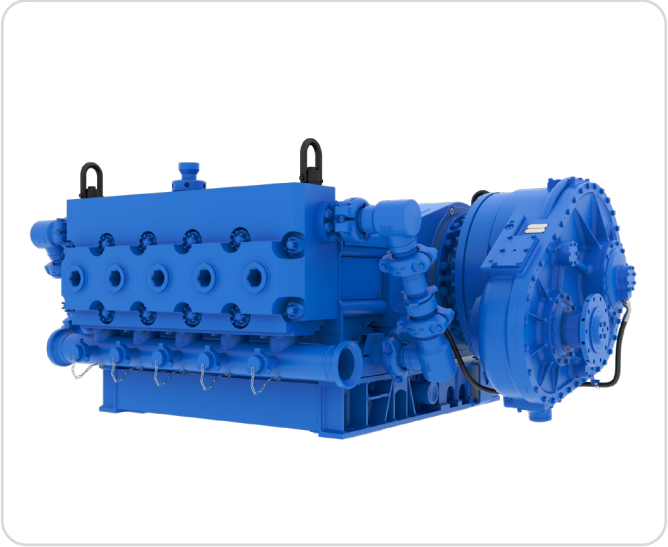
SPM™ QEM FRAC PUMP

QEM3600C / QEM5000C



FEATURES

- Cast Power End Frame with integrated skid adds rigidity and stability for extended pump life
- On-board filtration reduces lubricant contamination to optimize pump performance
- The industry's largest frac pump bearing minimizes shock loading and increases component life
- Cast gearbox housing built for durability and serviceability
- 12" bore centers promote longer fluid end life

BENEFITS

- SPM Everbore hardened steel packing bore reduce the threat of washboarding by 3X
- Reduces maintenance and operation costs by up to 40% compared to conventional pumps
- Smaller fleet footprint allows for greater set up efficiency

INCREASE YOUR HORSEPOWER WHILE DECREASING YOUR PUMPS ON-SITE

The SPM™ QEM Pump leverages decades of engineering excellence and the precision engineering of the proven SPM QEM platform to minimize nonproductive (NPT) time. This heavy-duty, high-horsepower frac pump is engineered to run at high rod load to meet the rigorous requirements of today's frac jobs.

Rugged durability is engineered into the pump's design, enabling it to outlast legacy pumps. An engineered skid and Cast Frame enhance structural rigidity to significantly extend component life, while a simplified single pressure lubrication system with on-board filtration optimizes the flow of oil to ensure clean lubricant delivery. This helps prevent premature failure and reduces nonproductive time.

The robust SPM™ QEM Pump is designed to keep more of your assets on location, reducing downtime and lowering total cost of ownership to improve your bottom line.

SPECIFICATIONS

	SPM™ QEM General Pump Data			
	QEM 5000C		QEM 3600C	
Maximum Brake Horsepower Input	5,000 BHP (3,729 kW)		3,600 BHP (2,237 kW)	
Maximum Rod Load Capacity	308,000 lb (139,706 kg)		275,000 lb (124,738 kg)	
Stroke Length	8 in (203 mm)		8 in (203 mm)	
Approximate Length	89 in (2,261 mm)		89 in (2,261 mm)	
Approximate Width	119 in (3,023 mm)		119 in (3,023 mm)	
Approximate Width (Inc. Gear Reducer and Bridle)	129 in (3,277 mm)		129 in (3,277 mm)	
Approximate Height	56 in (1,422 mm)		56 in (1,422 mm)	
Gear Ratio	6.972:1	10.01:1	6.972:1	10.01:1
Approximate Weight (Dry)	30,415 lb (13,796 kg)	30,435 lb (13,796 kg)	30,415 lb (13,796 kg)	30,435 lb (13,805 kg)

Note: Pump dimensions and weights are approximate.

TOGETHER, WE GET IT DONE.

SPM™ QEM 3600C FRAC PUMP-PERFORMANCE CHART

Plunger Diameter	Displace Per Rev	DISPLACEMENT AT PUMP STROKES PER MINUTE (PINION RPM WITH 7:1 & 10:1)											
		50 rpm (349 rpm) (501 rpm)		117 rpm (812 rpm) (1166 rpm)		160 rpm (1116 rpm) (1602 rpm)		200 rpm (1394 rpm) (2002 rpm)		240 rpm (1673 rpm) (2402 rpm)		281 rpm (1959 rpm) (2813 rpm)	
in (mm)	gal/rev (liter/rev)	gpm (lpm)	psi (Mpa)	gpm (lpm)	psi (Mpa)	gpm (lpm)	psi (Mpa)	gpm (lpm)	psi (Mpa)	gpm (lpm)	psi (Mpa)	gpm (lpm)	psi (Mpa)
5	**2.75**	**330**	**17291**	**321**	**17291**	**441**	**12603**	**551**	**10082**	**661**	**8402**	**774**	**7176**
(114.3)	(10.4)	(521)	(119)	(1214)	(119)	(1668)	(87)	(2085)	(70)	(2502)	(58)	(2929)	(56)
5	**3.40**	**170**	**14006**	**396**	**14006**	**544**	**10208**	**680**	**8167**	**816**	**6806**	**955**	**5813**
(127)	(12.9)	(643)	(97)	(1499)	(97)	(2059)	(70)	(2574)	(56)	(3089)	(47)	(3616)	(40)
Input Power: BHP (kW)		**1543**	(1151)	**3596**	(2682)	**3600**	(2685)	**3600**	(2685)	**3600**	(2685)	**3600**	(2685)

[1] Based on 90% Mechanical Efficiency and 100% Volumetric Efficiency. Pump rated to 15,000 psi max due to discharge flanges.
[2] Pumps with pressures in excess of 15,000 psi require special gauge and discharge flanges. Contact SPM for information.
[3] In the **Orange** areas (greater than 778 gpm), 4" discharge iron is required to stay below maximum flow velocity of 42 ft/s.
[4] The **Orange** areas also represent increased wear rate due to suction valve velocities in excess of 12 ft/s and increased fluid end failure due to cavitation corrosion pitting.

SPM™ QEM 5000C FRAC PUMP-PERFORMANCE CHART

Plunger Diameter	Displace Per Rev	DISPLACEMENT AT PUMP STROKES PER MINUTE (PINION RPM WITH 7:1 & 10:1)											
		50 rpm (349 rpm) (501 rpm)		120 rpm (837 rpm) (1201 rpm)		145 rpm (1011 rpm) (1451 rpm)		200 rpm (1394 rpm) (2002 rpm)		240 rpm (1673 rpm) (2402 rpm)		281 rpm (1959 rpm) (2813 rpm)	
in (mm)	gal/rev (liter/rev)	gpm (lpm)	psi (Mpa)	gpm (lpm)	psi (Mpa)	gpm (lpm)	psi (Mpa)	gpm (lpm)	psi (Mpa)	gpm (lpm)	psi (Mpa)	gpm (lpm)	psi (Mpa)
5	**3.40**	**170**	**17291**	**408**	**16686**	**493**	**16646**	**680**	**11343**	**816**	**9462**	**955**	**8073**
(114.3)	(12.9)	(640)	(100)	(1544)	(108)	(1866)	(108)	(2574)	(78)	(3089)	(65)	(3616)	(56)
5 1/2	**4.11**	**170**	**12964**	**494**	**12964**	**597**	**12930**	**823**	**9374**	**987**	**7812**	**1156**	**6672**
(139.7)	(15.6)	(779)	(89)	(1869)	(89)	(2258)	(89)	(3114)	(65)	(3737)	(54)	(4376)	(46)
Input Power: BHP (kW)		**1729**	(1151)	**4149**	(3094)	**5000**	(3728)	**5000**	(3728)	**5000**	(3728)	**5000**	(3728)

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