



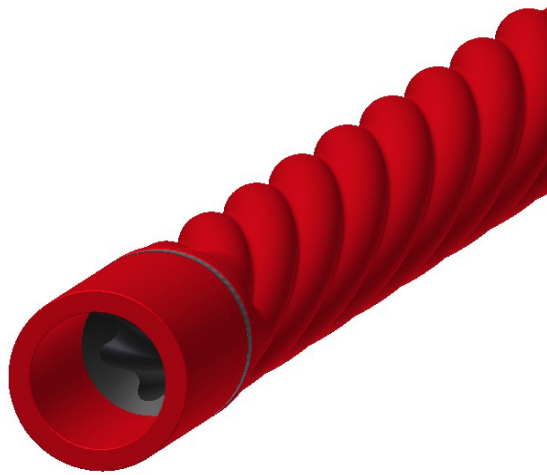
SPIRA[®] Power Sections

Specifications Handbook



Kautschuk und Kunststoff

Why SPIRA® ?



SPIRA®



SPIRA® TNT



- Higher ROP by increased motor differential pressure
- Higher operating temperature
- High performance, high temperature NBR & HNBR rubber compounds
- Increased longevity / less tripping / to depth drilling
- Lends itself to low speed / high torque motor designs
- Higher torque at same length of conventional power sections
- Shorter power sections at same torque of conventional power sections
- Less swelling & stator profile distortion by aggressive drilling fluids
- Uniform swelling around stator contour
- Uniform heat expansion around stator contour
- Minimal stator profile distortion by heat expansion
- Excellent thermal conductivity through thin uniform rubber layer and contoured steel tube
- Minimal internal heat-build-up → no hysteresis
- High precision, consistent quality stators and rotors „Made in Germany“



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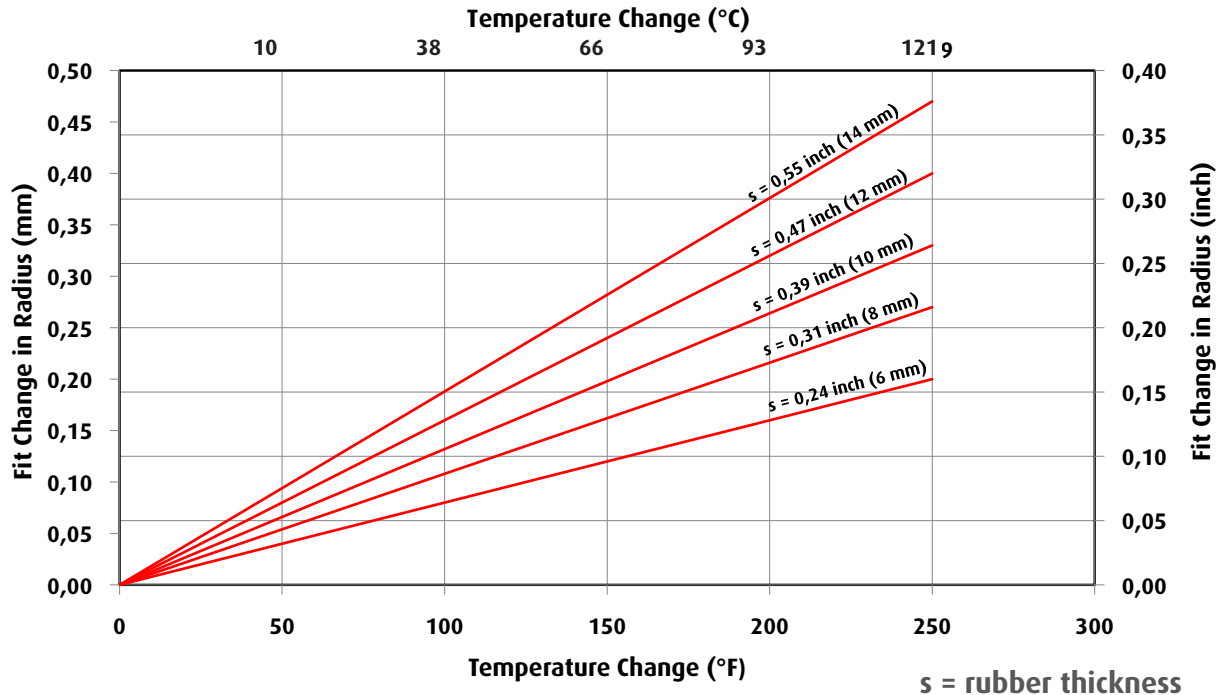


Type	Motor Output			Motor Input		Physical Motor Data		
	Bit Speed	Torque	Power Out	Flow Range	Motor Pressure	No. of Stages	No. of Lobes	Displacement
	rpm	ft-lbs (Nm)	HP (kw)	gqm (lpm)	psi (bar)			rev/gal (rev/l)
2.875" 5/6 3.5 SPIRA	181-362	510 (694)	48 (36)	60-120 (227-454)	761 (53)	3.5	5/6	3.333 (0.888)
4.75" 5/6 3.4 SPIRA	75-152	4,521 (6,149)	78 (57)	150-300 (568-1,136)	740 (51)	3.4	5/6	0.506 (0.134)
4.75" 7/8 3.8 SPIRA TNT	78-156	4,410 (5,998)	110 (83)	150-300 (568-1,136)	827 (57)	3.8	7/8	0.521 (0.138)
5.00" 5/6 8.3 SPIRA	105-280	6,900 (9,355)	297 (221)	100-275 (378-1041)	2140 (148)	8.3	5/6	1.015 (0.268)
6.75" 5/6 3.9 SPIRA	61-182	8,622 (11,692)	240 (178)	200-600 (757-2,271)	856 (59)	3.9	5/6	0.304 (0.080)
6.75" 5/6 5.3 SPIRA	61-182	11,618 (15,754)	327 (240)	200-600 (757-2,271)	1146 (79)	5.3	5/6	0.304 (0.080)
6.75" 7/8 5.0 SPIRA TNT	58-173	11,576 (15,698)	310 (227)	200-600 (757-2,271)	1088 (75)	5.0	7/8	0.288 (0.076)
6.75" 7/8 5.9 SPIRA TNT	58-173	13,660 (18,523)	365 (268)	200-600 (757-2,271)	1276 (88)	5.9	7/8	0.288 (0.076)
8.00" 5/6 3.3 SPIRA	75-170	11,670 (15,871)	324 (243)	400-900 (1,514-3,407)	725 (50)	3.3	5/6	0.190 (0.050)
8.00" 7/8 3.3 SPIRA TNT	65-145	21,000 (28,472)	460 (343)	400-900 (1514-3407)	1018 (70)	4.0	7/8	0.158 (0.042)

rev. 02/2019



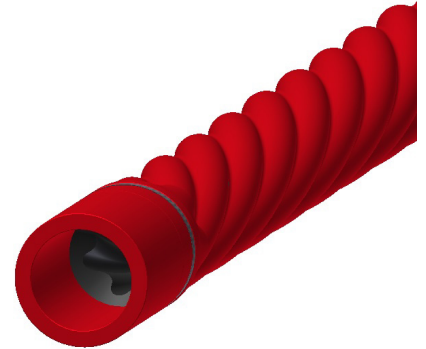
Power Section Fit Change



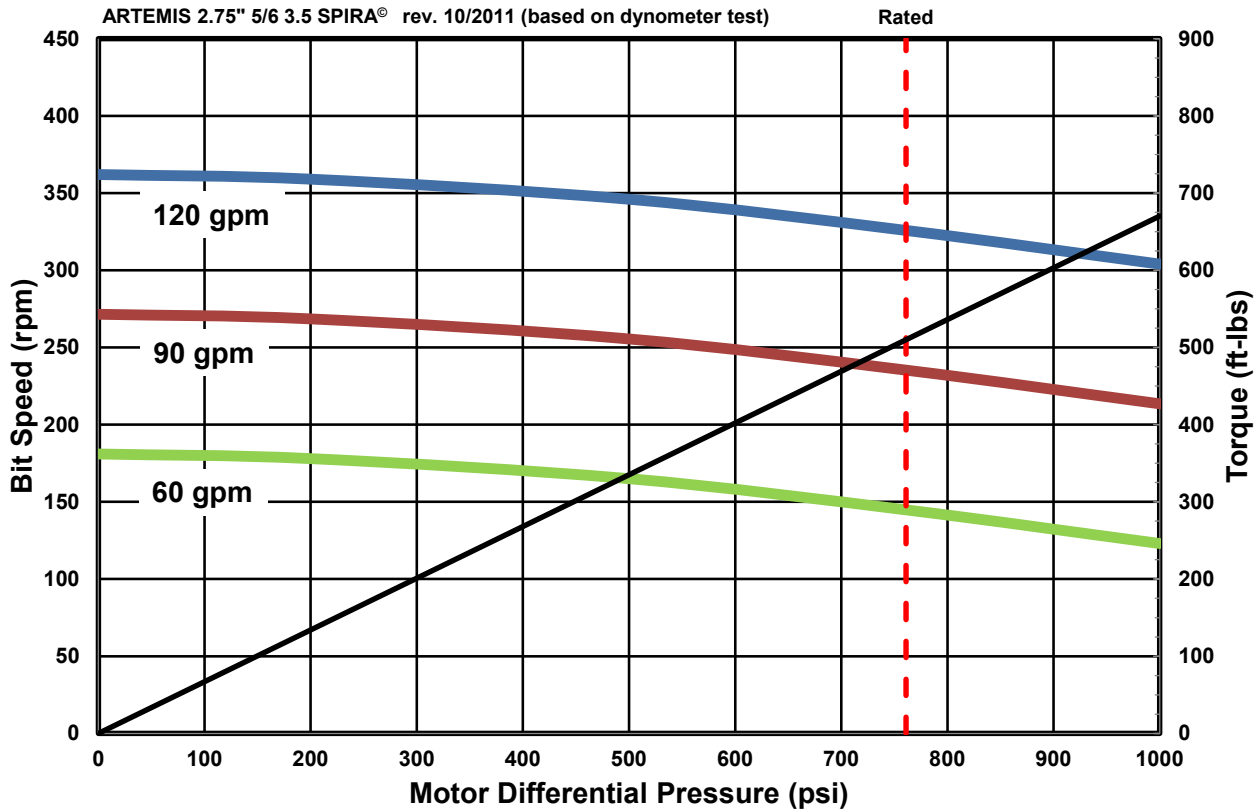
Artemis 2.875" 5/6 3.5 SPIRA®



No. of Stages	3.5	
No. of Lobes Rotor/Stator	5/6	
Overall Length	98.4 (2,500)	inch (mm)
Rubber Cutback	6.89 (175)	inch (mm)
Max. OD	2.875 (73)	inch (mm)
Connections	to customer's specification	
Rubber Types	NBR, HNBR	



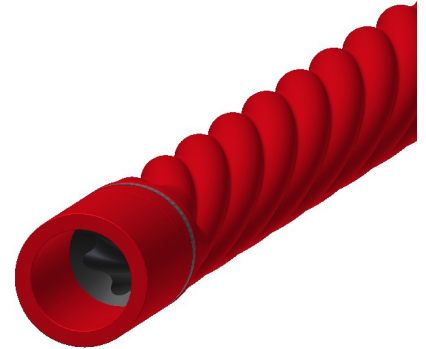
Bit Speed	181-362	rpm
Flow Range	60-120 (227-454)	gqm (lpm)
Displacement	3.333 (0.888)	rev/gal (rev/l)
Motor Pressure	761 (53)	psi (bar)
Torque	510 (694)	ft-lbs (Nm)
Power Out	48 (36)	HP (Kw)



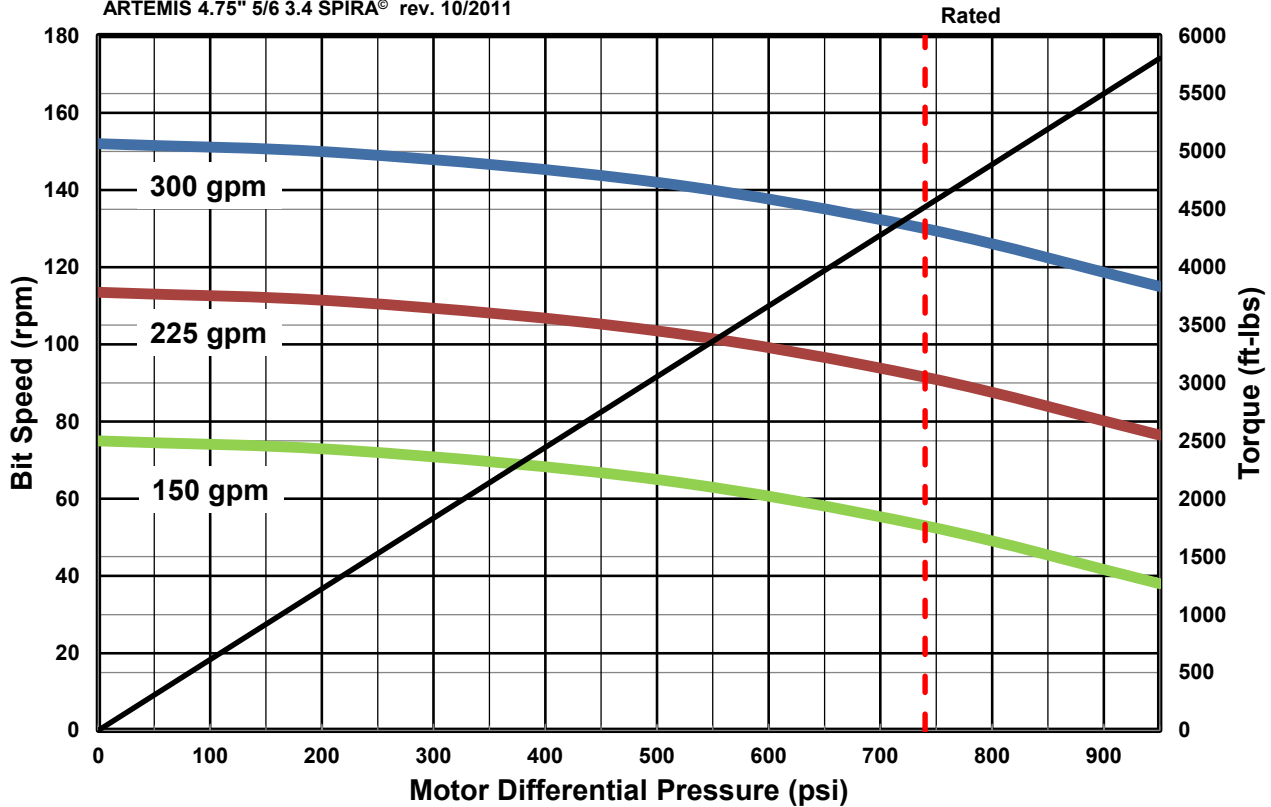
Artemis 4.75" 5/6 3.4 SPIRA®



No. of Stages	3.4	
No. of Lobes Rotor/Stator	5/6	
Overall Length	196 (4,978)	inch (mm)
Rubber Cutback	9.0 (229)	inch (mm)
Max. OD	4.8 (122)	inch (mm)
Connections	to customer's specification	
Rubber Types	NBR, HNBR	
Options	also with 5" terminals available	



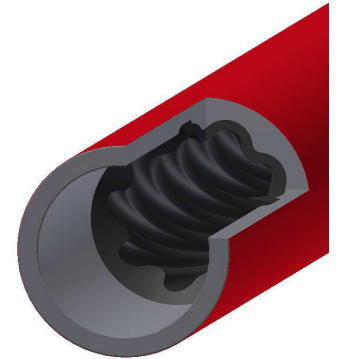
Bit Speed	75-152	rpm
Flow Range	150-300 (568-1,136)	gqm (lpm)
Displacement	0.506 (0.134)	rev/gal (rev/l)
Motor Pressure	740 (51)	psi (bar)
Torque	4,521 (6,149)	ft-lbs (Nm)
Power Out	78 (57)	HP (Kw)



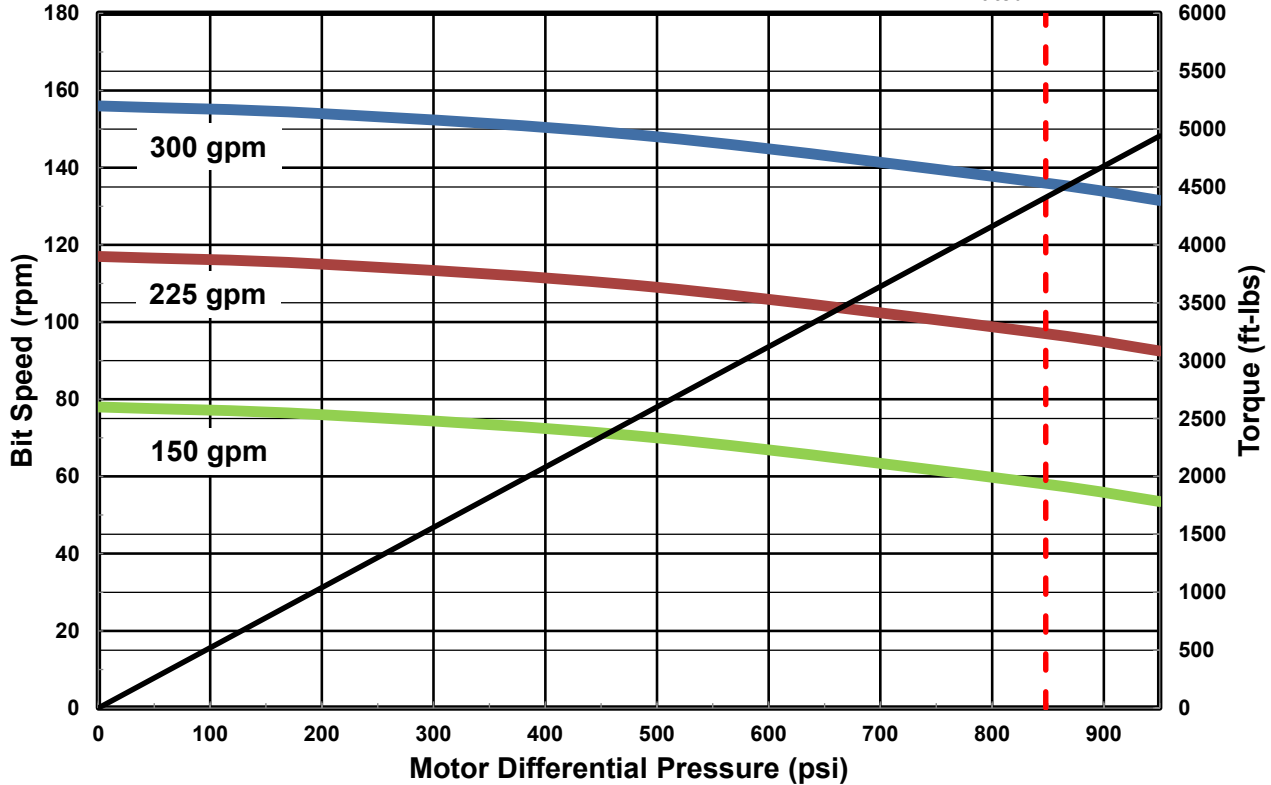
Artemis 4.75" 7/8 3.8 SPIRA® TNT



No. of Stages	3.8	
No. of Lobes Rotor/Stator	7/8	
Overall Length	200 (5,080)	inch (mm)
Rubber Cutback	10.0 (254)	inch (mm)
Max. OD	4.8 (122)	inch (mm)
Connections	to customer's specification	
Rubber Types	NBR, HNBR	
Options	also with 5" terminals available	



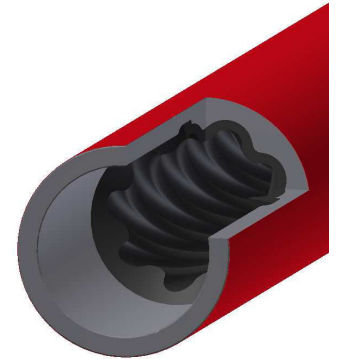
Bit Speed	78-156	rpm
Flow Range	150-300 (568-1,136)	gqm (lpm)
Displacement	0.521 (0.138)	rev/gal (rev/l)
Motor Pressure	827 (57)	psi (bar)
Torque	4,410 (5,998)	ft-lbs (Nm)
Power Out	110 (83)	HP (Kw)



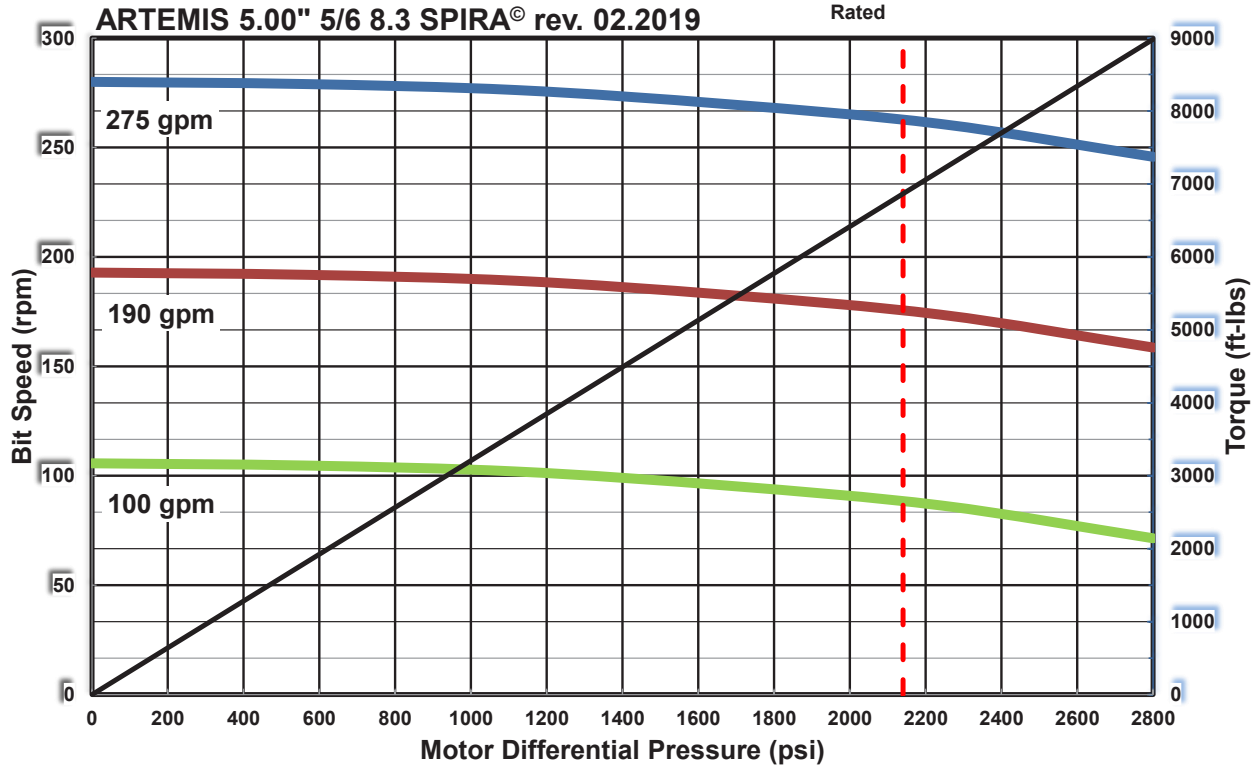
Artemis 5.00" 5/6 8.3 SPIRA®



No. of Stages	8.3	
No. of Lobes Rotor/Stator	5/6	
Overall Length	245 (6,223)	inch (mm)
Rubber Cutback	8 (203,2)	inch (mm)
Max. OD	5.0 (127)	inch (mm)
Connections	to customer's specification	
Rubber Types	NBR, HNBR	



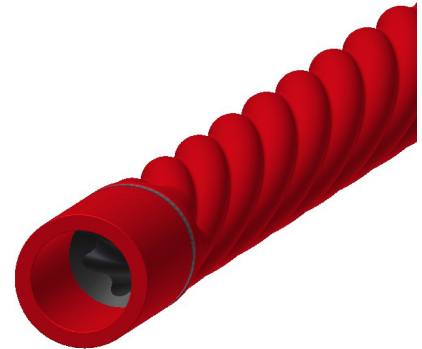
Bit Speed	105-280	rpm
Flow Range	100-275 (378-1041)	gqm (lpm)
Displacement	1.015 (0.268)	rev/gal (rev/l)
Motor Pressure	2140 (148)	psi (bar)
Torque	6,900 (9355)	ft-lbs (Nm)
Power Out	297 (221)	HP (Kw)



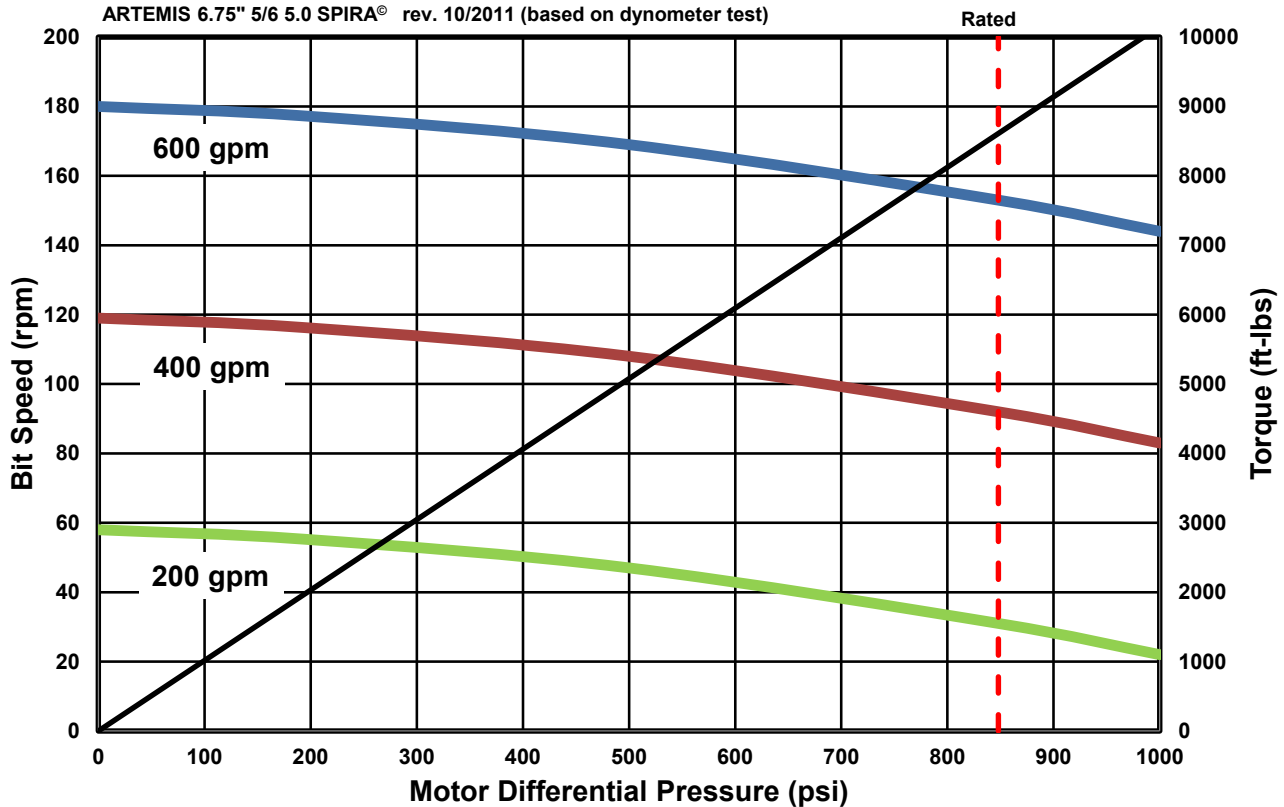
Artemis 6.75" 5/6 3.9 SPIRA®



No. of Stages	3.9	
No. of Lobes Rotor/Stator	5/6	
Overall Length	177.5 (4,508)	inch (mm)
Rubber Cutback	10.0 (254)	inch (mm)
Max. OD	6.93 (176)	inch (mm)
Connections	to customer's specification	
Rubber Types	NBR, HNBR	
Options	also with 7" terminals available	



Bit Speed	61-182	rpm
Flow Range	200-600 (757-2,271)	gqm (lpm)
Displacement	0.304 (0.080)	rev/gal (rev/l)
Motor Pressure	856 (59)	psi (bar)
Torque	8,622 (11,692)	ft-lbs (Nm)
Power Out	240 (178)	HP (Kw)

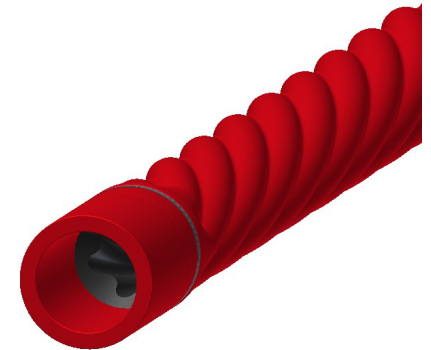


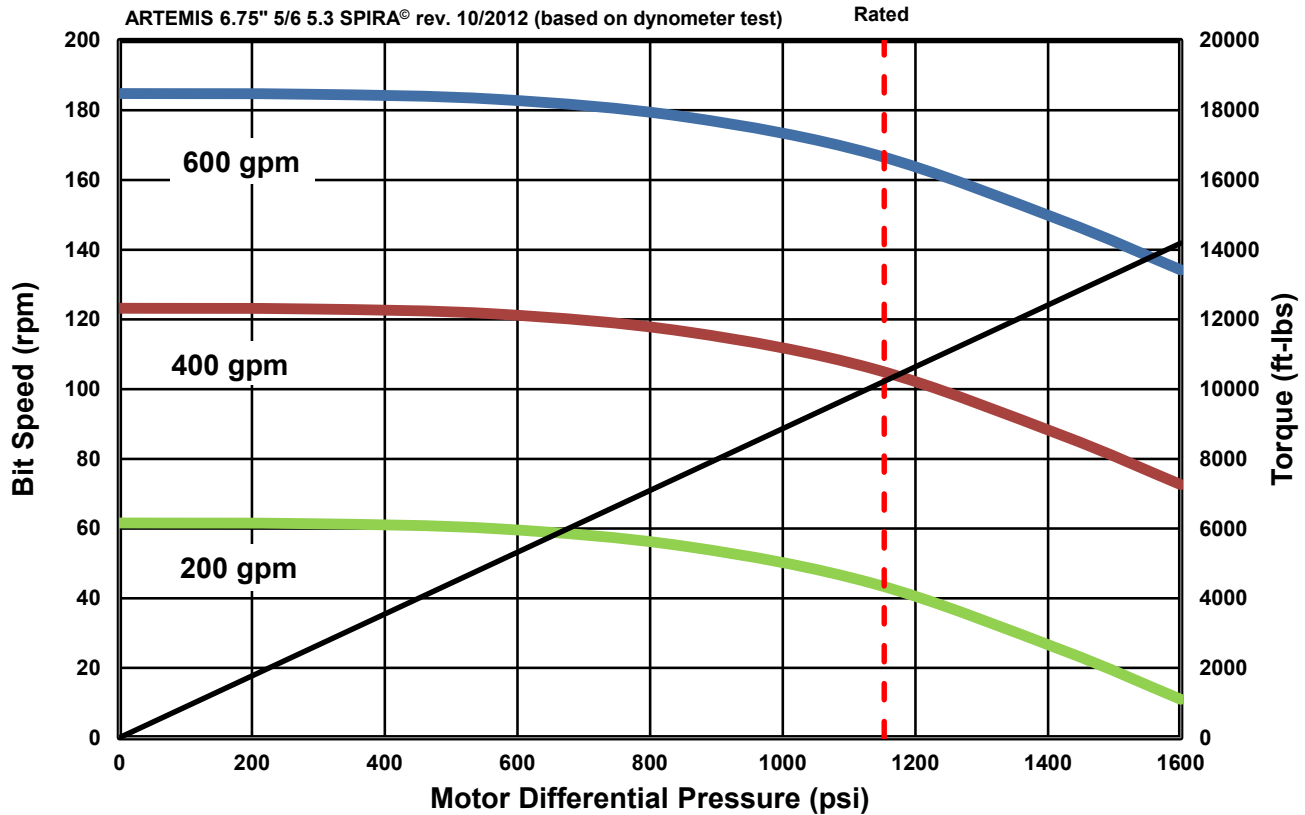
Artemis 6.75" 5/6 5.3 SPIRA®



No. of Stages	5.3	
No. of Lobes Rotor/Stator	5/6	
Overall Length	235.8 (5,990)	inch (mm)
Rubber Cutback	10.0 (254)	inch (mm)
Max. OD	6.93 (176)	inch (mm)
Connections	to customer's specification	
Rubber Types	NBR, HNBR	
Options	also with 7" terminals available	

Bit Speed	61-182	rpm
Flow Range	200-600 (757-2,271)	gqm (lpm)
Displacement	0.304 (0.080)	rev/gal (rev/l)
Motor Pressure	1146 (79)	psi (bar)
Torque	11,618 (15,754)	ft-lbs (Nm)
Power Out	327 (240)	HP (Kw)

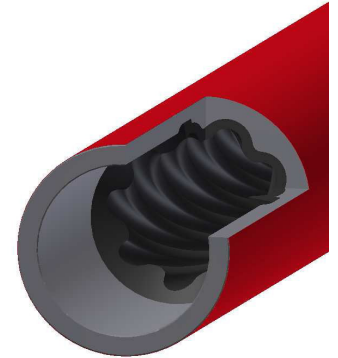




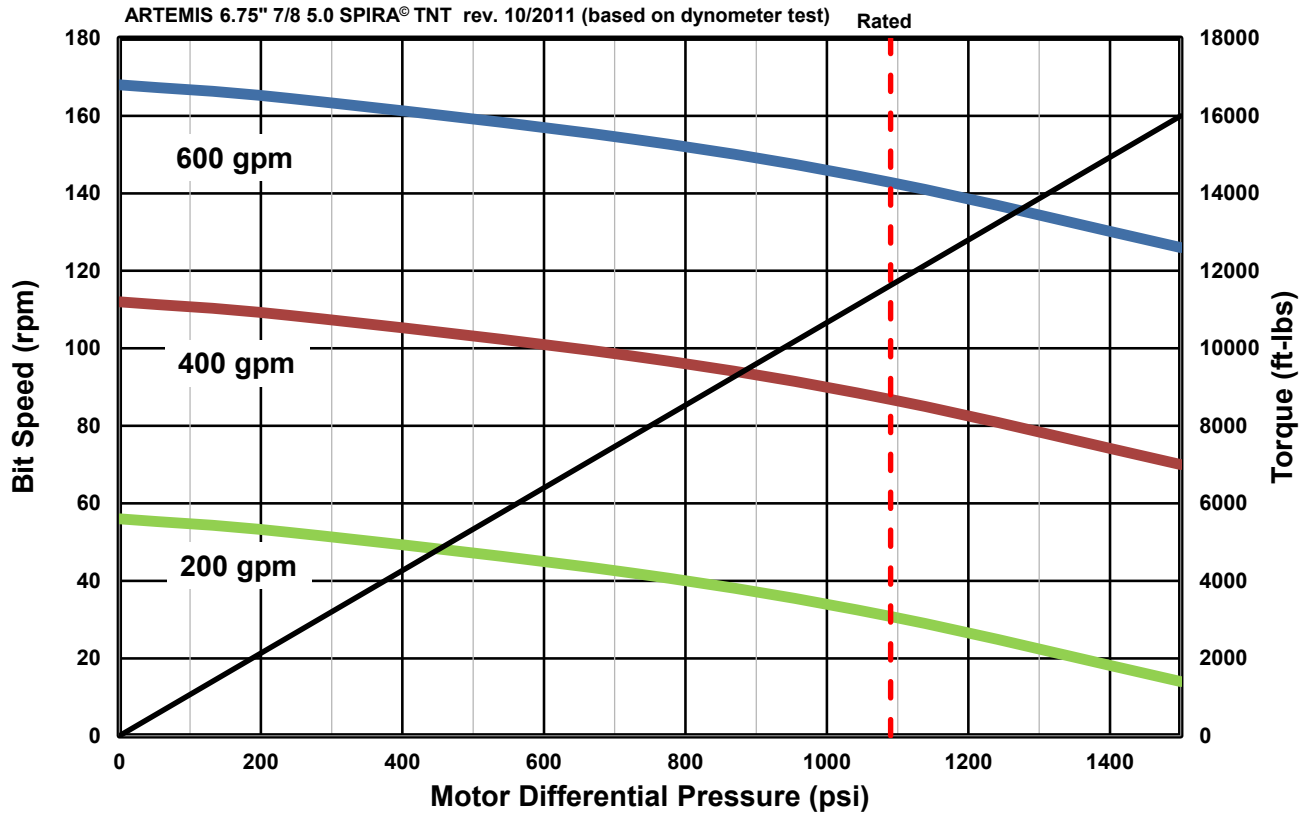
Artemis 6.75" 7/8 5.0 SPIRA® TNT



No. of Stages	5.0	
No. of Lobes Rotor/Stator	7/8	
Overall Length	200 (5,080)	inch (mm)
Rubber Cutback	10.0 (259)	inch (mm)
Max. OD	6.89 (173)	inch (mm)
Connections	to customer's specification	
Rubber Types	NBR, HNBR	
Options	also with 7" terminals available	



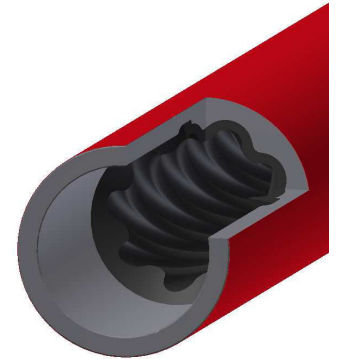
Bit Speed	58-173	rpm
Flow Range	200-600 (757-2,271)	gqm (lpm)
Displacement	0.288 (0.076)	rev/gal (rev/l)
Motor Pressure	1088 (75)	psi (bar)
Torque	11,576 (15,698)	ft-lbs (Nm)
Power Out	310 (227)	HP (Kw)



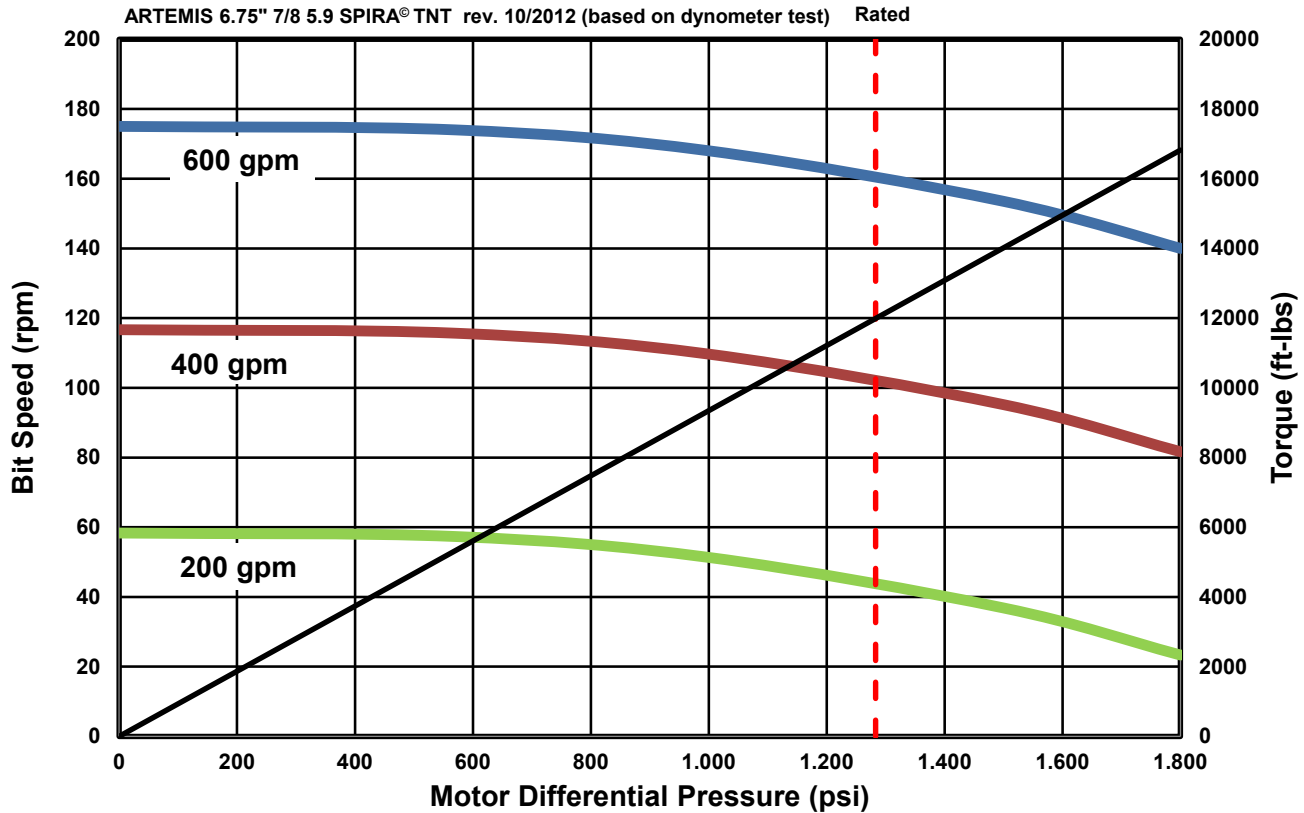
Artemis 6.75" 7/8 5.9 SPIRA® TNT



No. of Stages	5.9	
No. of Lobes Rotor/Stator	7/8	
Overall Length	235.8 (5,990)	inch (mm)
Rubber Cutback	10.0 (259)	inch (mm)
Max. OD	6.89 (175)	inch (mm)
Connections	to customer's specification	
Rubber Types	NBR, HNBR	
Options	also with 7" terminals available	



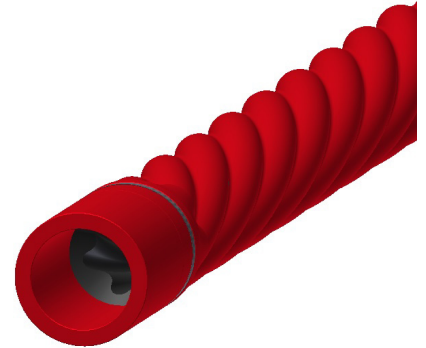
Bit Speed	58-173	rpm
Flow Range	200-600 (757-2,271)	gqm (lpm)
Displacement	0.288 (0.076)	rev/gal (rev/l)
Motor Pressure	1276 (88)	psi (bar)
Torque	13,660 (18,523)	ft-lbs (Nm)
Power Out	365 (268)	HP (Kw)



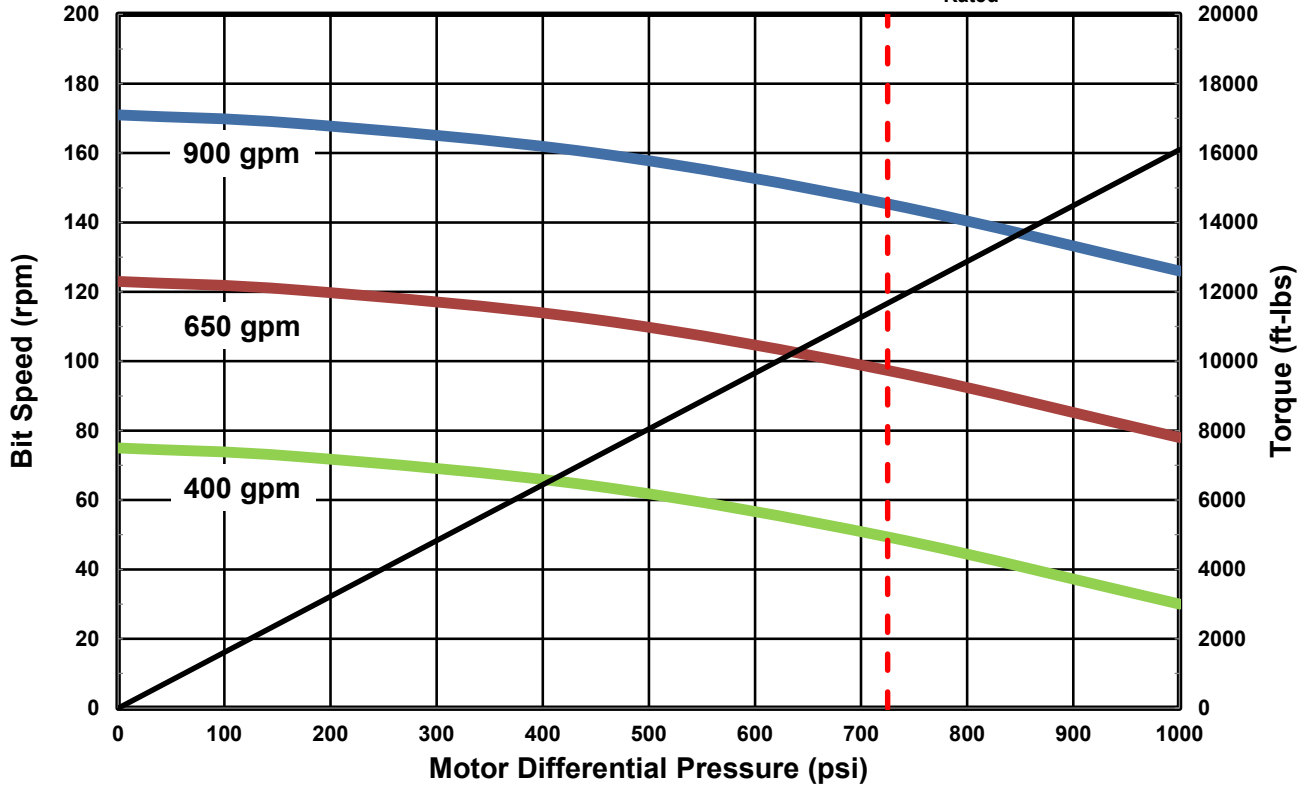
Artemis 8.00" 5/6 3.3 SPIRA®



No. of Stages	3.3	
No. of Lobes Rotor/Stator	5/6	
Overall Length	177.5 (4,508)	inch (mm)
Rubber Cutback	9 (229)	inch (mm)
Max. OD	8.25 (210)	inch (mm)
Connections	to customer's specification	
Rubber Types	NBR, HNBR	
Options	Terminal for 9 5/8" Lower Section avail.	



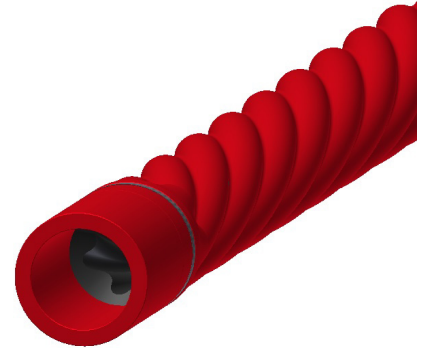
Bit Speed	75-170	rpm
Flow Range	400-900 (1,514-3,407)	gqm (lpm)
Displacement	0.190 (0.050)	rev/gal (rev/l)
Motor Pressure	725 (50)	psi (bar)
Torque	11,670 (15,871)	ft-lbs (Nm)
Power Out	324 (243)	HP (Kw)



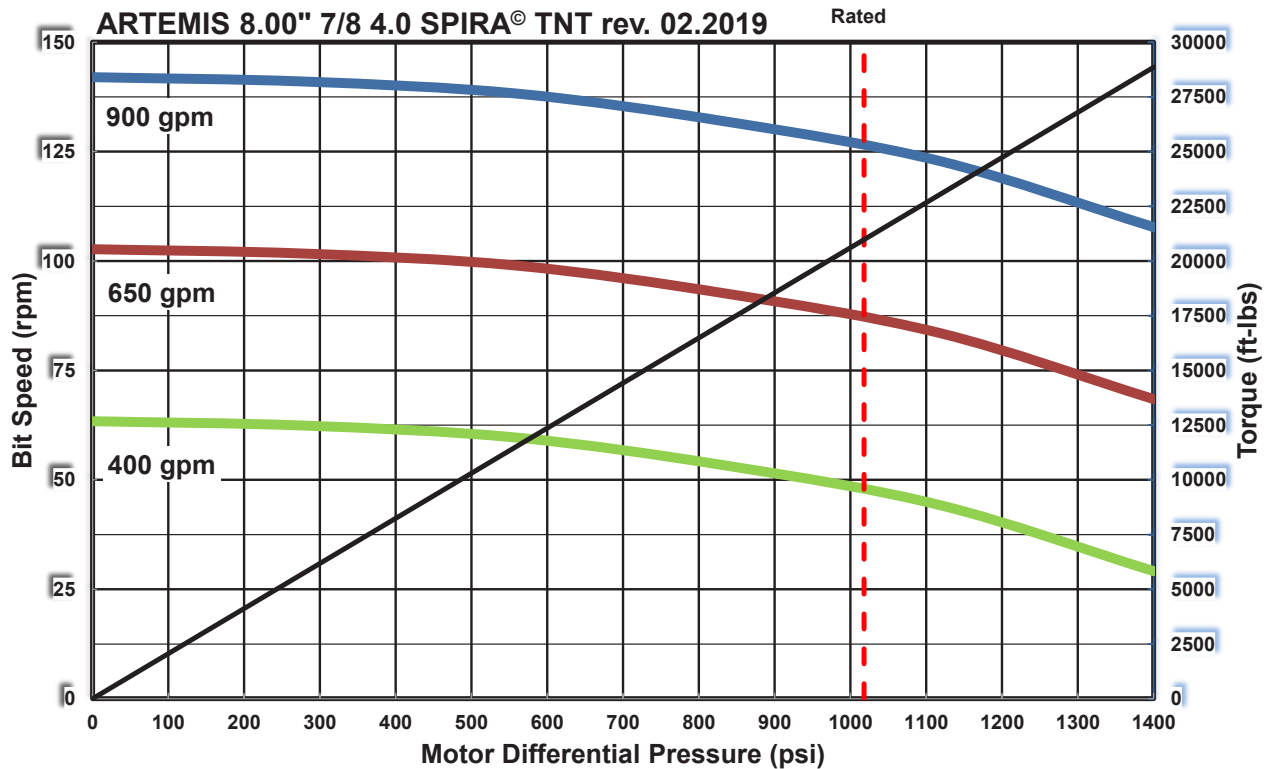
Artemis 8.00" 7/8 4.0 SPIRA® TNT



No. of Stages	4.0	
No. of Lobes Rotor/Stator	7/8	
Overall Length	223.5 (5676,9)	inch (mm)
Rubber Cutback	18 (457,2)	inch (mm)
Max. OD	8.125 (206,4)	inch (mm)
Connections	to customer's specification	
Rubber Types	NBR, HNBR	



Bit Speed	65-145	rpm
Flow Range	400-900 (1,514-3,407)	gqm (lpm)
Displacement	0.158 (0.042)	rev/gal (rev/l)
Motor Pressure	1018 (70)	psi (bar)
Torque	21,000 (28.472)	ft-lbs (Nm)
Power Out	460 (343)	HP (Kw)





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