



SX1-DEF Series Sliding Vane Pumps

In 2010, when new diesel-emission standards for Class 4-8 vehicles mandated its use in the USA, Diesel Exhaust Fluid (DEF) was called “the largest addition to the motor-vehicle liquids marketplace in decades.” Subsequent years have borne out the veracity of that statement with consumption growing geometrically and significant growth forecasted for the future.

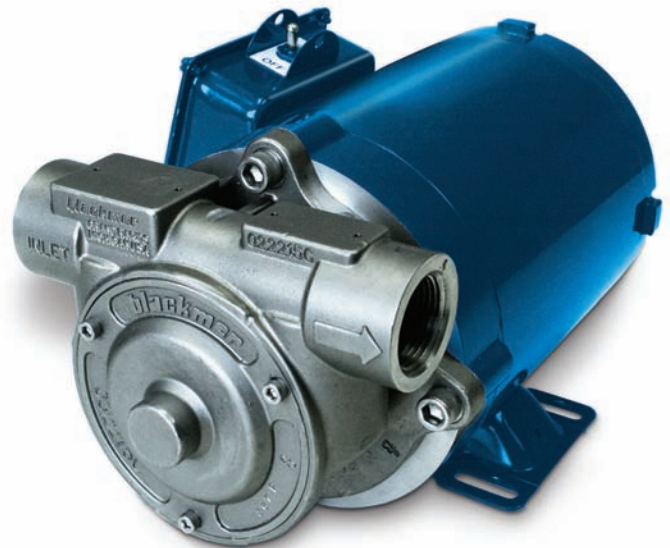
To meet this demand, thousands of truck stops, truck dealers and aftermarket parts stores are offering DEF. Pumps are needed to facilitate the transfer of DEF into on-site storage vessels, or from those vessels into the DEF tanks of fleet trucks and these pumps must be compatible with DEF’s unique and aggressive properties.

Recognizing both the opportunities and challenges inherent in the DEF marketplace, Blackmer® has produced a series of sliding vane-style pumps that are dedicated for DEF production and handling. The newest addition to this family is the SX1-DEF Series Sliding Vane Pump.

Features & Benefits

The SX1-DEF pumps offer the following operational features and benefits when dispensing DEF from various sized totes:

- Maximum flow rate: 10 gpm (37.9 L/min)
- Maximum differential pressure: 25 psi (1.7 bar)
- Motor speed: 1,750 rpm
- All 316 stainless-steel construction, including pump shaft
- Duravanes®
- EPDM O-rings
- Commercial mechanical seal
- 180° porting with optional 1” NPT or 1” BSPP tapped ports
- Foot-mounted, 0.5-horsepower TENV, C-face close-coupled 110-volt motor
- Integral relief valve with stainless-steel spring
- Meets ISO 22241-3 certification for material compatibility

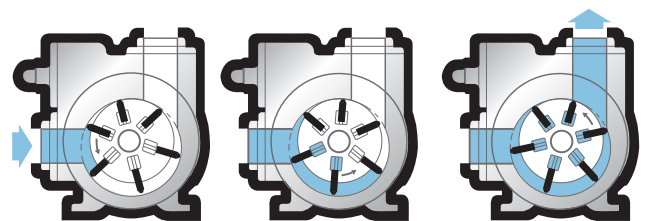


SX1-DEF

The features and benefits make the SX1-DEF pump a superior solution to low-cost, short-service “throwaway” pumps, which utilize inadequate designs and, in many cases, are constructed of cheaper plastic materials.

These competitive models just can’t compete with the design, reliability, durability and overall performance of Blackmer’s new SX1-DEF Series Sliding Vane Pump.

How Blackmer’s sliding vane action works





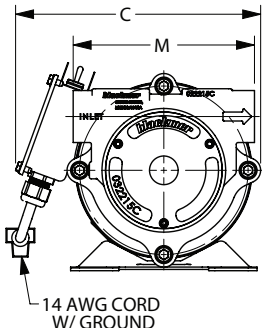
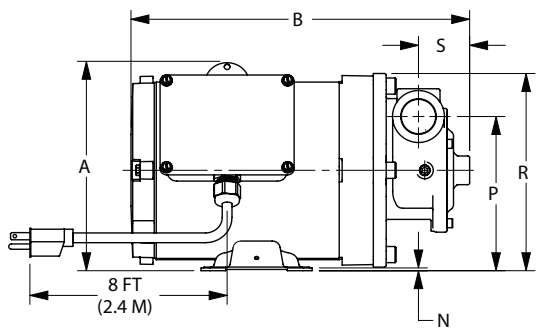
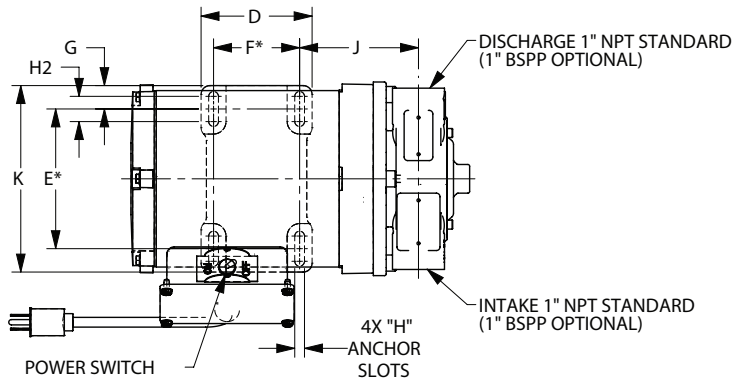
SX1-DEF Series Sliding Vane Pumps

Characteristic Flow Rates

Pump Model	Pump Speed rpm	Pump Capacity @ 10 psid (0.7 bar) with 30 ssu (1 cSt) Fluid			Maximum Fluid Viscosity at rpm Shown	
		US gpm	L/min	m ³ /h	ssu	cSt
SX1-DEF	1750	8.5	37.2	1.93	30	2.0

Maximum Operating Limits

Pump Model	Nominal Flow Rate			Pump Speed rpm	Viscosity		Differential Pressure		Temperature	
	US gpm	L/min	m ³ /h		ssu	cSt	psi	bar	°F	°C
S1X-DEF	7.5	28.4	1.7	1750	30	2.0	25	1.72	80	32

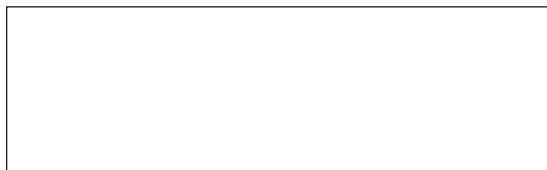


Motor Description

- Frame:** 56CZ
- HP:** 1/2
- Volts:** 115 AC
- Phase:** 1 PH
- Freq:** 60 HZ
- Encl:** TENV

Pump Dimensions

Pump Model	A	B	C	D	E	F	G	H	H2	J	K	M	P	R	S	
SX1-DEF	in.	7 ³ / ₁₆	11 ¹³ / ₁₆	8 ⁷ / ₁₆	7 ⁵ / ₁₆	4 ⁷ / ₁₆	3	1 ³ / ₁₆	1 ¹ / ₃₂	7 ⁷ / ₈	4 ¹ / ₈	6 ¹ / ₂	6 ⁵ / ₁₆	5 ³ / ₈	6 ⁷ / ₈	1 ¹³ / ₁₆
	mm	160.3	322.3	171.5	101.6	123.8	76.2	20.6	9.5	22.2	104.8	165.1	160.3	136.5	174.6	46.0



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