

# 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 filling 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  $f_1$ , prime mover factor  $f_2$ , starting factor  $f_3$  according to actual load type, operating time, starting frequency. Let it less than or equal to the service factor  $f_b$  of selection table, viz  $f_1 \times f_2 \times f_3 \leq f_b$ . The needed torque of service machine multiply the service factor ( $f_1 \times f_2 \times f_3$ ) should less than or equal to gear units permissible torque.

$$\text{Viz } T_N \geq T_2 \times f_1 \times f_2 \times f_3$$

$f_1$  – Driven machine factor

$f_2$  – Prime mover factor

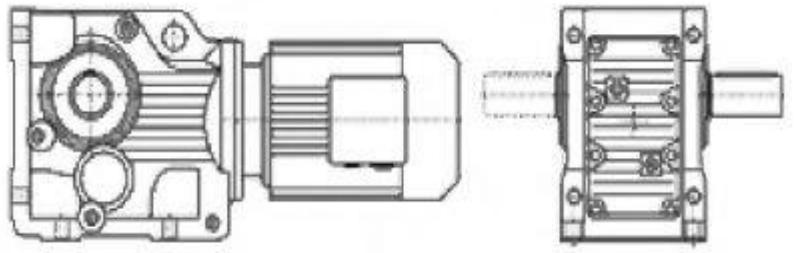
$f_3$  – Start factor

$T_2$  – The torque required by the machine

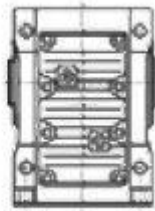
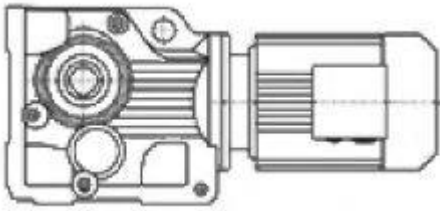
$T_N$  – Gear unit permissible torque

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

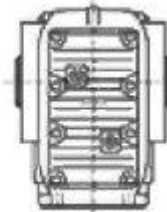
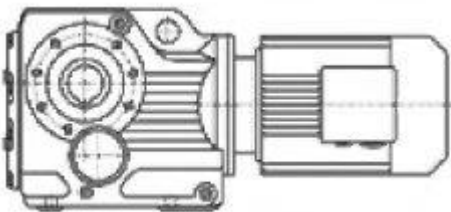
**Noted: Along with the update of technology etc., the Product manual of DM Group will be changed.**



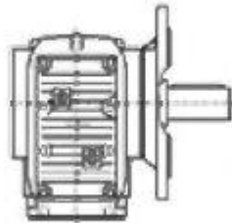
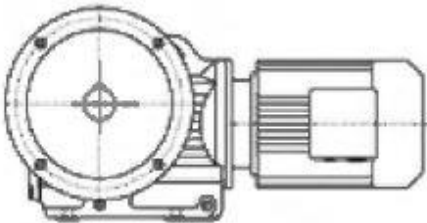
TK...Y..  
Foot-mounted solid shaft helical bevel gear units



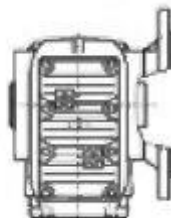
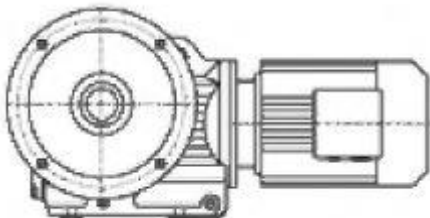
TKAB...Y...  
Foot-mounted hollow shaft helical bevel gear units



TKA...Y..  
Hollow shaft helical bevel gear units

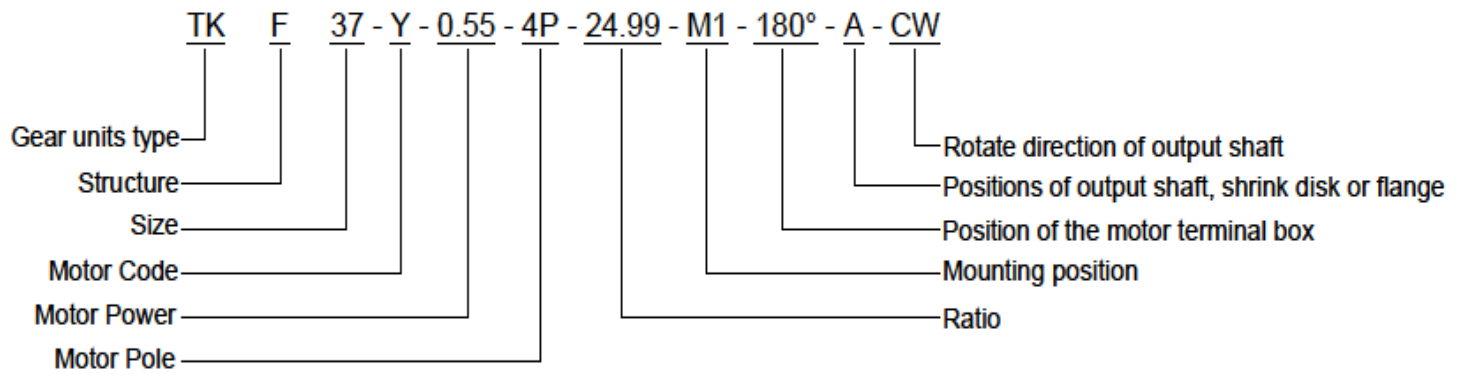


TKF...Y..  
Flanged-mounted solid shaft helical bevel units



TKAF...Y..  
Flanged-mounted hollow shaft helical bevel gear units

# Type Designations:



## K series:

Helical bevel 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 hollow shaft	AB
Torque-arm-mounted hollow shaft	AT
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 disk	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 positions:

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

## Positions of motor terminal box:

0°, 90°, 180°, 270°(See page 03)

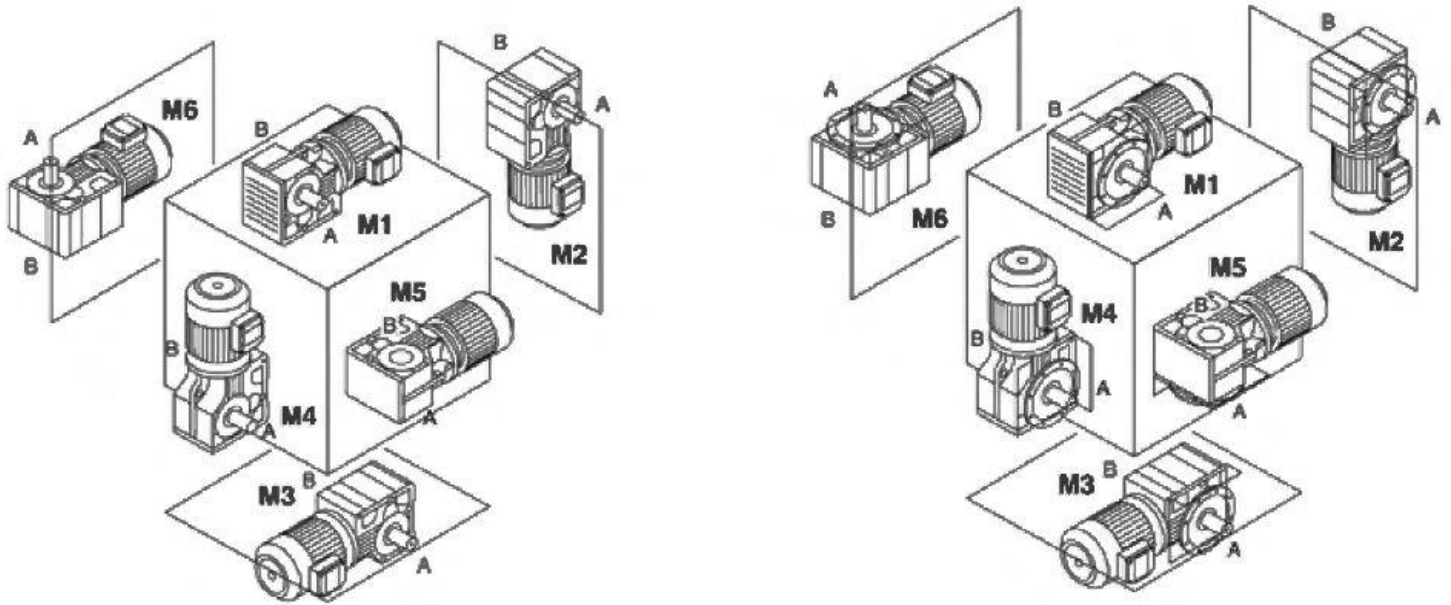
## Output shaft \ flange \ shrink disc directions:

Viewing from motor end: left side = A, right side = B,  
both side = AB(See mounting positions)

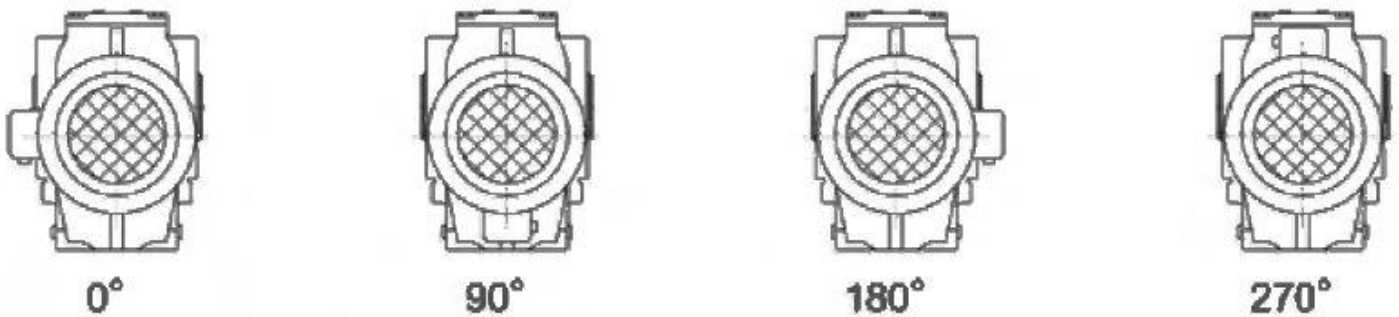
## Direction of rotation from the output shaft end:

Clockwise	CW
Counter clockwise	CCW

## Mounting positions



## Position of motor terminal box



## Input power rating and permissible torque

Size	37	47	57	67	77	87	97	107	127
Structure	TK		TKA		TKF		TKAF		TKAB
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	3~45	7.5~90
Ratio	5.36~ 106.38	5.31~ 131.87	6.57~ 145.14	7.14~ 144.79	7.24~ 192.18	7.19~ 197.37	8.95~ 176.05	8.74~ 141.46	8.68~ 146.07
(n-m) permissible torque	200	400	600	820	1550	2700	4300	8000	13000

## Gear unit weight

Size	37	47	57	67	77	87	97	107	127
(kgs) Weight	11	20	27	33	57	85	130	250	380

## Oil level charts

TK....

Size	Oil level (L)					
	M1	M2	M3	M4	M5	M6
TK-37	0.5	1	1	1.3	1	1
TK-47	0.8	1.3	1.5	2	1.6	1.6
TK-57	1.2	2.3	2.5	3	2.6	2.4
TK-67	1.1	2.4	2.6	3.4	2.6	2.6
TK-77	2.2	4.1	4.4	5.9	4.2	4.4
TK-87	3.7	8	8.7	10.9	7.8	8
TK-97	7	14	15.7	20	15.7	15.5
TK-107	10	21	25.5	33.5	24	24
TK-127	21	41.5	44	54	40	41

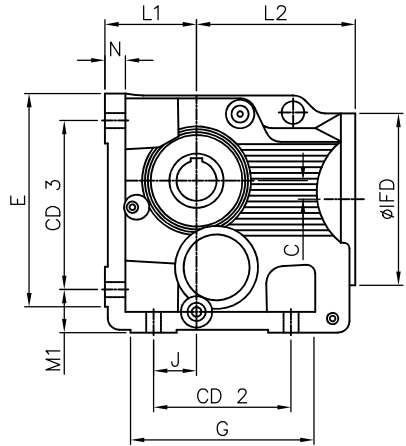
TKF....

Size	Oil level (L)					
	M1	M2	M3	M4	M5	M6
TKF-37	0.5	1.1	1.1	1.5	1	1
TKF-47	0.8	1.3	1.7	2.2	1.6	1.6
TKF-57	1.3	2.3	2.7	3	2.9	2.7
TKF-67	1.1	2.4	2.8	3.6	2.7	2.7
TKF-77	2.1	4.1	4.4	6	4.5	4.5
TKF-87	3.7	8.2	9	11.9	8.4	8.4
TKF-97	7	14.7	17.3	21.5	15.7	16.5
TKF-107	10	22	26	35	25	25
TKF-127	21	41.5	46	55	41	41

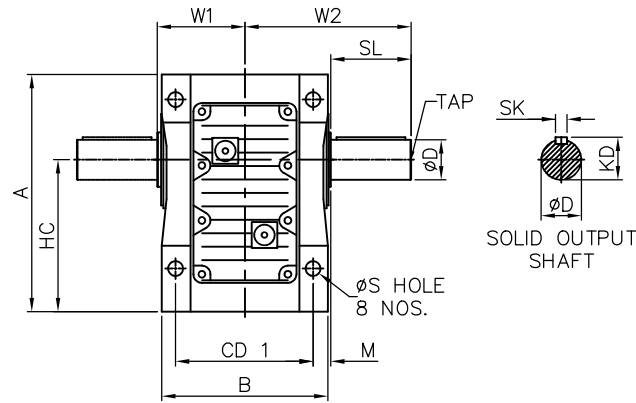
TKA..., TKAF...,

Size	Oil level (L)					
	M1	M2	M3	M4	M5	M6
TK...-37	0.5	1	1	1.4	1	1
TK...-47	0.8	1.3	1.6	2.1	1.6	1.6
TK...-57	1.3	2.3	2.7	3	2.9	2.7
TK...-67	1.1	2.4	2.7	3.6	2.6	2.6
TK...-77	2.1	4.1	4.6	6	4.4	4.4
TK...-87	3.7	8.2	8.8	11.1	8	8
TK...-97	7	14.7	15.7	20	15.7	15.7
TK...-107	10	20.5	24	32	24	24
TK...-127	21	41.5	43	52	40	40

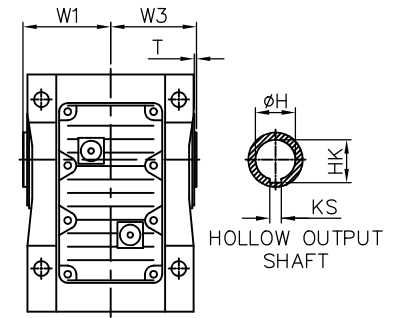




TK



TKAB



**TK - TKAB SERIES DIMENSIONS**

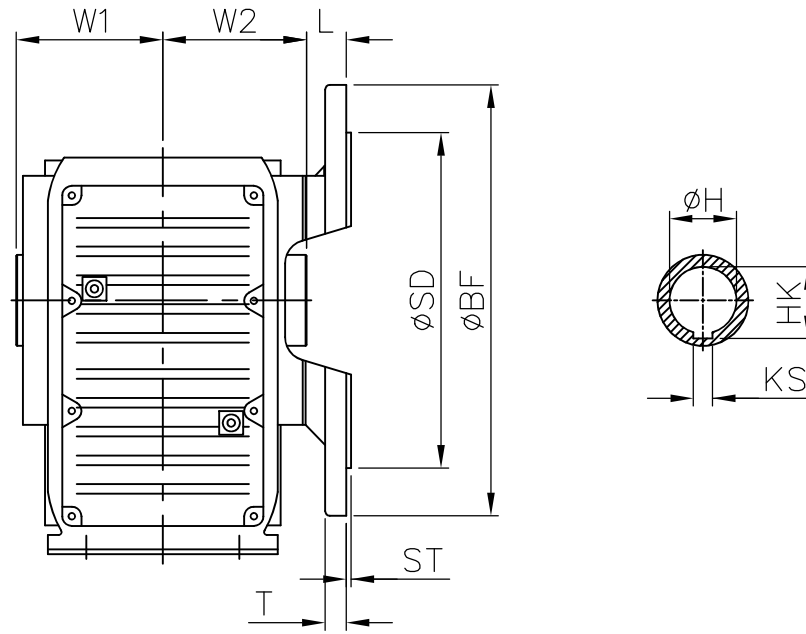
MODEL	A	B	C	HC	J	M	CD1	CD2	CD3	M1	E	G	N	L1	L2	W1	W2	SL	ØS	W3	T	ØIFD
37	165	120	8.5	100	28	10	100	110	115	32	145	150	16	63	139	63	110	50	11	60	3	120
47	186	145	7.2	112	35	15	120	130	130	37	170	165	18	71	166	78	135	60	11	75	3	160
57	217	157	13.1	132	30	18	130	130	150	45	190	172	21	80	173	86	153	70	13.5	83	3	160
67	228	170	20	140	30	21	140	120	160	45	203	175	24	90	179	93	171	80	13.5	90	3.5	160
77	288	200	31.3	180	40	23.5	165	150	200	55	263	205	27	112	202	108	206	100	17.5	105	4	200
87	340	230	25.9	212	55	30	180	180	233	70	311	255	32	132	257	123	240	120	22	120	4	250
97	414	290	32.3	265	75	31	240	240	295	75	372	320	36	160	277	153	291	140	26	150	4	300
107	505	340	52	315	95	42	270	280	360	95	455	390	40	200	341	178	347	170	33	175	2.5	350
127	592	400	53	375	115	43	330	350	420	110	526	460	45	225	390	203	418	210	39	205	5	450

**TK-SERIES SOLID OUTPUT SHAFT DETAILS**

**TK-SERIES HOLLOW OUTPUT SHAFT DETAILS**

MODEL	ØD	SK	KD	TAP	MODEL	ØH	KS	HK
37	25-k6	8	28	M10	37	30-H7	8	33.3
47	30-k6	8	33	M10	47	35-H7	10	38.3
57	35-k6	10	38	M12	57	40-H7	12	43.3
67	40-k6	12	43	M16	67	40-H7	12	43.3
77	50-k6	14	53.5	M16	77	50-H7	14	53.8
87	60-m6	18	64	M20	87	60-H7	18	64.4
97	70-m6	20	74.5	M20	97	70-H7	20	74.9
107	90-m6	25	95	M24	107	90-H7	25	95.4
127	110-m6	28	116	M24	127	100-H7	28	106.4

TKAF

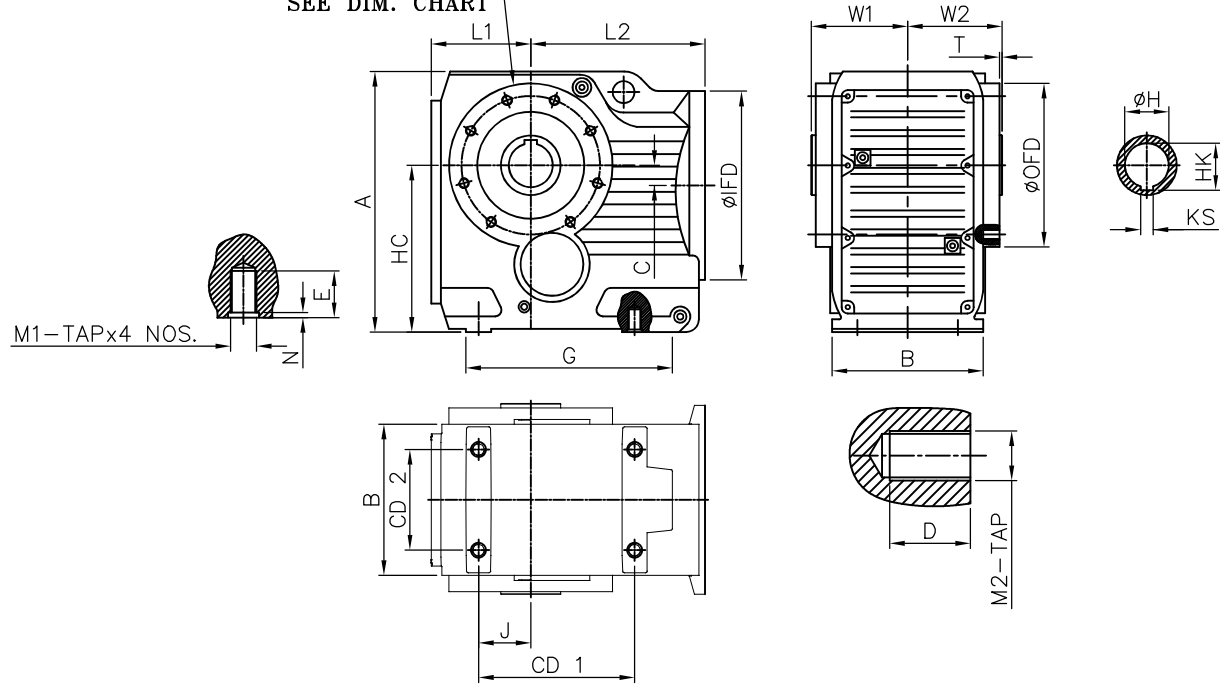


## TKAF-SERIES DIMENSIONS

MODEL	ØH	KS	HK	ØBF	ØSD	T	ST	W1	W2	L
37	30-H7	8	33.3	160	110-h6	10	3.5	63	60	24
47	35-H7	10	38.3	200	130-h6	12	3.5	78	75	25
57	40-H7	12	43.3	250	180-h6	15	4	86	83	23.5
67	40-H7	12	43.3	250	180-h6	15	4	94	90	23
77	50-H7	14	53.8	300	230-h6	16	4	108	105	37
87	60-H7	18	64.4	350	250-h6	18	5	123	120	30
97	70-H7	20	74.9	450	350-h6	22	5	153	150	41.5
107	90-H7	25	95.4	450	350-h6	22	5	178	175	41
127	100-H7	28	106.4	550	450-h6	25	5	208	205	51

TKA

VIEW-A  
SEE DIM. CHART



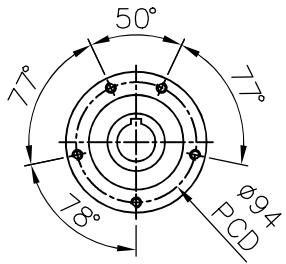
TK-SERIES HOLLOW OUTPUT  
SHAFT DETAILS

MODEL	ØH	KS	HK
37	30-H7	8	33.3
47	35-H7	10	38.3
57	40-H7	12	43.3
67	40-H7	12	43.3
77	50-H7	14	53.8
87	60-H7	18	64.4
97	70-H7	20	74.9
107	90-H7	25	95.4
127	100-H7	28	106.4

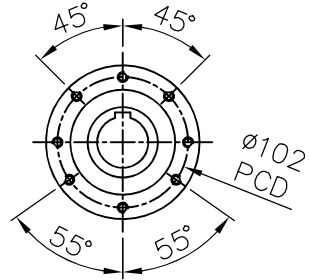
TKA-SERIES DIMENSIONS

MODEL	A	B	C	HC	J	CD1	CD2	G	M1-TAP	N	E	L1	L2	W1	W2	T	ØIFD	ØOFD	M2-TAP	D	ØPDC
37	164	95	8.5	100	35	117	95	147	M10	33	20	71	139	63	60	2.5	120	110	M8	12	94
47	185	110	7.2	112	40	140	70	175	M10	4	20	75	166	78	75	3	160	120	M8	12	102
57	217	124	13.1	132	47	152	88	207	M12	4	23	96	173	86	83	3	160	155	M12	20	125
67	228	124	20	140	42	152	88	207	M12	4	24	94	179	93	90	3.5	160	155	M12	20	125
77	288	146	31.3	180	48	170	102	225	M16	4	32	109	202	108	105	4	200	170	M12	20	142
87	338	170	25.9	212	65	225	118	300	M16	4	32	132	257	123	120	4	250	215	M16	26	178
97	414	240	32.3	265	83	248	160	328	M20	4	36	158	277	153	150	4	300	260	M16	26	220
107	503	266	52	315	100	290	190	400	M24	8	44	193	341	178	175	2.5	350	304	M20	30	260
127	592	400	53	375	115	-	-	-	-	-	-	-	-	208	205	5	450	350	M20	35	300

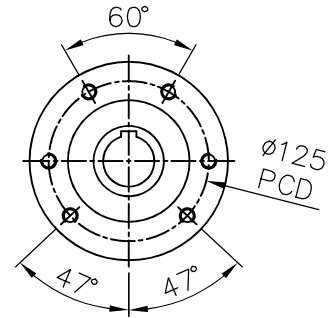
# TKA-SERIES FLANGE TAP DIMENSION CHART



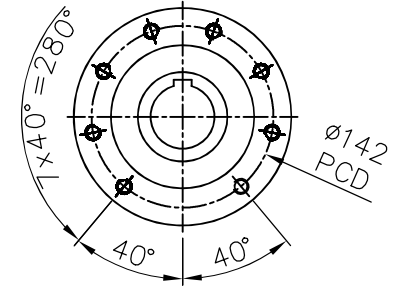
DETAIL-A  
TKA-37



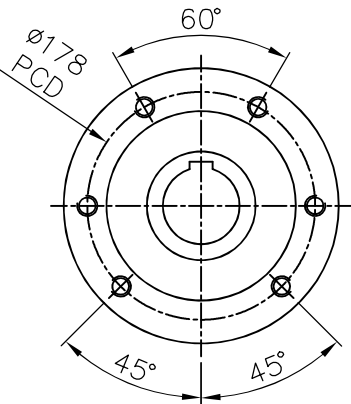
DETAIL-A  
TKA-47



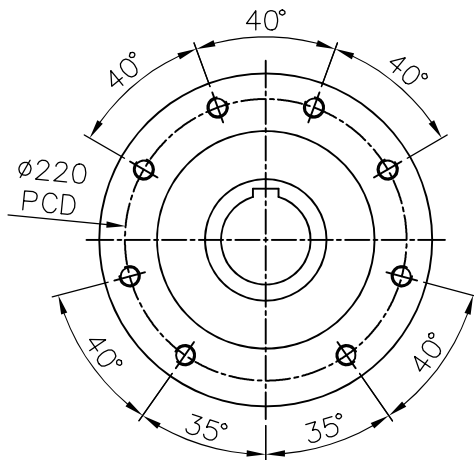
DETAIL-A  
TKA-57 & 67



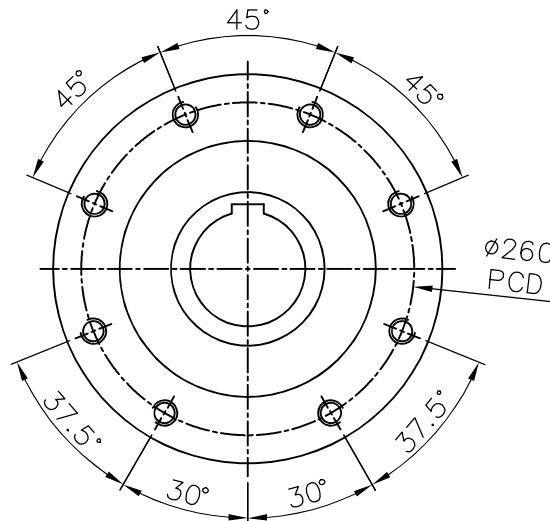
DETAIL-A  
TKA-77



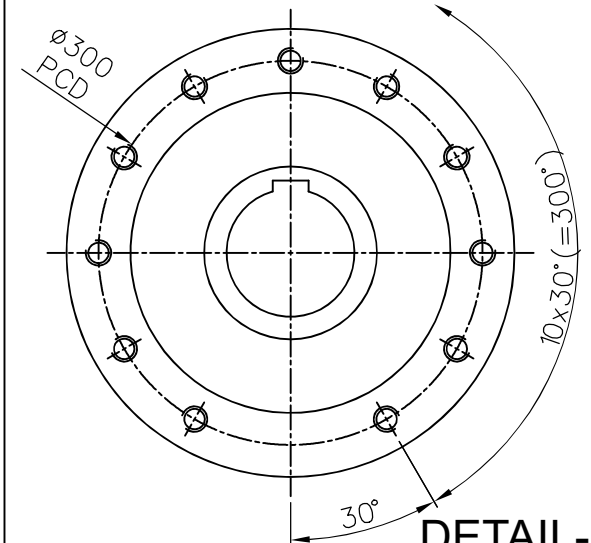
DETAIL-A  
TKA-87



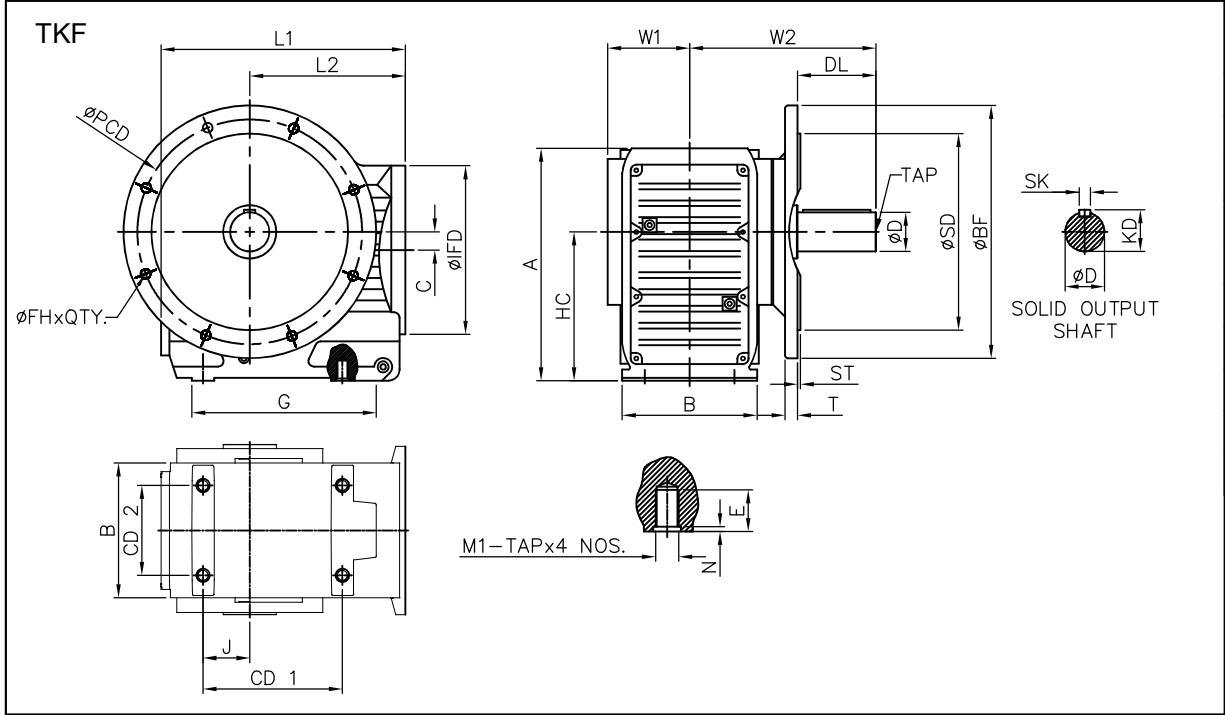
DETAIL-A  
TKA-97



DETAIL-A  
TKA-107

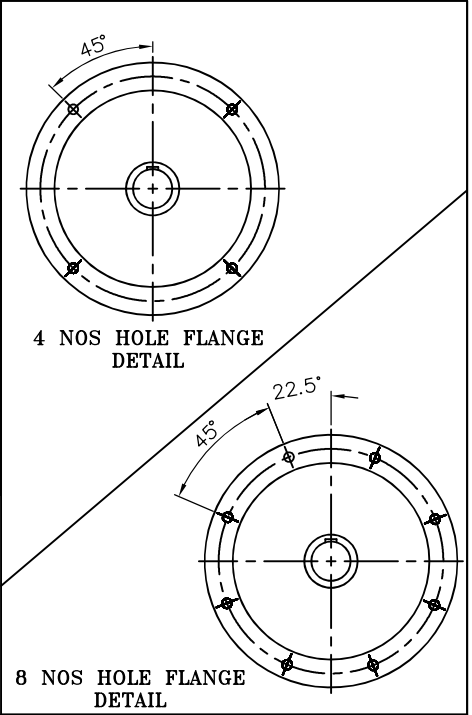


DETAIL-A  
TKA-127



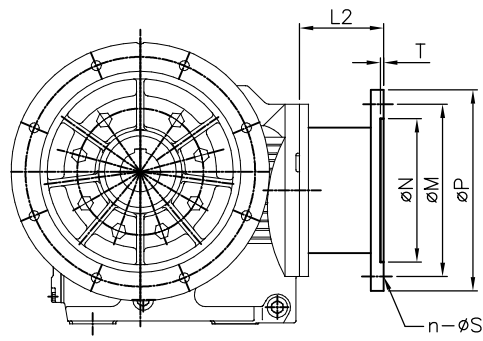
### TK-SERIES SOLID OUTPUT SHAFT DETAILS

MODEL	ØD	SK	KD	TAP
37	25-k6	8	28	M10
47	30-k6	8	33	M10
57	35-k6	10	38	M12
67	40-k6	12	43	M16
77	50-k6	14	53.5	M16
87	60-m6	18	64	M20
97	70-m6	20	74.5	M20
107	90-m6	25	95	M24
127	110-m6	28	116	M24



## TKF-SERIES DIMENSIONS

MODEL	A	B	C	HC	J	CD1	CD2	G	M1-TAP	N	E	L1	L2	ØIFD	W1	W2	DL	T	ST	ØBF	ØSD	ØPCD	ØFH-QTY.
37	164	95	8.5	100	35	117	95	147	M10	3	20	210	139	120	57.5	134	50	10	3.5	160	110-h6	130	9-4
47	185	110	7.2	112	40	140	70	175	M10	3	20	241	166	160	72	160	60	12	3.5	200	130-h6	165	11-4
57	217	124	13.1	132	47	152	88	207	M12	4	23	269	173	160	80	176.5	70	15	4	250	180-h6	215	13.5-4
67	228	124	20	140	42	152	88	207	M12	4	24	273	179	160	86.5	193	80	15	4	250	180-h6	215	13.5-4
77	288	146	31.3	180	48	170	102	225	M16	4	32	311	202	200	101	242	100	16	4	300	230-h6	265	13.5-4
87	338	170	25.9	212	65	225	118	300	M16	4	32	389	257	250	116	270	120	18	5	350	250-h6	300	17.5-4
97	414	240	32.3	265	83	248	160	328	M20	4	36	435	277	300	146	332	140	22	5	450	350-h6	400	17.5-8
107	503	266	52	315	100	290	190	400	M24	8	44	534	341	350	173	386	170	22	5	450	350-h6	400	17.5-8
127	592	400	53	375	115	-	-	-	-	-	-	615	390	450	203	466	210	25	5	550	450-h6	500	17.5-8



### TK-SERIES-INPUT HOLLOW CONE DETAILS

MOTOR FRAME	MODEL	L2	T	ØP	ØM	ØN	ØS-QTY.
63-B5	TK-37	70	4	140	115	95	10-4
	TK-47						
	TK-57						
	TK-67						
71-B5	TK-37	68	4	160	130	110	10-4
	TK-47	84					
	TK-57						
	TK-67						
	TK-77						
80-B5 & 90-B5	TK-37	78.5	4	200	165	130	12-4
	TK-47	85					
	TK-57						
	TK-67						
	TK-77	95					
	TK-87						
TK-97							
100-B5 & 112-B5	TK-37	91	5	250	215	180	15-4
	TK-47						
	TK-57						
	TK-67						
	TK-77	95					
	TK-87						
	TK-97						
	TK-107						
132-B5	TK-57	112	5	300	265	230	15-4
	TK-67						
	TK-77						
	TK-87	117					
	TK-97						
	TK-107						
	TK-127						
160-B5 & 180-B5	TK-77	155	6	350	300	250	19-4
	TK-87						
	TK-97						
	TK-107						
	TK-127						
200-B5	TK-97	160	6	400	350	300	19-4
	TK-107						
	TK-127						
225-B5 & 250-B5	TK-107	190	6	450	400	350	19-8
	TK-127						
280-B5	TK-127	190	6	550	500	450	19-8