

Radial Piston Hydraulic Motor Solution Providers

North American Hydraulics,

(NAHI, LLC), partnering with Italgroup offering Single Displacement Radial Piston Motors (Low Speed High Torque Motors).

Features and Options:

- High Volumetic and Mechanical Efficiencies
- Smooth Running at Low Speeds
- High Starting and Constant Torque
- High Freewheeling and Cavitation Resistance
- Wide Speed Range
- Compact Design
- Low Maintenance and High Reliability
- Bi-directional
- High Radial and Axial Force
- Speed Sensor Available
- Built-in Valves Available

Proven Solutions for:

- Marine and Offshore Equipment
- Winches / Conveyors
- Steel Bending Machines
- Fork Lift Trucks
- Skid Steer Loaders
- Dumpers
- Agricultural and Forestry Machines
- Municipal Vehicles
- Injection Moulding Machines

Please contact NAHI for additional information.

The above information should be used as a guide and is subject to change without notice.

Please contact NAHI for proper selection.













HCD Series Motor											
Motor		Displacement		Max Speed	Peak Speed	Max Pressure	Max Power	Peak Power			
Frame	Size	in³	cc	rpm	rpm	psi	hp	hp			
HCD05	40	2.4	40	1500	2000	- 4350	35	70			
	60	3.6	60	1400	1900		50				
	75	4.5	74				51	83			
	90	5.5	91	1300	1600		54				
	110	7.0	115								
	130	7.8	129								
	150	9.2	151	1200	1500	4000					
	170	10.1	166								
HCD1	100	5.9	98			4350	70	107			
	150	9.4	154	1100	1400		71				
	175	10.5	173								
	200	12.2	200								
	220	13.4	221	1000	1300	4000					
	250	14.8	243	900	1200						
	200	11.7	193	1250	1500	4350	107	150			
HCD2	250	15.3	251	1050	1200						
	300	18.6	305	800	1150						
IICDZ	350	21.2	348	650	4350						
	400	25.8	424	550 900	900	4000					
	500	30.0	493	330	300						
	350	21.4	352	800	1050	4350	137	190			
НСДЗ	400	25.9	426	700	900						
	500	29.6	486	550	850						
	600	36.3	595	500	800						
	700	42.0	689	450 750	800	4000					
	800	48.3	792		+000						
	800	51.1	837	580 720			281				
HCD5	1000	64.7	1060	500	700	4350	201				
	1200	73.2	1200		650			282			
	1300	79.8	1308	470 420	620						
	1500	89.2	1462			4000					
	1600	99.2	1625								









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Enhanced Version of HCD Motor

HSM Series Motor												
Motor		Displacement		Max Speed	Peak Speed	Max Pressure	Max Power	Peak Power				
Frame	Size	in³	CC	rpm	rpm	psi	hp	hp				
HSM05	40	2.4	40	1700	2200		44	60				
	60	3.6	60	1600	2100	4350	44	60				
	75	4.5	74				54	83				
	90	5.5	91	1500	1800							
HSM1	100	5.9	98	1400	1700		71	107				
	150	9.4	154	1300	1600							
	175	10.5	173									
HSM2	200	11.7	193	1400 1200	1650		107	150				
	250	15.3	251		1350							
	300	18.6	305	950 850 650	1300							
HSM3	350	21.4	352		1200		131					
	400	25.9	426		1050		137	190				
	500	29.6	486		950		137					
HSM5	800	51.1	837	700	800		201	282				
	1000	64.7	1060	620	780							

HC series motors are radial piston hydraulic motors (generally indicated as LSHT motors, low speed high torque motors) with a rotating shaft (1) and a stationary housing (2). The pistons (3) are located radially and the working fluid provide the mechanical force that push the pistons against the eccentric shaft, providing the shaft ouput torque. The inlet and outlet flow to and from the pistons is regulated by a distributor (4), that provides the oil distribution correct timing. The HC motor design is very compact because the piston and the connecting rod are realized in the same piece, to make this realizable an oscillating cylinder is present (5). Acting in the adequate way (increasing or reducing the oil flow coming from the pump) the motor rotational speed can be increased or reduced. The motor design guarantee extremely high starting torque and high mechanical working efficiency. Respecting the limitation of working parameters (indicated into the technical datasheets) and all recommendations (including fuid recommendations), high motor lifetimes are obtained and very low maintenance requirements are needed.

The HSM version is a special configuration with balanced shaft, in order to erase or reduce to very low values the motor vibration due to the motor rotation at high speeds. In this way the motor can work at higher speeds in a more efficient and less noisy way.





