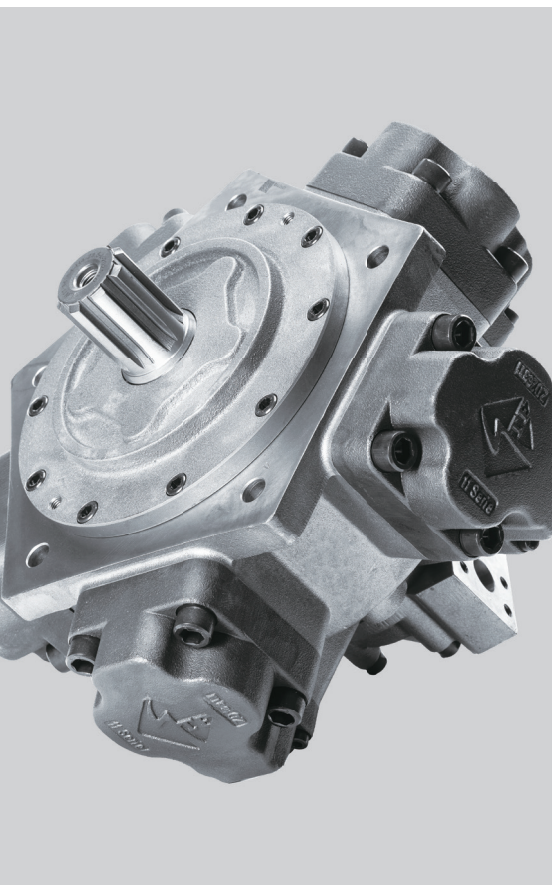


IHW

目录 / Contents



1、产品特点 / Product Feature	W-02
2、计算公式 / Calculation	W-02
3、产品标识说明 / Ordering Code	W-03
4、技术参数 / Technical Specification	W-04
5、安装联接尺寸 / Installation Dimensions	
IHW03 系列 / IHW03 Serie	W-05
IHW06 系列 / IHW06 Serie	W-07
IHW08 系列 / IHW08 Serie	W-09
IHW11 系列 / IHW11 Serie	W-10
6、通油盘种类 / Distributor	W-12
7、油口位置 / Port Direction	W-13
8、规格对应 / Specification Correspondence	W-14

产品特点 / Product Feature

IHW系列液压马达是我司在原有ITMH系列液压马达基础上全新开发的一款液压马达，外观方面采用具有专利保护的高强度结构设计，内部结构方面对包括曲轴、连杆、柱塞等在内的关键零部件进行了革新设计。IHW液压马达可满足高速、高压工况要求，同时对冲击工况有较好的适用性。

相比ITMH马达，其主要性能特点如下：

- 流道与加强筋一体化的外观设计，提高整体结构强度；
- 柱塞部分采用双重密封保障，降低端面漏油风险；
- 采用高承载轴承配对设计，为高压、冲击工况提供长效稳定支撑；
- 连杆弹性变形变量补偿设计，实现更优的静压平衡效果。

The IHW series hydraulic motor is a newly developed product based on our original ITMH series hydraulic motors. Its appearance features a patent-protected high-strength structural design, and its internal structure has been innovatively redesigned for key components including the crankshaft, connecting rods, and plungers. The IHW hydraulic motor can meet the requirements of high-speed and high-pressure working conditions, and also has good adaptability to shock conditions.

Compared with the ITMH series motor,the main characteristics are as followes:

- Integrated design of flow channels and reinforcing ribs, improving the overall structural strength;
- Double-seal protection is adopted for the plunger part, reducing the risk of end-face oil leakage;
- High-load bearing pairing design provides long-term stable support for high-pressure and shock working conditions;
- The elastic deformation compensation design of the connecting rod achieves an optimal hydrostatic balance effect.

计算公式 / Calculation

- 1、液压马达的理论输出扭矩（Theoratical output torque）： $M=0.159 (P_1-P_2) q(N \cdot M)$
液压马达的实际输出扭矩（Practical output torque）： $M_A=0.159 (P_1-P_2) q \cdot \eta_m(N \cdot M)$

式中（Where）：P1、P2 —— 分别为液压马达的入口和出口压力（MPa）inlet and outlet pressure of motors(MPa)
q —— 液压马达的排量 displacement(mL/r)
 η_m —— 液压马达的机械效率 mechanical efficiency(%)

- 2、液压马达的理论转速（Theoratical output speed）： $n= \frac{Q}{q} (r/min)$

液压马达的实际转速（Practical speed）： $n_A= \frac{Q}{q} \cdot \eta_v(r/min)$

- 3、液压马达的理论输出功率（Theoratical power）： $N= \frac{M \times n}{9550} (kw)$

液压马达的实际输出功率（Practical output power）： $N_A= \frac{Q(P_1-P_2)}{60000} \eta_m \cdot \eta_v(kw)$

式中（Where）：n —— 液压马达的转速 motor speed(r/min)
Q —— 输入液压马达的流量 input flow rate(mL/min)
 η_v —— 液压马达的容积效率 volumetric efficiency(%)

产品标识说明/ Ordering Code

****_***_***_***_***_ * _ * _ * _ * _ *
1 2 3 4 5 6 7 8 9 10 11

- 1、马达系列代号/Model-IHW
- 2、型号/Type
- 3、名义排量/Nominal Displacement (ml/r)
- 4、输出轴形式/Shaft Options
(1) 无字母表示标准矩形花键轴(以外径定心)
No symbol--standard rectangle spline shaft(the center is up to outside diameter)
(2) B表示平键轴 B--Parallel key shaft
(3) I表示内花键(以内径定心) I--female spline
(4) GM, SL表示安装连接尺寸与意大利SAI公司生产的M系列, L系列, 液压马达相同，注脚数字表示不同种类安装尺寸
GM, SL--the installation dimension same as M series, L series of SAI ITALY.
- 5、通油盘种类/Distributors
订货时若不注明，则按标准配置(见各系列马达外形尺寸图)。如有特殊需要，请参考W-12页，并在订货中注明。
If you have special request of dimensions, please state it in order, or we will treat it as our standard. (distributor options, refer to Page W-12)
- 6、有无垫块/block
1-有垫块 1-with block
0-无垫块 0-without block
- 7、进出油口螺纹/I / O port thread
标准螺纹可不标。如有特殊需要请参考W-12页，并在订货中说明。
For special thread, please state in your order, or we will treat it as our standard. (thread options, refer to Page W-12)
- 8、冲洗功能/Flushing function
C：单向冲洗 Unidirectional
0：不带冲洗功能 Without flushing function
- 9、马达转向/Motor steering
S：顺转 Clockwise direction
N：逆转 Counter clockwise direction
- 10、油口角度/Port direction
请参考W-13页，并在订货中说明。
Please refer to page W-13 and state in your order.
- 11、其它设计参数/Others



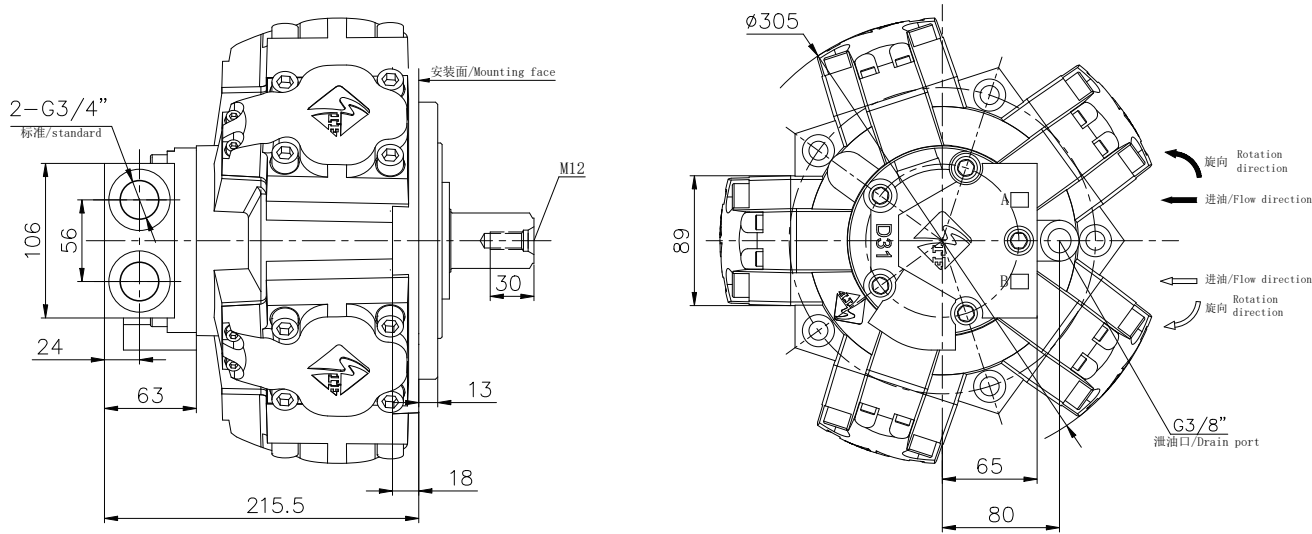
技术参数/ Technical Specification

型号 TYPE	理论排量 Theory Displacement	压力/Pressure		扭矩/Torque		最高转速 Max.Speed	额定功率 Rated Power	重量 Weight
		额定压力 Rated Pressure	最高压力 Max. Pressure	理论扭矩 Theoretical Torque	单位扭矩 Unit Torque			
		MPa	MPa	N.m	N.m/MPa			
	ml/r					r/min	Kw	Kg
IHW03-175	181	21	23	546	26	380	20	44
IHW03-200	201	21	23	609	29	350	20	
IHW03-250	254	21	23	777	37	330	24	
IHW03-300	289	21	23	882	42	300	24	
IHW03-320	327	21	23	987	47	300	24	
IHW03-350	340	21	23	1050	50	270	24	
IHW03-400	402	21	23	1176	56	270	24	
IHW06-350	346	21	23	1071	51	350	30	67
IHW06-400	397	21	23	1239	59	350	33	
IHW06-450	452	21	23	1407	67	350	37	
IHW06-500	491	21	23	1533	73	330	40	
IHW06-600	594	21	23	1848	88	330	42	
IHW06-700	683	21	23	2121	101	300	45	
IHW08-600	617	21	23	1890	90	310	53	82
IHW08-700	710	21	23	2184	104	290	56	
IHW08-800	810	21	23	2478	118	270	56	
IHW08-900	889	21	23	2730	130	230	54	
IHW11-700	702	21	23	2121	101	310	48	108
IHW11-800	779	21	23	2436	116	310	54	
IHW11-900	888	21	23	2772	132	290	60	
IHW11-1000	975	21	23	3045	145	260	58	
IHW11-1100	1097	21	23	3423	163	260	65	
IHW11-1200	1226	21	23	3822	182	230	56	
IHW11-1300	1301	21	23	4032	192	230	56	

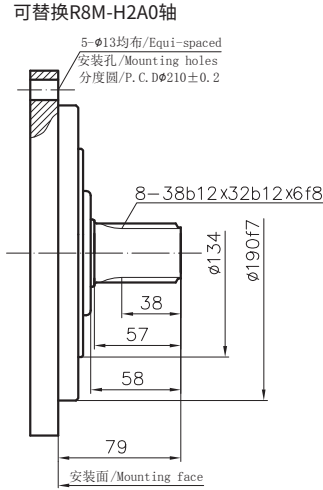
以上数据为实验条件下实测所得，仅用于对产品描述及应用参考，因实际使用条件等诸多原因，不视为产品实际应用的性能保证。斯达弗保留对样本中的产品参数、尺寸及其性能进行修改的权利，如有变更，恕不另行通知。版权所有，禁止未经过斯达弗公司书面授权的任何局部或整体内容复制与使用。

除本表所列扭矩规格外，我司可提供更高扭矩的液压马达产品，如有需要，欢迎咨询定制。

IHW03 外形及安装尺寸/ IHW03 Installation Dimensions

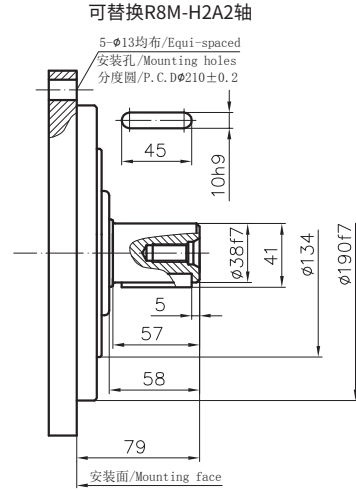


标准外花键 : IHW03-**
Standard Involute Spline



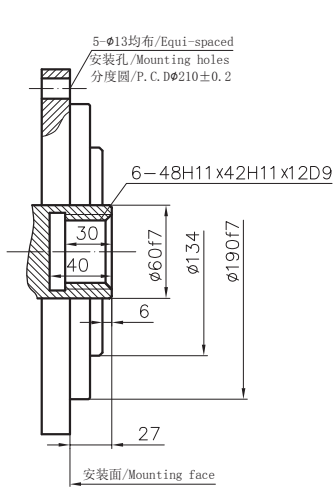
IHW03-**B₁

标准平键 : IHW03-**B
Standard Parallel Key



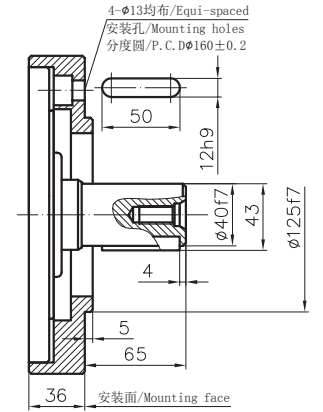
IHW03-**SL₁

标准内花键 : IHW03-**I
Standard Female Spline

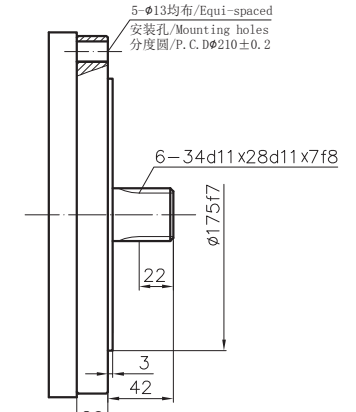


IHW03-**SL₂, SL₃

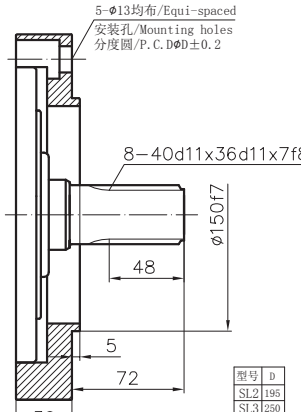
可替换GM1马达矩形外花键轴



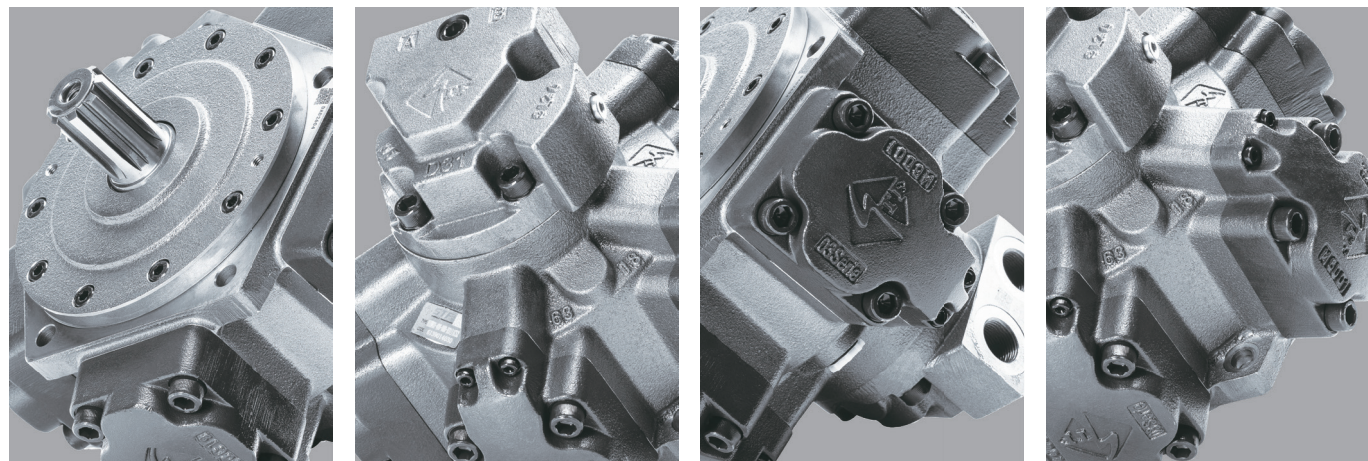
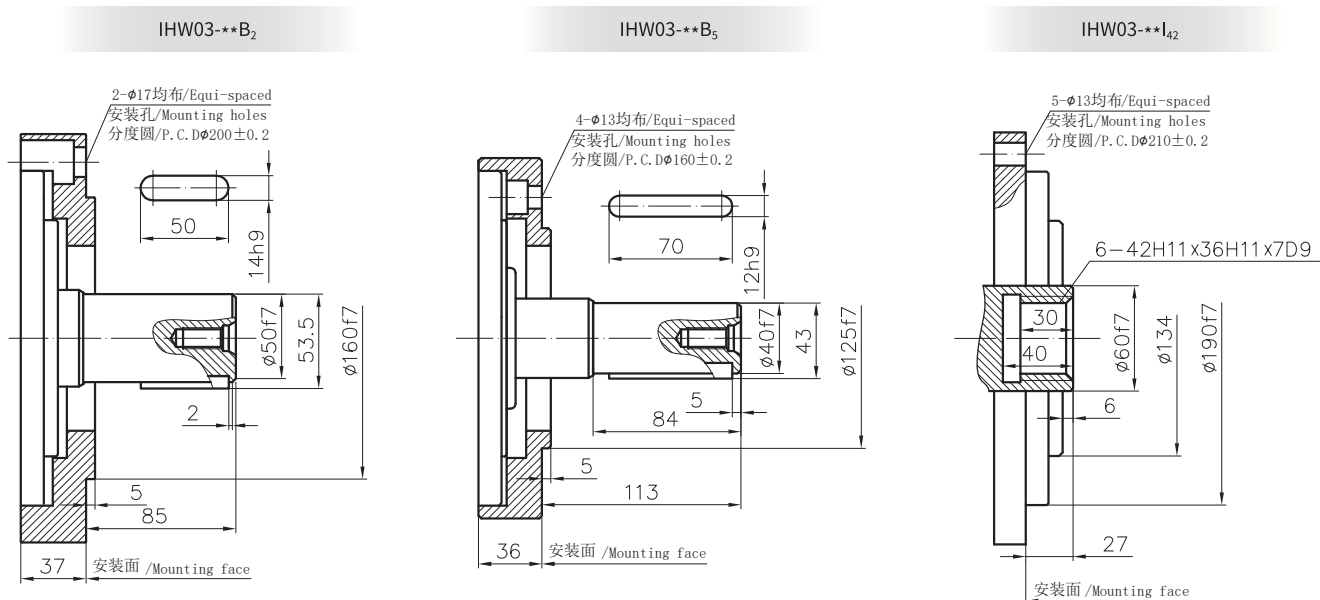
可替换GM1马达矩形外花键轴



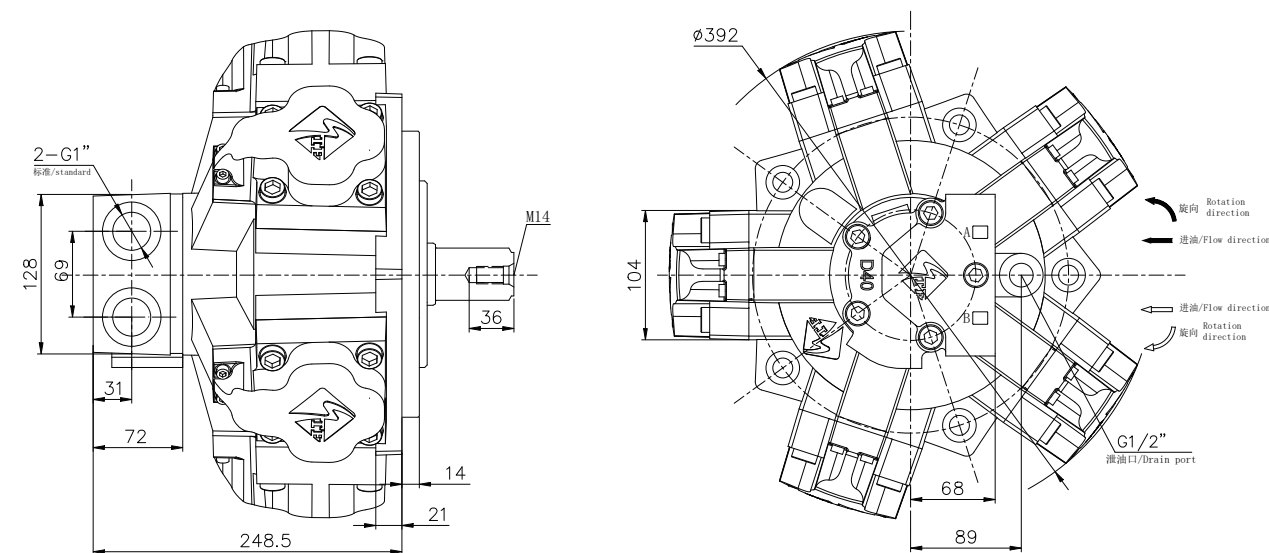
可替换GM2马达矩形外花键轴



型号 D
SL2 195
SL3 250



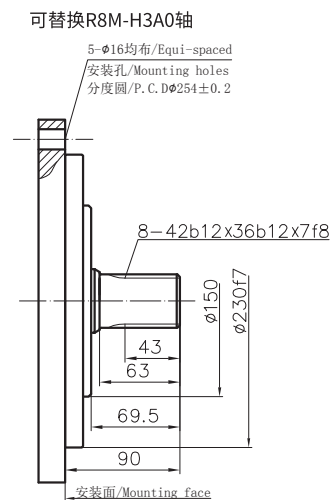
IHW06 外形及安装尺寸/ IHW06 Installation Dimensions



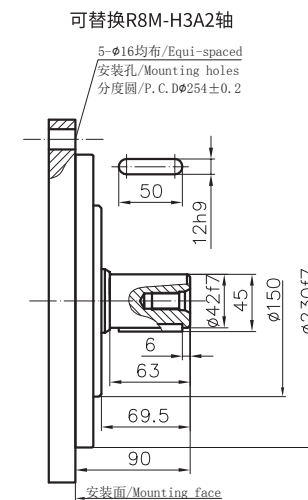
标准外花键 : IHW06-**-**
Standard Involute Spline : IHW06-**-**

标准平键 : IHW06-**-**B
Standard Parallel Key : IHW06-**-**B

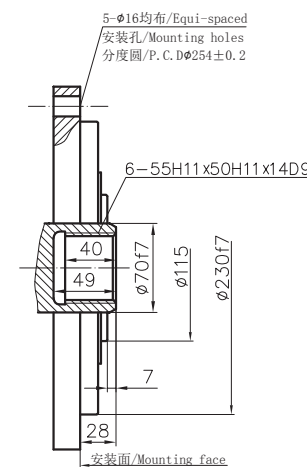
标准内花键 : IHW06-**-**I
Standard Female Spline : IHW06-**-**I



IHW06-**-SL₃

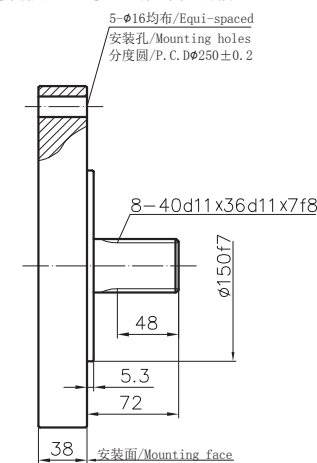


IHW06-**-SL₂

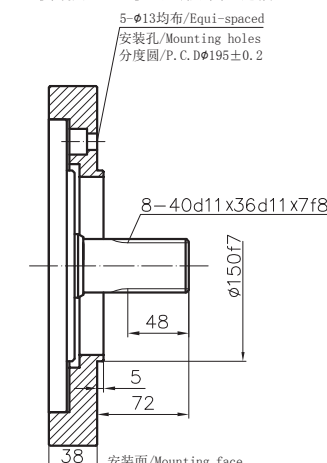


IHW06-**-N

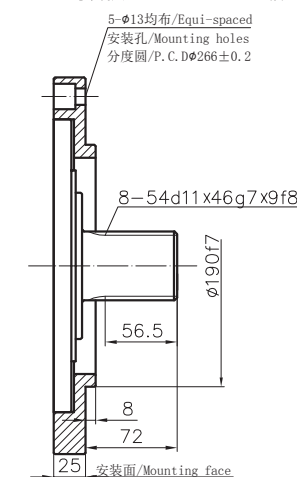
可替换GM2马达矩形外花键轴



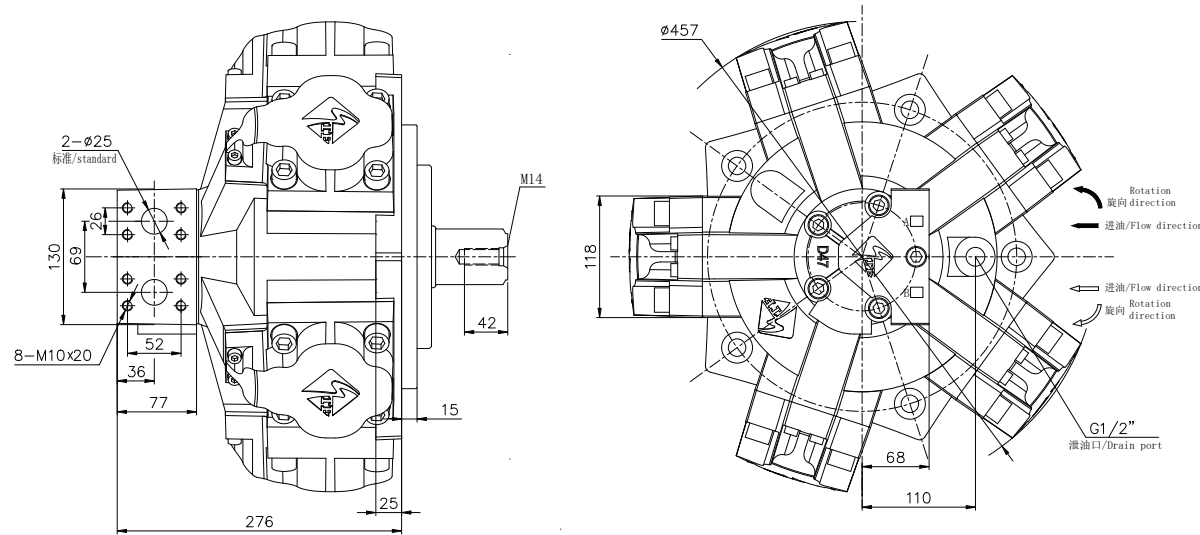
可替换GM2马达矩形外花键轴



可替换MR350~500E-N1轴



IHW11 外形及安装尺寸/ IHW11 Installation Dimensions



标准外花键 : IHW11-**
Standard Involute Spline : IHW11-**

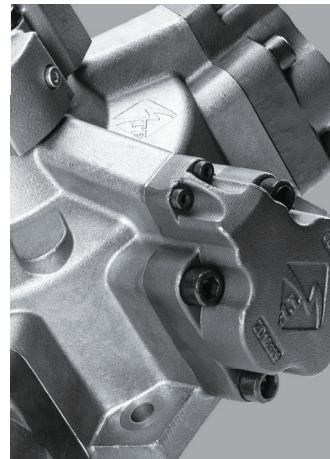
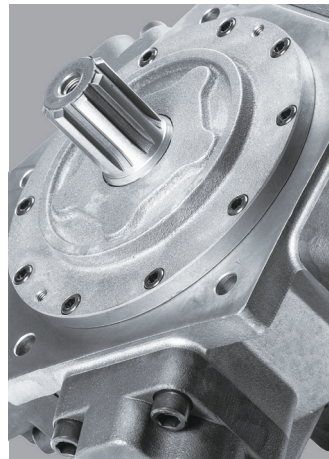
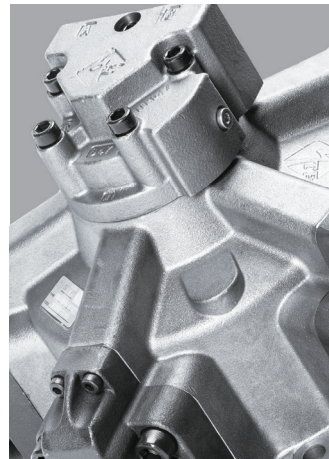
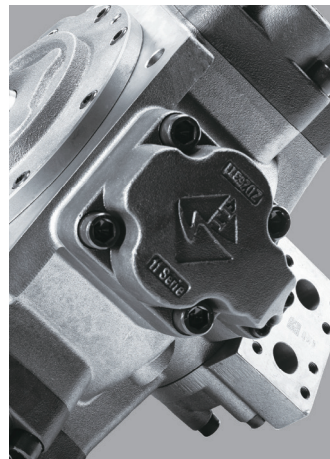
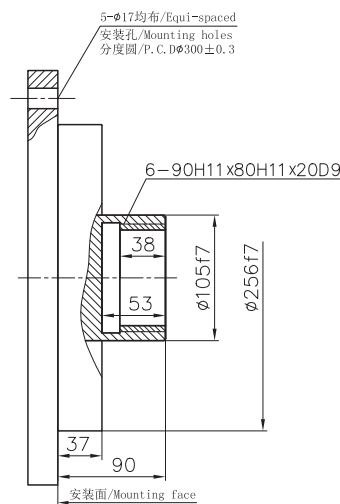
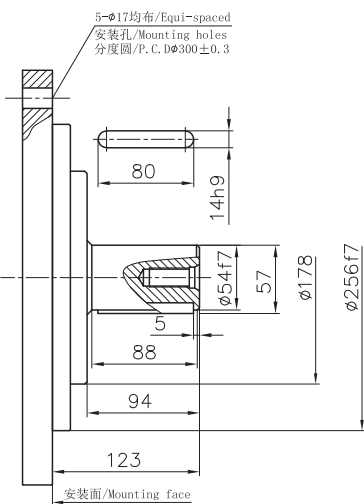
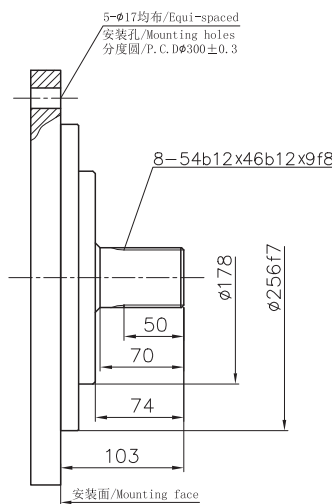
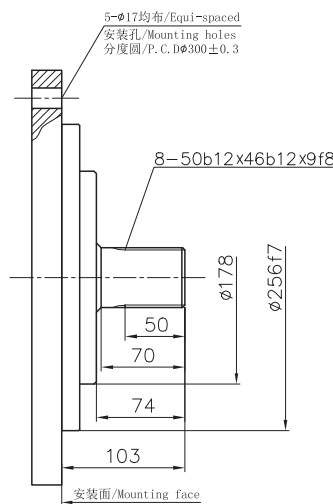
标准外花键 : IHW11-H54
Standard Involute Spline : IHW11-H54

标准平键 : IHW11-**B
Standard Parallel Key : IHW11-**B

标准内花键 : IHW11-**I
Standard Female Spline : IHW11-**I

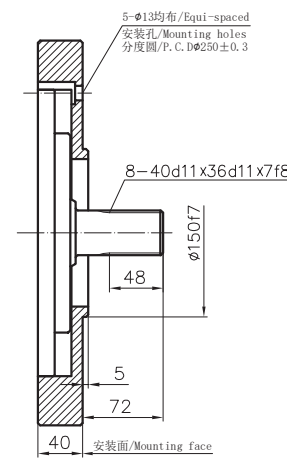
可替换RMPX900~1300马达外花键轴
可替换R8M-H4A0轴

可替换R8M-H4A11轴



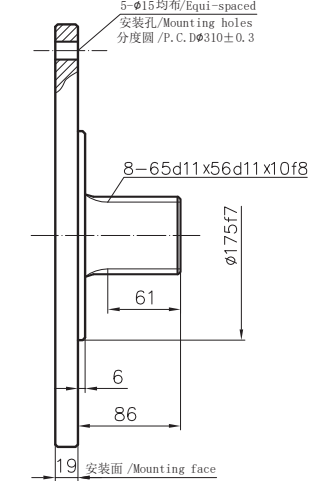
IHW11-**SL₃

可替换GM2马达矩形外花键轴

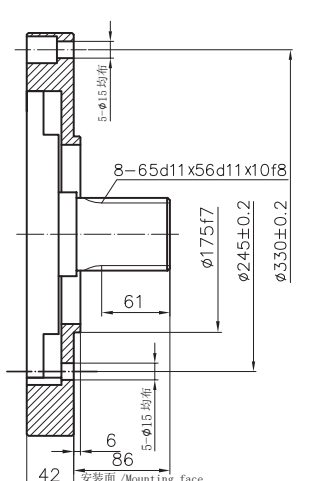


IHW11-**SL₄

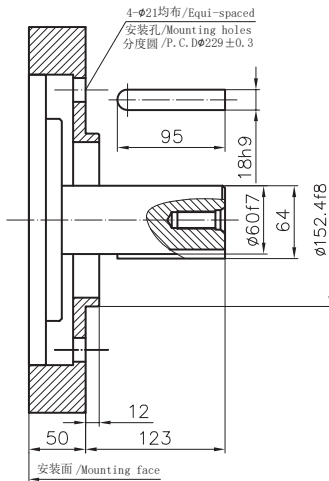
可替换GM4马达矩形外花键轴



IHW11-**SM₄

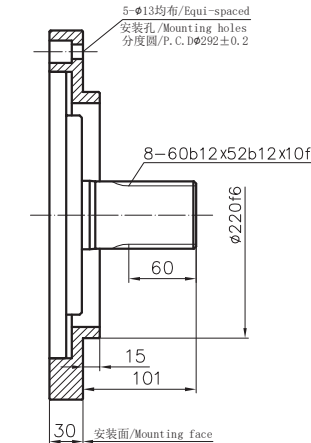


IHW11-**B₆



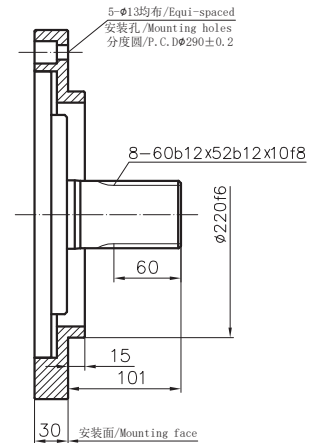
IHW11-**N₁

可替换MR500~MRE800F-N1轴

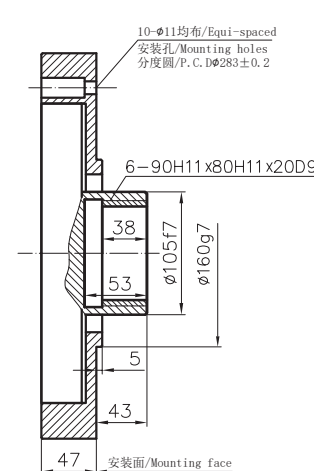


IHW11-**N₂

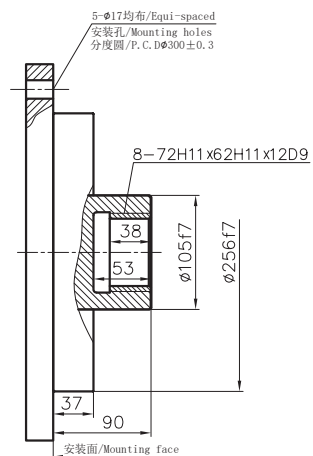
可替换MR500~MRE800F-N1轴



IHW11-**I₂₁

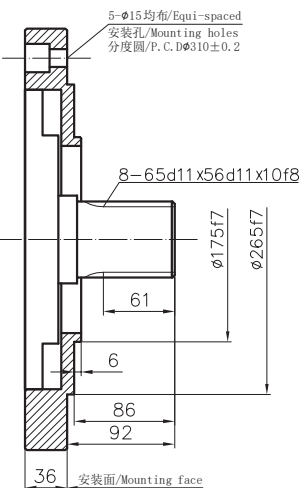


IHW11-**I₁₂

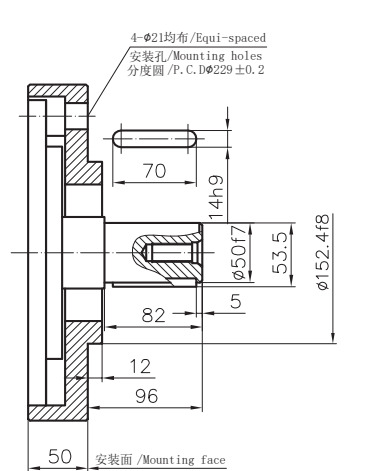


IHW11-**SL₅

可替换GM5A马达矩形外花键轴

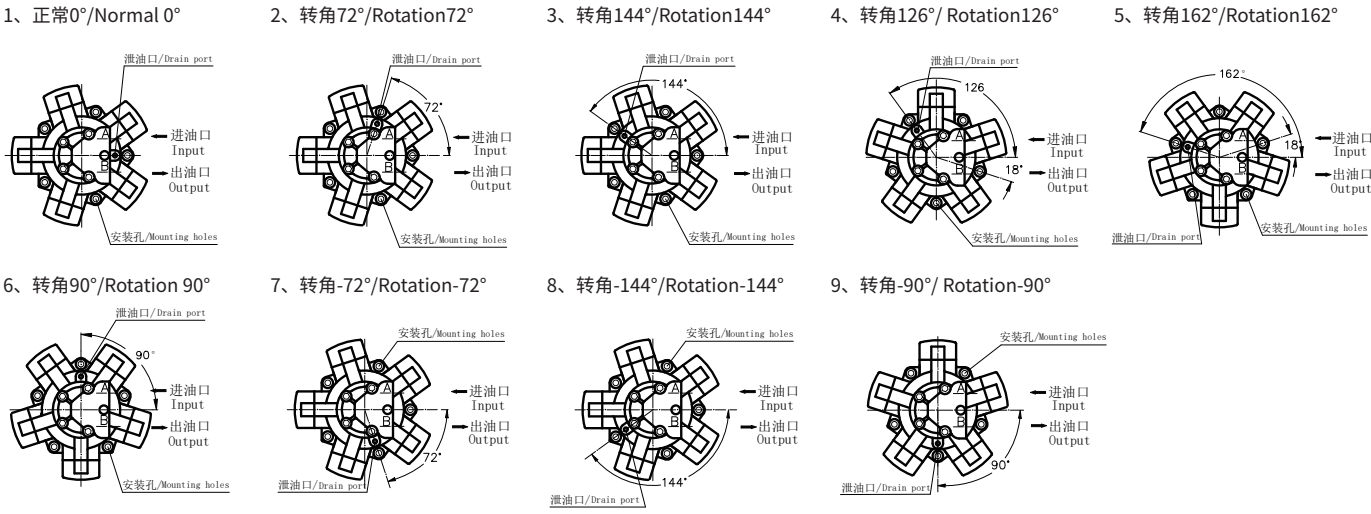


IHW11-**B₄

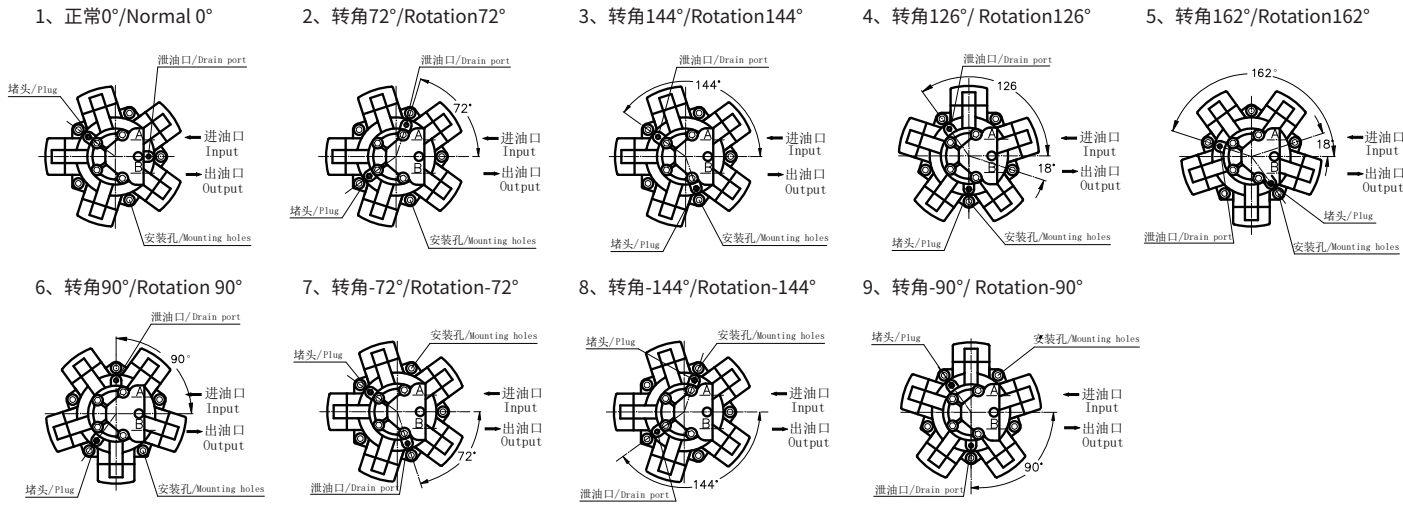


型号 Type	标准螺纹 Standard Thread	最大连续流量 MAX.CONT.FLOW	可选用螺纹 Thread Options	适用产品 Product	尺寸 Dimensions
D31	G3/4"	200L/min	G1" Z3/4" Z1" ZG3/4" ZG1" M27x2 M33x2	标准IHW03 可选IHW06、 08、11、16	
D40	G1"	300L/min	G3/4" Z3/4" Z1" ZG3/4" ZG1" M27x2 M33x2	标准IHW06 可选IHW03、 08、11、16	
D47	Ø 25	300L/min	加连接块后螺纹 Thread With Spacer Z3/4" ZG3/4" G1" Z1" ZG1" M27x2 M33x2	标准IHW11 可选IHW03、 06、08、16	
D90	Ø 40	700L/min	加连接块后螺纹 Thread With Spacer M33x2 M42x2 G1" ZG1" Z1" Ø 30以上Ø 60以下 的管插孔	标准IHW16	

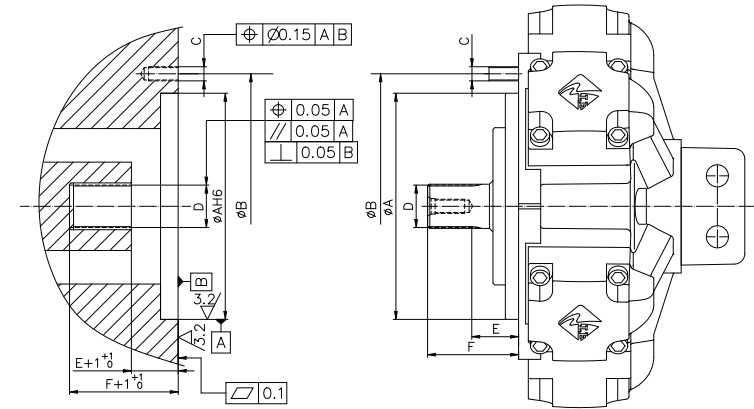
塑机行业（标配单泄油口） Plastics machinery industry (Standard with single drain port)



船舶，工程机械及其他行业（标配双泄油口） Shipbuilding and Construction Machinery Industry (Standard with dual drain ports)



马达安装与对应接口尺寸示意图 Motor Installation & Interface Dimensions Schematic



进口马达替换对应/ Import Motor Replacement Cross-Reference

IHW马达 motor		对应马达 Corresponding motor	
系列 Serie	轴规格 Output Shaft Specification	品牌 Brand	规格 Specification
03	000	Intermot/Italgroup	R8M-H2-200/250/300/350-A0
	B00	Intermot/Italgroup	R8M-H2-200/250/300/350-A2
	SL1	Sai	GM1-1
	SL2,SL3	Sai	GM2-1
06	000	Intermot/Italgroup	R8M-H3-350/400/450/500/600/650/700-A0
	B00	Intermot/Italgroup	R8M-H3-350/400/450/500/600/650/700-A2
	SL2,SL3	Sai	GM2-1
	N	Calzoni	MR350/400/450/500E-N1
	N1	Calzoni	MR500/600/700F-N1,MRE800F-N1
08	000	Dinamic oil	RMPX900/1000/1100/1300矩形外花键
	000	Intermot/Italgroup	R8M-H4-700/800/850/900/1000/1100/1200/1250/1400-A0
11	000	Dinamic oil	RMPX900/1000/1100/1300矩形外花键
	000	Intermot/Italgroup	R8M-H4-700/800/850/900/1000/1100/1200/1250/1400-A0
	H54	Intermot/Italgroup	R8M-H4-700/800/850/900/1000/1100/1200/1250/1400-A11
	SL3	Sai	GM2-1
	SL4	Sai	GM4-1
	N1	Calzoni	MR500/600/700F-N1,MRE800F-N1
	N2	Calzoni	MR500/600/700F-N1,MRE800F-N1
	SL5	Sai	GM5A-1

注意事项:

- 首次启用前须向液压马达壳腔注满液压油以避免马达壳腔干磨损坏，注油时优先选用上方泄油口。
- 泄漏管路压力严禁超过3bar（打开冲洗时不得超过10bar），管路应尽量缩短以降低流阻，泄油管内径不得小于12 mm，接头连接时控制螺纹拧紧长度，防止损坏零件。
- 泄油管最高点应高于马达壳体最高水平位置，使油液充分润滑壳腔内零件，延长马达使用寿命。
- 马达可任意方位安装，支架需牢固可靠，并保证连接马达的传动轴与马达输出轴同心。
- 油口连接时严禁混入灰尘、铁屑等杂质。
- 避免马达输出轴承受径向和轴向负载，延长马达使用寿命。

Notes:

- Before initial startup, the housing chamber of the hydraulic motor must be fully filled with hydraulic oil to prevent dry-grinding damage. The upper drain port shall be preferentially used for oil filling.
- The pressure of the leakage line must not exceed 3 bar (not to exceed 10 bar when flushing is activated). The line shall be as short as possible to reduce flow resistance. The inner diameter of the drain line shall not be less than 12 mm. Control the thread tightening length during joint connection to avoid component damage.
- The highest point of the drain line shall be higher than the top horizontal level of the motor housing to ensure sufficient lubrication of internal components in the housing chamber and extend the service life of the motor.
- The motor can be installed in any orientation. The mounting bracket shall be firm and reliable, and the transmission shaft connected to the motor shall be concentric with the motor output shaft.
- No impurities such as dust or iron chips shall be allowed to enter during port connection.
- Avoid radial and axial loads on the motor output shaft to prolong the service life of the motor.