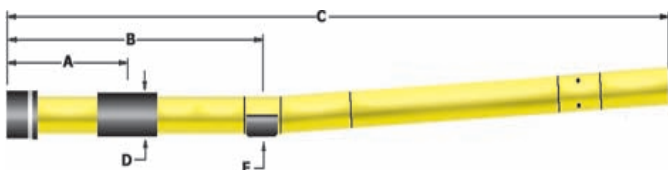




*8" (203 mm)*

*Mud Motors*



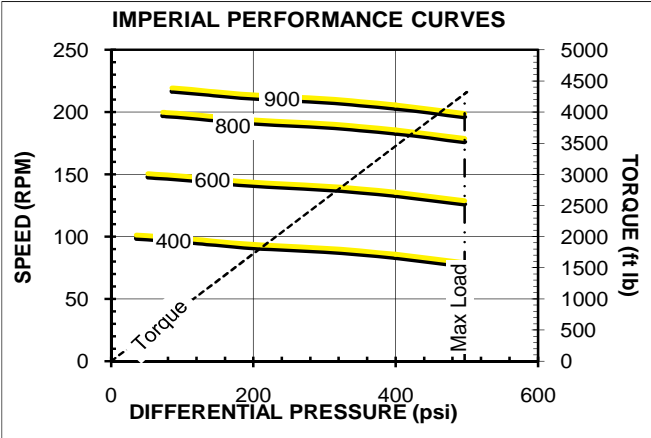
	Imperial		Metric	
<b>A.</b> Distance to stabilizer	28	inch	711	mm
<b>B.</b> Box to Bend	87	inch	2,210	mm
<b>C.</b> Overall Length	330	inch	8,382	mm
<b>D.</b> Thread Prot. Diameter	8.63	inch	219	mm
<b>E.</b> Kick Pad Diameter	8.06	inch	205	mm

Top Connection	AS PER REQUEST				
Bottom Connection	6 5/8" Reg		6 5/8" Reg		
Weight	2,859	lb	1,272	daN	
Maximum Flow Rate	900	gpm	3.41	m <sup>3</sup> /min	
Maximum Torque	4,366	ft-lb	5,920	N-m	
Maximum Power	261	hp	195	kW	
Maximum Weight on bit	Dynamic	139,500	lb	62,000	daN
	Static	412,800	lb	183,000	daN
Maximum Allowable Pull	324,000	lb	144,000	daN	
Pull to Yield Motor	930,000	lb	414,000	daN	

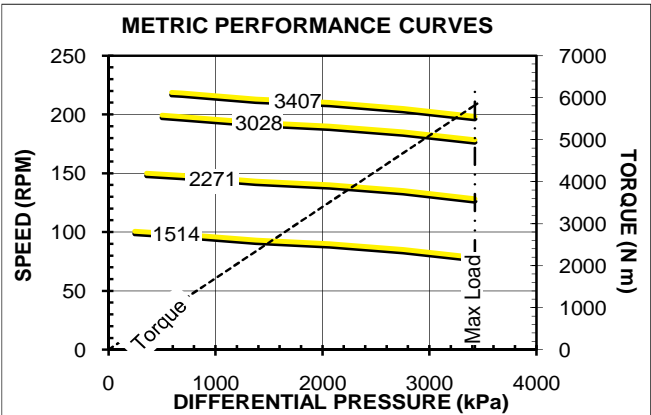
Build Rate (degrees/100ft(30 m))			
Bend Settings (degrees)	Hole Sizes (in, mm)		
	9 7/8"	10 5/8"	12 1/4"
	251 mm	270 mm	311 mm
<b>0.26</b>	0.00	0.00	0.00
<b>0.52</b>	0.59	0.00	0.00
<b>0.78</b>	2.90	0.34	0.00
<b>1.03</b>	5.12	2.56	0.00
<b>1.27</b>	7.26	4.69	0.86
<b>1.50</b>	9.30	6.74	1.18
<b>1.72</b>	11.26	8.70	3.14
<b>1.93</b>	13.13	10.57	5.01
<b>2.12</b>	14.82	12.23	6.70
<b>2.30</b>	16.43	13.86	8.30
<b>2.60</b>	19.10	16.53	10.97
<b>2.82</b>	21.06	18.49	12.93
<b>2.95</b>	22.22	19.65	14.09
<b>3.00</b>	22.67	20.10	14.54

8" (203 mm) 4-5 3.6 Stage

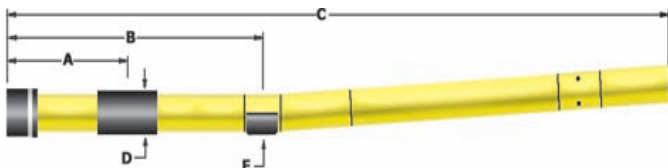
Maximum Pump Rate	900 gpm	3,407 Lpm
Revolutions per unit volume	0.244 rev/gal	0.065 rev/L
Pressure at full Load	497 psi	3,427 kPa
Torque at full load	4,294 ft lb	5,822 N m



Drilling Fluid Flow (GPM)	400	600	800	900
Pressure Drop Across Motor with No Load (off-bottom pressure) (PSI)	36	52	73	86
Maximum Allowable Differential Pressure (on-bottom minus off-bottom pressure) (PSI)	461	445	424	411



Drilling Fluid Flow (L/min)	1514	2271	3028	3407
Pressure Drop Across Motor with No Load (off-bottom pressure) (kPa)	248	359	503	593
Maximum Allowable Differential Pressure (on-bottom minus off-bottom pressure) (kPa)	3178	3068	2923	2834



	Imperial		Metric	
<b>A.</b> Distance to stabilizer	28	inch	711	mm
<b>B.</b> Box to Bend	87	inch	2,210	mm
<b>C.</b> Overall Length	330	inch	8,382	mm
<b>D.</b> Thread Prot. Diameter	8.63	inch	219	mm
<b>E.</b> Kick Pad Diameter	8.06	inch	205	mm

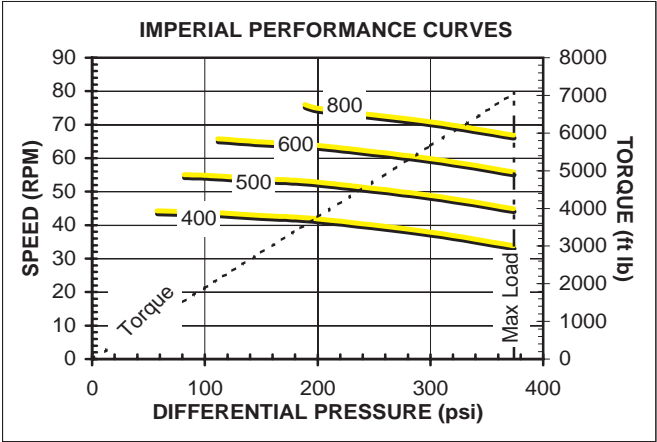
Top Connection	AS PER REQUEST				
Bottom Connection	6 5/8" Reg		6 5/8" Reg		
Weight	2,914	lb	1,296	daN	
Maximum Flow Rate	800	gpm	3.03	m <sup>3</sup> /min	
Maximum Torque	8,950	ft-lb	9,563	N-m	
Maximum Power	175	hp	131	kW	
Maximum Weight on bit	Dynamic	139,500	lb	62,000	daN
	Static	412,800	lb	183,000	daN
Maximum Allowable Pull	324,000	lb	144,000	daN	
Pull to Yield Motor	930,000	lb	414,000	daN	

Build Rate (degrees/100ft(30 m))			
Bend Settings (degrees)	Hole Sizes (in, mm)		
	9 7/8"	10 5/8"	12 1/4"
	251 mm	270 mm	311 mm
<b>0.26</b>	0.00	0.00	0.00
<b>0.52</b>	0.59	0.00	0.00
<b>0.78</b>	2.90	0.34	0.00
<b>1.03</b>	5.12	2.56	0.00
<b>1.27</b>	7.26	4.69	0.86
<b>1.50</b>	9.30	6.74	1.18
<b>1.72</b>	11.26	8.70	3.14
<b>1.93</b>	13.13	10.57	5.01
<b>2.12</b>	14.82	12.23	6.70
<b>2.30</b>	16.43	13.86	8.30
<b>2.60</b>	19.10	16.53	10.97
<b>2.82</b>	21.06	18.49	12.93
<b>2.95</b>	22.22	19.65	14.09
<b>3.00</b>	22.67	20.10	14.54

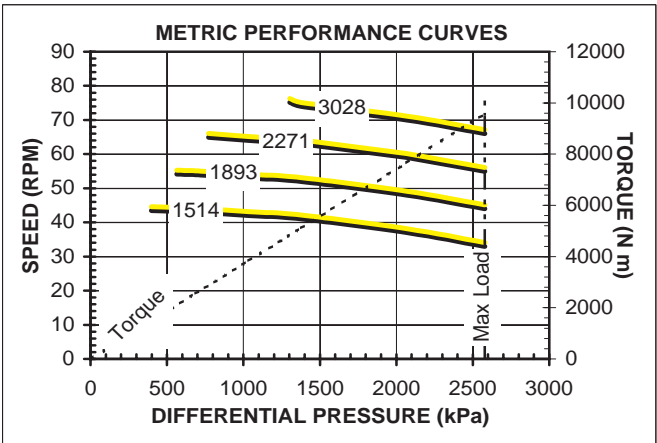
# 8" (203 mm) 7-8 2.0 Stage



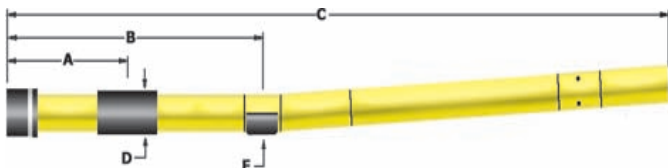
Maximum Pump Rate	800 gpm	3,028 Lpm
Revolutions per unit volume	0.096 rev/gal	0.025 rev/L
Pressure at full Load	374 psi	2,579 kPa
Torque at full load	7,053 ft lb	9,563 N m



Drilling Fluid Flow (GPM)	400	500	600	800
Pressure Drop Across Motor with No Load (off-bottom pressure) (PSI)	58	82	112	189
Maximum Allowable Differential Pressure (on-bottom - off-bottom pressure) (PSI)	316	292	262	185



Drilling Fluid Flow (L/min)	1514	1893	2271	3028
Pressure Drop Across Motor with No Load (off-bottom pressure) (kPa)	400	565	772	1303
Maximum Allowable Differential Pressure (on-bottom - off-bottom pressure) (kPa)	2179	2013	1806	1276



	Imperial		Metric	
<b>A.</b> Distance to stabilizer	28	inch	711	mm
<b>B.</b> Box to Bend	87	inch	2,210	mm
<b>C.</b> Overall Length	365.2	inch	9,276	mm
<b>D.</b> Thread Prot. Diameter	8.63	inch	219	mm
<b>E.</b> Kick Pad Diameter	8.06	inch	205	mm

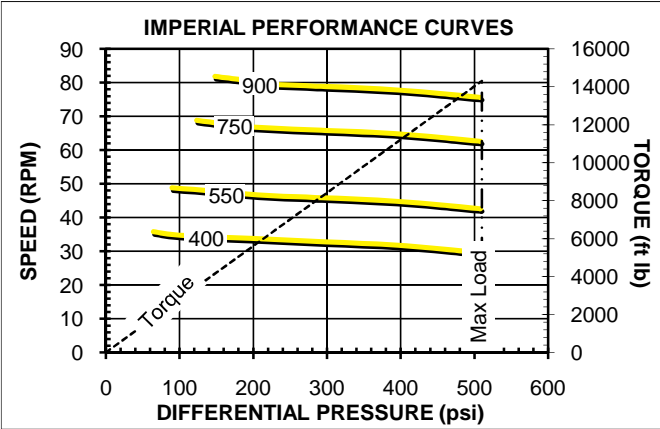
Top Connection	AS PER REQUEST				
Bottom Connection	6 5/8" Reg		6 5/8" Reg		
Weight	2,914	lb	1,296	daN	
Maximum Flow Rate	900	gpm	3.261	m <sup>3</sup> /min	
Maximum Torque	14,300	ft-lb	19,390	N-m	
Maximum Power	154	hp	115	kW	
Maximum Weight on bit	Dynamic	139,500	lb	62,000	daN
	Static	412,800	lb	183,000	daN
Maximum Allowable Pull	324,000	lb	144,000	daN	
Pull to Yield Motor	930,000	lb	414,000	daN	

Build Rate (degrees/100ft(30 m))			
Bend Settings (degrees)	Hole Sizes (in, mm)		
	9 7/8"	10 5/8"	12 1/4"
	251 mm	270 mm	311 mm
<b>0.26</b>	0.00	0.00	0.00
<b>0.52</b>	0.00	0.00	0.00
<b>0.78</b>	0.96	0.00	0.00
<b>1.03</b>	2.25	0.98	0.00
<b>1.27</b>	3.49	2.22	0.00
<b>1.50</b>	4.68	3.41	0.64
<b>1.72</b>	5.82	4.54	1.78
<b>1.93</b>	6.90	5.63	2.86
<b>2.12</b>	7.88	6.61	3.84
<b>2.30</b>	8.81	7.54	4.77
<b>2.60</b>	10.36	9.08	6.32
<b>2.82</b>	11.49	10.22	7.46
<b>2.95</b>	11.91	10.63	7.87
<b>3.00</b>	12.42	11.15	8.39

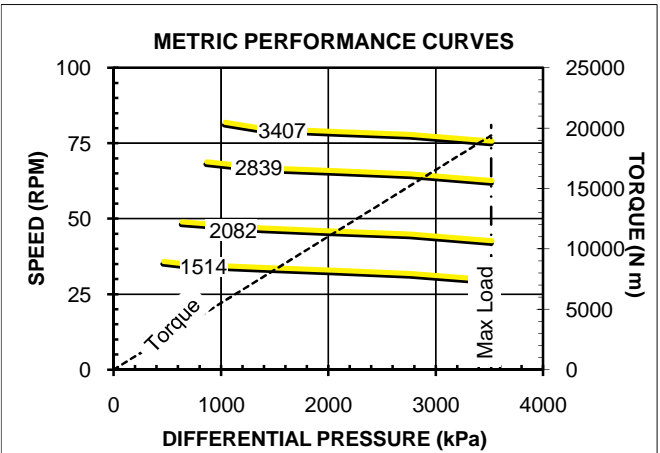
8" (203 mm) 7-8 3.4 ESX3 Stage



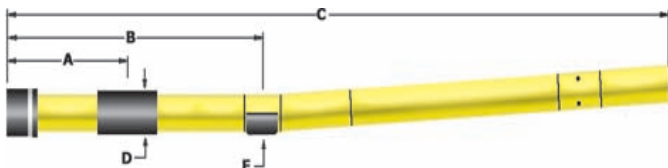
Maximum Pump Rate	900 gpm	3,410 Lpm
Revolutions per unit volume	0.089 rev/gal	0.024 rev/L
Pressure at full Load	510 psi	3,520 kPa
Torque at full load	14,300 ft lb	19,390 N m



Drilling Fluid Flow (GPM)	400	550	750	900
Pressure Drop Across Motor with No Load (off-bottom pressure) (PSI)	67	92	125	150
Maximum Allowable Differential Pressure (on-bottom minus off-bottom pressure) (PSI)	443	418	385	360



Drilling Fluid Flow (L/min)	1514	2082	2839	3407
Pressure Drop Across Motor with No Load (off-bottom pressure) (kPa)	460	632	862	1034
Maximum Allowable Differential Pressure (on-bottom minus off-bottom pressure) (kPa)	3057	2884	2654	2482



	Imperial		Metric	
<b>A.</b> Distance to stabilizer	28	inch	711	mm
<b>B.</b> Box to Bend	87	inch	2,210	mm
<b>C.</b> Overall Length	365	inch	9,281	mm
<b>D.</b> Thread Prot. Diameter	8.63	inch	219	mm
<b>E.</b> Kick Pad Diameter	8.06	inch	205	mm

Top Connection	AS PER REQUEST				
Bottom Connection	6 5/8" Reg		6 5/8" Reg		
Weight	3,419	lb	1,521	daN	
Maximum Flow Rate	900	gpm	3.41	m <sup>3</sup> /min	
Maximum Torque	9,950	ft-lb	13,490	N-m	
Maximum Power	224	hp	167	kW	
Maximum Weight on bit	Dynamic	139,500	lb	62,000	daN
	Static	412,800	lb	183,000	daN
Maximum Allowable Pull	324,000	lb	144,000	daN	
Pull to Yield Motor	930,000	lb	414,000	daN	

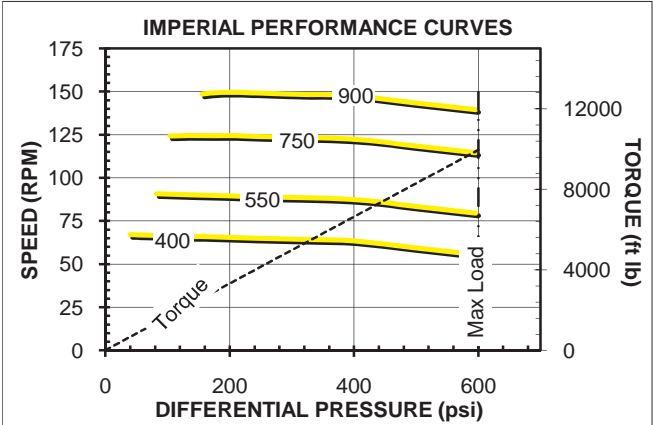
Build Rate (degrees/100ft(30 m))			
Bend Settings (degrees)	Hole Sizes (in, mm)		
	9 7/8"	10 5/8"	12 1/4"
	251 mm	270 mm	311 mm
<b>0.26</b>	0.00	0.00	0.00
<b>0.52</b>	0.42	0.00	0.00
<b>0.78</b>	2.45	0.20	0.00
<b>1.03</b>	4.39	2.15	0.00
<b>1.27</b>	6.26	4.20	0.84
<b>1.50</b>	8.06	5.81	0.95
<b>1.72</b>	9.77	7.53	2.66
<b>1.93</b>	11.41	9.16	4.30
<b>2.12</b>	12.89	10.64	5.78
<b>2.30</b>	14.29	12.05	7.18
<b>2.60</b>	16.63	14.39	9.52
<b>2.82</b>	18.35	16.10	11.24
<b>2.95</b>	19.36	17.12	12.25
<b>3.00</b>	19.75	17.51	12.64



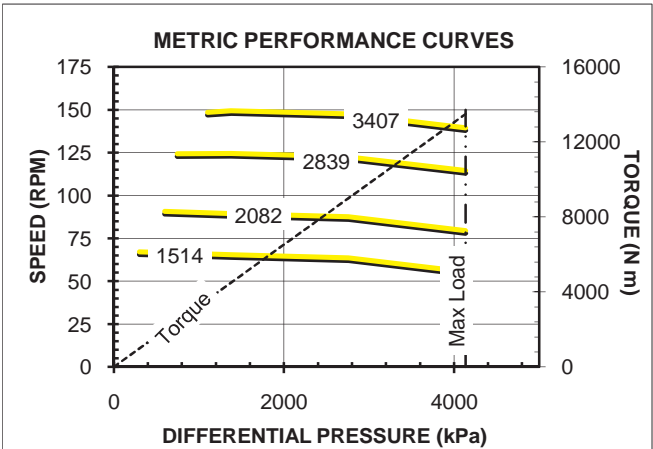
# 8" (203 mm) 7-8 4.0 Stage



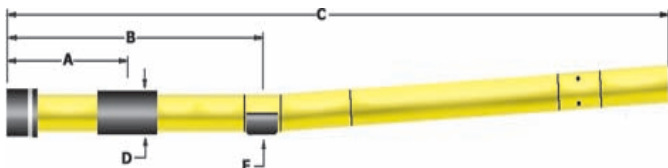
Maximum Pump Rate	900 gpm	3,407 Lpm
Revolutions per unit volume	0.166 rev/gal	0.044 rev/L
Pressure at full Load	600 psi	4,140 kPa
Torque at full load	9,950 ft lb	13,490 N m



Drilling Fluid Flow (GPM)	400	550	750	900
Pressure Drop Across Motor with No Load (off-bottom pressure) (PSI)	44	87	108	160
Maximum Allowable Differential Pressure (on-bottom minus off-bottom pressure) (PSI)	556	513	492	440



Drilling Fluid Flow (L/min)	1514	2082	2839	3407
Pressure Drop Across Motor with No Load (off-bottom pressure) (kPa)	303	600	745	1103
Maximum Allowable Differential Pressure (on-bottom minus off-bottom pressure) (kPa)	3833	3537	3392	3034



	Imperial		Metric	
<b>A.</b> Distance to stabilizer	28	inch	711	mm
<b>B.</b> Box to Bend	87	inch	2,210	mm
<b>C.</b> Overall Length	365	inch	9,281	mm
<b>D.</b> Thread Prot. Diameter	8.63	inch	219	mm
<b>E.</b> Kick Pad Diameter	8.06	inch	205	mm

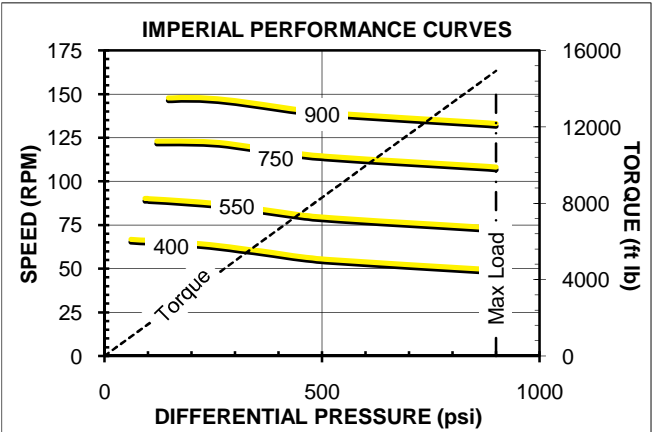
Top Connection	AS PER REQUEST				
Bottom Connection	6 5/8" Reg		6 5/8" Reg		
Weight	3,419	lb	1,521	daN	
Maximum Flow Rate	900	gpm	3.41	m <sup>3</sup> /min	
Maximum Torque	14,930	ft-lb	20,240	N-m	
Maximum Power	401	hp	299	kW	
Maximum Weight on bit	Dynamic	139,500	lb	62,000	daN
	Static	412,800	lb	183,000	daN
Maximum Allowable Pull	324,000	lb	144,000	daN	
Pull to Yield Motor	930,000	lb	414,000	daN	

Build Rate (degrees/100ft(30 m))			
Bend Settings (degrees)	Hole Sizes (in, mm)		
	9 7/8"	10 5/8"	12 1/4"
	251 mm	270 mm	311 mm
<b>0.26</b>	0.00	0.00	0.00
<b>0.52</b>	0.42	0.00	0.00
<b>0.78</b>	2.45	0.20	0.00
<b>1.03</b>	4.39	2.15	0.00
<b>1.27</b>	6.26	4.20	0.84
<b>1.50</b>	8.06	5.81	0.95
<b>1.72</b>	9.77	7.53	2.66
<b>1.93</b>	11.41	9.16	4.30
<b>2.12</b>	12.89	10.64	5.78
<b>2.30</b>	14.29	12.05	7.18
<b>2.60</b>	16.63	14.39	9.52
<b>2.82</b>	18.35	16.10	11.24
<b>2.95</b>	19.36	17.12	12.25
<b>3.00</b>	19.75	17.51	12.64

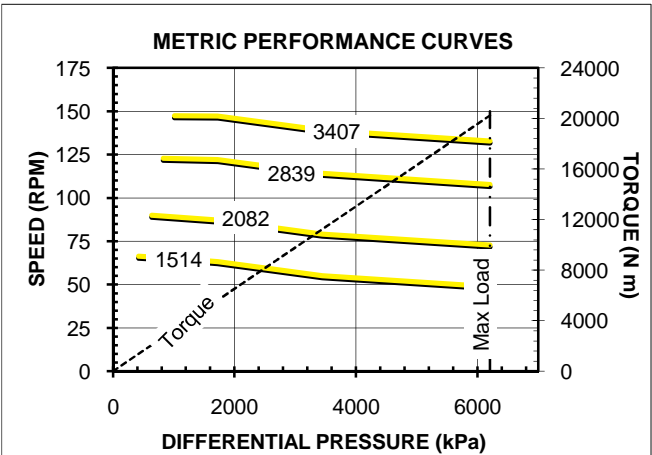
8" (203 mm) 7-8 4.0 Stage HR



Maximum Pump Rate	900 gpm	3,407 Lpm
Revolutions per unit volume	0.166 rev/gal	0.044 rev/L
Pressure at full Load	900 psi	6,210 kPa
Torque at full load	14,930 ft lb	20,240 N m



Drilling Fluid Flow (GPM)	400	550	750	900
Pressure Drop Across Motor with No Load (off-bottom pressure) (PSI)	61	93	120	147
Maximum Allowable Differential Pressure (on-bottom minus off-bottom pressure) (PSI)	839	807	780	753



Drilling Fluid Flow (L/min)	1514	2082	2839	3407
Pressure Drop Across Motor with No Load (off-bottom pressure) (kPa)	421	641	827	1014
Maximum Allowable Differential Pressure (on-bottom minus off-bottom pressure) (kPa)	5785	5564	5378	5192

