

Berminghammer Foundation Equipment Hydraulic Equipment Requirements (SI Units)

	Type	Flow Range	Extension Speed @ Flow Range	Retraction Speed @ Flow Range	Max Pressure	Hose ID	Hose Pressure Rating	Quick Disconnect
Spotter								
Extend Retract	2-STAGE & 2-STAGE HT 3-STAGE	40 LPM to 100 LPM	0.05 m/s to 0.13 m/s	0.08 m/s to 0.20 m/s	172 Bar	1/2"	207 Bar	1/2" ISO 16028 (F)
	BK3-2456HD	40 LPM to 100 LPM	0.05 m/s to 0.13 m/s	0.10 m/s to 0.26 m/s	172 Bar	1/2"	207 Bar	1/2" ISO 16028 (F)
	BK3-2862	60 LPM to 120 LPM	0.06 m/s to 0.11 m/s	0.12 m/s to 0.25 m/s	172 Bar, Extend. 207 Bar, Retract.	1/2"	207 Bar	1/2" ISO 16028 (F)
Side Batter	2-STAGE & 2-STAGE HT BK3-1941HD BK3-2456HD BK3-2862	40 LPM to 100 LPM	0.02 m/s to 0.06 m/s	0.02 m/s to 0.06 m/s	172 Bar	1/2"	207 Bar	1/2" ISO 16028 (F)
	3-STAGE	40 LPM to 100 LPM	0.03 m/s to 0.08 m/s	0.03 m/s to 0.08 m/s	172 Bar	1/2"	207 Bar	1/2" ISO 16028 (F)
Swivel	All	100 LPM	N/A	N/A	172 Bar	1/2"	207 Bar	1/2" ISO 16028 (F)
Vertical Travel	All	40 LPM to 100 LPM	0.05 m/s to 0.13 m/s	0.08 m/s to 0.20 m/s	172 Bar	1/2"	207 Bar	1/2" ISO 16028 (F)
Gate Cylinders								
Per Function	All	40 LPM to 100 LPM	N/A	N/A	172 Bar	1/2"	207 Bar	1/2" ISO 16028 (F)
Hydraulic Trip								
Extend Retract	All	40 LPM to 100 LPM	N/A	N/A	172 Bar	3/4"	207 Bar	3/4" ISO 16028 (F)

l/min – Liters per Minute | bar | m/m – Meters per Minute | kNm – Kilonewton Meter

	Type	Flow Range	Line Speed (Bare) @ Flow Range	Drum Pull Range @ Max Pressure	Max Pressure	Hose ID & QTY	Hose Pressure Rating	Quick Disconnect
Low Flow Winch (Spotter & Hose Handler)								
4,500 lb	PL5-12-210-2	23 LPM to 90 LPM	10 m/m to 41 m/m	13.1 kN (Full) to 20.0 kN (Bare)	145 Bar	1/2" x 2	207 Bar	1/2" ISO 16028 (F)
12,000 lb	M12-3-97-1	64 LPM to 120 LPM	11 m/m to 20 m/m	32.6 kN (Full) to 53.4 kN (Bare)	152 Bar	1/2" x 3	207 Bar	1/2" ISO 16028 (F) 1" TFFSAE (F) (Drain)
25,000 lb	M25-3-86-2 M25-3-86-3	120 LPM	12 m/m	52.6 kN (Full) to 111.2 kN (Bare)	172 Bar	3/4" x 2 1"(Drain)	207 Bar	3/4" ISO 16028 (F) 1" TFFSAE (F) (Drain)
	Type	Flow Range	Line Speed (Bare) @ Flow Range	Drum Pull Range @ Max Pressure	Max Pressure	Hose ID & QTY	Hose Pressure Rating	Quick Disconnect
Mid Flow Winch (VTL & Crowd)								
25,000 lb	M25-3-86-2 M25-3-86-3	114 LPM to 250 LPM	11 m/m to 24 m/m	52.6 kN (Full) to 111.2 kN (Bare)	172 Bar	1" x 3	207 Bar	1-1/2" TFFSAE (F) 1-1/4" TFFSAE (F) (Drain)
39,610 lb	M50-3-86-2	114 LPM to 250 LPM	7 m/m to 16 m/m	121.5 kN (Full) to 176.2 kN (Bare)	172 Bar	1" x 3	207 Bar	1-1/2" TFFSAE (F) 1-1/4" TFFSAE (F) (Drain)
51,360 lb	SRD F180	30 LPM to 250 LPM	2 m/m to 21 m/m	176.5 kN (Full) to 228.5 kN (Bare)	295 Bar	1" x 3	345 Bar 207 Bar (Drain)	1-1/2" TFFSAE (F) 1-1/4" TFFSAE (F) (Drain)
73,634 lb	Lantec 540- 123	95 LPM to 250 LPM	4 m/m to 9 m/m	180.6 kN (Full) to 327.5 kN (Bare)	172 Bar	1" x 3	207 Bar	1-1/2" TFFSAE (F) 1-1/4" TFFSAE (F) (Drain)

l/min – Liters per Minute | bar | m/m – Meters per Minute | kNm – Kilonewton Meter

	Type	Flow Range	Line Speed (Bare) @ Flow Range	Drum Pull Range @ Max Pressure	Max Pressure	Hose ID & QTY	Hose Pressure Rating	Quick Disconnect
High Flow Winch (Tool & Pile)								
12,000 lb	M12-3-97-1	64 LPM to 189 LPM	11 m/m to 32 m/m	32.6 kN (Full) to 53.4 kN (Bare)	152 Bar	1" x 3	207 Bar	3/4" ISO 16028 (F) 1" TFFSAE (F) (Drain)
25,000 lb	M25-3-86-2 M25-3-86-3	114 LPM to 435 LPM	11 m/m to 43 m/m	52.6 kN (Full) to 111.2 kN (Bare)	172 Bar	1 1/2" x 2 1"(Drain)	207 Bar	1-1/2" TFFSAE (F) 1-1/4" TFFSAE (F) (Drain)
39,610 lb	M50-3-86-2	114 LPM to 435 LPM	7 m/m to 27 m/m	121.5 kN (Full) to 176.2 kN (Bare)	172 Bar	1 1/2" x 2 1"(Drain)	207 Bar	1-1/2" TFFSAE (F) 1-1/4" TFFSAE (F) (Drain)
51,360 lb	SRD F180	30 LPM to 250 LPM	2 m/m to 21 m/m	176.5 kN (Full) to 228.5 kN (Bare)	295 Bar	1" x 3	345 Bar 207 Bar (Drain)	1-1/2" TFFSAE (F) 1-1/4" TFFSAE (F) (Drain)
73,634 lb	Lantec 540-123	95 LPM to 454 LPM	4 m/m to 17 m/m	180.6 kN (Full) to 327.5 kN (Bare)	172 Bar	1 1/2" x 2 1"(Drain)	207 Bar	1-1/2" TFFSAE (F) 1-1/4" TFFSAE (F) (Drain)
	Motor Type	Max Flow	Max Torque @ Speed (Max Flow)		Max Pressure	Hose ID & QTY	Hose Pressure Rating	Quick Disconnect
Drills								
BRC-32	EG50 x4	250 LPM	48 kNm @ 31 rpm to 16 kNm @ 94 rpm		280 Bar Return P < 20 bar	1 1/4"x 2 1"(Drain)	345 Bar 207 Bar (Drain)	1-1/2" TFFSAE (F) 1-1/4" TFFSAE (F) (Drain)
BRC-100	A6VM200 x1	400 LPM	140 kNm @ 15 rpm to 60 kNm @ 31 rpm		320 Bar Return P < 20 bar	1 1/4"x 2 1"(Drain)	345 Bar 207 Bar (Drain)	1-1/2" TFFSAE (F) 1-1/4" TFFSAE (F) (Drain)
BRC-200	A6VM200 x2	400 LPM	280 kNm @ 7 rpm to 119 kNm @ 17 rpm		320 Bar Return P < 20 bar	1 1/2"x 2 1"(Drain)	345 Bar 207 Bar (Drain)	1-1/2" TFFSAE (F) 1-1/4" TFFSAE (F) (Drain)
B100	A6VM200 x1	400 LPM	140 kNm @ 15 rpm to 67 kNm @ 31 rpm		320 Bar Return P < 20 bar	1 1/2"x 2 1"(Drain)	345 Bar 207 Bar (Drain)	1-1/2" TFFSAE (F) 1-1/4" TFFSAE (F) (Drain)
B200	A6VM200 x2	800 LPM	280 kNm @ 15 rpm to 133 kNm @ 31 rpm		320 Bar Return P < 20 bar	2" x 2 1"(Drain)	345 Bar 207 Bar (Drain)	1-1/2" TFFSAE (M) 1-1/4" TFFSAE (F) (Drain)

l/min – Liters per Minute | bar | m/m – Meters per Minute | kNm – Kilonewton Meter

	Motor Type	Max Flow	Max Torque @ Speed (Max Flow)	Max Pressure	Hose ID & QTY	Hose Pressure Rating	Quick Disconnect
Legacy Drills							
BRC-35	HP67 TS x4	340 LPM	48 kNm @ 31 rpm to 16 kNm @ 94 rpm	280 Bar Return P < 20 bar	1 1/4" x 2 1"(Drain)	345 Bar 207 Bar (Drain)	1-1/2" TFFSAE (F) 1-1/4" TFFSAE (F) (Drain)
BRC-75	A6VM200 x1	400 LPM	100 kNm @ 20 rpm to 48 kNm @ 42 rpm	320 Bar Return P < 20 bar	1 1/4"x 2 1"(Drain)	345 Bar 207 Bar (Drain)	1-1/2" TFFSAE (F) 1-1/4" TFFSAE (F) (Drain)
BRC-150	A6VM200 x2	800 LPM	200 kNm @ 20 rpm to 96 kNm @ 42 rpm	320 Bar Return P < 20 bar	2" x 2 1"(Drain)	345 Bar 207 Bar (Drain)	1-1/2" TFFSAE (F) 1-1/4" TFFSAE (F) (Drain)
BHD-40	Hagglunds CA70	329 LPM	54 kNm @ 30 rpm	235 Bar Return P < 20 bar	1 1/2" x 2 1"(Drain)	345 Bar 207 Bar (Drain)	1-1/2" TFFSAE (F) 1-1/4" TFFSAE (F) (Drain)
BHD-40	Brevini SH11C 108	329 LPM	91 kNm @ 30 rpm	345 Bar Return P < 20 bar	1 1/2" x 2 1"(Drain)	345 Bar 207 Bar (Drain)	1-1/2" TFFSAE (F) 1-1/4" TFFSAE (F) (Drain)
BHD-60	Hagglunds CA50	329 LPM	81 kNm @ 30 rpm	235 Bar Return P < 20 bar	1 1/2"x 2 1"(Drain)	345 Bar 207 Bar (Drain)	1-1/2" TFFSAE (F) 1-1/4" TFFSAE (F) (Drain)
BHD-80	Hagglunds CA70 x 2	568 LPM	108 kNm @ 22 rpm	235 Bar Return P < 20 bar	1 1/2" x 2 1" (Drain)	345 Bar 207 Bar (Drain)	1-1/2" TFFSAE (F) 1-1/4" TFFSAE (F) (Drain)

l/min – Liters per Minute | bar | m/m – Meters per Minute | kNm – Kilonewton Meter



3 Studebaker Place
Hamilton, Ontario, Canada L8L 0C8
Phone: (289) 779-7729 • Fax: (905) 528-6187
Email: bfssales@berminghammer.com • www.berminghammer.com

Please Note:

Quick disconnect and hose diameters for spotters (kickers) vary as they are custom for each application. Please contact Berminghammer Parts directly for more information.

It is recommended to use inherently biodegradable hydraulic oil. DO NOT use readily biodegradable hydraulic oil.

Drill and Winch speeds are linearly proportional to flow. RPM values as a function of flow can be linearly interpolated.

The maximum pressures stated are measured at the actuator ports and do not account for pressure losses across valves, hoses, and fittings

For hose lengths greater than 90 m, contact Berminghammer for hose size recommendations

For crowd winch application with no electronic input, a fourth hose assembly is required and is sized equal to the drain hose

The recommended Threaded Flat Face SAE (TFFSAE) quick disconnect couplers are Stucchi VEP/VEPHD and Parker FET Series.

The size and number of hose end connections should correspond to the recommended hose inside diameter (ID).

l/min – Liters per Minute | bar | m/m – Meters per Minute | kNm – Kilonewton Meter