

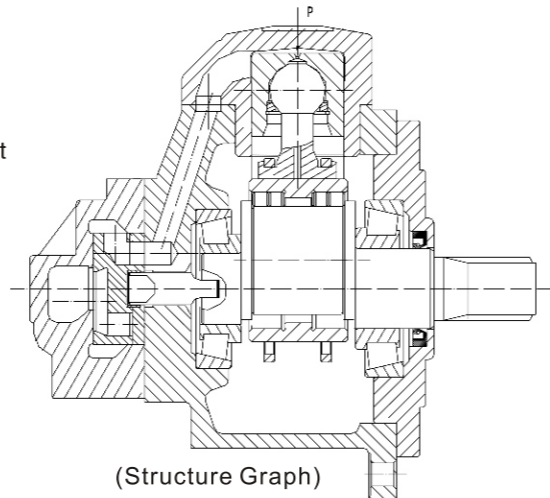
NHM Series Hydraulic Motor

Product Feature:

NHM series of low-speed and high-torque hydraulic motors with crankshaft and connecting rod are produced according to the technology and standard provided by Italy. On such a foundation, we also have constant technological improvement according to market demand, so as to improve the performance of the products.

The main features include:

1. Low noise due to an eccentric crankshaft and low excitation frequency of five-piston design;
2. Revolve steadily under very low speed due to high starting torque and good low-speed stability;
3. Good reliability and less leakage due to the patented flat compensation distributor, special sealing between piston and plunger bushing guarantees higher volumetrical efficiency;
4. High mechanical efficiency due to roller bearing between crankshaft and connecting rod;
5. Reversible rotation, and the output shaft can bear certain external force from both radial and axial directions;
6. High power-mass ratio, small volume and light weight.



Calculation:

1. Actual output torque : $M=0.159 (P_1-P_2) V \cdot \eta_m$ (N.m)

where : P_1, P_2 ----- (MPa) inlet and outlet pressure (MPa)

V ----- displacement (ml/r)
 η_m -----mechanical efficiency (%)

2. Output power : $N=\frac{M \cdot n}{9550}$ (kW)

$N=\frac{q (P_1-P_2)}{60000} \eta_m \eta_v$ (kW)

where : n ----- speed (r/min)

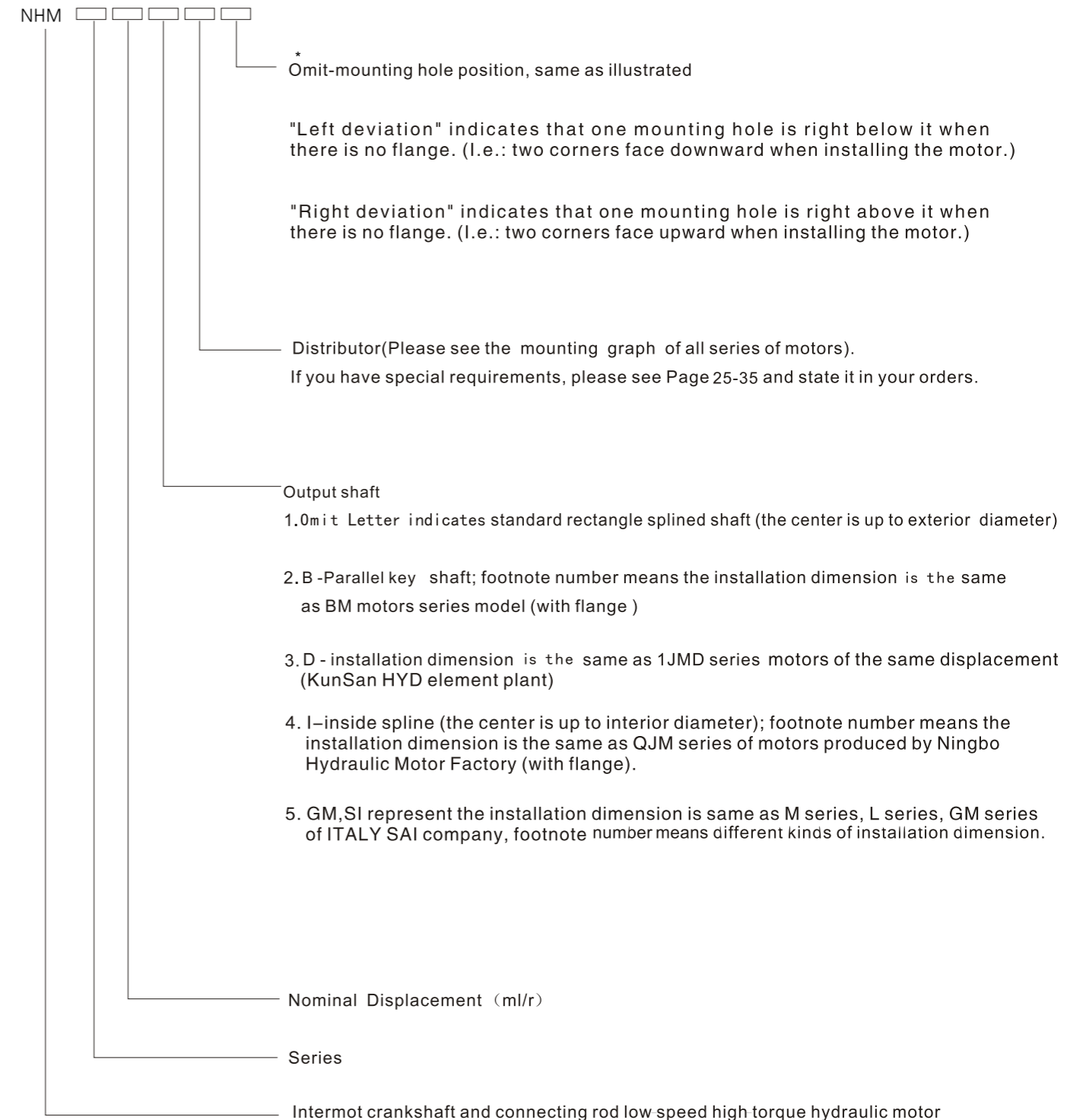
q ----- input flow (ml/min)
 η_v ----- volumetrical efficiency (%)

3. Speed : $n=\frac{q}{V} \eta_v$ (r/min)

Note:

1. Filtration: the recommended filtration precision for normal industrial use is 25 μ m, and allowable precision low pressure, low speed or interval is 75 μ m.
2. Oil viscosity: the optimum performance could only be obtained under proper oil viscosity between 15–100cst.
3. Before the first start-up, it must fill hydraulic oil in the hydraulic motor body, to avoid the damage.
4. Leakage: drain port should be connected separately to the tank. Normally the maximum pressure for the motor body is 0.1 Mpa, and it could also be improved to bear 3–5 Mpa, to meet special requirements.
5. The top line of the drain pipe should be higher than that of the motor body, in case emptying oil storage.
6. Installation: motor can be installed in any position with rigid support, When installed, shafts of the motor and its transmission should be concentric.
7. Cleanness: Strictly maintain the cleanness of the oil port, and keep any solid particles away.
8. Release both the radial and axial loads of the output shaft to enable longer life of the motor.
9. NHM motor could not work as a pump.

Order Code

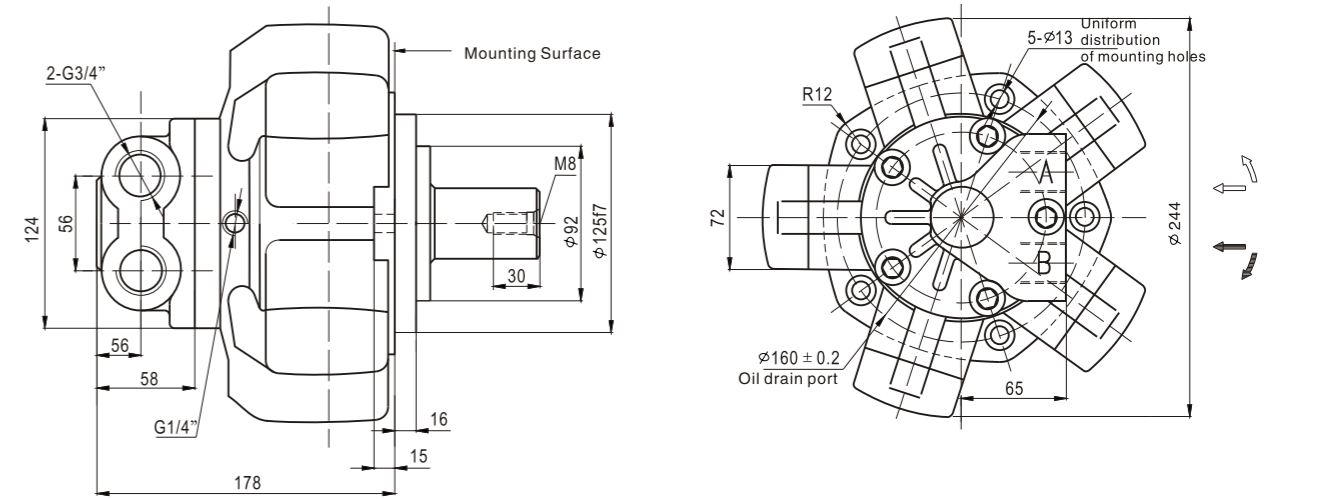


"Left deviation" and "Right deviation" are only applicable for NHM2–NHM11 series of motors, and oil inlet and outlet are horizontal. (Same as illustrated)

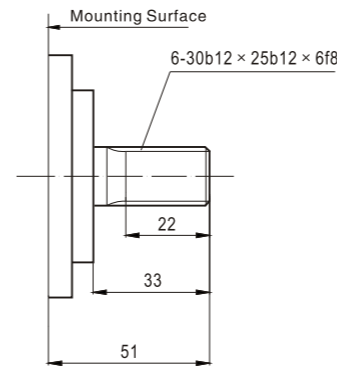
Technical specification:

Type NHM	Displacement (ml/r)	Pressure (MPa)		Torque (N.m)		Speed Range (r/min)	Weight (kg)
		(Rated Pressure)	(Max Pressure)	Rated Torque	(N.m/MPa) Theoric Specific Torque		
NHM1-63	77	25	32	284	11	15-1500	20
NHM1-80	91	25	32	335	13	15-1250	
NHM1-100	96	25	32	355	14	15-1000	
NHM1-110	113	25	32	419	17	15-1000	
NHM1-125	126	20	25	371	19	15-1000	
NHM1-140	138	20	25	410	20	15-1000	
NHM1-160	159	16	20	376	24	15-1000	
NHM1-200	196	16	20	464	29	15-800	
NHM2-100	113	25	32	419	17	15-1250	27
NHM2-125	138	25	32	512	20	15-1250	
NHM2-150	159	25	32	588	24	15-1000	
NHM2-175	180	20	25	532	27	15-1000	
NHM2-200	207	20	25	611	31	8-800	
NHM2-250	235	16	20	556	35	8-630	
NHM2-280	276	16	20	653	41	8-500	35
NHM3-175	181	25	32	670	27	8-1000	
NHM3-200	201	25	32	743	30	8-800	
NHM3-220	222	25	32	819	33	8-800	
NHM3-250	254	20	25	752	38	8-630	
NHM3-300	289	20	25	856	43	6-500	
NHM3-350	340	20	25	1000	50	6-400	
NHM3-400	380	18	22.5	1008	56	6-350	
NHM6-400	397	25	32	1469	59	5-630	57.5
NHM6-450	452	25	32	1672	67	5-630	
NHM6-500	491	20	25	1451	73	5-500	
NHM6-600	594	20	25	1756	88	4-500	
NHM6-700	683	16	20	1616	101	4-400	
NHM6-750	754	16	20	1785	112	4-320	
NHM8-600	617	25	32	2282	91	4-500	72
NHM8-700	710	25	32	2626	105	4-400	
NHM8-800	810	20	25	2396	120	4-400	
NHM8-900	889	20	25	2629	131	3-350	
NHM8-1000	1000	16	20	2366	148	3-300	94
NHM11-700	707	25	32	2612	104	4-400	
NHM11-800	784	25	32	2899	116	4-400	
NHM11-900	894	25	32	3306	132	4-400	
NHM11-1000	981	20	25	2902	145	3-320	
NHM11-1100	1104	20	25	3265	163	3-320	
NHM11-1200	1234	16	20	2919	182	3-320	
NHM11-1300	1301	16	20	3079	192	3-250	
NHM16-1400	1413	25	32	5224	209	2-400	170
NHM16-1600	1648	20	25	4874	244	2-400	
NHM16-1800	1815	20	25	5367	268	2-350	
NHM16-2000	2035	18	22.5	5416	301	2-350	
NHM16-2400	2267	16	20	5364	335	2-250	
NHM31-2500	2553	25	32	9438	378	2-200	
NHM31-2800	2683	20	25	7935	397	1-200	
NHM31-3000	3063	20	25	9057	453	1-200	
NHM31-3150	3218	20	25	9518	476	1-160	
NHM31-3500	3561	20	25	10530	527	1-160	
NHM31-4000	4153	18	22.5	11053	614	1-160	
NHM31-4500	4522	16	20	10698	669	1-160	
NHM31-5000	4828	16	20	11423	714	1-160	
NHM70-5000	4968	20	25	14626	731	1-160	550
NHM70-5400	5452	20	25	16125	806	1-160	
NHM70-6000	5984	20	25	17697	885	0.5-125	
NHM70-6300	6540	18	22.5	17408	967	0.5-125	
NHM70-7000	7122	16	20	16849	1053	0.5-125	

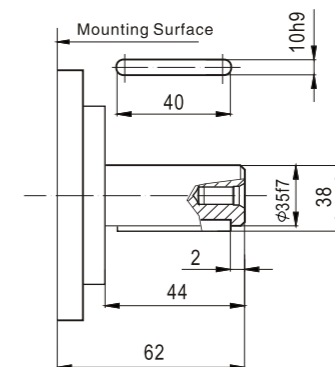
NHM1-63~200 Mounting Data



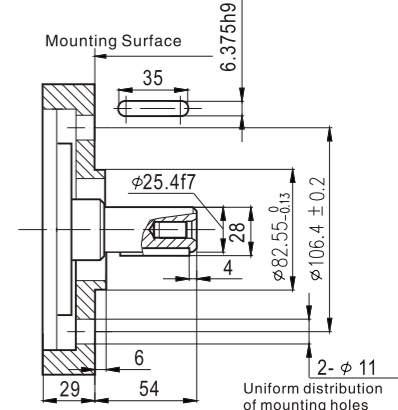
Standard outside spline NHM1-**



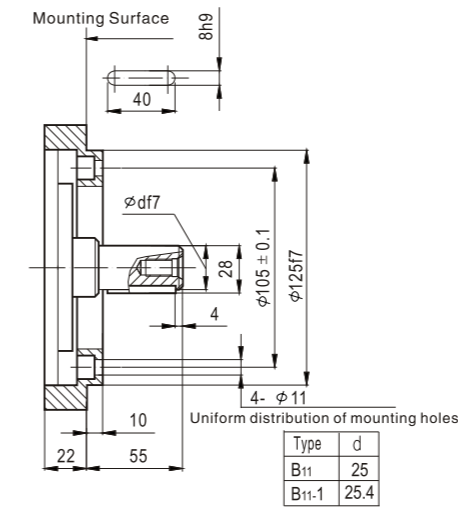
Standard parallel key NHM1-** B



NHM1-** B₃

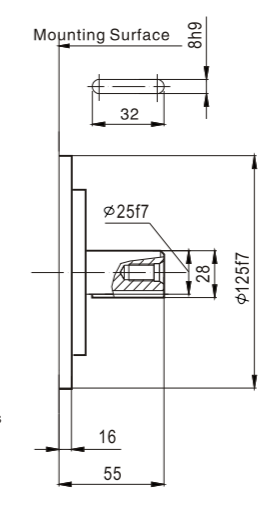


NHM1-** B₁₁ B₁₁-1



Type	d
B ₁₁	25
B ₁₁ -1	25.4

NHM1-** B₂₈



NHM1-** B₃₁

