Note!

1. The structure scheme, appearance diagram and other attached diagrams in sample are examples, there is no strict proportion requirement. If you need exact dimension of certain types, please contact our sales dept... (The unmarked dimension units are mm).
2. Gear unit has been tested before delivered, users should add lubrication oil before running.
3. We can only refer to the marked oil in the manual. Actual oil filing level should be the same with the mark on oil immersion lens.
4. Lubrication oil viscosity should be selected according to working conditions ambient temperature.
5. To prevent accidents, all the rotation parts should be added with protective covers according to safety regulation of the nation and region.
6. The solid shaft input structure gear unit is not equipped with any motor.
7. Motors of Y series are supplied with protection guard of IP54 unless otherwise specified.
8. Unless otherwise specified, you will receive the terminal box at 0°.

Guidelines for the selection

□ Gear units are designed under the circumstance of steady load, stated operating time per day and a few starting times. But the practical condition will be not as perfect as the designed circumstance. So we must confirm driven machine factor f1, prime mover factor f2, starting factor f3 according to actual load type, operating time, starting frequency. Let it less than or equal to the service factor fb of selection table, viz f1 x f2 x f3 ≤fB. The needed torque of service machine multiply the service factor (f1 x f2 x f3) should less than or equal to gear units permissible torque.

Viz $T_N \geq T_2 \times f1 \times f2 \times f3$

f1 – Driven machine factor

f2 – Prime mover factor

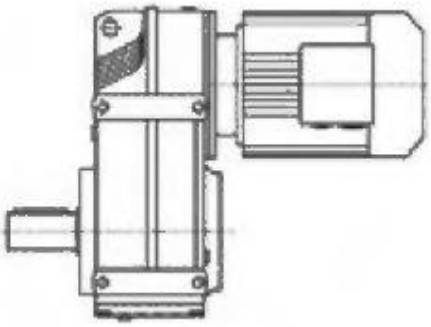
f3 – Start factor

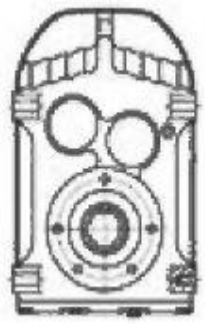
T_2 – The torque required by the machine

T_N – Gear unit permissible torque

□ We accept the orders of products of special specification, and provide our customer with exclusive design service.

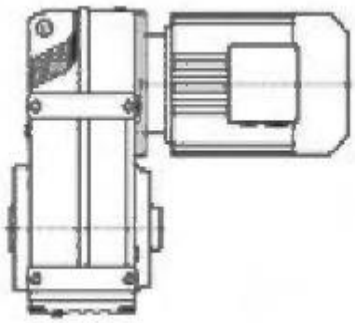
Noted: Along with the update of technology etc., the Product manual of DM Group will be changed.

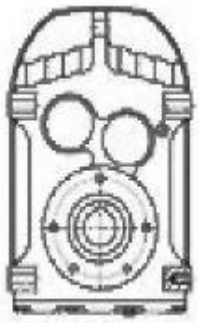




TF…Y..

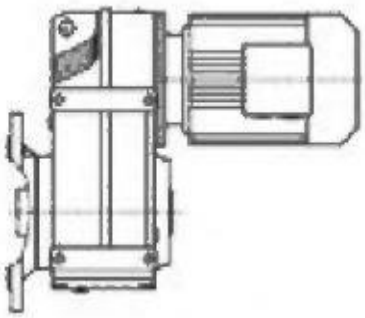
Foot-mounted solid shaft parallel shaft gear units





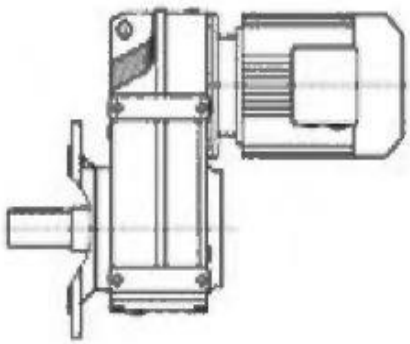
TFA…Y..

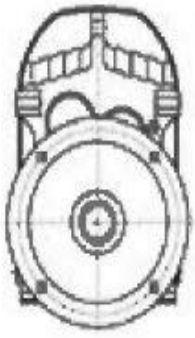
Hollow shaft helical parallel shaft helical gear units



TFAF…Y..

Flange-mounted hollow shaft parallel shaft helical gear units

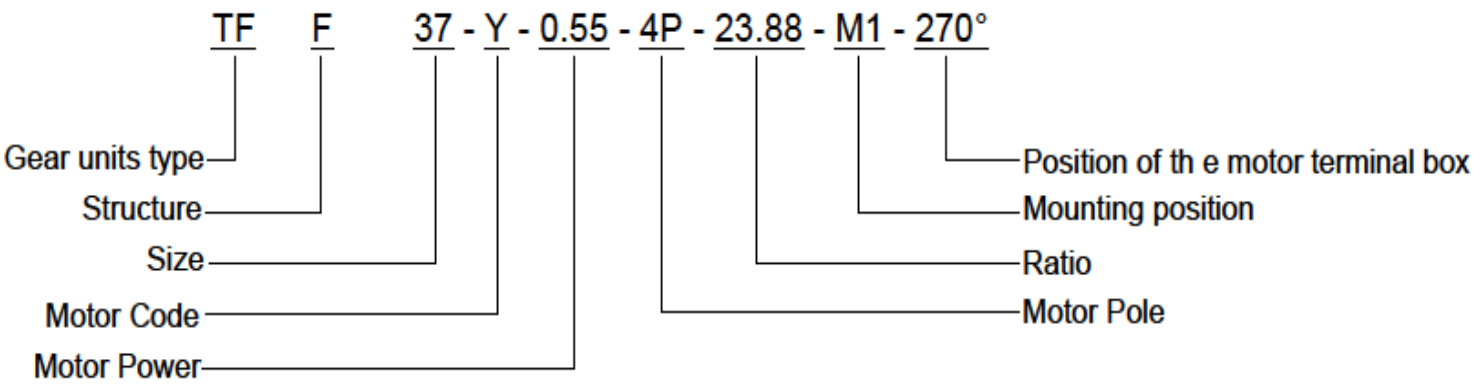




TFF…Y..

Flange-mounted solid shaft parallel shaft helical gear units

Type Designations:



Gear units type:
Parallel shaft helical gear units

Structure:

Foot-mounted solid shaft	(–)
Hollow shaft	A
Flange-mounted solid shaft	F
Flange-mounted hollow shaft	AF
Short-flange-mounted hollow shaft	AZ
Foot-mounted solid shaft with solid shaft input	S
Hollow shaft with solid shaft input	AS
Flange-mounted solid shaft with solid shaft input	FS
Flange-mounted hollow shaft with solid shaft input	AFS
*Hollow shaft with shrink disc	H..(H,HF,HZ,HT)

Size:
(see selection table)

Motor code:

Common motor	Y(Y2)
Flameproof motor	B
Direct current motor	Z
Brake motor	YEJ
Multi-speed motor	D
Variable frequency motor	YVP
Electromagnetic variable speed motor	YCT
Metallurgy hoisting motor	R
Transduction braking motor	YVPJ
Roller way	G

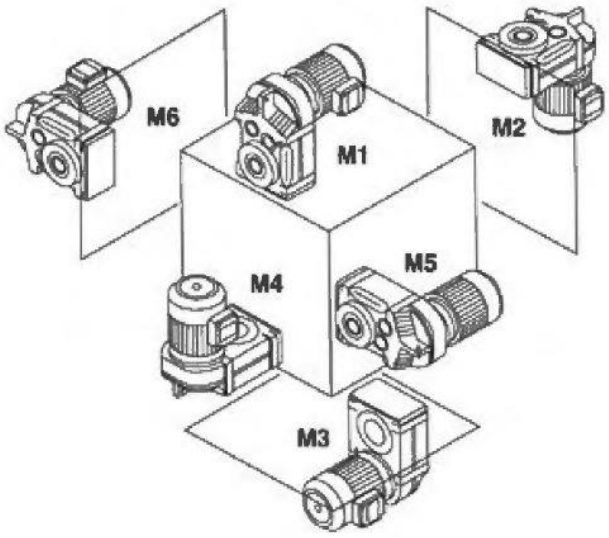
Motor power, pole :
See selection table

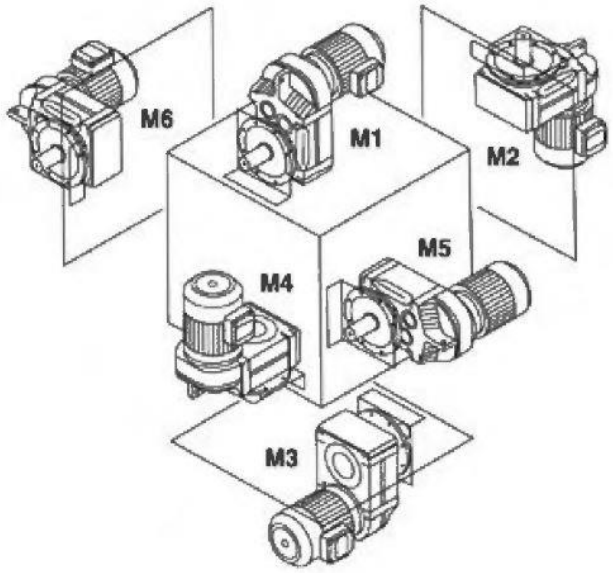
Ratio:
See selection table

Mounting position:
M1, M2, M3, M4, M5, M6(See page 03)

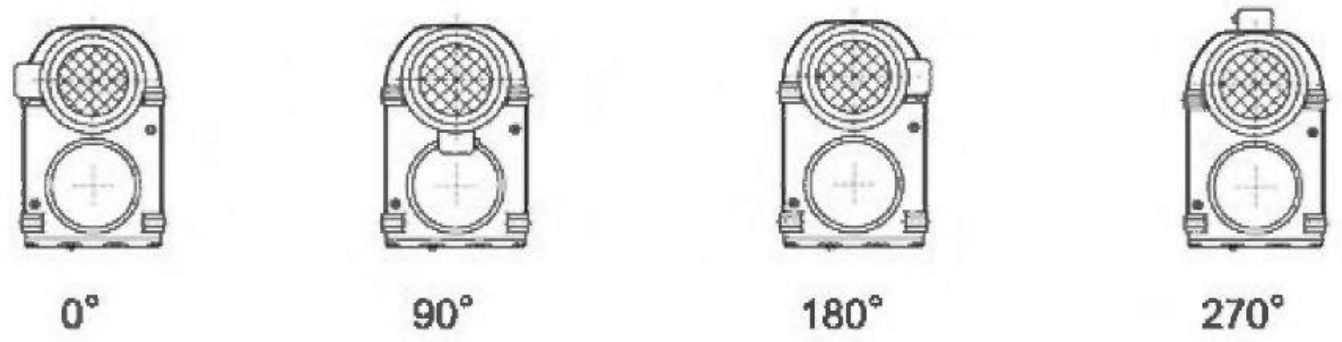
Position of the motor thermal box:
0°, 90°, 180°, 270°(See page 03)

Mounting positions





Position of motor terminal box



Input power rating and permissible torque

Size	37	47	57	67	77	87	97	107	127
Structure	TF TFA TFF TFAF								
Input power rating (kw)	0.18~3	0.18~3	0.18~5.5	0.18~5.5	0.37~11	0.75~22	1.1~30	2.2~45	7.5~90
Ratio	3.81~ 128.51	5.06~ 189.39	5.18~ 199.70	4.21~ 228.99	4.30~ 281.72	4.12~ 270.66	4.68~ 280.76	6.20~ 254.40	4.63~ 171.17
(n-m) permissible torque	200	400	600	820	1500	3000	4300	7840	12000

Gear unit weight

Size	37	47	57	67	77	87	97	107	127
(kgs) Weight	13	18	34	55	90	150	260	402	700

Oil level charts

TF….

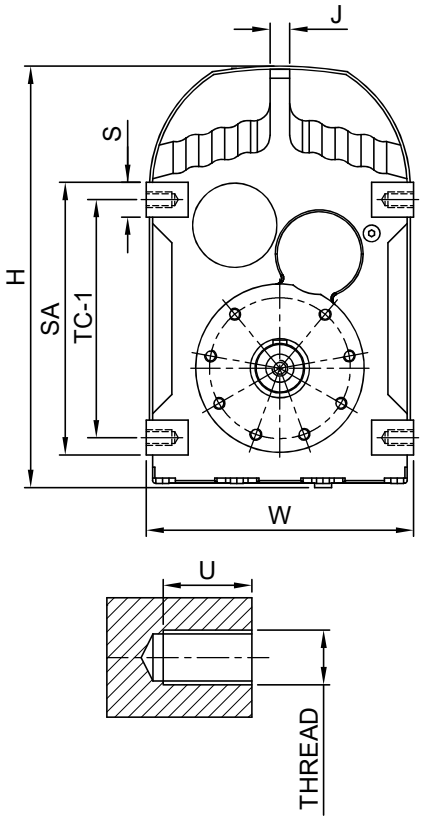
Size	Oil level (L)					
	M1	M2	M3	M4	M5	M6
TF-37	1	1.2	0.7	1.2	1	1.1
TF-47	1.5	1.8	1.1	1.9	1.5	1.7
TF-57	2.6	3.7	2.1	3.5	2.8	2.9
TF-67	2.7	3.8	1.9	3.8	2.9	3.2
TF-77	5	7.3	4.3	8	6	6.3
TF-87	10	13	7.7	13.8	10.8	11
TF-97	18.5	22.5	12.6	25.2	18.5	20
TF-107	24.5	32	19.5	37.5	27	27
TF-127	40.5	55	34	61	46.5	47

TFF….

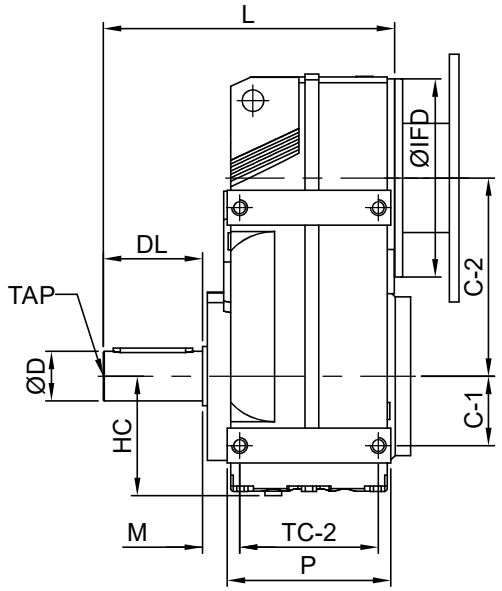
Size	Oil level (L)					
	M1	M2	M3	M4	M5	M6
TFF-37	1	1.2	0.7	1.3	1	1.1
TFF-47	1.6	1.9	1.1	1.9	1.5	1.7
TFF-57	2.8	3.8	2.1	3.7	2.9	3
TFF-67	2.7	3.8	1.9	3.8	2.9	3.2
TFF-77	5.1	7.3	4.3	8.1	6	6.3
TFF-87	10.3	13.2	7.8	14.1	11	11.2
TFF-97	19	22.5	12.6	25.5	18.9	20.5
TFF-107	25.5	32	19.5	38.5	27.5	28
TFF-127	41.5	56	34	63	46.5	49

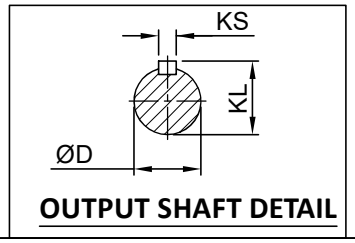
TFA…, TFAF…,

Size	Oil level (L)					
	M1	M2	M3	M4	M5	M6
TF…-37	1	1.2	0.7	1.2	1	1.1
TF…-47	1.5	1.8	1.1	1.9	1.5	1.7
TF…-57	2.7	3.8	2.1	3.6	2.9	3
TF…-67	2.7	3.8	1.9	3.8	2.9	3.2
TF…-77	5	7.3	4.3	8	6	6.3
TF…-87	10	13	7.7	13.8	10.8	11
TF…-97	18.5	22.5	12.6	25	18.5	20
TF…-107	24.5	32	19.5	37.5	27	27
TF…-127	39	55	34	61	45	46.5



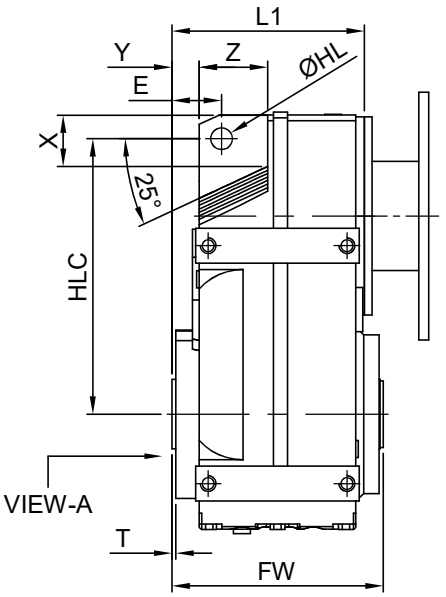
TF

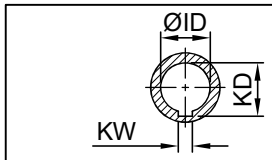




OUTPUT SHAFT DETAIL

TFA





HOLLOW OUTPUT SHAFT DETAIL

HOLLOW OUTPUT SHAFT DETAILS

MODEL	ØID	KW	KD
37	Ø30-H7	8	33.3
47	Ø35-H7	10	38.3
57	Ø40-H7	12	43.3
67	Ø40-H7	12	43.3
77	Ø50-H7	14	53.8
87	Ø60-H7	18	64.4
97	Ø70-H7	20	74.9
107	Ø90-H7	25	95.4
127	Ø100-H7	28	106.4

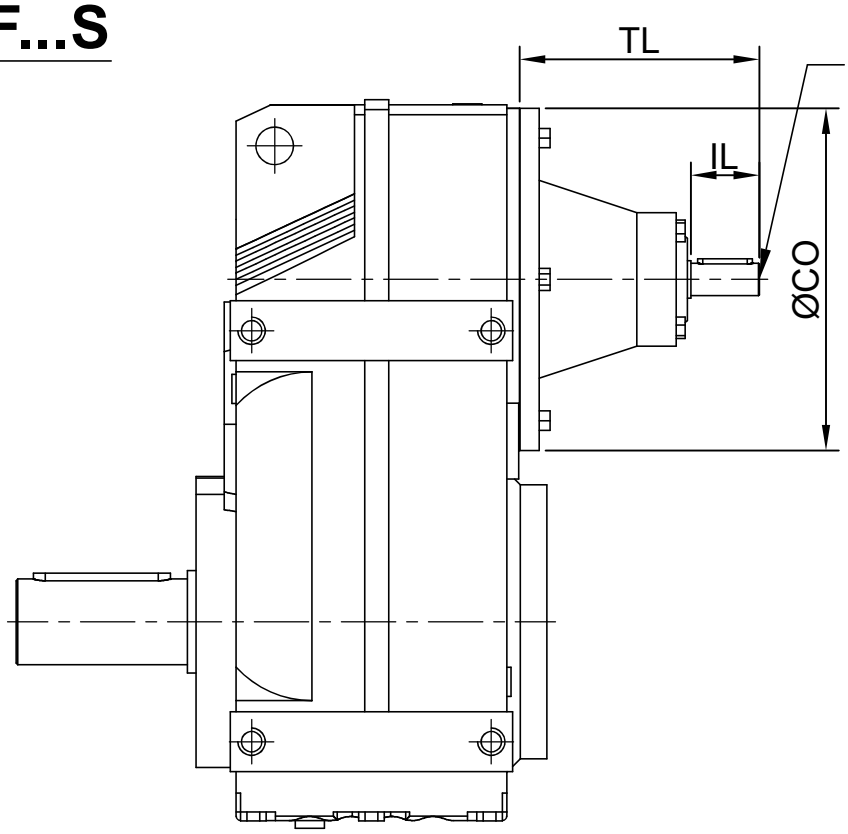
SOLID OUTPUT SHAFT DETAILS

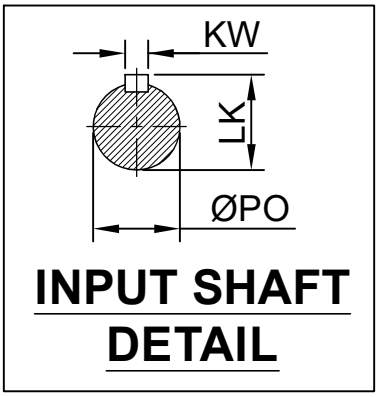
MODEL	ØD	KS	KL	TAP
37	Ø25-k6	8	28	M10
47	Ø30-k6	8	33	M10
57	Ø35-k6	10	38	M12
67	Ø40-k6	12	43	M16
77	Ø50-k6	14	53.5	M16
87	Ø60-m6	18	64	M20
97	Ø70-m6	20	74.5	M20
107	Ø90-m6	25	95	M24
127	Ø110-m6	28	116	M24

TF & TFA-SERIES SPECIFICATION CHART

MODEL	W	H	P	HC	ØD	DL	L	THREAD	U	S	TC-1	M	TC-2	SA	C-1	C-2	ØIFD	FW	T	ØHL	HCL	X	Y	Z	E	L1
37	165	252	95	76	Ø25-k6	50	162.5	M8	11	20	115	22.5	77	135	31	112	Ø120	123	2.5	Ø14	158	30	12.5	41.5	36.5	112.5
47	180	269	109	82	Ø30-k6	60	193	M10	15	20	145	31	93	165	43	128.1	Ø120	153	3	Ø14	170	22	14	54	35	133
57	210	317	126	93	Ø35-k6	70	221	M12	17	25	170	34.5	102	195	55	136	Ø160	169	3	Ø14	200	31	19.5	60	40.5	150
67	212	343	131	97	Ø40-k6	80	242	M12	17	25	190	38	112	215	60	159.5	Ø160	183	3.5	Ø14	218	52	23.5	67	43.5	161
77	270	426	165	121	Ø50-k6	100	294	M16	26	35	240	37.5	140	275	70	200	Ø200	213	4	Ø22	278	49	24	76	51	194
87	330	531	195	152	Ø60-m6	120	344	M16	26	40	310	43	165	350	100	246.7	Ø250	243	4	Ø22	346	57	25.5	85	65	229
97	400	623	240	178	Ø70-m6	140	416	M20	28	50	350	50.5	205	400	120	285	Ø300	303	5	Ø26	395	88	32	100	74	275
107	450	717	260	200	Ø90-m6	170	484	M24	36	60	400	71.5	220	460	125	332.4	Ø350	353	2.5	Ø26	485	105	57	105.5	95	312
127	530	856	316	236	Ø110-m6	210	586	M30	45	70	450	81	270	520	142	382.6	Ø450	413	5	Ø33	550	138	55	153	120	376

TF...S

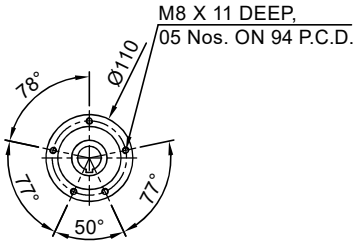




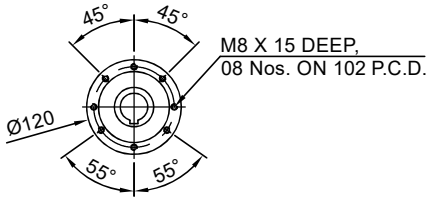
TF..S-SERIES SPECIFICATION CHART

MODEL	ØCO	TL	IL	ØPO	TAP	KW	LK
37	Ø120	115	40	Ø16-k6	M5	5	18
47	Ø120	115	40	Ø16-k6	M5	5	18
57	Ø160	120	40	Ø19-k6	M6	6	21.5
67	Ø160	120	40	Ø19-k6	M6	6	21.5
77	Ø200	140	50	Ø24-k6	M8	8	27
87	Ø250	180	60	Ø28-k6	M10	8	31
97	Ø300	220	80	Ø38-k6	M12	10	41
107	Ø350	270	110	Ø42-k6	M16	12	45
127	Ø450	297	110	Ø55-m6	M20	16	59

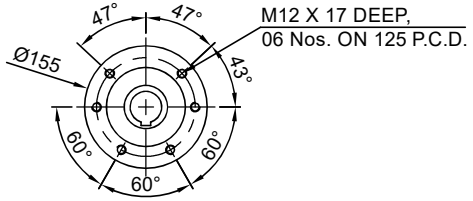
TFA OUTPUT FLANGE DETAIL-A



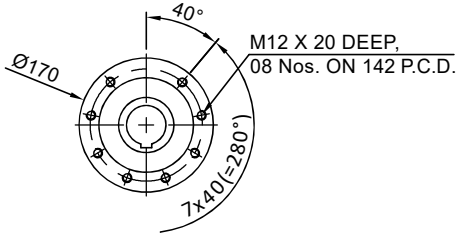
OUTPUT FLANGE DETAIL-A
TFA-37



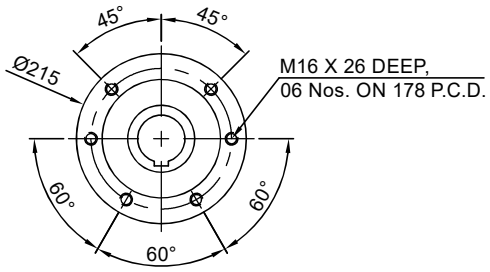
OUTPUT FLANGE DETAIL-A
TFA-47



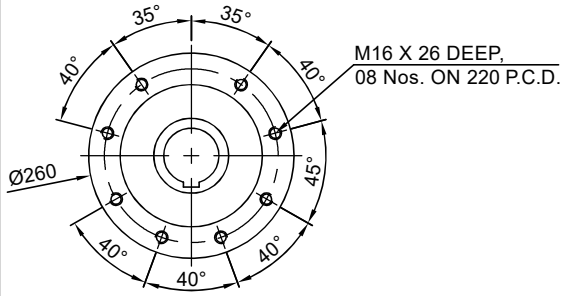
OUTPUT FLANGE DETAIL-A
TFA-57 & 67



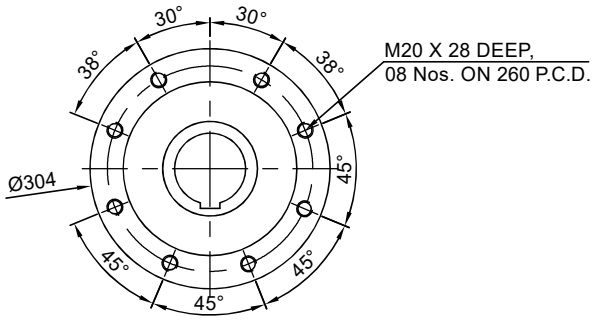
OUTPUT FLANGE DETAIL-A
TFA-77



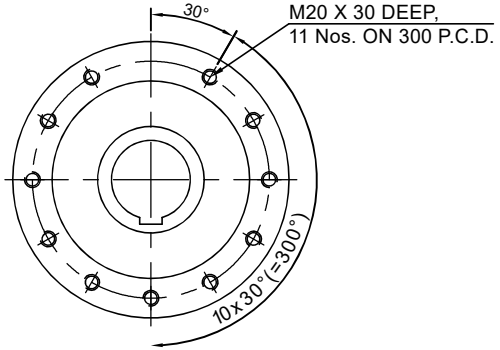
OUTPUT FLANGE DETAIL-A
TFA-87



OUTPUT FLANGE DETAIL-A
TFA-97

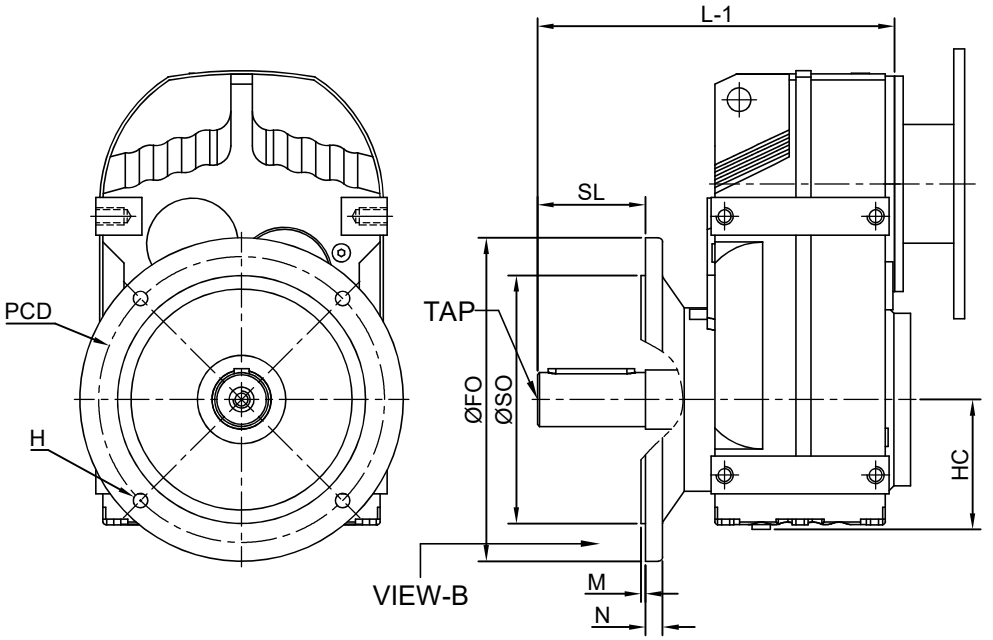


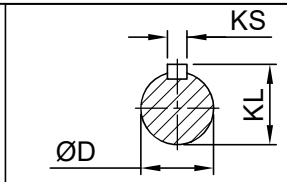
OUTPUT FLANGE DETAIL-A
TFA-107



OUTPUT FLANGE DETAIL-A
TFA-127

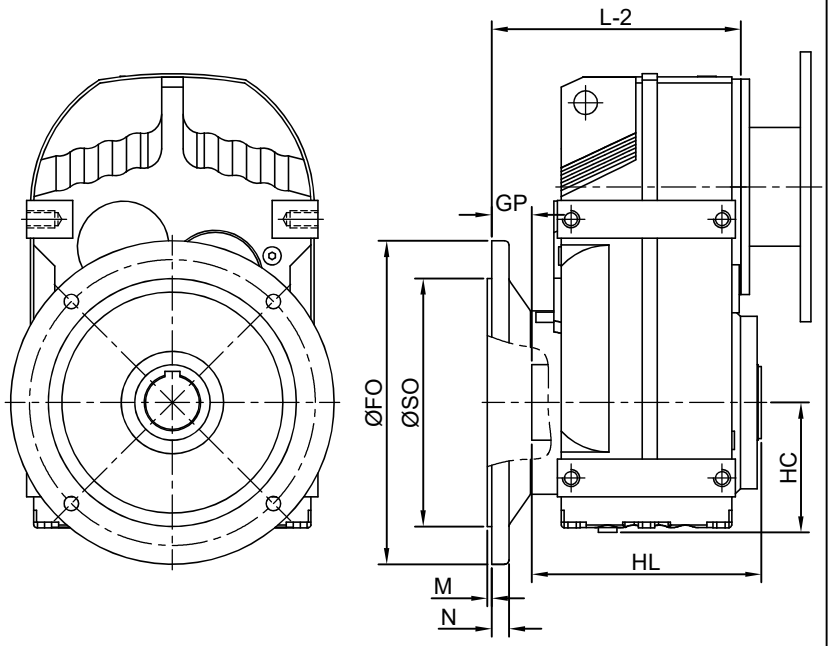
TFF

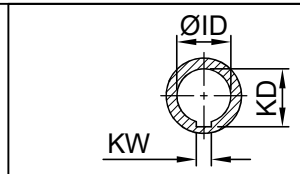




SOLID OUTPUT SHAFT DETAIL

TFAF

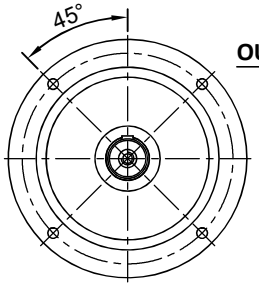




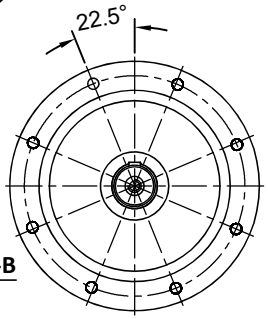
HOLLOW OUTPUT SHAFT DETAIL

TFF & TFAF-SERIES SPECIFICATION CHART

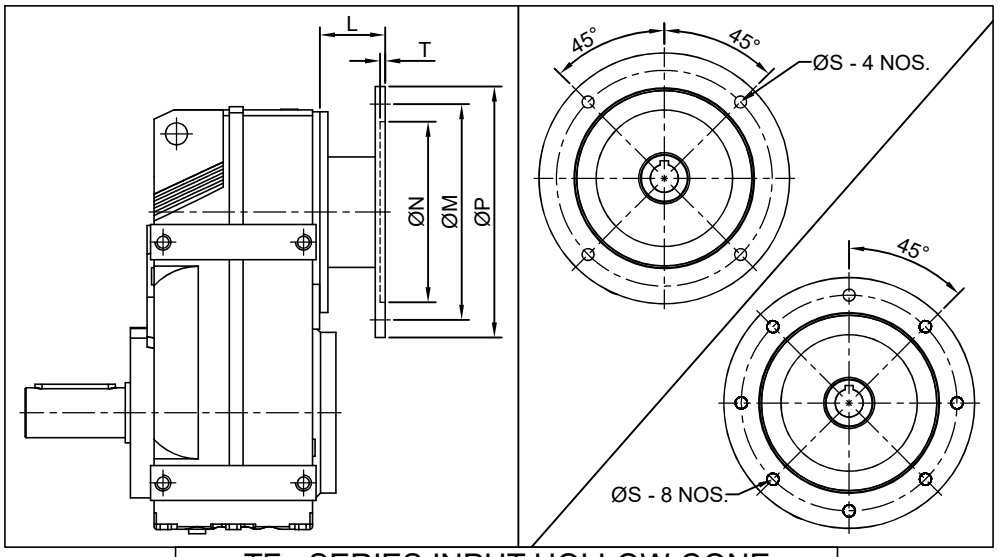
MODEL	ØFO	ØSO	M	N	SL	L-1	L-2	GP	HC	HL	ØH x QTY.	ØPCD
37	Ø160	Ø110-j6	3.5	10	50	186.5	136.5	24	76	123	Ø9 x 4	Ø130
47	Ø200	Ø130-j6	3.5	12	60	218	158	25	82	153	Ø11 x 4	Ø165
57	Ø250	Ø180-j6	4	15	70	243	173	23.5	93	169	Ø13.5 x 4	Ø215
67	Ø250	Ø180-j6	4	15	80	264	184	23	97	183	Ø13.5 x 4	Ø215
77	Ø300	Ø230-j6	4	16	100	331	231	37	121	213	Ø13.5 x 4	Ø265
87	Ø350	Ø250-j6	5	18	120	379	259	30	152	243	Ø17.5 x 4	Ø300
97	Ø450	Ø350-h6	5	22	140	455.5	315.5	41.5	178	303	Ø17.5 x 8	Ø400
107	Ø450	Ø350-h6	5	22	170	523	353	41	200	353	Ø17.5 x 8	Ø400
127	Ø550	Ø450-h6	5	25	210	637	427	51	236	413	Ø17.5 x 8	Ø500



OUTPUT FLANGE DETAIL-B
TFF & TFAF - 37 TO 87



OUTPUT FLANGE DETAIL-B
TFF & TFAF - 97 TO 127



TF - SERIES INPUT HOLLOW CONE DETAILS

MOTOR FRAME	TF SERIES	L	T	ØP	ØM	ØN	ØS-QTY.
63-B5	TF-37	56	4	140	115	95	10 - 4
	TF-47						
	TF-57						
	TF-67						
71-B5	TF-37	56	4	160	130	110	10 - 4
	TF-47						
	TF-57	57					
	TF-67						
	TF-77	28					
80-B5 & 90-B5	TF-37	56	4	200	165	130	12 - 4
	TF-47	62					
	TF-57	72					
	TF-67						
	TF-77	64					
	TF-87	62					
	TF-97	50					
100-B5 & 112-B5	TF-37	56	5	250	215	180	15 - 4
	TF-47	63					
	TF-57	74					
	TF-67						
	TF-77	65					
	TF-87	64					
	TF-97	50					
	TF-107	55					
132-B5	TF-57	82	5	300	265	230	15 - 4
	TF-67						
	TF-77	68					
	TF-87	83					
	TF-97	77					
	TF-107						
	TF-127	55					
160-B5 & 180-B5	TF-77	99	6	350	300	250	19 - 4
	TF-87	95					
	TF-97	113					
	TF-107	112					
	TF-127	93					
200-B5	TF-97	108	6	400	350	300	19 - 4
	TF-107	105					
	TF-127	93					
225-B5	TF-107	121	6	450	400	350	19 - 8
	TF-127	115					
250-B5	TF-127	120	6	550	500	450	19 - 8
280-B5							