

ISO/TS16949-2009认证企业
高新技术企业

Boden 博顿

博顿液压股份有限公司
BODEN HYDRAULICS CO., LTD
上海博顿液压科技有限公司
SHANGHAI BODEN HYDRAULICS CO., LTD

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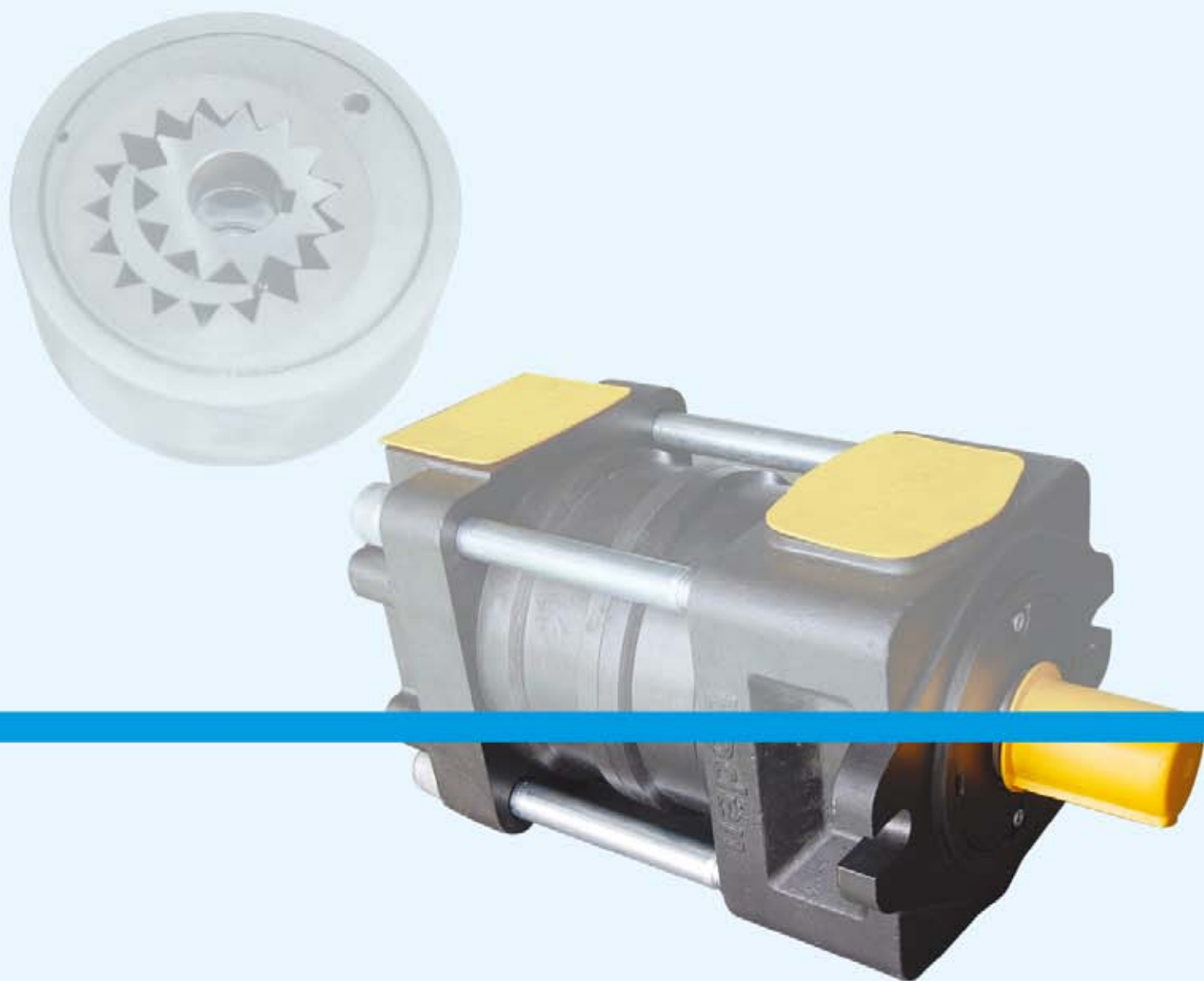
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INTERNAL GEAR PUMP
内啮合齿轮泵

Boden 博顿

Boden 博顿



公司简介

COMPANY PROFILE



中国·博顿液压股份有限公司坐落于有北上海之称的“中国·启东滨海工业园”，距上海市中心和浦东国际机场约一小时车程。公司占地面积50亩，生产区10000平方米，公司拥有世界先进的液压元件制造工艺和技术，现代化的管理制度和一批经验丰富的员工，并通过ISO/TS16949:2009质量管理体系认证。主要零部件加工采用数控机床，检测设备采用三坐标测量机、全自动齿轮检查仪，出厂测试采用CAT全电脑测试台进行检测。公司精心设计并专业制造高压内啮合齿轮泵、高中压液压齿轮泵、双向齿轮泵、复合齿轮泵、齿轮马达、多联齿轮泵等系列产品。同时，根据用户的个性化需求，提供各种特殊规格的产品，为国内外汽车、工程机械、农用机械、运输机械、冶金机械、石油机械、物流机械、机床等行业配套服务。

公司目标：铸世界一流企业，创国际知名品牌！向客户提供最佳的产品和最优质的服务，把公司建成最优秀的液压元件制造企业！

热忱欢迎国内外用户和各界朋友光临指导！

China Boden Hydraulics Co., Ltd is located in China Qidong Binhai Industrial Zone, which is called 'the North of Shanghai'. The company is only within one hour driving to the downtown city of Shanghai or to Shanghai "Pudong"(PVG) International Airport. At the moment, Boden covers the land space of 33,500 square meters and has the production area of more than 10,000 square meters. The company, with 'ISO/TS16949:2009' certified Quality System, is the professional manufacturer for high pressure internal gear pumps, hydraulic gear pumps (including European standard group "00",group "0",group "1",group "2",group "3" gear pumps), bi-direction gear pumps, multi-function gear pumps, multi-stage gear pumps, gear motors, etc. Boden has a number of engineering people who have the rich experience in designing manufacturing processing for all our products and also have quite many technicians who are skilled in machining, assembly and testing the said products. With the help of many modern machining equipments(Flexible machining centers, CNC machines, 3-coordinate measuring machines, full automatic gear checking machines and CAT full computer controlled testing machines, etc). Boden is capable to provide various hydraulic products for the customers in automobile production, construction and agricultural equipments, transportation equipments ,metallurgy petroleum industries and material handling vehicles both at home and abroad.

Company objectives: To create world top company and world famous brand. To provide best products and best service. To build the most excellent hydraulic component manufacturer.

Welcome customers friends from home and abroad to visit and communicate with us at Boden hydraulics and we are looking forward to see you soon.



内啮合齿轮泵简介

INTERNAL GEAR PUMP PROFILE

我们精心设计研发的内啮合齿轮泵为：**直线—共轭型内啮合齿轮泵**。可使用粘度范围在20 ~ 300cSt之间的矿物液压油、水乙二醇溶液、油包水乳化液等作介质。广泛适用于矿山机械，工程机械，注塑机械，起重机，压铸机，折弯机，冲剪机，试验机等各种机械的液压系统。

内啮合齿轮泵采用特殊齿形设计，齿轮齿廓为直线，齿圈齿廓为共轭曲线。与叶片泵、柱塞泵相比，直线—共轭型内啮合齿轮泵具有：结构简单紧凑、压力高、噪声低、流量脉动小、吸入性能好、对油液污染敏感度小、工作可靠、寿命长等卓越性能！

目前我们已开发低、中、高压系列多种产品规格，以满足客户的不同使用需求！

We accurately design and develop internal gear pump Linear conjugated internal gear pump. It can be used in mineral hydraulic oil , ethylene glycol solution, water in oil emulsion, viscosity from 20~300cSt. It is widely used for mining machinery, construction machinery, plastic injection machinery, crane, die casting machine, bending machine, punching and shearing machine testing machine and other hydraulic system machinery.

Internal gear pump applies special gear profile design. The profile of gear is straight line. The gear ring and tooth profile is conjugate curve. compared with vane pump and piston pump, the advantage of internal gear pump is: simple and compact structure, high pressure ,low noise, low flow pulsation, better inhalation, low sensitive to oil pollution, reliable working performance, long life and other excellent performance.

Currently we have developed low, medium , high pressure series and various of specification to meet all kinds of costumers' equipments.



产品部分应用举例

Product Application



剪板机
Shearing Machine



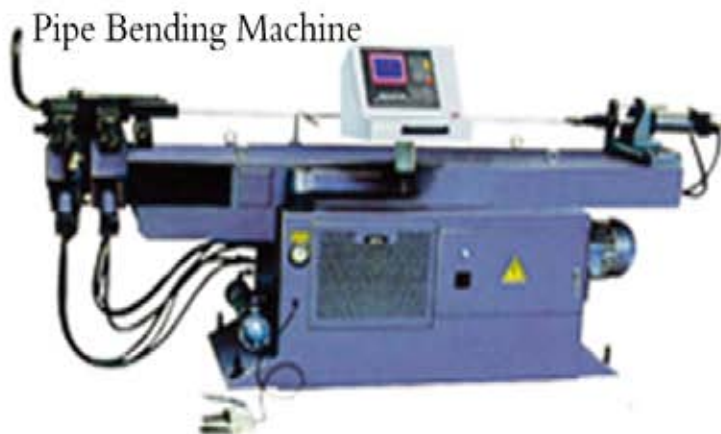
注塑机
Plastic Injection Machine

Vulcanizing Machine

平板硫化机



弯管机
Pipe Bending Machine



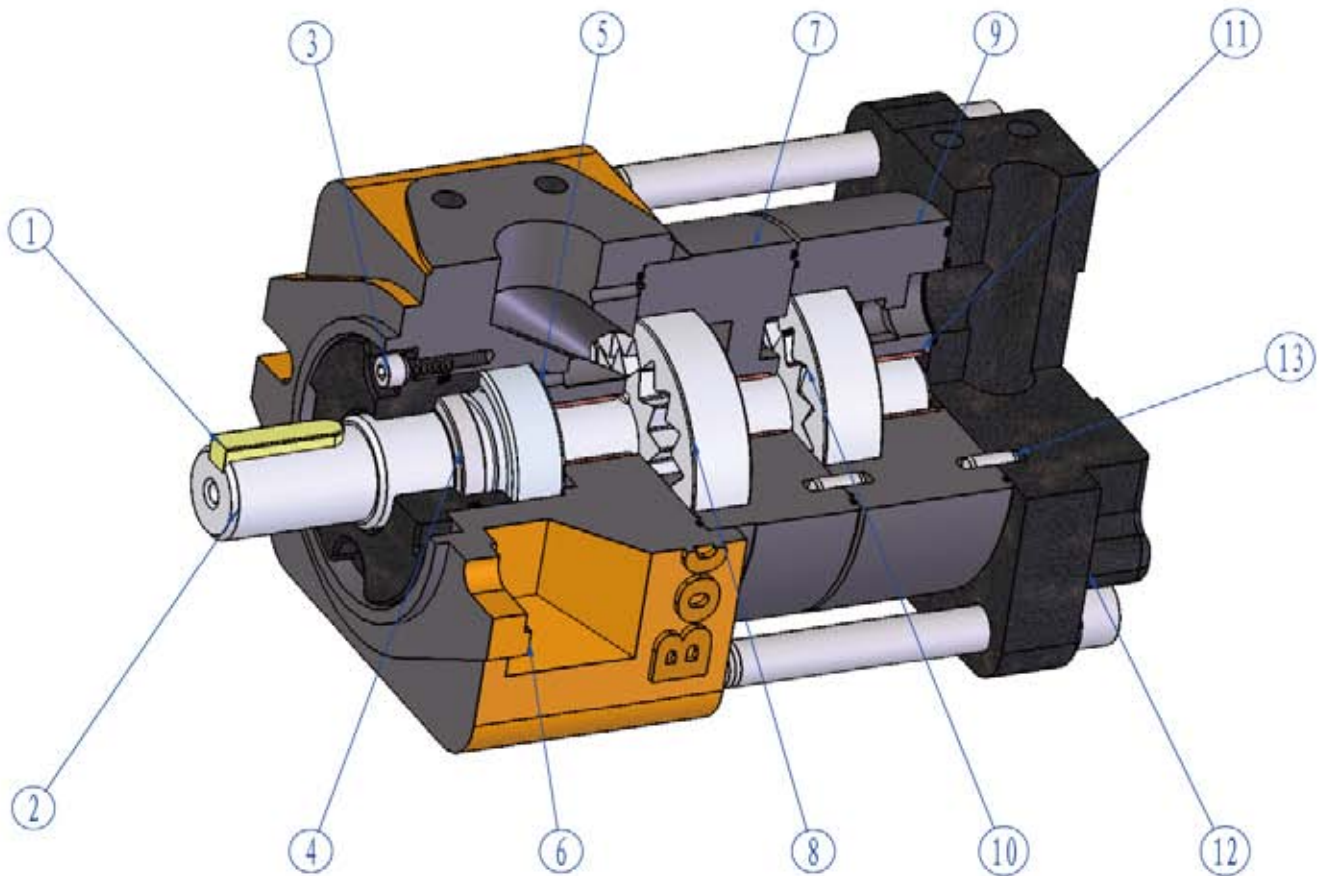
其他工程机械
Other Construction Machinery

叉车
Fork - lift



产品结构图

PRODUCT STRUCTURE

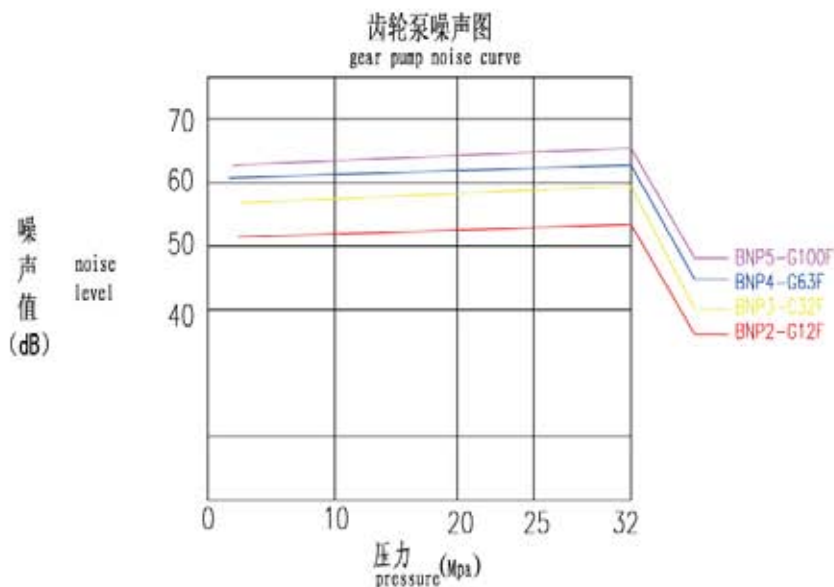
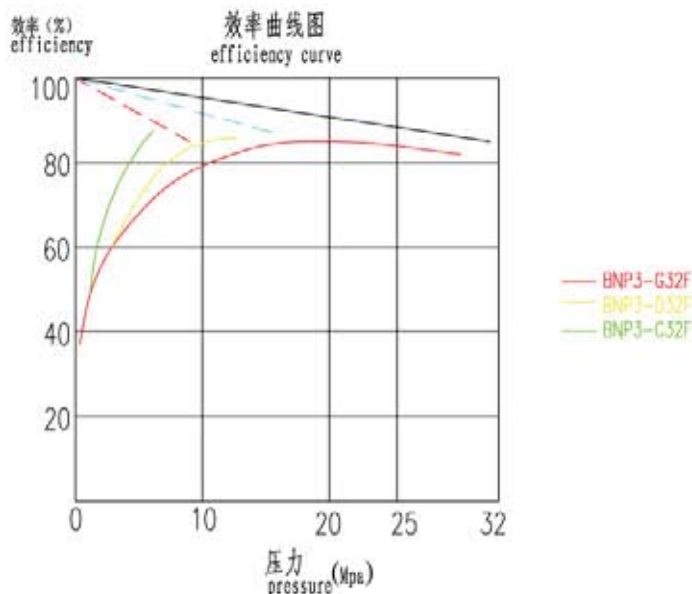


泵的组件

1. 平键
2. 传动轴
3. 内六角螺钉
4. 油封
5. 轴承
6. 前盖
7. 前泵
8. 从齿
9. 后泵
10. 主齿
11. DU衬套
12. 后盖
13. 定位销

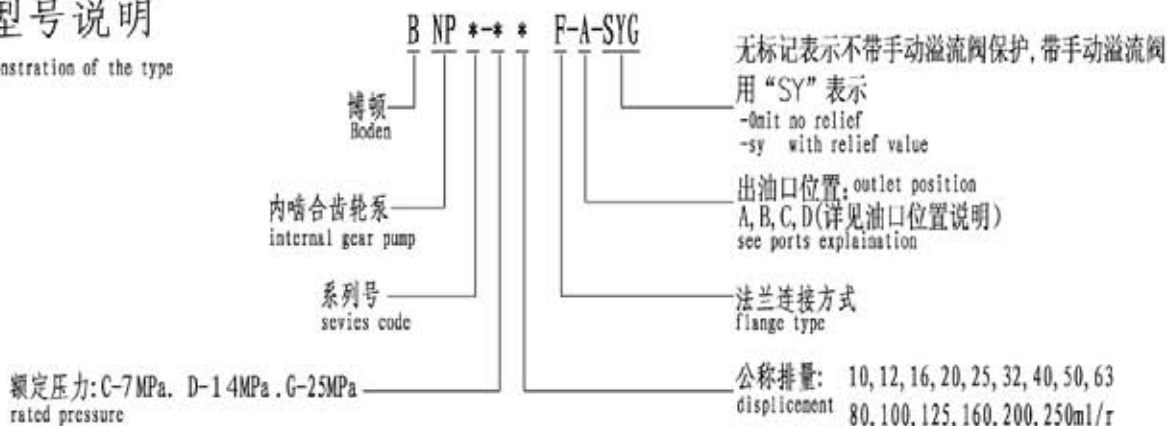
Pump components

1. key
2. driving shaft
3. bolt
4. seal
5. bearing
6. front cover
7. front pump
8. driven gear
9. rear pump
10. driving gear
11. DU bearing
12. rear cover
13. pin



型号说明

demonstration of the type

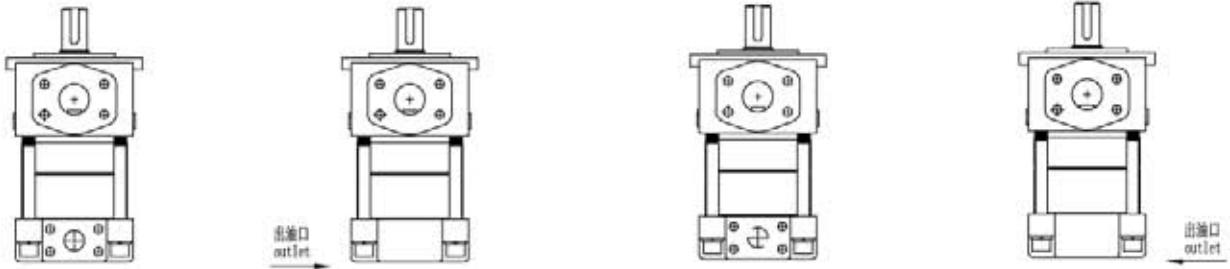


旋转方向

内啮合齿轮泵仅限出厂默认的顺时针旋向，用户须严格按照出厂旋向指示使用。
我们设“0°”“90°”“180°”“270°”多种油口位置，用户不得擅自更改油口位置以免造成泵的损坏。

ROTATION

The pump is defaulted to clockwise. clients should comply with the instruction of rotation we have “0°” “90°” “180°” “270°” outlet position, clients can not change the position by themselves.



油口处于同一平面
inlet and outlet in the same face

油口位置为“正、左”
outlet at the left side of inlet

油口位置相互对称
outlet at the opposite side of inlet

油口位置为“正、右”
outlet at the right side of inlet

泵的设计计算

DESIGN CALCULATIONS FOR PUMP

流量	Flow	Q	L/min
扭矩	Torque	M	Nm
功率	Power	P	kW
转速	Speed	n	r/min
压力	Pressure	ΔP	bar
排量	Displacement	V	cm ³ /rev

容积效率	Volumetric efficiency	$\eta_v = \eta_v(V, \Delta P, n)$	≈0.93
机械效率	Mechanical efficiency	$\eta_{hm} = \eta_{hm}(V, \Delta P, n)$	≈0.85
总效率	Total efficiency	$\eta_t = \eta_v \cdot \eta_{hm}$	≈0.80

$Q = V \cdot n \cdot \eta_v \cdot 10^{-3}$	[L/min]
$M = (\Delta P \cdot V) / (62.83 \cdot \eta_{hm})$	[Nm]
$P = (\Delta P \cdot Q) / (612 \cdot \eta_t)$	[kW]

■ 安装说明

- 1、安装齿轮泵前，应首先确认齿轮泵的旋向是否与系统要求相同；
- 2、进出油管的口径应按设计标准规定、不可太细、太长、弯头过多，以免造成吸油不畅和压力损失太大；
- 3、安装法兰、油口法兰和接头等，不得有磕碰、划伤、毛刺等，以免漏气及产生噪声；
- 4、齿轮泵的主动轴与原机的输出轴之间应采用挠性联轴器，其同轴度和安装平面度不得大于0.05mm；
- 5、按产品标牌指示，连接进、出口接头，不得接反；
- 6、尽量避免使齿轮泵的主动轴受到轴向力和径向力，安装时，应平稳导入，不可强行装卸；
- 7、泵进出油口法兰连接螺栓必须拧紧，以免吸入空气或漏油；
- 8、吸油高度不得大于0.5m；

■ 使用保养

- 1、液压油：
 - (1)、推荐油液：使用L-HM46或相近粘度的液压油；
 - (2)、工作油温范围：20℃-60℃；
- 2、过滤器
 - (1)、油液应保持清洁，加油前应充分清洗油箱和管路，在吸油口处安装125目的滤油器，在系统回油处安装精度不低于25 μ m的滤油器，或者磁性过滤器；系统回油处安装精度不低于25 μ m的滤油器，或者磁性过滤器；
 - (2)、定期检查油液清洁度及滤油器是否堵塞，必要时进行更换；
- 3、特别注意
 - (1)、首次启动，应空载运行排出系统内空气，直到无气泡为止；
 - (2)、为了更好的润滑泵的内部各个滑动面及防止干烧，请在启动前向泵内注入液压油；
 - (3)、应严格按照要求使用，不可超载。最高压力必须在该系统运转一个周期中的1/3时间以内，须维持时间在20S以下使用；

■ Installation explanation

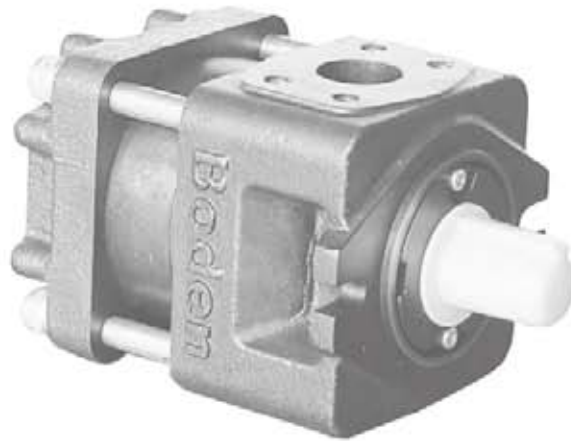
- 1、To conform whether the rotation of pump and system are consistency;
- 2、The pipe diameter should comply with the common rule: not too slim, not too long, not too many elbow, so as to avoid bad inhalation and loss of pressure;
- 3、There should be no scratch, when installing flange, port flange and fittings to avoid leakage and noise;
- 4、Flexibility coupling should be used between the shaft of pump and motor. The concentricity and flatness difference should be not more than 0.05mm;
- 5、To connect inlet and outlet fitting according pump mark;
- 6、The end user should install the pump smoothly, to avoid axial force and radial force;
- 7、To tighten the bolts of pipe flange to avoid leakage and inhalation of air;
- 8、The height of oil tank should be in 0.5m;

■ Maintenance

- 1、hydraulic oil:
 - (1)、Recommended oil: L-HM46 or close viscosity oil;
 - (2)、Working temperature: 20℃-60℃;
- 2、Filtration
 - (1)、The oil should be kept clean. The tank and pipe should be cleaned before oil. A 125 μ m filtration should be installed at the inlet. A filtration ($\geq 25 \mu$ m) or magnetic filtration should be installed at the end of circuit;
 - (2)、To check the cleanness of oil and the filtration, and to change the filtration when it is blocked;
- 3、Attention
 - (1)、The end user should run the pump without pressure to discharge the air until there is no bubble in first running;
 - (2)、The end user should input the oil to the pump for lubricating the sliding face of pump;
 - (3)、The pump should work on the requirement and can not be worked over loaded. The highest pressure period should be in 1/3 of the whole operation and in 20 s;

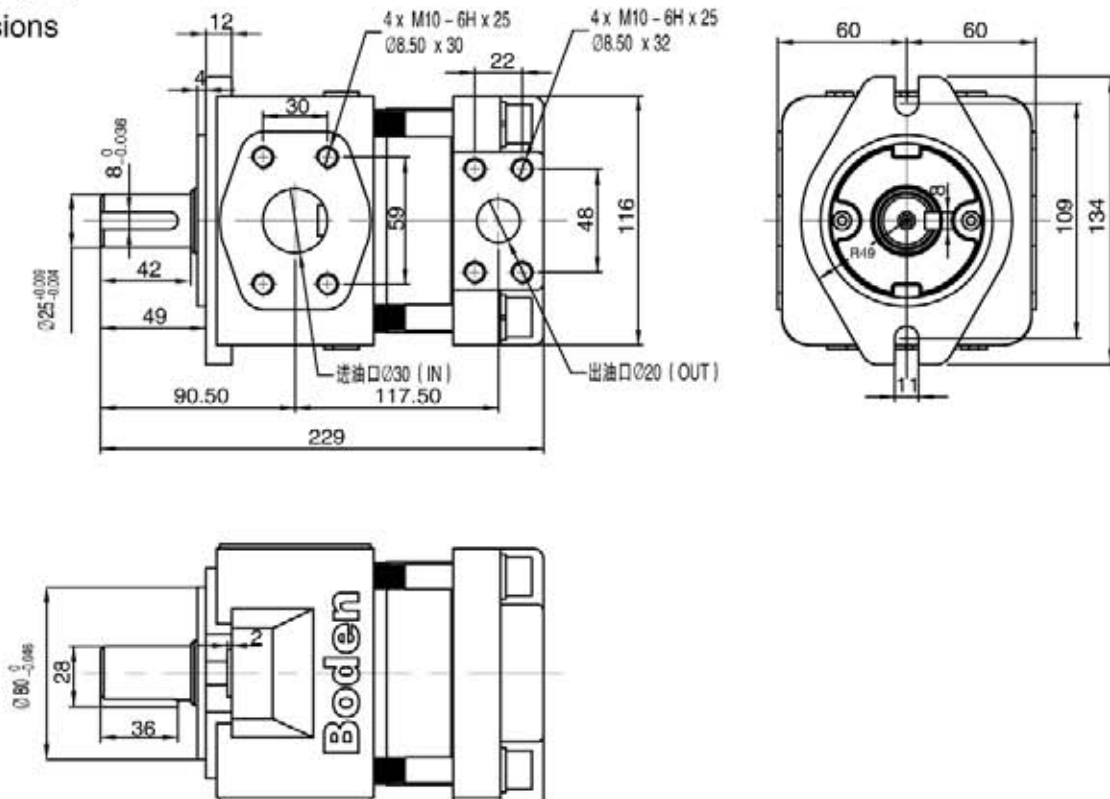
低压泵 BNP2系列

Low pressure pump BNP2 series



外形尺寸

Dimensions



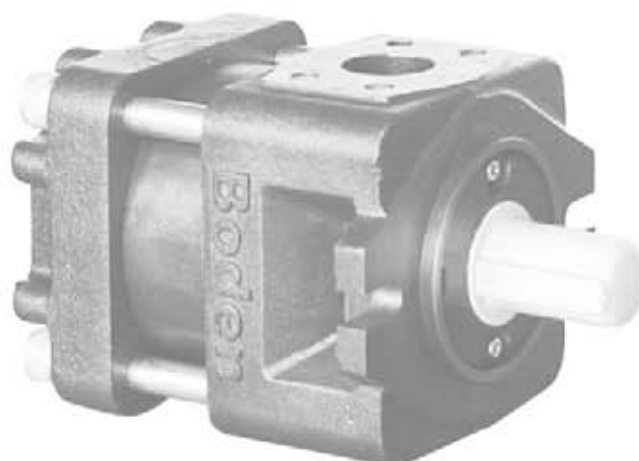
产品参数

Specification

系列-规格 type	公称排量(ml/r) displacement	压力(MPa) pressure		最高转速 (min/r) max.speed
		额定压力 rated	最高压力 max	
BNP2-C20F	20	7.0	8.0	1800
BNP2-C25F	25			
BNP2-C32F	32			

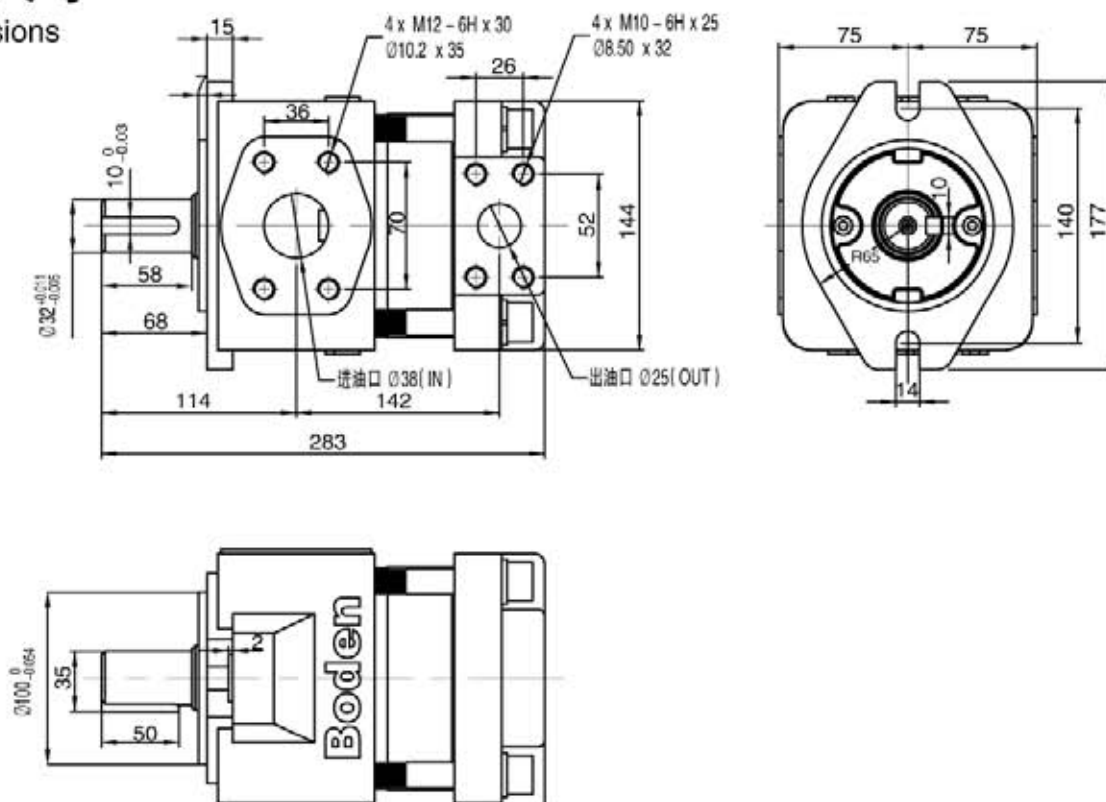
低压泵 BNP3系列

Low pressure pump BNP3 series



外形尺寸

Dimensions



产品参数

Specification

系列-规格 type	公称排量(ml/r) displacement	压力(MPa) pressure		最高转速 (min/r) max.speed
		额定压力 rated	最高压力 max	
BNP3-C40F	40	7.0	8.0	1800
BNP3-C50F	50			
BNP3-C63F	63			

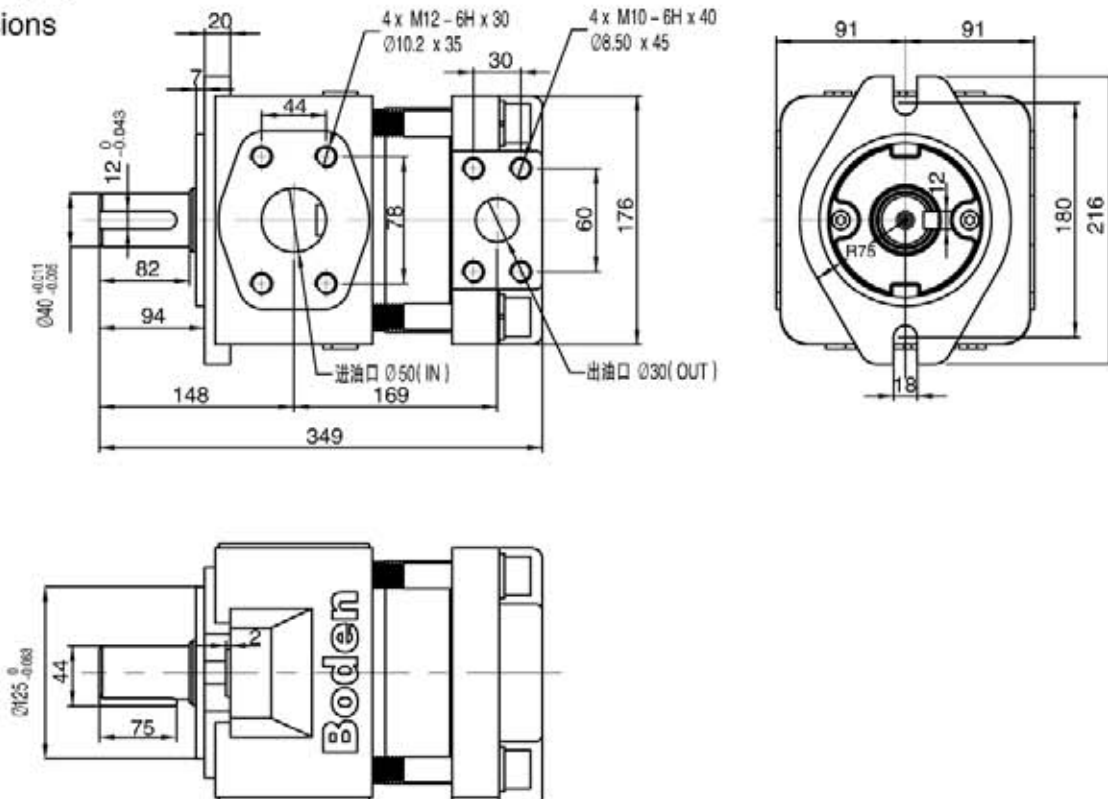
低压泵 BNP4系列

Low pressure pump BNP4 series



外形尺寸

Dimensions



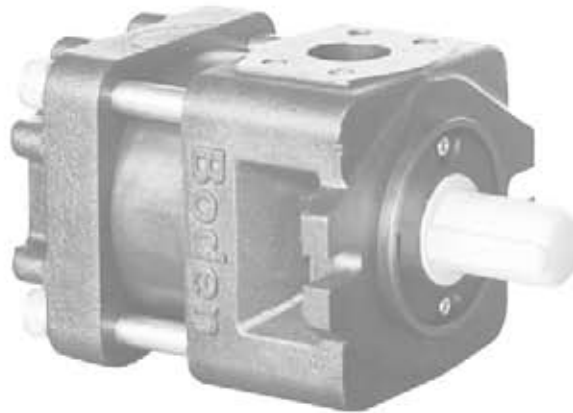
产品参数

Specification

系列-规格 type	公称排量(ml/r) displacement	压力(MPa) pressure		最高转速 (min/r) max.speed
		额定压力 rated	最高压力 max	
BNP4-C80F	80	7.0	8.0	1800
BNP4-C100F	100			
BNP4-C125F	125			

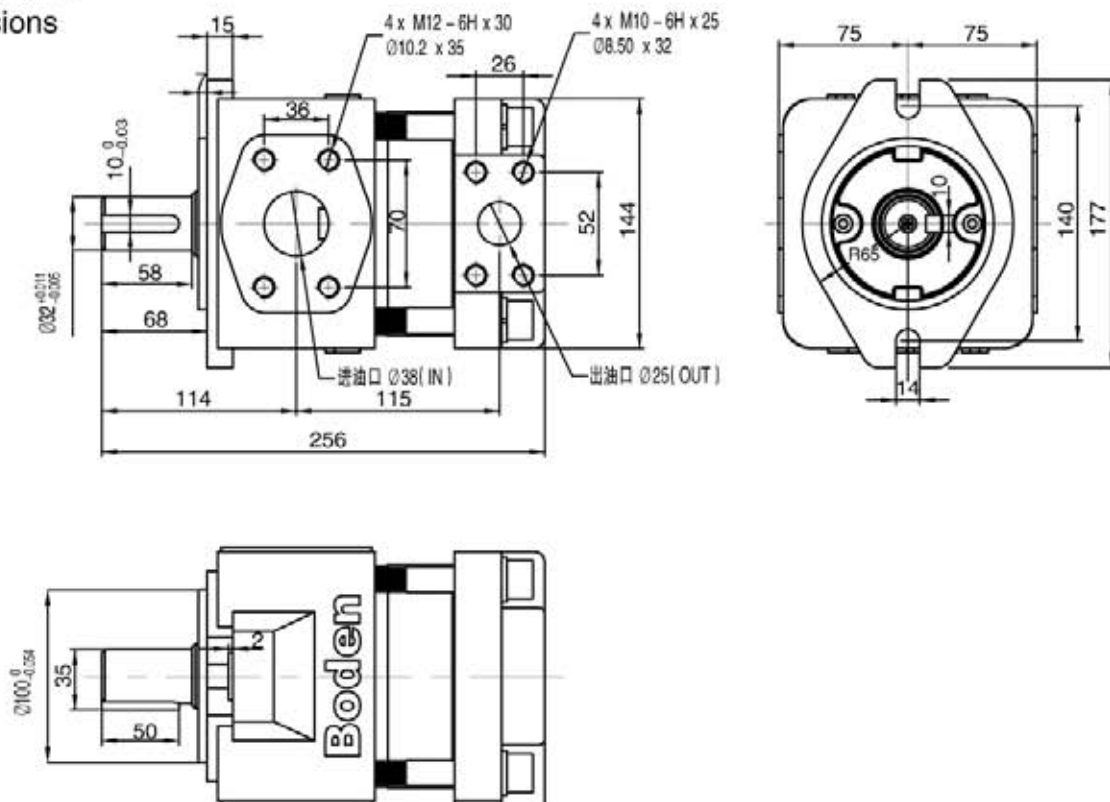
中压泵 BNP3系列

Medium pressure pump BNP3 series



外形尺寸

Dimensions



产品参数

Specification

系列-规格 type	公称排量(ml/r) displacement	压力(MPa) pressure		最高转速 (min/r) max.speed
		额定压力 rated	最高压力 max	
BNP3-D20F	20	14.0	16.0	1800
BNP3-D25F	25			
BNP3-D32F	32			

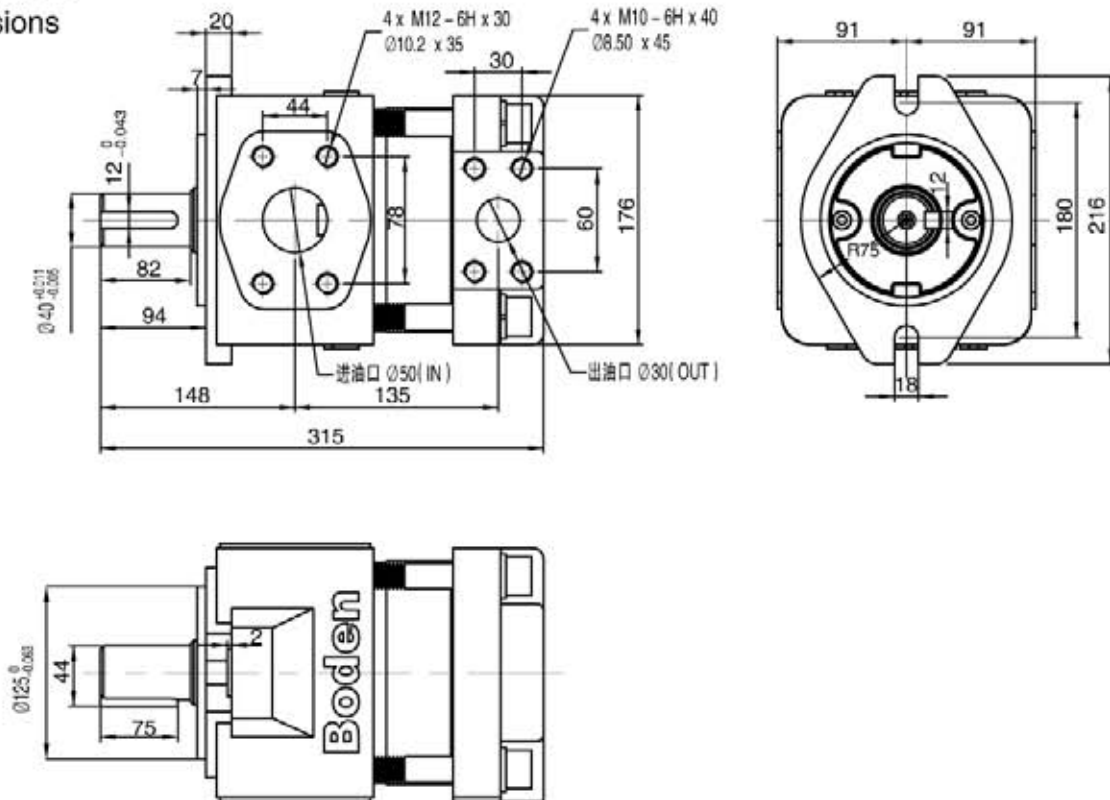
中压泵 BNP4系列

Medium pressure pump BNP4 series



外形尺寸

Dimensions



产品参数

Specification

系列-规格 type	公称排量(ml/r) displacement	压力(MPa) pressure		最高转速 (min/r) max.speed
		额定压力 rated	最高压力 max	
BNP4-D40F	40	14.0	16.0	1800
BNP4-D50F	50			
BNP4-D63F	63			

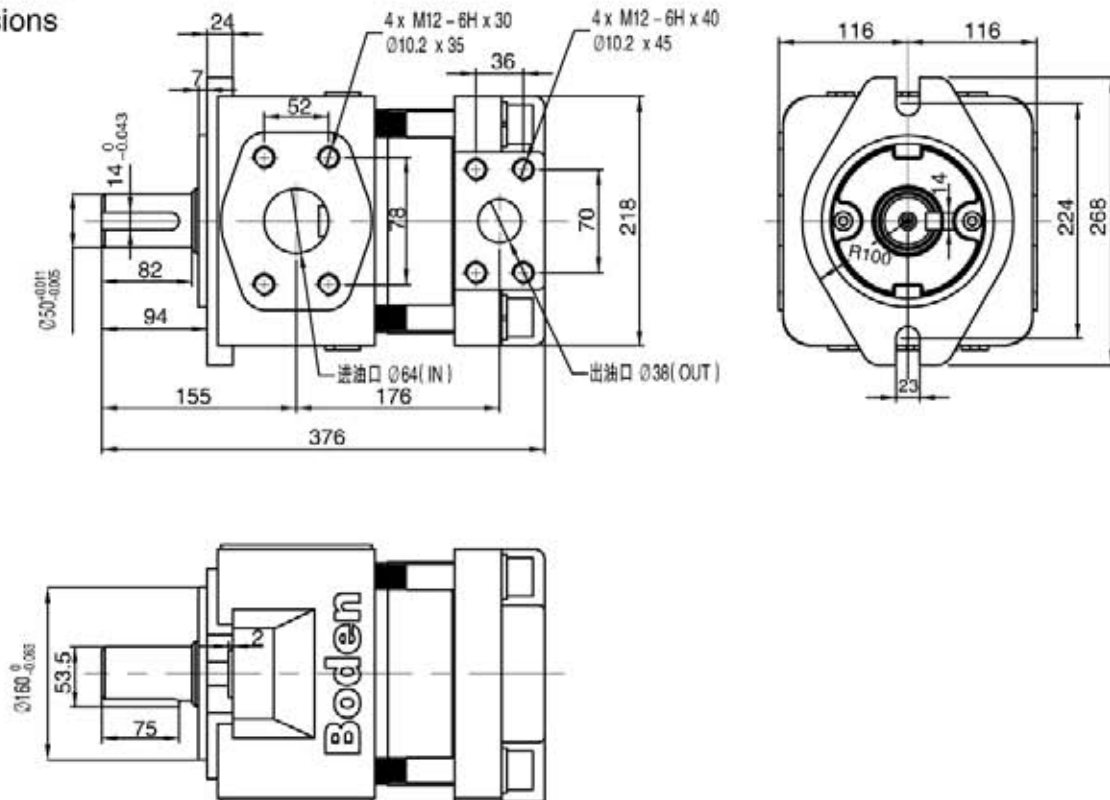
中压泵 BNP5系列

Medium pressure pump BNP5 series



外形尺寸

Dimensions



产品参数

Specification

系列-规格 type	公称排量(ml/r) displacement	压力(MPa) pressure		最高转速 (min/r) max.speed
		额定压力 rated	最高压力 max	
BNP5-D80F	80	14.0	16.0	1800
BNP5-D100F	100			
BNP5-D125F	125			

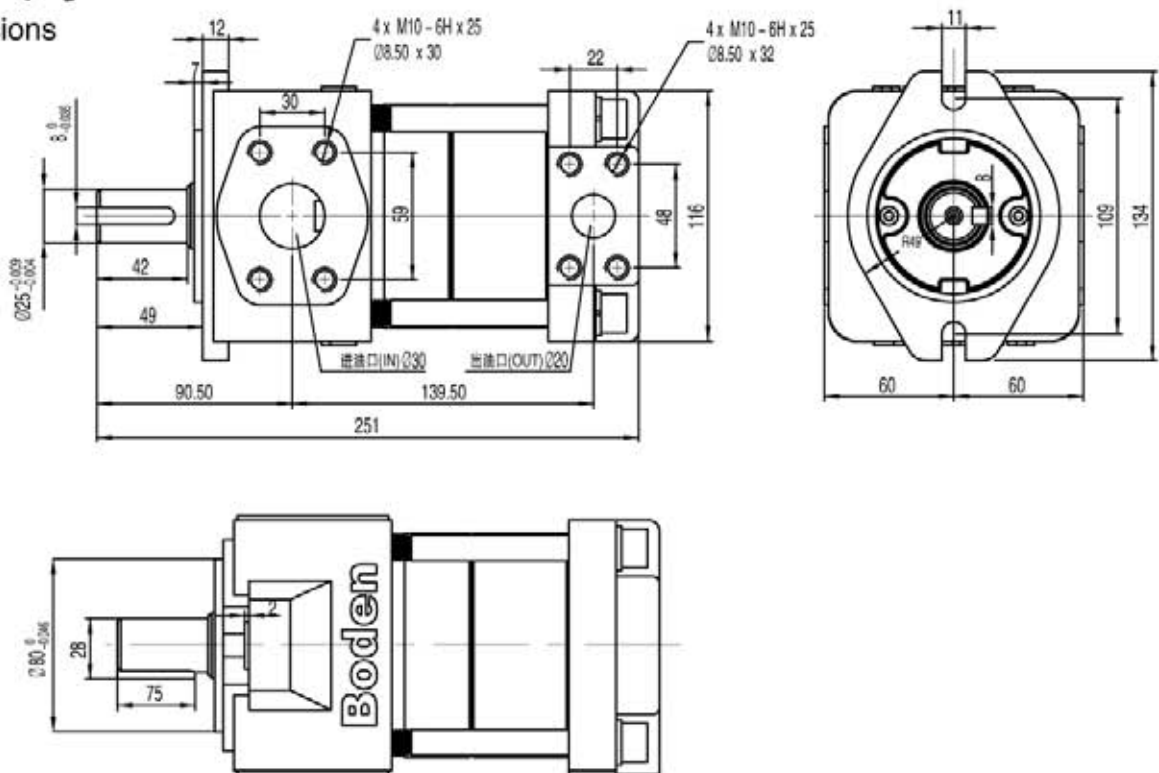
高压泵 BNP2系列

High pressure pump BNP2 series



外形尺寸

Dimensions



产品参数

Specification

系列-规格 type	公称排量(ml/r) displacement	压力(MPa) pressure		最高转速 (min/r) max.speed
		额定压力 rated	最高压力 max	
BNP2-G10F	10	25	32	1800
BNP2-G12F	12			
BNP2-G16F	16			

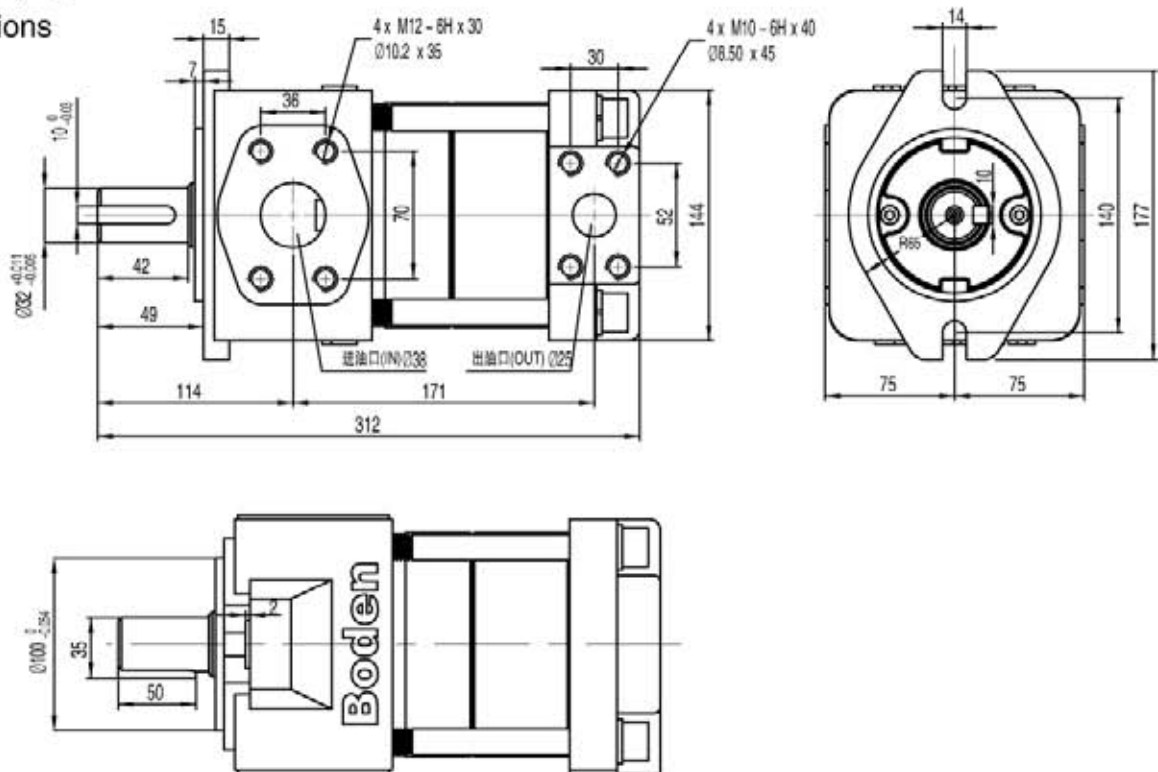
高压泵 BNP3系列

High pressure pump BNP3 series



外形尺寸

Dimensions



产品参数

Specification

系列-规格 type	公称排量(ml/r) displacement	压力(MPa) pressure		最高转速 (min/r) max.speed
		额定压力 rated	最高压力 max	
BNP3-G20F	20	25	32	1800
BNP3-G25F	25			
BNP3-G32F	32			

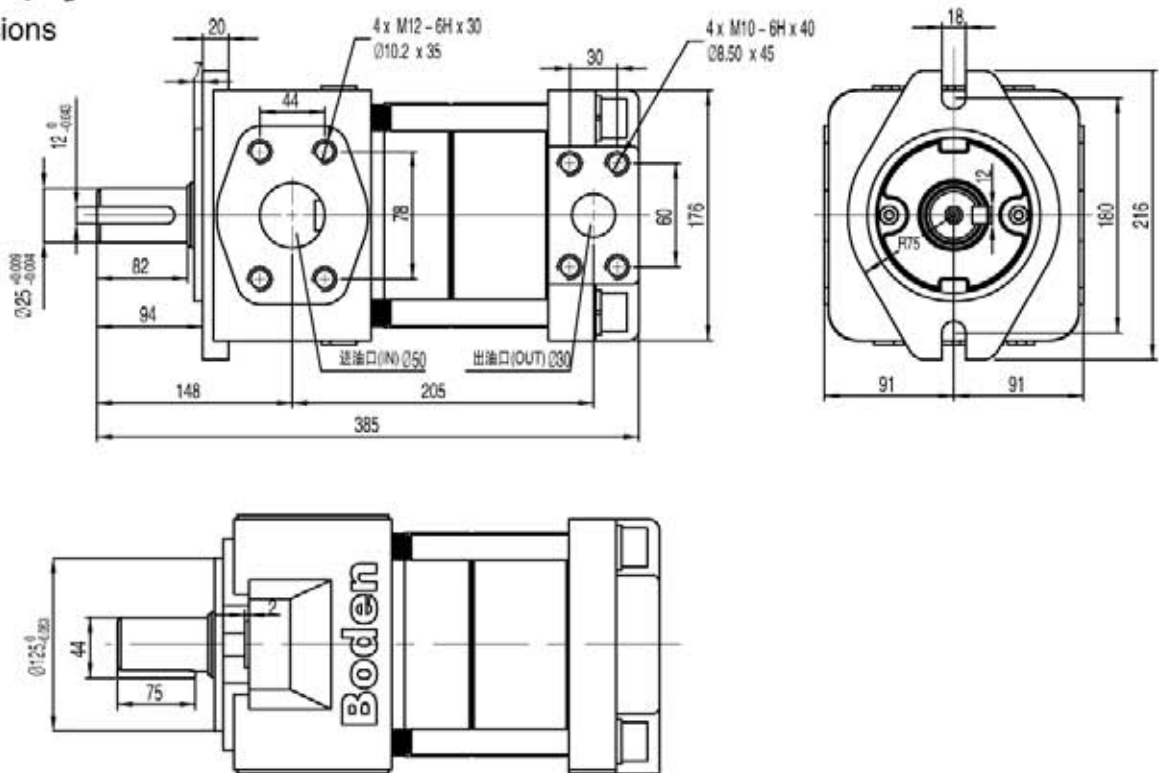
高压泵 BNP4系列

High pressure pump BNP4 series



外形尺寸

Dimensions



产品参数

Specification

系列-规格 type	公称排量(ml/r) displacement	压力(MPa) pressure		最高转速 (min/r) max.speed
		额定压力 rated	最高压力 max	
BNP4-G40F	40	25	32	1800
BNP4-G50F	50			
BNP4-G63F	63			

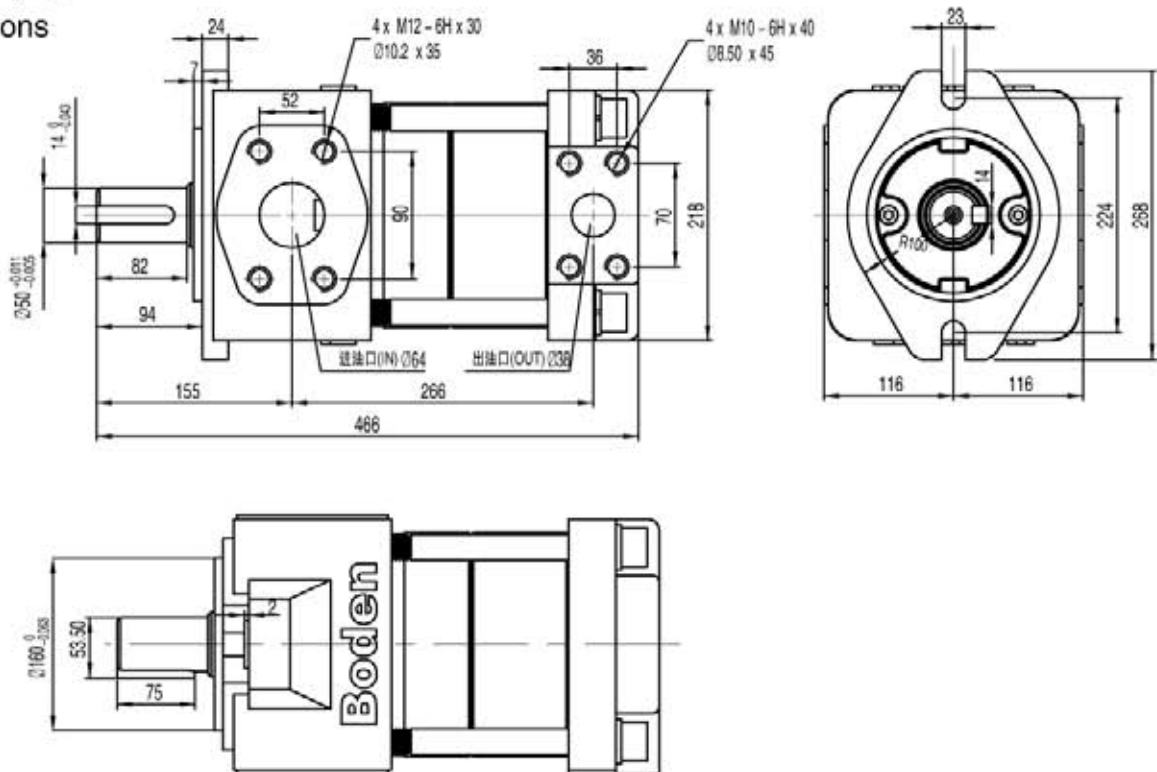
高压泵 BNP5系列

High pressure pump BNP5 series



外形尺寸

Dimensions



产品参数

Specification

系列-规格 type	公称排量(ml/r) displacement	压力(MPa) pressure		最高转速 (min/r) max.speed
		额定压力 rated	最高压力 max	
BNP5-G80F	80	25	32	1800
BNP5-G100F	100			
BNP5-G125F	125			

性能表			高压泵												油液粘度: 40CST					
转速 r/min	型号	理论 排量	流量(l/min)						需要功率(KW)											
			压力: MPa						压力: MPa											
			0.5	7	14	21	25	32	0.5	7	14	21	25	32						
1000	BNP2-G10	10	10.0	9.3	8.6	7.9	7.5	6.8	0.18	1.36	2.57	3.79	4.48	5.69						
	BNP2-G12	12.6	12.5	11.8	11.0	10.2	9.8	9.0	0.23	1.71	3.23	4.75	5.62	7.15						
	BNP2-G16	15.6	15.5	14.7	13.8	12.9	12.4	11.5	0.28	2.10	3.98	5.86	6.94	8.81						
	BNP3-G20	20.3	20.2	18.5	16.7	14.9	13.9	12.1	0.36	2.73	5.16	7.59	8.98	11.42						
	BNP3-G25	25.1	25.0	23.3	21.5	19.7	18.7	16.9	0.45	3.36	6.36	9.35	11.07	14.07						
	BNP3-G32	32.3	32.2	30.5	28.7	26.9	25.9	24.1	0.58	4.31	8.15	11.99	14.18	18.02						
	BNP4-G40	39.2	39.0	36.9	34.7	32.4	31.1	28.8	0.70	5.21	9.85	14.50	17.15	21.79						
	BNP4-G50	50.5	50.3	48.2	46.0	43.7	42.4	40.1	1.16	6.68	12.64	18.59	22.00	27.95						
	BNP4-G63	63.5	63.3	61.2	59.0	56.7	55.4	53.1	1.45	8.37	15.83	23.29	27.55	35.00						
	BNP5-G80	80.1	79.8	76.4	72.7	69.0	66.9	63.2	1.83	10.52	19.89	29.25	34.61	43.97						
BNP5-G100	100.9	100.6	97.2	93.5	89.8	87.7	84.0	2.30	13.21	24.95	36.70	43.41	55.16							
BNP5-G125	124.6	124.3	120.9	117.2	113.5	111.4	107.7	2.83	16.25	30.70	45.15	53.41	67.86							
1200	BNP2-G10	10	12.0	11.3	10.7	10.0	9.6	9.0	0.31	1.66	3.12	4.57	5.41	6.86						
	BNP2-G12	12.6	15.1	14.4	13.6	12.9	12.4	11.7	0.39	2.08	3.91	5.74	6.79	8.61						
	BNP2-G16	15.6	18.7	17.9	17.0	16.1	15.6	14.8	0.48	2.57	4.83	7.08	8.37	10.62						
	BNP3-G20	20.3	24.2	22.7	20.9	19.2	18.3	16.6	0.62	3.33	6.25	9.17	10.84	13.76						
	BNP3-G25	25.1	30.0	28.4	26.7	25.0	24.0	22.3	0.77	4.11	7.70	11.30	13.36	16.95						
	BNP3-G32	32.3	38.6	37.1	35.3	33.6	32.7	31.0	0.99	5.27	9.87	14.48	17.11	21.72						
	BNP4-G40	39.2	46.9	44.9	42.7	40.6	39.3	37.2	1.20	6.37	11.94	17.52	20.70	26.27						
	BNP4-G50	50.5	60.4	58.4	56.3	54.1	52.9	50.7	1.54	8.17	15.32	22.47	26.55	33.69						
	BNP4-G63	63.5	76.0	74.0	71.9	69.7	68.5	66.3	1.93	10.24	19.19	28.14	33.25	42.20						
	BNP5-G80	80.1	95.9	92.6	89.1	85.5	83.5	80.0	2.43	12.87	24.11	35.35	41.77	53.01						
BNP5-G100	100.9	120.8	117.6	114.0	110.5	108.5	105.0	3.06	16.15	30.25	44.35	52.40	66.50							
BNP5-G125	124.6	149.3	146.0	142.5	138.9	136.9	133.4	3.78	19.88	37.22	54.56	64.47	81.81							
1500	BNP2-G10	10	15.0	14.4	13.8	13.1	12.8	12.2	0.44	2.13	3.95	5.77	6.81	8.64						
	BNP2-G12	12.6	18.8	18.2	17.5	16.8	16.4	15.7	0.56	2.68	4.96	7.25	8.55	10.84						
	BNP2-G16	15.6	23.3	22.6	21.8	21.0	20.5	19.7	0.69	3.30	6.12	8.94	10.55	13.37						
	BNP3-G20	20.3	30.3	28.9	27.3	25.7	24.8	23.2	0.89	4.28	7.93	11.58	13.67	17.32						
	BNP3-G25	25.1	37.5	36.1	34.5	32.9	32.0	30.4	1.10	5.28	9.77	14.27	16.84	21.33						
	BNP3-G32	32.3	48.3	46.9	45.3	43.7	42.8	41.2	1.42	6.67	12.52	18.28	21.58	27.33						
	BNP4-G40	39.2	58.7	57.2	55.6	54.0	53.1	51.5	1.72	8.19	15.15	22.12	26.10	33.06						
	BNP4-G50	50.5	75.6	74.2	72.6	71.0	70.1	68.5	2.21	10.50	19.44	28.37	33.47	42.40						
	BNP4-G63	63.5	95.1	93.7	92.1	90.5	89.6	88.0	2.78	13.16	24.35	35.53	41.92	53.11						
	BNP5-G80	80.1	119.9	116.8	113.5	110.2	108.4	105.0	3.50	16.54	30.59	44.64	52.67	66.71						
BNP5-G100	100.9	151.1	148.0	144.7	141.4	139.6	136.2	4.40	20.76	38.38	56.00	66.07	83.69							
BNP5-G125	124.6	186.7	183.6	180.3	177.0	175.1	171.8	5.43	25.55	47.23	68.90	81.29	102.97							
1800	BNP2-G10	10	18.0	17.4	16.8	16.3	15.9	15.4	0.60	2.63	4.81	7.00	8.25	10.43						
	BNP2-G12	12.6	22.6	22.0	21.4	20.7	20.3	19.7	0.75	3.30	6.04	8.78	10.35	13.09						
	BNP2-G16	15.6	28.0	27.3	26.6	25.8	25.4	24.6	0.93	4.07	7.45	10.83	12.77	16.15						
	BNP3-G20	20.3	36.4	35.1	33.6	32.1	31.2	29.8	1.21	5.28	9.66	14.04	16.54	20.92						
	BNP3-G25	25.1	45.1	43.7	42.2	40.7	39.9	38.4	1.49	6.50	11.90	17.29	20.38	25.77						
	BNP3-G32	32.3	58.0	56.7	55.2	53.7	52.8	51.4	1.92	8.34	15.25	22.16	26.11	33.02						
	BNP4-G40	39.2	70.4	68.7	66.8	64.9	63.9	62.0	1.97	10.09	18.45	26.81	31.58	39.94						
	BNP4-G50	50.5	90.8	89.0	87.1	85.3	84.2	82.3	2.54	12.95	23.67	34.39	40.51	51.23						
	BNP4-G63	63.5	114.2	112.4	110.5	108.7	107.6	105.7	3.19	16.22	29.65	43.07	50.74	64.16						
	BNP5-G80	80.1	144.0	141.1	138.0	134.9	133.2	130.1	4.02	20.39	37.25	54.11	63.74	80.60						
BNP5-G100	100.9	181.4	178.5	175.5	172.4	170.6	167.5	5.97	25.60	46.75	67.89	79.97	101.12							
BNP5-G125	124.6	224.1	221.2	218.1	215.0	213.3	210.2	7.36	31.51	57.52	83.53	98.40	124.41							

性能表		中压泵		油液粘度: 40CST										
转速 r/min	型号	理论 排量	流量(l/min)						需要功率(KW)					
			压力: MPa						压力: MPa					
			0.5	3.5	7	10.5	14	16	0.5	3.5	7	10.5	14	16
1000	BNP2-D10	10	9.9	9.3	8.6	8.0	7.3	6.9	0.16	0.68	1.29	1.90	2.50	2.85
	BNP2-D12	12.6	12.5	11.8	11.0	10.3	9.5	9.1	0.21	0.86	1.62	2.38	3.14	3.58
	BNP2-D16	15.6	15.5	14.7	13.8	12.9	11.9	11.4	0.25	1.06	2.00	2.94	3.88	4.41
	BNP3-D20	20.3	20.0	18.5	16.8	15.0	13.2	12.2	0.33	1.37	2.59	3.81	5.02	5.72
	BNP3-D25	25.1	24.8	23.3	21.6	19.8	18.0	17.0	0.41	1.69	3.19	4.69	6.19	7.04
	BNP3-D32	32.3	32.0	30.5	28.8	27.0	25.2	24.2	0.52	2.17	4.09	6.01	7.93	9.02
	BNP4-D40	39.2	38.9	37.0	32.7	32.5	30.2	28.9	0.63	2.62	4.94	7.27	9.59	10.91
	BNP4-D50	50.5	50.2	48.3	46.0	43.8	41.5	40.2	0.81	3.36	6.34	9.32	12.30	14.00
	BNP4-D63	63.5	63.2	61.3	59.0	56.8	54.5	53.2	1.02	4.21	7.94	11.67	15.40	17.53
	BNP5-D80	80.1	79.6	76.4	72.7	69.0	65.3	63.2	1.28	5.30	9.98	14.66	19.34	22.02
	BNP5-D100	100.9	100.4	97.2	93.5	89.8	86.1	84.0	1.61	6.65	12.52	18.39	24.27	27.62
BNP5-D125	124.6	124.1	120.9	117.2	113.5	109.8	107.7	1.98	8.18	15.40	22.63	29.85	33.98	
1200	BNP2-D10	10	11.9	11.3	10.7	10.0	9.4	9.0	0.21	0.84	1.56	2.29	3.02	3.44
	BNP2-D12	12.6	15.0	14.4	13.6	12.9	12.2	11.7	0.27	1.05	1.96	2.88	3.79	4.31
	BNP2-D16	15.6	18.6	17.8	17.0	16.1	15.2	14.7	0.33	1.30	2.42	3.55	4.68	5.32
	BNP3-D20	20.3	24.1	22.7	21.0	19.3	17.6	16.6	0.43	1.68	3.14	4.60	6.06	6.89
	BNP3-D25	25.1	29.9	28.4	26.7	25.0	23.3	22.3	0.53	2.07	3.87	5.67	7.46	8.49
	BNP3-D32	32.3	38.5	37.1	35.4	33.7	32.0	31.0	0.68	2.65	4.95	7.26	9.56	10.88
	BNP4-D40	39.2	46.7	44.9	42.7	40.6	38.4	37.2	0.82	3.21	5.99	8.78	11.57	13.16
	BNP4-D50	50.5	60.3	58.5	56.3	54.2	52.0	50.8	1.05	4.12	7.69	11.26	14.83	16.88
	BNP4-D63	63.5	75.9	74.1	71.9	69.8	67.6	66.4	1.32	5.16	9.63	14.10	18.58	21.13
	BNP5-D80	80.1	95.6	92.6	89.1	85.5	82.0	80.0	1.66	6.48	12.10	17.72	23.34	26.55
	BNP5-D100	100.9	120.6	117.6	114.0	110.5	107.0	105.0	2.09	8.13	15.18	22.23	29.28	33.31
BNP5-D125	124.6	149.0	146.0	142.5	138.9	135.4	133.4	2.58	10.01	18.68	27.35	36.02	40.97	
1500	BNP2-D10	10	14.9	14.4	13.8	13.2	12.6	12.2	0.29	1.07	1.98	2.90	3.81	4.33
	BNP2-D12	12.6	18.8	18.2	17.5	16.8	16.1	15.7	0.37	1.35	2.49	3.63	4.78	5.43
	BNP2-D16	15.6	23.3	22.6	21.8	21.0	20.1	19.7	0.46	1.66	3.07	4.48	5.89	6.70
	BNP3-D20	20.3	30.2	28.9	27.3	25.7	24.2	23.2	0.59	2.16	3.98	5.81	7.63	8.68
	BNP3-D25	25.1	37.4	36.1	34.5	32.9	31.4	30.5	0.73	2.66	4.91	7.16	9.40	10.69
	BNP3-D32	32.3	48.2	46.9	45.3	43.7	42.2	41.3	0.94	3.41	6.29	9.17	12.05	13.69
	BNP4-D40	39.2	58.5	56.8	54.8	52.8	50.8	49.7	1.14	4.13	7.61	11.09	14.57	16.56
	BNP4-D50	50.5	75.5	73.8	71.8	69.8	67.8	66.6	1.47	5.29	9.76	14.23	18.69	21.24
	BNP4-D63	63.5	95.0	93.3	91.3	89.3	87.3	86.1	1.84	6.63	12.23	17.82	23.41	26.61
	BNP5-D80	80.1	119.7	116.9	113.6	110.3	107.1	105.2	2.32	8.34	15.36	22.39	29.41	33.42
	BNP5-D100	100.9	150.9	148.1	144.8	141.5	138.3	136.4	2.91	10.47	19.28	28.09	36.90	41.93
BNP5-D125	124.6	186.4	183.6	180.4	177.1	173.8	171.9	3.59	12.88	23.72	34.56	45.39	51.59	
1800	BNP2-D10	10	17.9	17.4	16.9	16.3	15.7	15.4	0.39	1.32	2.42	3.51	4.60	5.23
	BNP2-D12	12.6	22.6	22.0	21.4	20.7	20.1	19.7	0.49	1.66	3.03	4.41	5.78	6.56
	BNP2-D16	15.6	28.0	27.3	26.6	25.8	25.0	24.6	0.60	2.05	3.74	5.44	7.13	8.09
	BNP3-D20	20.3	36.3	35.1	33.6	32.1	30.6	29.8	0.78	2.66	4.85	7.04	9.23	10.48
	BNP3-D25	25.1	45.0	43.7	42.2	40.8	39.3	38.4	0.97	3.28	5.98	8.68	11.37	12.92
	BNP3-D32	32.3	57.9	56.7	55.2	53.7	52.2	51.4	1.24	4.21	7.66	11.12	14.57	16.55
	BNP4-D40	39.2	70.3	68.7	66.8	64.9	63.1	62.0	1.51	5.09	9.27	13.45	17.63	20.02
	BNP4-D50	50.5	90.6	89.0	87.2	85.3	83.4	82.3	1.94	6.53	11.89	17.25	22.61	25.67
	BNP4-D63	63.5	114.0	112.4	110.6	108.7	106.8	105.7	2.43	8.19	14.90	21.61	28.32	32.15
	BNP5-D80	80.1	143.7	141.1	138.0	135.0	131.9	130.1	3.06	10.29	18.72	27.15	35.58	40.39
	BNP5-D100	100.9	181.2	178.5	175.5	172.4	169.3	167.6	3.85	12.92	23.49	34.06	44.63	50.68
BNP5-D125	124.6	223.8	221.2	218.1	218.1	212.0	210.2	4.75	15.90	28.90	41.91	54.91	62.35	

性能表			油液粘度: 40CST											
转速 r/min	型号	理论 排量	流量(l/min)						需要功率(KW)					
			压力: MPa						压力: MPa					
			0.5	2	3.5	5	7	8	0.5	2	3.5	5	7	8
1000	BNP2-C20	20	19.8	19.1	18.4	17.7	16.8	16.3	0.33	0.86	1.40	1.93	2.64	3.00
	BNP2-C25	25.2	24.9	24.2	23.4	22.7	21.7	21.2	0.42	1.08	1.75	2.42	3.31	3.76
	BNP2-C32	31.2	30.9	30.1	29.3	28.4	27.3	26.8	0.51	1.33	2.16	2.98	4.07	4.62
	BNP3-C40	40.6	40.1	38.5	36.9	35.3	33.2	32.1	0.66	1.72	2.78	3.84	5.26	5.97
	BNP3-C50	50.2	49.7	48.1	46.5	44.9	42.8	41.7	0.82	2.12	3.42	4.72	6.46	7.33
	BNP3-C63	64.6	64.1	62.5	60.9	59.3	57.2	56.1	1.05	2.71	4.37	6.03	8.25	9.36
	BNP4-C80	78.4	77.7	75.5	73.4	71.3	68.4	67.0	1.27	3.27	5.28	7.28	9.96	11.29
	BNP4-C100	101.0	100.3	98.1	96.0	93.9	91.0	89.6	1.63	4.19	6.75	9.31	12.73	14.43
	BNP4-C125	127.0	126.3	124.1	122.0	119.9	117.0	115.6	2.04	5.23	8.43	11.53	15.89	18.02
	BNP5-C160	160.2	159.3	156.4	153.6	150.7	146.9	145.0	2.56	6.56	10.56	14.57	19.90	22.57
BNP5-C200	201.8	200.9	198.0	195.2	192.3	188.5	186.6	3.21	8.21	13.22	18.22	24.89	28.23	
BNP5-C250	249.2	248.3	245.4	242.6	239.7	235.9	234.0	3.95	10.09	16.22	22.35	30.53	34.62	
1200	BNP2-C20	20	23.8	23.1	22.4	21.7	20.8	20.3	0.43	1.07	1.71	2.35	3.21	3.63
	BNP2-C25	25.2	30.0	29.2	28.5	27.7	26.7	26.2	0.54	1.34	2.14	2.94	4.01	4.55
	BNP2-C32	31.2	37.2	36.3	35.5	34.7	33.5	33.0	0.66	1.65	2.64	3.62	4.94	5.59
	BNP3-C40	40.6	48.2	45.6	45.0	43.4	41.3	40.3	0.86	2.13	3.41	4.68	6.37	7.22
	BNP3-C50	50.2	59.7	48.1	56.5	55.0	52.8	51.8	1.06	2.62	4.19	5.75	7.83	8.87
	BNP3-C63	64.6	77.0	75.4	73.8	72.2	70.1	69.1	1.36	3.35	5.35	7.34	10.00	11.33
	BNP4-C80	78.4	93.4	91.2	89.1	86.9	84.1	82.7	1.64	4.05	6.46	8.86	12.07	13.67
	BNP4-C100	101.0	120.5	118.3	116.2	114.1	111.2	109.8	2.11	5.18	8.26	11.33	15.43	17.48
	BNP4-C125	127.0	151.7	149.5	147.4	145.3	142.4	141.0	2.64	6.48	10.32	14.15	19.27	21.83
	BNP5-C160	160.2	191.3	188.4	185.6	182.7	178.9	177.0	3.32	8.13	12.93	17.73	24.13	27.34
BNP5-C200	201.8	241.2	238.4	235.5	232.7	228.9	227.0	4.17	10.17	16.18	22.18	30.19	34.19	
BNP5-C250	249.2	298.1	295.2	292.4	289.5	285.7	283.8	5.13	12.50	19.86	27.22	37.03	41.94	
1500	BNP2-C20	20	29.8	29.1	28.4	27.7	26.8	26.3	0.59	1.40	2.20	3.00	4.07	4.60
	BNP2-C25	25.2	37.5	36.8	36.0	35.3	34.3	33.8	0.75	1.75	2.75	3.75	5.09	5.76
	BNP2-C32	31.2	46.5	45.7	44.9	44.0	42.9	42.4	0.92	2.15	3.39	4.62	6.26	7.08
	BNP3-C40	40.6	60.4	58.8	57.2	55.6	53.5	52.4	1.20	2.79	4.38	5.97	8.09	9.15
	BNP3-C50	50.2	74.8	73.2	71.6	70.0	67.9	66.8	1.47	3.43	5.38	7.33	9.94	11.24
	BNP3-C63	64.6	96.4	94.8	93.2	91.6	89.5	88.4	1.89	4.38	6.88	9.37	12.69	14.36
	BNP4-C80	78.4	116.9	114.7	112.6	110.5	107.6	106.2	2.29	5.30	8.30	11.31	15.32	17.32
	BNP4-C100	101.0	150.8	148.6	146.5	144.4	141.5	140.1	2.94	6.78	10.62	14.46	19.59	22.15
	BNP4-C125	127.0	189.8	187.6	185.5	183.4	180.5	179.1	3.68	8.48	13.27	18.07	24.46	27.66
	BNP5-C160	160.2	239.4	236.5	233.7	230.8	227.0	225.1	4.63	10.63	16.63	22.64	30.64	34.64
BNP5-C200	201.8	301.8	298.9	296.1	293.2	289.4	287.5	5.81	13.31	20.82	28.32	38.33	43.33	
BNP5-C250	249.2	372.9	370.0	367.2	364.3	360.5	358.6	7.15	16.36	25.56	34.76	47.03	53.16	
1800	BNP2-C20	20	35.8	35.1	34.4	33.7	32.8	32.3	0.78	1.75	2.71	3.67	4.95	5.59
	BNP2-C25	25.2	45.1	44.4	43.6	42.9	41.9	41.4	0.99	2.19	3.39	4.59	6.20	7.00
	BNP2-C32	31.2	55.9	55.0	54.2	53.4	52.3	51.7	1.22	2.70	4.18	5.65	7.63	8.61
	BNP3-C40	40.6	72.6	71.0	69.4	67.8	65.7	64.6	1.58	3.49	5.40	7.30	9.85	11.12
	BNP3-C50	50.2	89.8	88.2	86.7	85.1	83.0	81.9	1.95	4.29	6.63	8.98	12.10	13.67
	BNP3-C63	64.6	115.8	114.2	112.6	111.0	108.9	107.8	2.50	5.49	8.48	11.47	15.46	17.46
	BNP4-C80	78.4	140.4	138.3	136.1	134.0	131.1	129.7	3.02	6.63	8.98	12.10	16.10	18.67
	BNP4-C100	101.0	181.1	178.9	176.8	174.7	171.8	170.4	3.88	8.49	13.10	17.72	23.86	26.94
	BNP4-C125	127.0	227.9	225.7	223.6	221.5	218.6	217.2	4.87	10.62	16.38	22.13	29.80	33.64
	BNP5-C160	160.2	287.4	284.6	281.7	278.9	275.1	273.2	6.12	13.33	20.53	27.73	37.34	42.14
BNP5-C200	201.8	362.3	359.4	356.6	353.7	349.9	348.0	7.69	16.69	25.70	34.70	46.71	52.72	
BNP5-C250	249.2	447.6	444.8	441.9	439.1	435.3	433.4	9.47	20.51	31.55	42.60	57.32	64.68	

