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ADD: 100 FERNSTAFF COURT, UNIT 1, VAUGHAN, ONTARIO, L4K 3L9
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HONG KONG

FUTECH ENGINEERING TRADING COMPANY LIMITED

ADD: G/F., 123C TIN HA ROAD, HUNG SHUI KIU, YUEN LONG, NEW TERRITORIES, HONG KONG
TEL: 852-3118 1665 | FAX: 852-3118 6557
E-mail: sales@chinahydraulic.com | http://futechengineering.com

INDONESIA

PT. TIARA ABADI NUSANTARA JAYA INDONESIA

ADD: JL. RAYA DUPAK 63 KAV. E10, SURABAYA, 60172
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ADD: 549/9 Onnut Road, Kwaeng Pravet, Khet Pravet, Bangkok 10250 Thailand
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VIETNAM

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ADD: P105 G6A, Thanh Cong Ward, Ba Dinh District, Hanoi City, Vietnam
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OEM DISTRIBUTOR

TRUNG ANH SPARE PARTS JOINT STOCK COMPANY

ADD: No.730, Minh Khai Stress, Vinh Tuy Ward, Hai Ba Trung District,
Hanoi City, Vietnam
TEL: 02466800875 | E-mail: tasparts11@gmail.com

Disclaimer for Warranty

All gear pumps and motors manufactured by HONOR shall have the warranty period for 12 months as of the manufacture date, and under normal usage, HONOR provides free service for maintenance and replacement during the warranty period.

However, if the gear pumps/gear motor confirmed to be damaged by abnormal usage shall not be covered by the warranty.



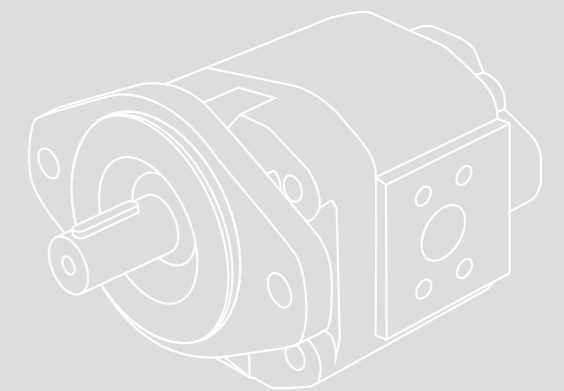
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HIGH PRESSURE GEAR PUMPS & MOTORS

Index	01
Company Profile Product Introduction	02
Supporting Conditions Model Code Designation	03
1A Series Gear Pumps	04
1G Series Gear Pumps	06
1M Series Bi-Directional Pumps/Motors	08
1V Series Gear Pumps With Relief Valve	09
1K Series Gear Pumps	10
1D/1T Series Multiple Pumps	11
1A/1G/1D/1T/1V Series Performance Curves ...	12
1M Series Performance Curves	13
1K Series Performance Curves	14
2G Series Gear Pumps	16
2M Series Bi-Directional Pumps/Motors	18
2V Series Gear Pumps With Relief Valve	19
2D/2T Series Multiple Pumps	20
21D/21T Series Multiple Pumps	21
2G/2D/2T/2V Series Performance Curves	22
2M Series Performance Curves	24
3G/3M Series Gear Pumps/ Bi-Directional Pumps/Motors	26
3D/3T Series Multiple Pumps	28
32D/32T Series Multiple Pumps	29
3G/3D/3T Series Performance Curves	30
3M Series Performance Curves	31
4H Series Gear Pumps	32
4D/4T Series Multiple Pumps	34
43D/43T Series Multiple Pumps	35
4H/4D/4T Series Performance Curves	36
Formula for Gear Pumps/Motors	37

index



HONOR

HONOR

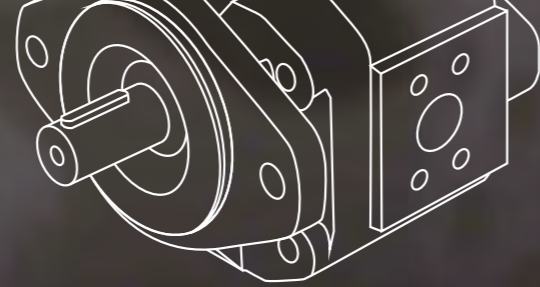
Company Profile

HONOR Gear Pumps Corp. was founded in 1994. It started with the professional production line for hydraulic gear pumps in 1984. After merger, it became more scaled, extensive and professional in gear pump manufacture. At the same time, Honor expanded its base in Nan Kang Industrial Park, Nantou City, Taiwan with large investments to introduce world-class advanced technology and processing equipment, and designed highly efficient final inspection facilities, which set up the foundations for high-quality gear pumps to penetrate the international market.

The brand "HONOR" has been recognized by the markets, and its gear pumps have been evaluated as highly competitive internationally. Since the products have been widely utilized in various industries and conditions, HONOR accumulated abundant experience and technology, and lead to continuous development and innovation.

HONOR strictly implements the quality policy of ISO 9001:2015 "In Pursuit for Excellence and Customer-Orientation, and sets up the quality goals such as "products easy-to-manufacture, management with humanization, marketing with internalization", moves steadily toward the corporate culture of "Built with Gold, Allied with the World".

With years of accumulated experience, Honor has achieved the full series of high-pressure gear pumps and bi-directional pumps/motors in various ranges and usage conditions. HONOR hopes to collaborate with domestic hydraulic transmission industries for joint-development and cooperation to create further business opportunities, and devotes to the whole hydraulic transmission industries for glorious prospect.



Model Code Designation

Honor's model code designation includes 7 necessary items such as series, types/function, flange, shaft spec, port, displacement and rotation (All arranged in sequence). You can permutate the required model number with all these 7 items, installing dimension drawings and technical parameters.



Digit 1 Means series, and is represented by number according to displacement: Series 1 is 0.8~13.5cm³/r; Series 2 is 4~33cm³/r; Series 3 is 18~90cm³/r; Series 4 is 63~125cm³/r.

Digit 2 Means type and function. Since there are various kinds of types and functions, so there are different English alphabets representing accordingly for identification, such as unidirectional pump, bi-directional pump, bi-directional motor, double pump, multiple pump, valved pump structure.

Digit 3 Means flange, since there are various kinds of profiles and installing dimensions, such as SAE, DIN, EURO standards, so we use English alphabets for identification.

Digit 4 Means shaft. For various kinds of shafts, outreach and dimensions, so we use numbers as codes, with catalogs, samples or drawings to identify the spec and dimensions.

Digit 5 Means ports. There are various port specs for selection, such as UNF, PT, NPT, BSPF, FLANGE, etc. So by using alphabets and numbers to represent, we can identify the spec and dimensions.

Digit 6 Means model. There are 2 numbers, and can choose the one similar to displacement.

Digit 7 Means rotation. Rotation is important for type selection, and please do not ignore or make wrong selection.

We use : "R" : represents right-hand turning. (Clockwise when face to the shaft)

"L" : represents left-hand turning. (Counterclockwise when face to the shaft)

※ Rotation can be omitted for PO on double gear pumps/motors.

※ Model number (eg: 2GG1U08R) and Manufacturing order (eg: P20A01) will be shown on the pump chamber. For MFG order P20A01, P represents MFG number, 20 represents year, A represents month (Jan), 01 represents monthly MFG batch number.

※ Honor takes order for customization. Please contact Honor-HQ in Taiwan.

Products

Group 1 uses



extrusion type aluminum-alloy-pump housing. The front and rear covers can be either aluminum alloy die casting or cast iron, and this small gear pump is of high yield rate, high efficiency while low noise, and the displacement is 0.8cm³/r ~ 13.5cm³/r. It can be matched with various kinds of front flanges, transmission shaft extensions and ports that comply with SAE, DIN and EURO standards. There are bi-directional motor (1M), double pump (1D), multiple pump (1T), gear pump (1V) for selection, and are applicable on elevating system, DC-AC hydraulic pump, logistics facility and vehicle maintenance equipment, etc.

Group 2 uses



cast-iron front and rear covers with extrusion type aluminum-alloy-pump housing, and bearing blocks uses materials forged from 2014 aluminum alloy with T6 heat treatment. The whole series use high temperature VITON seals. This medium size gear pump is of high yield rate, high efficiency while low noise, and the with displacement is 4cm³/r~33cm³/r. It can be matched with various kinds of front flanges, transmission shaft extensions and ports that comply with SAE, DIN and EURO standards. There are bi-directional motor (2M), double pump (2D), multiple pump (2T), gear pump (2V) for selection with overall efficiency between 93~97%, and can be broadly applicable on hydraulic pump engineering, structure, agricultural machinery and vehicles.

Group 3 uses



cast-iron front and rear covers with extrusion type aluminum-alloy-pump housing, and bearing blocks uses aluminum alloy die cast materials. This large size gear pump is of high yield rate, high efficiency while low noise, and the with displacement is 18cm³/r~90cm³/r. It can be matched with various kinds of front flanges, transmission shaft extensions and ports that comply with SAE, DIN and EURO standards. There are double pump (3D, 32D), multiple pump (3T, 32T) for selection with overall efficiency between 93~97%, and can be broadly applicable on engineering, structure, agricultural machinery and vehicles.

Group 4 uses



vermicular-cast-iron made front cover and pump housing, the bearing blocks uses abrasion- proof, long- life bronze gasket. This large size gear pump is of high yield rate, high efficiency while low noise, and the with displacement is 63cm³/r~125cm³/r. It can be matched with various kinds of front flanges, transmission shaft extensions and ports that comply with SAE. There are double pump (4D, 43D), multiple pump (4T, 43T, 42T) for selection. It can work under high pressure, also can meet the requests of heavy loading for various kinds of machineries and fixed industrial equipment, and can be broadly applicable on engineering, structure, agricultural machinery and vehicles.

Supporting Conditions

Installation

The most suitable position for installing the gear pump shall be lower than the least amount of oil in the oil tank. The most ideal connection method is to place the gear pump directly on the drive shaft of the power output. If need to use a coupling, ought to notice whether the gear pump and the coupling are correctly connected. Regardless of the connection, they must be close and parallel to ensure that no axial radial loads are generated on the mandrel, otherwise it will damage the coupling and shaft extension, and even the internal structure of the pump housing.

Hydraulic Fluid

Please use hydraulic mineral oil with additives to prevent from oxidation and corrosion. Appropriate oil selection with correct temperature range can ensure the service life of gear pump and the best working efficiency.

The recommendations for hydraulic oil are: Permitted range for application for mineral oil viscosity: 6-500cSt; Recommended range of application: 10-100cSt; Maximum start value: < 2000cSt; Range of temperature: 0~80°C.

※ If there is any request for other medium, please contact Honor.

Filtration

Please select a filtering system with high quality and anti-pollution capability, and with the clogging indication that can clean or replace according to the actual situation. The bypass design also protects the filtering system, and can replace the filter element timely. We recommend designs in accordance with national standards.

Recommended filter element is shown below: 60~100(mesh)

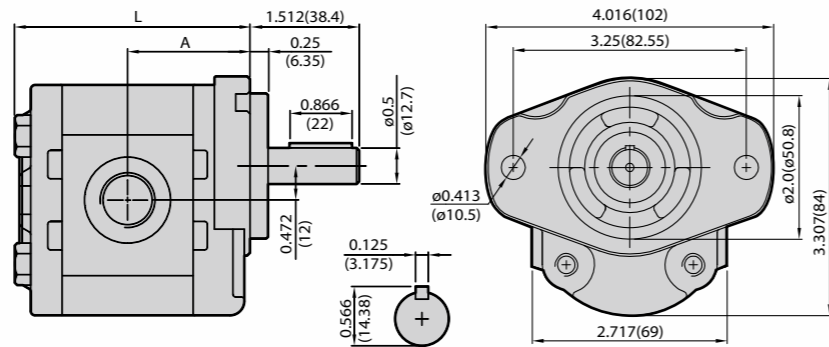
Cooling System

The volume of the oil tank shall be at least twice the displacement of the gear pump per minute, and the location of the ports shall be as far away as possible. The design of the cooling system will vary according to different usages and conditions. We recommend designing in accordance with national standards.

1A SERIES | ALUMINUM METALS GEAR PUMPS



DIMENSION DRAWING



ORDERING EXAMPLE

1	A	G	2	U	□ □	R / L
SERIES	TYPE	FLANGE	SHAFT	PORT	DISPL.	ROTATION

If the displacement you need is 0.31 c.i.r and the rotation direction is right-hand rotation, the correct model number for PO is: **1AG2U05R**

TECHNICAL DATA

MODEL	DISPLACEMENT		PRESSURE psi(MPa)		RPM RANGE	DIMENSIONS inch(mm) SUITABLE "G · C · E" MOUNTING FLANGES		WEIGHT	
	c.i.r	cm ³ /r	CONTINUOUS	MAX.		A	L	kg	LBS
0S	0.05	0.8	3000(21)	3600(25)	600 4000	1.626(41.3)	3.114(79.1)	1.09	2.40
01	0.08	1.3	3000(21)	3600(25)		1.655(42.0)	3.173(80.6)	1.10	2.42
02	0.12	2.0	3000(21)	3600(25)		1.694(43.0)	3.252(82.6)	1.14	2.51
27	0.16	2.7	3000(21)	3600(25)		1.734(44.0)	3.331(84.6)	1.18	2.60
35	0.21	3.4	3000(21)	3600(25)		1.773(45.0)	3.409(86.6)	1.21	2.66
04	0.25	4.1	3000(21)	3600(25)		1.813(46.0)	3.488(88.6)	1.25	2.75
05	0.31	5.1	3000(21)	3600(25)	600 (*2500)	1.872(47.5)	3.606(91.6)	1.30	2.86
06	0.37	6.1	3000(21)	3600(25)		1.931(49.0)	3.724(94.6)	1.35	2.97
07	0.45	7.4	2850(20)	3300(23)		2.009(51.0)	3.882(98.6)	1.41	3.10
09	0.55	9.1	2550(18)	2850(20)		2.108(53.5)	4.079(103.6)	1.49	3.28
11	0.67	11.0	2300(16)	2550(18)		2.226(56.5)	4.315(109.6)	1.58	3.48
13	0.82	13.5	2300(16)	2550(18)		2.364(60.0)	4.591(116.6)	1.69	3.72

*For lower than 600RPM/higher than 2500RPM or any special conditions, please contact HONOR.

DRIVE SHAFTS

APPLICABLE (G) (C) (E) FLANGE

Code: 1, Code: 2, Code: 3, Code: 5, Code: 6, Code: 7, Code: 8, Code: 9

DRIVE SHAFTS

APPLICABLE (K) (L) FLANGE

Code: 1, Code: 2

MOUNTING FLANGES

Code: G, Code: K- SAE AA-2 Bolts&4F17-4 Bolts
Code: L- 4F17-4 Bolts, Code: C, Code: E

PORTS

Code	From "0S" to "06"		From "07" to "13"	
	INLET	OUTLET	INLET	OUTLET
P	PT 1/2"	PT 3/8"	PT 3/4"	PT 1/2"
N	NPT 1/2"	NPT 3/8"	NPT 3/4"	NPT 1/2"
B	BSPF 1/2"	BSPF 3/8"	BSPF 3/4"	BSPF 1/2"

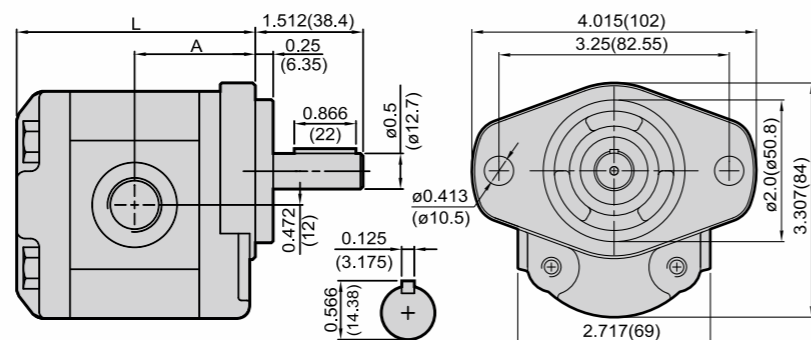
Code	From "0S" to "13"	
	A	B
F	$\phi 1.181$ ($\phi 30$)	$\phi 0.511$ ($\phi 13$)

Code	From "0S" to "13"	
	A	B
E	$\phi 1.181$ ($\phi 30$)	$\phi 0.511$ ($\phi 13$)

1G SERIES | CAST IRON GEAR PUMPS



DIMENSION DRAWING



ORDERING EXAMPLE

1 SERIES **G** TYPE **G** FLANGE **2** SHAFT **U** PORT DISPL. **R/L** ROTATION

If the displacement you need is 0.31 c.i.r and the rotation direction is right-hand rotation, the correct model number for PO is: **1GG2U05R**

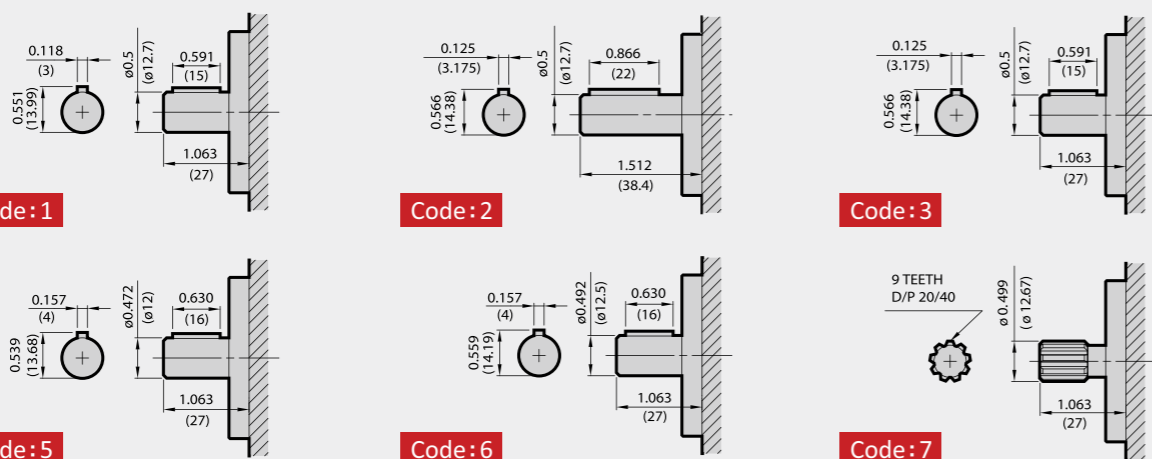
TECHNICAL DATA

MODEL	DISPLACEMENT		PRESSURE psi(MPa)		RPM	DIMENSIONS inch(mm)		WEIGHT	
	c.i.r	cm ³ /r	CONTINUOUS	MAX.		A	L	Kg	LBS
0S	0.05	0.8	3300(23)	3800(27)	600 4000	1.626(41.3)	3.213(81.6)	1.72	3.78
01	0.08	1.3	3300(23)	3800(27)		1.655(42.0)	3.271(83.1)	1.75	3.85
02	0.12	2.0	3300(23)	3800(27)		1.694(43.0)	3.350(85.1)	1.79	3.94
27	0.16	2.7	3300(23)	3800(27)		1.734(44.0)	3.428(87.1)	1.83	4.03
35	0.21	3.4	3300(23)	3800(27)		1.773(45.0)	3.507(89.1)	1.86	4.09
04	0.25	4.1	3300(23)	3800(27)		1.813(46.0)	3.586(91.1)	1.90	4.18
05	0.31	5.1	3300(23)	3800(27)	600 (*2500)	1.872(47.5)	3.704(94.1)	1.95	4.29
06	0.37	6.1	3300(23)	3800(27)		1.931(49.0)	3.822(97.1)	2.00	4.40
07	0.45	7.4	3100(22)	3500(25)		2.009(51.0)	3.980(101.1)	2.06	4.53
09	0.55	9.1	2850(20)	3100(22)		2.108(53.5)	4.176(106.1)	2.14	4.71
11	0.67	11.0	2550(18)	2850(20)		2.226(56.5)	4.412(112.1)	2.23	4.91
13	0.82	13.5	2550(18)	2850(20)		2.364(60.0)	4.688(119.1)	2.34	5.15

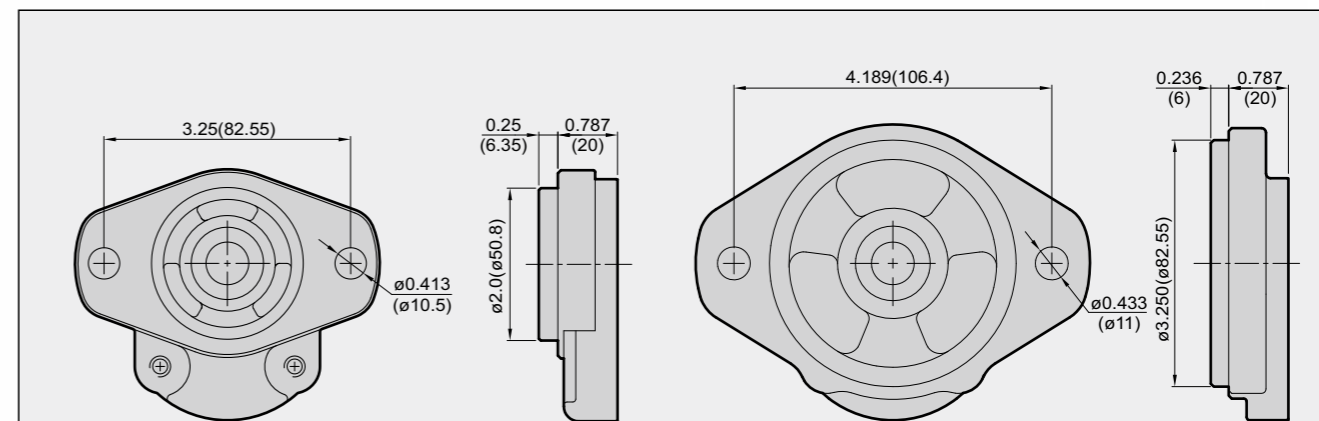
*For lower than 600RPM/higher than 2500RPM or any special conditions, please contact HONOR.

DRIVE SHAFTS

SUITABLE FOR G M A FLANGE



MOUNTING FLANGES



1G Series - Code: G
1M Series - Code: M

Code: A

*For Flange in DIN or EURO standard, please select 1A series

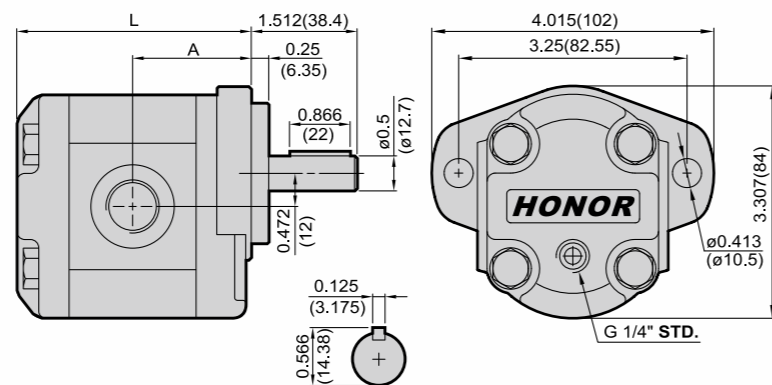
PORTS

UNF		PT \ NPT \ BSPF				REAR PORT	
Code	From "0S" to "06"	From "07" to "13"					
	INLET	OUTLET	INLET	OUTLET			
P	PT 1/2"	PT 3/8"	PT 3/4"	PT 1/2"			
N	NPT 1/2"	NPT 3/8"	NPT 3/4"	NPT 1/2"			
B	BSPF 1/2"	BSPF 3/8"	BSPF 3/4"	BSPF 1/2"			
FLANGE (SQUARE)		FLANGE (DIAMOND)					
Code	From "0S" to "13"						
	INLET & OUTLET						
F	A	B					
	ø1.181 (ø30)	ø0.511 (ø13)					
Code	From "0S" to "13"						
	INLET & OUTLET						
E	A	B					
	ø1.181 (ø30)	ø0.511 (ø13)					
Code	From "0S" to "13"						
	INLET	OUTLET					
Z	UNF# 10 7/8"-14	UNF# 8 3/4"-16					
Y	PT 3/4"	PT 1/2"					
W	BSPF 1/2"	BSPF 1/2"					

1M SERIES | BI-DIRECTIONAL PUMPS / MOTORS



DIMENSION DRAWING



ORDERING EXAMPLE

1 **M** **M** **2** **U**

SERIES TYPE FLANGE SHAFT PORT DISPL.

If the displacement you need is 0.31 c.i.r and the rotation direction is right-hand rotation, the correct model number for PO is: **1MM2U05**

※ Attention: when using a bidirectional gear motor, do not clog the rear flange port for oil draining.

TECHNICAL DATA

MODEL	DISPLACEMENT		PRESSURE psi(MPa)		RPM RANGE	DIMENSIONS inch(mm)		WEIGHT	
	c.i.r	cm ³ /r	CONTINUOUS	MAX.		A	L	Kg	LBS
0S	0.05	0.8	3300(23)	3800(27)	600	1.626(41.3)	3.213(81.6)	1.72	3.78
01	0.08	1.3	3300(23)	3800(27)		1.655(42.0)	3.271(83.1)	1.75	3.85
02	0.12	2.0	3300(23)	3800(27)		1.694(43.0)	3.350(85.1)	1.79	3.94
27	0.16	2.7	3300(23)	3800(27)		1.734(44.0)	3.428(87.1)	1.83	4.03
35	0.21	3.4	3300(23)	3800(27)		1.773(45.0)	3.507(89.1)	1.86	4.09
04	0.25	4.1	3300(23)	3800(27)		1.813(46.0)	3.586(91.1)	1.90	4.18
05	0.31	5.1	3300(23)	3800(27)	4000	1.872(47.5)	3.704(94.1)	1.95	4.29
06	0.37	6.1	3300(23)	3800(27)		1.931(49.0)	3.822(97.1)	2.00	4.40
07	0.45	7.4	3100(22)	3500(25)		2.009(51.0)	3.980(101.1)	2.06	4.53
09	0.55	9.1	2850(20)	3100(22)		2.108(53.5)	4.176(106.1)	2.14	4.71
11	0.67	11.0	2550(18)	2850(20)		2.226(56.5)	4.412(112.1)	2.23	4.91
13	0.82	13.5	2550(18)	2850(20)		2.364(60.0)	4.688(119.1)	2.34	5.15

※ For lower than 600RPM/higher than 2500RPM or any special conditions, please contact HONOR.

PORTS

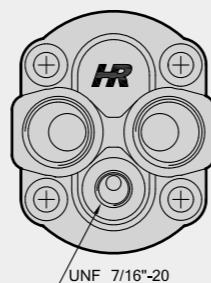
FLANGE (SQUARE)			FLANGE (DIAMOND)		
Code	From "0S" to "13"		Code	From "0S" to "13"	
	INLET & OUTLET			INLET & OUTLET	
F	A	B	E	A	B
	$\phi 1.181$ ($\phi 30$)	$\phi 0.511$ ($\phi 13$)		$\phi 1.181$ ($\phi 30$)	$\phi 0.511$ ($\phi 13$)

※ For the spec of flange and shaft, please refer to 1A & 1G series.

PORTS

Code	From "0S" to "06"	From "07" to "13"
	INLET & OUTLET	INLET & OUTLET
U	UNF# 8 3/4"-16	UNF# 10 7/8"-14
P	PT 1/2"	PT 3/4"
N	NPT 1/2"	NPT 3/4"
B	BSPF 1/2"	BSPF 3/4"

REAR PORT



Code	From "0S" to "13"
	INLET & OUTLET
Z	UNF# 10 7/8"-14
Y	PT 3/4"
W	BSPF 1/2"

1V SERIES | GEAR PUMPS WITH RELIEF VALVE



ORDERING EXAMPLE

1 **V** **G** **2** **U** **R/L**

SERIES TYPE FLANGE SHAFT PORT DISPL. ROTATION OIL DRAINING

If the displacement volume you need is 0.31 c.i.r and the rotation direction is right-hand rotation, with external drainage, then the correct model number for PO is: **1VG2U05R - E**

E : External Drainage
I : Internal Drainage

TECHNICAL DATA

MODEL	DISPLACEMENT		PRESSURE psi(MPa)		RPM RANGE	DIMENSIONS inch(mm)		WEIGHT	
	c.i.r	cm ³ /r	CONTINUOUS	MAX.		A	L	Kg	LBS
0S	0.05	0.8	3000(21)	3600(25)	600	1.626(41.3)	4.157(105.6)	2.05	4.51
01	0.08	1.3	3000(21)	3600(25)		1.655(42.0)	4.216(107.1)	2.06	4.53
02	0.12	2.0	3000(21)	3600(25)		1.694(43.0)	4.294(109.1)	2.10	4.62
27	0.16	2.7	3000(21)	3600(25)		1.734(44.0)	4.373(111.1)	2.14	4.71
35	0.21	3.4	3000(21)	3600(25)		1.773(45.0)	4.452(113.1)	2.17	4.77
04	0.25	4.1	3000(21)	3600(25)		1.813(46.0)	4.531(115.1)	2.21	4.86
05	0.31	5.1	3000(21)	3600(25)	4000	1.872(47.5)	4.649(118.1)	2.26	4.97
06	0.37	6.1	3000(21)	3600(25)		1.931(49.0)	4.767(121.1)	2.31	5.08
07	0.45	7.4	2850(20)	3300(23)		2.009(51.0)	4.924(125.1)	2.37	5.21
09	0.55	9.1	2550(18)	2850(20)		2.108(53.5)	5.121(130.1)	2.45	5.39
11	0.67	11.0	2300(16)	2550(18)		2.226(56.5)	5.358(136.1)	2.54	5.59
13	0.82	13.5	2300(16)	2550(18)		2.364(60.0)	5.634(143.1)	2.65	5.83

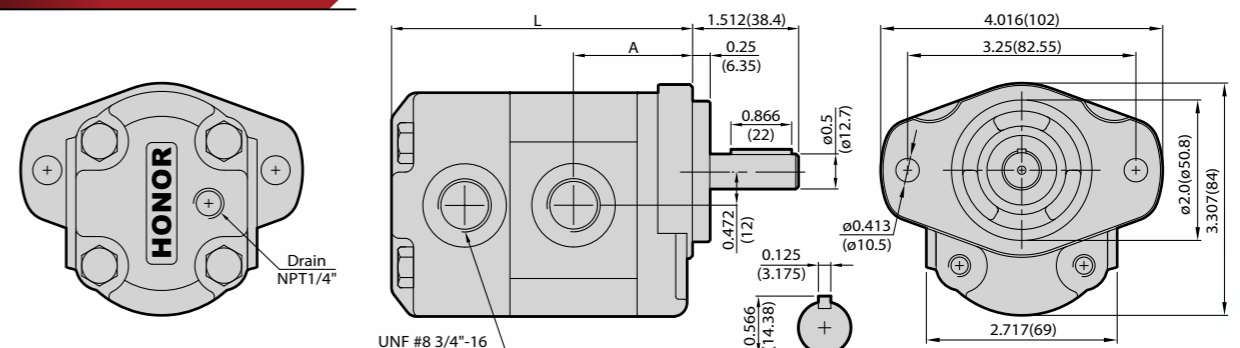
※ For lower than 600RPM/higher than 2500RPM or any special conditions, please contact HONOR.

PORTS

Code	From "0S" to "06"		From "07" to "13"	
	INLET	OUTLET	INLET	OUTLET
U	UNF#8 3/4"-16	UNF#6 9/16"-18	UNF#10 7/8"-14	UNF#8 3/4"-16
P	PT 1/2"	PT 3/8"	PT 3/4"	PT 1/2"
N	NPT 1/2"	NPT 3/8"	NPT 3/4"	NPT 1/2"
B	BSPF 1/2"	BSPF 3/8"	BSPF 3/4"	BSPF 1/2"

※ For flange port, please refer to 1A series.

DIMENSION DRAWING

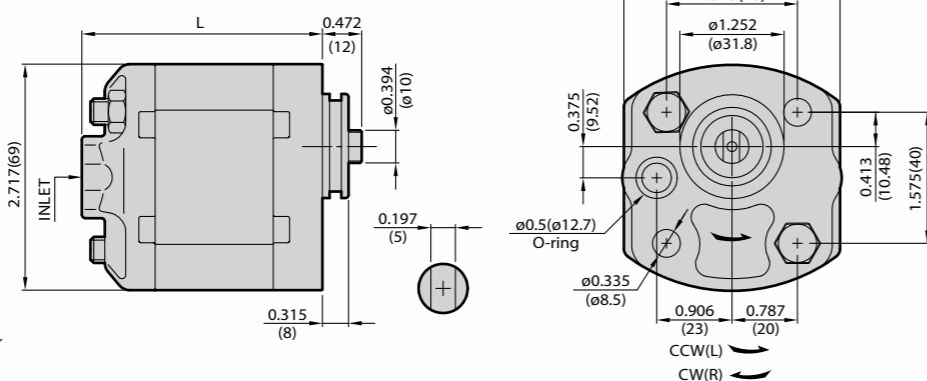


※ For the spe of flange and shaft extension, please refer to 1A series.

1K SERIES | GEAR PUMPS



DIMENSION DRAWING



ORDERING EXAMPLE

1 SERIES **K** TYPE **H** FLANGE **1** SHAFT **N** PORT **□□** DISPL. **R/L** ROTATION

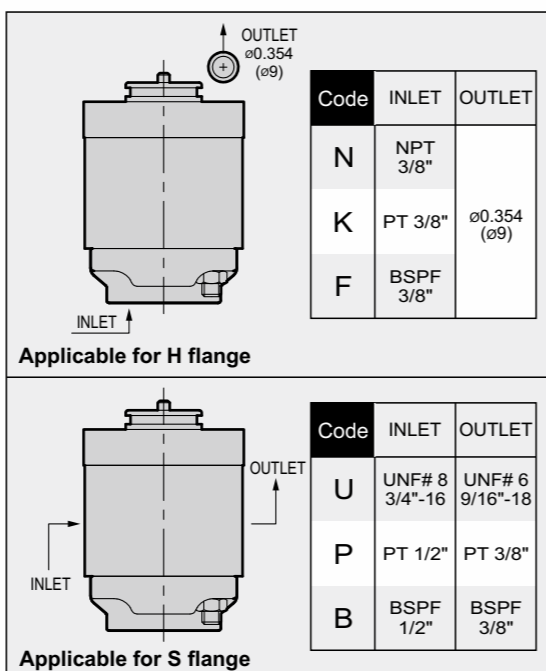
If the displacement you need is 0.19 c.i.r and the rotation is right-hand rotation, the correct model number for PO is: **1KH1N03R**

TECHNICAL DATA

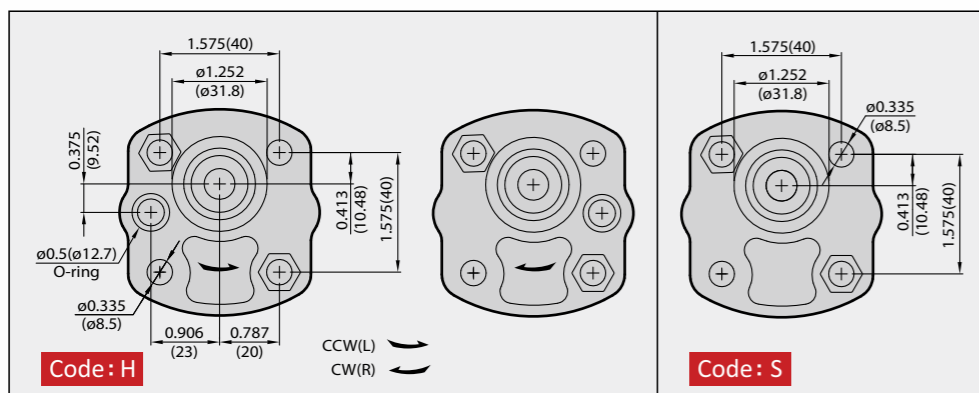
MODEL	DISPLACEMENT		PRESSURE psi(MPa)		RPM	DIMENSIONS inch(mm)		WEIGHT	
	c.i.r	cm ³ /r	CONTINUOUS	MAX.		RANGE	L	Kg	LBS
0S	0.05	0.8	3000(21)	3600(25)	600 4000	2.854(72.5)	0.68	1.49	
01	0.06	1.1	3000(21)	3600(25)		2.893(73.5)	0.69	1.52	
13	0.08	1.3	3000(21)	3600(25)		2.932(74.5)	0.70	1.53	
16	0.10	1.6	3000(21)	3600(25)		2.972(75.5)	0.71	1.55	
02	0.13	2.1	3000(21)	3600(25)		3.050(77.5)	0.74	1.62	
26	0.16	2.6	3000(21)	3600(25)		3.129(79.5)	0.76	1.66	
03	0.19	3.2	3000(21)	3600(25)	3.208(81.5)	0.79	1.73		
37	0.22	3.7	3000(21)	3600(25)	600 (*1)2500	3.287(83.5)	0.81	1.77	
04	0.25	4.2	2550(18)	3000(21)		3.365(85.5)	0.83	1.82	
05	0.29	4.8	2550(18)	3000(21)		3.444(87.5)	0.87	1.90	
06	0.35	5.8	1980(14)	2300(16)		3.602(91.5)	0.92	2.01	
07	0.48	7.9	1980(14)	2300(16)		3.916(99.5)	1.00	2.19	
09	0.54	8.8	1980(14)	2300(16)		4.074(103.5)	1.05	2.30	

* For lower than 600RPM/higher than 2500RPM or any special conditions, please contact HONOR.

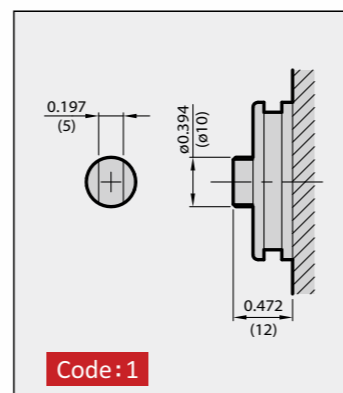
PORTS



MOUNTING FLANGES



DRIVE SHAFTS



1D/1T SERIES | MULTIPLE PUMPS



ORDERING EXAMPLE

1 SERIES **□** TYPE **□** MATERIAL **G** FLANGE **2** SHAFT **B** INLET/OUTLET PORT **U** DISPL. **□□□** ROTATION

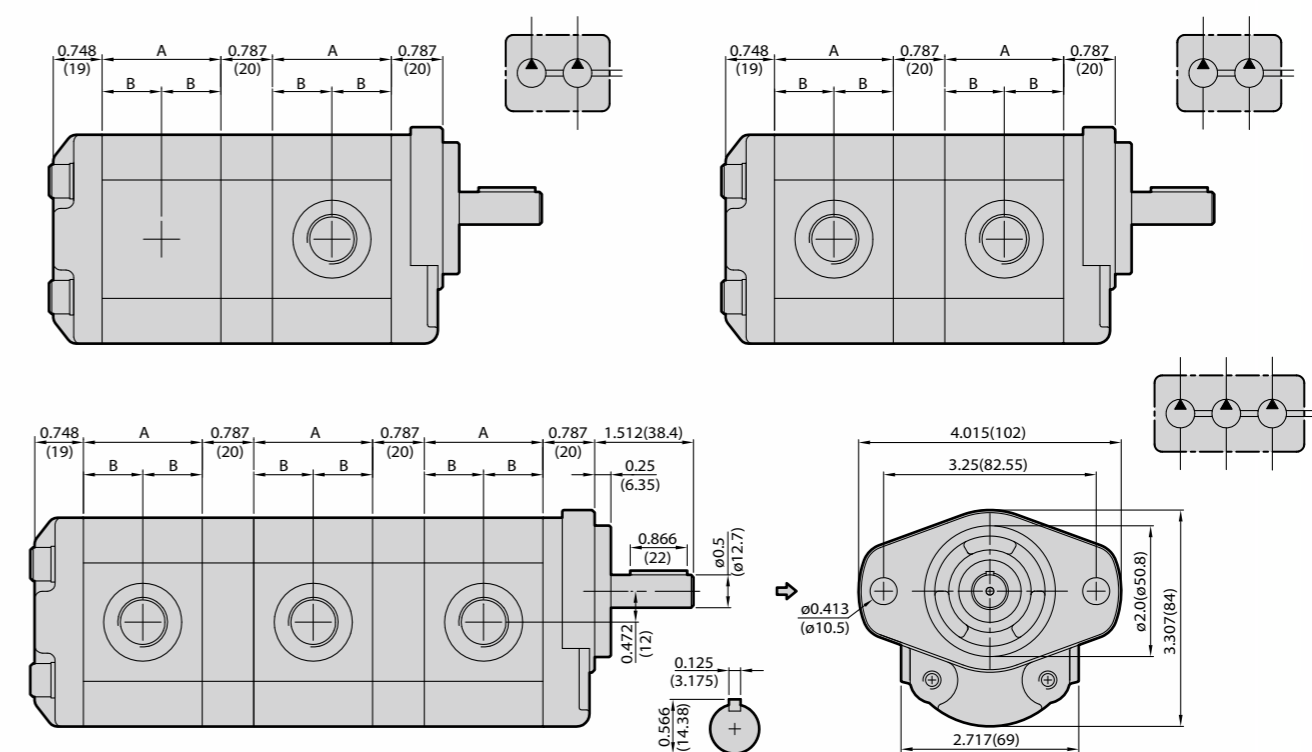
D : Double Pumps
T : Multiple Pumps

C : Cast Iron
A : Aluminum Metals

A : Common Inlet (Double Pump only)
B : Separate Inlet

If you need double pumps with front and rear covers made by aluminum alloy, and the displacement of front and rear pumps are 0.37 and 0.25 c.i.r respectively, the rotation is right-hand turning, then the correct model number for PO is: **1DAG2BU0604R**

DIMENSION DRAWING

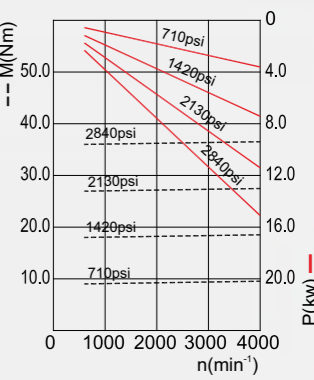
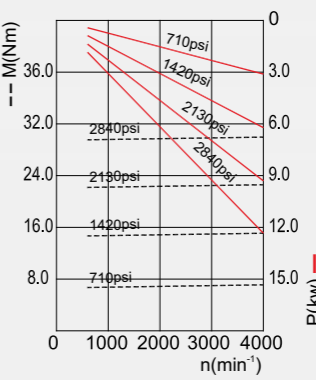
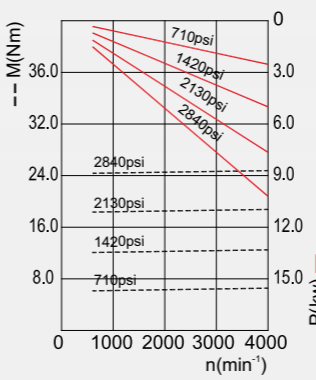
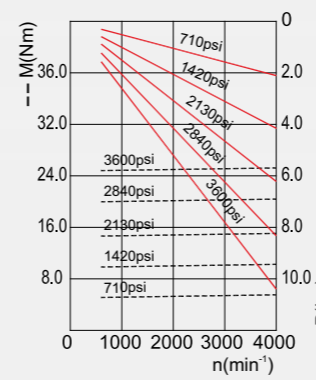
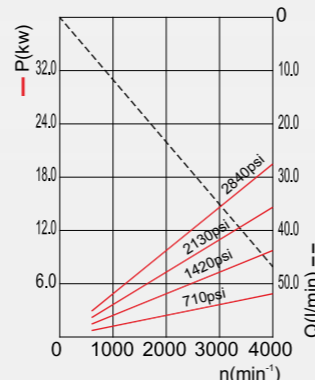
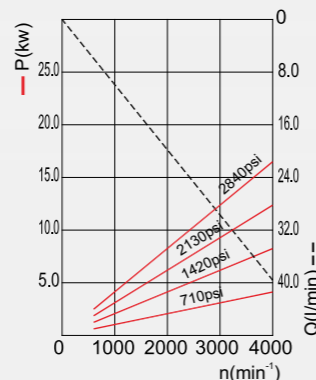
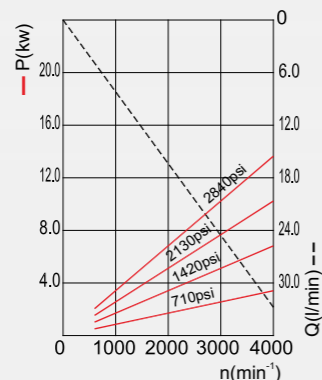
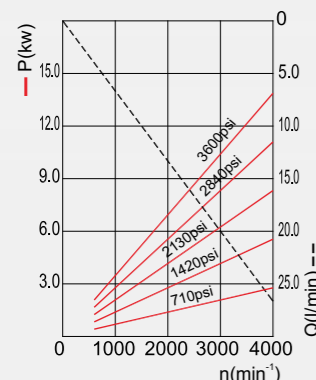
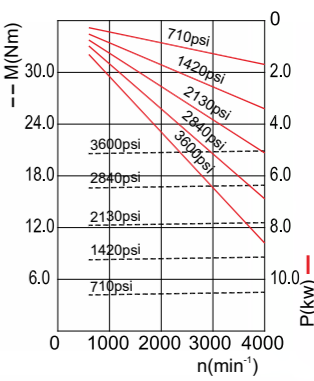
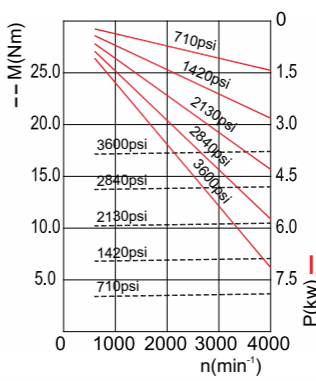
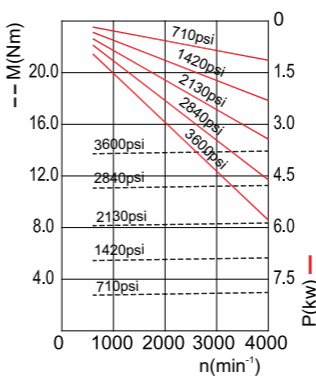
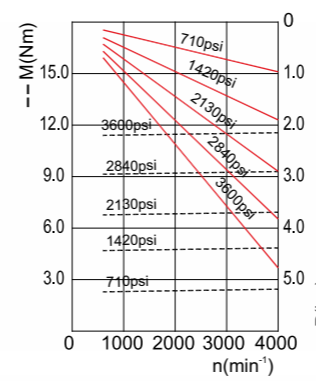
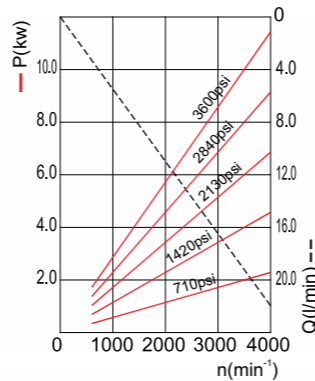
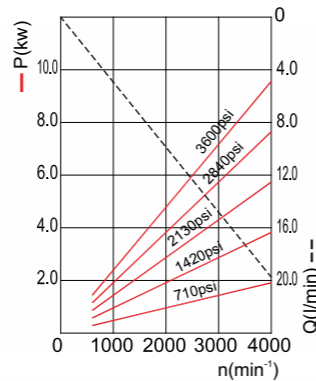
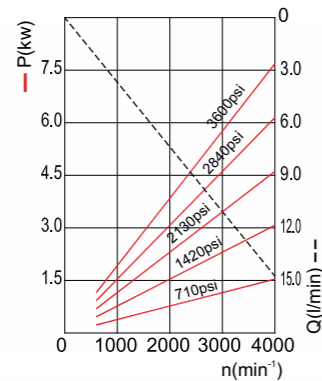
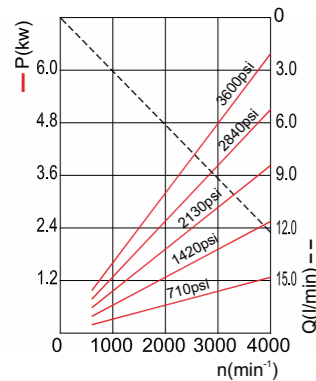
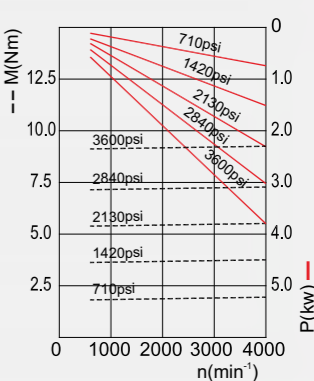
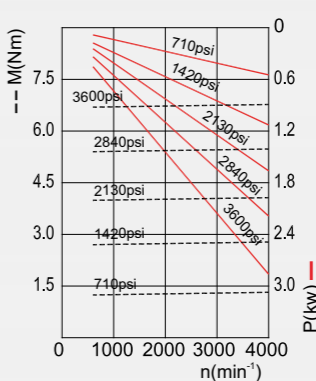
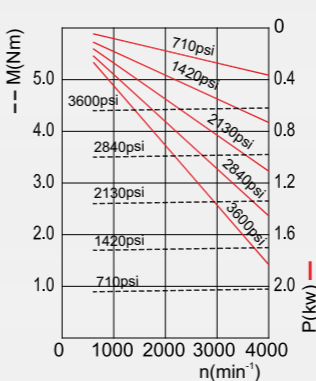
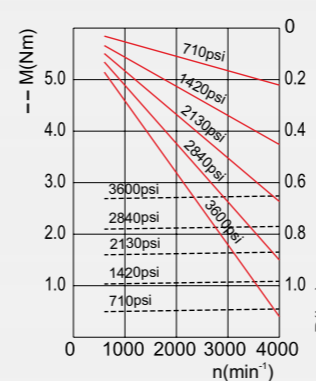
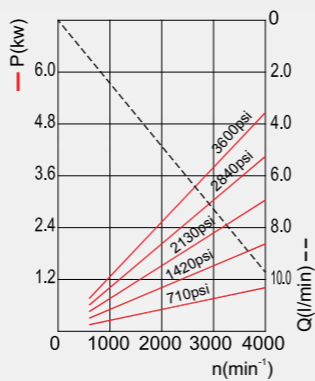
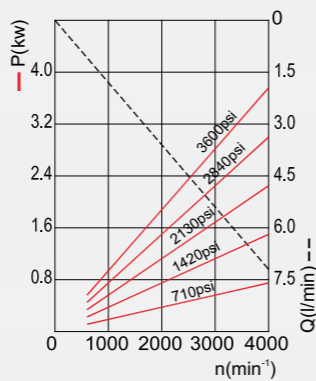
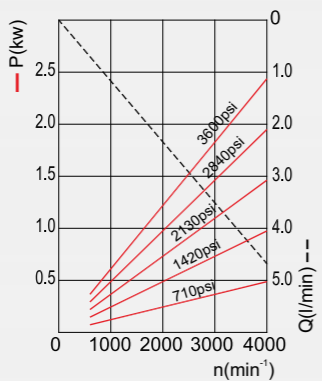
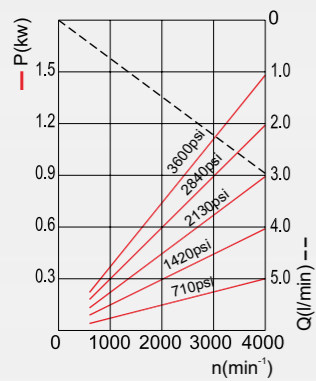
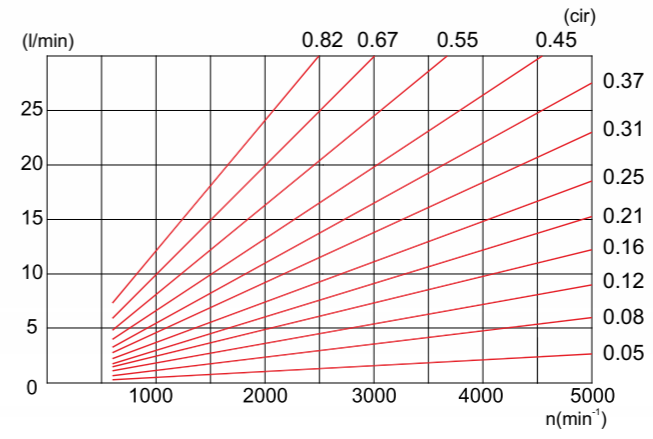
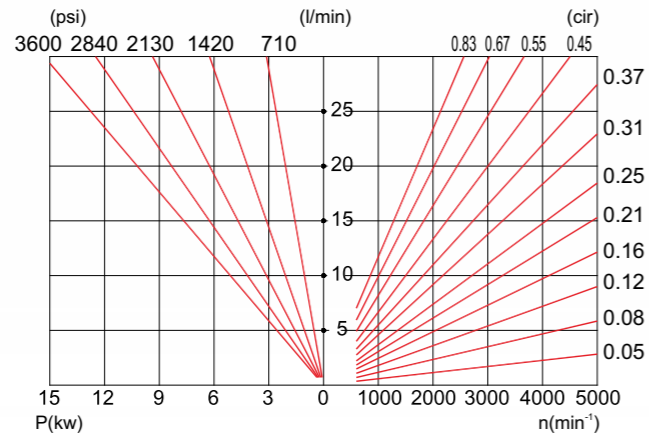


MODEL	0S	01	02	27	35	04	05	06	07	09	11	13
c.i.r	0.05	0.08	0.12	0.16	0.21	0.25	0.31	0.37	0.45	0.55	0.67	0.82
cm ³ /r	0.8	1.3	2.0	2.7	3.4	4.1	5.1	6.1	7.4	9.1	11.0	13.5
A	1.673(42.5)	1.732(44)	1.811(46)	1.890(48)	1.969(50)	2.047(52)	2.165(55)	2.283(58)	2.441(62)	2.638(67)	2.874(73)	3.148(80)
B	0.838(21.3)	0.866(22)	0.906(23)	0.945(24)	0.984(25)	1.024(26)	1.083(27.5)	1.142(29)	1.220(31)	1.319(33.5)	1.437(36.5)	1.574(40)

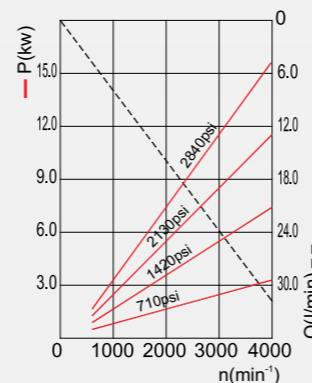
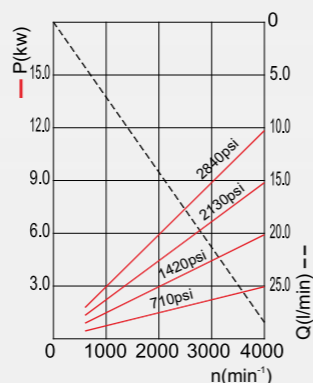
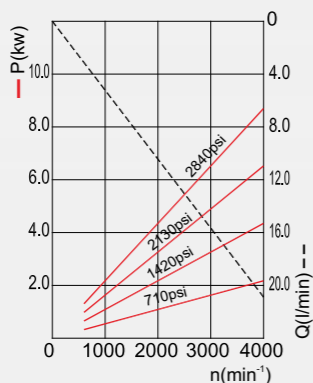
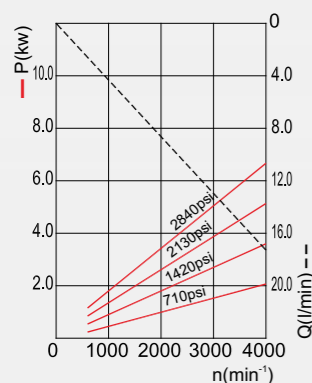
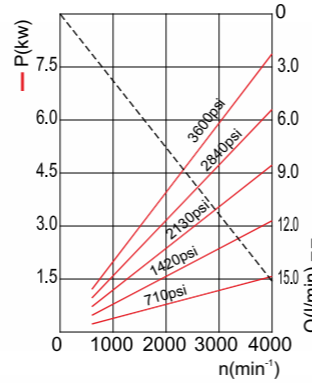
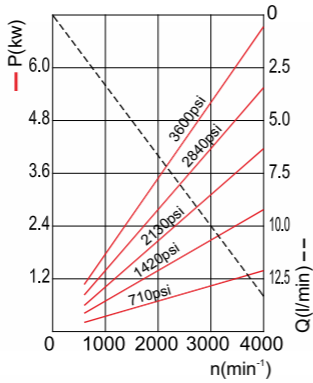
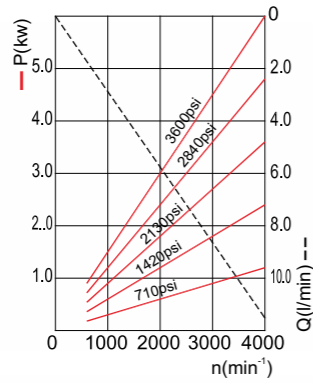
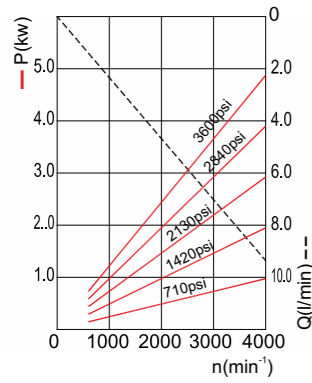
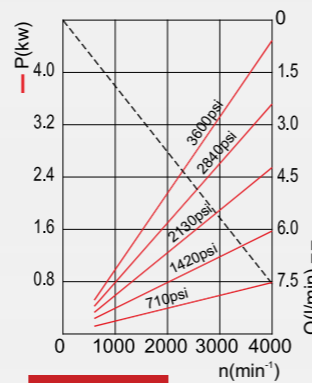
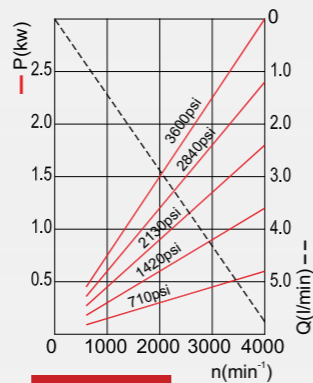
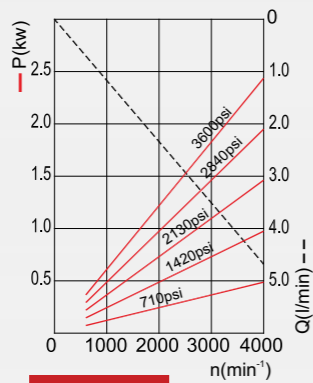
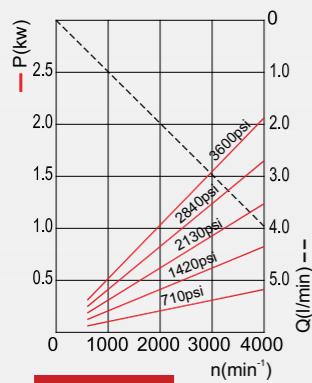
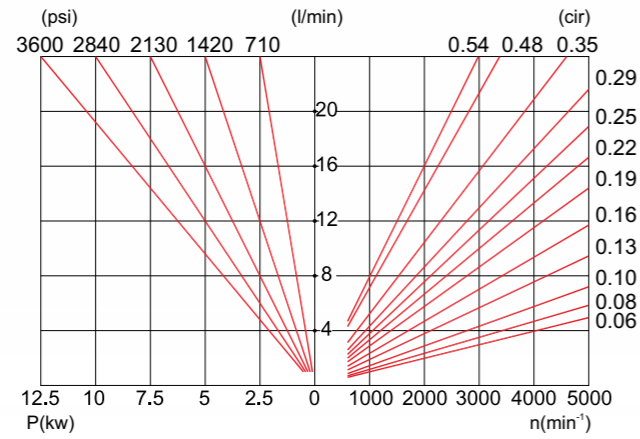
* If other types of flanges, shafts, ports are required, please refer to 1A&1G series.
* For displacement over the range or any other special conditions, please contact HONOR.

1A/1G/1D/1T/1V SERIES | PERFORMANCE CURVE

1M SERIES | PERFORMANCE CURVE



1K SERIES | PERFORMANCE CURVE



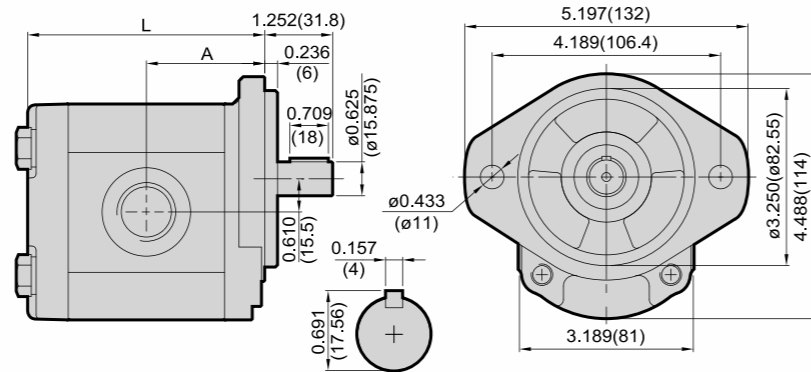
2G SERIES | GEAR PUMPS

GROUP 2

GROUP 2



DIMENSION DRAWING



ORDERING EXAMPLE

2 SERIES **G** TYPE **G** FLANGE **1** SHAFT **U** PORT **□□** DISPL. **R/L** ROTATION

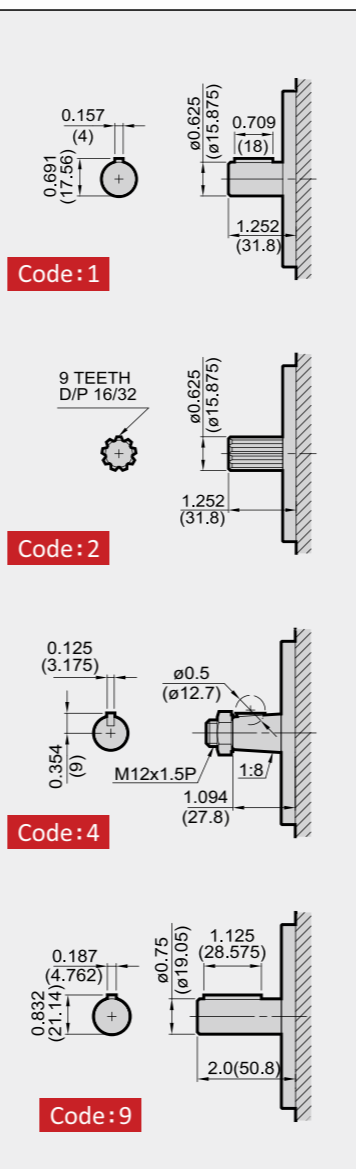
If the displacement you need is 0.98 c.i.r and the rotation is right-hand turning, the correct model number For PO is: **2GG1U16R**

TECHNICAL DATA

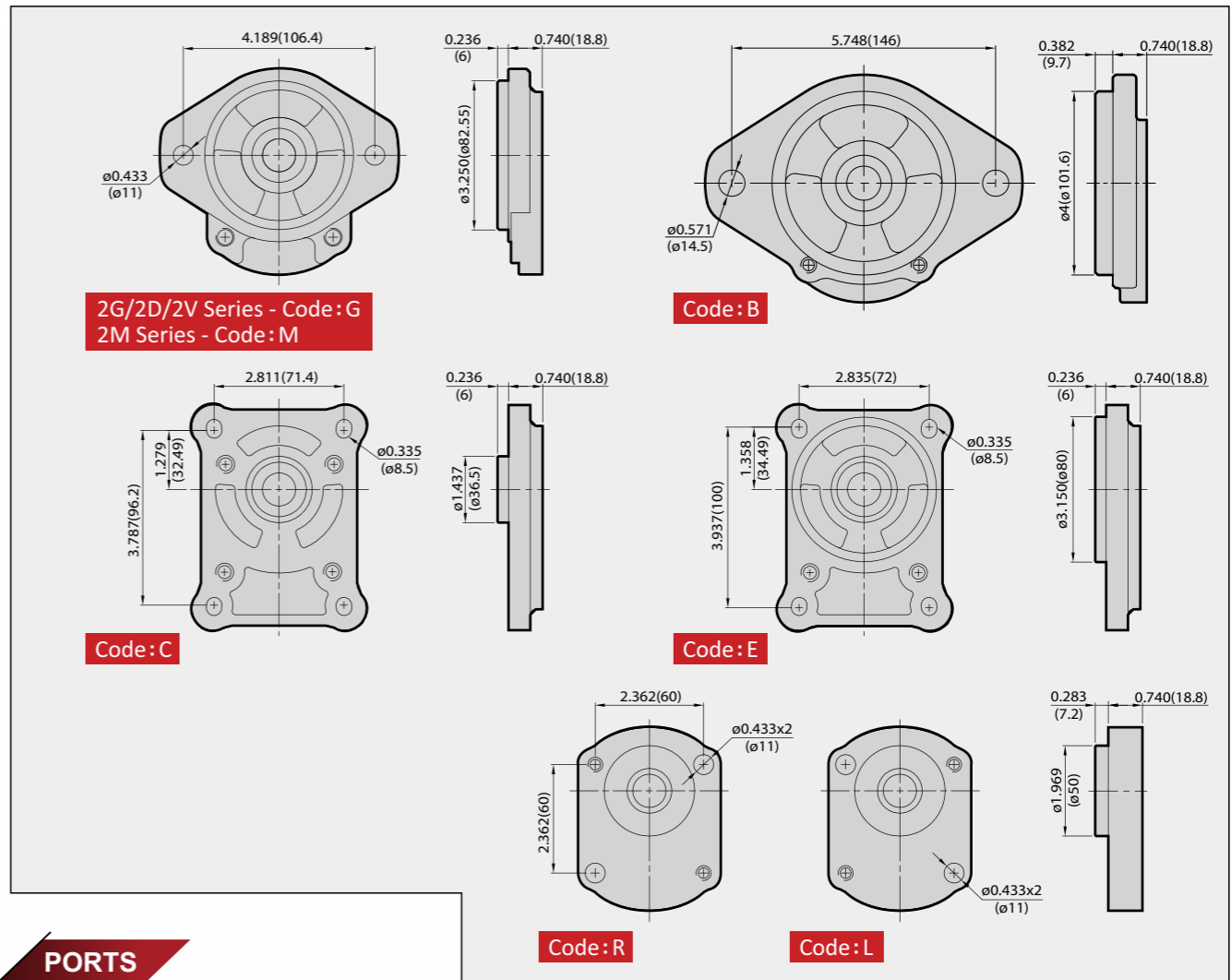
MODEL	DISPLACEMENT		PRESSURE psi(MPa)		RPM RANGE	DIMENSIONS inch(mm)		WEIGHT	
	c.i.r	cm ³ /r	CONTINUOUS	MAX.		A	L	Kg	LBS
04	0.24	4.0	3500(25)	4200(30)	600	1.658(42.1)	3.323(84.4)	3.23	7.11
05	0.30	5.0	3500(25)	4200(30)		1.687(42.9)	3.382(85.9)	3.27	7.19
06	0.38	6.2	3500(25)	4200(30)		1.717(43.6)	3.441(87.4)	3.32	7.30
07	0.43	7.0	3500(25)	4200(30)		1.746(44.4)	3.500(88.9)	3.36	7.39
08	0.52	8.4	3500(25)	4200(30)		1.796(45.6)	3.598(91.4)	3.41	7.50
09	0.58	9.5	3500(25)	4200(30)		1.825(46.4)	3.657(92.9)	3.45	7.59
11	0.69	11.3	3500(25)	4200(30)		1.884(47.9)	3.776(95.9)	3.53	7.77
14	0.85	14.0	3500(25)	4200(30)		1.963(49.9)	3.933(99.9)	3.64	8.01
16	0.98	16.0	3500(25)	4200(30)		2.002(51.4)	4.051(102.9)	3.74	8.23
18	1.10	18.0	3500(25)	4200(30)		2.081(52.9)	4.169(105.9)	3.80	8.36
20	1.20	19.5	3300(23)	3800(27)	2.160(54.9)	4.327(109.9)	3.89	8.56	
22	1.31	21.5	3000(21)	3500(25)	2.180(55.4)	4.366(110.9)	3.96	8.71	
24	1.44	23.5	2550(18)	3100(22)	600 (*2500)	2.258(57.4)	4.524(114.9)	4.01	8.82
26	1.53	25.0	2550(18)	3100(22)		2.317(58.9)	4.642(117.9)	4.10	9.02
28	1.71	28.0	2300(16)	2700(19)		2.396(60.9)	4.799(121.9)	4.19	9.22
30	1.84	30.0	2100(15)	2550(18)		2.475(62.9)	4.957(125.9)	4.30	9.46
33	2.02	33.0	2000(14)	2300(16)		2.554(64.9)	5.114(129.9)	4.41	9.70

* For lower than 600RPM/higher than 2500RPM or any special conditions, please contact HONOR.

DRIVE SHAFTS



MOUNTING FLANGES



PORTS

UNF \ PT \ NPT \ BSPF				FLANGE (RECTANGLE)						
Code	From "04" to "22"	From "24" to "33"		Code	From	A	B	C	D	
	INLET	OUTLET	INLET	OUTLET						
U	UNF# 12 1-1/16"-12	UNF# 10 7/8"-14	UNF# 16 1-5/16"-12	UNF# 12 1-1/16"-12	"04" to "09"	INLET & OUTLET	1.500 (38.1)	0.688 (17.5)	0.512 (13)	M8x1.25P
P	PT 3/4"	PT 1/2"	PT 1"	PT 3/4"	"18" to "24"	INLET	1.874 (47.6)	0.874 (22.2)	0.748 (19)	M10x1.5P
N	NPT 3/4"	NPT 1/2"	NPT 1"	NPT 3/4"	"26" to "33"	INLET	2.063 (52.4)	1.031 (26.2)	0.984 (25)	M10x1.5P
B	BSPF 3/4"	BSPF 1/2"	BSPF 1"	BSPF 3/4"		OUTLET	1.874 (47.6)	0.874 (22.2)	0.748 (19)	M10x1.5P

Diagram showing flange dimensions A, B, C, D.

* Not applicable model : 11 - 14 - 16

FLANGE (SQUARE)				FLANGE (DIAMOND)			REAR PORT	
Code	From "04" to "33"		Code	From "04" to "09"		From "04" to "33"		
	INLET	OUTLET		INLET & OUTLET			INLET	OUTLET
F	A	B	A	A	B	C	Z	UNF# 16 1-5/16"-12
	0.1575 (40)	0.0787 (20)	0.1380 (35)	0.181 (46)	0.0512 (13)	M6 x 1.0P	Y	PT 1"
							W	BSPF 1"
								BSPF 3/4"

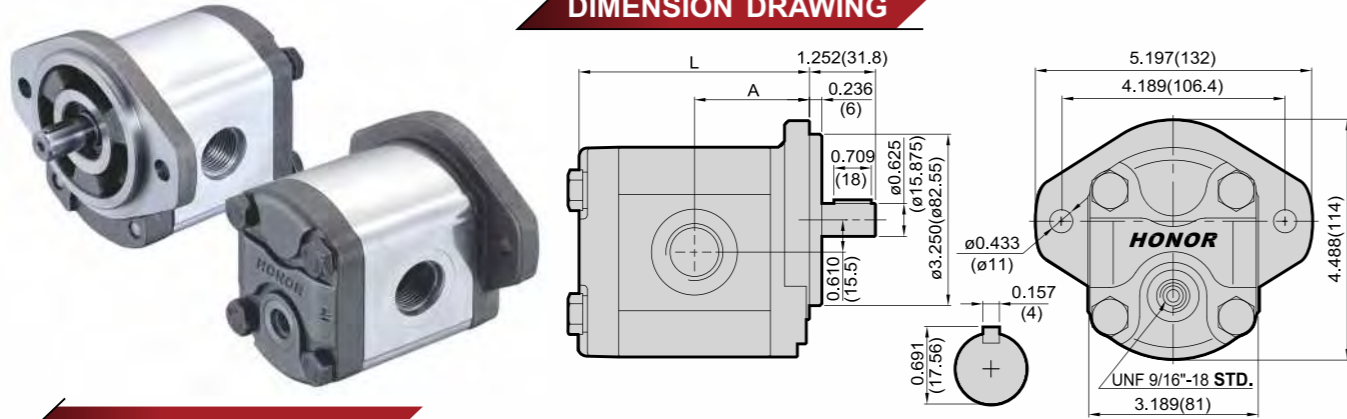
2G SERIES | GEAR PUMPS

2G SERIES | GEAR PUMPS

2M SERIES | BI-DIRECTIONAL PUMPS / MOTORS

2V SERIES | GEAR PUMPS WITH RELIEF VALVE CAVITY

DIMENSION DRAWING



ORDERING EXAMPLE

2 M M 1 U □ □ □
SERIES TYPE FLANGE SHAFT PORT DISPL. OIL DRAINING

If the displacement you need is 0.98 c.i.r and the rotation is right-hand turning with external drainage, the correct model number for PO is: **2MMIU16 - E**

※ Attention: When choosing external oil drainage, please do not clog the rear oil drainage port

E : External Drainage
 I : Internal Drainage
 V : With one-way valve (External drainage)

TECHNICAL DATA

MODEL	DISPLACEMENT		PRESSURE psi(MPa)		RPM RANGE	DIMENSIONS inch(mm)		WEIGHT	
	c.i.r	cm ³ /r	CONTINUOUS	MAX.		A	L	Kg	LBS
04	0.24	4.0	3500(25)	4200(30)	600	1.658(42.1)	3.323(84.4)	3.23	7.11
05	0.30	5.0	3500(25)	4200(30)		1.687(42.9)	3.382(85.9)	3.27	7.19
06	0.38	6.2	3500(25)	4200(30)		1.717(43.6)	3.441(87.4)	3.32	7.30
07	0.43	7.0	3500(25)	4200(30)		1.746(44.4)	3.500(88.9)	3.36	7.39
08	0.52	8.4	3500(25)	4200(30)		1.796(45.6)	3.598(91.4)	3.41	7.50
09	0.58	9.5	3500(25)	4200(30)		1.825(46.4)	3.657(92.9)	3.45	7.59
11	0.69	11.3	3500(25)	4200(30)		1.884(47.9)	3.776(95.9)	3.53	7.77
14	0.85	14.0	3500(25)	4200(30)		1.963(49.9)	3.933(99.9)	3.64	8.01
16	0.98	16.0	3500(25)	4200(30)		2.002(51.4)	4.051(102.9)	3.74	8.23
18	1.10	18.0	3500(25)	4200(30)		2.081(52.9)	4.169(105.9)	3.80	8.36
20	1.20	19.5	3300(23)	3800(27)	2.160(54.9)	4.327(109.9)	3.89	8.56	
22	1.31	21.5	3000(21)	3500(25)	2.180(55.4)	4.366(110.9)	3.96	8.71	
24	1.44	23.5	2550(18)	3100(22)	2.258(57.4)	4.524(114.9)	4.01	8.82	
26	1.53	25.0	2550(18)	3100(22)	2.317(58.9)	4.642(117.9)	4.10	9.02	
28	1.71	28.0	2300(16)	2700(19)	2.396(60.9)	4.799(121.9)	4.19	9.22	
30	1.84	30.0	2100(15)	2550(18)	2.475(62.9)	4.957(125.9)	4.30	9.46	
33	2.02	33.0	2000(14)	2300(16)	2.554(64.9)	5.114(129.9)	4.41	9.70	

※ For revolving speed lower than 600RPM/higher than 2500RPM or any special conditions, please contact Honor.

PORTS

Code	UNF \ PT \ NPT \ BSPF		Code	REAR PORT	
	From "04" to "22"	From "24" to "33"		From "04" to "33"	INLET & OUTLET
U	UNF#12 1-1/16"-12	UNF#16 1-5/16"-12	Z	UNF#16 1-5/16"-12	
P	PT 3/4"	PT 1"	Y	PT 1"	
N	NPT 3/4"	NPT 1"	W	BSPF 1"	
B	BSPF 3/4"	BSPF 1"			

※ For flange and shaft spec, please refer to 2G series.

PORTS

FLANGE (SQUARE)

Code	From "04" to "33"
F	INLET & OUTLET
	A B
	∅1.575 (∅40) ∅0.787 (∅20)

FLANGE (DIAMOND)

Code	From "04" to "09"	From "11" to "33"
E	INLET & OUTLET	
	A B C	A B C
	∅1.181 (∅30) ∅0.512 (∅13) M6 X 1.0P	∅1.575 (∅40) ∅0.748 (∅19) M8 X 1.25P

ORDERING EXAMPLE

2 V G 1 U □ □ **R/L** □
SERIES TYPE FLANGE SHAFT PORT DISPL. ROTATION OIL DRAINING

If the displacement you need is 0.98 c.i.r and the rotation is right-hand turning with external drainage, the correct model number for PO is: **2VGIU16R - E**

E : External Drainage
 I : Internal Drainage

TECHNICAL DATA

MODEL	DISPLACEMENT		PRESSURE psi(MPa)		RPM RANGE	DIMENSIONS inch(mm)		WEIGHT	
	c.i.r	cm ³ /r	CONTINUOUS	MAX.		A	L	Kg	LBS
04	0.24	4.0	3500(25)	4200(30)	600	1.658(42.1)	4.661(118.4)	3.33	7.33
05	0.30	5.0	3500(25)	4200(30)		1.687(42.9)	4.720(119.9)	3.37	7.41
06	0.38	6.2	3500(25)	4200(30)		1.717(43.6)	4.780(121.4)	3.42	7.52
07	0.43	7.0	3500(25)	4200(30)		1.746(44.4)	4.839(122.9)	3.46	7.61
08	0.52	8.4	3500(25)	4200(30)		1.796(45.6)	4.937(125.4)	3.51	7.72
09	0.58	9.5	3500(25)	4200(30)		1.825(46.4)	4.996(126.9)	3.55	7.81
11	0.69	11.3	3500(25)	4200(30)		1.884(47.9)	5.114(129.9)	3.63	7.99
14	0.85	14.0	3500(25)	4200(30)		1.963(49.9)	5.272(133.9)	3.74	8.23
16	0.98	16.0	3500(25)	4200(30)		2.002(51.4)	5.390(136.9)	3.84	8.45
18	1.10	18.0	3500(25)	4200(30)		2.081(52.9)	5.508(139.9)	3.90	8.58
20	1.20	19.5	3300(23)	3800(27)	2.160(54.9)	5.665(143.9)	3.99	8.78	
22	1.31	21.5	3000(21)	3500(25)	2.180(55.4)	5.705(144.9)	4.06	8.93	
24	1.44	23.5	2550(18)	3100(22)	2.258(57.4)	5.902(149.9)	4.11	9.04	
26	1.53	25.0	2550(18)	3100(22)	2.317(58.9)	5.980(151.9)	4.21	9.26	
28	1.71	28.0	2300(16)	2700(19)	2.396(60.9)	6.138(155.9)	4.29	9.44	
30	1.84	30.0	2100(15)	2550(18)	2.475(62.9)	6.295(159.9)	4.40	9.68	
33	2.02	33.0	2000(14)	2300(16)	2.554(64.9)	6.453(163.9)	4.51	9.92	

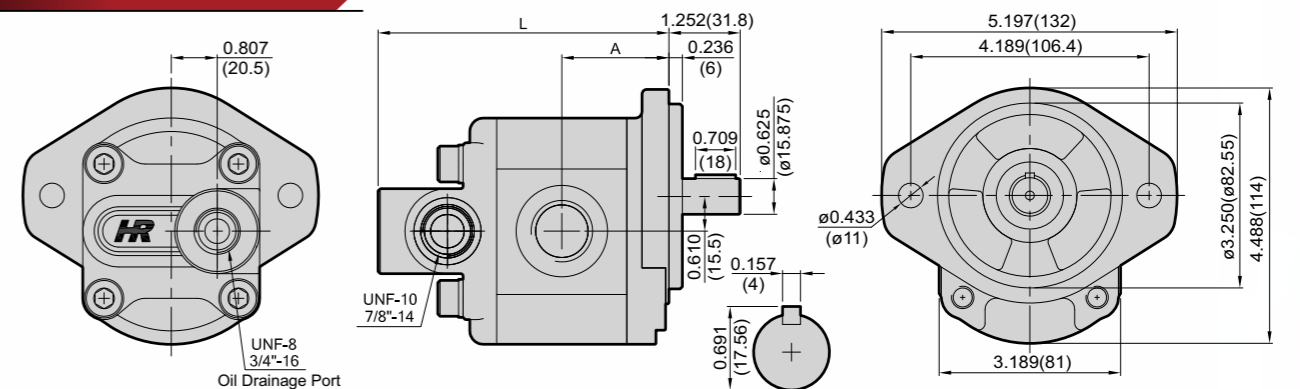
※ for lower than 600RPM/higher than 2500RPM or any special conditions, please contact HONOR.

PORTS

Code	From "04" to "22"		From "24" to "33"	
	INLET	OUTLET	INLET	OUTLET
U	UNF#12 1-1/16"-12	UNF#10 7/8"-14	UNF#16 1-5/16"-12	UNF#12 1-1/16"-12
P	PT 3/4"	PT 1/2"	PT 1"	PT 3/4"
N	NPT 3/4"	NPT 1/2"	NPT 1"	NPT 3/4"
B	BSPF 3/4"	BSPF 1/2"	BSPF 1"	BSPF 3/4"

※ For flange port, please refer to 2G series

DIMENSION DRAWING



※ For flange and shaft spec, please refer to 2G series.

2D/2T SERIES | MULTIPLE PUMPS



ORDERING EXAMPLE

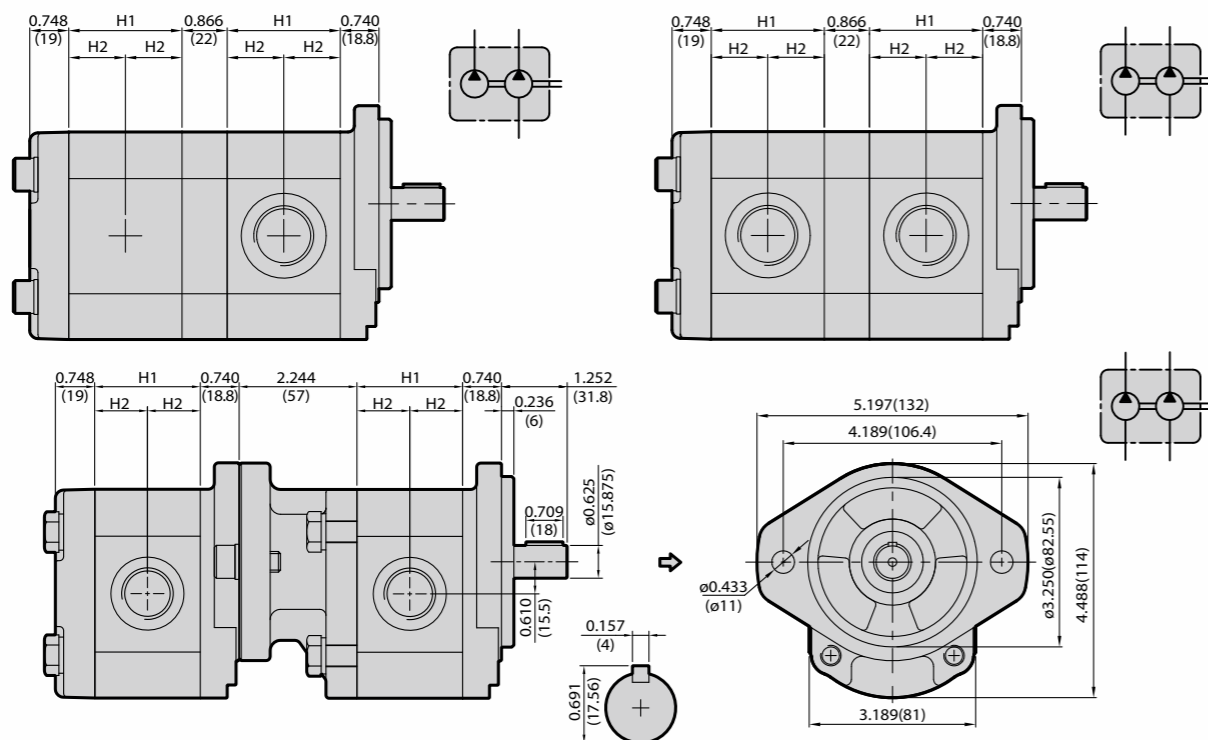
2 **□** **G** **1** **B** **U** **□□□** **R/L**
 SERIES TYPE FLANGE SHAFT INLET/OUTLET CODE PORT DISPL. ROTATION

D : Double Pumps
 T : Multiple Pumps

A : Double pump, one-in two-out
 B : Multiple pump, with independent oil inlet/outlet ports at front, middle and rear
 S : The front and rear pumps can be connected in series and are independent circuits

If you need double pump, and the displacement volumes of front and rear flanges are 0.98 and 0.58 c.i.r respectively, the rotation is right-hand turning, then the correct model number for PO is: **2DG1BU1609R**

DIMENSION DRAWING

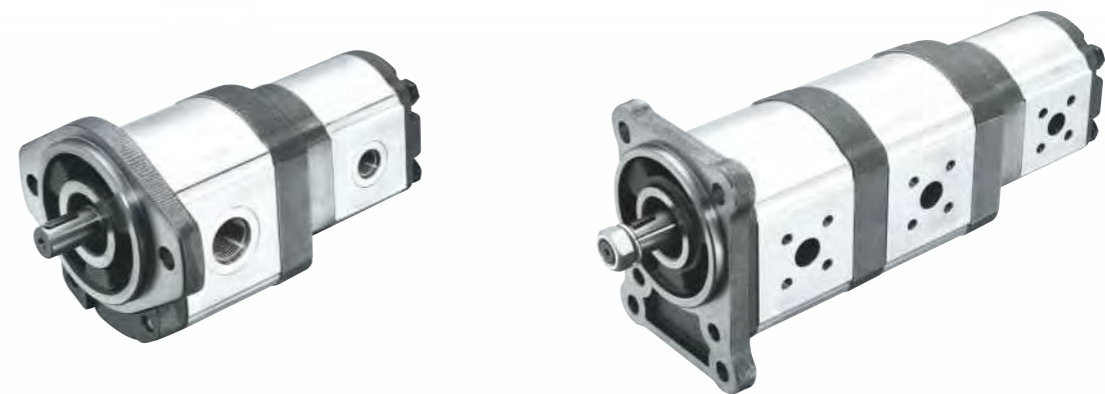


GROUP 2

MODEL	04	05	06	07	08	09	11	14	16	18	20	22	24	26	28	30	33
c.i.r	0.24	0.30	0.38	0.43	0.52	0.58	0.69	0.85	0.98	1.10	1.20	1.31	1.44	1.53	1.71	1.84	2.02
cm ³ /r	4.0	5.0	6.2	7.0	8.4	9.5	11.3	14.0	16.0	18.0	19.5	21.5	23.5	25.0	28.0	30.0	33.0
H1	1.830 (46.5)	1.890 (48)	1.949 (49.5)	2.008 (51)	2.106 (53.5)	2.165 (55)	2.283 (58)	2.441 (62)	2.559 (65)	2.677 (68)	2.835 (72)	2.874 (73)	3.031 (77)	3.149 (80)	3.307 (84)	3.464 (88)	3.622 (92)
H2	0.917 (23.3)	0.945 (24)	0.976 (24.8)	1.004 (25.5)	1.055 (26.8)	1.083 (27.5)	1.142 (29)	1.220 (31)	1.280 (32.5)	1.339 (34)	1.417 (36)	1.437 (36.5)	1.515 (38.5)	1.574 (40)	1.653 (42)	1.732 (44)	1.811 (46)

※ To choose the other types of flange, shaft or inlet/outlet port, please refer to 2G series.
 ※ For displacement over the range or other special conditions, please contact Honor.

21D/21T SERIES | MULTIPLE PUMPS



ORDERING EXAMPLE

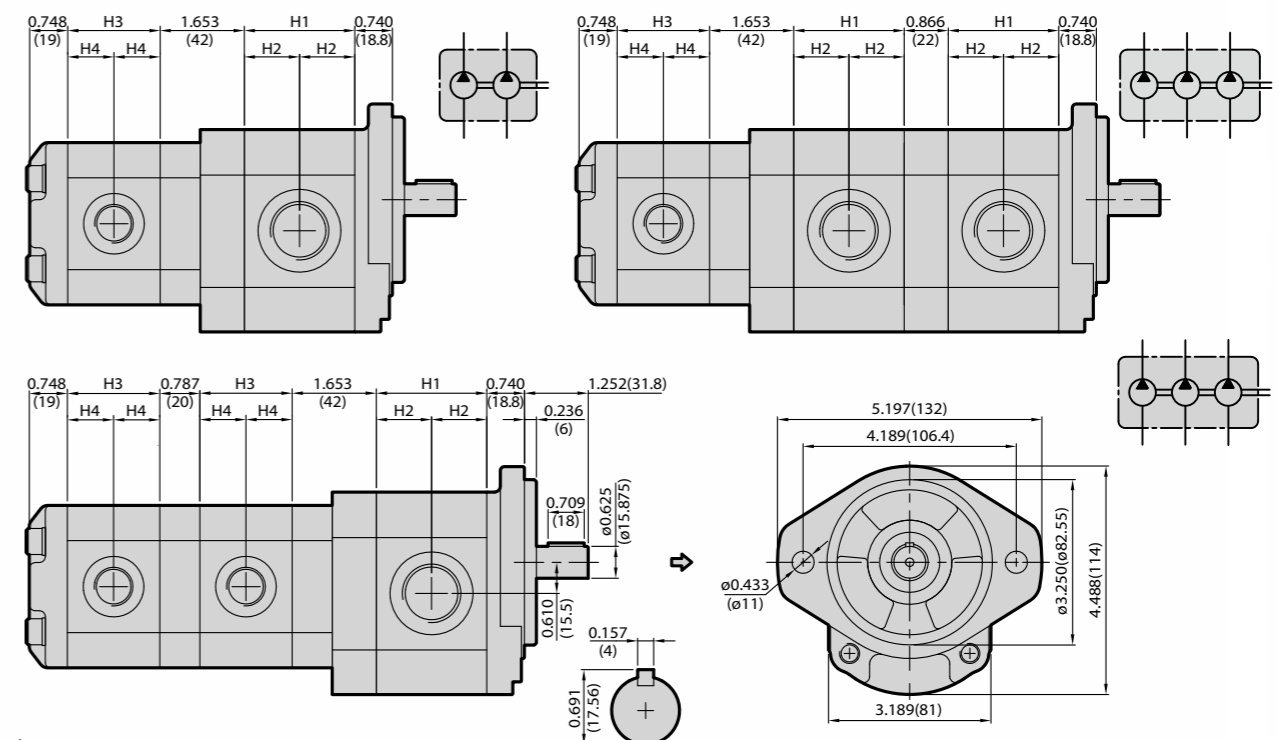
21 **□** **G** **1** **B** **U** **□□□** **R/L**
 SERIES TYPE FLANGE SHAFT INLET/OUTLET CODE PORT DISPL. ROTATION

D : Double Pumps
 T : Multiple Pumps

B : Multiple pump, with independent oil inlet/outlet ports at front, middle and rear

If you need multiple pump, and the displacement of front, middle and rear flanges are 0.98, 0.58 and 0.12 c.i.r respectively, the rotation is right-hand turning, then the correct model number for PO is: **21TG1BU160902R**

DIMENSION DRAWING

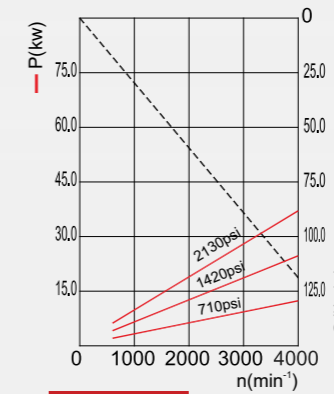
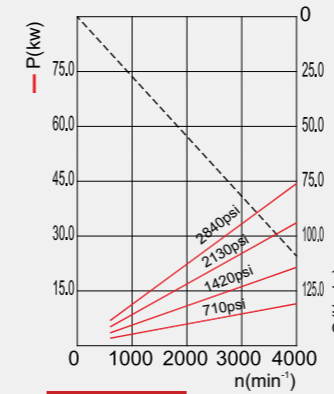
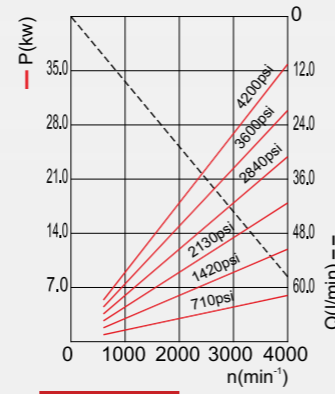
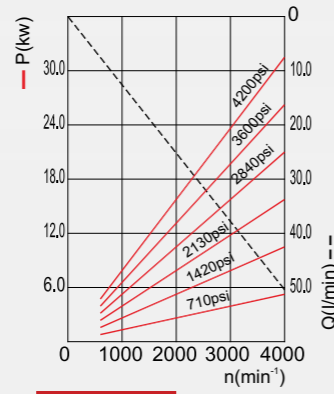
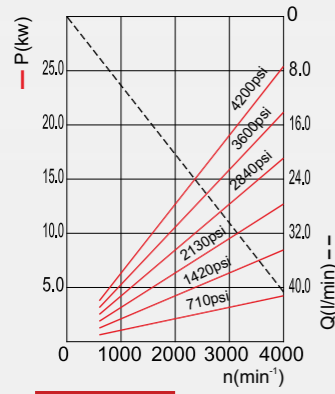
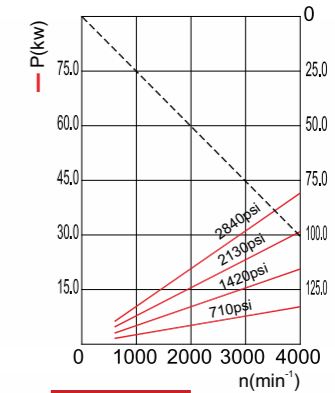
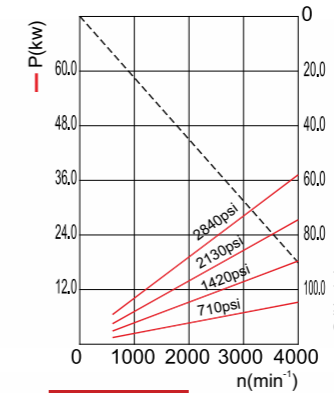
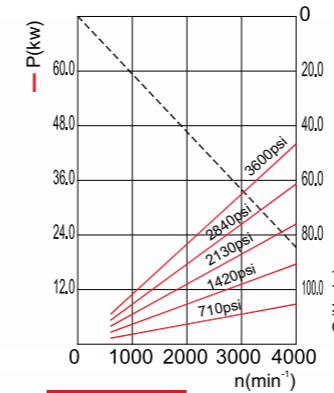
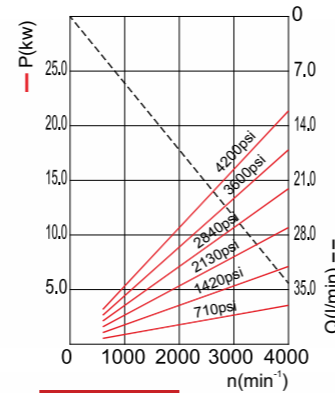
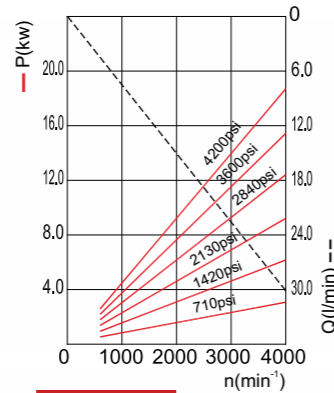
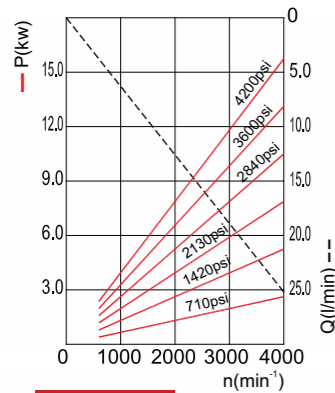
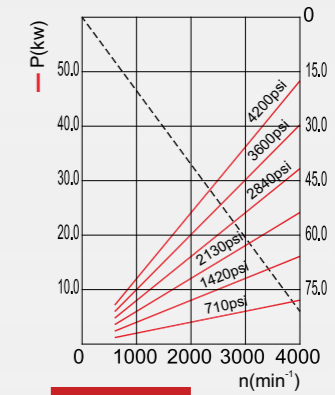
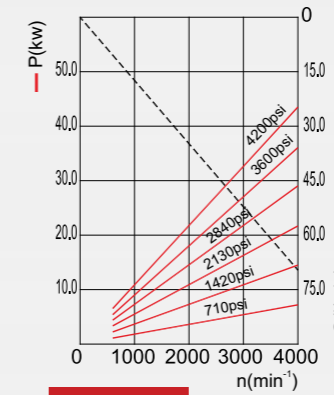
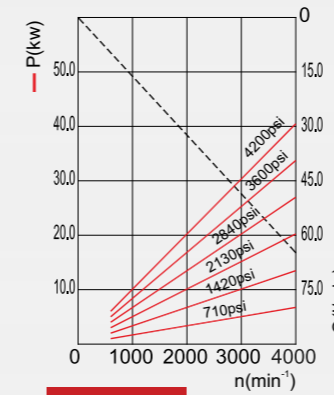
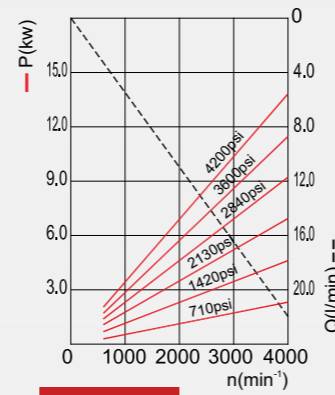
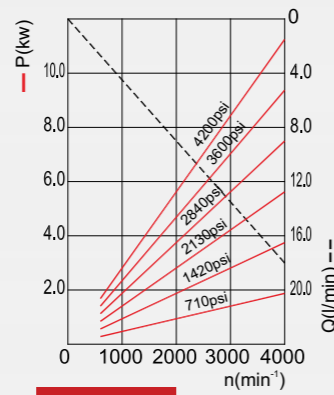
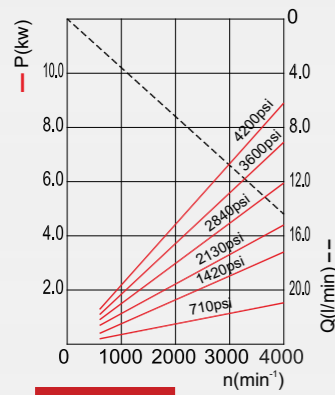
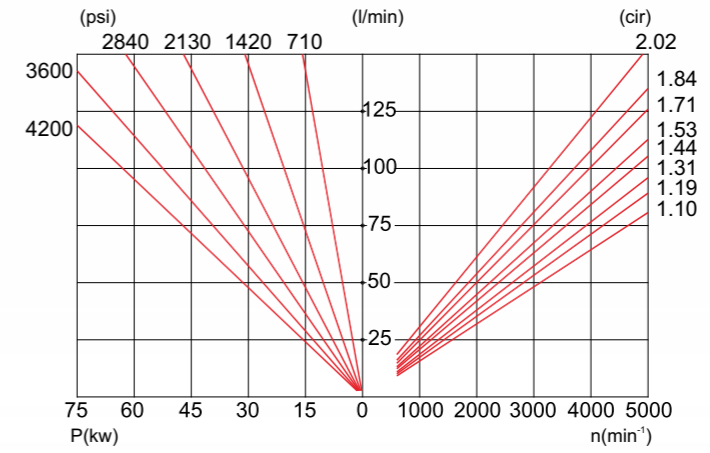
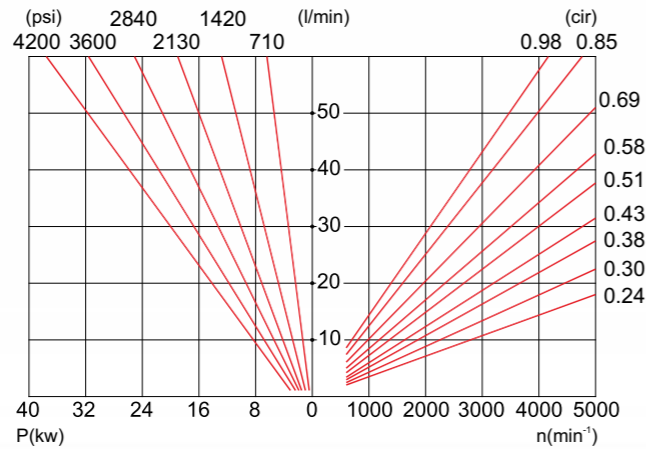


GROUP 1

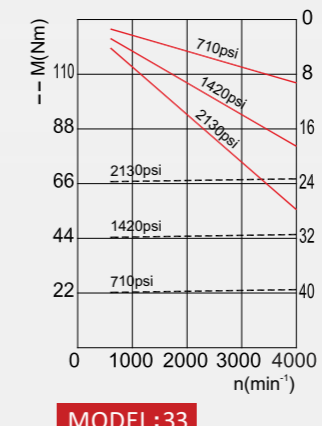
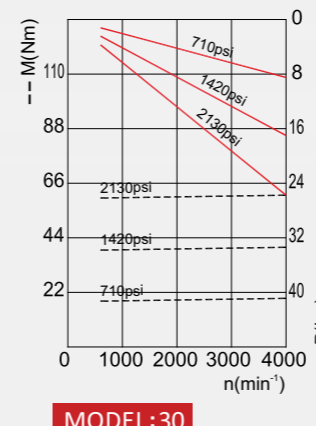
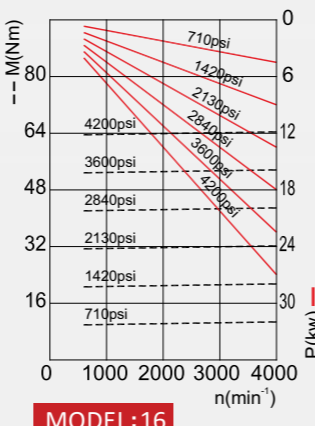
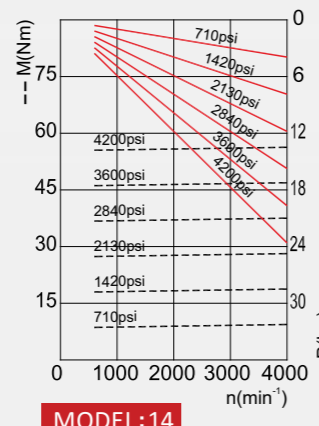
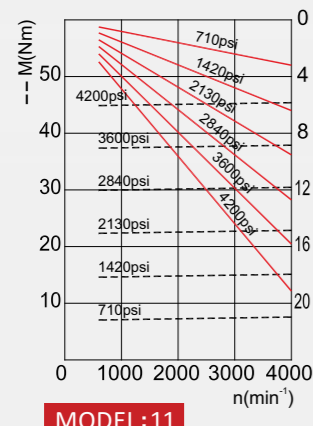
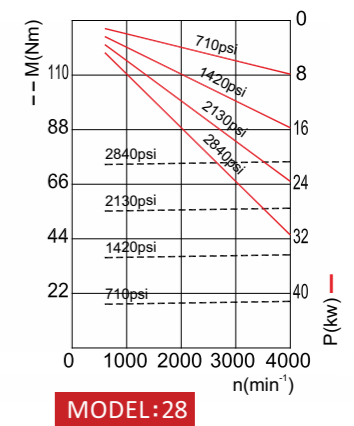
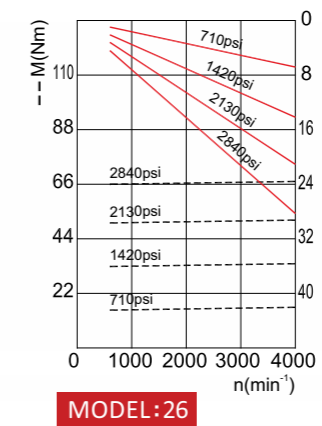
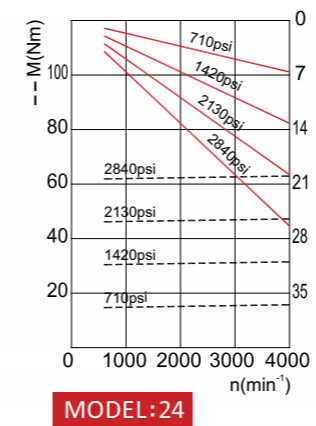
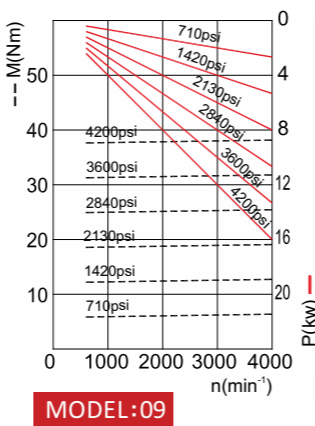
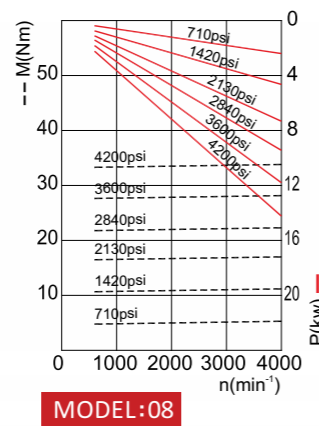
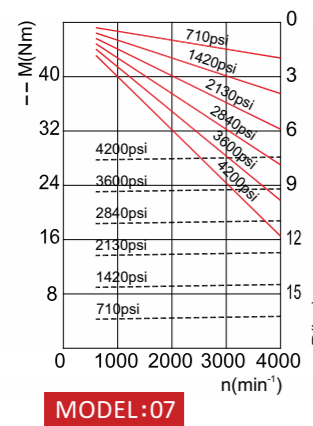
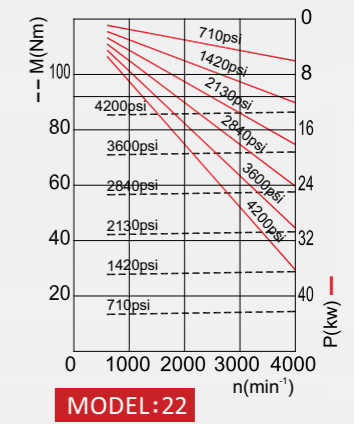
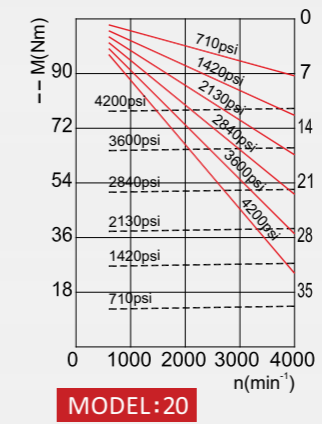
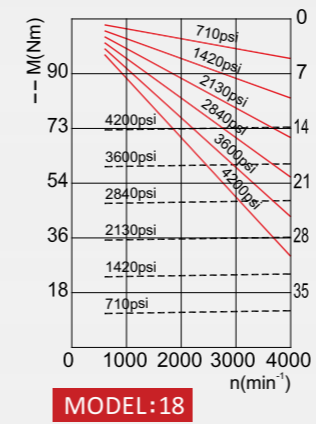
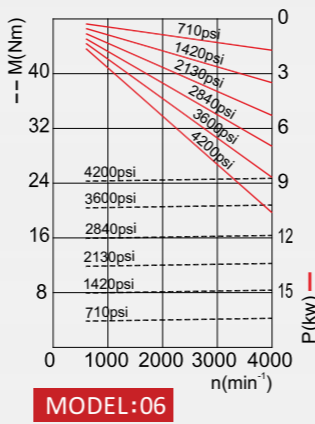
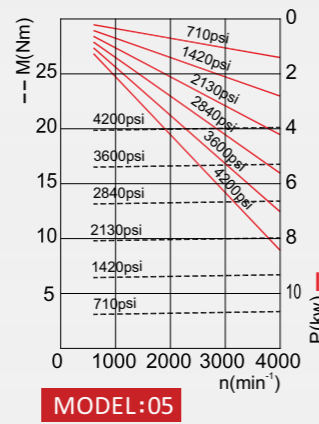
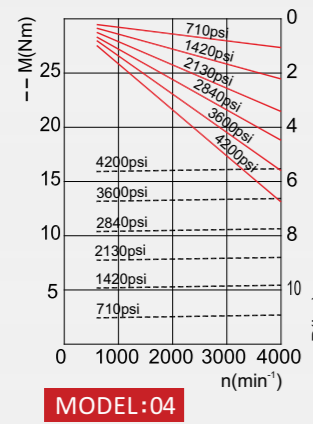
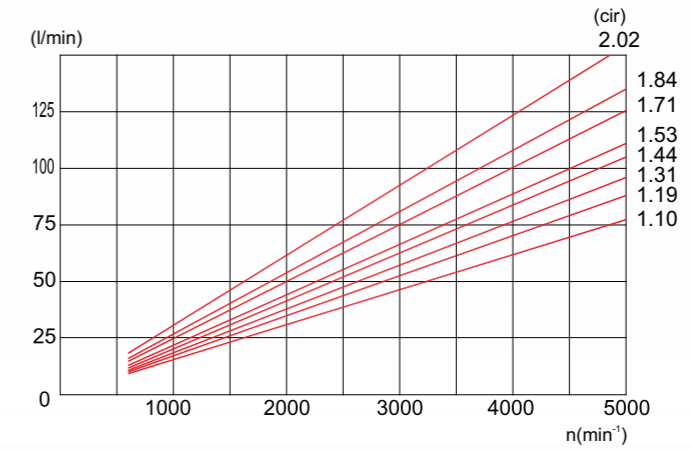
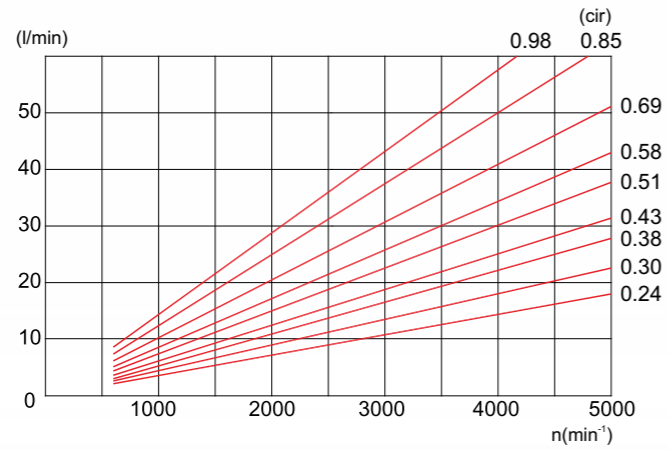
MODEL	0S	01	02	27	35	04
c.i.r	0.05	0.08	0.12	0.16	0.21	0.25
cm ³ /r	0.8	1.3	2.0	2.7	3.4	4.1
H3	1.673(42.5)	1.732(44)	1.811(46)	1.890(48)	1.969(50)	2.047(52)
H4	0.838(21.3)	0.866(22)	0.906(23)	0.945(24)	0.984(25)	1.024(26)

※ To choose the other types of flange, shaft or inlet/outlet port, please refer to 2G series.
 ※ If the displacement of rear pump is higher than 4.1ml/r, suggest using 2D series, or contact HONOR for any other special conditions.

2G/2D/2T/2V SERIES | PERFORMANCE CURVE



2M SERIES | PERFORMANCE CURVE



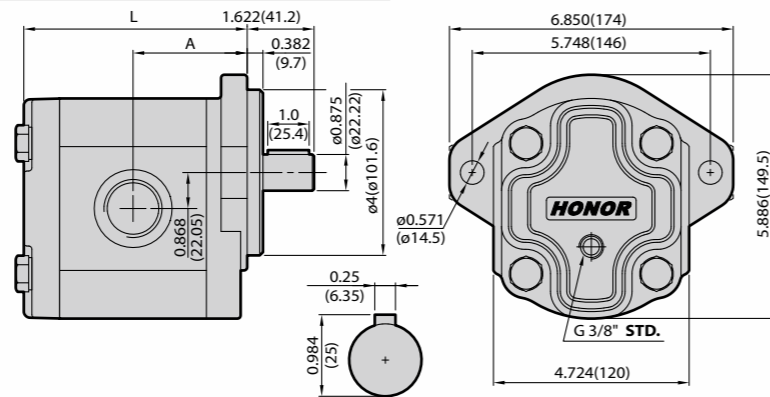
3G/3M SERIES | GEAR PUMPS & BI-DIRECTIONAL PUMPS/MOTORS

GROUP 3

GROUP 3



DIMENSION DRAWING



ORDERING EXAMPLE

3 SERIES **□** TYPE **B** FLANGE **6** SHAFT **U1** PORT **□□** DISPL. **R/L** ROTATION

G : Unidirectional gear pump (No oil drainage)
 M : Bi-directional pump/motor

Rotation code is omitted for PO over bi-directional pump motor

If the displacement you need is 2.01 c.i.r and the rotation is right-hand turning,

the correct model number for PO is: **3GB6U133R**

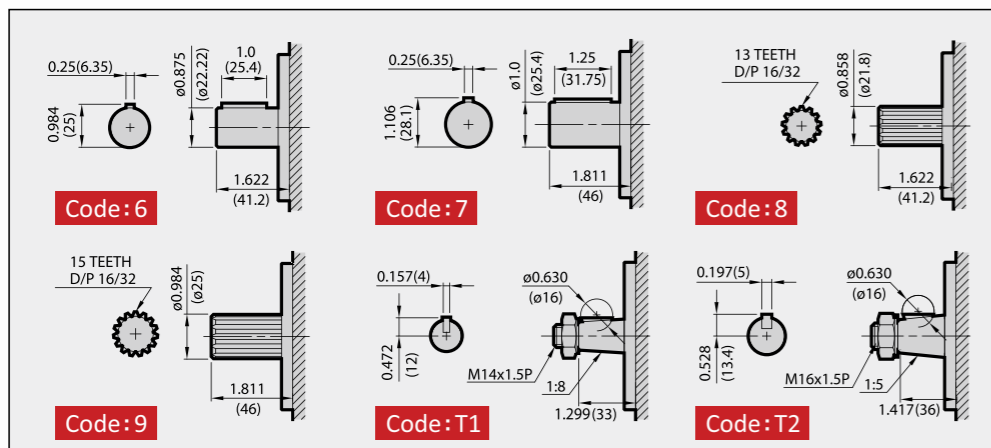
※ Attention: When using bi-directional pump motor, please do not clog the rear flange oil drainage

TECHNICAL DATA

MODEL	DISPLACEMENT		PRESSURE psi(MPa)		RPM	DIMENSIONS inch(mm) SUITABLE "B · C · E" MOUNTING FLANGES		WEIGHT	
	c.i.r	cm ³ /r	CONTINUOUS	MAX.		A	L	Kg	LBS
18	1.10	18.0	3500(25)	3800(27)	3000	2.539(64.5)	4.961(126)	8.4	18.5
20	1.22	20.0	3500(25)	3800(27)	3000	2.559(65.0)	5.000(127)	8.5	18.7
23	1.40	23.0	3500(25)	3800(27)	3000	2.579(65.5)	5.039(128)	8.6	18.9
25	1.52	25.0	3500(25)	3800(27)	3000	2.618(66.5)	5.118(130)	8.7	19.1
28	1.70	28.0	3500(25)	3800(27)	3000	2.657(67.5)	5.197(132)	8.9	19.6
33	2.01	33.0	3500(25)	3800(27)	3000	2.736(69.5)	5.354(136)	9.1	20.0
38	2.31	38.0	3500(25)	3800(27)	3000	2.815(71.5)	5.512(140)	9.3	20.5
44	2.68	44.0	3100(22)	3400(24)	2500	2.894(73.5)	5.669(144)	9.5	20.9
52	3.17	52.0	2800(20)	3100(22)	2500	2.992(76.0)	5.866(149)	9.8	21.6
60	3.66	60.0	2600(18)	2800(20)	2500	3.110(79.0)	6.102(155)	10.0	22.0
70	4.27	70.0	2300(16)	2600(18)	2500	3.248(82.5)	6.378(162)	10.4	22.9
80	4.88	80.0	2100(15)	2400(17)	2300	3.346(85.0)	6.575(167)	10.7	23.5
90	5.49	90.0	2000(14)	2300(16)	2000	3.465(88.0)	6.811(173)	11.1	24.4

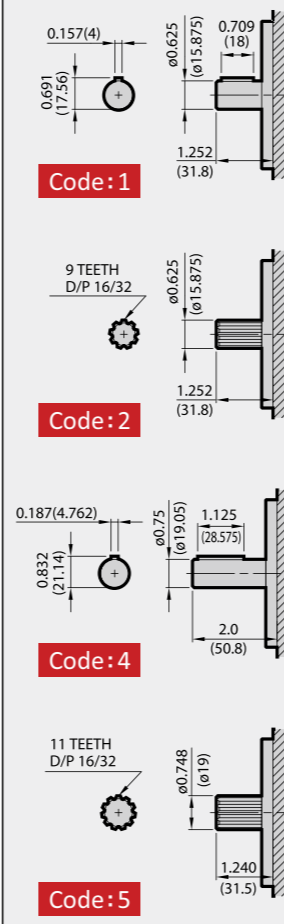
※ For revolving speed lower than 600RPM/higher than 2500RPM or any special conditions, please contact HONOR.

DRIVE SHAFTS

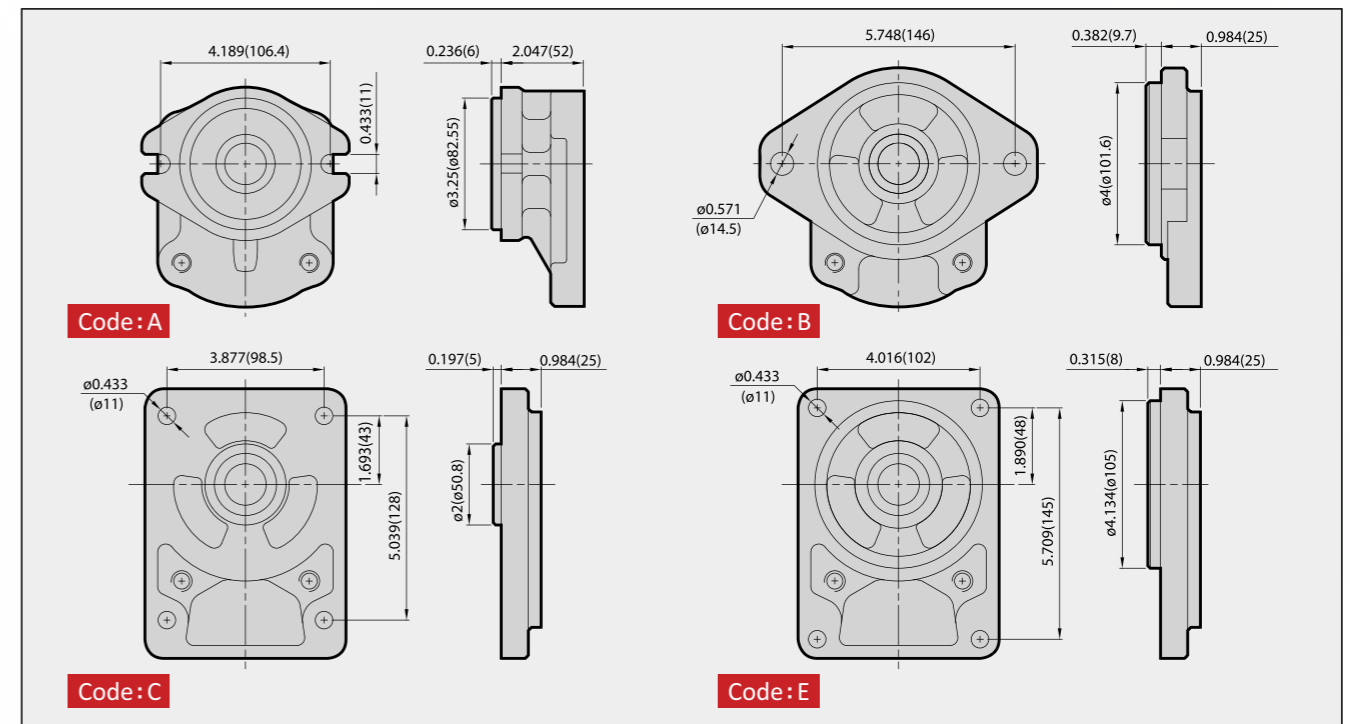


DRIVE SHAFTS

SUITABLE FOR **A** FLANGE



MOUNTING FLANGES



PORTS

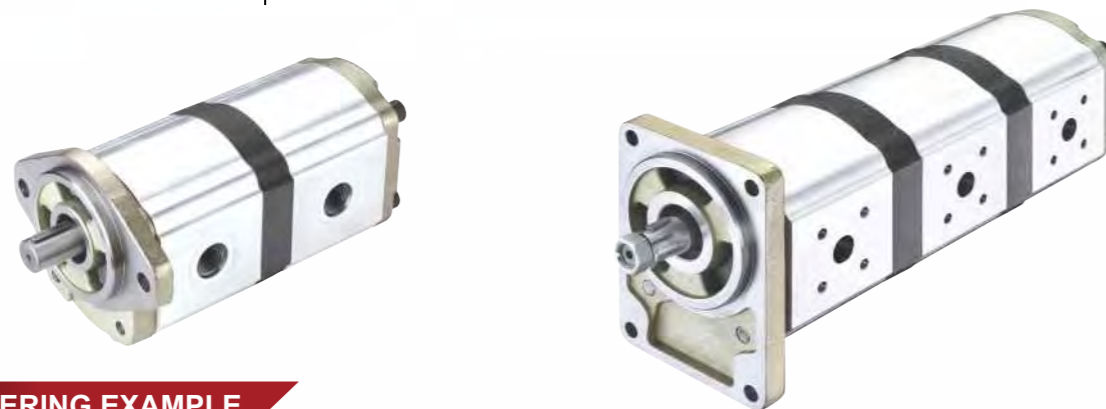
Code	Displ.	18	20	23	25	28	33	38	44	52	60	70	80	90	
UNF	U1	INLET		OUTLET		INLET		OUTLET		INLET		OUTLET			
		UNF#16 1-5/16-12"		UNF#12 1-1/16-12"		UNF#20 1-5/8-12"		UNF#12 1-1/16-12"		UNF#24 1-7/8-12"		UNF#16 1-5/16-12"			
PT	P1	INLET		OUTLET		INLET		OUTLET		INLET		OUTLET			
		PT 1"		PT 3/4"		PT 1-1/4"		PT 3/4"		PT 1-1/2"		PT 1"			
BSPF	B1	INLET		OUTLET		INLET		OUTLET		INLET		OUTLET			
		BSPF 1"		BSPF 3/4"		BSPF 1-1/4"		BSPF 3/4"		BSPF 1-1/2"		BSPF 1"			
Square Flange	F1	INLET (AxBxC)				OUTLET (AxBxC)				INLET (AxBxC)				OUTLET (AxBxC)	
		ø1.575(ø40)×ø0.787(ø20)×M6				ø1.378(ø35)×ø0.591(ø15)×M6				ø2.165(ø55)×ø1.063(ø27)×M8				ø2.165(ø55)×ø0.748(ø19)×M8	
Rectangle Flange	F3	INLET (AxBxC)				OUTLET (AxBxC)				INLET (AxBxC)				OUTLET (AxBxC)	
		2.063(52.4)×1.031(26.2)×ø0.984(ø25)				1.874(47.6)×ø0.874(22.2)×ø0.748(ø19)				2.307(58.6)×1.189(30.2)×ø1.260(ø32)				2.063(52.4)×1.031(26.2)×ø0.984(ø25)	
Rhombus Flange	F5	INLET (AxBxC)				OUTLET (AxBxC)				INLET (AxBxC)				OUTLET (AxBxC)	
		ø1.575(ø40)×ø0.748(ø19)×M8				ø1.181(ø30)×ø0.512(ø13)×M6				ø2.008(ø51)×ø1.063(ø27)×M10				ø1.575(ø40)×ø0.748(ø19)×M8	
Rear Port	ZU1	INLET		OUTLET		INLET		OUTLET		INLET		OUTLET			
		UNF#16 1-5/16-12"		UNF#12 1-1/16-12"		UNF#20 1-5/8-12"		UNF#12 1-1/16-12"		UNF#20 1-5/8-12"		UNF#16 1-5/16-12"			

※ Square and Rhombus flanges : For displ. 60-90, suggest that using ports P3, B3 and U3

※ When choosing bi-directional pump/motor, the specs of oil inlet port and outlet one are identical.

3G/3M SERIES | GEAR PUMPS & BI-DIRECTIONAL PUMPS/MOTORS

3D/3T SERIES | MULTIPLE PUMPS



ORDERING EXAMPLE

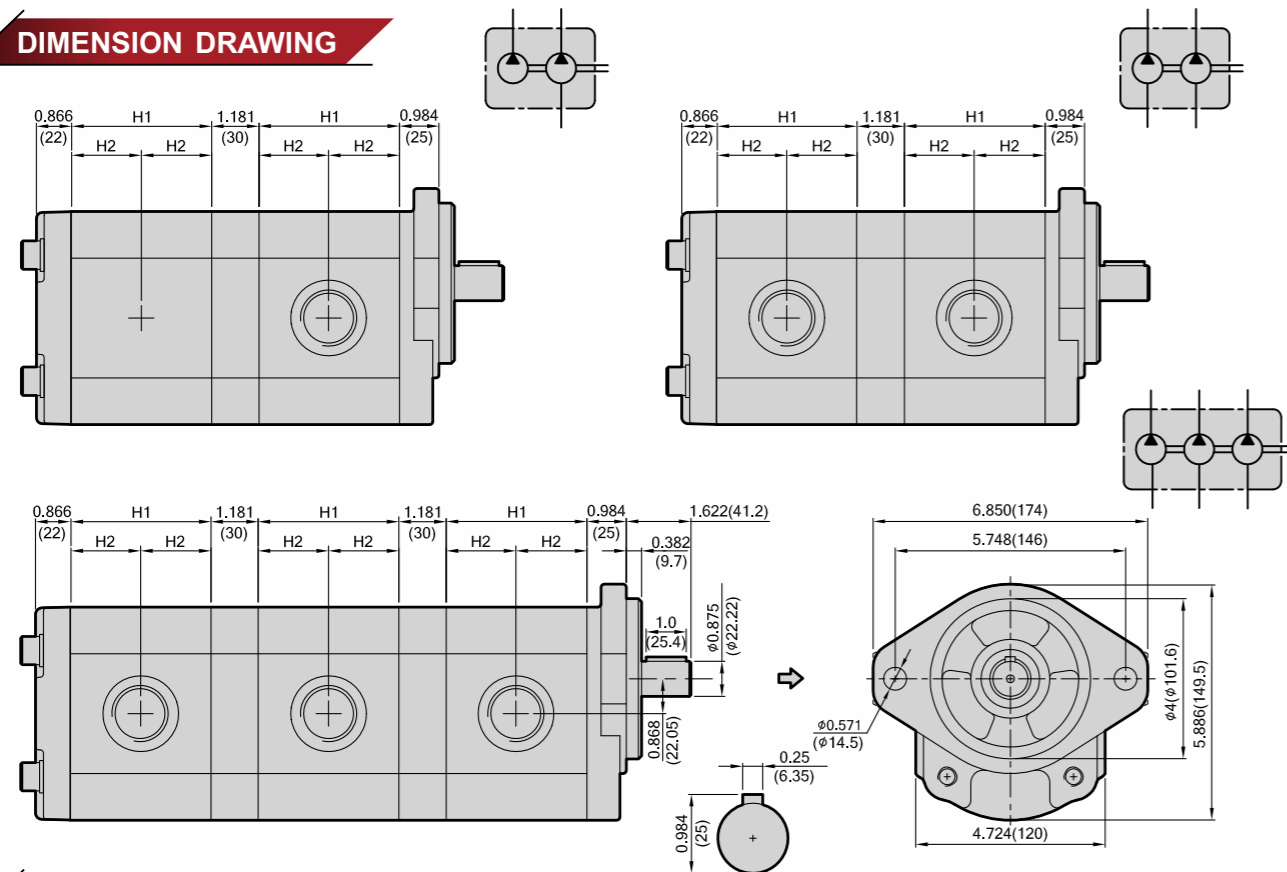
3 **B** **6** **B** **U1U1U1** **R / L**
 SERIES TYPE FLANGE SHAFT INLET/OUTLET CODE PORTS DISPL. ROTATION
(FRONT/MIDDLE/REAR PUMP)

D : Double Pumps
T : Multiple Pumps

A : Double pump, one-in two-out
B : Multiple pump with independent inlet/outlet ports at front, middle

If you need double pump, the displacement of front and rear pumps are 2.31 and 1.70 c.i.r respectively with rotation of right-hand turning, the correct model number for PO is: **3DB6BU2U13828R**

DIMENSION DRAWING

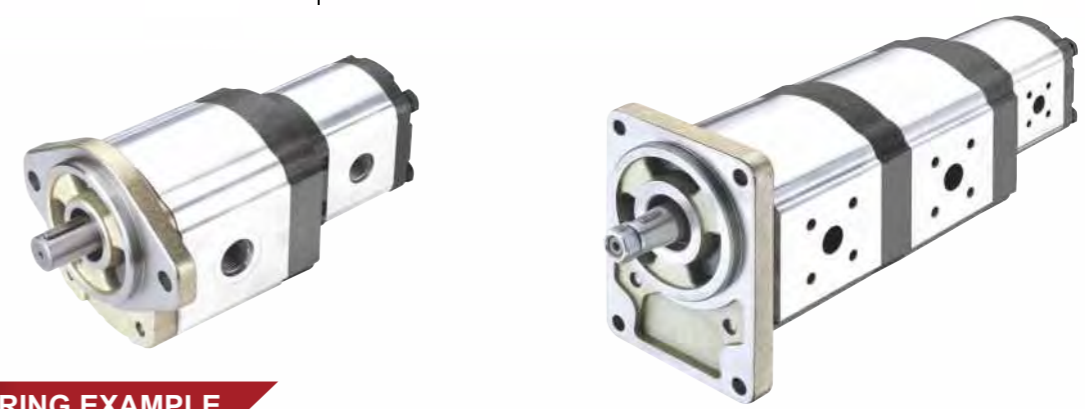


GROUP 3

MODEL	18	20	23	25	28	33	38	44	52	60	70	80	90
c.i.r	1.10	1.22	1.40	1.52	1.70	2.01	2.31	2.68	3.17	3.66	4.27	4.88	5.49
cm ³ /r	18.0	20.0	23.0	25.0	28.0	33.0	38.0	44.0	52.0	60.0	70.0	80.0	90.0
H1	3.110 (79)	3.150 (80)	3.189 (81)	3.268 (83)	3.346 (85)	3.504 (89)	3.661 (93)	3.819 (97)	4.016 (102)	4.251 (108)	4.527 (115)	4.724 (120)	4.960 (126)
H2	1.555 (39.5)	1.575 (40)	1.594 (40.5)	1.634 (41.5)	1.673 (42.5)	1.752 (44.5)	1.831 (46.5)	1.909 (48.5)	2.008 (51)	2.125 (54)	2.263 (57.5)	2.362 (60)	2.480 (63)

* For choosing other types of flange, shaft, oil inlet/outlet ports, please refer to 3G series.
 * If the displacement is over range, or there is any special condition, please contact Honor.

32D/32T SERIES | MULTIPLE PUMPS



ORDERING EXAMPLE

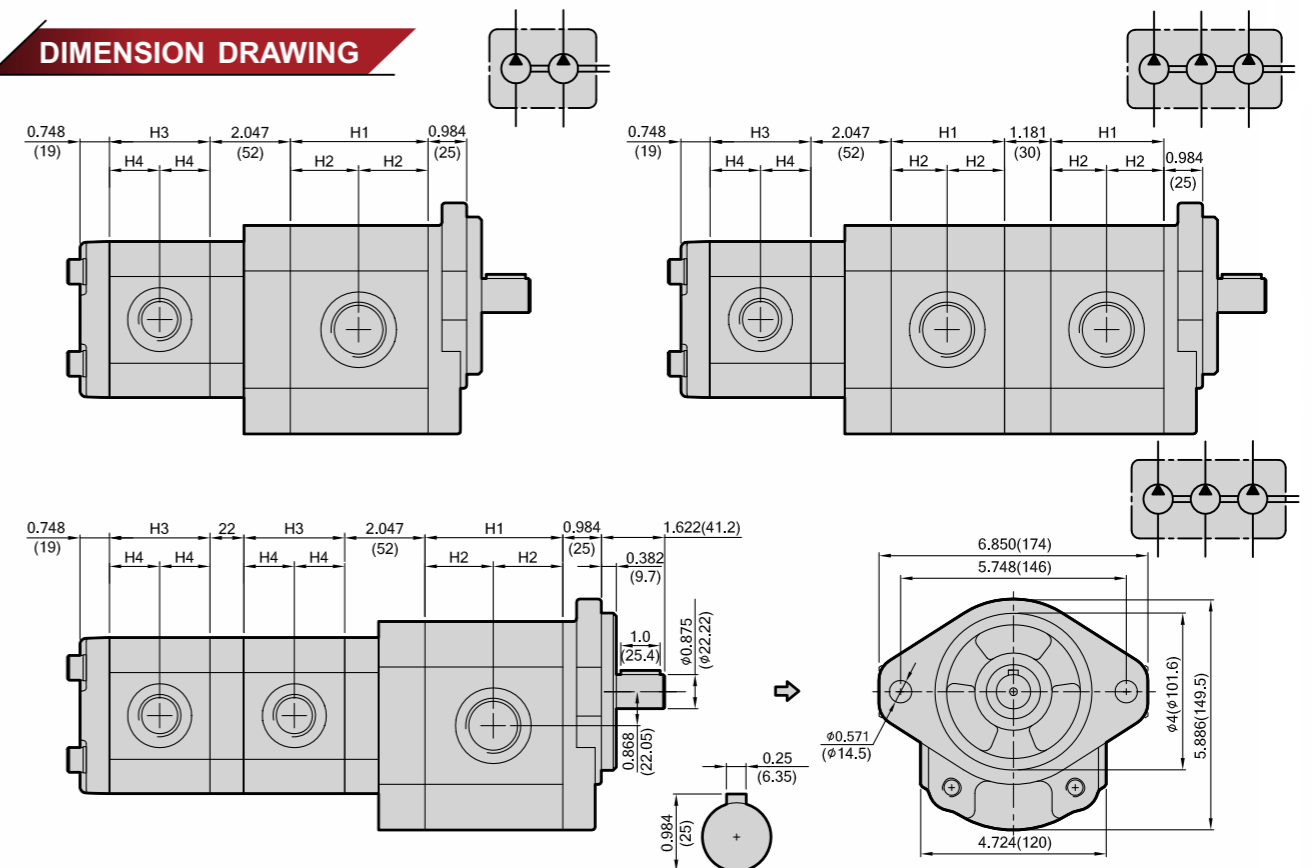
32 **B** **6** **B** **U1U1** **R / L**
 SERIES TYPE FLANGE SHAFT INLET/OUTLET CODE PORTS DISPL. ROTATION
(FRONT/MIDDLE/REAR PUMP)

D : Double Pumps
T : Multiple Pumps

B : Multiple pump with independent oil inlet/outlet ports at front, middle and rear.

If you need double pump, the displacement of front, middle and rear pumps are 2.31, 1.70 and 0.85 c.i.r with rotation of right-hand turning, the correct model number for PO is: **32TB6BU2U1382814R**

DIMENSION DRAWING



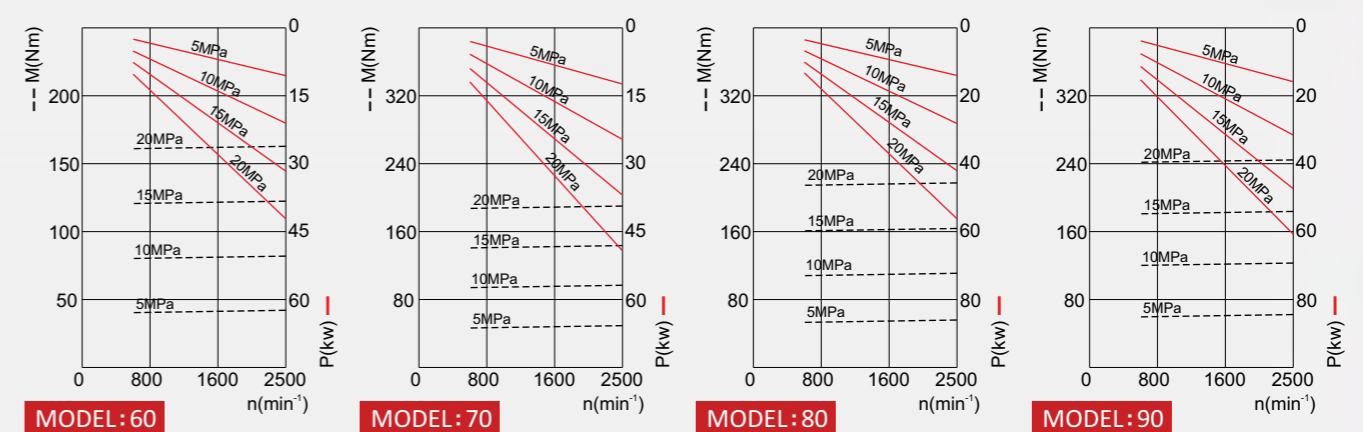
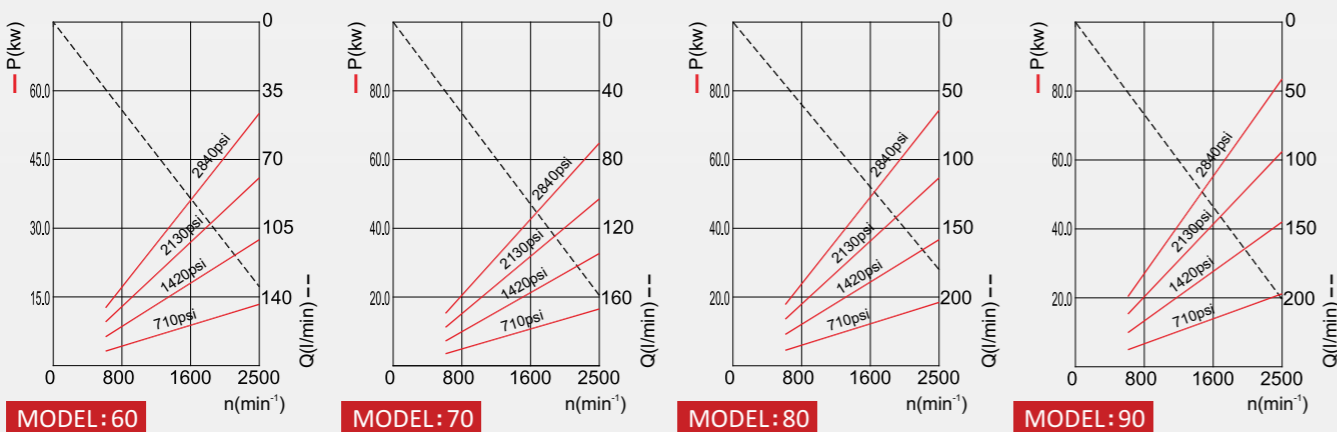
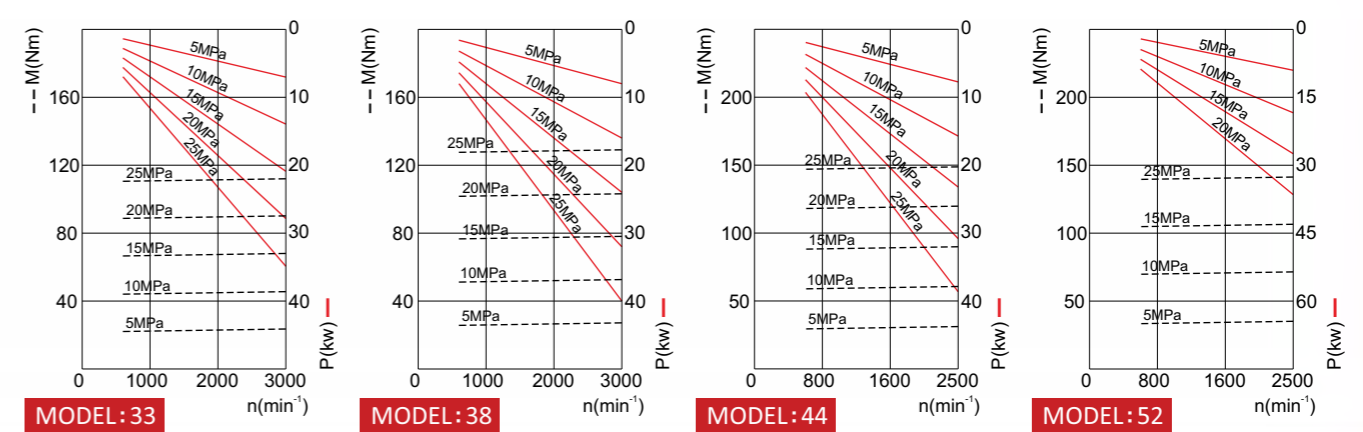
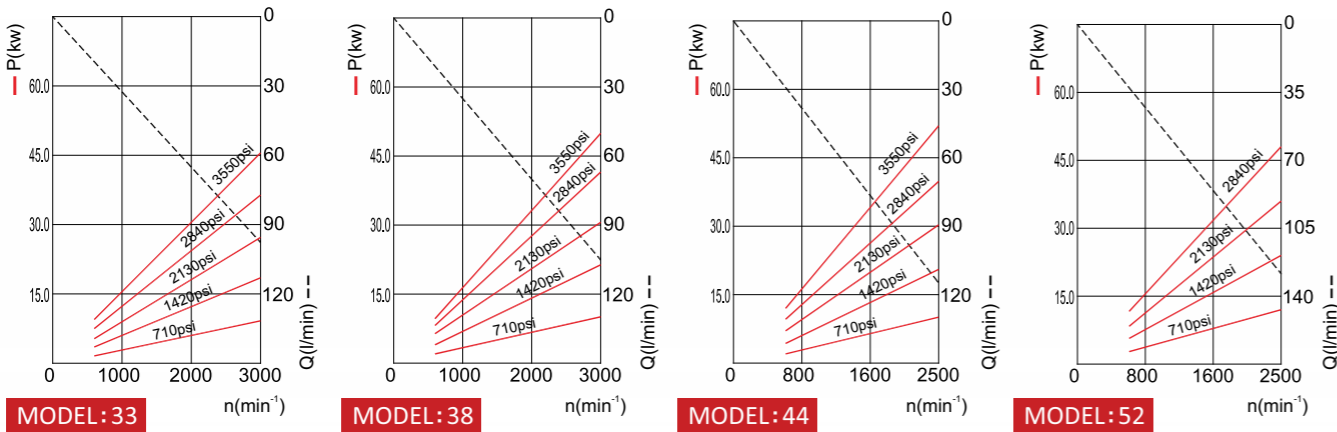
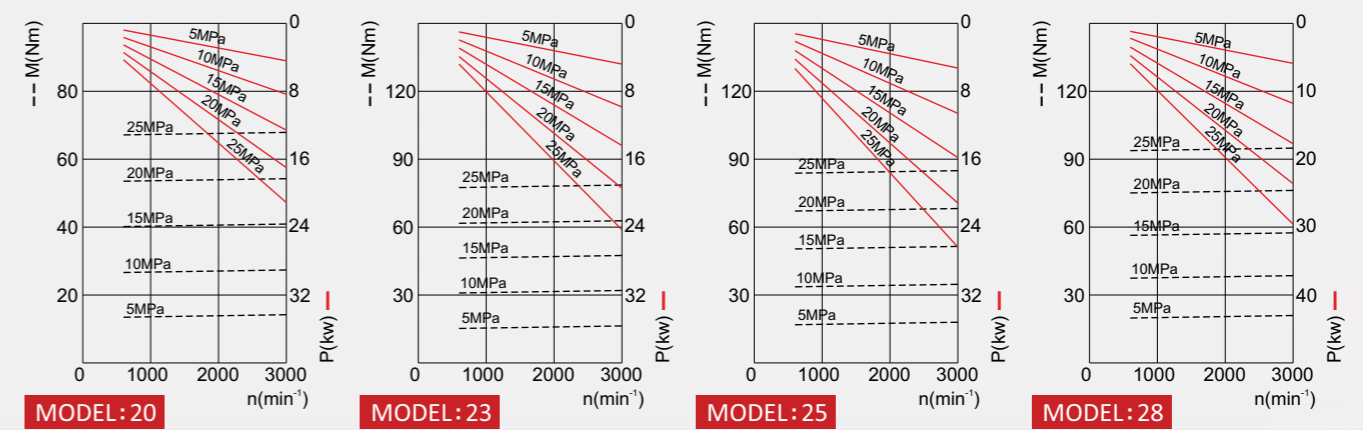
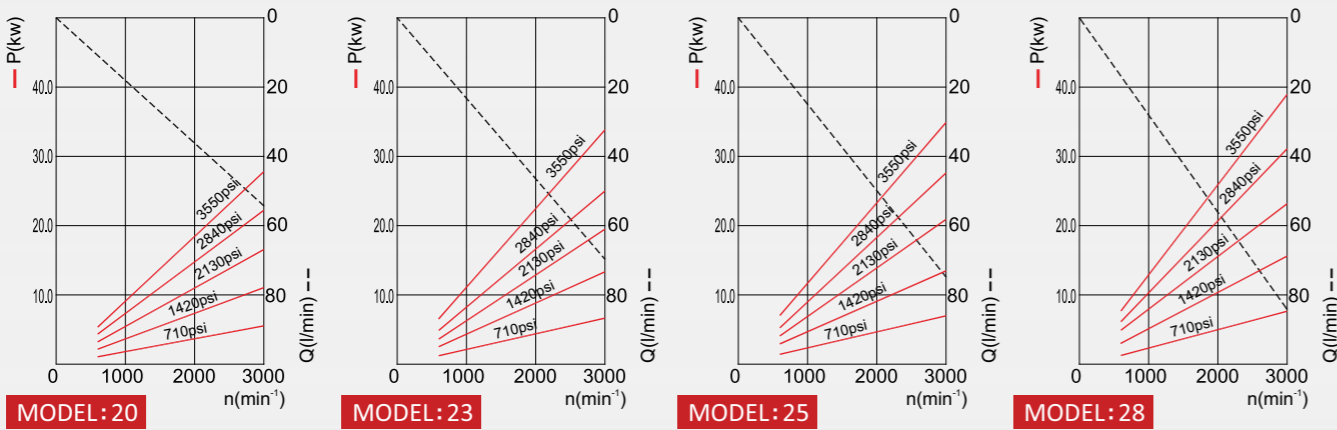
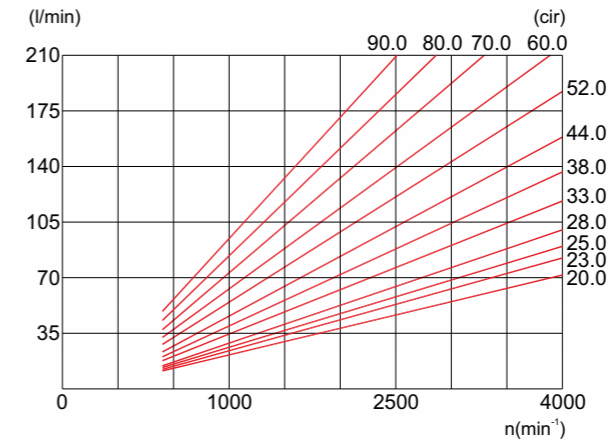
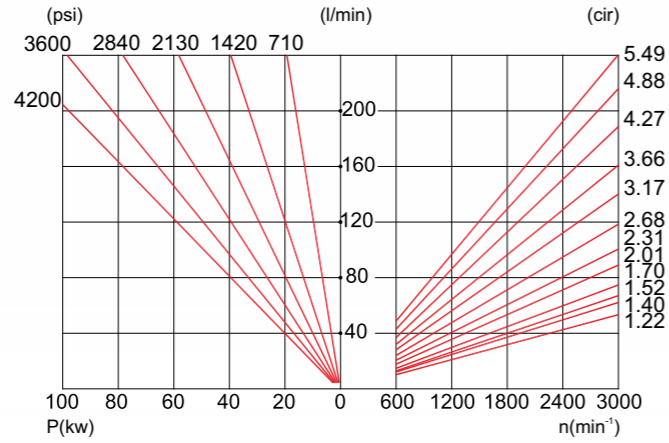
GROUP 2

MODEL	04	05	06	07	08	09	11	14	16	18
c.i.r	0.24	0.30	0.38	0.43	0.52	0.58	0.69	0.85	0.98	1.10
cm ³ /r	4.0	5.0	6.2	7.0	8.4	9.5	11.3	14.0	16.0	18.0
H3	1.830(46.5)	1.889(48)	1.949(49.5)	2.008(51)	2.106(53.5)	2.165(55)	2.283(58)	2.441(62)	2.559(65)	2.677(68)
H4	0.917(23.3)	0.944(24)	0.976(24.8)	1.004(25.5)	1.055(26.8)	1.083(27.5)	1.142(29)	1.220(31)	1.280(32.5)	1.339(34)

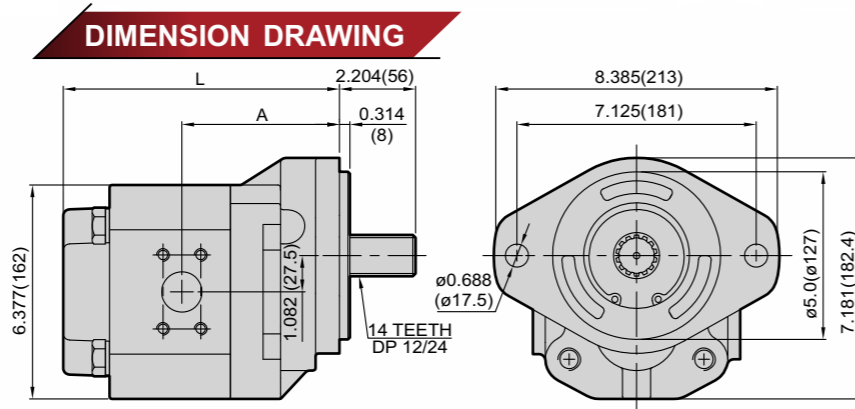
* For choosing other types of flange, shaft, oil inlet/outlet ports, please refer to 3G series.
 * If the displacement of rear pump is higher than 18.0ml/r, suggest using 3D series, or contact HONOR if there is any special conditions.

3G/3D/3T SERIES | PERFORMANCE CURVE

3M SERIES | PERFORMANCE CURVE



4H SERIES | GEAR PUMPS



ORDERING EXAMPLE

4 **H** **C** **1** **F** **R/L**

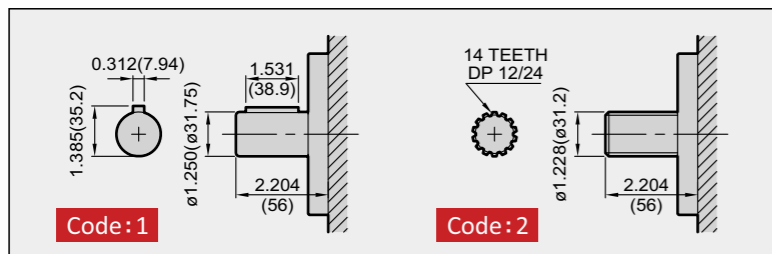
SERIES TYPE FLANGE SHAFT PORT DISPL. ROTATION

If the component you need is of displacement 5.72 c.i.r and right-hand turning, the correct model number for PO is: **4HC1F94R**

TECHNICAL DATA

MODEL	DISPLACEMENT		PRESSURE		RPM	DIMENSIONS			WEIGHT	
	c.i.r	cm ³ /r	CONTINUOUS	MAX.		A	L	Kg	LBS	
63	3.81	62.5	3300(23)	4000(28)	600 2500	4.744(120.5)	7.748(196.8)	24.3	53.5	
75	4.58	75.0	3300(23)	4000(28)		4.862(123.5)	7.996(203.1)	25.1	55.2	
81	4.95	81.2	3300(23)	4000(28)		4.862(123.5)	8.122(206.3)	25.5	56.1	
88	5.34	87.5	3300(23)	4000(28)		4.862(123.5)	8.248(209.5)	25.8	56.8	
94	5.72	93.7	3300(23)	4000(28)		4.862(123.5)	8.374(212.7)	26.2	57.6	
100	6.10	100.0	3300(23)	4000(28)		4.862(123.5)	8.496(215.8)	26.6	58.5	
112	6.90	112.5	3300(23)	4000(28)		4.862(123.5)	8.748(222.2)	27.4	60.3	
125	7.63	125.0	3300(23)	4000(28)		4.960(126.0)	8.996(228.5)	28.3	62.3	

DRIVE SHAFTS

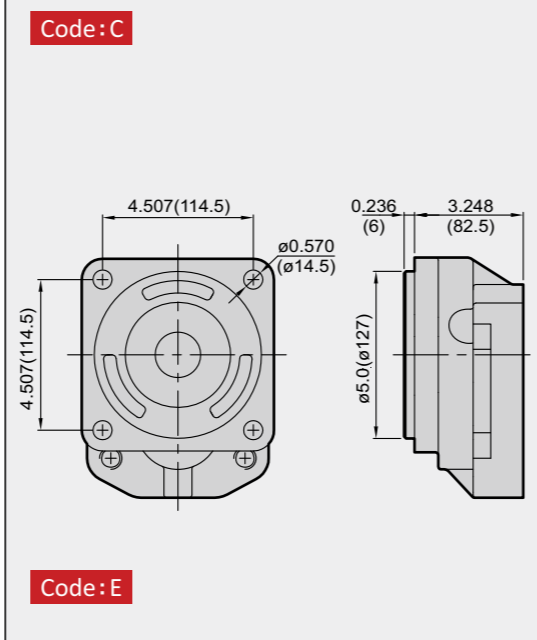
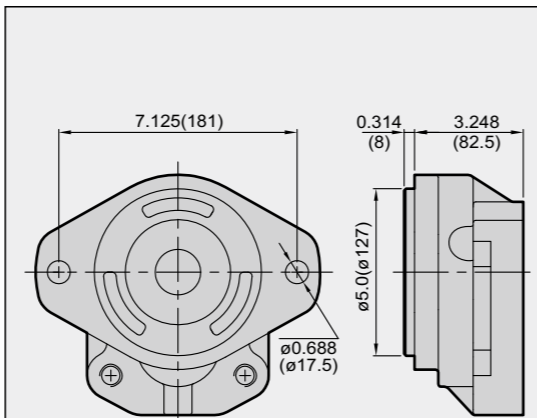


PORTS

Code	From "63"		From "75" to "125"	
	INLET	OUTLET	INLET	OUTLET
A	2.715(69.9)	2.062(52.4)	3.062(77.8)	2.311(58.7)
B	1.405(35.7)	1.031(26.2)	1.688(42.9)	1.188(30.2)
C	$\phi 1.5$ ($\phi 38.1$)	$\phi 1.0$ ($\phi 25.4$)	$\phi 2.0$ ($\phi 50.8$)	$\phi 1.251$ ($\phi 31.8$)
D	M12	M10	M12	M10

Code:F

MOUNTING FLANGES



4D/4T SERIES | MULTIPLE PUMPS



ORDERING EXAMPLE

4 **C** **1** **B** **F** **R/L**

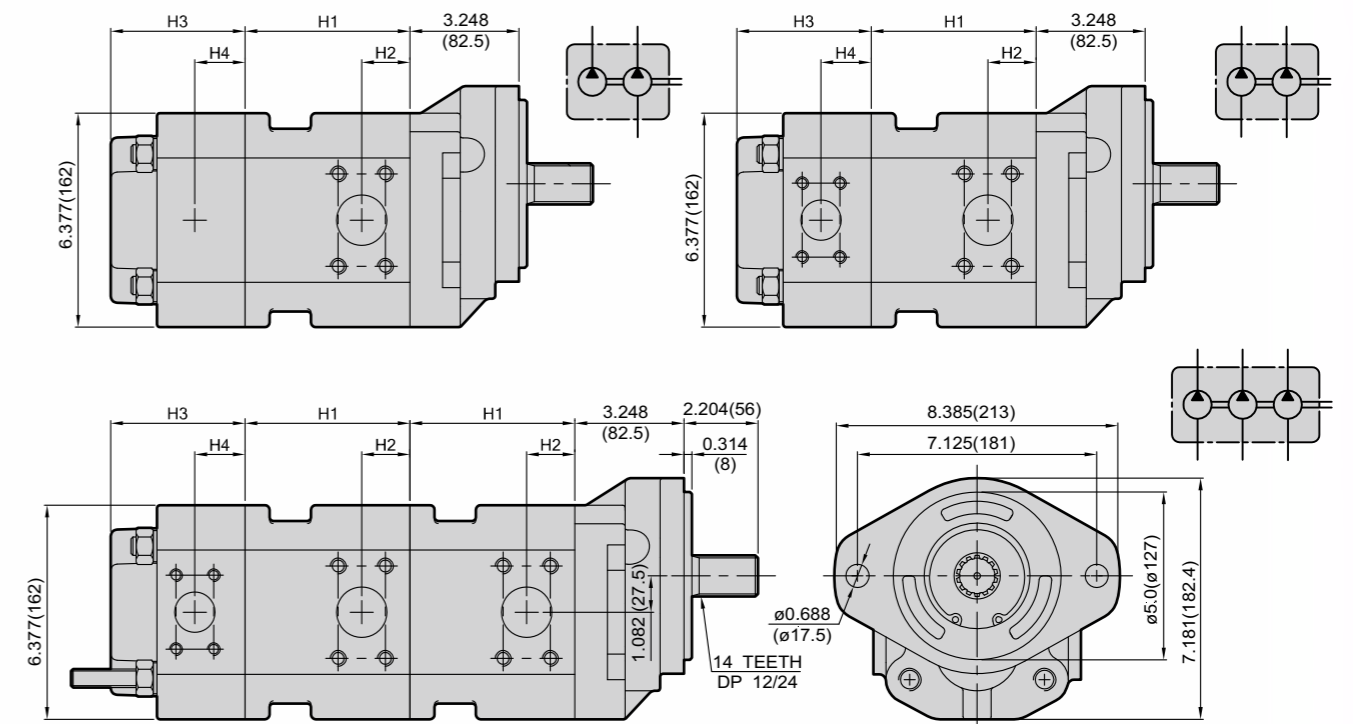
SERIES TYPE FLANGE SHAFT INLET/OUTLET CODE PORT DISPL. ROTATION

D : Double Pumps
T : Multiple Pumps

A : Double pump, one-in two-out
B : Multiple pump with independent oil inlet/outlet ports at front, middle and rear.

If you need double pump with displacement of 6.10 c.i.r at front, and 4.95 c.i.r at rear, and the rotation is right-hand turning, the correct model number for PO is: **4DC1BF10081R**

DIMENSION DRAWING



MODEL	63	75	81	88	94	100	112	125
c.i.r	3.81	4.58	4.95	5.34	5.72	6.10	6.90	7.63
cm ³ /r	62.5	75.0	81.2	87.5	93.7	100.0	112.5	125.0
H1	4.913(124.8)	5.161(131.1)	5.287(134.3)	5.413(137.5)	5.539(140.7)	5.661(143.8)	5.913(150.2)	6.161(156.5)
H2	1.437(36.5)	1.712(43.5)	1.712(43.5)	1.712(43.5)	1.712(43.5)	1.712(43.5)	1.712(43.5)	1.712(43.5)
H3	4.5(114.3)	4.748(120.6)	4.874(123.8)	5.0(127.0)	5.125(130.2)	5.248(133.3)	5.5(139.7)	5.748(146.0)
H4	1.496(38.0)	1.614(41.0)	1.614(41.0)	1.614(41.0)	1.614(41.0)	1.614(41.0)	1.614(41.0)	1.712(43.5)

42D/42T SERIES | MULTIPLE PUMPS



ORDERING EXAMPLE

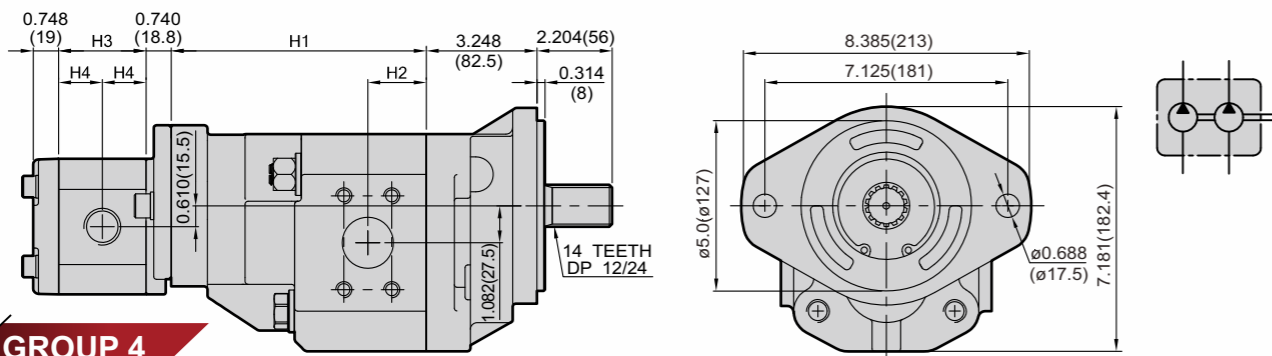
42 **C** **1** **B** **F** **R / L**
 SERIES TYPE FLANGE SHAFT INLET/OUTLET CODE PORT DISPL. ROTATION

D : Double Pumps
T : Multiple Pumps

B : Multiple pump with independent oil inlet/outlet ports at front, middle and rear.

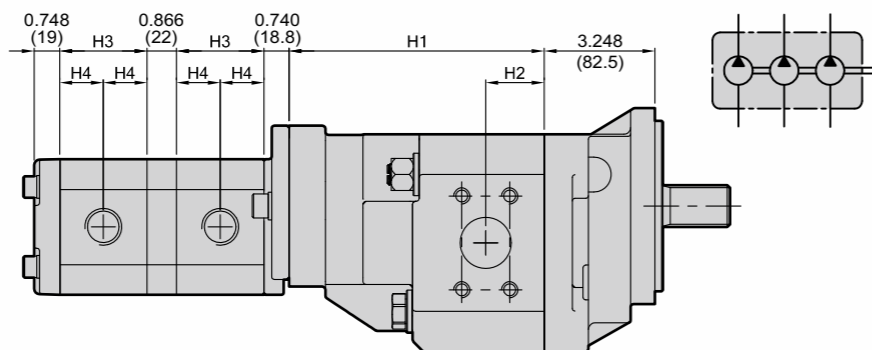
If you need multiple pump with displacements of 4.58, 0.98 and 0.69 c.i.r for front, middle and rear pumps, and the rotation is right-hand turning, the correct model number for PO is: **42TC1BF751611R**

DIMENSION DRAWING



GROUP 4

MODEL	c.i.r	cm ³ /r	H1	H2
63	3.81	62.5	6.732(171.0)	1.614(41.0)
75	4.58	75.0	6.988(177.5)	1.712(43.5)
81	4.95	81.2	7.106(180.5)	1.712(43.5)
88	5.34	87.5	7.244(184.0)	1.712(43.5)
94	5.72	93.7	7.362(187.0)	1.712(43.5)
100	6.10	100.0	7.480(190.0)	1.712(43.5)
112	6.90	112.5	7.736(196.5)	1.712(43.5)
125	7.63	125.0	7.992(203.0)	1.712(43.5)



GROUP 2

MODEL	04	05	06	07	08	09	11	14	16	18	20	22	24	26	28	30	33
c.i.r	0.24	0.30	0.38	0.43	0.52	0.58	0.69	0.85	0.98	1.10	1.20	1.31	1.44	1.53	1.71	1.84	2.02
cm ³ /r	4.0	5.0	6.2	7.0	8.4	9.5	11.3	14.0	16.0	18.0	19.5	21.5	23.5	25.0	28.0	30.0	33.0
H3	1.830 (46.5)	1.890 (48)	1.949 (49.5)	2.008 (51)	2.106 (53.5)	2.165 (55)	2.283 (58)	2.441 (62)	2.559 (65)	2.677 (68)	2.835 (72)	2.874 (73)	3.031 (77)	3.149 (80)	3.307 (84)	3.464 (88)	3.622 (92)
H4	0.917 (23.3)	0.945 (24)	0.976 (24.8)	1.004 (25.5)	1.055 (26.8)	1.083 (27.5)	1.142 (29)	1.220 (31)	1.280 (32.5)	1.339 (34)	1.417 (36)	1.437 (36.5)	1.515 (38.5)	1.574 (40)	1.653 (42)	1.732 (44)	1.811 (46)

43D/43T SERIES | MULTIPLE PUMPS



ORDERING EXAMPLE

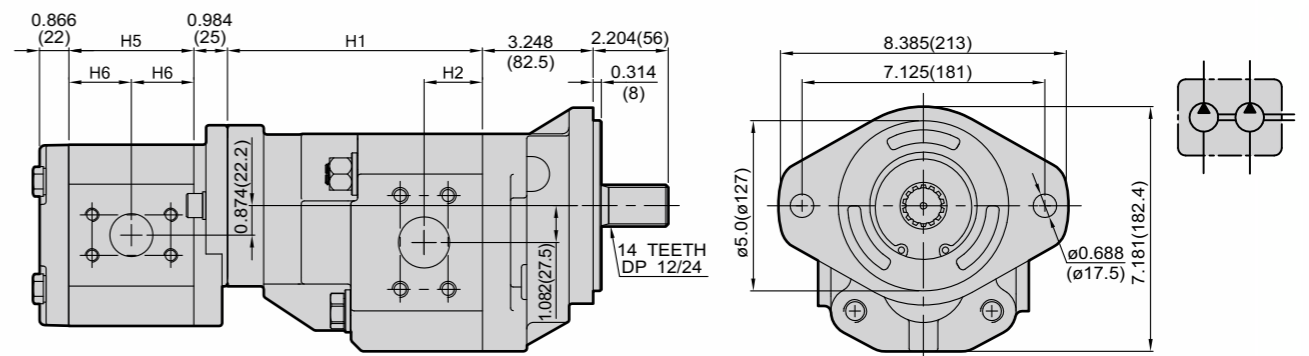
43 **C** **1** **B** **F** **R / L**
 SERIES TYPE FLANGE SHAFT INLET/OUTLET CODE PORT DISPL. ROTATION

D : Double Pumps
T : Multiple Pumps

B : Multiple pump with independent oil inlet/outlet ports at front, middle and rear.

If you need double pump with displacements of 6.10 c.i.r at front, and 1.52 c.i.r at rear, and the rotation is right-hand turning, the correct model number for PO is: **43DC1BF10025R**

DIMENSION DRAWING

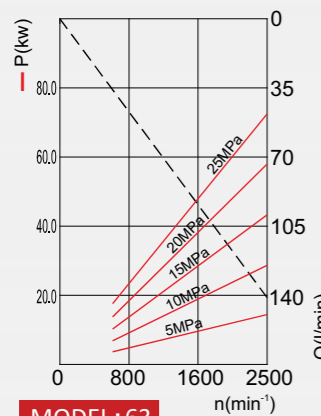
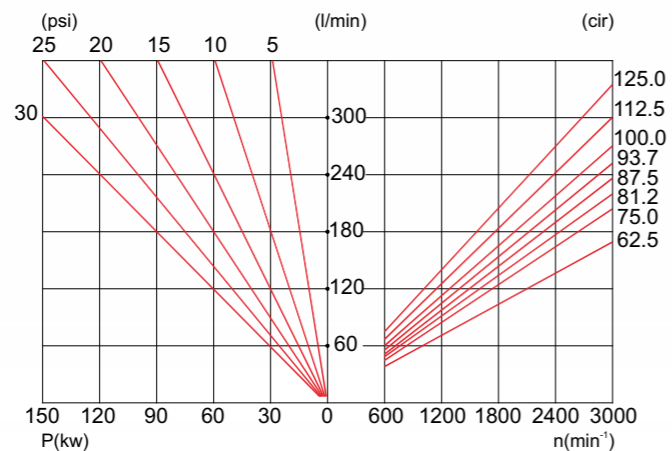


GROUP 3

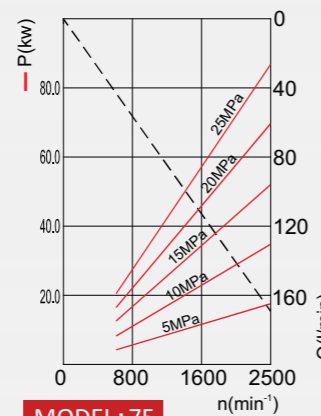
MODEL	18	20	23	25	28	33	38	44	52	60	70	80	90
c.i.r	1.10	1.22	1.40	1.52	1.70	2.01	2.31	2.68	3.17	3.66	4.27	4.88	5.49
cm ³ /r	18.0	20.0	23.0	25.0	28.0	33.0	38.0	44.0	52.0	60.0	70.0	80.0	90.0
H5	3.110 (79)	3.150 (80)	3.189 (81)	3.268 (83)	3.346 (85)	3.504 (89)	3.661 (93)	3.819 (97)	4.016 (102)	4.251 (108)	4.527 (115)	4.724 (120)	4.960 (126)
H6	1.555 (39.5)	1.575 (40)	1.594 (40.5)	1.634 (41.5)	1.673 (42.5)	1.752 (44.5)	1.831 (46.5)	1.909 (48.5)	2.008 (51)	2.125 (54)	2.263 (57.5)	2.362 (60)	2.480 (63)

* If need to choose other types of flange, shaft, oil inlet/outlet ports, please refer to 4H series.
 * For displacement over the range or if there is any other conditions, please contact HONOR.

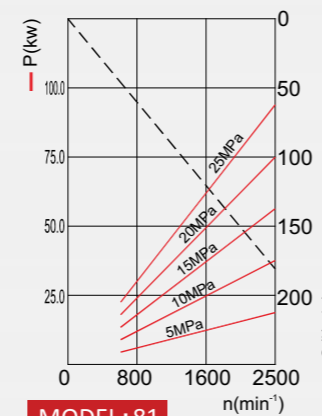
4H/4D/4T SERIES | PERFORMANCE CURVE



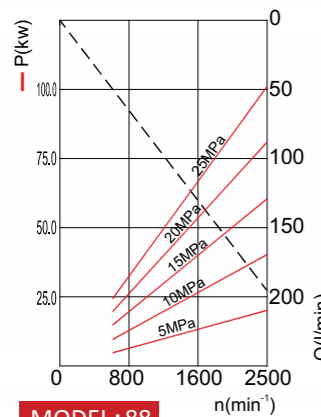
MODEL: 63



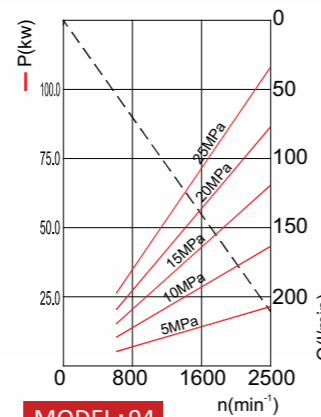
MODEL: 75



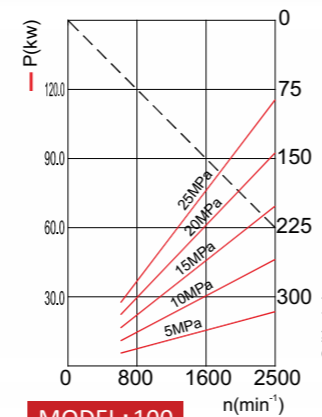
MODEL: 81



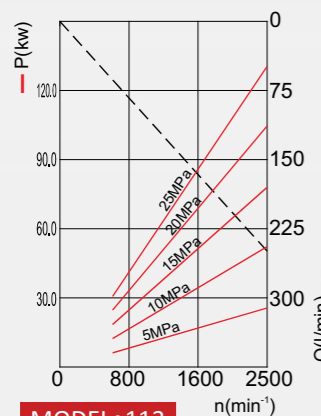
MODEL: 88



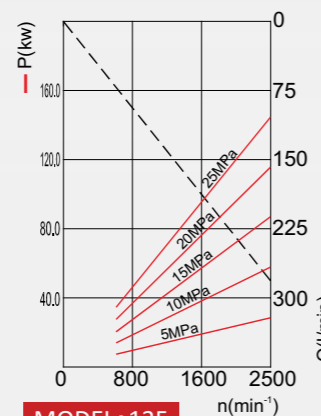
MODEL: 94



MODEL: 100



MODEL: 112



MODEL: 125

FORMULAS FOR GEAR PUMP/MOTOR

Q	l/min	Flow capacity
P	kW	Power
V	cm ³ /rev	Displacement
n	min ⁻¹	Revolving speed
Δp	bar	Pressure
M	Nm	Torque

		Gear Pump	Gear Motor
η _v	Volumetric efficiency	0.97	0.95
η _m	Mechanical efficiency	0.90	0.85
η _t	Gross efficiency	0.87	0.82

Formula for Gear Pump

$$Q = Q_{TV} \cdot \eta_v \quad [l/min]$$

$$Q_{TV} = \frac{V \cdot n}{1000}$$

$$M = \frac{M_{TV}}{\eta_m} \quad [Nm]$$

$$M_{TV} = \frac{\Delta p \cdot V}{62,83}$$

$$P_{oi} = \frac{P_{oo}}{\eta_t} \quad [kW]$$

$$P_{oo} = \frac{\Delta p \cdot Q}{600}$$

Formula for Gear Motor

$$Q = \frac{Q_{TV}}{\eta_v} \quad [l/min]$$

$$Q_{TV} = \frac{V \cdot n}{1000}$$

$$M = M_{TV} \cdot \eta_m \quad [Nm]$$

$$M_{TV} = \frac{\Delta p \cdot V}{62,83}$$

$$P_{oi} = \frac{\Delta p \cdot Q}{600} \quad [kW]$$

$$P_{oo} = P_{oi} \cdot \eta_t$$

TV: Theoretical Value
OI: Oil Inlet
OO: Oil Outlet

