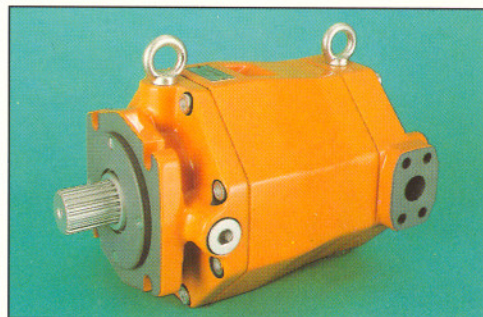


Axial Piston Motors, Fixed Displacement, Series 25

Nominal size	32/40	50/40	100/40
Capacity, cm ³	33.5	47.1	100.2
Torque, theoretical, Nm	190	300	638
Maximum operating pressure, bar	400	400	400
Speed, r.p.m.			
• minimum	50	50	50
• maximum	3600	3400	2500

– SAE-flanged ports

3


Axial Piston Motors, Variable Displacement, Series 25

Nominal size	50/40	63/40	100/40
Capacity, cm ³	47.1	70.7	100.2
Torque, theoretical, Nm	300	450	638
Maximum operating pressure, bar	400	400	400
Speed, r.p.m.			
• minimum	50	50	50
• maximum at V _{g, min.}	4300	4000	3200
• maximum at V _{g, max.}	3400	3200	2500

– Servocontrol mechanism with mechanical, hydraulic or electrohydraulic control

– Two-position control mechanism, hydraulic or electrohydraulic control via directional control valve

– SAE-flanged ports

3

Axial Piston Motors, Fixed Displacement, Series 22

Nominal size	200/16	500/16	800/16
Capacity, cm ³	217.5	543.3	862.0
Torque, theoretical, Nm	693	1730	2745
Maximum operating pressure, bar	200	200	200
Speed, r.p.m.			
• minimum	100	100	100
• maximum	1500	1200	1100

– Flanged ports

3

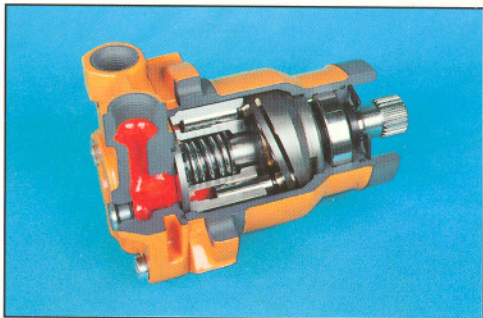
Axial Piston Motors, Fixed Displacement, Series 27

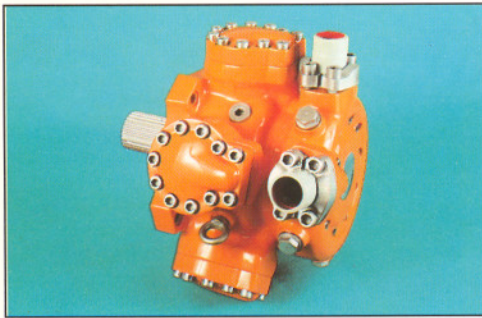
Nominal size	28	32	37	40	50	56	63	70	100	125
Capacity, cm ³	28	32.6	37	40	50	55.6	62.1	70.9	98.2	126.2
Torque, theoretical, Nm	187	213	247	267	334	378	415	474	656	844
Maximum operating pressure, bar	420	420	420	420	420	420	420	420	420	420
Speed, r.p.m.										
• minimum	50	50	50	50	50	50	50	50	50	50
• maximum	3600	3600	3600	3400	3400	3200	3200	3200	3000	3000

Axial Piston Motors, Fixed Displacement, Series 24

Nominal size	20/6.3	32/6.3	50/6.3
Capacity, cm ³	19.0	31.6	49.1
Torque, theoretical, Nm	24	40.2	62.5
Maximum operating pressure, bar	80	80	80
Speed, r.p.m.			
• minimum	10	10	10
• maximum	1500	1300	1200

3





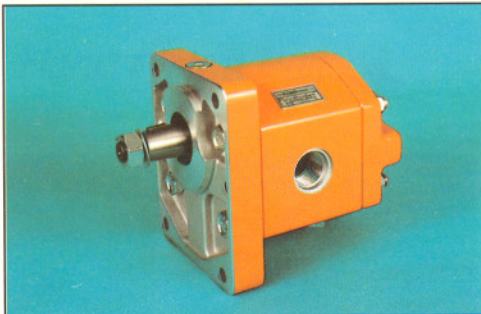
Radial Piston Motors, Slow-Speed Hydraulic Motors

5

Rated pressure	200 bar
Operating pressure, max.	250 bar
Capacity (nominal sizes)	400, 700, 1000 cm ³ /rev.
Range of speed	2 ... 450 r.p.m.
Torque at rated pressure	1150 to 2900 Nm

- With constant motor displacement
- Flange mounting
- Optional direction of rotation
- Shaft end toothed; optional with feather key
- Rugged construction, for rough operating conditions

Gear Motors



Gear Motors, Series 16

3

Size	Nominal Size	Capacity	Torque	Maximum Operating-Pressure bar	Speed Range r.p.m.
		cm ³	Nm		
2	4/20	4	13.7	250	400-4000
	6.3/20	6.3	22.5	250	400-4000
	10/20	10	35.0	250	240-4000
	12/20	12.5	38.2	210	240-4000
	16/16	16	45.0	170	240-4000
3	12.5/20	12.5	45.0	250	240-3000
	16/20	16	57.5	250	240-3000
	20/20	20	36.7	250	240-3000
	25/20	25	87.5	250	240-3000
	32/20	32	94.5	210	240-3000
4	33/20	33	112.5	250	240-2400
	40/20	40	141.2	250	240-2400
	50/20	50	175.0	250	240-2400
	63/20	63	220.0	210	240-2400
	80/16	80	194.2	170	240-2400

- Series with internationally usual connecting dimensions
 - Series T: Port system – formerly TGL 37070
 - Series C: German port system – screwing-through mounting
 - Series D: German port system – flange mounting
 - Series E: English port system – flange mounting
 - Series A: SAE-port system
- Delivery of front or intermediate bearings as accessory
- Direction of rotation anticlockwise, clockwise or reversible
- Gear motors for alternating direction of rotation can be operated as pumps for alternating direction of rotation (restricted operating conditions)
- Gear pumps of the series 1 can be used as gear motors for one direction of rotation (consultation with the manufacturer)

Hydraulic Cylinder HRN 10 901 4

double-acting, double rod type, with cushioning on both sides

Rated pressure 63 bar
 Cylinder inside dia. 32 to 125 mm
 Stroke¹⁾ up to 1000 mm

– Methods of mounting: A, P1, S3

Hydraulic Cylinder HRN 10 905 4

double-acting, with cushioning on both sides

Rated pressure 160 bar
 Cylinder inside dia. 32 to 125 mm
 Stroke¹⁾ up to 800 mm

– Methods of mounting: B1, B2, C1, P1

Hydraulic Cylinder HRN 10 906 4

double-acting

Rated pressure 160 bar
 Cylinder inside dia. 32 to 200 mm
 Stroke¹⁾ up to 2500 mm

– Methods of mounting: B1, C1, P1, S1, S2
 B2 only for cylinder inside dia. of 32 to 125 mm

Hydraulic Cylinder HRN 10 914 4

double-acting

Rated pressure 320 bar
 Cylinder inside dia. 80 to 200 mm
 Stroke¹⁾ up to 2500 mm

– Methods of mounting: B1, B2, S2

Hydraulic Cylinder HRN 21 551 4

single-acting, headed piston type

Rated pressure 160 bar
 Cylinder inside dia. 32 to 80 mm
 Stroke¹⁾ up to 1000 mm

– Methods of mounting: B1, B2

Hydraulic Cylinder HRN 29 017 4

double-acting

Rated pressure 160 bar
 Cylinder inside dia. 32 to 80 mm
 Stroke¹⁾ up to 1000 mm

– Methode of mounting: B1, B2, C1, S1, S2

Hydraulic Cylinder HRN 29 020 4

single-acting, plunger type

Rated pressure 160 bar
 Plunger dia. 28 to 70 mm
 Stroke¹⁾ up to 800 mm

– Methods of mounting: B1, B2
 – Universal application in all branches of industry

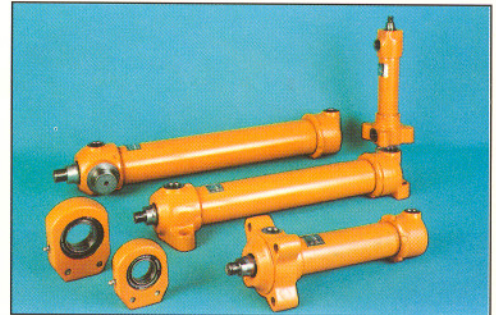
Hydraulic Cylinder with Rod End Coupling HRN 08 335 4

double-acting, with cushioning on both sides

Rated pressure 320 bar
 Cylinder inside dia. 63 to 160 mm
 Stroke¹⁾ up to 1500 mm

– Method of mounting: B2 (spherical plain bearing on both sides)
 – Preferable used in multi-purpose dredgers

1) Strokes > the indicated value must be separately agreed upon



Hydraulic Cylinder with Rod End Coupling HRN 08 337

double-acting

Rated pressure	250 bar, 320 bar
Cylinder inside dia.	140 to 250 mm
Stroke ¹⁾	up to 1250 mm

– Method of mounting: B2 (spherical plain bearing on both sides)

Hydraulic Cylinder HMN 1-15 715

plunger type or headed piston type, without cushioning

Rated pressure	160 bar
Cylinder inside dia.	50 to 110 mm
Stroke ¹⁾	up to 2500 mm

– Method of mounting: spherical cap

Hydraulic Cylinder HMN 10 914

headed piston, single rod type, with and without cushioning

Rated pressure	320 bar
Cylinder inside dia.	63 to 200 mm
Stroke ¹⁾	up to 3200 mm

– Methods of mounting: spherical plain bearing, flange at the front end and flange at the rear end

Hydraulic Cylinder HMN 21 553/01

headed piston, single rod type, with and without cushioning

Rated pressure	160 bar
Cylinder inside dia.	up to 200 mm
Stroke ¹⁾	up to 3200 mm

– Methods of mounting: swivel bearing, spherical plain bearing, tangential feet, flange at the front end and flange at the rear end

Special Cylinders

Rated pressure	450 bar
Cylinder inside dia.	32 to 260 mm
Stroke ¹⁾	up to 6000 mm

– Welded or screwed version

Rod End Couplings for Hydraulic Cylinders HRN 21 549

Rod eye plains and rod eyes with spherical plain bearing for hydraulic cylinders of the series HRN 10 901, 10 905, 10 906, 10 914 and HRN 21 551 as well as for special applications

Nominal sizes	32 to 200 mm
---------------	--------------

Rod End Couplings for Hydraulic Cylinder HRN 29 019

Rod eye plains and rod eyes with spherical plain bearing for hydraulic cylinders of the series HRN 29 017 and HRN 29 020 as well as for special applications

Nominal sizes	32 to 110 mm
---------------	--------------



Hydraulic Cylinders, Multi-Stage

Telescopic Cylinders, Two-, Three- and Four-Stage, HRN 08710

single-acting

Loadability	max. 180 bar
Stroke ¹⁾	max. 1800 mm

1) Strokes > the indicated value must be separately agreed upon