31.02	3540	1.38				
54.07	121	25.89	3415	1.60				
57.14	118	24.50	3405	1.60	FH-F25 FH-FL25	80	13 13 12	
63.39	106	22.09	3325	1.60				
70.19	96	19.95	3250	1.60				
78.24	86	17.89	3165	1.60				
88.90	76	15.75	3070	2.50				
107.14	63	13.07	2925	2.88				
119.32	56	11.73	2845	3.09				
139.69	48	10.02	2725	3.44				
164.77	41	8.50	2600	3.83				
207.81	32	6.74	2425	4.10				
243.29	28	5.75	2315	4.56				
286.98	23	4.88	2205	5.09				
350.00	19	4.00	2080	5.81				
93.22	72	15.02	1260	0.99	FH-F20 FH-FL20	80	9 8	
110.64	61	12.65	1280	1.10				
139.40	48	10.04	1290	1.26				
188.09	36	7.44	1270	1.52				
280.41	24	4.99	1200	1.94				
345.74	19	4.05	1160	2.20				
255.94	27	5.47	2760	1.60	FX25	80	14	
282.83	25	4.95	2590	1.60				
309.05	22	4.53	2580	1.60				
397.73	17	3.52	2350	4.98				
484.43	14	2.89	2260	6.70				
514.71	13	2.72	2200	6.59				
595.74	12	2.35	2105	7.02				
752.69	9	1.86	1965	8.02				
864.20	8	1.62	1880	8.20				
307.69	23	4.55	2150	1.60				FX20
345.68	20	4.05	2160	1.60				
385.67	18	3.63	2020	3.61				
438.87	16	3.19	1950	4.03				
466.67	15	3.00	1915	4.15				
627.80	11	2.23	1760	4.77				
880.50	8	1.59	1595	5.40				
1068.70	6	1.31	1525	6.44				



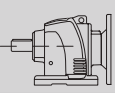
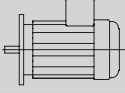
Pm [kW]	na [1/min]	Ma [Nm]	i	FRa [N]	fs		m [g]	
1.1 (1.5HP)	0.60	14928	2318.00	62700	0.87	FMH110 FH40 FMV110 FH40 FMW110 FH40	90L	404 395 380
	0.71	12694	1971.00	62700	1.02			
	0.78	11578	1798.00	62700	1.12			
	0.87	10415	1617.00	62700	1.25			
	0.97	9276	1440.00	62700	1.40			
	1.08	8321	1292.00	62700	1.56			
	1.18	7661	1190.00	62700	1.70			
	1.39	6465	1004.00	62700	2.01			
	1.67	5403	839.00	62700	2.41			
	1.96	4609	716.00	62700	2.82			
	1.03	8718	1354.00	37500	0.80	FMH90 FH40 FMV90 FH40 FMW90 FH40	90L	254 265 250
	1.12	8041	1249.00	37500	0.87			
	1.27	7084	1100.00	37500	0.99			
	1.52	5936	922.00	37500	1.18			
	1.61	5594	869.00	37500	1.25	FMH90 FH40 FMV90 FH40 FMW90 FH40	90L	263 275 259
	1.09	8239	1279.00	37500	0.85			
	1.30	6952	1080.00	37500	1.01			
	1.53	5910	918.00	37500	1.18			
	1.68	5369	834.00	37500	1.30			
	1.92	4688	728.00	37500	1.49			
	2.06	4367	678.00	37500	1.60			
	2.50	3606	560.00	37500	1.94			
	2.96	3043	473.00	37500	2.30	FMH70 FH40 FMV70 FH40 FMW70 FH40	90L	173 176 166
	2.01	4482	696.00	29500	0.96			
	2.35	3837	596.00	29500	1.12			
	2.85	3169	492.00	29500	1.36	FMH70 FH40 FMV70 FH40 FMW70 FH40	90L	181 185 174
	3.37	2674	415.00	29500	1.61			
	4.02	2245	349.00	29500	1.92			
	4.66	1935	300.00	29500	2.22			
	5.52	1632	253.00	29500	2.63			
	5.10	3000	452.00	18100	1.00			
	3.68	2526	380.00	18100	1.19	FLH60 FH35 FLV60 FH35 FLW60 FH35	90L	109 113 102
	4.17	2228	336.00	18100	1.35			
	4.92	1887	284.00	18100	1.59			
	5.72	1625	245.00	18100	1.85			
	6.15	1510	228.00	18100	1.99			
	5.32	1696	263.00	16900	0.88	FLH50 FH35 FLV50 FH35 FLW50 FH35	90L	79 82 78
	6.05	1490	231.00	16900	1.01			
	6.99	1290	200.00	16900	1.16			
	5.32	1747	263.00	16900	0.86	FLH50 FH35 FLV50 FH35 FLW50 FH35	90L	79 80 76
	6.12	1518	229.00	16900	0.99			
	6.93	1341	202.00	16900	1.12			
	11.46	836	122.17	16900	1.85	FH-F50 FH-FL50	90L	63 67 61
	12.44	770	112.52	16900	2.01			
	16.04	597	87.27	16900	2.59			
	19.55	490	71.60	16900	3.03			
	21.95	437	63.77	16900	3.27			
	22.75	421	61.54	16900	3.35			
	25.54	375	54.81	16900	3.62			
	28.48	337	49.16	16900	3.89			
	30.93	310	45.27	16900	4.12			
	36.65	261	38.20	16900	4.61			
	44.12	217	31.73	16640	4.37			
	57.64	166	24.29	15325	5.23			
	69.79	137	20.06	14435	5.94			

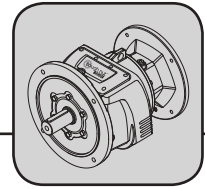


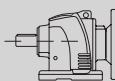
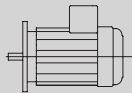
Helical Gear Units

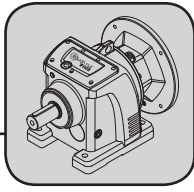
Selection Tables[kW]

1400 Input Rpm

Pm [kW]	na [1/min]	Ma [Nm]	i	FRa [N]	fs	 	m [g]			
1.1 (1.5HP)	19.17	500	73.05	8620	1.50	FH-F40 FH-FL40	90L	34		
	24.25	395	57.73	8410	1.90					
	26.30	364	53.24	8250	2.06					
	29.85	321	46.90	7995	2.34					
	35.62	269	39.31	7515	2.48					
	38.64	254	36.23	7405	2.58					
	43.78	219	31.97	7130	2.85					
55.40	173	25.27	6695	3.33						
60.06	164	23.31	6610	4.02	FH-F40	90L	32			
77.44	128	18.08	6145	4.76	FH-FL40		38			
94.38	105	14.83	5800	5.43			34			
105.97	93	13.21	5600	5.86						
26.81	357	52.21	7050	1.09	FH-F35* FH-FL35*		90L	28		
30.52	314	45.87	6855	1.91						
33.97	282	41.22	6505	1.77						
36.12	265	38.75	6420	1.85						
43.72	219	32.02	6300	2.54						
48.66	197	28.77	6000	2.25						
61.14	157	22.90	5775	3.17						
65.63	151	21.33	5650	3.23	FH-F35* FH-FL35*	90L	27			
74.49	133	18.79	5460	3.51						
90.87	109	15.41	5165	4.01						
111.70	88	12.53	4870	4.60						
141.35	70	9.90	4545	5.38						
30.32	316	46.18	5930	1.09				FH-F35 FH-FL35	90L	22
32.96	291	42.48	5835	1.09						
36.70	261	38.14	5705	1.09						
43.31	221	32.33	5325	1.64						
50.70	189	27.61	5150	1.82						
55.12	174	25.40	5060	1.93						
61.38	156	22.81	4935	2.07						
74.47	133	18.80	4805	2.61						
90.15	110	15.53	4565	2.97	FH-F35	90L	21			
121.43	81	11.53	4205	3.62	FH-FL35		21			
169.82	58	8.24	3820	4.52			20			
203.08	49	6.89	3585	4.46						
284.01	35	4.93	3250	5.58						
43.98	218	31.83	5295	1.38	FH-F30 FH-FL30	90L	20			
51.49	186	27.19	5125	1.61						
55.98	171	25.01	5030	1.75						
62.34	154	22.46	4910	1.95						
76.20	130	18.37	4765	2.31						
92.25	107	15.18	4530	2.80	FH-F30 FH-FL30	90L	19			
124.25	80	11.27	4175	3.60						
173.77	57	8.06	3790	4.50						
206.25	48	6.79	3565	4.45						
288.44	34	4.85	3230	5.56						
88.90	111	15.75	2890	1.70				FH-F25 FH-FL25	90L	13
107.14	92	13.07	2775	1.96						
119.32	83	11.73	2710	2.11						
139.69	71	10.02	2610	2.34						
164.77	60	8.50	2505	2.61						
207.81	48	6.74	2340	2.80						
243.29	41	5.75	2245	3.11						
286.98	34	4.88	2145	3.47						
350.00	28	4.00	2030	3.96						
295.36	34	4.74	4490	3.55	FX30	90L	20			
397.73	26	3.52	2270	3.40	FX25	90L	14			
484.43	21	2.89	2200	4.57						



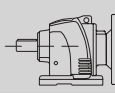
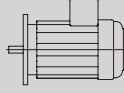
Pm [kW]	na [1/min]	Ma [Nm]	i	FRa [N]	fs			m [g]
1.1 (1.5HP)	514.71	20	2.72	2145	4.49	FX25	90L	14
	595.74	17	2.35	2055	4.79			
	752.69	14	1.86	1930	5.47			
	864.20	12	1.62	1845	5.59			
	1000.00	10	1.40	1770	6.01			
	385.67	26	3.63	1920	2.46	FX20	90L	12
	438.87	23	3.19	1860	2.75			
	466.67	22	3.00	1835	2.83			
	627.80	16	2.23	1700	3.25			
	880.50	12	1.59	1545	3.68			
1068.70	10	1.31	1495	4.39				
1.5 (2HP)	2.72	4525	515	62700	2.87	FMH110 FH50	90L	382
	3.17	3884	442	62700	3.35	FMV110 FH50		374
	3.47	3543	403	62700	3.67	FMW110 FH50		358
	0.78	15788	1798	62700	0.82	FMH110 FH40 FMV110 FH40 FMW110 FH40	90L	404 395 380
	0.87	14203	1617	62700	0.92			
	0.97	12649	1440	62700	1.03			
	1.08	11347	1292	62700	1.15			
	1.18	10447	1190	62700	1.24			
	1.39	8816	1004	62700	1.47			
	1.67	7368	839	62700	1.76			
	1.96	6284	716	62700	2.07			
	2.22	5537	630	62700	2.35			
	2.69	4563	520	62700	2.85			
	1.52	8095	922	37500	0.86	FMH90 FH40	90L	254
	1.61	7628	869	37500	0.92	FMV90 FH40		265
	1.87	6585	750	37500	1.06	FMW90 FH40		250
	2.03	6054	689	37500	1.16			
	1.53	8058	918	37500	0.87	FMH90 FH40 FMV90 FH40 FMW90 FH40	90L	263 275 259
	1.68	7322	834	37500	0.96			
	1.92	6392	728	37500	1.10			
	2.06	5954	678	37500	1.18			
	2.50	4918	560	37500	1.42			
	2.96	4150	473	37500	1.69			
	3.22	3815	434	37500	1.83			
	3.79	3243	369	37500	2.16			
	4.39	2798	319	37500	2.50			
	2.85	4321	492	29500	1.00			
						FMV70 FH40	185	
						FMW70 FH40	174	
	3.17	3994	441	29500	1.08	FMH70 FH40	90L	171
3.56	3562	393	29500	1.21	FMV70 FH40	174		
4.18	3034	335	29500	1.42	FMW70 FH40	163		
4.17	3038	336	18100	0.99	FLH60 FH35	90L	109	
4.92	2574	284	18100	1.17	FLV60 FH35		113	
5.72	2216	245	18100	1.35	FLW60 FH35		102	
6.15	2060	228	18100	1.46				
11.46	1140	122.17	16900	1.36	FH-F50 FH-FL50		90L	63 67 61
12.44	1050	112.52	16900	1.48				
16.04	815	87.27	16900	1.90				
19.55	668	71.60	16900	2.22				
21.95	595	63.77	16900	2.40				
22.75	574	61.54	16900	2.46				
25.54	512	54.81	16900	2.66				
28.48	459	49.16	16900	2.86				
30.93	423	45.27	16900	3.02				
36.65	357	38.20	16900	3.38				
44.12	296	31.73	16395	3.21				
57.64	227	24.29	15135	3.83				
69.79	187	20.06	14280	4.35				

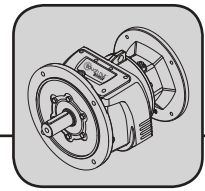


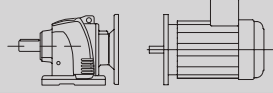
Helical Gear Units

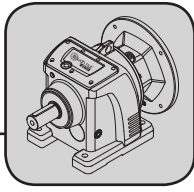
Selection Tables[kW]

1400 Input Rpm

Pm [kW]	na [1/min]	Ma [Nm]	i	FRa [N]	fs	 	m [g]	
1.5 (2HP)	61.34	220	22.83	14930	4.62	FH-F50 FH-FL50	90L	60
	70.59	191	19.83	14295	5.07			65
	79.95	169	17.51	13750	5.51			59
	19.17	682	73.05	8310	1.10	FH-F40 FH-FL40	90L	34
	24.25	539	57.73	7965	1.39			
	26.30	497	53.24	7840	1.51			
	29.85	438	46.90	7635	1.71			
	35.62	367	39.31	7165	1.82			
	38.64	346	36.23	7075	1.89			
	43.78	298	31.97	6845	2.09			
55.40	236	25.27	6470	2.44				
60.06	224	23.31	6425	2.95	FH-F40 FH-FL40	90L	32	
77.44	174	18.08	6000	3.49				
94.38	143	14.83	5680	3.98				
105.97	127	13.21	5495	4.30				
118.14	114	11.85	5330	4.62				
128.31	105	10.91	5200	4.89				
152.06	89	9.21	4950	5.47				
26.81	487	52.21	6580	0.80	FH-F35* FH-FL35*	90L	28	
30.52	428	45.87	6440	1.40				
33.97	385	41.22	6065	1.30				
36.12	362	38.75	6010	1.36				
43.72	299	32.02	6010	1.86				
48.66	269	28.77	5695	1.65				
61.14	214	22.90	5570	2.33				
65.63	205	21.33	5450	2.37	FH-F35* FH-FL35*	90L	27	
74.49	181	18.79	5280	2.58				
90.87	148	15.41	5020	2.94				
111.70	121	12.53	4750	3.37				
141.35	95	9.90	4450	3.95				
230.90	58	6.06	3825	4.53				
267.48	50	5.23	3660	5.00				
338.46	40	4.14	3415	5.84				
30.32	431	46.18	5465	0.80	FH-F35 FH-FL35	90L	22	
32.96	396	42.48	5405	0.80				
36.70	356	38.14	5325	0.80				
43.31	302	32.33	4935	1.20				
50.70	258	27.61	4820	1.34				
55.12	237	25.40	4755	1.41				
61.38	213	22.81	4660	1.52				
74.47	181	18.80	4610	1.92	FH-F35 FH-FL35	90L	21	
90.15	149	15.53	4405	2.18				
121.43	111	11.53	4090	2.65				
169.82	79	8.24	3735	3.32				
203.08	66	6.89	3500	3.27				
284.01	47	4.93	3185	4.09				
345.18	39	4.06	3015	4.66				
43.98	297	31.83	4910	1.01				FH-F30 FH-FL30
51.49	254	27.19	4795	1.18				
55.98	233	25.01	4730	1.29				
62.34	210	22.46	4640	1.43				
76.20	177	18.37	4570	1.70				
92.25	146	15.18	4370	2.05	FH-F30 FH-FL30	90L	19	
124.25	108	11.27	4055	2.64				
173.77	78	8.06	3705	3.30				
206.25	65	6.79	3480	3.26				
288.44	47	4.85	3170	4.08				
350.58	38	3.99	2995	4.65				
88.90	152	15.75	2685	1.25				
107.14	126	13.07	2610	1.44				



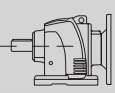
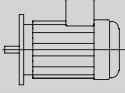
Pm [kW]	na [1/min]	Ma [Nm]	i	FRa [N]	fs		m [g]	
1.5 (2HP)	119.32	113	11.73	2560	1.55	FH-F25 FH-FL25	90L	13
	139.69	96	10.02	2480	1.72			
	164.77	82	8.50	2395	1.92			
	207.81	65	6.74	2250	2.05			
	243.29	55	5.75	2165	2.28			
	286.98	47	4.88	2080	2.55			
	350.00	38	4.00	1975	2.91	FX30	90L	20
	295.36	47	4.74	4390	2.60			
	307.69	45	4.55	4350	2.94			
	334.13	42	4.19	4240	3.43			
	373.33	37	3.75	4130	4.11			
	430.77	32	3.25	4030	5.24			
	524.34	26	2.67	3720	4.99	FX25	90L	14
	588.24	24	2.38	3635	5.71			
	397.73	35	3.52	2180	2.49			
	484.43	29	2.89	2140	3.35			
	514.71	27	2.72	2080	3.29			
	595.74	23	2.35	2000	3.51			
752.69	18	1.86	1890	4.01	FX20	90L	12	
864.20	16	1.62	1805	4.10				
1000.00	14	1.40	1735	4.41				
385.67	36	3.63	1625	1.81				
438.87	32	3.19	1650	2.01				
466.67	30	3.00	1655	2.07				
627.80	22	2.23	1625	2.39	FMH120 FH60 FMV120 FH60	100L	609 608	
880.50	16	1.59	1490	2.70				
1068.70	13	1.31	1465	3.22				
0.85	21225	1648	88200	0.85				
0.94	19187	1490	88200	0.94				
1.15	15658	1216	88200	1.15				
1.36	13297	1032	88200	1.35				
1.50	12020	933	88200	1.50				
1.70	10620	825	88200	1.69				
1.88	9600	745	88200	1.87				
2.12	8490	659	88200	2.12				
2.72	6636	515	62700	1.96				
3.17	5697	442	62700	2.28				
3.47	5196	403	62700	2.50				
3.84	4695	365	62700	2.77				
4.18	4309	335	62700	3.02				
1.18	15323	1190	62700	0.85				
1.39	12930	1004	62700	1.01				
1.67	10807	839	62700	1.20				
1.96	9217	716	62700	1.41				
2.22	8121	630	62700	1.60				
2.69	6693	520	62700	1.94				
3.26	5528	429	62700	2.35				
2.06	8733	678	37500	0.80				
2.50	7213	560	37500	0.97				
0								
2.56	7258	547	37500	0.96				
2.79	6673	503	37500	1.05				
3.30	5629	424	37500	1.24				
3.59	5176	390	37500	1.35				
4.02	4619	348	37500	1.52				
4.52	4114	310	37500	1.70				
4.92	3782	285	37500	1.85				
4.02	4490	349	29500	0.96				
4.66	3869	300	29500	1.11				
5.52	3265	253	29500	1.32				
6.55	2751	214	29500	1.56				
					FMH90 FH40 FMV90 FH40 FMW90 FH40	100L	266 277 261	
					FMH90 FH40 FMV90 FH40 FMW90 FH40	100L	255 266 250	
					FMH70 FH40 FMV70 FH40 FMW70 FH40	100L	184 187 177	

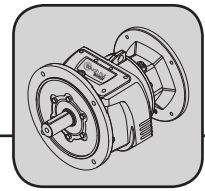


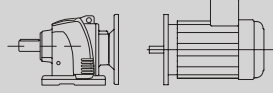
Helical Gear Units

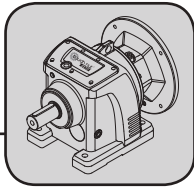
Selection Tables[kW]

1400 Input Rpm

Pm [kW]	na [1/min]	Ma [Nm]	i	FRa [N]	fs			m [g]					
2.2 (3HP)	4.18	4450	335	29500	0.97		100L	173					
								177					
								166					
	6.76	2670	207	18100	1.12		100L	114					
								121					
								110					
	7.03	2725	199.06	18100	1.10								
									7.73	2479	181.06	18100	1.21
									8.42	2277	166.33	18100	1.32
									9.69	1979	144.53	18100	1.52
									10.97	1747	127.61	18100	1.72
									12.56	1525	111.42	18100	1.97
									14.32	1338	97.76	18100	2.24
									14.80	1295	94.59	18100	2.32
									16.40	1168	85.35	18100	2.57
									16.95	1131	82.59	18100	2.65
									18.02	1064	77.70	18100	2.82
									19.32	992	72.46	18100	3.02
									20.99	913	66.71	18100	3.29
									22.13	866	63.27	18100	3.46
									23.52	815	59.52	18100	3.68
									27.40	700	51.10	18100	4.29
									31.41	610	44.57	18100	4.67
37.00	518	37.84	18100	5.33									
42.42	466	33.00	18100	5.98			100L	95					
								102					
								93					
	12.44	1540	112.52	16900	1.01								
									16.04	1195	87.27	16900	1.30
									19.55	980	71.60	16900	1.52
									21.95	873	63.77	16900	1.64
									22.75	842	61.54	16900	1.68
									25.54	750	54.81	16900	1.81
									28.48	673	49.16	16900	1.95
									30.93	620	45.27	16900	2.06
									36.65	523	38.20	16900	2.30
									44.12	434	31.73	15970	2.19
									57.64	333	24.29	14810	2.61
									69.79	275	20.06	14010	2.97
										61.34	322	22.83	14650
70.59	280	19.83	14055	3.46									
79.95	247	17.51	13540	3.76									
91.56	216	15.29	12995	4.12									
107.86	183	12.98	12365	4.59									
123.53	160	11.33	11860	5.02									
131.30	150	10.66	11635	5.23									
152.94	129	9.15	11095	5.79									
206.60	96	6.78	10055	5.94									
	29.85	642	46.90	7000	1.17								
									35.62	538	39.31	6560	1.24
									38.64	507	36.23	6500	1.29
									43.78	438	31.97	6350	1.42
									55.40	346	25.27	6080	1.66
	60.06	329	23.31	6100	2.01								
									77.44	255	18.08	5750	2.38
									94.38	209	14.83	5475	2.71
									105.97	186	13.21	5315	2.93
									118.14	167	11.85	5165	3.15
									128.31	154	10.91	5050	3.33
									152.06	130	9.21	4820	3.73



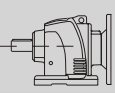
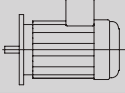
Pm [kW]	na [1/min]	Ma [Nm]	i	FRa [N]	fs		m [g]	
2.2 (3HP)	242.11	82	5.78	4180	4.31			
	293.14	67	4.78	3955	4.90			
	347.40	57	4.03	3765	5.49			
	43.72	438	32.02	5500	1.27	FH-F35*	31	
	48.66	394	28.77	5155	1.13	FH-FL35*	100L	29
	61.14	313	22.90	5205	1.59		27	
	74.49	265	18.79	4975	1.76			
	90.87	217	15.41	4770	2.00			
	111.70	177	12.53	4545	2.30	FH-F35*	30	
	141.35	140	9.90	4290	2.69	FH-FL35*	100L	28
	230.90	86	6.06	3705	3.09		26	
	267.48	74	5.23	3560	3.41			
	338.46	58	4.14	3335	3.98			
	61.38	312	22.81	4180	1.04	FH-F35 FH-FL35	100L	25 28 26
	121.43	163	11.53	3880	1.81			
169.82	116	8.24	3585	2.26	FH-F35	24		
203.08	97	6.89	3350	2.23	FH-FL35	100L	25	
284.01	70	4.93	3080	2.79		23		
345.18	57	4.06	2925	3.18				
124.25	159	11.27	3850	1.80				
173.77	114	8.06	3560	2.25	FH-F30	22		
206.25	96	6.79	3330	2.22	FH-FL30	100L	21	
288.44	68	4.85	3065	2.78		20		
350.58	56	3.99	2910	3.17				
334.13	61	4.19	3860	2.34				
430.77	47	3.25	3950	3.57				
524.34	39	2.67	3620	3.41				
588.24	35	2.38	3565	3.89	FX30	100L	23	
657.28	31	2.13	3465	4.21				
714.29	29	1.96	3335	4.03				
843.37	24	1.66	3170	4.28				
397.73	51	3.52	1790	1.70				
484.43	42	2.89	1970	2.29				
514.71	40	2.72	1905	2.25				
595.74	34	2.35	1895	2.39	FX25	100L	17	
752.69	27	1.86	1820	2.74				
864.20	24	1.62	1735	2.80				
1000.00	20	1.40	1680	3.01				
438.87	46	3.19	990	1.37				
627.80	32	2.23	1165	1.63				
880.50	23	1.59	1205	1.84	FX20	100L	15	
1068.70	19	1.31	1315	2.20				
3 (4HP)	1.15	21352	1216	88200	0.84			
	1.36	18133	1032	88200	0.99			
	1.50	16391	933	88200	1.10	FMH120 FH60	609	
	1.70	14482	825	88200	1.24	FMV120 FH60	100L	608
	1.88	13091	745	88200	1.37			
	2.12	11578	659	88200	1.55			
	2.54	9680	551	88200	1.86			
	2.72	9049	515	62700	1.44			
	3.17	7769	442	62700	1.67	FMH110 FH50	385	
	3.47	7086	403	62700	1.83	FMV110 FH50	100L	376
	3.84	6403	365	62700	2.03	FMW110 FH50	361	
	4.18	5876	335	62700	2.21			
	4.87	5045	287	62700	2.58			
	2.69	9127	520	62700	1.42	FMH110 FH40	406	
	3.26	7538	429	62700	1.72	FMV110 FH40	100L	398
					FMW110 FH40	382		

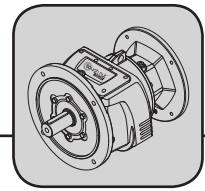


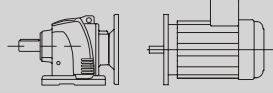
Helical Gear Units

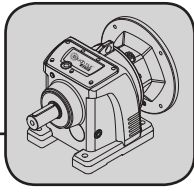
Selection Tables[kW]

1400 Input Rpm

Pm [kW]	na [1/min]	Ma [Nm]	i	FRa [N]	fs	 	m [kg]			
3 (4HP)	2.96	8300	473	37500	0.84	FMH90 FH40 FMV90 FH40 FMW90 FH40	100L	266 277 261		
	3.22	7631	434	37500	0.92					
	3.79	6486	369	37500	1.08					
	4.39	5596	319	37500	1.25					
	4.94	4980	284	37500	1.41					
	5.87	4186	238	37500	1.67	FMH90 FH40 FMV90 FH40 FMW90 FH40	100L	255 266 250		
	3.59	7058	390	37500	0.99					
	5.52	4452	253	29500	0.97				FMH70 FH40 FMV70 FH40 FMW70 FH40	100L
	6.55	3752	214	29500	1.15					
	7.42	3315	189	29500	1.30					
	5.90	4300	237	29500	1.00	FMH70 FH40 FMV70 FH40 FMW70 FH40	100L	173 177 166		
	7.03	3716	199.06	18100	0.81					
	7.73	3380	181.06	18100	0.89					
	8.42	3105	166.33	18100	0.97	FH-F60 FH-FL60	100L	99 106 114		
	9.69	2698	144.53	18100	1.11					
	10.97	2382	127.61	18100	1.26					
	12.56	2080	111.42	18100	1.44					
	14.32	1825	97.76	18100	1.64					
	14.80	1766	94.59	18100	1.70					
16.40	1593	85.35	18100	1.88						
16.95	1542	82.59	18100	1.95						
18.02	1451	77.70	18100	2.07						
19.32	1353	72.46	18100	2.22						
20.99	1245	66.71	18100	2.41						
22.13	1181	63.27	18100	2.54						
23.52	1111	59.52	18100	2.70						
27.40	954	51.10	18100	3.14						
31.41	832	44.57	18100	3.42						
37.00	706	37.84	18100	3.91						
48.30	541	28.98	18100	4.67						
55.32	472	25.31	18100	5.11	FH-F60 FH-FL60				100L	95 102 93
42.42	635	33.00	18100	4.38						
48.11	560	29.10	18100	4.86						
16.04	1629	87.27	16900	0.95	FH-F50 FH-FL50				100L	66 70 64
19.55	1337	71.60	16900	1.11						
21.95	1190	63.77	16900	1.20						
22.75	1149	61.54	16900	1.23						
25.54	1023	54.81	16900	1.33						
28.48	918	49.16	16900	1.43						
30.93	845	45.27	16900	1.51						
36.65	713	38.20	16510	1.69						
44.12	592	31.73	15475	1.60						
57.64	453	24.29	14435	1.92						
69.79	374	20.06	13700	2.18		FH-F50 FH-FL50	100L	63 68 62		
61.34	439	22.83	14340	2.31						
70.59	382	19.83	13785	2.54						
79.95	337	17.51	13300	2.76						
91.56	294	15.29	12785	3.02						
107.86	250	12.98	12185	3.37						
123.53	218	11.33	11700	3.68						
131.30	205	10.66	11490	3.84						
152.94	176	9.15	10970	4.25						
206.60	130	6.78	9945	4.35						
243.37	111	5.75	9455	4.86						
296.26	91	4.73	8895	5.54						



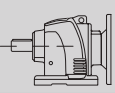
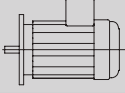
Pm [kW]	na [1/min]	Ma [Nm]	i	FRa [N]	fs		m [g]			
3 (4HP)	29.85	876	46.90	6280	0.86	FH-F40 FH-FL40	100L	37		
	35.62	734	39.31	5860	0.91					
	38.64	691	36.23	5845	0.95					
	43.78	597	31.97	5785	1.04					
	55.40	472	25.27	5635	1.22	FH-F40 FH-FL40	100L	37		
	60.06	449	23.31	5730	1.47					
	77.44	348	18.08	5465	1.74					
	94.38	285	14.83	5240	1.99					
	105.97	254	13.21	5105	2.15					
	118.14	228	11.85	4975	2.31					
	128.31	210	10.91	4875	2.44					
	152.06	177	9.21	4675	2.74					
	242.11	111	5.78	4075	3.16					
	293.14	92	4.78	3870	3.59					
	347.40	78	4.03	3690	4.03	FH-F35* FH-FL35*	100L	31		
	43.72	598	32.02	4925	0.93					
	48.66	537	28.77	4540	0.83					
	61.14	427	22.90	4790	1.16	FH-F35* FH-FL35*	100L	29		
	74.49	362	18.79	4625	1.29					
	90.87	297	15.41	4480	1.47					
111.70	241	12.53	4315	1.69						
141.35	191	9.90	4105	1.97						
230.90	117	6.06	3570	2.26						
267.48	101	5.23	3445	2.50						
338.46	80	4.14	3245	2.92						
121.43	222	11.53	3640	1.33	FH-F35 FH-FL35				100L	24
169.82	159	8.24	3415	1.66						
203.08	133	6.89	3180	1.64						
284.01	95	4.93	2955	2.05						
345.18	78	4.06	2825	2.33	FH-F30 FH-FL30	100L	23			
124.25	217	11.27	3610	1.32						
173.77	155	8.06	3390	1.65						
206.25	131	6.79	3160	1.63						
288.44	93	4.85	2940	2.04						
350.58	77	3.99	2810	2.32	FX40	100L	37			
254.55	109	5.50	5110	1.94						
288.66	96	4.85	4950	2.25						
316.03	88	4.43	4800	3.29						
371.35	75	3.77	4690	4.08	FX30	100L	23			
334.13	83	4.19	3130	1.72						
430.77	64	3.25	3480	2.62	FX25	100L	17			
397.73	70	3.52	1150	1.25						
484.43	57	2.89	1480	1.68						
514.71	54	2.72	1415	1.65						
595.74	47	2.35	1455	1.76						
752.69	37	1.86	1535	2.01						
864.20	32	1.62	1495	2.05						
1000.00	28	1.40	1505	2.21						
438.87	63	3.19	240	1.01	FX20	100L	15			
627.80	44	2.23	605	1.19						
880.50	32	1.59	760	1.35						
1068.70	26	1.31	965	1.61						
4 (5.4HP)	1.70	19310	825	88200	0.93	FMH120 FH60 FMV120 FH60	112M	609		
	1.88	17455	745	88200	1.03					
	2.12	15437	659	88200	1.17					
	2.54	12906	551	88200	1.39					
	2.93	11196	478	88200	1.61					
	3.41	9619	411	88200	1.87					
	3.70	8863	378	88200	2.03					

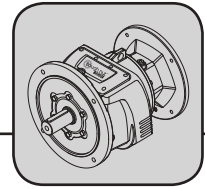


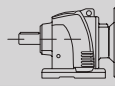
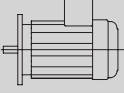
Helical Gear Units

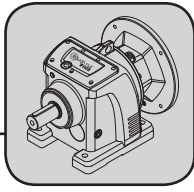
Selection Tables[kW]

1400 Input Rpm

Pm [kW]	na [1/min]	Ma [Nm]	i	FRa [N]	fs			m [kg]
4 (5.4HP)	2.72	12066	515	62700	1.08			
	3.17	10358	442	62700	1.26			
	3.47	9448	403	62700	1.38			
	3.84	8537	365	62700	1.52	FMH110 FH50		385
	4.18	7835	335	62700	1.66	FMV110 FH50	112M	376
	4.87	6726	287	62700	1.93	FMW110 FH50		361
	5.72	5737	245	62700	2.27			
	6.59	4978	213	62700	2.61			
	7.67	4273	182	62700	3.04			
	8.28	3961	169	62700	3.28			
	2.69	12169	520	62700	1.07	FMH110 FH40		406
	3.26	10050	429	62700	1.29	FMV110 FH40	112M	398
						FMW110 FH40		382
	3.79	8648	369	37500	0.81	FMH90 FH40		266
	4.39	7461	319	37500	0.94	FMV90 FH40	112M	277
	4.94	6640	284	37500	1.05	FMW90 FH40		261
	5.87	5582	238	37500	1.25			
	4.02	8398	348	37500	0.83	FMH90 FH40		255
	4.52	7480	310	37500	0.94	FMV90 FH40	112M	266
	4.92	6877	285	37500	1.02	FMW90 FH40		250
	7.42	4420	189	29500	0.97	FMH70 FH40		184
						FMV70 FH40	112M	187
						FMW70 FH40		177
	7.37	4586	190	29500	0.94	FMH70 FH40		173
	8.22	4113	170	29500	1.05	FMV70 FH40	112M	177
						FMW70 FH40		166
	10.97	3176	127.61	18100	0.94			
	12.56	2773	111.42	18100	1.08			
	14.32	2433	97.76	18100	1.23			
	14.80	2354	94.59	18100	1.27			
	16.40	2124	85.35	18100	1.41			
	16.95	2056	82.59	18100	1.46			
	18.02	1934	77.70	18100	1.55			99
	19.32	1804	72.46	18100	1.66	FH-F60	112M	106
	20.99	1660	66.71	18100	1.81	FH-FL60		114
	22.13	1575	63.27	18100	1.91			
	23.52	1482	59.52	18100	2.02			
	27.40	1272	51.10	18100	2.36			
	31.41	1109	44.57	18100	2.57			
	37.00	942	37.84	18100	2.93			
	48.30	721	28.98	18100	3.50			
	55.32	630	25.31	18100	3.83			
	42.42	847	33.00	18100	3.29			95
	48.11	747	29.10	18100	3.64	FH-F60	112M	102
	65.94	545	21.23	18100	4.71	FH-FL60		93
	82.56	435	16.96	17600	5.85			
	21.95	1587	63.77	16900	0.90			
	22.75	1532	61.54	16900	0.92			
	25.54	1364	54.81	16900	1.00			
	28.48	1224	49.16	16755	1.07	FH-F50		66
	30.93	1127	45.27	16470	1.13	FH-FL50	112M	70
	36.65	951	38.20	15875	1.27			64
	44.12	790	31.73	14865	1.20			
	57.64	605	24.29	13960	1.44			
	69.79	499	20.06	13310	1.63			
	70.59	509	19.83	13440	1.90			
	79.95	449	17.51	13000	2.07			
	91.56	392	15.29	12525	2.26	FH-F50	112M	63
	107.86	333	12.98	11960	2.52			
	123.53	291	11.33	11505	2.76			



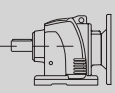
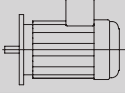
Pm [kW]	na [1/min]	Ma [Nm]	i	FRa [N]	fs	 	m [g]	
4 (5.4HP)	131.30	274	10.66	11305	2.88	FH-FL50	112M	68
	152.94	235	9.15	10810	3.19			
	206.60	174	6.78	9810	3.27			
	243.37	148	5.75	9340	3.64			
	296.26	121	4.73	8805	4.15			
	345.10	104	4.06	8400	4.60	FH-F40 FH-FL40	112M	35
	94.38	381	14.83	4945	1.49			
	105.97	339	13.21	4845	1.61			
	118.14	304	11.85	4740	1.73			
	128.31	280	10.91	4660	1.83			
	152.06	236	9.21	4490	2.05			
	242.11	148	5.78	3945	2.37			
	293.14	123	4.78	3760	2.70	FH-F35* FH-FL35*	112M	28
	347.40	103	4.03	3595	3.02			
	111.70	322	12.53	4020	1.27			
	141.35	254	9.90	3875	1.48			
	230.90	156	6.06	3405	1.70	FH-F35 FH-FL35	112M	24
	267.48	134	5.23	3300	1.87			
	338.46	106	4.14	3130	2.19			
	169.82	212	8.24	3205	1.24			
203.08	177	6.89	2965	1.23				
284.01	126	4.93	2805	1.53	FH-F30 FH-FL30	112M	25	
345.18	104	4.06	2695	1.75				
173.77	207	8.06	3175	1.24				
206.25	174	6.79	2950	1.22				
288.44	125	4.85	2790	1.53	FX40	112M	37	
350.58	102	3.99	2685	1.74				
254.55	145	5.50	4880	1.46				
288.66	128	4.85	4740	1.69				
316.03	117	4.43	4600	2.47				
371.35	100	3.77	4550	3.06	FX30	112M	23	
524.34	71	2.67	2550	1.87				
588.24	63	2.38	2755	2.14				
657.28	56	2.13	2805	2.32				
714.29	52	1.96	2650	2.22	FX25	112M	17	
843.37	44	1.66	2610	2.35				
514.71	72	2.72	805	1.24				
595.74	62	2.35	910	1.32				
752.69	49	1.86	1095	1.50				
864.20	43	1.62	1085	1.54	FX20	112M	15	
1000.00	37	1.40	1140	1.65				
880.50	42	1.59	205	1.01				
1068.70	35	1.31	530	1.21	FMH120 FH60 FMV120 FH60	132S	615	
2.12	21225	659	88200	0.85				
2.54	17746	551	88200	1.01				
2.93	15394	478	88200	1.17				
3.41	13227	411	88200	1.36				
3.70	12187	378	88200	1.48				
4.26	10574	328	88200	1.70				
4.87	9250	287	88200	1.95				FMH110 FH50 FMV110 FH50 FMW110 FH50
3.17	14243	442	62700	0.91				
3.47	12991	403	62700	1.00				
3.84	11739	365	62700	1.11				
4.18	10773	335	62700	1.21				
4.87	9249	287	62700	1.41				
5.72	7888	245	62700	1.65				
6.59	6845	213	62700	1.90				
7.67	5876	182	62700	2.21				

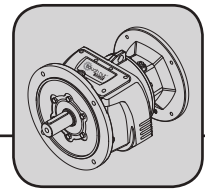


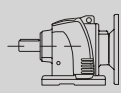
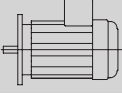
Helical Gear Units

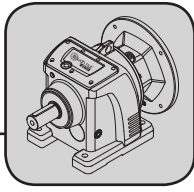
Selection Tables[kW]

1400 Input Rpm

Pm [kW]	na [1/min]	Ma [Nm]	i	FRa [N]	fs			m [g]
5.5 (7.4HP)	12.12	3953	115.50	29500	1.09	FH-F70 FH-FL70	132S	167 182 182
	13.11	3654	106.76	29500	1.18			
	13.59	3526	103.02	29500	1.22			
	16.19	2960	86.50	29500	1.45			
	17.51	2736	79.95	29500	1.57			
	20.51	2336	68.27	29500	1.84			
	22.26	2153	62.90	29500	2.00			
	26.07	1838	53.71	29500	2.34			
	26.41	1814	53.00	29500	2.37			
	31.46	1523	44.50	28325	2.82			
	35.43	1352	39.52	27565	3.18			
	40.90	1172	34.23	26480	3.52			
	47.90	1000	29.23	25325	3.80			
	54.86	873	25.52	24460	4.29			
	64.24	746	21.79	23355	4.62			
	106.95	448	13.09	20035	5.81			
57.37	861	24.40	24145	4.41	FH-F70			
64.32	768	21.77	23385	4.76	FH-FL70	176 176		
16.40	2921	85.35	18100	1.03	FH-F60 FH-FL60	132S	104 112 103	
	16.95	2827	82.59	18100				1.06
	18.02	2659	77.70	18100				1.13
	19.32	2480	72.46	18100				1.21
	20.99	2283	66.71	18100				1.31
	22.13	2165	63.27	18100				1.39
	23.52	2037	59.52	18100				1.47
	27.40	1749	51.10	18100				1.72
	31.41	1525	44.57	18100				1.87
	37.00	1295	37.84	18100				2.13
	48.30	992	28.98	18100				2.55
	55.32	866	25.31	18100				2.79
65.94	749	21.23	18100	3.43				FH-F60
82.56	598	16.96	17200	4.25	FH-FL60	108		
103.28	478	13.56	16100	4.97		99		
164.86	300	8.49	13910	5.57				
30.93	1549	45.27	15340	0.82	FH-F50 FH-FL50	132S	71 76 70	
	36.65	1307	38.20	14915				0.92
	44.12	1086	31.73	13945				0.87
	57.64	831	24.29	13260				1.05
	69.79	687	20.06	12730				1.19
79.95	618	17.51	12545	1.50	FH-F50 FH-FL50	132S	69 73 67	
	91.56	539	15.29	12130				1.65
	107.86	458	12.98	11625				1.84
	123.53	400	11.33	11215				2.01
	131.30	376	10.66	11030				2.09
	152.94	323	9.15	10575				2.32
	206.60	239	6.78	9605				2.37
	243.37	203	5.75	9170				2.65
	296.26	167	4.73	8660				3.02
	345.10	143	4.06	8280				3.34
105.97	466	13.21	4450	1.17				FH-F40 FH-FL40
	118.14	418	11.85	4390	1.26			
	128.31	385	10.91	4335	1.33			
	152.06	325	9.21	4220	1.49			
	242.11	204	5.78	3745	1.73			
	293.14	169	4.78	3595	1.96			
	347.40	142	4.03	3460	2.20			
254.55	200	5.50	8970	2.15	FX60	132S	77	
285.71	180	4.90	8690	3.84				



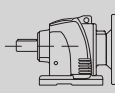
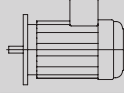
Pm [kW]	na [1/min]	Ma [Nm]	i	FRa [N]	fs			m [g]
5.5 (7.4HP)	316.74	161	4.42	7190	3.27	FX50	132S	56
	367.45	139	3.81	7110	3.79			
	402.30	127	3.48	6730	4.15			
	456.03	112	3.07	6680	4.70			
	522.39	97	2.68	6240	5.39			
	603.45	84	2.32	5990	5.80			
	622.22	82	2.25	5970	5.68			
	660.38	77	2.12	5830	6.03			
	740.74	69	1.89	5630	6.36			
	818.71	62	1.71	5560	7.29			
	371.35	137	3.77	4200	2.22			
	395.48	129	3.54	4060	2.33			
	438.87	116	3.19	4040	2.45			
	494.70	103	2.83	3960	2.59			
7.5 (10HP)	555.56	92	2.52	3850	2.74	FX40	132S	42
	619.47	82	2.26	3750	2.87			
	654.21	78	2.14	3700	2.94			
	524.34	97	2.67	1610	1.36			
	588.24	87	2.38	1965	1.56			
	657.28	77	2.13	2100	1.68			
	714.29	71	1.96	1935	1.61			
	843.37	60	1.66	1970	1.71			
	2.93	20992	478	88200	0.86			
	3.41	18036	411	88200	1.00			
	3.70	16619	378	88200	1.08			
	4.26	14419	328	88200	1.25			
	4.87	12614	287	88200	1.43			
	4.18	14691	335	62700	0.88			
4.87	12612	287	62700	1.03				
5.72	10757	245	62700	1.21				
6.59	9333	213	62700	1.39				
7.67	8013	182	62700	1.62				
8.28	7428	169	62700	1.75				
17.51	3731	79.95	29500	1.15				
20.51	3186	68.27	29080	1.35				
22.26	2935	62.90	28885	1.46				
26.07	2507	53.71	27910	1.72				
26.41	2474	53.00	28130	1.74				
31.46	2077	44.50	27015	2.07				
35.43	1844	39.52	26430	2.33				
40.90	1598	34.23	25475	2.58				
47.90	1364	29.23	24440	2.79				
54.86	1191	25.52	23710	3.14				
64.24	1017	21.79	22700	3.39				
106.95	611	13.09	19595	4.26				
57.37	1174	24.40	23420	3.23				
64.32	1047	21.77	22735	3.49				
97.38	692	14.38	20270	4.47				
134.06	502	10.44	18535	5.69				
22.13	2953	63.27	18100	1.02				
23.52	2778	59.52	18100	1.08				
27.40	2385	51.10	18100	1.26				
31.41	2080	44.57	18100	1.37				
37.00	1766	37.84	18100	1.56				
48.30	1353	28.98	18100	1.87				
55.32	1181	25.31	17900	2.04				
65.94	1021	21.23	17600	2.51				
82.56	816	16.96	16700	3.12				
103.28	652	13.56	15700	3.64				
140.00	481	10.00	14460	4.46				
7.5 (10HP)	FMH120 FH60					FMH110 FH50 FMV110 FH50 FMW110 FH50	132M	615
	613							
	391							
	382							
	367							
	167							
	182							
	182							
	176							
	176							
	104							
	112							
	103							
	101							
108								

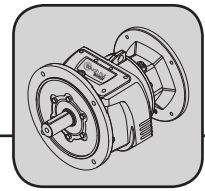


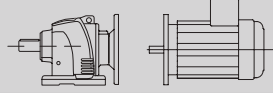
Helical Gear Units

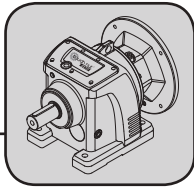
Selection Tables[kW]

1400 Input Rpm

Pm [kW]	na [1/min]	Ma [Nm]	i	FRa [N]	fs	 	m [g]				
7.5 (10HP)	164.86	409	8.49	13590	4.08	FH-F60 FH-FL60	99				
	206.41	326	6.78	12760	4.74						
	258.20	261	5.42	11970	5.50						
	69.79	936	20.06	11955	0.87	FH-F50 FH-FL50	132M	71 76 70			
	79.95	843	17.51	11945	1.10	FH-F50 FH-FL50	132M	69 73 67			
	91.56	736	15.29	11600	1.21						
	107.86	625	12.98	11180	1.35						
	123.53	545	11.33	10825	1.47						
	131.30	513	10.66	10665	1.53						
	152.94	440	9.15	10260	1.70						
	206.60	326	6.78	9340	1.74						
	243.37	277	5.75	8940	1.94						
	296.26	227	4.73	8475	2.21						
	345.10	195	4.06	8120	2.45						
	254.55	275	5.50	8640	1.58	FX60	132M	77			
	285.71	245	4.90	8400	2.82						
	338.98	205	4.13	8040	3.88						
	316.74	219	4.42	6910	2.39	FX50	132M	56			
	367.45	189	3.81	6950	2.78						
	402.30	173	3.48	6510	3.04						
	456.03	152	3.07	6560	3.45						
	371.35	187	3.77	3230	1.63						
	395.48	176	3.54	3080	1.71	FX40	132M	42			
	438.87	158	3.19	3140	1.80						
	494.70	140	2.83	3200	1.90						
	555.56	125	2.52	3230	2.01						
	619.47	112	2.26	3240	2.11						
	654.21	106	2.14	3240	2.16						
	686.27	101	2.04	3360	2.32						
	838.32	83	1.67	3195	2.38						
9.2 (12.4HP)	3.70	20386	378.00	88200	0.88				FMH120 FH60	132M	615
	4.26	17687	328.00	88200	1.02				FMV120 FH60		613
	4.87	15474	287.00	88200	1.16						
	4.87	15470	287.00	62700	0.84	FMH110 FH50 FMV110 FH50 FMW110 FH50	132M	391 382 367			
	5.72	13195	245.00	62700	0.99						
	6.59	11449	213.00	62700	1.14						
	7.67	9829	182.00	62700	1.32						
	8.28	9111	169.00	62700	1.43						
	17.51	4577	79.95	27980	0.94						
	20.51	3908	68.27	27330	1.10	FH-F70 FH-FL70	132M	167 182 182			
	22.26	3601	62.90	27310	1.19						
	26.07	3075	53.71	26525	1.40						
	26.41	3034	53.00	26840	1.42						
	31.46	2548	44.50	25900	1.69						
	35.43	2262	39.52	25465	1.90						
	40.90	1960	34.23	24615	2.11						
	47.90	1673	29.23	23690	2.27						
	54.86	1461	25.52	23070	2.56						
	64.24	1248	21.79	22135	2.76						
	106.95	749	13.09	19225	3.47						
	57.37	1440	24.40	22810	2.63				FH-F70 FH-FL70	132M	161 176 176
	64.32	1285	21.77	22190	2.84						
	97.38	848	14.38	19900	3.64						
	134.06	616	10.44	18270	4.64						
	22.13	3622	63.27	18100	0.83	FH-F60 FH-FL60	132M	104 112			
	23.52	3408	59.52	18100	0.88						
	27.40	2925	51.10	18100	1.03						
	31.41	2551	44.57	18100	1.12						



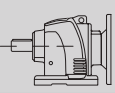
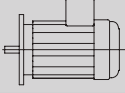
Pm [kW]	na [1/min]	Ma [Nm]	i	FRa [N]	fs		m [g]	
9.2 (12.4HP)	37.00	2166	37.84	18100	1.27	FH-F60 FH-FL60	103	
	48.30	1659	28.98	17500	1.52			
	55.32	1449	25.31	17100	1.67			
	65.94	1253	21.23	17100	2.05	FH-F60 FH-FL60	132M	101
	82.56	1001	16.96	16200	2.54			
	103.28	800	13.56	15400	2.97			
	140.00	590	10.00	14200	3.64			
	164.86	501	8.49	13330	3.33			
	206.41	400	6.78	12550	3.87			
	258.20	320	5.42	11800	4.49			
	350.00	236	4.00	10810	5.50			
	79.95	1034	17.51	11435	0.90	FH-F50 FH-FL50	132M	69
	91.56	902	15.29	11155	0.98			
	107.86	766	12.98	10800	1.10			
	123.53	669	11.33	10490	1.20			
131.30	629	10.66	10350	1.25				
152.94	540	9.15	9995	1.39				
206.60	400	6.78	9110	1.42				
243.37	340	5.75	8745	1.58				
296.26	279	4.73	8315	1.81				
345.10	239	4.06	7980	2.00				
254.55	335	5.50	8370	1.29	FX60	132M	77	
285.71	300	4.90	8150	2.30				
338.98	250	4.13	7830	3.16				
415.43	205	3.37	7440	3.83				
316.74	269	4.42	6680	1.95				
367.45	232	3.81	6810	2.26	FX50	132M	56	
402.30	212	3.48	6330	2.48				
456.03	187	3.07	6450	2.81				
522.39	163	2.68	5930	3.22				
603.45	141	2.32	5710	3.47				
622.22	137	2.25	5720	3.40				
660.38	129	2.12	5570	3.60				
740.74	115	1.89	5400	3.80				
818.71	104	1.71	5400	4.36				
395.48	215	3.54	2260	1.39				FX40
438.87	194	3.19	2380	1.46				
494.70	172	2.83	2510	1.55				
555.56	153	2.52	2600	1.64				
619.47	138	2.26	2660	1.72				
654.21	130	2.14	2685	1.76				
686.27	124	2.04	2850	1.89				
838.32	102	1.67	2730	1.94				
11 (15HP)	3.97	22738	353.00	88200	0.79	FMH120 FH70 FMV120 FH70	160M	
	4.81	18739	291.00	88200	0.96			
	5.14	17539	272.00	88200	1.03			
	6.33	14253	221.00	88200	1.26			
	7.10	12704	197.00	88200	1.42			
	8.85	10193	158.00	88200	1.77			
	4.90	18982	286.00	88200	0.95	FMH120 FH70 FMV120 FH70	160M	602
	6.74	13788	208.00	88200	1.31			
	8.50	10932	165.00	88200	1.65			
	4.26	21148	328.00	88200	0.85	FMH120 FH60 FMV120 FH60	160M	626
	4.87	18501	287.00	88200	0.97			
	5.72	1610	245.00	62700	0.82	FMH110 FH50 FMV110 FH50 FMW110 FH50	160M	402
	6.59	1397	213.00	62700	0.95			
	7.67	1199	182.00	62700	1.11			
	8.28	1112	169.00	62700	1.19			

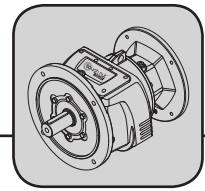


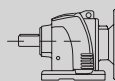
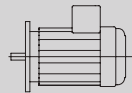
Helical Gear Units

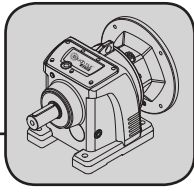
Selection Tables[kW]

1400 Input Rpm

Pm [kW]	na [1/min]	Ma [Nm]	i	FRa [N]	fs			m [g]				
11 (15HP)	7.86	12196	178.17	88200	1.48	FH-F120 FH-FL120	160M	604 613				
	8.26	11596	169.42	88200	1.55							
	8.84	10840	158.37	88200	1.66							
	10.03	9555	139.60	88200	1.88							
	11.52	8321	121.56	88200	2.16							
	12.74	7522	109.89	88200	2.39							
	13.77	6957	101.64	88200	2.59							
	15.88	6035	88.17	88200	2.98							
	17.37	5516	80.58	88200	3.26							
	20.06	4778	69.80	84600	3.77							
	23.12	4145	60.56	81100	4.34							
	25.96	3691	53.92	77900	4.88							
	28.85	3321	48.52	75500	5.42							
		11.94	8028	117.29	62700				1.62	FH-F110 FH-FL110	160M	399 394 394
12.84		7463	109.03	62700	1.74							
14.08		6807	99.44	62700	1.91							
15.58		6151	89.86	62700	2.11							
16.81		5702	83.30	62700	2.28							
19.77		4846	70.80	62700	2.68							
23.18		4133	60.38	62700	3.15							
27.73		3456	50.49	62700	3.76							
31.13		3079	44.98	62700	4.06							
33.58		2854	41.70	62700	4.27							
39.51		2426	35.44	62700	4.76							
46.32		2069	30.23	60015	5.29							
55.39		1730	25.27	56835	5.96							
		11.94	8030	117.25	42700	0.87	FH-F90 FH-FL90	160M	273 307 307			
	12.99	7380	107.80	42200	0.95							
	14.05	6820	99.66	41900	1.03							
	15.28	6270	91.63	41300	1.12							
	17.71	5410	79.05	40300	1.29							
	19.90	4820	70.35	39600	1.45							
	23.67	4050	59.14	38300	1.73							
	25.75	3720	54.38	37600	1.88							
	27.93	3430	50.13	36700	2.04							
	31.47	3050	44.49	36000	2.30							
	32.37	2960	43.25	35500	2.36							
	39.56	2420	35.39	33900	2.89							
	42.67	2250	32.81	33300	3.12							
	57.76	1660	24.24	30400	3.77							
67.71	1420	20.68	29200	4.19								
	59.92	1000	14.60	26600	5.29	FH-F90 FH-FL90	160M	262 297 297				
	59.70	1650	23.45	30600	1.68							
	64.94	1520	21.56	29900	1.89							
	81.63	1210	17.15	28000	2.29							
	93.61	1060	14.96	27000	4.11							
	101.82	970	13.75	26300	4.38							
		26.07	3676	53.71	25065				1.17	FH-F70 FH-FL70	160M	177 192 192
		26.41	3628	53.00	25465				1.19			
		31.46	3046	44.50	24720				1.41			
		35.43	2705	39.52	24445				1.59			
		40.90	2343	34.23	23710				1.76			
		47.90	2001	29.23	22895				1.90			
		54.86	1747	25.52	22390				2.14			
		64.24	1492	21.79	21540				2.31			
106.95		896	13.09	18825	2.90							
		97.38	1015	14.38	19505	3.05	FH-F70 FH-FL70	160M	171 186 186			
		134.06	737	10.44	17995	3.88						
		311.32	317	4.50	14020	5.74						



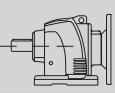
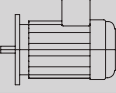
Pm [kW]	na [1/min]	Ma [Nm]	i	FRa [N]	fs			m [g]	
11 (15HP)	37.00	2590	37.84	16900	1.07	FH-F60 FH-FL60	160M	116	
	48.30	1984	28.98	16500	1.27			123	
	55.32	1732	25.31	16300	1.39			114	
	65.94	1498	21.23	16500	1.71	FH-F60 FH-FL60	160M	112	
	82.56	1197	16.96	15800	2.13				
	103.28	957	13.56	15000	2.48				
	140.00	706	10.00	13930	3.04				
	164.86	599	8.49	13050	2.78				
	206.41	479	6.78	12330	3.23				
	258.20	383	5.42	11620	3.75				
	350.00	282	4.00	10680	4.60				
	91.56	1079	15.29	10680	0.82	FH-F50 FH-FL50	160M	81	
	107.86	916	12.98	10395	0.92				
	123.53	800	11.33	10140	1.00				
	131.30	752	10.66	10020	1.05				
152.94	646	9.15	9710	1.16					
206.60	478	6.78	8865	1.19					
243.37	406	5.75	8540	1.32					
296.26	333	4.73	8145	1.51					
345.10	286	4.06	7835	1.67					
285.71	355	4.90	7890	1.92	FX60	160M	89		
338.98	300	4.13	7610	2.65					
415.43	245	3.37	7250	3.21					
448.72	225	3.12	7250	3.56					
608.70	165	2.30	6680	4.21					
367.45	277	3.81	6670	1.89	FX50	160M	67		
402.30	253	3.48	6130	2.07					
456.03	223	3.07	6330	2.35					
522.39	195	2.68	5770	2.69					
603.45	169	2.32	5570	2.90					
622.22	164	2.25	5600	2.84					
660.38	154	2.12	5450	3.01					
740.74	137	1.89	5290	3.18					
818.71	124	1.71	5330	3.65					
395.48	258	3.54	1380	1.17				FX40	160M
438.87	232	3.19	1580	1.22					
494.70	206	2.83	1780	1.30					
555.56	183	2.52	1940	1.37					
619.47	164	2.26	2050	1.44					
654.21	156	2.14	2100	1.47					
686.27	148	2.04	2315	1.58					
838.32	121	1.67	2240	1.62					
15 (20HP)	6.33	19436	221.00	88200	0.93	FMH120 FH90	160L	643	
	7.10	17324	197.00	88200	1.04	FMV120 FH90		641	
	8.85	13899	158.00	88200	1.30				
	5.64	22488	248.00	88200	0.80	FMH120 FH90	160L	602	
	6.74	18801	208.00	88200	0.96	FMV120 FH90		600	
	7.86	16630	178.17	88200	1.08	FH-F120 FH-FL120		160L	604
	8.26	15813	169.42	88200	1.14				
	8.84	14782	158.37	88200	1.22				
	10.03	13030	139.60	88200	1.38				
	11.52	11347	121.56	88200	1.59				
	12.74	10257	109.89	88200	1.75				
	13.77	9487	101.64	88200	1.90				
	15.88	8229	88.17	88200	2.19				
	17.37	7521	80.58	86300	2.39				
	20.06	6515	69.80	82900	2.76				
23.12	5653	60.56	79600	3.18					

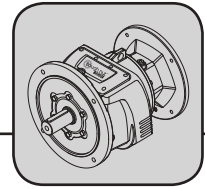


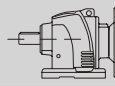
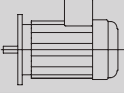
Helical Gear Units

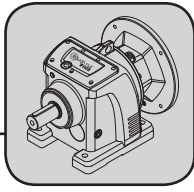
Selection Tables[kW]

1400 Input Rpm

Pm [kW]	na [1/min]	Ma [Nm]	i	FRa [N]	fs			m [kg]
15 (20HP)	25.96	5033	53.92	76400	3.58			
	28.85	4529	48.52	74100	3.97			
	31.92	4094	43.86	72000	4.40			
	39.78	3285	35.19	67500	5.48			
	11.94	10947	117.29	62700	1.19			
	12.84	10176	109.03	62700	1.28			
	14.08	9282	99.44	62700	1.40			
	15.58	8387	89.86	62700	1.55			
	16.81	7775	83.30	62700	1.67			
	19.77	6608	70.80	62700	1.97			399
	23.18	5636	60.38	62700	2.31	FH-F110	160L	394
	27.73	4713	50.49	62700	2.76	FH-FL110		394
	31.13	4198	44.98	62700	2.98			
	33.58	3892	41.70	62700	3.13			
	39.51	3308	35.44	61735	3.49			
	46.32	2821	30.23	58980	3.88			
	55.39	2359	25.27	55980	4.37			
	70.03	1866	19.99	52200	5.11			
	89.65	1503	15.62	48370	5.85	FH-F110		386
						FH-FL110	160L	381
								381
	19.90	6570	70.35	36400	1.07			
	23.67	5520	59.14	35600	1.27			
	25.75	5080	54.38	35100	1.38			
	27.93	4680	50.13	34300	1.50			
	31.47	4150	44.49	33900	1.69	FH-F90		273
	32.37	4040	43.25	33400	1.73	FH-FL90	160L	307
	39.56	3300	35.39	32200	2.12			307
	42.67	3060	32.81	31700	2.29			
	57.76	2260	24.24	29100	2.76			
	67.71	1930	20.68	28100	3.07			
	95.92	1360	14.60	25800	3.88			
	59.70	2260	23.45	29500	1.23			
	64.94	2070	21.56	28800	1.38			
	81.63	1650	17.15	27100	1.68			
	93.61	1440	14.96	26300	3.01	FH-F90		262
	101.82	1320	13.75	25700	3.21	FH-FL90	160L	297
	138.34	970	10.12	23600	4.59			297
	173.91	770	8.05	22100	4.79			
	287.75	470	4.87	18900	4.84			
	346.18	390	4.04	17900	5.69			
	31.46	4154	44.50	22095	1.04			
	35.43	3688	39.52	22175	1.17			
	40.90	3195	34.23	21695	1.29	FH-F70		177
	47.90	2728	29.23	21130	1.39	FH-FL70	160L	192
	54.86	2382	25.52	20890	1.57			192
	64.24	2034	21.79	20225	1.70			
	106.95	1222	13.09	17950	2.13			
	97.38	1383	14.38	18635	2.23			171
	134.06	1005	10.44	17375	2.84	FH-F70		186
	311.32	433	4.50	13710	4.21	FH-FL70	160L	186
	349.61	385	4.00	13275	4.55			
	55.32	2362	25.31	14500	1.02	FH-F60		116
						FH-FL60	160L	123
								114
	65.94	2043	21.23	15200	1.26			
	82.56	1632	16.96	14700	1.56	FH-F60		112
	103.28	1304	13.56	14200	1.82	FH-FL60	160L	119
	140.00	962	10.00	13330	2.23			110
	164.86	817	8.49	12420	2.04			



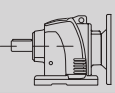
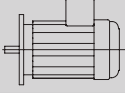
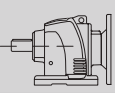
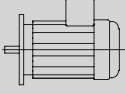
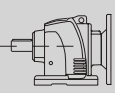
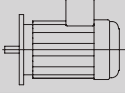
Pm [kW]	na [1/min]	Ma [Nm]	i	FRa [N]	fs			m [g]				
15 (20HP)	206.41	653	6.78	11830	2.37	FX60	160L	89				
	258.20	522	5.42	11220	2.75							
	350.00	385	4.00	10380	3.37							
	285.71	485	4.90	7310	1.41							
	338.98	410	4.13	7110	1.94							
	415.43	335	3.37	6840	2.35							
	448.72	310	3.12	6920	2.61							
	608.70	230	2.30	6425	3.09							
	732.98	190	1.91	6125	3.33							
	1007.19	140	1.39	5605	3.70							
	367.45	378	3.81	6350	1.39	FX50	160L	67				
	402.30	345	3.48	5670	1.52							
	456.03	305	3.07	6080	1.72							
	522.39	266	2.68	5430	1.97							
	603.45	230	2.32	5270	2.13							
	622.22	223	2.25	5340	2.08							
	660.38	210	2.12	5170	2.21							
	740.74	187	1.89	5040	2.33							
	818.71	170	1.71	5170	2.67							
		494.70	281	2.83	150				0.95	FX40	160L	54
555.56		250	2.52	450	1.00							
619.47		224	2.26	690	1.05							
654.21		212	2.14	795	1.08							
686.27		202	2.04	1120	1.16							
838.32		166	1.67	1150	1.19							
18.5 (25HP)		10.03	16070	139.60	88200	1.12	FH-F120 FH-FL120	180M	611 632			
		11.52	13994	121.56	88200	1.29						
		12.74	12650	109.89	88200	1.42						
		13.77	11700	101.64	88200	1.54						
	15.88	10150	88.17	86500	1.77							
	17.37	9277	80.58	84500	1.94							
	20.06	8035	69.80	81400	2.24							
	23.12	6971	60.56	78300	2.58							
	25.96	6207	53.92	75000	2.90							
	28.85	5586	48.52	72900	3.22							
	14.08	11448	99.44	62700	1.14	FH-F110 FH-FL110	180M	407 403 403				
	15.58	10344	89.86	62700	1.26							
	16.81	9589	83.30	62700	1.36							
	19.77	8150	70.80	62700	1.60							
	23.18	6951	60.38	62700	1.87							
	27.73	5812	50.49	62700	2.24							
	31.13	5178	44.98	62700	2.41							
	33.58	4800	41.70	62700	2.54							
	39.51	4080	35.44	60680	2.83							
	46.32	3480	30.23	58075	3.15							
	55.39	2910	25.27	55220	3.55	FH-F110 FH-FL110	180M	395 390 390				
	70.03	2301	19.99	51600	4.15							
	23.67	6810	59.14	33200	1.03	FH-F90 FH-FL90	180M	282 316 316				
	25.75	6260	54.38	32800	1.12							
	27.93	5770	50.13	32200	1.21							
	31.47	5120	44.49	32100	1.37							
	32.37	4980	43.25	31600	1.41							
	39.56	4070	35.39	30700	1.72							
	42.67	3780	32.81	30300	1.85							

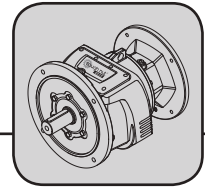


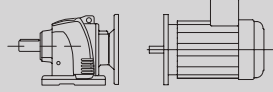
Helical Gear Units

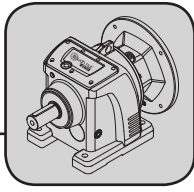
Selection Tables[kW]

1400 Input Rpm

Pm [kW]	na [1/min]	Ma [Nm]	i	FRa [N]	fs			m [kg]			
18.5 (25HP)	57.76	2790	24.24	28000	2.24						
	67.71	2380	20.68	27100	2.49						
	95.92	1680	14.60	25100	3.14						
	93.61	1770	14.96	25700	2.44						
	101.82	1630	13.75	25100	2.60						
	138.34	1200	10.12	23200	3.72				FH-F90	180M	271
	173.91	960	8.05	21700	3.88				FH-FL90		306
	287.75	580	4.87	18700	3.92						306
	346.18	480	4.04	17700	4.62						
	40.90	3941	34.23	19930	1.05						
	47.90	3365	29.23	19585	1.13				FH-F70	180M	187
	54.86	2938	25.52	19575	1.27				FH-FL70		202
	64.24	2509	21.79	19070	1.37						202
	106.95	1507	13.09	17190	1.73						
	97.38	1706	14.38	17870	1.81						181
134.06	1239	10.44	16830	2.31	FH-F70	180M	196				
311.32	534	4.50	13440	3.41	FH-FL70		196				
349.61	475	4.00	13030	3.69							
82.56	2012	16.96	13800	1.26			119				
103.28	1609	13.56	13500	1.48			128				
140.00	1187	10.00	12800	1.81	FH-F60	180M	119				
206.41	805	6.78	11390	1.92	FH-FL60						
258.20	644	5.42	10870	2.23							
350.00	475	4.00	10130	2.73							
415.43	410	3.37	6480	1.91			95				
448.72	380	3.12	6630	2.12							
608.70	280	2.30	6205	2.51	FX60	180M					
732.98	235	1.91	5935	2.70							
1007.19	170	1.39	5460	3.00							
367.45	466	3.81	5000	1.13			74				
402.30	426	3.48	4200	1.23							
456.03	376	3.07	5360	1.40							
522.39	328	2.68	4640	1.60							
603.45	284	2.32	4840	1.73	FX50	180M					
622.22	275	2.25	4670	1.69							
660.38	259	2.12	4900	1.79							
740.74	231	1.89	4820	1.89							
818.71	209	1.71	5020	2.17							
22 (30HP)	11.52	16642	121.56	88200	1.08						
	12.74	15043	109.89	88200	1.20						
	13.77	13914	101.64	87400	1.29						
	15.88	12070	88.17	84600	1.49						
	17.37	11032	80.58	82800	1.63						
	20.06	9555	69.80	79900	1.88						
	23.12	8290	60.56	77000	2.17						
	25.96	7382	53.92	73700	2.44				FH-F120	180L	611
	28.85	6643	48.52	71700	2.71				FH-FL120		632
	31.92	6005	43.86	69800	3.00						
	39.78	4818	35.19	65700	3.74						
	50.25	3814	27.86	61500	4.43						
	66.06	2901	21.19	56800	5.31						
	58.86	3357	23.78	59100	5.36				FH-F120	180L	589
									FH-FL120		606
15.58	12301	89.86	62700	1.06							
16.81	11403	83.30	62700	1.14							
19.77	9692	70.80	62700	1.34	FH-F110	180L	407				
23.18	8266	60.38	62700	1.57	FH-FL110		403				
27.73	6912	50.49	62700	1.88							
31.13	6158	44.98	62700	2.03							



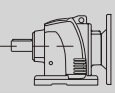
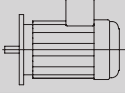
Pm [kW]	na [1/min]	Ma [Nm]	i	FRa [N]	fs		m [g]	
22 (30HP)	33.58	5708	41.70	62135	2.14	FH-F110 FH-FL110	180L 403	
	39.51	4851	35.44	59625	2.38			
	46.32	4138	30.23	57175	2.65			
	55.39	3460	25.27	54465	2.98			
	70.03	2737	19.99	51005	3.49	FH-F110 FH-FL110	180L 395 390 390	
	89.65	2204	15.62	47410	3.99			
	105.11	1880	13.32	45250	4.43			
	136.75	1445	10.24	41790	5.16			
	27.93	6860	50.13	30100	1.02	FH-F90 FH-FL90	180L 282 316 316	
		31.47	6090	44.49	30300			1.15
		32.37	5920	43.25	29800			1.18
		39.56	4840	35.39	29200			1.44
		42.67	4490	32.81	28900	1.56	FH-F90 FH-FL90	180L 271 306 306
		57.76	3320	24.24	26800	1.88		
67.71		2830	20.68	26100	2.10			
95.92		2000	14.60	24400	2.64			
93.61		2110	14.96	25100	2.05	FH-F70 FH-FL70	180L 187 202 202	
		101.82	1940	13.75	24500			2.19
		138.34	1430	10.12	22800			3.13
		173.91	1140	8.05	21400			3.27
		287.75	690	4.87	18400	3.30	FH-F70 FH-FL70	180L 181 196 196
		346.18	570	4.04	17500	3.88		
	54.86	3494	25.52	18255	1.07			
	64.24	2983	21.79	17920	1.16			
	106.95	1792	13.09	16420	1.45	FX60	180L 95	
		97.38	2029	14.38	17105			1.52
		134.06	1474	10.44	16290			1.94
		311.32	635	4.50	13165			2.87
		349.61	565	4.00	12790	3.10	FX50	180L 74
		415.43	490	3.37	5650	1.60		
448.72		455	3.12	6180	1.78			
608.70		335	2.30	5985	2.11			
732.98		280	1.91	5745	2.27	FH-F120 FH-FL120	200L 611 632	
		1007.19	200	1.39	5315			2.52
		402.30	506	3.48	2720			1.04
		456.03	447	3.07	4200			1.18
		522.39	390	2.68	3430	1.35	FH-F120 FH-FL120	200L 589 606
		603.45	338	2.32	3770	1.45		
	622.22	327	2.25	3590	1.42			
	660.38	308	2.12	3900	1.51			
	740.74	275	1.89	4070	1.59	FH-F120 FH-FL120	200L 589 606	
		818.71	249	1.71	4650			1.82
		15.88	16459	88.17	80200			1.09
		17.37	15043	80.58	78800			1.20
		20.06	13030	69.80	76400	1.38	FH-F120 FH-FL120	200L 611 632
		23.12	11305	60.56	74000	1.59		
25.96		10066	53.92	70700	1.79			
28.85		9058	48.52	69000	1.99			
31.92		8189	43.86	67300	2.20	FH-F120 FH-FL120	200L 589 606	
39.78		6570	35.19	63700	2.74			
50.25		5201	27.86	60000	3.25			
66.06		3956	21.19	55600	3.89			
58.86		4577	23.78	57900	3.93	FH-F120 FH-FL120	200L 589 606	
		70.40	3827	19.89	55000			4.55
	88.80	3034	15.77	51400	5.31			
	102.52	2628	13.66	49300	5.86			

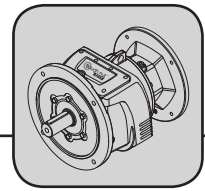


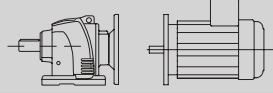
Helical Gear Units

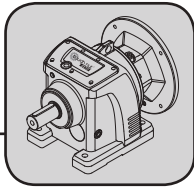
Selection Tables[kW]

1400 Input Rpm

Pm [kW]	na [1/min]	Ma [Nm]	i	FRa [N]	fs	 	m [kg]		
30 (40HP)	23.18	11272	60.38	62700	1.15	FH-F110 FH-FL110 200L	407 403 403		
	27.73	9426	50.49	61645	1.38				
	31.13	8397	44.98	60235	1.49				
	33.58	7784	41.70	59285	1.57				
	39.51	6616	35.44	57205	1.75				
	46.32	5643	30.23	55105	1.94				
	55.39	4718	25.27	52740	2.19				
	70.03	3732	19.99	49645	2.56				
	89.65	3005	15.62	46315	2.92				
	105.11	2563	13.32	44315	3.25				
	136.75	1970	10.24	41055	3.79				
	39.56	6610	35.39	25800	1.06			FH-F90 FH-FL90 200L	282 316 316
	42.67	6130	32.81	25800	1.14				
	57.76	4520	24.24	24200	1.38				
67.71	3860	20.68	23900	1.54					
95.92	2720	14.60	22800	1.94					
93.61	2880	14.96	23600	1.51	FH-F90 FH-FL90 200L	271 305 305			
101.82	2650	13.75	23200	1.60					
138.34	1950	10.12	21800	2.30					
173.91	1550	8.05	20600	2.39					
287.75	940	4.87	17900	2.42					
346.18	780	4.04	17000	2.85					
106.95	2444	13.09	14670	1.06					
97.38	2767	14.38	15360	1.12	FH-F70 FH-FL70 200L	187 202 202			
134.06	2010	10.44	15055	1.42					
311.32	865	4.50	12550	2.11					
349.61	771	4.00	12240	2.27					
448.72	620	3.12	3880	1.30					
608.70	455	2.30	4500	1.54	FX60 200L	95			
732.98	380	1.91	4695	1.66					
1007.19	275	1.39	4740	1.85					
603.45	460	2.32	1340	1.06					
622.22	446	2.25	1130	1.04	FX50 200L	76			
660.38	421	2.12	1630	1.11					
740.74	375	1.89	2000	1.17					
818.71	339	1.71	2890	1.34					
20.06	16070	69.80	73400	1.12			FH-F120 FH-FL120 225S	620 643	
23.12	13943	60.56	71400	1.29					
25.96	12414	53.92	68000	1.45					
28.85	11172	48.52	66600	1.61					
31.92	10099	43.86	65200	1.78					
39.78	8103	35.19	62000	2.22					
50.25	6415	27.86	58600	2.63					
66.06	4879	21.19	54600	3.16					
58.86	5645	23.78	56800	3.19	FH-F120 FH-FL120 225S	598 617			
70.40	4720	19.89	54100	3.69					
88.80	3742	15.77	50700	4.30					
102.52	3241	13.66	48700	4.75					
134.78	2465	10.39	44900	5.68					
27.73	11625	50.49	58630	1.12	FH-F110 FH-FL110 225S	416 429 429			
31.13	10356	44.98	57555	1.21					
33.58	9600	41.70	56800	1.27					
39.51	8159	35.44	55085	1.42					
46.32	6959	30.23	53300	1.57					
55.39	5819	25.27	51235	1.77					
70.03	4603	19.99	48450	2.07					



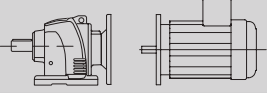
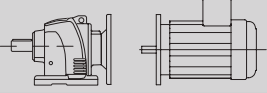
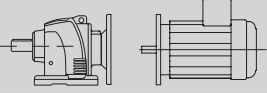
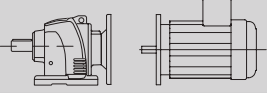
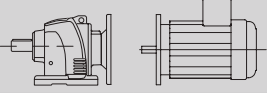
Pm [kW]	na [1/min]	Ma [Nm]	i	FRa [N]	fs		m [g]	
37 (50HP)	89.65	3707	15.62	45350	2.37	FH-F110 FH-FL110	225S	404 416 416
	105.11	3162	13.32	43490	2.64			
	136.75	2430	10.24	40410	3.07			
	280.00	1187	5.00	32840	4.95			
	336.78	987	4.16	31060	5.60	FH-F90 FH-FL90	225S	290 342 342
	57.76	5580	24.24	22000	1.12			
	67.71	4760	20.68	22000	1.25			
	95.92	3360	14.60	21500	1.57	FH-F90 FH-FL90	225S	279 332 332
	93.61	3550	14.96	22400	1.22			
	101.82	3260	13.75	22100	1.30			
	138.34	2400	10.12	20900	1.86			
	173.91	1910	8.05	19900	1.94			
	287.75	1150	4.87	17400	1.96			
	346.18	960	4.04	16700	2.31	FH-F70 FH-FL70	225S	188 191 191
	134.06	2479	10.44	13970	1.15			
	311.32	1067	4.50	12005	1.71			
	349.61	950	4.00	11755	1.84	FX60	225S	104
	448.72	765	3.12	1870	1.06			
608.70	565	2.30	2920	1.25				
732.98	465	1.91	3315	1.35				
1007.19	340	1.39	3625	1.50				
45 (60HP)	23.12	16958	60.56	68300	1.06	FH-F120 FH-FL120	225M	620 643
	25.96	15099	53.92	65000	1.19			
	28.85	13588	48.52	63900	1.32			
	31.92	12283	43.86	62700	1.47			
	39.78	9855	35.19	60000	1.83			
	50.25	7802	27.86	57000	2.17			
	66.06	5934	21.19	53400	2.60	FH-F120 FH-FL120	225M	598 617
	58.86	6866	23.78	55600	2.62			
	70.40	5740	19.89	53100	3.03			
	88.80	4551	15.77	49900	3.54			
	102.52	3942	13.66	48000	3.91			
	134.78	2999	10.39	44400	4.67			
	31.13	12595	44.98	54480	0.99	FH-F110 FH-FL110	225M	416 429 429
	33.58	11675	41.70	53950	1.04			
	39.51	9923	35.44	52660	1.16			
	46.32	8464	30.23	51240	1.29			
	55.39	7077	25.27	49505	1.46			
	70.03	5598	19.99	47085	1.70			
	89.65	4508	15.62	44245	1.95	FH-F110 FH-FL110	225M	404 416 416
	105.11	3845	13.32	42555	2.17			
	136.75	2955	10.24	39675	2.52			
	280.00	1443	5.00	32485	4.07			
	336.78	1200	4.16	30760	4.61			
	67.71	5790	20.68	19800	1.02			
	95.92	4090	14.60	19900	1.29			
	93.61	4320	14.96	21000	1.00	FH-F90 FH-FL90	225M	279 332 332
	101.82	3970	13.75	20700	1.07			
	138.34	2920	10.12	20000	1.53			
	173.91	2320	8.05	19100	1.60			
	287.75	1400	4.87	16900	1.61			
346.18	1170	4.04	16200	1.90				
311.32	1298	4.50	11385	1.40	FH-F70 FH-FL70	225M	188 191 191	
349.61	1156	4.00	11205	1.52				
55 (75HP)	28.85	16607	48.52	60400	1.08	FH-F120 FH-FL120	250M	639 662
	31.92	15012	43.86	59600	1.20			
	39.78	12045	35.19	57600	1.49	FH-F120 FH-FL120	250M	639 662
	50.25	9535	27.86	55100	1.77			
66.06	7253	21.19	51900	2.12				

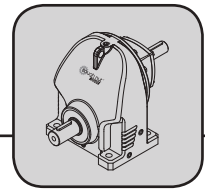


Helical Gear Units

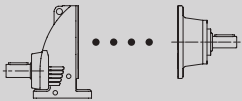
Selection Tables[kW]

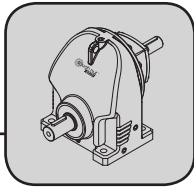
1400 Input Rpm

Pm [kW]	na [1/min]	Ma [Nm]	i	FRa [N]	fs		m [kg]			
55 (75HP)	58.86	8392	23.78	54100	2.14					
	70.40	7016	19.89	51800	2.48					
	88.80	5563	15.77	48900	2.89			FH-F120	617	
	102.52	4818	13.66	47100	3.20			FH-FL120	250M	637
	134.78	3665	10.39	43700	3.82					
	274.68	1798	5.10	35300	5.34					
	355.97	1388	3.93	32700	5.48					
	46.32	10345	30.23	48665	1.06			FH-F110		434
	55.39	8650	25.27	47345	1.19			FH-FL110	250M	444
	70.03	6842	19.99	45370	1.39					444
	89.65	5510	15.62	42875	1.59					
	105.11	4700	13.32	41385	1.77			FH-F110		421
	136.75	3612	10.24	38750	2.07			FH-FL110	250M	431
	280.00	1764	5.00	32030	3.33					431
336.78	1467	4.16	30390	3.77						
75 (100HP)	95.92	5000	14.60	17900	1.06					
	138.34	3570	10.12	18800	1.25					
	173.91	2840	8.05	18100	1.31			FH-F90		297
	287.75	1720	4.87	16200	1.32			FH-FL90	250M	297
	346.18	1430	4.04	15600	1.55					297
	39.78	16425	35.19	52600	1.10			FH-F120		650
	50.25	13003	27.86	51100	1.30			FH-FL120	280S	674
	66.06	9890	21.19	48900	1.56					
	58.86	11443	23.78	51000	1.57					
	70.40	9567	19.89	49300	1.82					
	88.80	7586	15.77	46900	2.12			FH-F120		629
	102.52	6570	13.66	45300	2.34			FH-FL120	280S	649
	134.78	4998	10.39	42400	2.80					
	274.68	2452	5.10	34600	3.91					
355.97	1892	3.93	32100	4.02						
70.03	9330	19.99	41965	1.02	FH-F110		449			
					FH-FL110	280S	299			
							299			
105.11	6409	13.32	39035	1.30			436			
136.75	4926	10.24	36915	1.51	FH-F110		285			
280.00	2406	5.00	31135	2.44	FH-FL110	280S	285			
336.78	2000	4.16	29645	2.76						
90 (125HP)	50.25	15603	27.86	48200	1.08					
	66.06	11868	21.19	46700	1.30					
	58.86	13732	23.78	48700	1.31					
	70.40	11481	19.89	47400	1.52					
	88.80	9103	15.77	45400	1.77			FH-F120		629
	102.52	7885	13.66	44000	1.95			FH-FL120	280M	649
	134.78	5997	10.39	41400	2.33					
	274.68	2943	5.10	34000	3.26					
	355.97	2271	3.93	31700	3.35					
	105.11	7690	13.32	37280	1.08					436
	136.75	5911	10.24	35535	1.26			FH-F110		285
	280.00	2887	5.00	30460	2.04			FH-FL110	280M	285
	336.78	2400	4.16	29085	2.30					
	110 (150HP)	66.06	14506	21.19	43700			1.06		
70.40		14032	19.89	44800	1.24					
88.80		11125	15.77	43300	1.45					
102.52		9637	13.66	42300	1.60	FH-F120		650		
134.78		7330	10.39	40100	1.91	FH-FL120	315S	662		
274.68		3597	5.10	33300	2.67					
355.97		2775	3.93	31100	2.74					



FX..D


i	na [1/min]	Mamax [Nm]	Pe [kW]	FRa [N]	FRe [N]		m [g]
RX57							65Nm
5.47	256	37	1.0	2240	720	FXHD20	Ø19
4.88	287	38	1.2	2150	710		
4.55	308	36	1.2	720	540		
4.05	346	32	1.2	920	550		
3.63	386	65	2.7	360	510		
3.19	439	64	3.0	220	500		
3.00	467	62	3.1	215	510		
2.23	628	53	3.6	195	530		
1.59	881	43	4.1	175	520	FXHD20	Ø24
1.31	1069	42	4.8	165	540		
RX67							96Nm
6.27	223	43	1.0	2790	930	FXHD25	Ø19
5.47	256	43	1.2	2070	490		
4.95	283	39	1.2	1530	460		
4.53	309	36	1.2	1430	410		
3.52	398	87	3.7	570	300		
2.89	484	96	5.0	240	210		
2.72	515	89	4.9	235	260	FXHD25	Ø24
2.35	596	82	5.3	220	280		
1.86	753	74	6.0	205	310		
1.62	864	66	6.2	195	340		
1.40	1000	59	6.6	185	350		
RX77							169Nm
8.09	173.1	56	1.1	5410	630	FXHD30	Ø19
7.50	187	54	1.1	5290	650		
6.69	209	53	1.2	4100	510		
6.00	233	48	1.2	3920	490		
5.12	273	41	1.2	3540	480	FXHD30	Ø24
4.74	295	122	3.9	2160	1230		
4.55	308	133	4.4	1780	1160		
4.19	334	143	5.2	1170	1070		
3.75	373	153	6.2	740	990		
3.25	431	169	7.9	390	920	FXHD30	Ø38
2.67	524	132	7.5	360	1050		
2.38	588	135	8.6	350	1080		
2.13	657	130	9.3	335	1100		
1.96	714	115	8.9	325	1140		
1.66	843	103	9.4	310	1170		
RX87							305Nm
5.50	255	212	5.8	3620	1490	FXHD40	Ø28
4.85	289	216	6.8	3150	1430		
4.43	316	289	9.9	1220	1240		
3.77	371	305	12.2	940	1110	FXHD40	Ø38
3.54	395	300	12.8	500	1090		
3.19	439	284	13.5	470	1110		
2.83	495	267	14.3	450	1140		
2.52	556	251	15.1	430	2720	FXHD40	Ø42
2.26	619	236	15.8	420	2790		
2.14	654	229	16.2	405	2820		
2.04	686	235	17.4	400	2760		
1.67	838	197	17.8	375	2970		

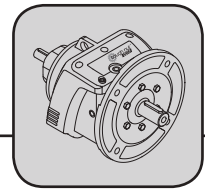


Helical Gear Units

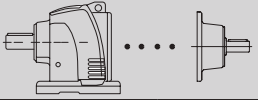
Selection Tables[kW]

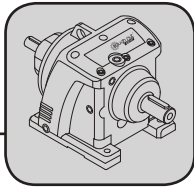
1400 Input Rpm

i	na [1/min]	Mamax [Nm]	Pe [kW]	FRa [N]	FRe [N]		m [g]	
RX97							525Nm	
5.65	248	375	10.0	7420	1050	FXHD50	Ø28	47
4.96	282	400	12.2	6390	870	FXHD50	Ø38	52
4.42	317	427	14.6	3720	740			
3.81	367	525	21	4070	2290			
3.48	402	525	23	2380	2180	FXHD50	Ø42	60
3.07	456	525	26	2920	2220			
2.68	522	525	30	810	2950			
2.32	603	490	32	750	2980			
2.25	622	465	31	740	2970	FXHD50	Ø48	67
2.12	660	465	33	730	3000			
1.89	741	437	35	700	3030			
1.71	819	454	40	680	3050			
RX107							808Nm	
6.38	219	414	9.8	8530	1050	FXHD60	Ø28	70
5.50	255	430	11.8	7940	1480	FXHD60	Ø38	73
4.90	286	685	21	5030	2110			
4.13	339	795	29	2450	1820	FXHD60	Ø42	81
3.37	415	786	35	1330	2630			
3.12	449	808	39	1260	2590			
2.30	609	705	46	810	2640	FXHD60	Ø48	87
1.91	733	630	50	780	2700			
1.39	1007	510	55	670	2780			



FR..D

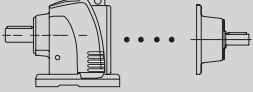
i	na [1/min]	Mamax [Nm]	Pe [kW]	FRa [N]	FRe [N]		m [g]
FH20							85Nm
79.85	18	85	0.17	1770	690	FH-F20 FH-FL20	Ø16
68.70	20	85	0.20	1770	680		
59.23	24	85	0.23	1770	670		
49.90	28	85	0.27	1770	650		
45.45	31	85	0.30	1770	660		
39.61	35	85	0.34	1770	650		
35.17	40	85	0.39	1770	630		
29.36	48	85	0.47	1630	610		
24.76	57	85	0.55	1480	580		
19.69	71	85	0.69	1290	530		
15.02	93	71	0.74	1270	280	FH-F20 FH-FL20	Ø16
12.65	111	67	0.82	1210	280		
10.04	139	61	0.95	1130	310		
7.44	188	54	1.1	1030	300		
4.99	280	47	1.5	920	290		
4.05	346	43	1.7	860	300		
FH25							200Nm
138.36	10	200	0.23	4950	600	FH-F25 FH-FL25	Ø16
119.28	12	200	0.27	4950	600		
100.51	14	200	0.32	4950	580		
91.53	15	200	0.35	4950	580		
79.77	18	200	0.40	4920	570		
76.66	18	200	0.42	4840	480		
69.81	20	200	0.46	4660	490		
60.84	23	200	0.53	4410	480		
54.03	26	200	0.59	4200	470		
52.24	27	200	0.62	4060	370		
44.01	32	200	0.73	3770	350		
40.08	35	200	0.80	3630	630	FH-F25 FH-FL25	Ø19
34.93	40	200	0.92	3410	630		
31.02	45	200	1.0	3240	610		
25.89	54	193	1.2	2990	590		
24.50	57	189	1.2	3010	450	FH-F25 FH-FL25	Ø19
22.09	63	170	1.2	2890	470		
19.95	70	154	1.2	2780	440		
17.89	78	138	1.2	2650	460		
15.75	89	189	1.9	2500	400		
13.07	107	181	2.2	2330	390		
11.73	119	175	2.3	2250	400		
10.02	140	166	2.6	2130	420		
8.50	165	157	2.9	2020	360		
6.74	208	133	3.1	1880	320		
5.75	243	126	3.4	1780	290		
4.88	287	119	3.8	1690	220		
4.00	350	112	4.4	1580	180		

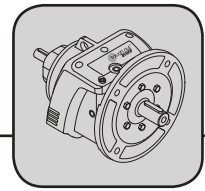


Helical Gear Units

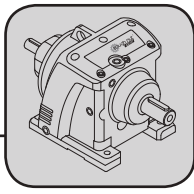
Selection Tables[kW]

1400 Input Rpm

i	na [1/min]	Mamax [Nm]	Pe [W]	FRa [N]	FRe [N]		m [kg]
FH30							300Nm
178.83	8	300	0.27	5420	700		
160.40	9	300	0.30	5420	690		
138.19	10	300	0.35	5420	690		
126.22	11	300	0.38	5420	690		17
110.34	13	300	0.44	5420	670	FH-F30	17
99.46	14	300	0.48	5420	680	FH-FL30	17
89.82	16	300	0.54	5420	660		
80.58	17	300	0.60	5420	670		
77.84	18	300	0.62	5420	580		
70.91	20	300	0.68	5420	640		
63.37	22	300	0.76	5420	790		
58.84	24	300	0.82	5420	810		
52.84	27	300	0.91	5420	810		
45.13	31	300	1.1	5420	810		17
41.51	34	300	1.2	5420	770	FH-F30	18
37.28	38	278	1.2	5420	760	FH-FL30	17
31.83	44	300	1.5	4895	740		
27.19	51	300	1.8	4570	740		
25.01	56	300	1.9	4400	660		
22.46	62	300	2.2	4195	660		
24.70	57	300	1.9	4615	590		
23.02	61	300	2.0	4480	560		17
20.49	68	300	2.3	4260	570	FH-F30	17
18.37	76	300	2.6	4065	540	FH-FL30	16
15.18	92	300	3.1	3740	510		
11.27	124	286	4.0	3325	480		
8.06	174	256	5.0	2975	420		19
6.79	206	213	4.9	2760	310	FH-F30	19
4.85	288	190	6.1	2465	280	FH-FL30	18
3.99	351	179	7.0	2310	320		
FH35							450Nm
182.99	8	450	0.40	7110	610		
164.13	9	450	0.44	7110	600		
141.40	10	450	0.51	7110	600		
129.16	11	450	0.56	7110	600		19
112.90	12	450	0.64	7110	570	FH-F35	21
101.77	14	450	0.71	7110	580	FH-FL35	19
91.91	15	450	0.79	7110	560		
82.45	17	450	0.88	6920	570		
79.65	18	450	0.91	6830	460		
72.56	19	450	1.0	6560	530		
64.84	22	450	1.1	6250	720		
60.21	23	450	1.2	6060	760		
54.07	26	404	1.2	5780	760		
46.18	30	345	1.2	5390	760		19
42.48	33	317	1.2	5190	690	FH-F35	22
38.14	37	285	1.2	4990	700	FH-FL35	20
32.33	43	363	1.8	4640	700		
27.61	51	345	2.0	4400	710		
25.40	55	335	2.1	4280	640		
22.81	61	324	2.3	4130	640		



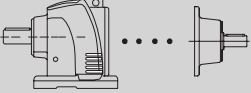
i	na [1/min]	Mamax [Nm]	Pe [kW]	FRa [N]	FRe [N]		m [g]
FH35							450Nm
25.27	55	382	2.4	4350	500		19
23.55	59	373	2.5	4250	480		21
20.96	67	359	2.7	4090	510	FH-F35	19
18.80	74	346	2.9	3940	490	FH-FL35	19
15.53	90	325	3.3	3700	490		
11.53	121	294	4.0	3350	480		
8.24	170	263	5.0	3000	410		21
6.89	203	217	4.9	2770	310	FH-F35	23
4.93	284	194	6.1	2480	280	FH-FL35	21
4.06	345	182	7.0	2320	320		
FH35*							600Nm
199.88	7	600	0.48	7560	800		
169.10	8	600	0.57	7560	850		
151.03	9	600	0.64	7560	910		
140.75	10	600	0.69	7560	930		
125.28	11	600	0.77	7560	980		
112.34	12	600	0.86	7560	970		
98.69	14	600	0.98	7560	990		
92.80	15	600	1.0	7560	1020		26
78.59	18	600	1.2	7390	580	FH-F35*	28
68.90	20	514	1.2	6980	1030	FH-FL35*	25
63.07	22	471	1.2	6320	570		
58.23	24	435	1.2	6480	680		
52.21	27	390	1.2	6170	660		
45.87	31	600	2.1	5820	670		
41.22	34	501	2.0	5570	770		
38.75	36	490	2.0	5455	800		
32.02	44	556	2.8	5075	750		
28.77	49	444	2.5	4940	870		
22.90	61	498	3.5	4540	750	FH-F35*	28
						FH-FL35*	29
							27
24.14	58	506	3.3	4620	410		25
21.33	66	486	3.6	4430	420	FH-F35*	26
18.79	74	466	3.9	4250	450	FH-FL35*	24
15.41	91	436	4.4	3975	490		
12.53	112	407	5.1	3710	500		
9.90	141	376	5.9	3430	520	FH-F35*	26
6.06	231	264	6.8	2940	290	FH-FL35*	28
5.23	267	252	7.5	2800	310		25
4.14	338	233	8.8	2590	340		

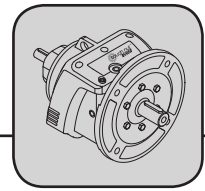


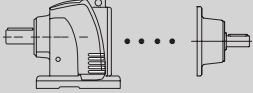
Helical Gear Units

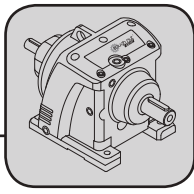
Selection Tables[kW]

1400 Input Rpm

i	na [1/min]	Mamax [Nm]	Pe [kW]	FRa [N]	FRe [N]		m [g]
FH40							750Nm
194.80	7	750	0.62	8620	690		
170.05	8	750	0.71	8620	750		
153.87	9	750	0.78	8620	770		
140.70	10	750	0.86	8620	830		
124.34	11	750	0.97	8620	840		
109.54	13	750	1.1	8620	870		34
89.80	16	671	1.2	8620	900	FH-F40	40
84.62	17	632	1.2	8620	920	FH-FL40	36
73.05	19	750	1.7	8100	920		
57.73	24	750	2.1	7320	910		
53.24	26	750	2.3	7060	460		
46.90	30	750	2.6	6670	470		
39.31	36	667	2.7	6100	560		
37.04	38	654	2.8	5980	570		
31.97	44	623	3.1	5700	600		34
25.27	55	576	3.7	5270	650		40
							36
23.31	60	661	4.4	5080	230		32
18.08	77	607	5.2	4670	330		38
							34
14.83	94	568	6.0	4370	320		32
							38
							34
13.21	106	547	6.5	4200	1570		
11.85	118	527	6.9	4050	1590		
10.91	128	513	7.3	3940	1580		37
9.21	152	485	8.2	3730	1590		43
5.78	242	352	9.5	3220	1420		39
4.78	293	330	10.8	3020	1420		
4.03	347	312	12.1	2860	1430		



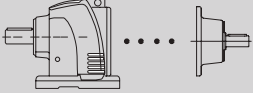
i	na [1/min]	Mamax [Nm]	Pe [kW]	FRa [N]	FRe [N]		m [g]
FH50							1550Nm
201.38	7	1504	1.2	16900	590	FH-F50 FH-FL50	Ø19
179.70	8	1342	1.2	16900	570		
161.11	9	1203	1.2	16900	570		
137.42	10	1026	1.2	16900	560		
122.17	11	1550	2.0	16900	510		
112.52	12	1550	2.2	16900	500		
87.27	16	1550	2.9	16900	500		
71.60	20	1486	3.3	16900	450		
63.77	22	1429	3.6	16900	450		
61.54	23	1413	3.7	16900	370		
54.81	26	1359	4.0	16900	400	Ø28	
49.16	28	1311	4.3	16500	410		
45.27	31	1275	4.5	16100	1590	Ø38	67
38.20	37	1205	5.1	15200	1580		
31.73	44	950	4.8	14400	1440		
24.29	58	869	5.8	13100	1400		
20.06	70	815	6.5	12300	1380		
22.83	61	1015	6.9	12800	1080	Ø38	65
19.83	71	968	7.6	12200	1080		69
17.51	80	929	8.3	11700	1100		65
15.29	92	888	9.1	11200	3380	Ø42	73
12.98	108	841	10.1	10600	3440		
11.33	124	804	11.1	10100	3380		
10.66	131	787	11.5	9930	3410		
9.15	153	748	12.7	9440	3390		
6.78	207	568	13.1	8590	2620		
5.75	243	538	14.6	8130	2650		
4.73	296	504	16.6	7610	2630		
4.06	345	479	18.4	7240	2600		

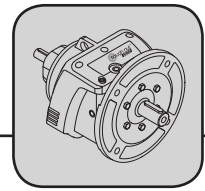


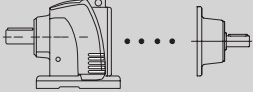
Helical Gear Units

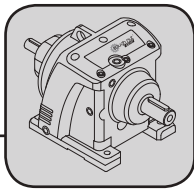
Selection Tables[kW]

1400 Input Rpm

i	na [1/min]	Mamax [Nm]	Pe [kW]	FRa [N]	FRe [N]		m [g]
FH60							3000Nm
199.06	7	3000	2.4	18100	620		
181.06	8	3000	2.7	18100	620		
166.33	8	3000	2.9	18100	550		101
144.53	10	3000	3.3	18100	530	FH-F60	108
127.61	11	3000	3.8	18100	520	FH-FL60	97
111.42	13	3000	4.3	18100	510		
97.76	14	3000	4.9	18100	390		
94.59	15	3000	5.1	18100	500		
85.35	16	3000	5.7	18100	1590		
82.59	17	3000	5.8	18100	1650		
77.70	18	3000	6.2	18100	1660		
72.46	19	3000	6.7	18100	1580		104
66.71	21	3000	7.2	18100	1620		111
63.27	22	3000	7.6	18100	1530		100
59.52	24	3000	8.1	18100	1530		
51.10	27	3000	9.4	18100	1490		
44.57	31	2849	10.3	17500	1200		
37.84	37	2759	11.7	16400	3580		113
28.98	48	2525	14.0	15000	3210		120
25.31	55	2413	15.3	14300	3150		109
33.00	42	2784	13.2	16700	2500		110
29.10	48	2720	14.6	15800	2500		114
21.23	66	2568	18.9	14000	2480		103
16.96	83	2545	23	12600	3330		
13.56	103	2376	27	11700	3310		
10.00	140	2147	33	10500	3280		117
8.49	165	1668	31	9980	2760		121
6.78	206	1547	36	9260	2750		110
5.42	258	1436	41	8590	2740		
4.00	350	1298	51	7760	2690		
FH70							4300Nm
115.50	12	4300	6.0	29500	1590		
106.76	13	4300	6.5	29500	1560		160
103.02	14	4300	6.7	29500	1440	FH-F70	163
86.50	16	4300	8.0	29500	1320	FH-FL70	152
79.95	18	4300	8.6	28600	1260		
68.27	21	4300	10.1	26400	1120		
62.90	22	4300	11.0	25700	4040		168
53.71	26	4300	12.9	23600	3790		171
53.00	26	4300	13.0	23900	3760		161
44.50	31	4300	15.5	21800	4900		
39.52	35	4300	17.5	20800	4630		
34.23	41	4128	19.4	19500	5330		174
29.23	48	3803	21	18500	5190		177
25.52	55	3743	24	17700	4960		167
21.79	64	3449	25	16800	4800		
13.09	107	2601	32	14200	4230		
24.40	57	3793	24	17400	3200		
21.77	64	3652	26	16700	2840		164
14.38	97	3092	34	14600	3110		167
10.44	134	2859	43	13100	3590		156
4.50	311	1822	63	9980	2930		
4.00	350	1753	68	9600	2610		



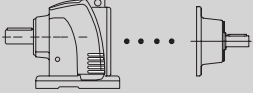
i	na [1/min]	Mamax [Nm]	Pe [kW]	FRa [N]	FRe [N]		m [g]	
FH90							7000Nm	
117.25	12	7000	9.6	37500	3750	FH-F90 FH-FL90	Ø42	
107.80	13	7000	10.4	37500	3590			254
99.66	14	7000	11.3	37500	3440			266
91.63	15	7000	12.3	37500	3260			250
79.05	18	7000	14.2	37400	2900			
70.35	20	7000	16.0	35600	2650			
59.14	24	7000	19.0	32900	4340	Ø48		
54.38	26	7000	21	31500	4110			260
50.13	28	7000	22	29800	3860			271
44.49	31	7000	25	28600	3460			255
43.25	32	7000	26	27700	3370			
35.39	40	7000	32	25000	3130			
32.81	43	7000	34	24100	6240	Ø55		
24.24	58	6254	41	20500	5960			272
20.68	68	5932	46	19500	6110			284
14.60	96	5282	58	17300	5720			268
23.45	60	2786	18.5	28500	2520	Ø42		
21.56	65	2868	21	27400	2410			243
17.15	82	2771	25	24900	2180			255
14.96	94	4335	45	21000	5820	Ø55		
13.75	102	4247	48	20200	5700			261
10.12	138	4472	69	17100	5380			272
8.05	174	3710	72	16400	5280			257
4.87	288	2266	73	15000	5260			
4.04	346	2216	85	13900	5130			
FH110							13000Nm	
117.29	12	13000	17.8	62700	2800	FH-F110 FH-FL110	Ø42	
109.03	13	13000	19.2	62700	2740			398
							390	
							374	
99.44	14	13000	21	62700	4170	Ø48		
89.86	16	13000	23	62700	4100			402
83.30	17	13000	25	62700	4020			394
70.80	20	13000	30	62700	3880			378
60.38	23	13000	35	61300	3770			
50.49	28	12994	41	56800	6560			Ø55
44.98	31	12501	45	54600	5940	416		
41.70	34	12189	47	53200	5930	407		
35.44	40	11546	52	50400	5950	392		
30.23	46	10950	58	47800	5970			
25.27	55	10316	66	45100	8450	439		
19.99	70	9541	77	41700	8450	Ø70	431	
							415	
15.62	90	8787	88	38400	7440	Ø70		
13.32	105	8333	98	36400	7480			439
10.24	137	7462	114	33400	7070			431
5.00	280	5877	183	26300	6910			415
4.16	337	5526	207	24700	6810			

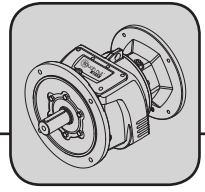


Helical Gear Units

Selection Tables[kW]

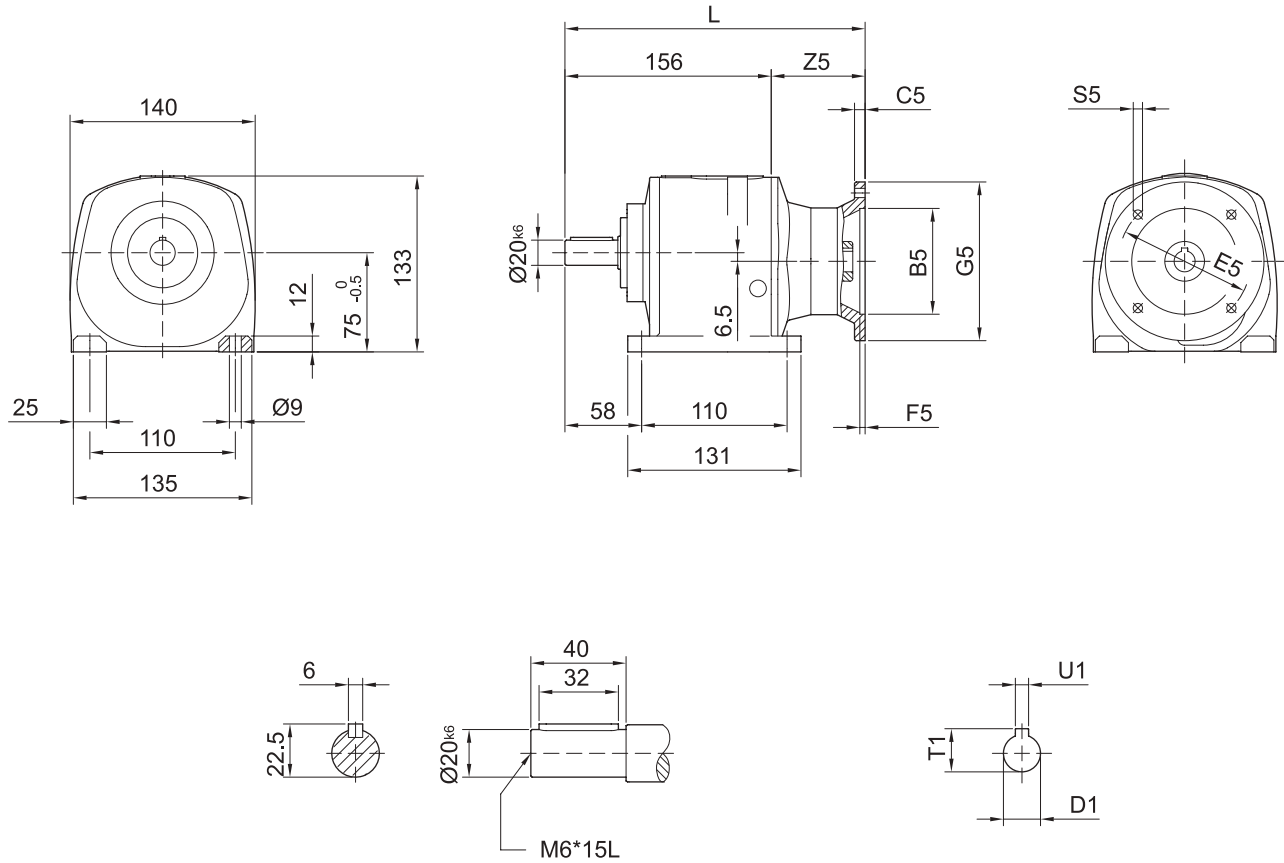
1400 Input Rpm

i	na [1/min]	Mamax [Nm]	Pe [kW]	FRa [N]	FRe [N]		m [g]	
FH120							18000Nm	
178.17	8	18000	16.2	88200	2870	FH-F120 FH-FL120	Ø42	
169.42	8	18000	17.1	88200	2890			579
158.37	9	18000	18.3	88200	2860			578
139.60	10	18000	21	88200	2790			
121.56	12	18000	24	88200	4110	Ø48	588 586	
109.89	13	18000	26	86000	4140			
101.64	14	18000	28	83400	4030			
88.17	16	18000	33	78700	3940			
80.58	17	18000	36	75800	3850			
69.80	20	18000	41	71400	3730			
60.56	23	18000	48	67300	6570	Ø55	598 596	
53.92	26	18000	54	61700	5860			
48.52	29	18000	60	58900	5420			
43.86	32	18000	66	56200	5460			
35.19	40	18000	82	50800	7860	Ø70	617 615	
27.86	50	16900	97	46800	7850			
21.19	66	15400	117	42700	7820			
23.78	59	18000	118	44500	3300	Ø55	639 637	
19.89	70	17400	136	41400	6100	Ø70	658 656	
15.77	89	16100	159	38400	6150			
13.66	103	15400	176	36600	6190			
10.39	135	14000	210	33400	6140			
5.10	275	9600	294	26500	4640			
3.93	356	7600	301	25700	5340			



4.1 Dimension Sheets R..

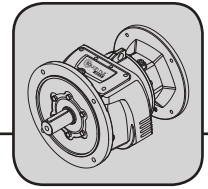
FMH-F20



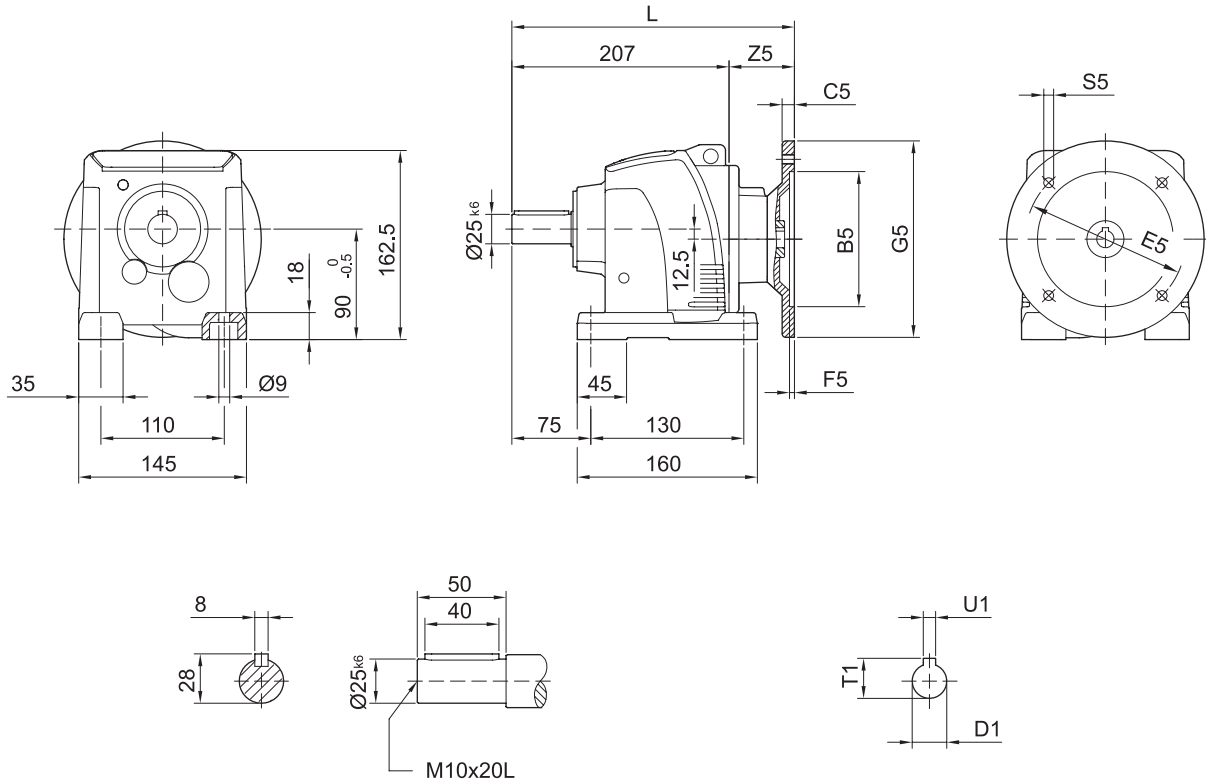
For the dimensions concerning the solid input shaft, please refer to the table shown at page 139.

For the dimensions concerning the motor input shaft, please refer to the table shown at page 142.

FRAME	B5	C5	E5	F5	G5	L	S5	Z5	D1	T1	U1
IEC 56	50	8	65	3	80	212.5	6	56.5	9	10.4	3
IEC 63	60	8	75	3.5	90	212.5	6	56.5	11	12.8	4
IEC 71	70	8	85	3.5	105	212.5	7	56.5	14	16.3	5
IEC 80	80	8	100	4	120	227	7	71	19	21.8	6

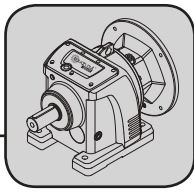


FLH-F25



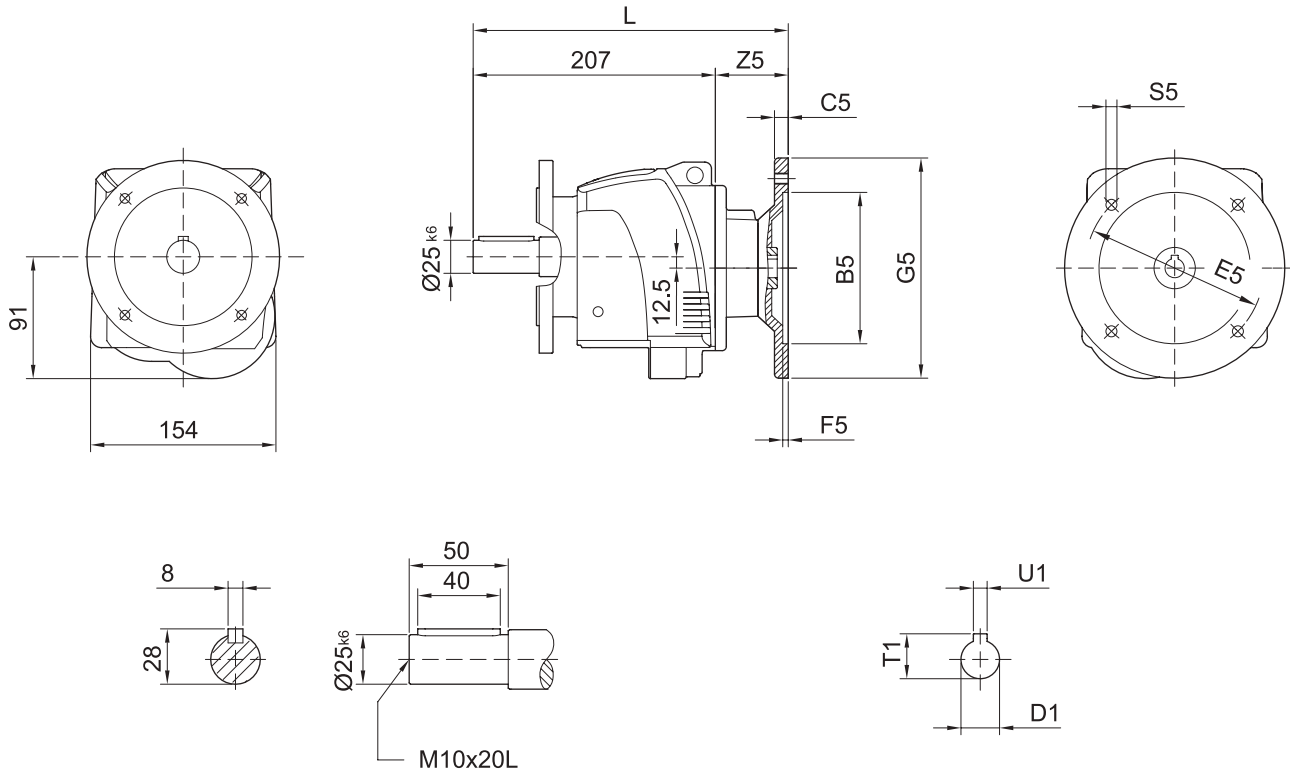
For the dimensions concerning the solid input shaft, please refer to the table shown at page 139.
For the dimensions concerning the motor input shaft, please refer to the table shown at page 142.

FRAME	B5	C5	E5	F5	G5	L	S5	Z5	D1	T1	U1
IEC 63*	95	10	115	4	140	260	M8	53	11	12.8	4
IEC 71	110	10	130	4	160	260	M8	53	14	16.3	5
IEC 80	130	12	165	5	200	278	M10	71	19	21.8	6
IEC 90	130	12	165	5	200	278	M10	71	24	27.3	8

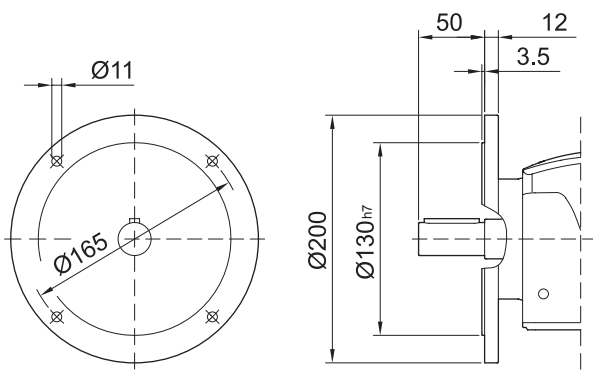


Helical Gear Units
Dimension Sheets[mm]

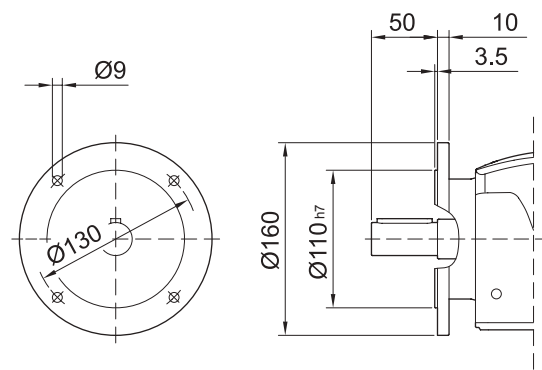
FL ..-FL30



FLV-FL25



FLWF25

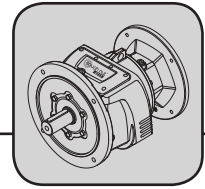


4

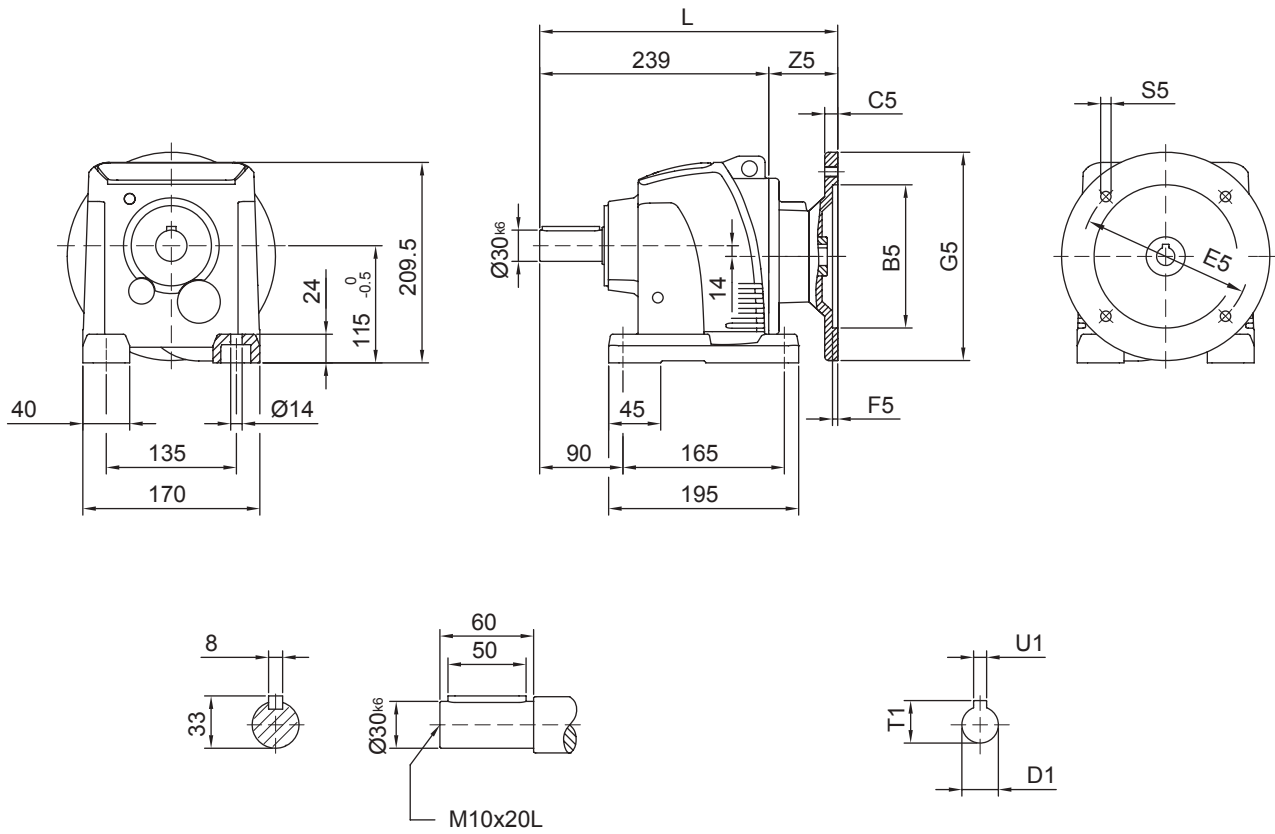
For the dimensions concerning the solid input shaft, please refer to the table shown at page 139.

For the dimensions concerning the motor input shaft, please refer to the table shown at page 142.

FRAME	B5	C5	E5	F5	G5	L	S5	Z5	D1	T1	U1
IEC 63*	95	10	115	4	140	260	M8	53	11	12.8	4
IEC 71	110	10	130	4	160	260	M8	53	14	16.3	5
IEC 80	130	12	165	5	200	278	M10	71	19	21.8	6
IEC 90	130	12	165	5	200	278	M10	71	24	27.3	8



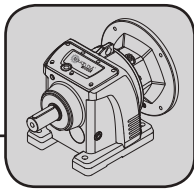
FLH-F30



For the dimensions concerning the solid input shaft, please refer to the table shown at page 139.

For the dimensions concerning the motor input shaft, please refer to the table shown at page 142.

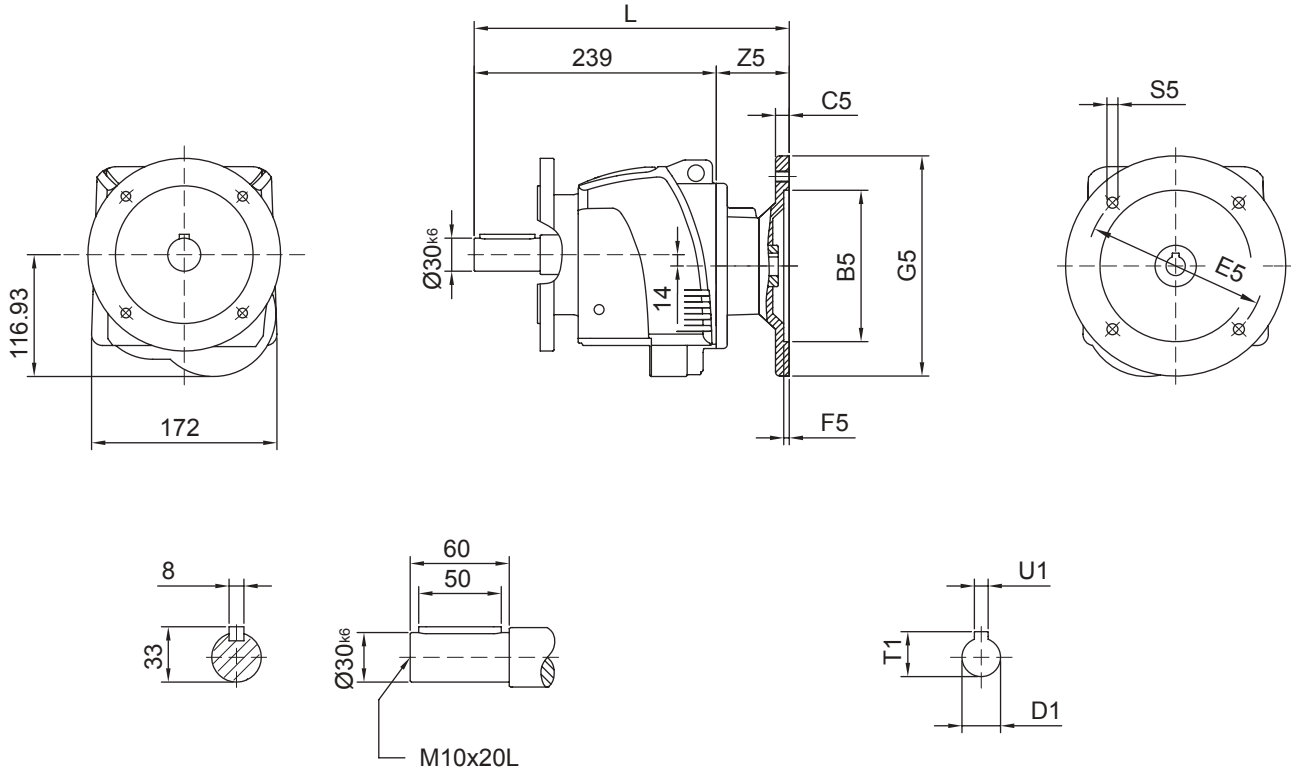
FRAME	B5	C5	E5	F5	G5	L	S5	Z5	D1	T1	U1
IEC 63*	95	10	115	4	140	287.5	M8	48.5	11	12.8	4
IEC 71	110	10	130	4	160	287.5	M8	48.5	14	16.3	5
IEC 80	130	12	165	5	200	305.5	M10	66.5	19	21.8	6
IEC 90	130	12	165	5	200	305.5	M10	66.5	24	27.3	8
IEC 100	180	15	215	5	250	322	M12	83	28	31.3	8



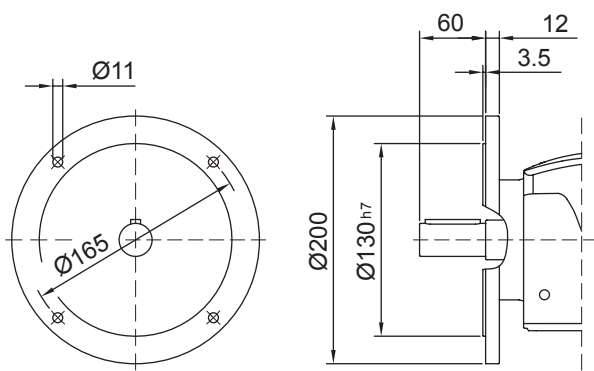
Helical Gear Units

Dimension Sheets[mm]

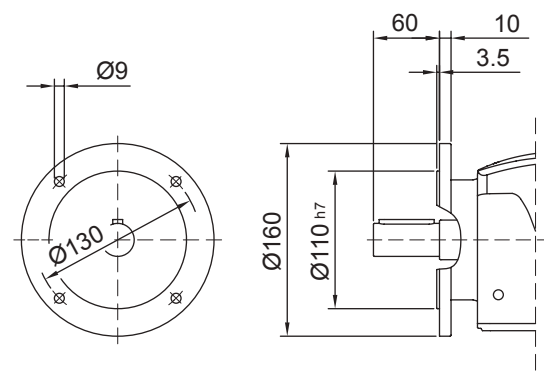
FL..-FL30



FLV-FL30



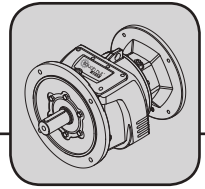
FLWF30



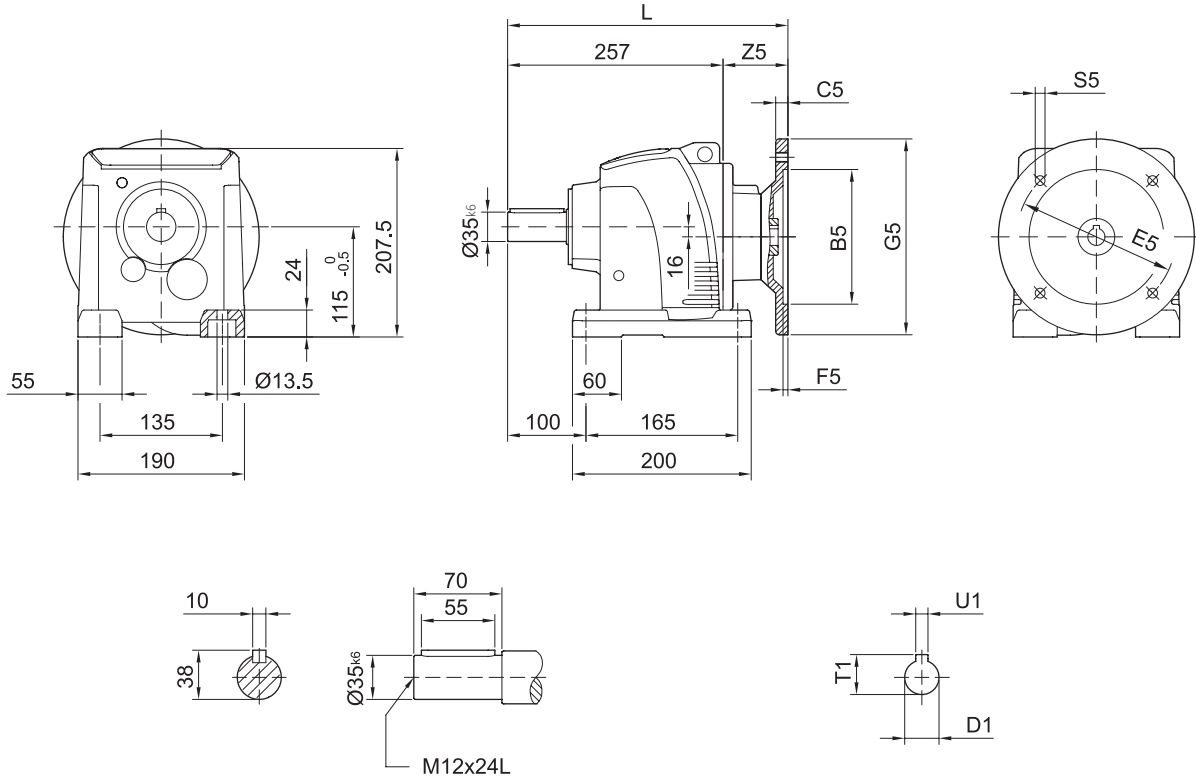
For the dimensions concerning the solid input shaft, please refer to the table shown at page 139.

For the dimensions concerning the motor input shaft, please refer to the table shown at page 142.

FRAME	B5	C5	E5	F5	G5	L	S5	Z5	D1	T1	U1
IEC 63*	95	10	115	4	140	287.5	M8	48.5	11	12.8	4
IEC 71	110	10	130	4	160	287.5	M8	48.5	14	16.3	5
IEC 80	130	12	165	5	200	305.5	M10	66.5	19	21.8	6
IEC 90	130	12	165	5	200	305.5	M10	66.5	24	27.3	8
IEC 100	180	15	215	5	250	322	M12	83	28	31.3	8



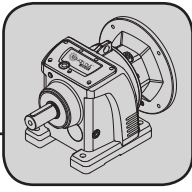
FLH-F35



For the dimensions concerning the solid input shaft, please refer to the table shown at page 139.

For the dimensions concerning the motor input shaft, please refer to the table shown at page 142.

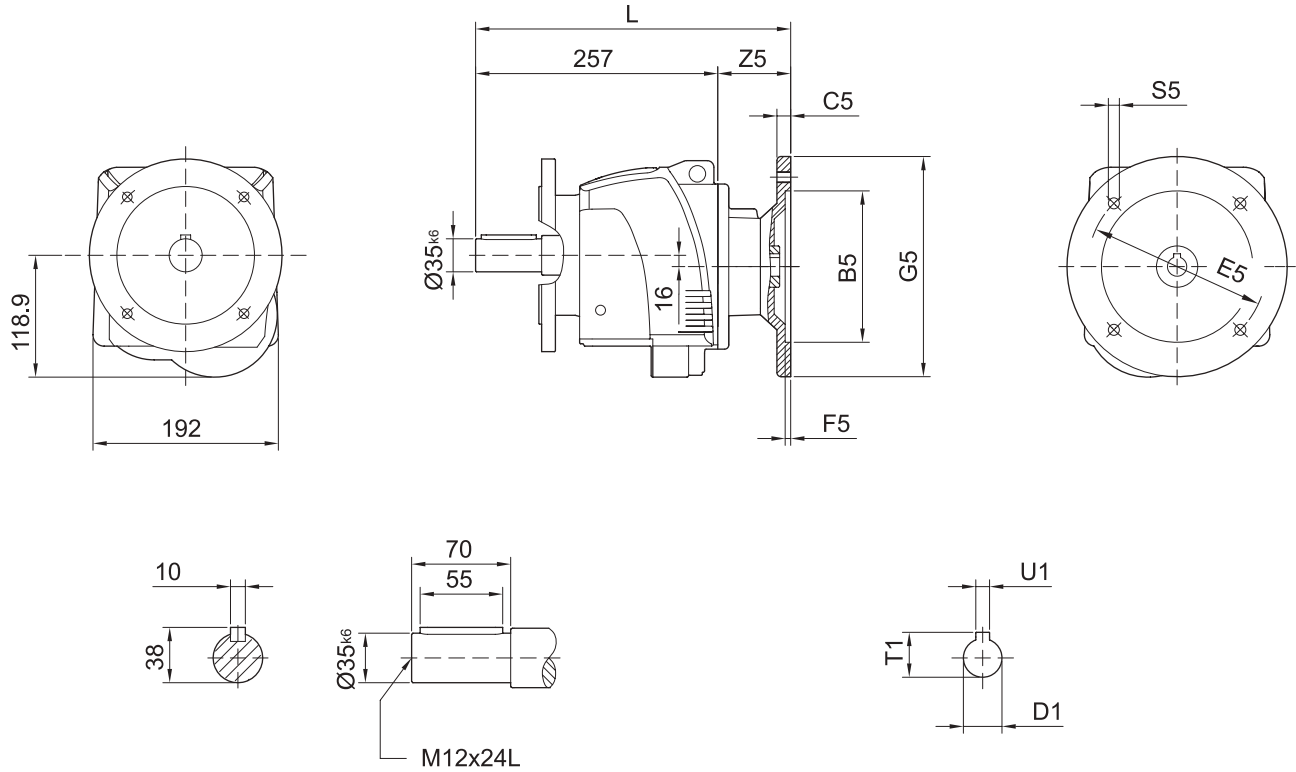
FRAME	B5	C5	E5	F5	G5	L	S5	Z5	D1	T1	U1
IEC 63*	95	10	115	4	140	305.5	M8	48.5	11	12.8	4
IEC 71	110	10	130	4	160	305.5	M8	48.5	14	16.3	5
IEC 80	130	12	165	5	200	323.5	M10	66.5	19	21.8	6
IEC 90	130	12	165	5	200	323.5	M10	66.5	24	27.3	8
IEC 100	180	15	215	5	250	340	M12	83	28	31.3	8
IEC 112	180	15	215	5	250	340	M12	83	28	31.3	8



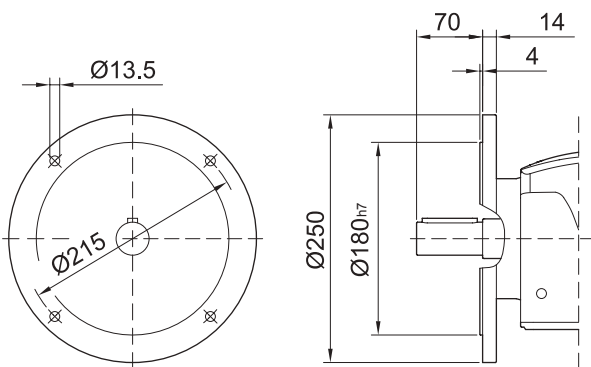
Helical Gear Units

Dimension Sheets[mm]

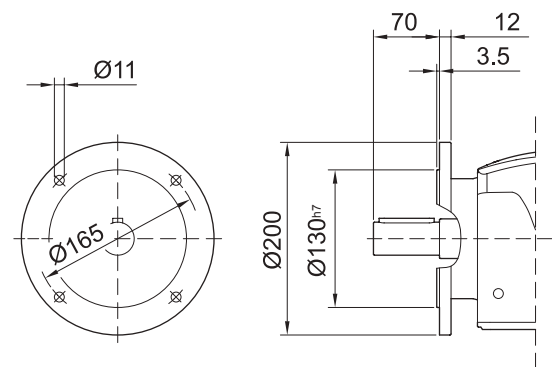
FL..-FL35



FLV-FL35



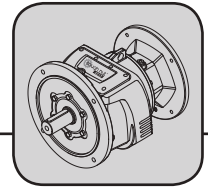
FLWF35



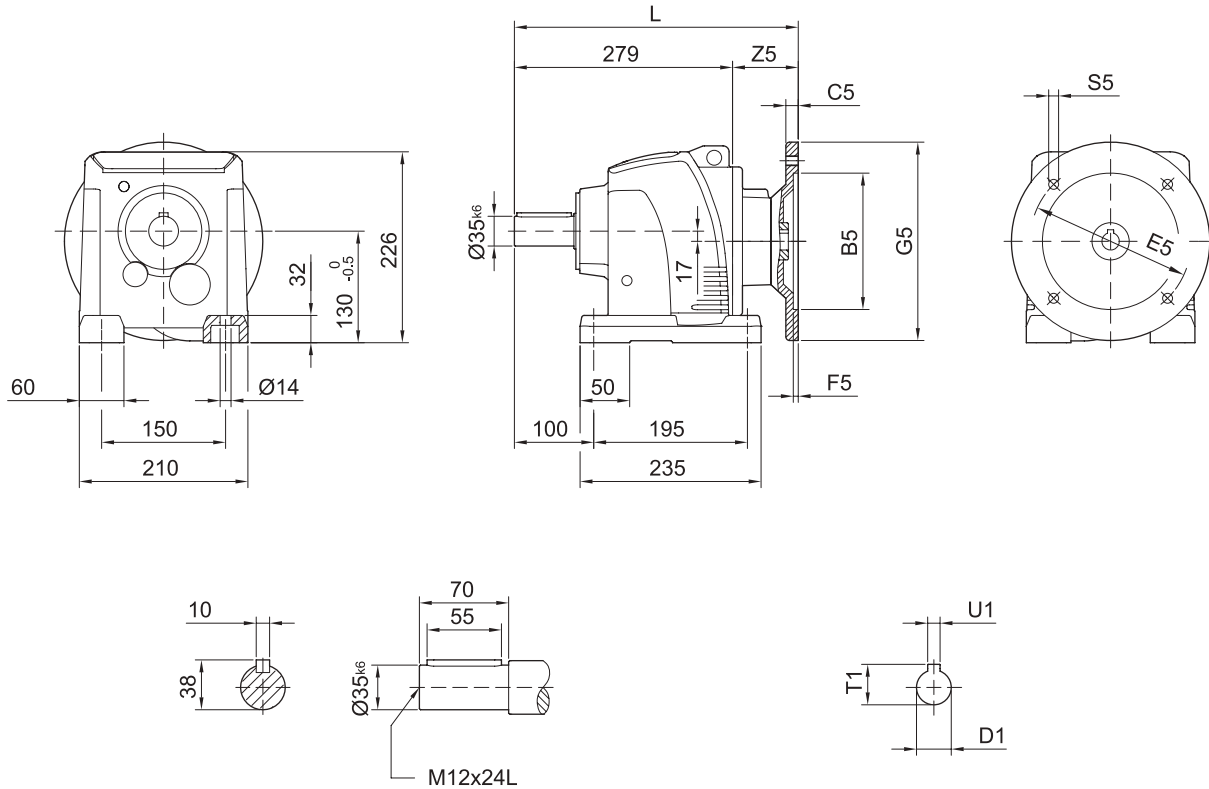
For the dimensions concerning the solid input shaft, please refer to the table shown at page 139.

For the dimensions concerning the motor input shaft, please refer to the table shown at page 142.

FRAME	B5	C5	E5	F5	G5	L	S5	Z5	D1	T1	U1
IEC 63*	95	10	115	4	140	305.5	M8	48.5	11	12.8	4
IEC 71	110	10	130	4	160	305.5	M8	48.5	14	16.3	5
IEC 80	130	12	165	5	200	323.5	M10	66.5	19	21.8	6
IEC 90	130	12	165	5	200	323.5	M10	66.5	24	27.3	8
IEC 100	180	15	215	5	250	340	M12	83	28	31.3	8
IEC 112	180	15	215	5	250	340	M12	83	28	31.3	8

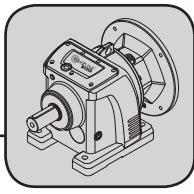


FLH-F35*



For the dimensions concerning the solid input shaft, please refer to the table shown at page 139.
For the dimensions concerning the motor input shaft, please refer to the table shown at page 142.

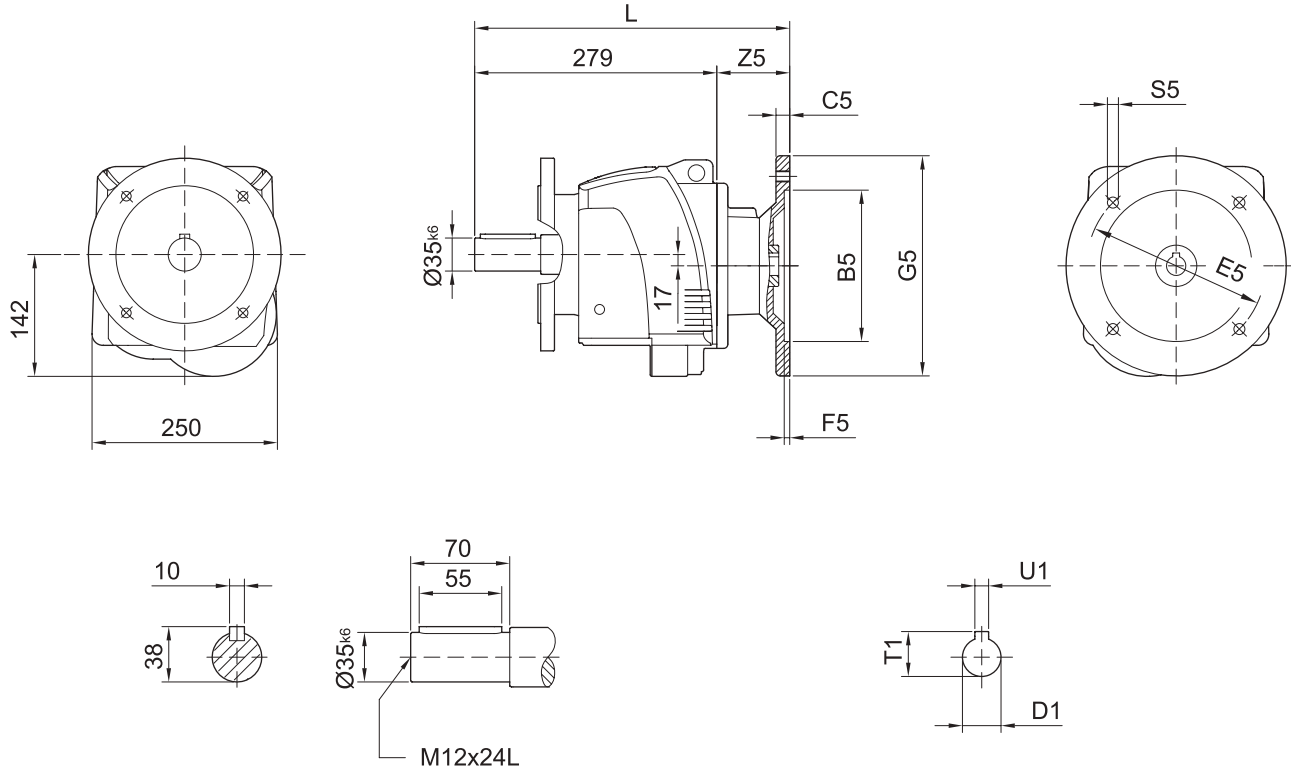
FRAME	B5	C5	E5	F5	G5	L	S5	Z5	D1	T1	U1
IEC 63*	95	10	115	4	140	325.5	M8	46.5	11	12.8	4
IEC 71	110	10	130	4	160	325.5	M8	46.5	14	16.3	5
IEC 80	130	12	165	5	200	343.5	M10	64.5	19	21.8	6
IEC 90	130	12	165	5	200	343.5	M10	64.5	24	27.3	8
IEC 100	180	15	215	5	250	360	M12	81	28	31.3	8
IEC 112	180	15	215	5	250	360	M12	81	28	31.3	8



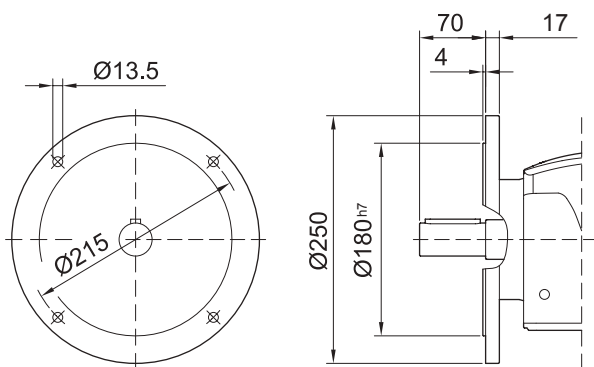
Helical Gear Units

Dimension Sheets[mm]

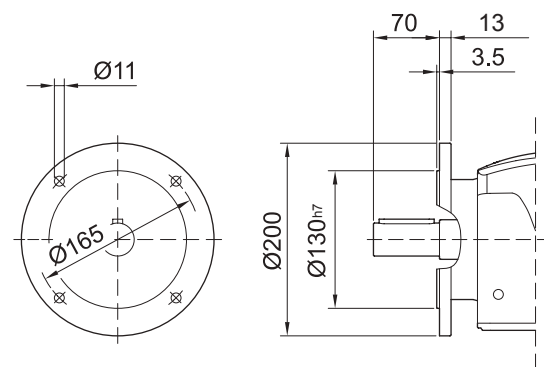
FL...FL35*



FLV-FL35*



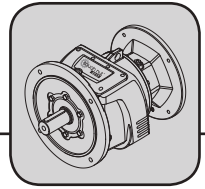
FLWF35*



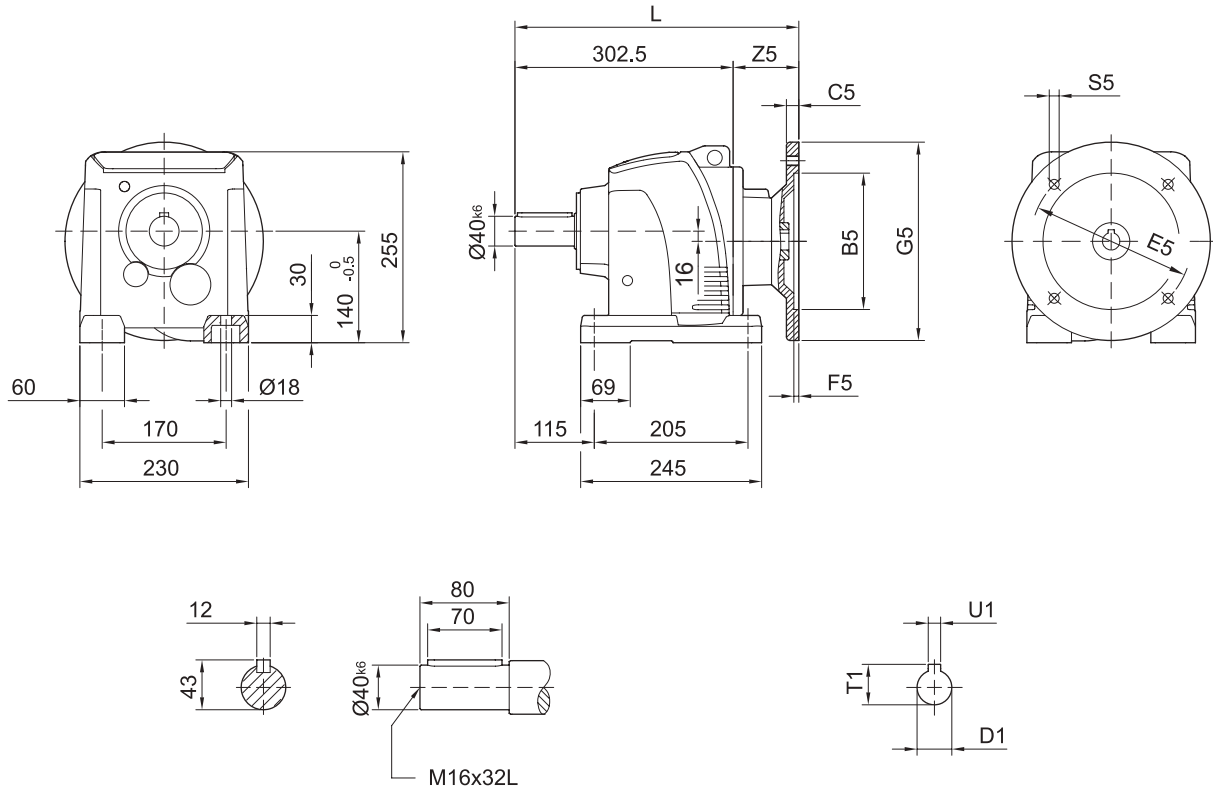
For the dimensions concerning the solid input shaft, please refer to the table shown at page 139.

For the dimensions concerning the motor input shaft, please refer to the table shown at page 142.

FRAME	B5	C5	E5	F5	G5	L	S5	Z5	D1	T1	U1
IEC 63*	95	10	115	4	140	325.5	M8	46.5	11	12.8	4
IEC 71	110	10	130	4	160	325.5	M8	46.5	14	16.3	5
IEC 80	130	12	165	5	200	343.5	M10	64.5	19	21.8	6
IEC 90	130	12	165	5	200	343.5	M10	64.5	24	27.3	8
IEC 100	180	15	215	5	250	360	M12	81	28	31.3	8
IEC 112	180	15	215	5	250	360	M12	81	28	31.3	8



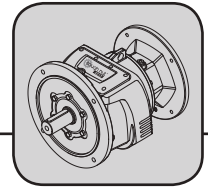
FLH-F 40



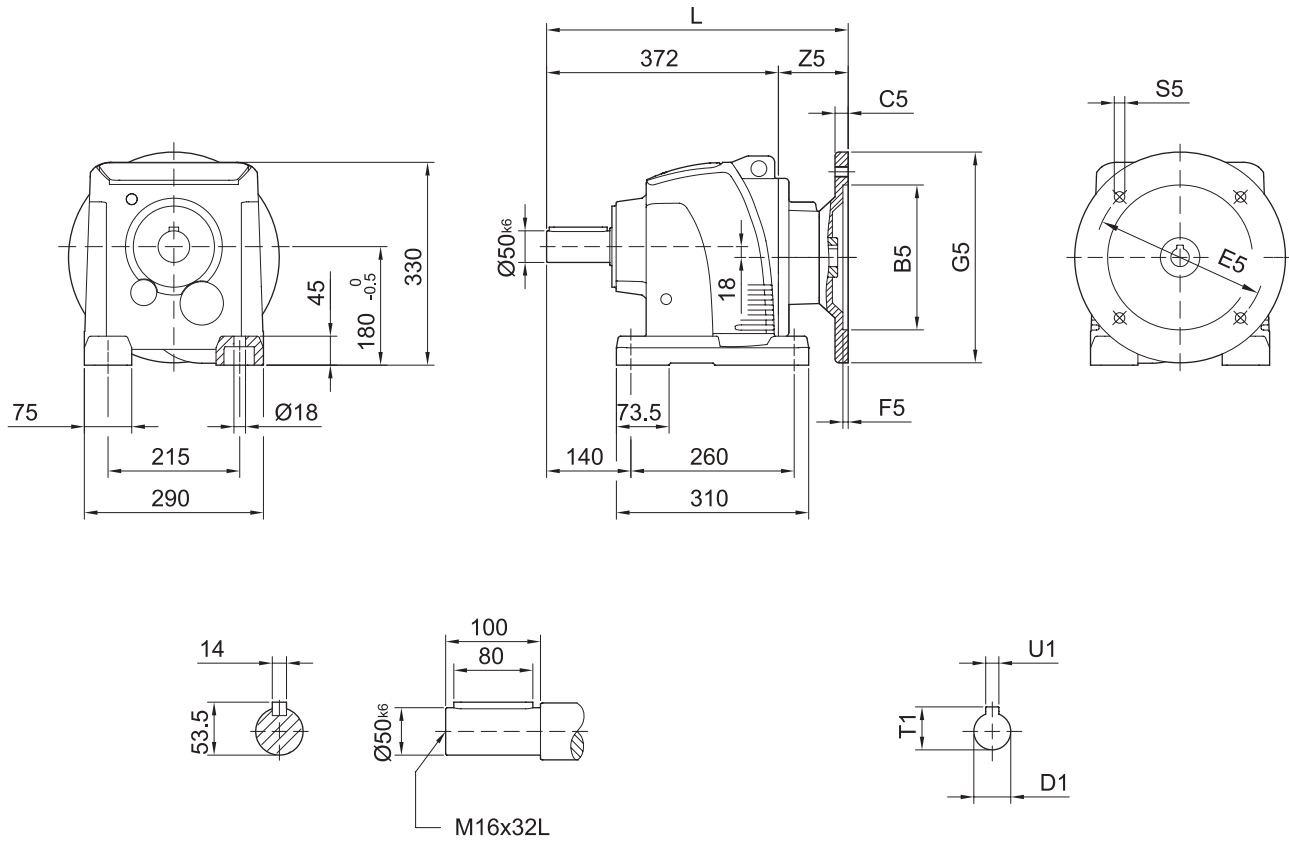
For the dimensions concerning the solid input shaft, please refer to the table shown at page 139.

For the dimensions concerning the motor input shaft, please refer to the table shown at page 142.

FRAME	B5	C5	E5	F5	G5	L	S5	Z5	D1	T1	U1
IEC 71	110	10	130	4	160	353.5	M8	51	14	16.3	5
IEC 80	130	12	165	5	200	361.5	M10	59	19	21.8	6
IEC 90	130	12	165	5	200	361.5	M10	59	24	27.3	8
IEC 100	180	15	215	5	250	378	M12	75.5	28	31.3	8
IEC 112	180	15	215	5	250	378	M12	75.5	28	31.3	8
IEC 132	230	16	265	6	300	426.5	M12	124	38	41.3	10



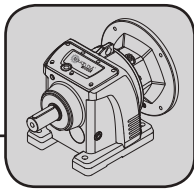
FLH-F 50



For the dimensions concerning the solid input shaft, please refer to the table shown at page 139.

For the dimensions concerning the motor input shaft, please refer to the table shown at page 142.

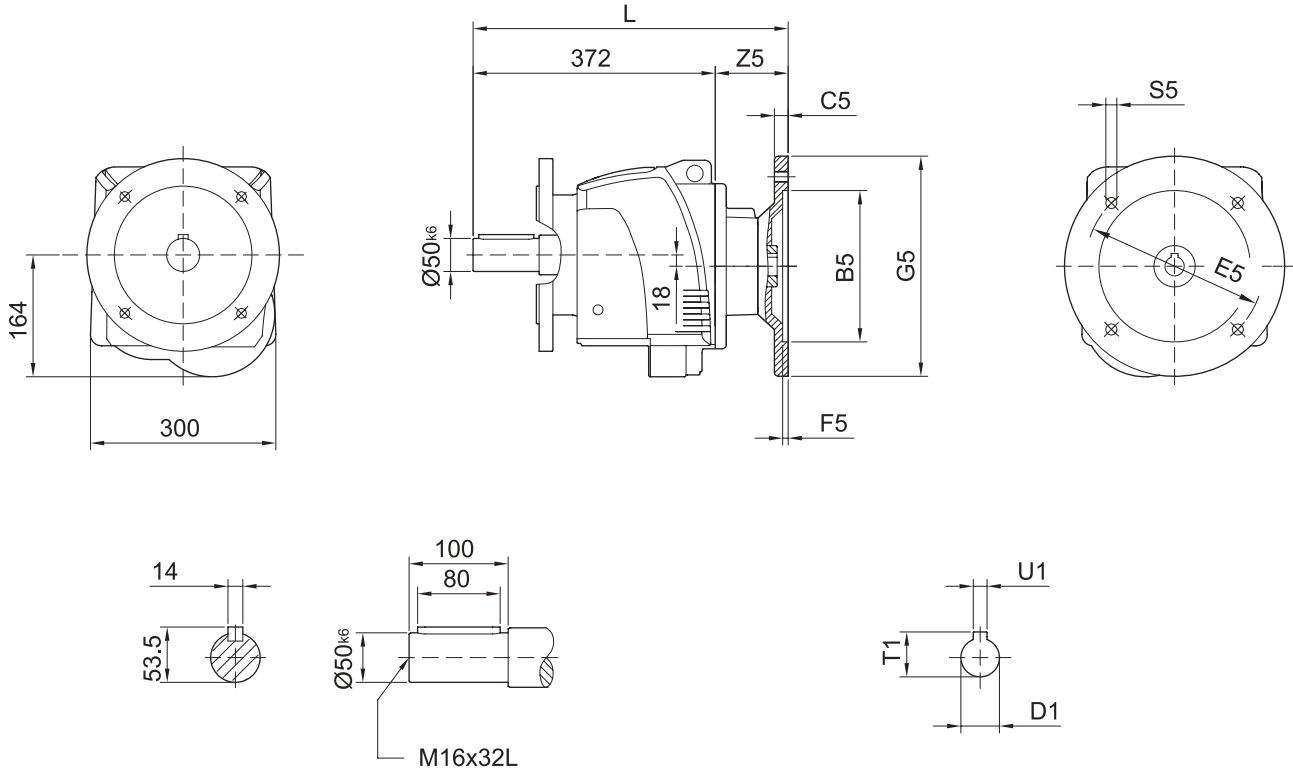
FRAME	B5	C5	E5	F5	G5	L	S5	Z5	D1	T1	U1
IEC 80	130	12	165	5	200	437	M10	65	19	21.8	6
IEC 90	130	12	165	5	200	437	M10	65	24	27.3	8
IEC 100	180	15	215	5	250	438	M12	66	28	31.3	8
IEC 112	180	15	215	5	250	438	M12	66	28	31.3	8
IEC 132	230	16	265	6	300	486.5	M12	114.5	38	41.3	10
IEC 160	250	20	300	6	350	522.5	M16	150.5	42	45.3	12



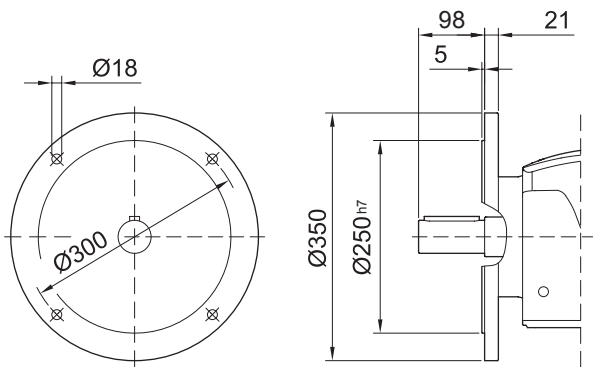
Helical Gear Units

Dimension Sheets[mm]

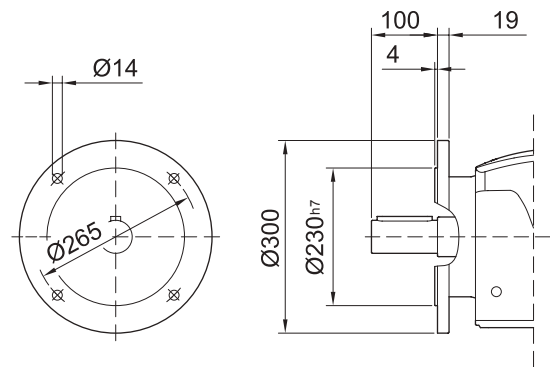
FL...FL50



FLV-FL 50



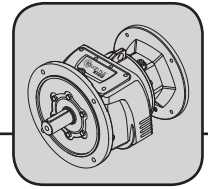
FLWF 50



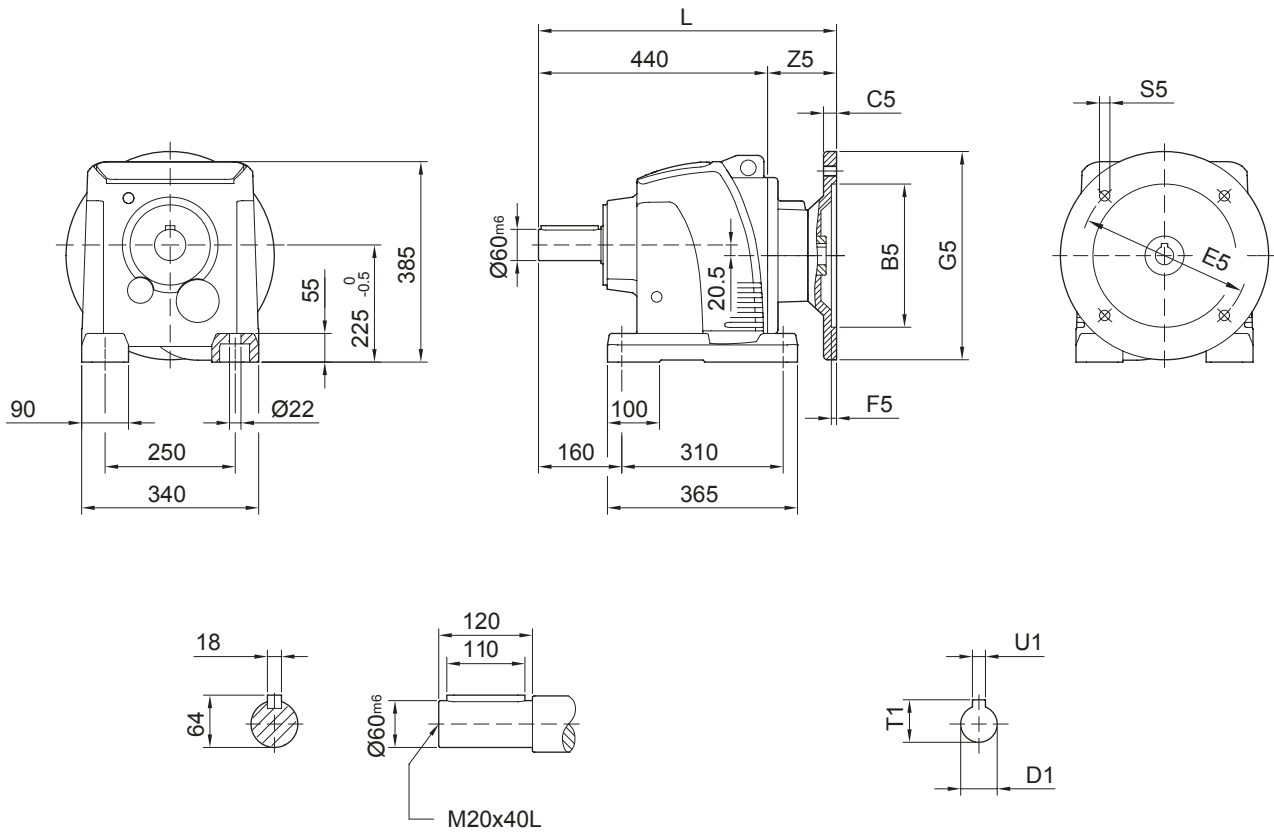
For the dimensions concerning the solid input shaft, please refer to the table shown at page 139.

For the dimensions concerning the motor input shaft, please refer to the table shown at page 142.

FRAME	B5	C5	E5	F5	G5	L	S5	Z5	D1	T1	U1
IEC 80	130	12	165	5	200	437	M10	65	19	21.8	6
IEC 90	130	12	165	5	200	437	M10	65	24	27.3	8
IEC 100	180	15	215	5	250	438	M12	66	28	31.3	8
IEC 112	180	15	215	5	250	438	M12	66	28	31.3	8
IEC 132	230	16	265	6	300	486.5	M12	114.5	38	41.3	10
IEC 160	250	20	300	6	350	522.5	M16	150.5	42	45.3	12



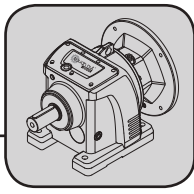
FLH-F 60



For the dimensions concerning the solid input shaft, please refer to the table shown at page 139.

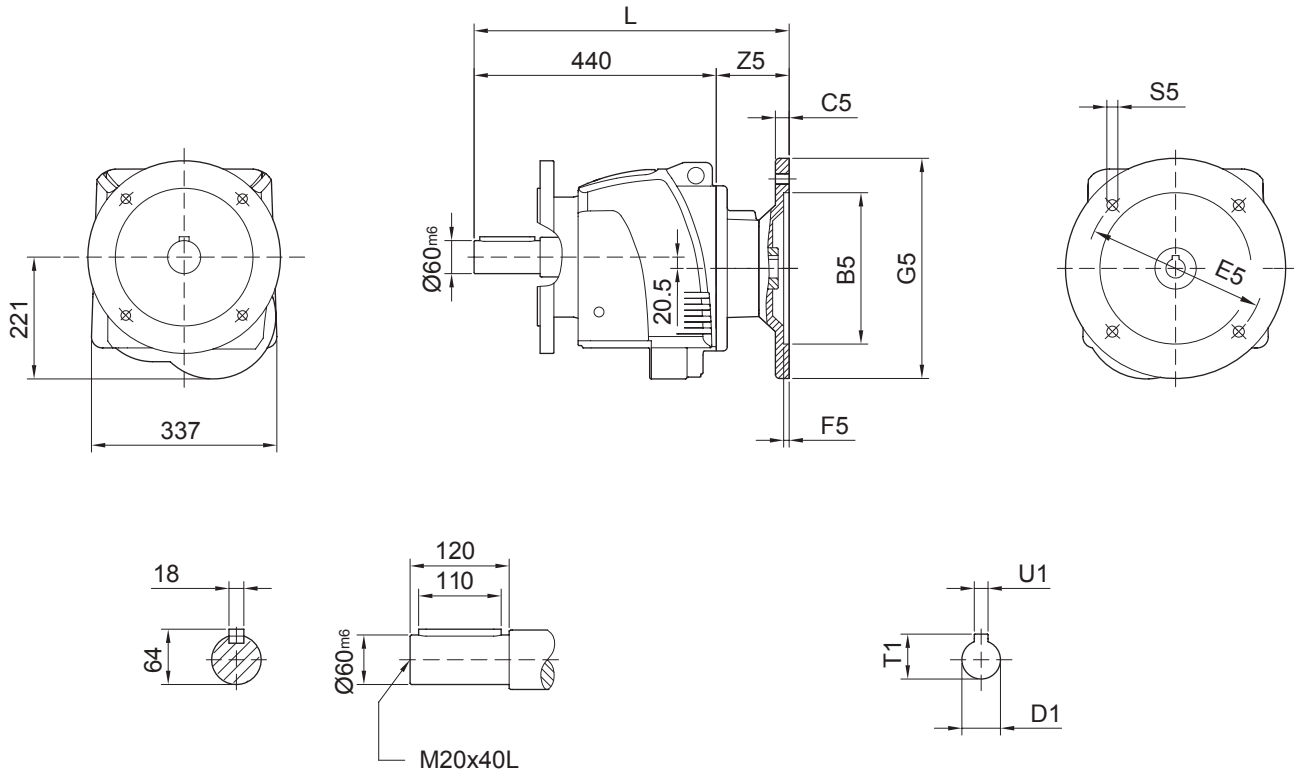
For the dimensions concerning the motor input shaft, please refer to the table shown at page 142.

FRAME	B5	C5	E5	F5	G5	L	S5	Z5	D1	T1	U1
IEC 100	180	15	215	5	250	502	M12	62	28	31.3	8
IEC 112	180	15	215	5	250	502	M12	62	28	31.3	8
IEC 132	230	16	265	6	300	546.5	M12	106.5	38	41.3	10
IEC 160	250	20	300	6	350	582.5	M16	142.5	42	45.3	12
IEC 180*	250	20	300	6	350	591.5	M16	151.5	48	51.8	14



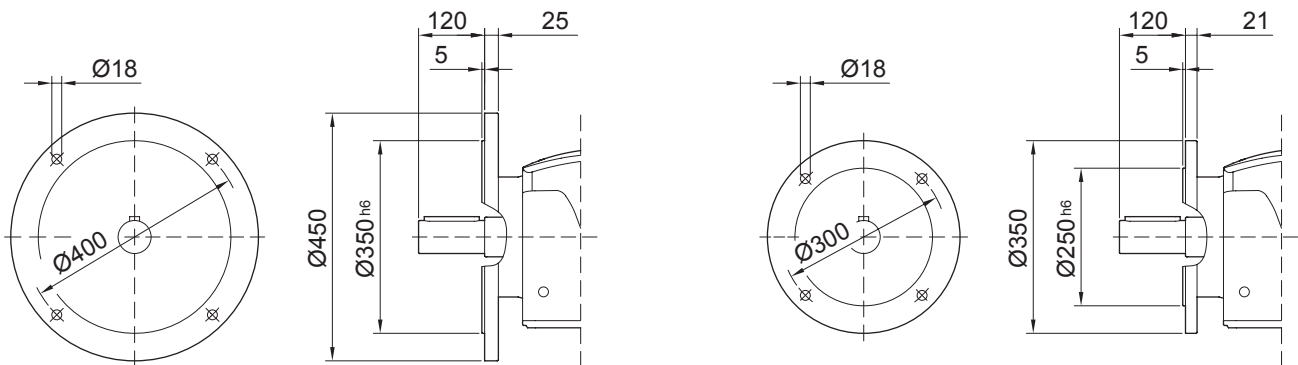
Helical Gear Units
Dimension Sheets[mm]

FL..FL 60



FLV-FL 60

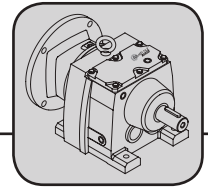
FWWF 60



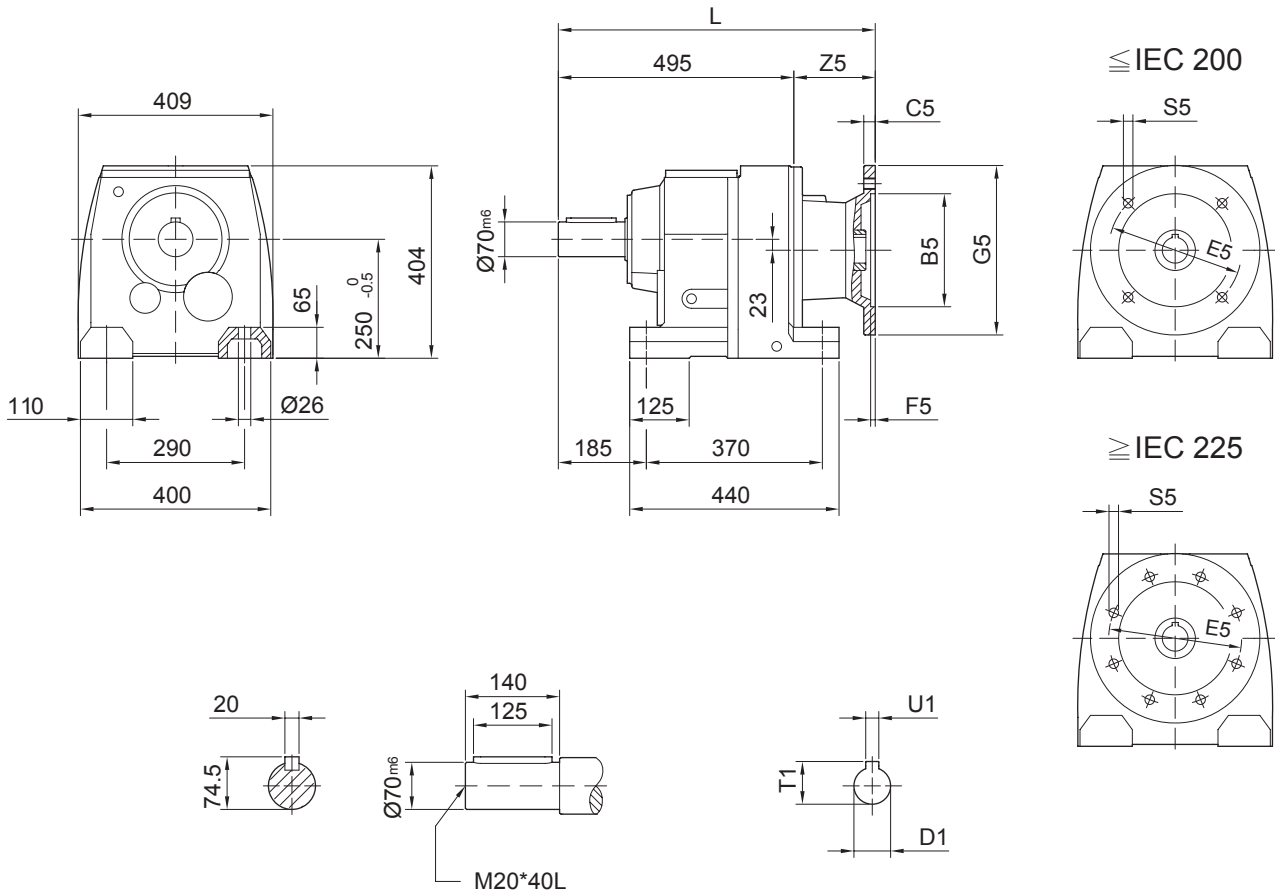
For the dimensions concerning the solid input shaft, please refer to the table shown at page 139.

For the dimensions concerning the motor input shaft, please refer to the table shown at page 142.

FRAME	B5	C5	E5	F5	G5	L	S5	Z5	D1	T1	U1
IEC 100	180	15	215	5	250	502	M12	62	28	31.3	8
IEC 112	180	15	215	5	250	502	M12	62	28	31.3	8
IEC 132	230	16	265	6	300	546.5	M12	106.5	38	41.3	10
IEC 160	250	20	300	6	350	582.5	M16	142.5	42	45.3	12
IEC 180*	250	20	300	6	350	591.5	M16	151.5	48	51.8	14



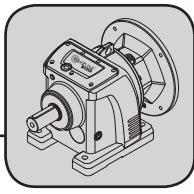
FMH-F 70



For the dimensions concerning the solid input shaft, please refer to the table shown at page 139.

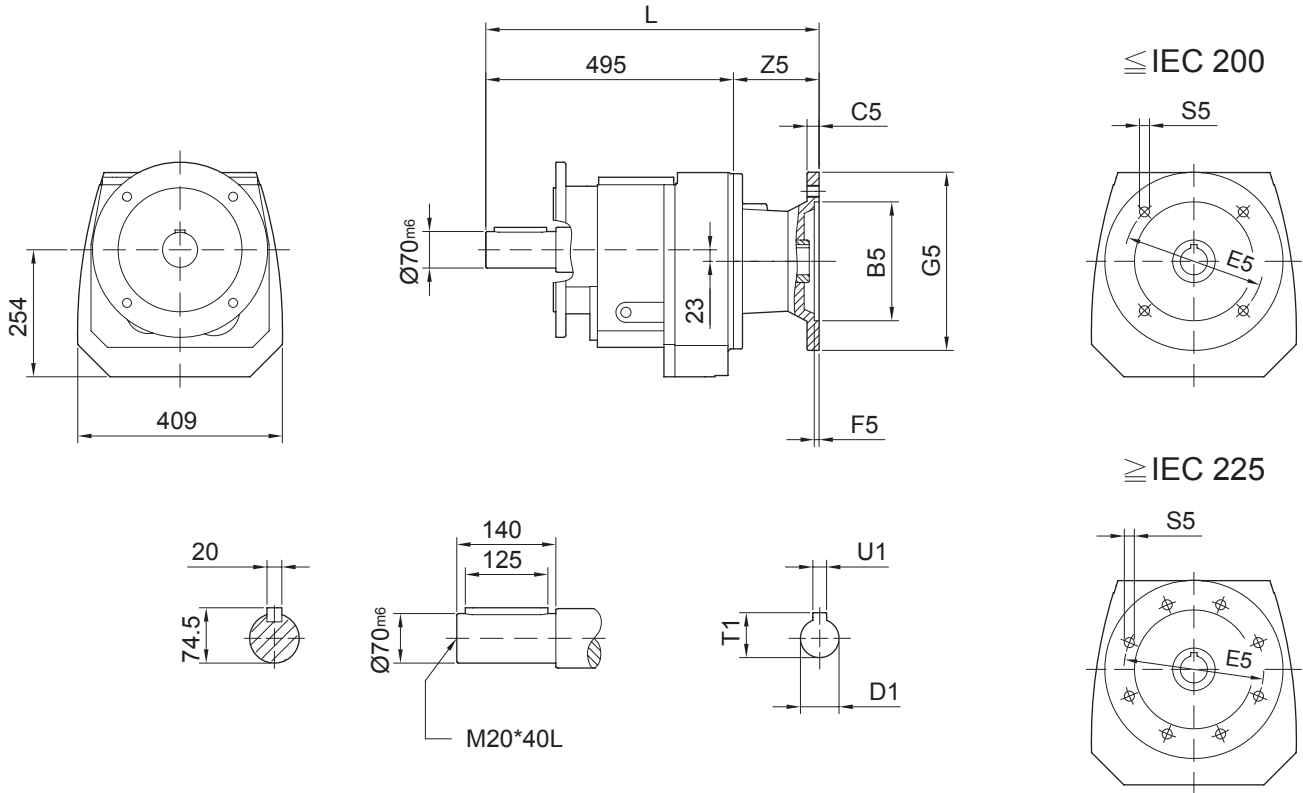
For the dimensions concerning the motor input shaft, please refer to the table shown at page 142.

FRAME	B5	C5	E5	F5	G5	L	S5	Z5	D1	T1	U1
IEC 132	230	16	265	6	300	592	M12	97	38	41.3	10
IEC 160	250	20	300	6	350	628	M16	133	42	45.3	12
IEC 180*	250	20	300	6	350	637	M16	142	48	51.8	14
IEC 200*	300	20	350	6	400	637	M16	142	55	59.3	16
IEC 225*	350	20	400	6	450	668	M16	173	60	64.4	18



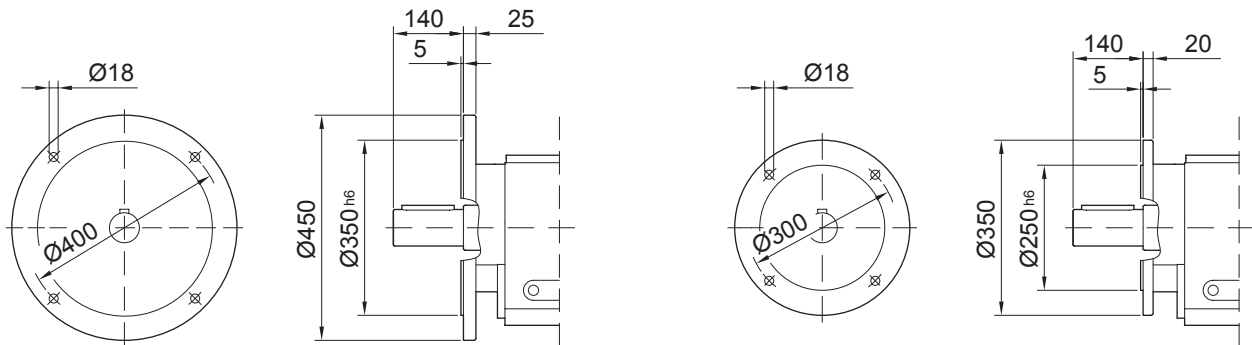
Helical Gear Units
Dimension Sheets[mm]

FM..F 70



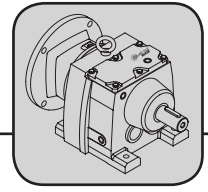
FMV-FL 70

FMWF 70

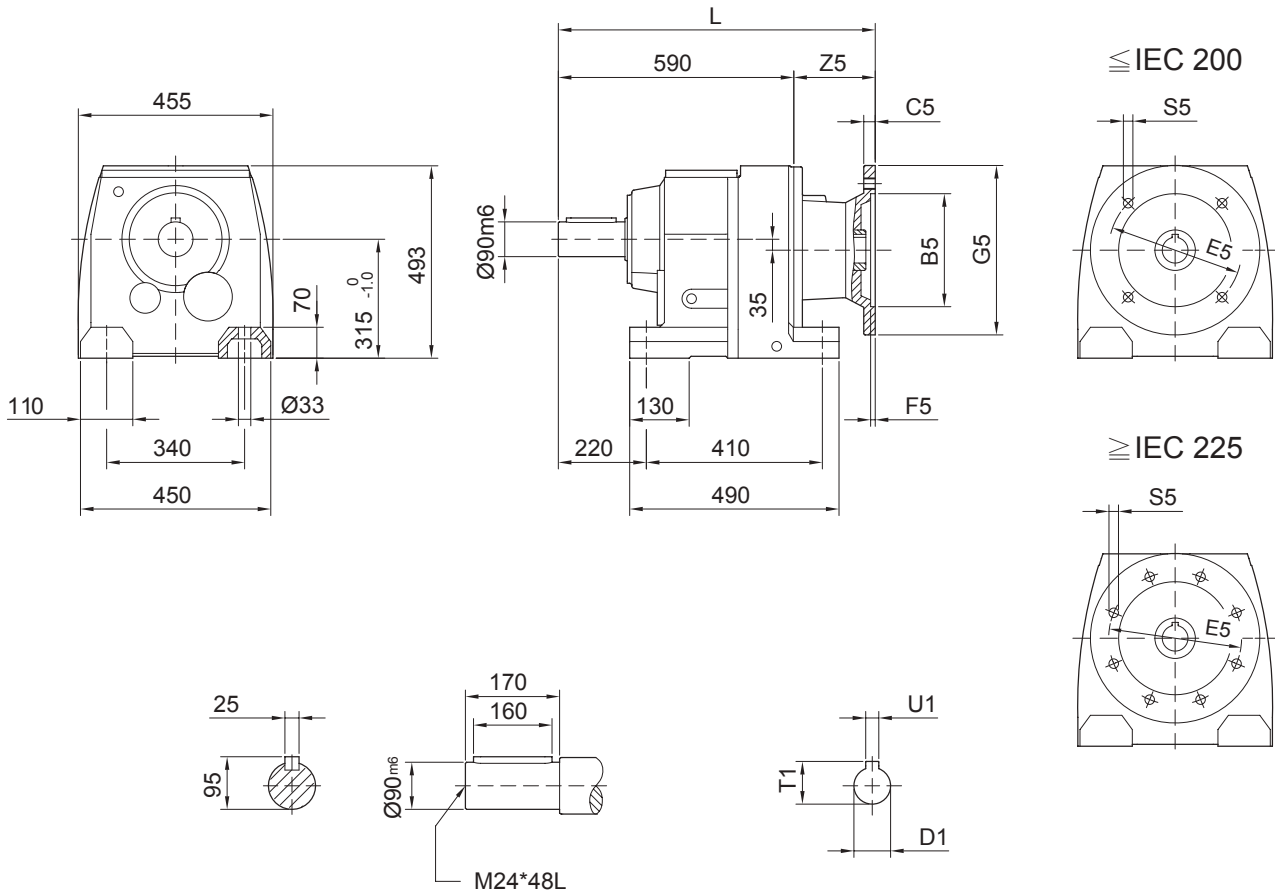


For the dimensions concerning the solid input shaft, please refer to the table shown at page 139.
For the dimensions concerning the motor input shaft, please refer to the table shown at page 142.

FRAME	B5	C5	E5	F5	G5	L	S5	Z5	D1	T1	U1
IEC 132	230	16	265	6	300	592	M12	97	38	41.3	10
IEC 160	250	20	300	6	350	628	M16	133	42	45.3	12
IEC 180*	250	20	300	6	350	637	M16	142	48	51.8	14
IEC 200*	300	20	350	6	400	637	M16	142	55	59.3	16
IEC 225*	350	20	400	6	450	668	M16	173	60	64.4	18



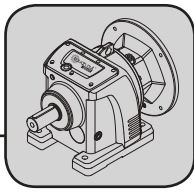
FMH-F 90



For the dimensions concerning the solid input shaft, please refer to the table shown at page 139.

For the dimensions concerning the motor input shaft, please refer to the table shown at page 142.

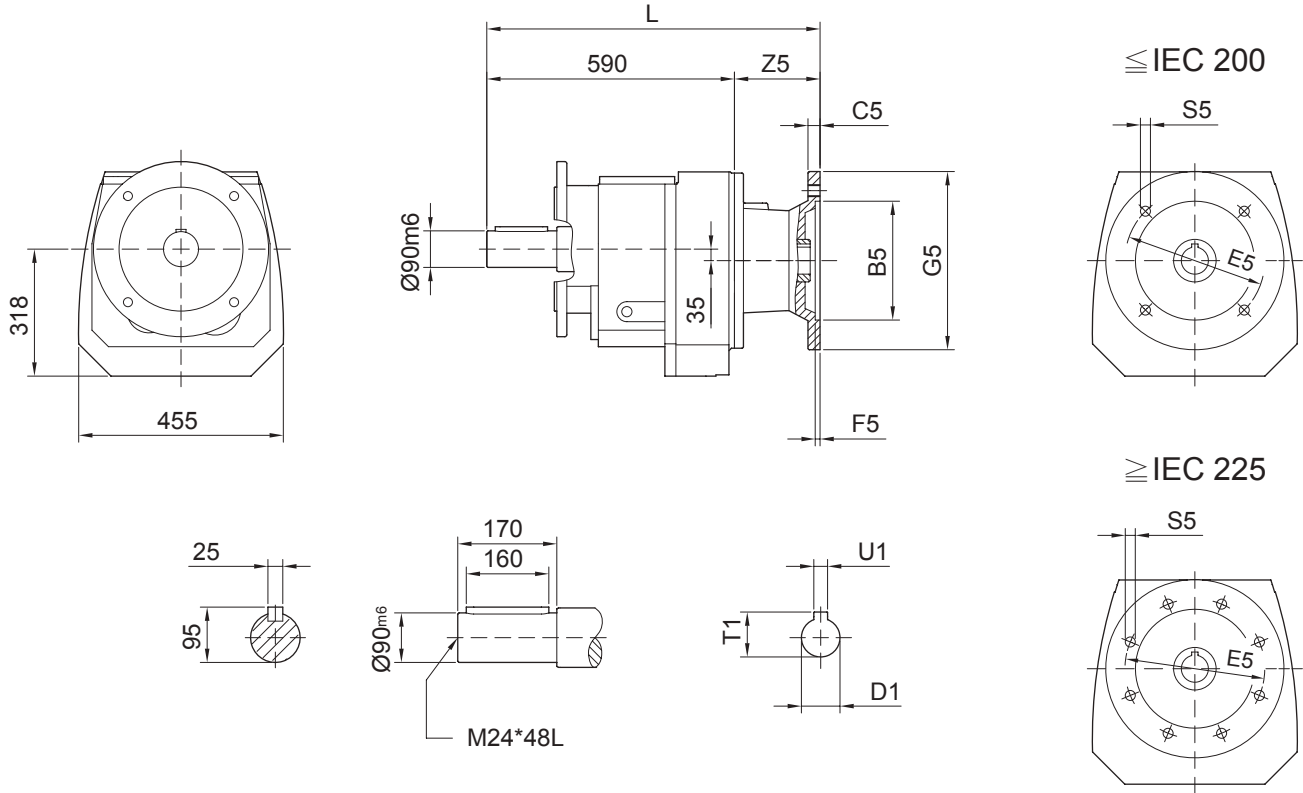
FRAME	B5	C5	E5	F5	G5	L	S5	Z5	D1	T1	U1
IEC 160	250	20	300	6	350	713	M16	123	42	45.3	12
IEC 180*	250	20	300	6	350	721	M16	131	48	51.8	14
IEC 200*	300	20	350	6	400	721	M16	131	55	59.3	16
IEC 225*	350	20	400	6	450	752	M16	162	60	64.4	18
IEC 250*	450	22	500	6	550	769	M16	179	65	69.4	18



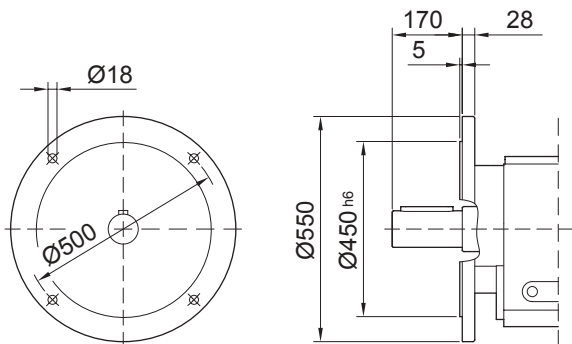
Helical Gear Units

Dimension Sheets[mm]

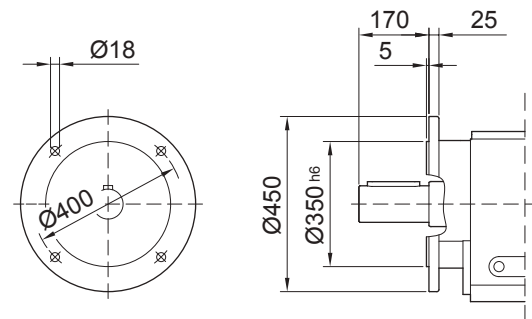
FM..F 90



FMV-FL 90



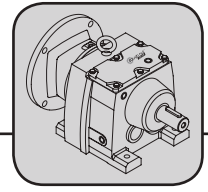
FMWF 90



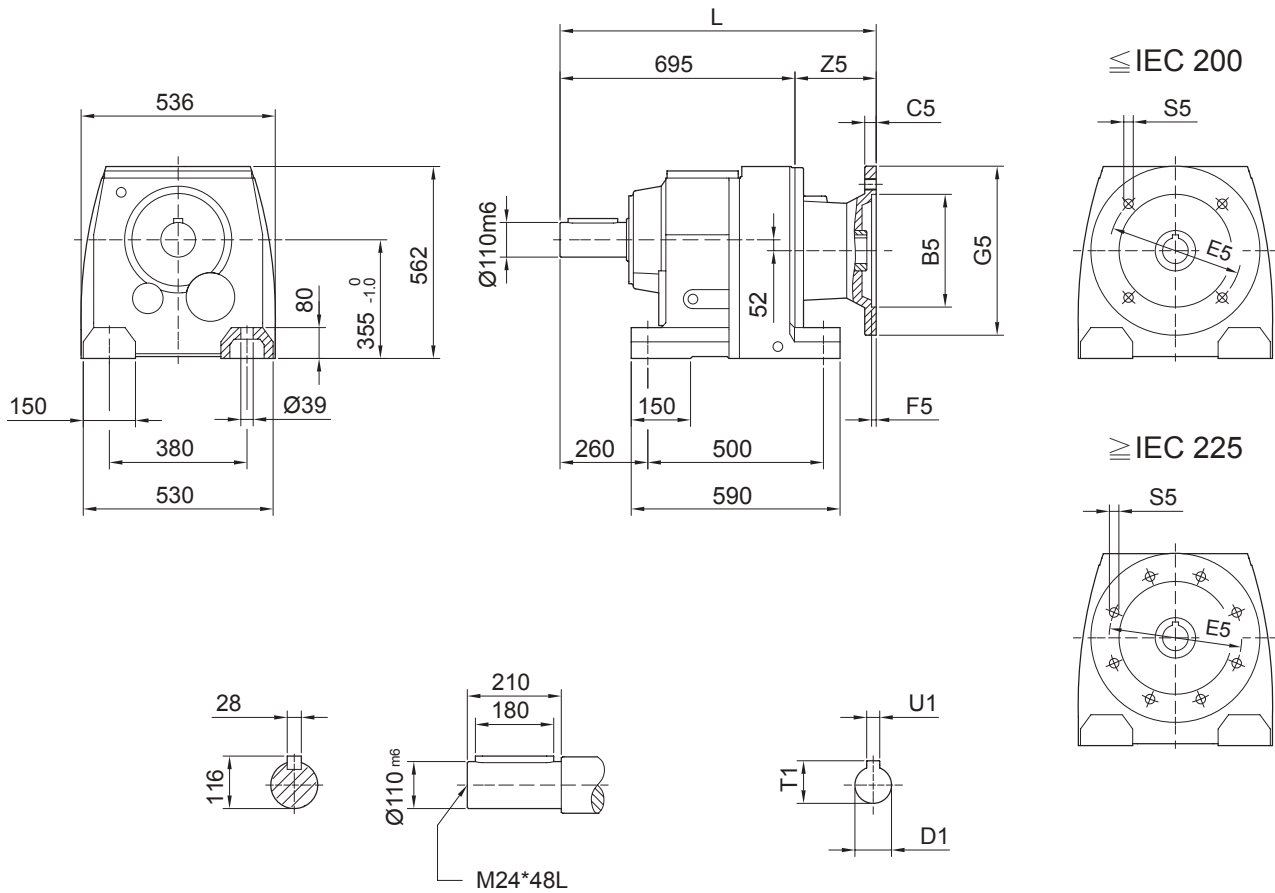
For the dimensions concerning the solid input shaft, please refer to the table shown at page 139.

For the dimensions concerning the motor input shaft, please refer to the table shown at page 142.

FRAME	B5	C5	E5	F5	G5	L	S5	Z5	D1	T1	U1
IEC 160	250	20	300	6	350	713	M16	123	42	45.3	12
IEC 180*	250	20	300	6	350	721	M16	131	48	51.8	14
IEC 200*	300	20	350	6	400	721	M16	131	55	59.3	16
IEC 225*	350	20	400	6	450	752	M16	162	60	64.4	18
IEC 250*	450	22	500	6	550	769	M16	179	65	69.4	18



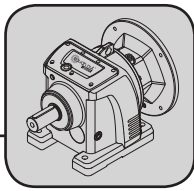
FMH-F 110



For the dimensions concerning the solid input shaft, please refer to the table shown at page 139.

For the dimensions concerning the motor input shaft, please refer to the table shown at page 142.

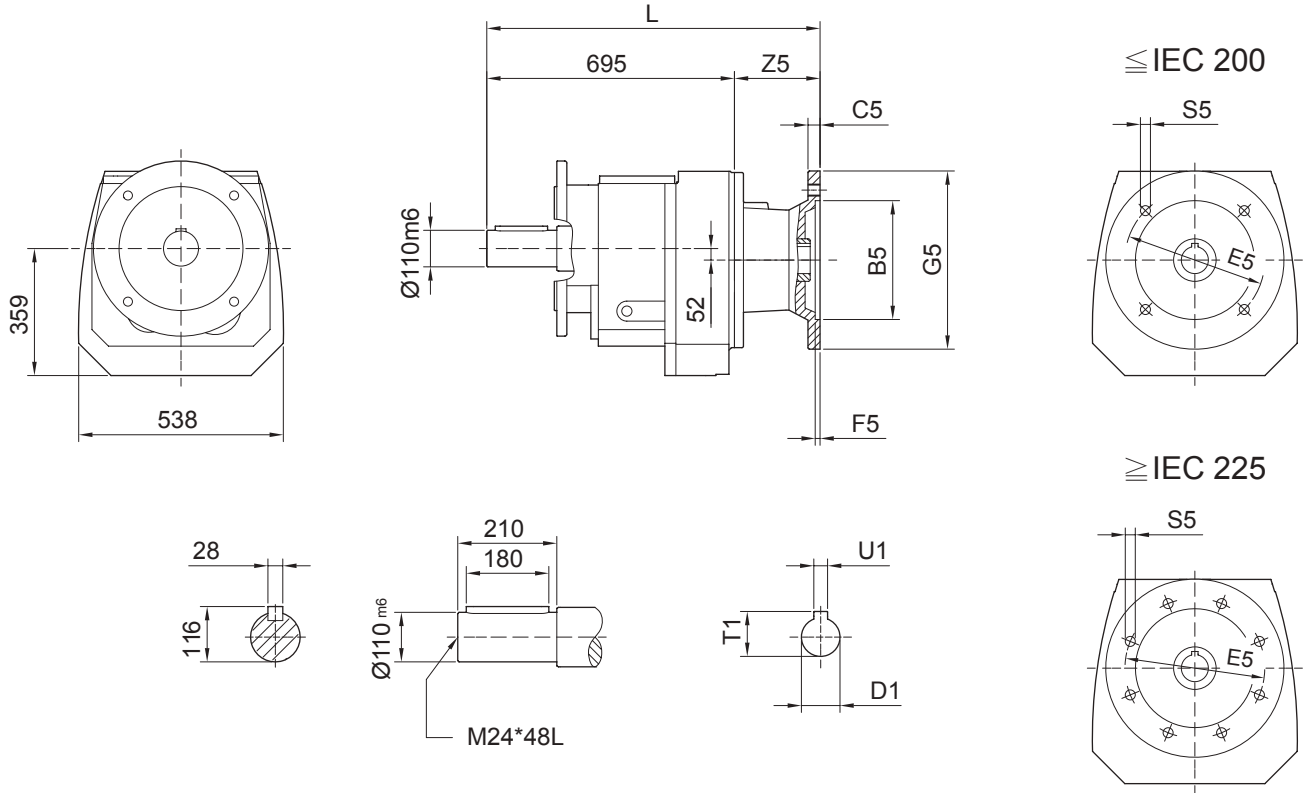
FRAME	B5	C5	E5	F5	G5	L	S5	Z5	D1	T1	U1
IEC 160	250	20	300	6	350	810	M16	115	42	45.3	12
IEC 180*	250	20	300	6	350	818	M16	123	48	51.8	14
IEC 200*	300	20	350	6	400	818	M16	123	55	59.3	16
IEC 225*	350	20	400	6	450	853	M16	158	60	64.4	18
IEC 250*	450	22	500	6	550	870	M16	175	65	69.4	18
IEC 280*	450	22	500	6	550	910	M16	213	75	79.9	20



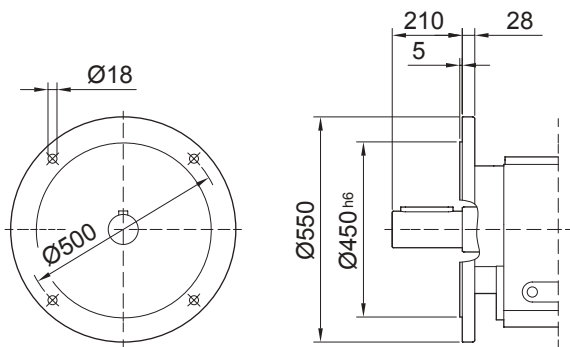
Helical Gear Units

Dimension Sheets[mm]

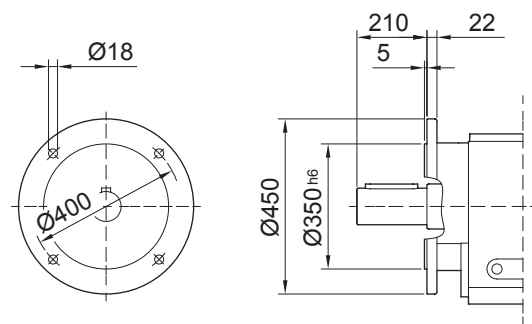
FM..F 110



FMV-FL 110

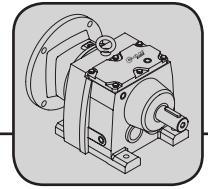


FMWF 110

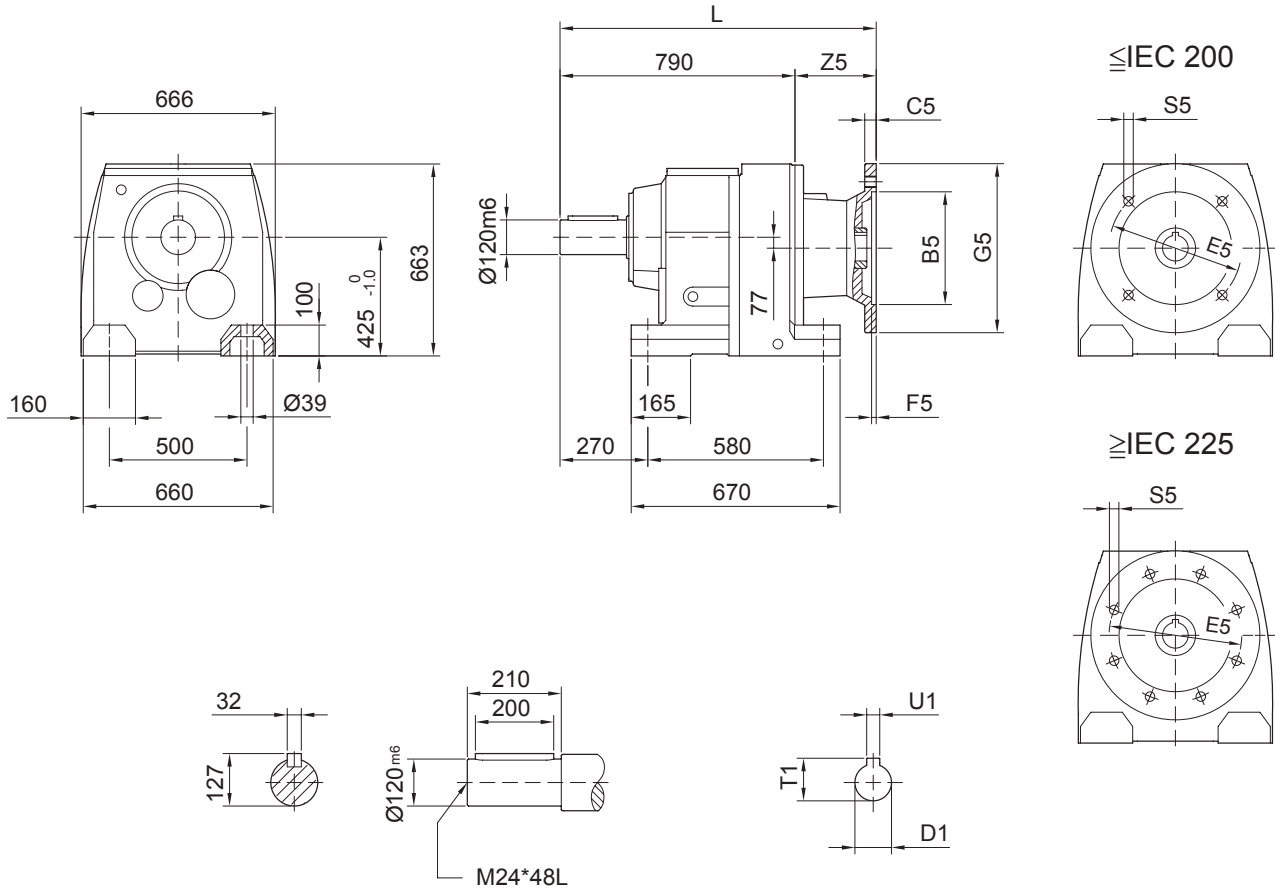


For the dimensions concerning the solid input shaft, please refer to the table shown at page 139.
 For the dimensions concerning the motor input shaft, please refer to the table shown at page 142.

FRAME	B5	C5	E5	F5	G5	L	S5	Z5	D1	T1	U1
IEC 160	250	20	300	6	350	810	M16	115	42	45.3	12
IEC 180*	250	20	300	6	350	818	M16	123	48	51.8	14
IEC 200*	300	20	350	6	400	818	M16	123	55	59.3	16
IEC 225*	350	20	400	6	450	853	M16	158	60	64.4	18
IEC 250*	450	22	500	6	550	870	M16	175	65	69.4	18
IEC 280*	450	22	500	6	550	910	M16	213	75	79.9	20

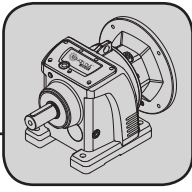


FMH-F 120



For the dimensions concerning the solid input shaft, please refer to the table shown at page 139.
For the dimensions concerning the motor input shaft, please refer to the table shown at page 142.

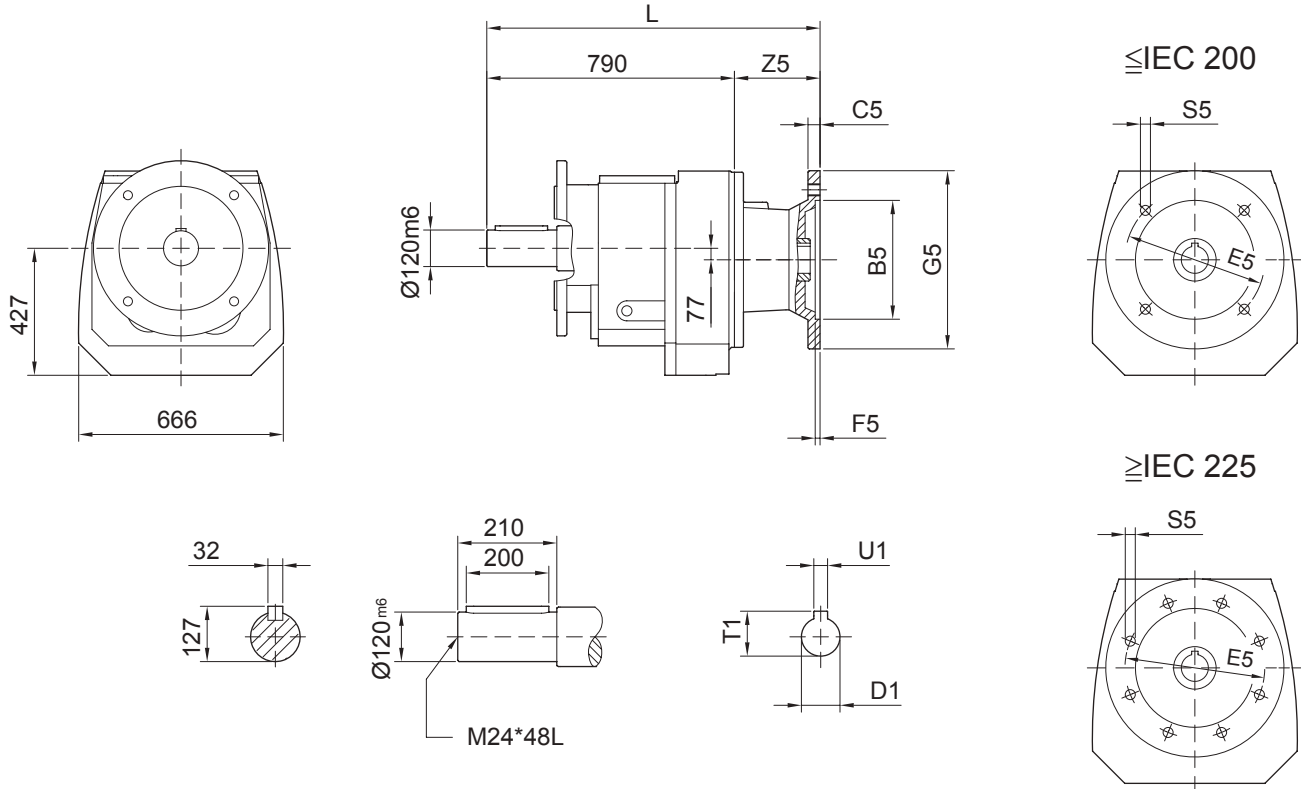
FRAME	B5	C5	E5	F5	G5	L	S5	Z5	D1	T1	U1
IEC 160	250	20	300	6	350	904	M16	114	42	45.3	12
IEC 180*	250	20	300	6	350	913	M16	123	48	51.8	14
IEC 200*	300	20	350	6	400	913	M16	123	55	59.4	16
IEC 225*	350	20	400	6	450	939	M16	149	60	64.4	18
IEC 250*	450	22	500	6	550	956	M16	166	65	69.5	18
IEC 280*	450	22	500	6	550	996	M16	206	75	80.0	20
IEC 315*	550	22	600	6	660	1010	Ø24	220	85	90.4	22



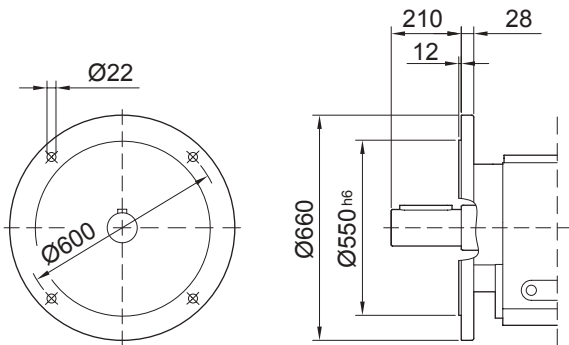
Helical Gear Units

Dimension Sheets[mm]

FM..F 120



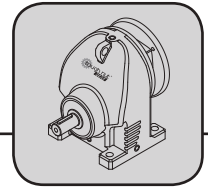
FMV-FL 120



For the dimensions concerning the solid input shaft, please refer to the table shown at page 139.

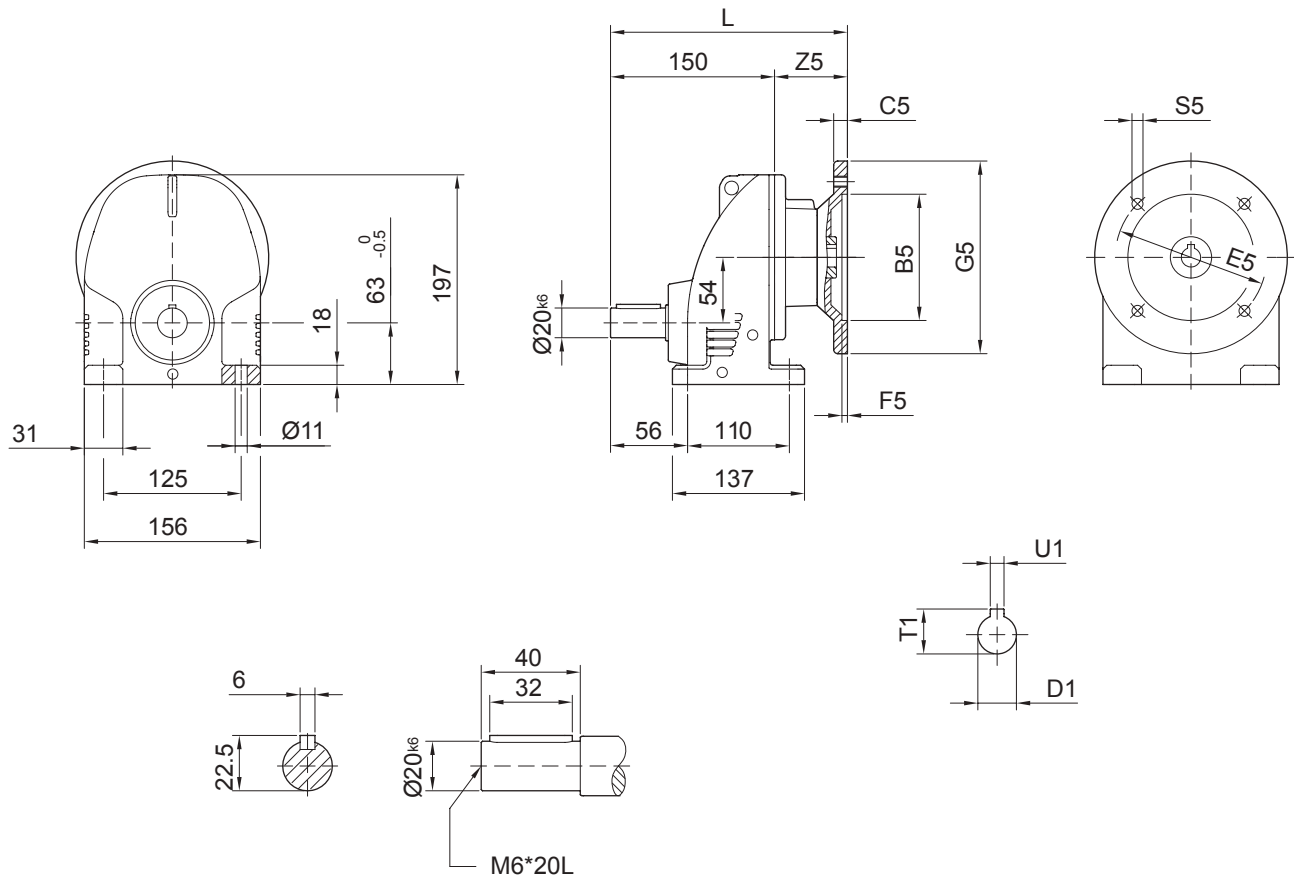
For the dimensions concerning the motor input shaft, please refer to the table shown at page 142.

FRAME	B5	C5	E5	F5	G5	L	S5	Z5	D1	T1	U1
IEC 160	250	20	300	6	350	904	M16	114	42	45.3	12
IEC 180*	250	20	300	6	350	913	M16	123	48	51.8	14
IEC 200*	300	20	350	6	400	913	M16	123	55	59.4	16
IEC 225*	350	20	400	6	450	939	M16	149	60	64.4	18
IEC 250*	450	22	500	6	550	956	M16	166	65	69.5	18
IEC 280*	450	22	500	6	550	996	M16	206	75	80.0	20
IEC 315*	550	22	600	6	660	1010	Ø24	220	85	90.4	22



FX..

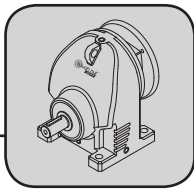
FXHF 20



For the dimensions concerning the solid input shaft, please refer to the table shown at page 139.

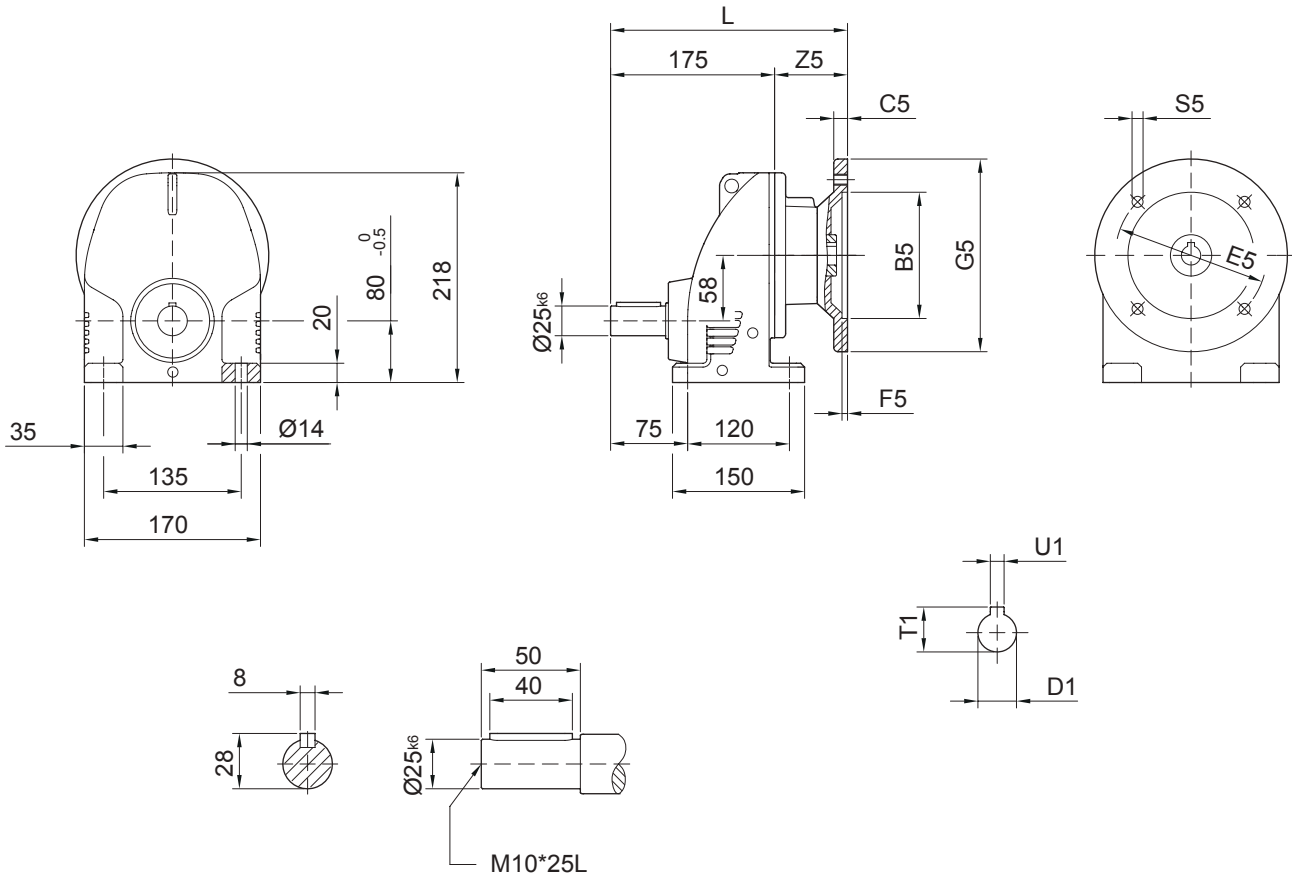
For the dimensions concerning the motor input shaft, please refer to the table shown at page 142.

FRAME	B5	C5	E5	F5	G5	L	S5	Z5	D1	T1	U1
IEC 63 *	95	10	115	4	140	198.5	M8	48.5	11	12.8	4
IEC 71	110	10	130	4	160	198.5	M8	48.5	14	16.3	5
IEC 80	130	12	165	5	200	216.5	M10	66.5	19	21.8	6
IEC 90	130	12	165	5	200	216.5	M10	66.5	24	27.3	8
IEC 100	180	15	215	5	250	233	M12	83	28	31.3	8



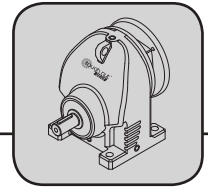
Helical Gear Units
Dimension Sheets[mm]

FXHF 25

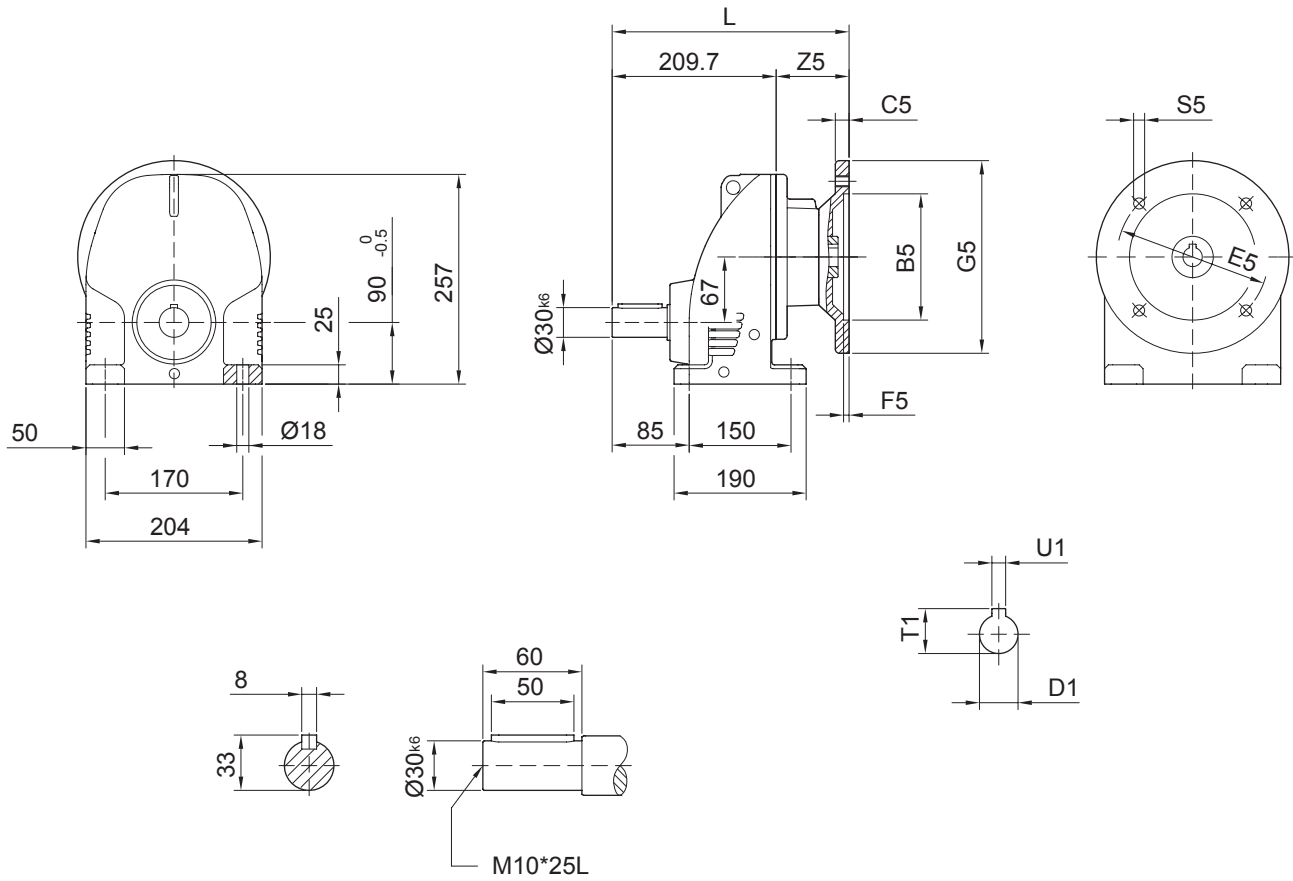


For the dimensions concerning the solid input shaft, please refer to the table shown at page 139.
For the dimensions concerning the motor input shaft, please refer to the table shown at page 142.

FRAME	B5	C5	E5	F5	G5	L	S5	Z5	D1	T1	U1
IEC 63 *	95	10	115	4	140	221.5	M8	46.5	11	12.8	4
IEC 71	110	10	130	4	160	221.5	M8	46.5	14	16.3	5
IEC 80	130	12	165	5	200	239.5	M10	64.5	19	21.8	6
IEC 90	130	12	165	5	200	239.5	M10	64.5	24	27.3	8
IEC 100	180	15	215	5	250	256	M12	81	28	31.3	8
IEC 112	180	15	215	5	250	256	M12	81	28	31.3	8



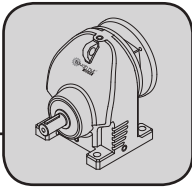
FXHF 30



For the dimensions concerning the solid input shaft, please refer to the table shown at page 139.

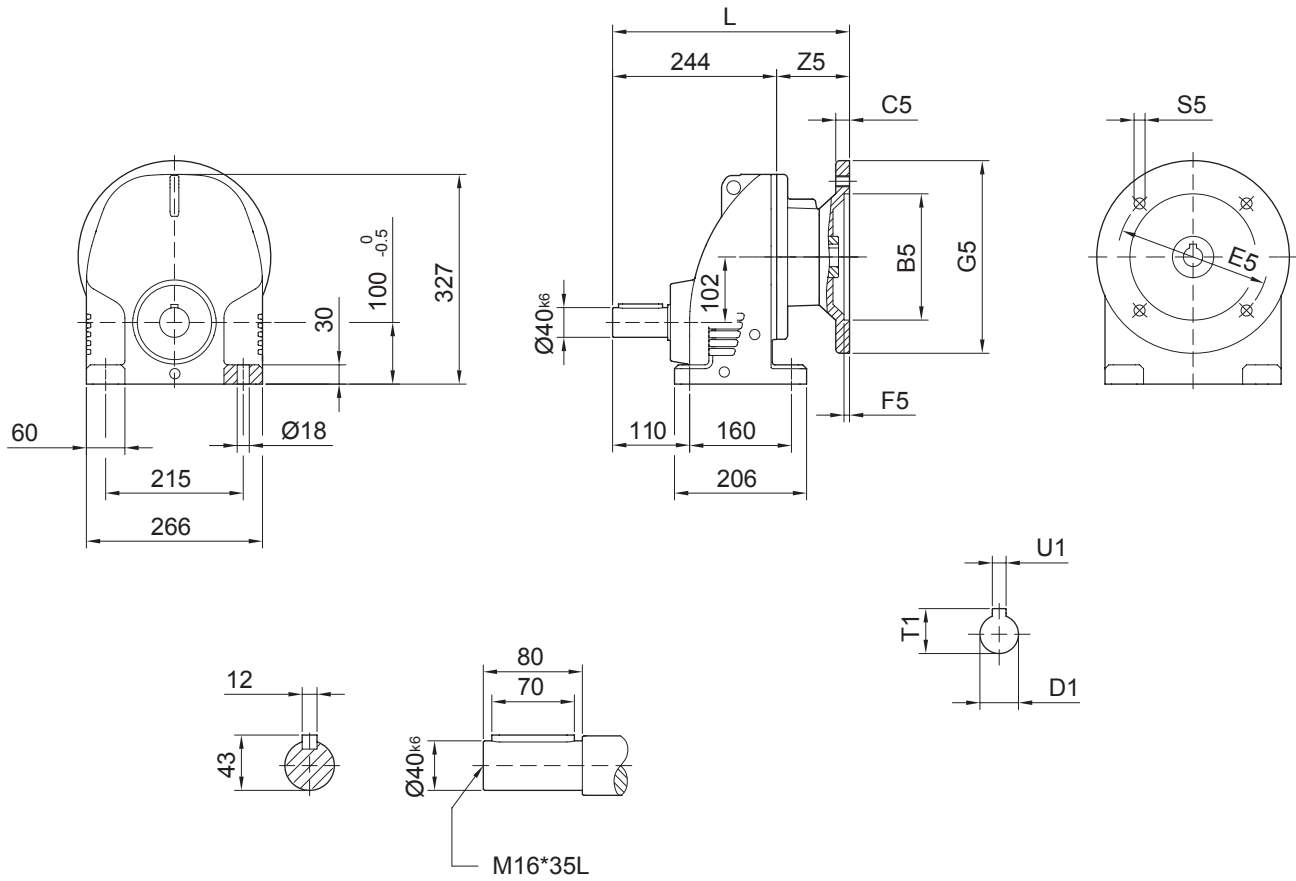
For the dimensions concerning the motor input shaft, please refer to the table shown at page 142.

FRAME	B5	C5	E5	F5	G5	L	S5	Z5	D1	T1	U1
IEC 80	130	12	165	5	200	268.7	M10	59	19	21.8	6
IEC 90	130	12	165	5	200	268.7	M10	59	24	27.3	8
IEC 100	180	15	215	5	250	285.2	M12	75.5	28	31.3	8
IEC 112	180	15	215	5	250	285.2	M12	75.5	28	31.3	8
IEC 132	230	16	265	6	300	333.7	M12	124	38	41.3	10



Helical Gear Units
Dimension Sheets[mm]

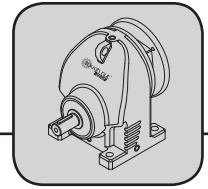
FXHF 40



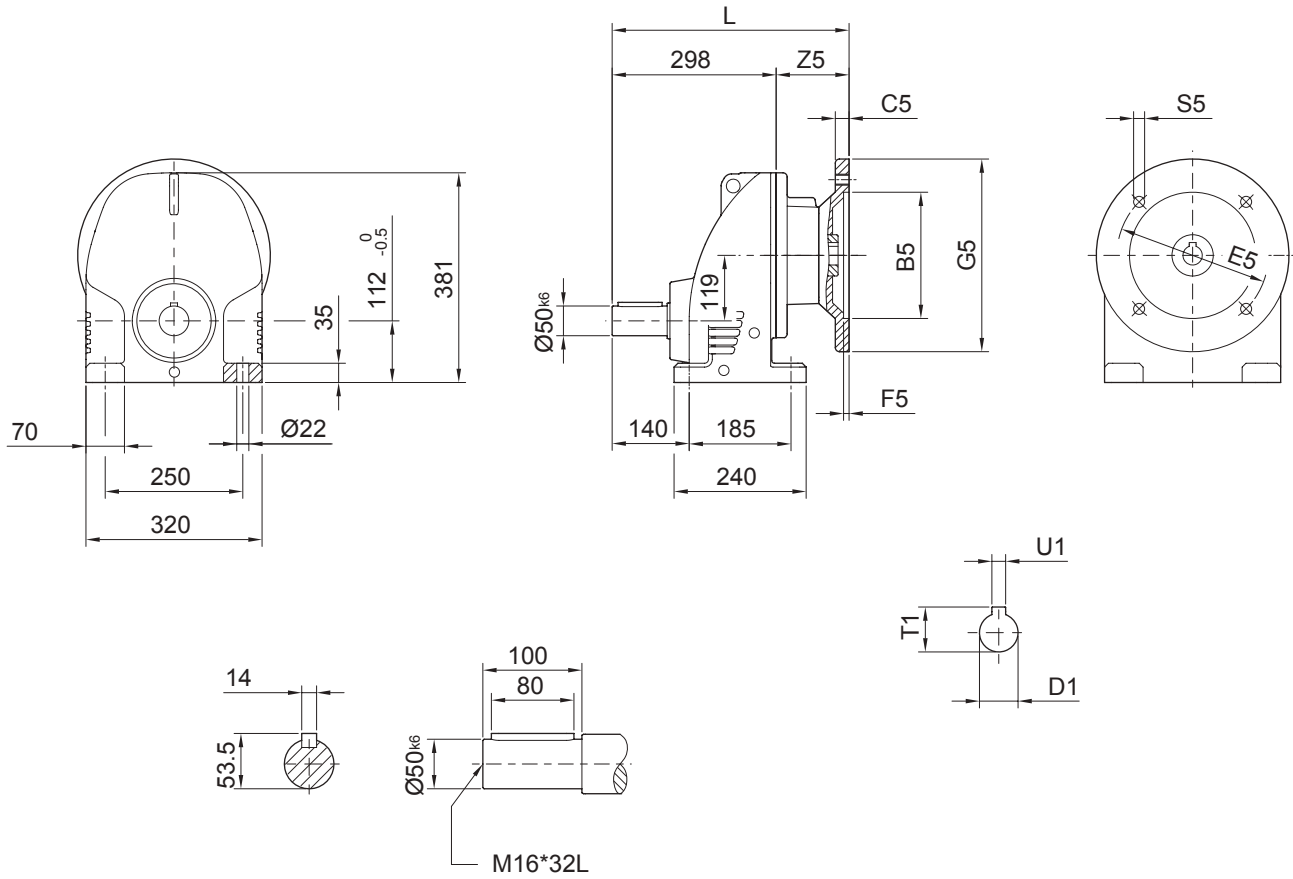
For the dimensions concerning the solid input shaft, please refer to the table shown at page 139.

For the dimensions concerning the motor input shaft, please refer to the table shown at page 142.

FRAME	B5	C5	E5	F5	G5	L	S5	Z5	D1	T1	U1
IEC 100	180	15	215	5	250	310	M12	66	28	31.3	8
IEC 112	180	15	215	5	250	310	M12	66	28	31.3	8
IEC 132	230	16	265	6	300	358.5	M12	114.5	38	41.3	10
IEC 160	250	20	300	6	350	394.5	M16	150.5	42	45.3	12



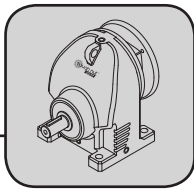
FXHF 50



For the dimensions concerning the solid input shaft, please refer to the table shown at page 139.

For the dimensions concerning the motor input shaft, please refer to the table shown at page 142.

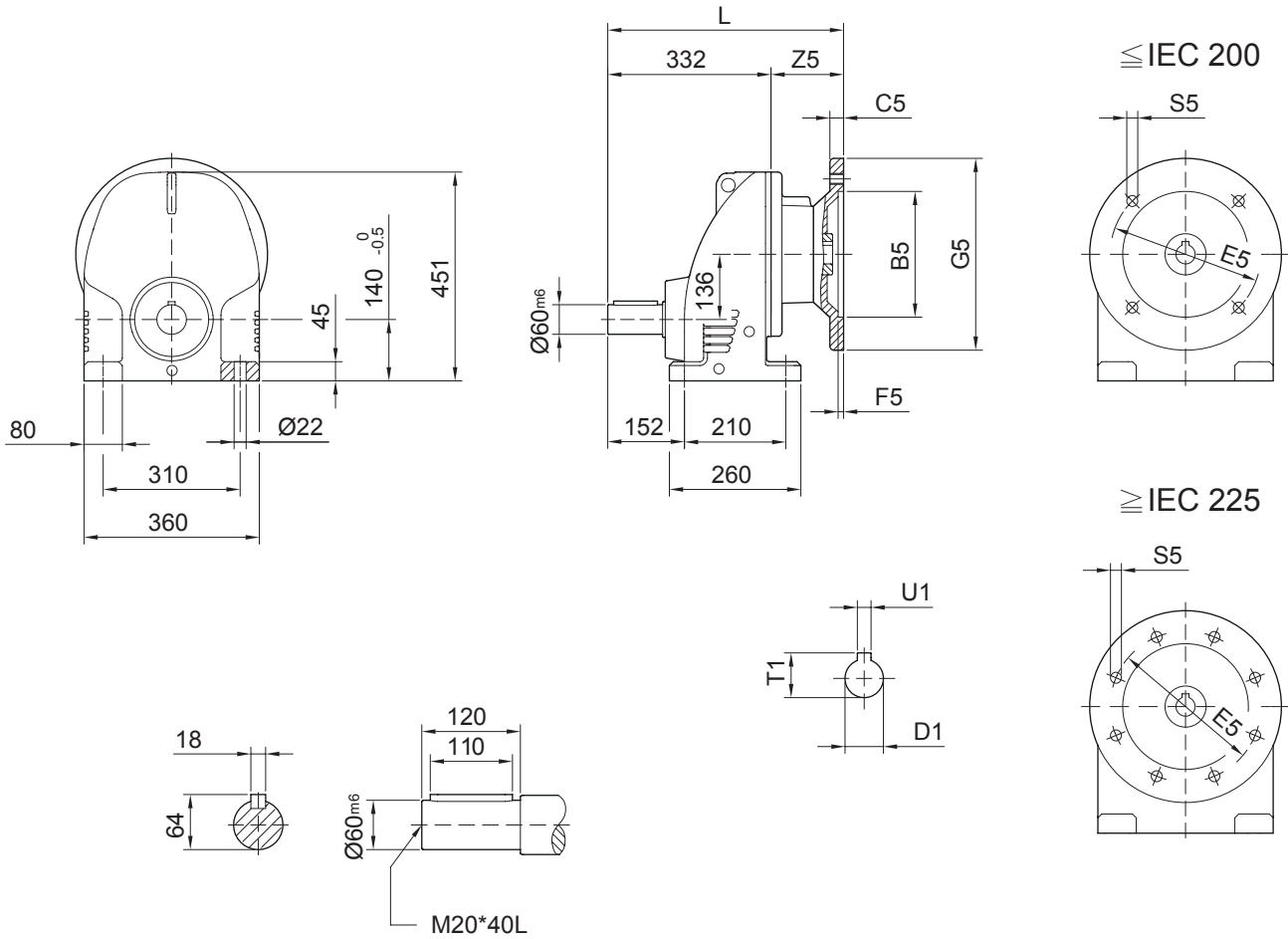
FRAME	B5	C5	E5	F5	G5	L	S5	Z5	D1	T1	U1
IEC 100	180	15	215	5	250	360	M12	62	28	31.3	8
IEC 112	180	15	215	5	250	360	M12	62	28	31.3	8
IEC 132	230	16	265	6	300	404.5	M12	106.5	38	41.3	10
IEC 160	250	20	300	6	350	440.5	M16	142.5	42	45.5	12
IEC 180 *	250	20	300	6	350	449.5	M16	151.5	48	51.8	14



Helical Gear Units

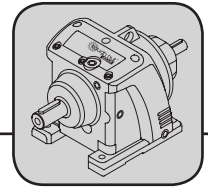
Dimension Sheets[mm]

FXHF 60



For the dimensions concerning the solid input shaft, please refer to the table shown at page 139.
 For the dimensions concerning the motor input shaft, please refer to the table shown at page 142.

FRAME	B5	C5	E5	F5	G5	L	S5	Z5	D1	T1	U1
IEC 100	180	15	215	5	250	394	M12	62	28	31.3	8
IEC 112	180	15	215	5	250	394	M12	62	28	31.3	8
IEC 132	230	16	265	6	300	429	M12	97	38	41.3	10
IEC 160	250	20	300	6	350	465	M16	133	42	45.5	12
IEC 180 *	250	20	300	6	350	474	M16	142	48	51.8	14
IEC 200 *	300	20	350	6	400	474	M16	142	55	59.3	16
IEC 225 *	350	20	400	6	450	505	M16	173	60	64.4	18



Solid Input Shaft

FL..D

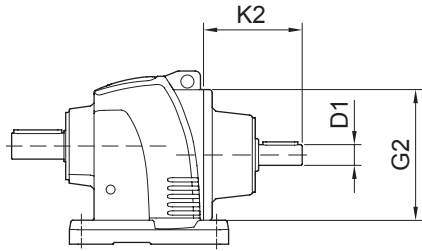


FIG 1

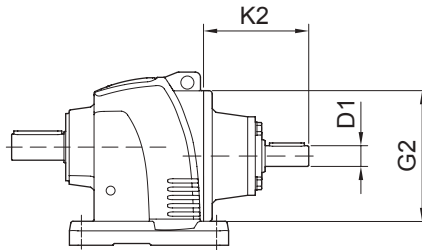
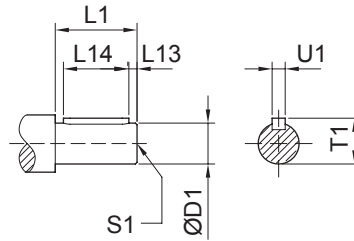
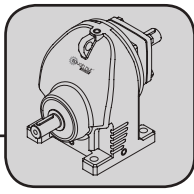


FIG 2

SIZE	D1	L1	L13	L14	T1	U1	S1	K2	G2	FIG
FL..25	16 _{k6}	40	4	32	18	5	M5*10L	88	120	1
	19 _{k6}	40	4	32	21.5	6	M6*12L	90.5	120	1
FL..30	16 _{k6}	40	4	32	18	5	M5*10L	83.5	160	1
	19 _{k6}	40	4	32	21.5	6	M6*12L	86	160	1
	24 _{k6}	50	5	40	27	8	M8*16L	96	160	1
FL..35	16 _{k6}	40	4	32	18	5	M5*10L	83.5	160	1
	19 _{k6}	40	4	32	21.5	6	M6*12L	86	160	1
	24 _{k6}	50	5	40	27	8	M8*16L	96	160	1
FL..35*	19 _{k6}	40	4	32	21.5	6	M6*12L	115.5	160	2
	24 _{k6}	50	5	40	27	8	M8*16L	119.5	160	2
FL..40	19 _{k6}	40	4	32	21.5	6	M6*12L	89.5	200	2
	19 _{k6}	40	4	32	21.5	6	M6*12L	106	200	2
	24 _{k6}	50	5	40	27	8	M8*16L	114	200	2
	38 _{k6}	80	5	70	41	10	M12*24L	177	200	2
FL..50	19 _{k6}	40	4	32	21.5	6	M6*12L	95.5	250	2
	28 _{k6}	60	5	50	31	8	M8*16L	114.5	250	2
	38 _{k6}	80	5	70	41	10	M12*24L	167.5	250	2
	42 _{k6}	110	10	70	45	12	M16*32L	240.5	250	2
FL..60	28 _{k6}	60	5	50	31	8	M8*16L	110.5	300	2
	38 _{k6}	80	5	70	41	10	M12*24L	159.5	300	2
	42 _{k6}	110	10	70	45	12	M16*32L	232.5	300	2
	48 _{k6}	110	10	80	51.5	14	M16*32L	237.5	300	2



Helical Gear Units
Dimension Sheets[mm]

Solid Input Shaft

FM..D

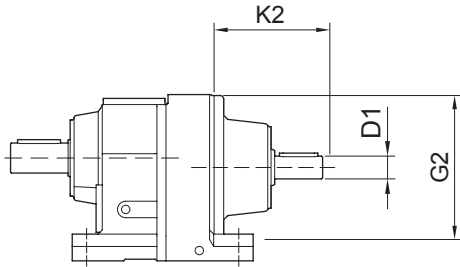


FIG 1

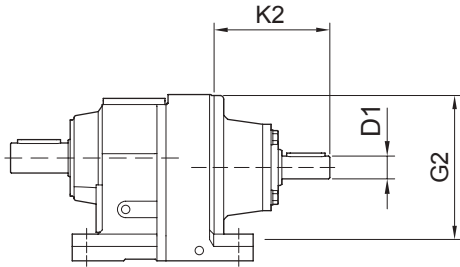
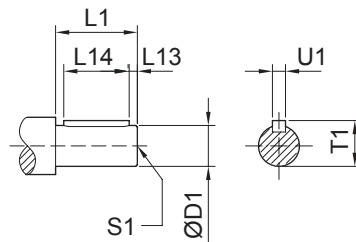
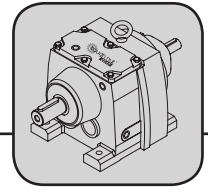


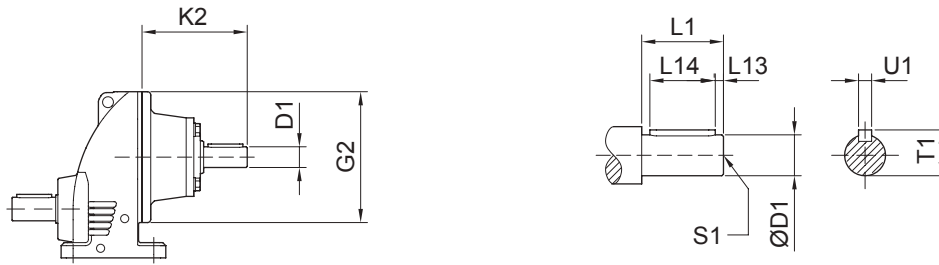
FIG 2

SIZE	D1	L1	L13	L14	T1	U1	S1	K2	G2	FIG
FM..20	16 _{k6}	40	4	32	18	5	M5*10L	99	120	1
FM..70	28 _{k6}	60	5	50	31	8	M8*16L	110.5	350	2
	38 _{k6}	80	5	70	41	10	M12*24L	150	350	2
	42 _{k6}	110	10	70	45	12	M16*32L	223	350	2
	48 _{k6}	110	10	80	51.5	14	M16*32L	228	350	2
FM..90	42 _{k6}	110	10	70	45	12	M16*32L	213	350	2
	48 _{k6}	110	10	80	51.5	14	M16*32L	217	350	2
	55 _{m6}	110	10	90	59	16	M20*40L	259	400	2
FM..110	42 _{k6}	110	10	70	45	12	M16*32L	205	350	2
	48 _{k6}	110	10	80	51.5	14	M16*32L	209	350	2
	55 _{m6}	110	10	90	59	16	M20*40L	255	450	2
	70 _{m6}	140	15	110	74.5	20	M20*40L	322	450	2
FM..120	42 _{k6}	110	10	70	45	12	M16*32L	204	550	2
	48 _{k6}	110	10	80	51.5	14	M16*32L	209	550	2
	55 _{m6}	110	10	90	59	16	M20*40L	246	550	2
	70 _{m6}	140	15	110	74.5	20	M20*40L	315.5	550	2

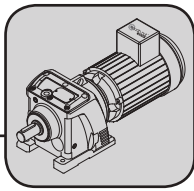


Solid Input Shaft

FX..D



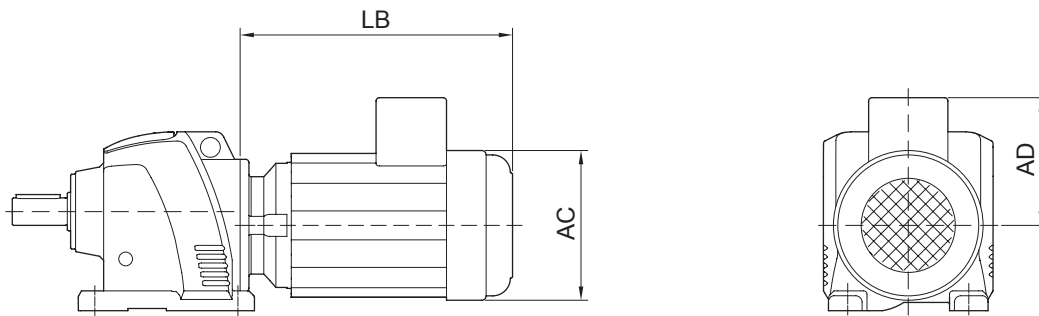
SIZE	D1	L1	L13	L14	T1	U1	S1	K2	G2
FX 20	19 _{k6}	40	4	32	21.5	6	M6*12L	86	160
	24 _{k6}	50	5	40	27	8	M8*16L	96	160
FX 25	19 _{k6}	40	4	32	21.5	6	M6*12L	115.5	160
	24 _{k6}	50	5	40	27	8	M8*16L	119.5	160
FX 30	19 _{k6}	40	4	32	21.5	6	M6*12L	89.5	200
	19 _{k6}	40	4	32	21.5	6	M6*12L	106	200
	24 _{k6}	50	5	40	27	8	M8*16L	114	200
FX 40	38 _{k6}	80	5	70	41	10	M12*24L	177	200
	19 _{k6}	40	4	32	21.5	6	M6*12L	95.5	250
	28 _{k6}	60	5	50	31	8	M8*16L	114.5	250
	38 _{k6}	80	5	70	41	10	M12*24L	167.5	250
FX 50	42 _{k6}	110	10	70	45	12	M16*32L	240.5	250
	28 _{k6}	60	5	50	31	8	M8*16L	110.5	300
	38 _{k6}	80	5	70	41	10	M12*24L	159.5	300
	42 _{k6}	110	10	70	45	12	M16*32L	232.5	300
FX 60	48 _{k6}	110	10	80	51.5	14	M16*32L	237.5	300
	28 _{k6}	60	5	50	31	8	M8*16L	110.5	350
	38 _{k6}	80	5	70	41	10	M12*24L	150	350
	42 _{k6}	110	10	70	45	12	M16*32L	223	350
	48 _{k6}	110	10	80	51.5	14	M16*32L	228	350



Helical Gear Units
Dimension Sheets[mm]

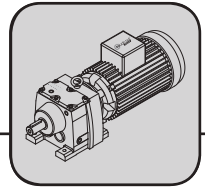
Couple With Motor

FL..MFM



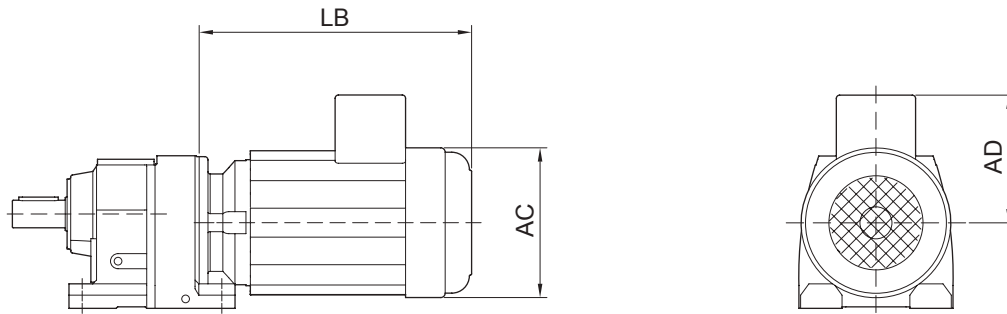
SIZE	MOTOR	AC	AD	LB
FL..25	63	120	108	231.5
	71	136	116	247.5
	80	160	127	309
	90	176	139	354.5
FL..30	63	120	108	227
	71	136	116	243
	80	160	127	304.5
	90	176	139	350
	100	198	149	398
FL..35	63	120	108	227
	71	136	116	243
	80	160	127	304.5
	90	176	139	350
	100	198	149	398
	112	220	167	410
FL..35*	63	120	108	225
	71	136	116	241
	80	160	127	302.5
	90	176	139	348
	100	198	149	396
FL..40	71	136	116	239
	80	160	127	297
	90	176	139	342.5
	100	198	149	390.5
	112	220	167	402.5
	132S	258	184.5	441

SIZE	MOTOR	AC	AD	LB
FL..50	80	160	127	287.5
	90	176	139	333
	100	198	149	381
	112	220	167	393
	132S	258	184.5	431.5
	132M	258	184.5	469.5
FL..60	160M	334	286	550
	100	198	149	377
	112	220	167	389
	132S	258	184.5	423.5
	132M	258	184.5	461.5
	160M	334	286	542
	160L	334	286	586
	180M	382	305	607.5

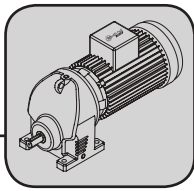


Couple With Motor

FM..MFM



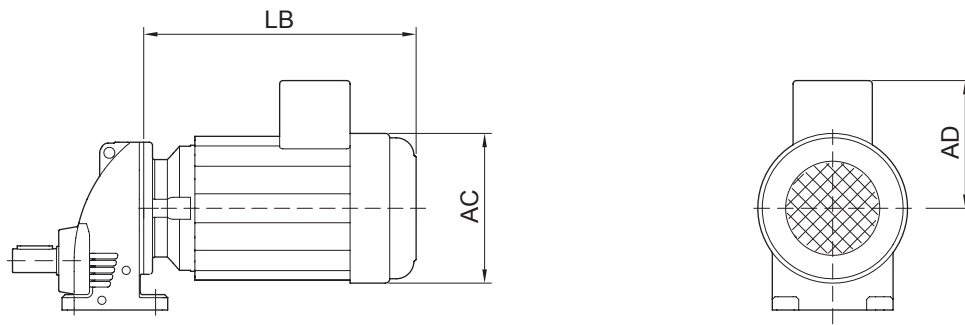
SIZE	MOTOR	AC	AD	LB
FM..20	63	108	108	249
	71	136	116	265
	80	160	127	362.5
FM..70	132S	258	184.5	414
	132M	258	184.5	452
	160M	334	286	532.5
	160L	334	286	576.5
	180M	382	305	598
	180L	382	305	598
	200L	382	305	636
	225S	458	362	713
FM..90	225M	458	362	713
	160M	334	286	521.5
	160L	334	286	565.5
	180M	382	305	587
	180L	382	305	587
	200L	382	305	625
	225S	458	362	702
225M	458	362	702	



Helical Gear Units
Dimension Sheets[mm]

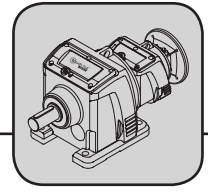
Couple With Motor

FX..MFM



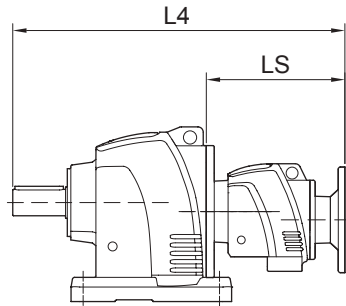
SIZE	MOTOR	AC	AD	LB
FX 20	63	120	108	225
	71	136	116	241
	80	160	127	302.5
	90	176	139	348
	100	198	149	396
	112	220	167	408
FX 25	63	120	108	225
	71	136	116	241
	80	160	127	302.5
	90	176	139	348
	100	198	149	396
	112	220	167	408
FX 30	71	160	127	297
	80	176	139	342.5
	90	198	149	390.5
	100	220	167	402.5
	112	258	184.5	441
	132S	258	184.5	441
FX 40	80	160	127	287.5
	90	176	139	333
	100	198	149	381
	112	220	167	393
	132S	258	184.5	431.5
	132M	258	184.5	469.5
	160M	334	263	550

SIZE	MOTOR	AC	AD	LB
FX 50	100	198	149	377
	112	220	167	389
	132S	258	184.5	423.5
	132M	258	184.5	461.5
	160M	334	263	542
	160L	334	286	586
	180M	382	305	607.5
	FX 60	132S	258	184.5
132M		258	184.5	452
160M		334	286	532.5
160L		334	286	576.5
180M		382	305	598
180L		382	305	598
200L		382	305	636
225S		458	362	713
225M	458	362	713	

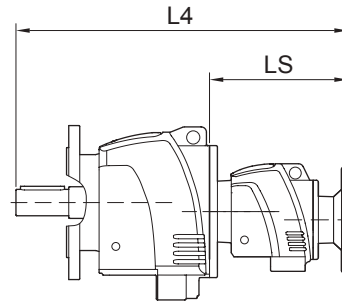


Double Reduction

FLNF/FMNF



FLXF/FMXF



SIZE	FRAME	LS	L4
FL..30-25	IEC 63	219	458
	IEC 71	219	458
	IEC 80	237	476
	IEC 90L	237	476
FL..35-25	IEC 63	219	476
	IEC 71	219	476
	IEC 80	237	494
FL..35*-25	IEC 90L	237	494
	IEC 63	217	496
	IEC 71	217	496
FL..40-25	IEC 80	235	514
	IEC 90L	235	514
	IEC 63	211.5	514
	IEC 71	211.5	514
FL..50-25	IEC 80	229.5	532
	IEC 90L	229.5	532
	IEC 63	249.5	621.5
	IEC 71	249.5	621.5
	IEC 80	267.5	639.5
FL..60-25	IEC 90L	267.5	639.5
	IEC 100L	284	656
	IEC 112M	284	656
	IEC 63	241.5	681.5
	IEC 71	241.5	681.5
	IEC 80	259.5	699.5
FM..70-40	IEC 90L	259.5	699.5
	IEC 100L	276	716
	IEC 112M	276	716
	IEC 71	290.5	785.5
	IEC 80	298.5	793.5
	IEC 90L	298.5	793.5

SIZE	FRAME	LS	L4
FM..90-40	IEC 71	279.5	869.5
	IEC 80	287.5	877.5
	IEC 90L	287.5	877.5
	IEC 100L	304	894
	IEC 112M	304	894
	IEC 132S	352.5	942.5
FM..110-40	IEC 71	279.5	974.5
	IEC 80	287.5	982.5
	IEC 90L	287.5	982.5
	IEC 100L	304	999
	IEC 112M	304	999
FM..110-50	IEC 132S	352.5	1047.5
	IEC 80	343	1038
	IEC 90L	343	1038
	IEC 100L	344	1039
	IEC 112M	344	1039
	IEC 132S	392.5	1087.5
FM..120-60	IEC 132M	392.5	1087.5
	IEC 160M	428.5	1123.5
	IEC 100L	387	1177
	IEC 112M	387	1177
	IEC 132S	431.5	1221.5
	IEC 132M	431.5	1221.5
FM..120-70	IEC 160M	467.5	1257.5
	IEC 160L	467.5	1257.5
	IEC 180M	476	1266
	IEC 100L	427	1217
	IEC 112M	427	1217
	IEC 132S	462	1252
FM..120-70	IEC 132M	462	1252
	IEC 160M	498	1288
	IEC 160L	498	1288
	IEC 180M	507	1297
	IEC 100L	427	1217

PULLEYS & COUPLINGS - PRODUCT RANGE



**Taper Lock®
Dual Duty Pulleys**



**Taper Lock®
Poly V & Timing Pulleys**



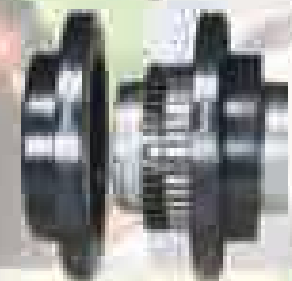
Gear Couplings



**Fenaflex
Tyre Couplings**



HRC Couplings



Resilient Couplings



**Essex
Jaw Couplings**



**Bush Type
Flexible Couplings**

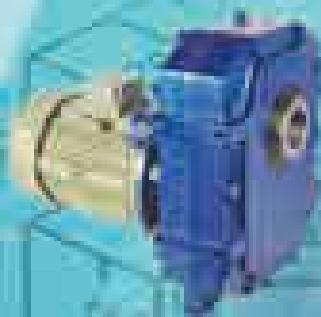


PU Elements

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E-mail: ptd_mhq@jkfenner.com
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Tel : 0452-4283800 Fax : 0452 -2383822.



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- **Kanpur:** 1st Floor, 13/391, Civil Lines, Kanpur-208001, Tel: 97939 99997.
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