TPG®

MOTORS & DRIVES

http://www.tpg-tw.com

EUROPEAN STYLE GEAR BOX

MOTORS & DRIVES

INTRODUCTION

TPG AS series *helical in-line reducer is the new design as European style, with the aim of allowing higher overhung and trust loads on low speed shaft. More average and stable gear torque load to make reducer stronger than the traditional ones, durable, low noise, more compact shape.*

SF>1, gear ratio from 5.53 to 187.5, size 16/20/25, flexible flange & foot option available, Single shaft/double shaft available, wider range motor economic efficiency.

AS16/20 with die-cast aluminium ADC12 housing, which is reliable & lighter weight & fashion outlet appearance. Internal components can be exchanged between two different size makes the buyer low down the spare parts cost & stock.

AS25 with cast steel FC25 housing, with more torque loads. Reinforced bearing are used in above reducers. Special heat treatment is applied to accurate enough hardness, temper process to make gear durable, stable.

Application to circular weaving machine, agitator, food machine, milling machine, textiling machine....etc.

GEAR BOX
POWER TRANSMISSION

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SPECIFICATION

TYPE	OUTPUT SHAFT DIA	WATT	GEAR RATIO

AHS / AHD / AVS / AVD	16	0.18KW	27.14	32.78	36.36	40.32	44.73			
		0.37KW	5.53	6.68	7.41	9.31	11.24	12.47	15.64	18.89	20.96
	20	0.1KW	97.7	108.1	120.1	141.3	169.5	187.5			
		0.18KW	44.77	49.52	58.1	64.3	69.2	81.4			
		0.37KW	15.48	18.01	21.19	25.43	28.13	31.71	37.31		
		0.75KW	7.75	8.57	9.92	11.67	14				
		1.5KW	5.49	6.46							
	25	0.18KW	89.7	109.1	122.5	144.4	157.9	192.1			
		0.37KW	40.29	49.04	60.1	69.6	82				
		0.75KW	19.35	21.16	25.75	31.27	36.86				
		1.5KW	5.02	5.92	6.47	7.88	8.93	10.53	11.51	14.01	16.42

Blue bottom color means three stage gear design.

CATAL. NO. GUIDE

AH — S — 16 — 100 — 5.5

- **AH** = HORIZONTAL TYPE
  AV = VERTICAL TYPE
- **S** = SINGLE SHAFT
  D = DOUBLE SHAFT
- **OUTPUT SHAFT DIA.** 16, 20, 25
- **MOTOR**
  100=0.1KW=1/8HP
  200=0.18KW=1/4HP
  400=0.37KW=1/2HP
  750=0.75KW=1HP
  1500=1.5KW=2HP
- **GEAR RATIO**

AHS

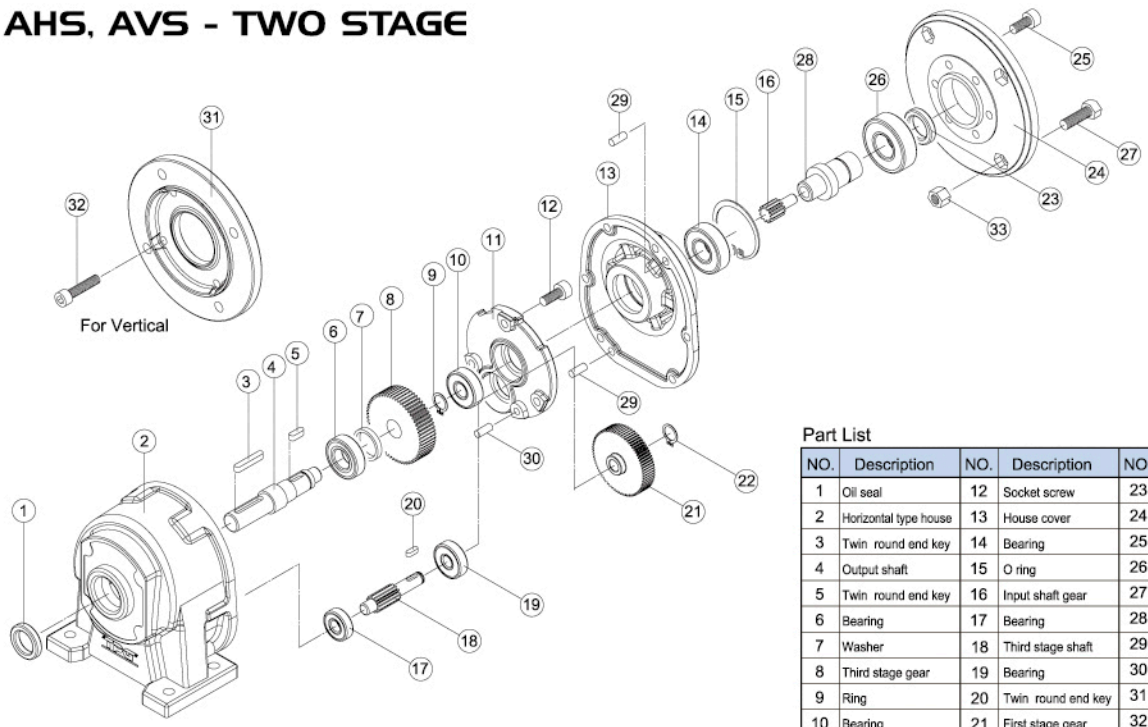
AHD

AVS

AVD

EXPLOSION DRAWING

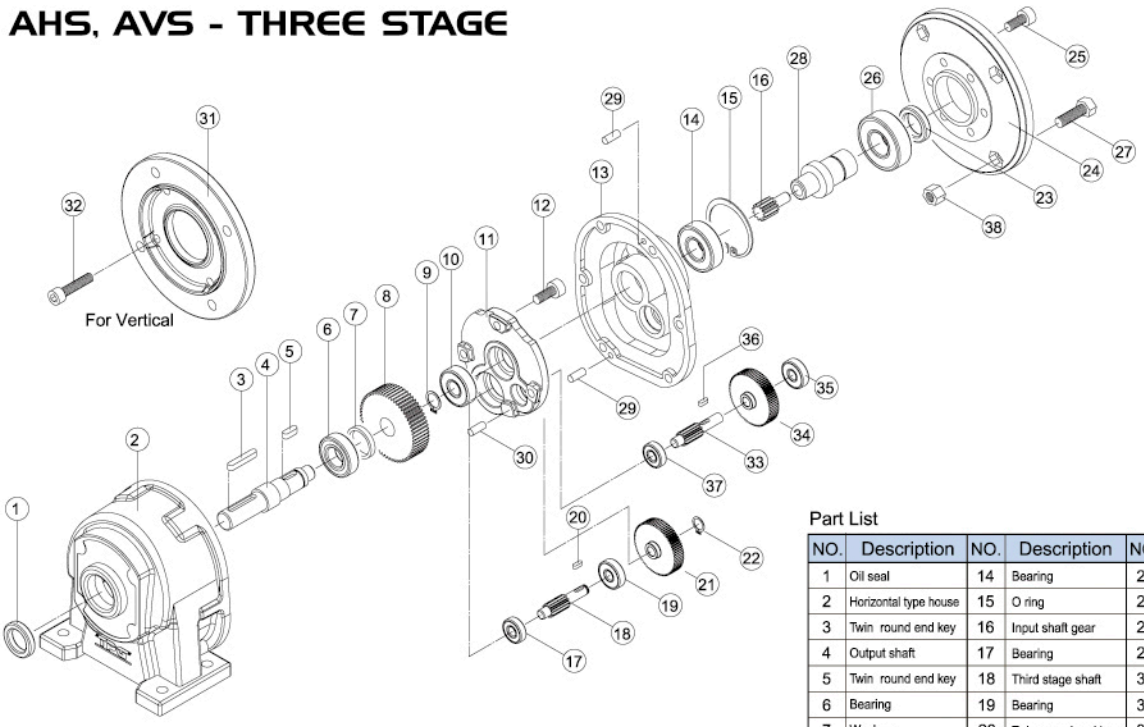
AHS, AVS - TWO STAGE



Part List

NO.	Description	NO.	Description	NO.	Description
1	Oil seal	12	Socket screw	23	Oil seal
2	Horizontal type house	13	House cover	24	S Type cover
3	Twin round end key	14	Bearing	25	Socket screw
4	Output shaft	15	O ring	26	Bearing
5	Twin round end key	16	Input shaft gear	27	Six-angle screw nut
6	Bearing	17	Bearing	28	S input shaft
7	Washer	18	Third stage shaft	29	Pin
8	Third stage gear	19	Bearing	30	Pin
9	Ring	20	Twin round end key	31	House cover for vertical type
10	Bearing	21	First stage gear	32	Socket screw
11	Motor front cover	22	O ring	33	Nut

AHS, AVS - THREE STAGE

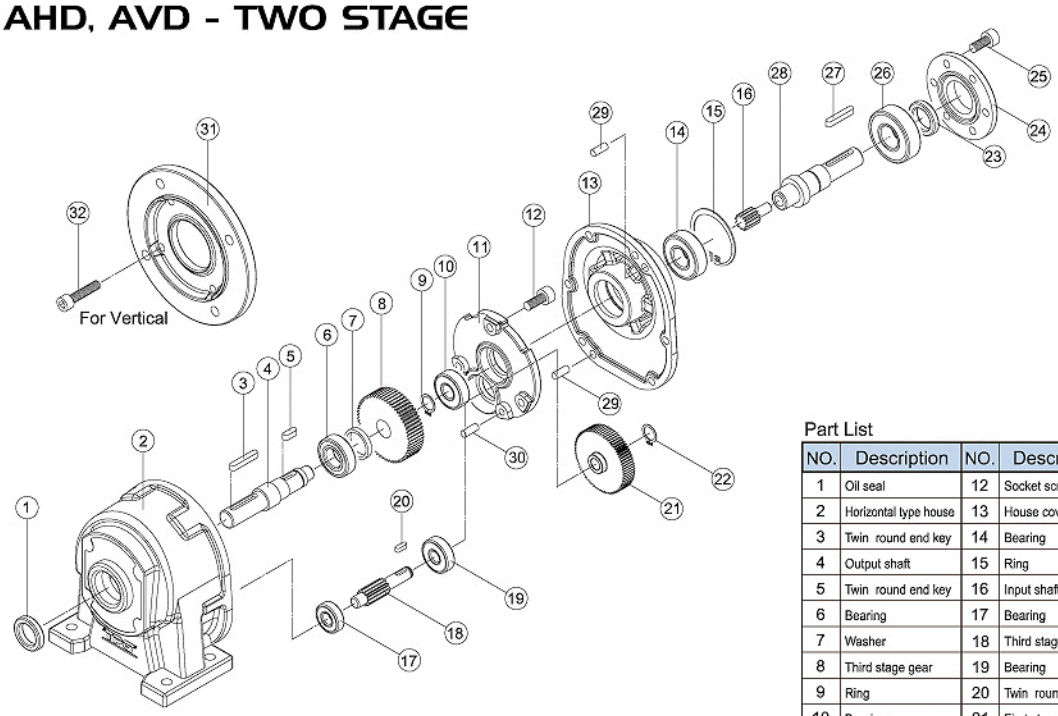


Part List

NO.	Description	NO.	Description	NO.	Description
1	Oil seal	14	Bearing	26	Bearing
2	Horizontal type house	15	O ring	27	Six-angle screw nut
3	Twin round end key	16	Input shaft gear	28	S input shaft
4	Output shaft	17	Bearing	29	Pin
5	Twin round end key	18	Third stage shaft	30	Pin
6	Bearing	19	Bearing	31	House cover for vertical type
7	Washer	20	Twin round end key	32	Socket screw
8	Third stage gear	21	2nd stage gear	33	2nd stage shaft
9	Ring	22	O ring	34	1st stage gear
10	Bearing	23	Oil seal	35	Bearing
11	Motor front cover	24	S Type cover	36	Twin round end key
12	Socket screw	25	Socket screw	37	Bearing
13	House cover				

EXPLOSION DRAWING

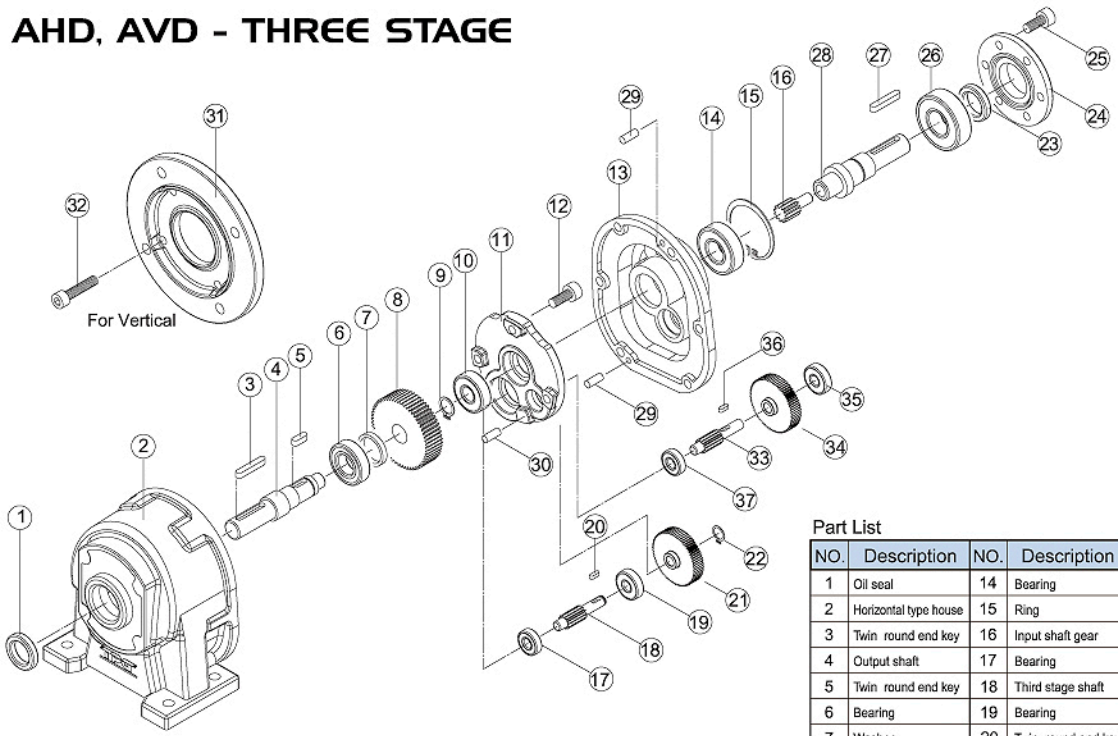
AHD, AVD - TWO STAGE



Part List

NO.	Description	NO.	Description	NO.	Description
1	Oil seal	12	Socket screw	23	Oil seal
2	Horizontal type house	13	House cover	24	D Type cover
3	Twin round end key	14	Bearing	25	Socket screw
4	Output shaft	15	Ring	26	Bearing
5	Twin round end key	16	Input shaft gear	27	Twin round end key
6	Bearing	17	Bearing	28	Input shaft
7	Washer	18	Third stage shaft	29	Pin
8	Third stage gear	19	Bearing	30	Pin
9	Ring	20	Twin round end key	31	House cover for vertical type
10	Bearing	21	First stage gear	32	Socket screw
11	Motor front cover	22	Ring		

AHD, AVD - THREE STAGE



Part List

NO.	Description	NO.	Description	NO.	Description
1	Oil seal	14	Bearing	27	Twin round end key
2	Horizontal type house	15	Ring	28	Input shaft
3	Twin round end key	16	Input shaft gear	29	Pin
4	Output shaft	17	Bearing	30	Pin
5	Twin round end key	18	Third stage shaft	31	House cover for vertical type
6	Bearing	19	Bearing	32	Socket screw
7	Washer	20	Twin round end key	33	Second stage shaft
8	Third stage gear	21	Second stage gear	34	First stage gear
9	Ring	22	Ring	35	Bearing
10	Bearing	23	Oil seal	36	Twin round end key
11	Motor front cover	24	D Type cover	37	Bearing
12	Socket screw	25	Socket screw		
13	House cover	26	Bearing		

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PERFORMANCE DATA TABLE

Output Shaft Dia	Gear ratio	HP	KW	Output torque (daNm)	RPM/min
16	5.53	0.5	0.37	1.3	253.0
	6.68	0.5	0.37	1.6	210.0
	7.41	0.5	0.37	1.8	189.0
	9.31	0.5	0.37	2.2	150.0
	11.24	0.5	0.37	2.7	125.0
	12.47	0.5	0.37	3.0	112.0
	15.64	0.5	0.37	3.7	90.0
	18.89	0.5	0.37	4.0	74.0
	20.96	0.5	0.37	4.5	67.0
	27.14	0.33	0.25	4.3	52.0
	32.78	0.25	0.18	3.9	43.0
	36.36	0.25	0.18	4.3	39.0
	40.32	0.25	0.18	4.8	34.7
	44.73	0.25	0.18	5.3	31.3
20	5.49	2	1.5	5.2	255.0
	6.46	2	1.5	6.2	217.0
	7.75	1.5	1.1	5.5	181.0
	8.57	1.5	1.1	6.1	163.0
	9.92	1.5	1.1	7.1	141.0
	11.67	1	0.75	5.6	120.0
	14.00	1	0.75	6.7	100.0
	15.48	0.75	0.55	5.5	90.0
	18.01	0.75	0.55	6.4	78.0
	21.19	0.75	0.55	7.6	66.0
	25.43	0.5	0.37	6.1	55.0
	28.13	0.5	0.37	6.7	50.0
	31.71	0.5	0.37	7.6	44.0
	37.31	0.5	0.37	8.0	38.0
	44.77	0.33	0.25	7.0	31.0
	49.52	0.33	0.25	7.8	28.0
	58.10	0.33	0.25	8.7	24.0
	64.30	0.33	0.25	9.6	22.0
	69.20	0.33	0.25	9.0	20.0
	81.40	0.25	0.18	9.2	17.2
	97.70	0.16	0.12	7.5	14.3
	108.10	0.16	0.12	7.8	13.0
	120.10	0.16	0.12	8.7	11.7
	141.30	0.16	0.12	10.2	9.9
	169.50	0.16	0.12	12.2	8.3
	187.50	0.16	0.12	13.5	7.5

Output Shaft Dia	Gear ratio	HP	KW	Output torque (daNm)	RPM/min
25	5.02	2.5	1.8	6.0	279.0
	5.92	2.5	1.8	7.1	236.0
	6.47	2.5	1.8	7.7	216.0
	7.88	2.5	1.8	9.4	178.0
	8.93	2.5	1.8	10.6	157.0
	10.53	2.5	1.8	12.6	133.0
	11.51	2.5	1.8	13.7	122.0
	14.01	2	1.5	13.4	100.0
	16.42	2	1.5	15.7	85.0
	19.35	1.5	1.1	13.8	72.0
	21.16	1.5	1.1	15.1	66.0
	25.75	1	0.75	12.3	54.0
	31.27	1	0.75	14.9	45.0
	36.86	1	0.75	16.0	38.0
	40.29	0.75	0.55	14.4	35.0
	49.04	0.5	0.37	11.7	29.0
	60.10	0.5	0.37	13.6	23.0
	69.60	0.5	0.37	15.7	20.0
	82.00	0.5	0.37	18.5	17.1
	89.70	0.33	0.25	13.4	15.6
	109.10	0.33	0.25	16.3	12.8
	122.5	0.33	0.25	18.3	11.4
	144.4	0.25	0.18	16.3	9.7
	157.9	0.25	0.18	17.8	8.9
	192.1	0.25	0.18	18	7.3

n1=1400

●信賴性ある製品 TECHNOLOGY
●卓越したの性能 PERFECTION
●保證したの品質 GUARANTEE

阪神傳動系列 *POWER TRANSMISSION*

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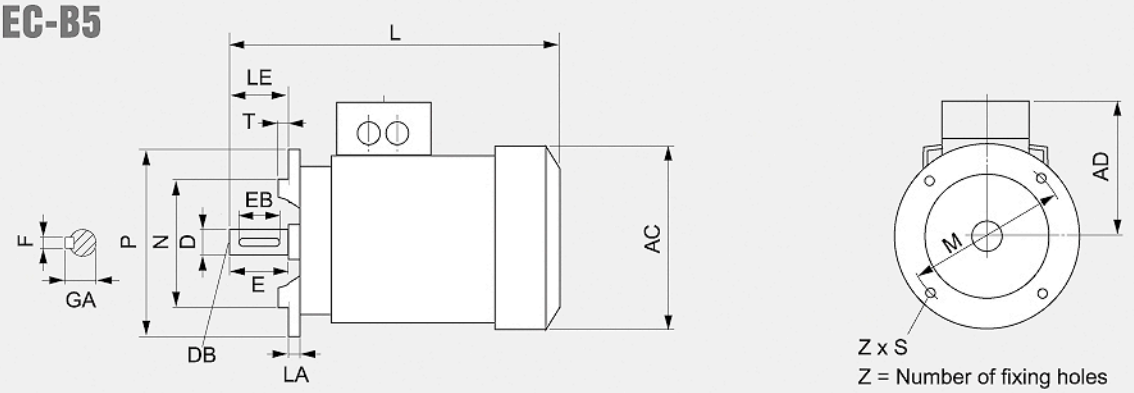
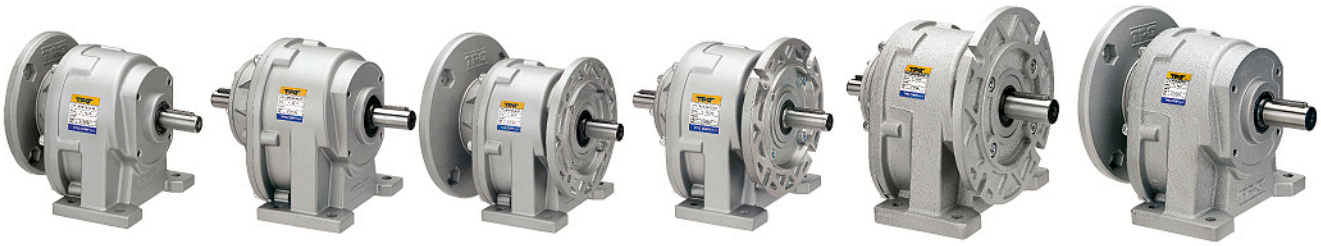
TYPES OF CONSTRUCTION IM B5 AND IM V I

Frame size	IEC AD	L	LA	LE	M	N	P	S	T	Z	D	DB	E	EB	F	GA
56 M	101	169	8	20	**100**	**80**	**120**	7	3	4	9	M 3	20	14	3	10.2
63 M	101	202.5	9	23	**115**	**95**	**140**	10	3	4	11	M 4	23	16	4	12.5
71 M	111	240	9	30	**130**	**110**	**160**	10	3.5	4	14	M 5	30	22	5	16
80 M	120	274	10	40	**165**	**130**	**200**	12	3.5	4	19	M 6	40	32	6	21.5
90 S	128	332	10	50	**165**	**130**	**200**	12	3.5	4	24	M 8	50	40	8	27
90 L		376														
100 L	135	407	11	60	**215**	**180**	**250**	14	4	4	28	M10	60	50	8	31
112 M	148	433	11	60	**215**	**180**	**250**	14	4	4	28	M10	60	50	8	31
132 S	167	453.5	12	80	**265**	**230**	**300**	14.5	4	4	38	M12	80	70	10	41
132 M	167	491.5	12	80	**265**	**230**	**300**	14.5	4	4	38	M12	80	70	10	41
160 M	197	588	13	110	**300**	**250**	**350**	18.5	5	4	42	M16	110	90	12	45
160 L	197	628	13	110	**300**	**250**	**350**	18.5	5	4	42	M16	110	90	12	45

IEC-B5



Types of Gear Box: Stylish & Powerful



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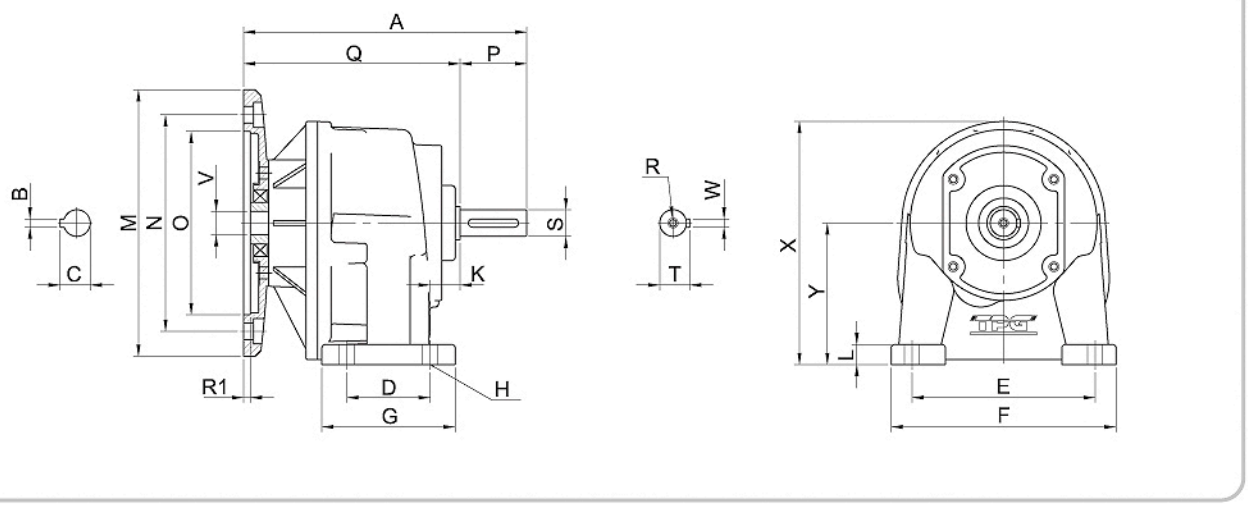
GEAR BOX
EUROPEAN STYLE

AHS TYPE

Dimension mm

HP	OUTPUT SHAFT DIA	RATIO	B5	INPUT FLANGE SIZE				INPUT SHAFT			A	Q	P	X	Y	K	L
				M	N	O	R1	V	C	B							
1/4	16	27.14~44.73	63	140	115	95	3.5	11	12.8	4	170	130	40	146	85	18	12
1/2		5.53~20.96	71	160	130	110	4	14	16.3	5							
1/8	20	97.7~187.5	63	140	115	95	3.5	11	12.8	4	195	155	40	173	100	18	14
1/4		58.1~81.4															
		44.77~49.52															
1/2		15.48~37.31	71	160	130	110	4	14	16.3	5							
1		7.75~14	80	200	165	130	4	19	21.8	6	200	160					
2		5.49~6.64	90					24	27.3	8							
1/4	25	89.7~192.1	63	140	115	95	3.5	11	12.8	4	214	164	50	190	110	18	16
1/2		60.1~82	71	160	130	110	4	14	16.3	5							
		40.29~49.04															
1		19.35~36.86	80	200	165	130	4	19	21.8	6	219	169					
2		5.02~16.42	90					24	27.3	8							

HP	OUTPUT SHAFT DIA	RATIO	B5	OUTPUT SHAFT				FOOT DIMENSION				
				S	C1	B1	R	D	G	E	F	H
1/4	16	27.14~44.73	63	16	18.3	5	M6	50	80	110	135	9
1/2		5.53~20.96	71									
1/8	20	97.7~187.5	63	20	22.8	6	M8	60	95	130	155	11
1/4		58.1~81.4										
		44.77~49.52										
1/2		15.48~37.31	71									
1		7.75~14	80									
2		5.49~6.64	90									
1/4	25	89.7~192.1	63	25	28.3	8	M8	70	105	160	190	11
1/2		60.1~82	71									
		40.29~49.04										
1		19.35~36.86	80									
2		5.02~16.42	90									



1. Above model can be interchanged with Bonfiglioli's type.
2. Above specifications are subject to chang without prior notice.

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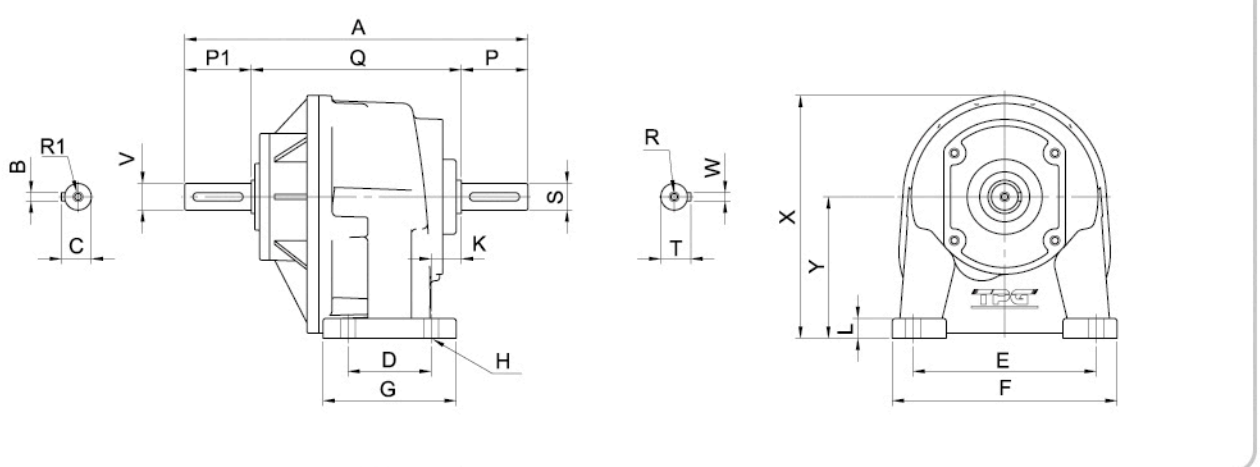
GEAR BOX
EUROPEAN STYLE

AHD TYPE

Dimension mm

HP	OUTPUT SHAFT DIA	RATIO	INPUT SHAFT				A	Q	P	P1	X	Y	K	L
			V	C	B	R1								
1/4	16	27.14~44.73	16	18.3	5	M6	206	130	40	40	146	85	18	12
1/2		5.53~20.96												
1/8	20	97.7~187.5	16	18.3	5	M6	230	150	40	40	173	100	18	14
1/4		58.1~81.4												
		44.77~49.52	19	21.8	6		233	153						
1/2		15.48~37.31												
1		7.75~14												
2		5.49~6.64												
1/4	25	89.7~192.1	16	18.3	5	M6	250	160	50	40	190	110	18	16
1/2		60.1~82												
		40.29~49.04	19	21.8	6		252	162						
1		19.35~36.86												
2		5.02~16.42												

HP	OUTPUT SHAFT DIA	RATIO	OUTPUT SHAFT				FOOT DIMENSION				
			S	C1	B1	R	D	G	E	F	H
1/4	16	27.14~44.73	16	18.3	5	M6	50	80	110	135	9
1/2		5.53~20.96									
1/8	20	97.7~187.5	20	22.8	6	M8	60	95	130	155	11
1/4		58.1~81.4									
		44.77~49.52									
1/2		15.48~37.31									
1		7.75~14									
2		5.49~6.64									
1/4	25	89.7~192.1	25	28.3	8	M8	70	105	160	190	11
1/2		60.1~82									
		40.29~49.04									
1		19.35~36.86									
2		5.02~16.42									



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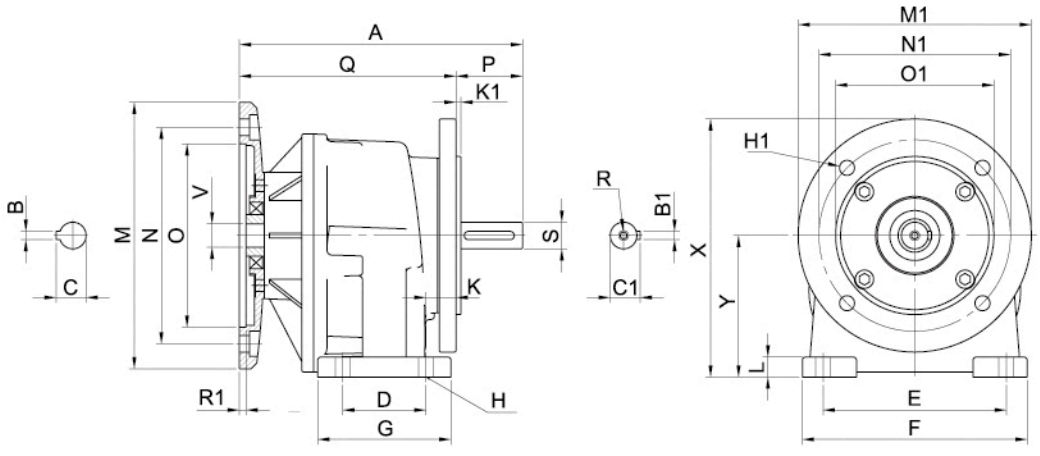
GEAR BOX EUROPEAN STYLE

AVS TYPE

Dimension mm

HP	OUTPUT SHAFT DIA	RATIO	B5	INPUT FLANGE SIZE				INPUT SHAFT			A	Q	P	X	Y	K	L
				M	N	O	R1	V	C	B							
1/4	16	27.14~44.73	63	140	115	95	3.5	11	12.8	4	170	130	40	146	85	18	12
1/2		5.53~20.96	71	160	130	110	4	14	16.3	5							
1/8	20	97.7~187.5	63	140	115	95	3.5	11	12.8	4	195	155	40	173	100	18	14
1/4		58.1~81.4															
		44.77~49.52															
1/2		15.48~37.31	71	160	130	110	4	14	16.3	5							
1		7.75~14	80	200	165	130	4	19	21.8	6	200	160					
2		5.49~6.64	90					24	27.3	8							
1/4	25	89.7~192.1	63	140	115	95	3.5	11	12.8	4	214	164	50	190	110	18	16
1/2		60.1~82	71	160	130	110	4	14	16.3	5							
		40.29~49.04															
1		19.35~36.86	80	200	165	130	4	19	21.8	6	219	169					
2		5.02~16.42	90					24	27.3	8							

HP	OUTPUT SHAFT DIA	RATIO	B5	OUTPUT FLANGE SIZE					OUTPUT SHAFT				FOOT DIMENSION				
				M1	N1	O1	H1	K1	S	C1	B1	R	D	G	E	F	H
1/4	16	27.14~44.73	63	140	115	95	9	3	16	18.3	5	M6	50	80	110	135	9
1/2		5.53~20.96	71														
1/8	20	97.7~187.5	63	160	130	110	9	3.5	20	22.8	6	M8	60	95	130	155	11
1/4		58.1~81.4															
		44.77~49.52															
1/2		15.48~37.31	71														
1		7.75~14	80														
2		5.49~6.64	90														
1/4	25	89.7~192.1	63	200	165	130	10	3.5	25	28.3	8	M8	70	105	160	190	11
1/2		60.1~82	71														
		40.29~49.04															
1		19.35~36.86	80														
2		5.02~16.42	90														



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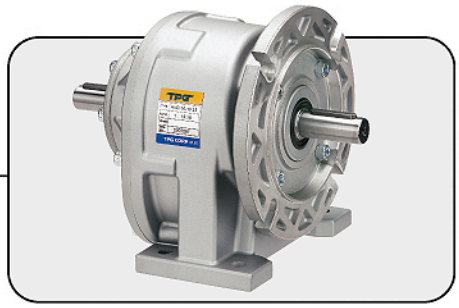
GEAR BOX
EUROPEAN STYLE

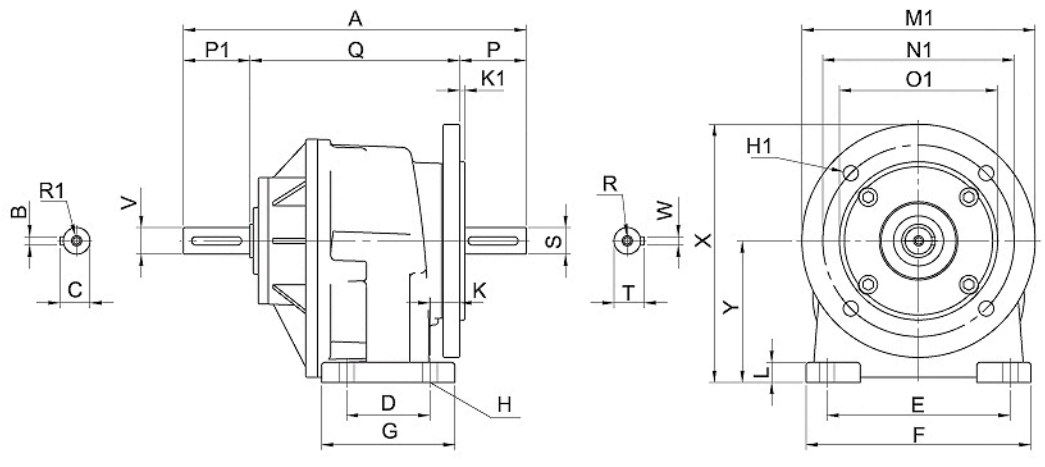


AVD TYPE

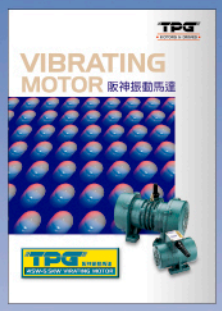
Dimension mm

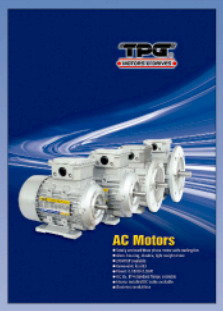
HP	OUTPUT SHAFT DIA	RATIO	INPUT SHAFT				A	Q	P	P1	X	Y	K	L
			V	C	B	R1								
1/4	16	27.14~44.73	16	18.3	5	M6	206	85	40	40	146	85	18	12
1/2		5.53~20.96												
1/8	20	97.7~187.5	16	18.3	5	M6	230	150	40	40	173	100	18	14
1/4		58.1~81.4												
		44.77~49.52	19	21.8	6		233	153						
1/2		15.48~37.31												
1		7.75~14												
2		5.49~6.64												
1/4	25	89.7~192.1	16	18.3	5	M6	250	160	50	40	190	110	18	16
1/2		60.1~82												
		40.29~49.04	19	21.8	6		252	162						
1		19.35~36.86												
2		5.02~16.42												

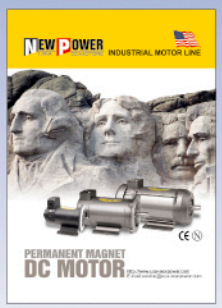
HP	OUTPUT SHAFT DIA	RATIO	OUTPUT FLANGE SIZE					OUTPUT SHAFT				FOOT DIMENSION				
			M1	N1	O1	H1	K1	S	C1	B1	R	D	G	E	F	H
1/4	16	27.14~44.73	140	115	95	9	3	16	18.3	5	M6	50	80	110	135	9
1/2		5.53~20.96														
1/8	20	97.7~187.5	160	130	110	9	3.5	20	22.8	6	M8	60	95	130	155	11
1/4		58.1~81.4														
		44.77~49.52														
1/2		15.48~37.31														
1		7.75~14														
2		5.49~6.64														
1/4	25	89.7~192.1	200	165	130	10	3.5	25	28.3	8	M8	70	105	160	190	11
1/2		60.1~82														
		40.29~49.04														
1		19.35~36.86														
2		5.02~16.42														



1. Above model can be interchanged with Bonfiglioli's type.
2. Above specifications are subject to chang without prior notice.







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