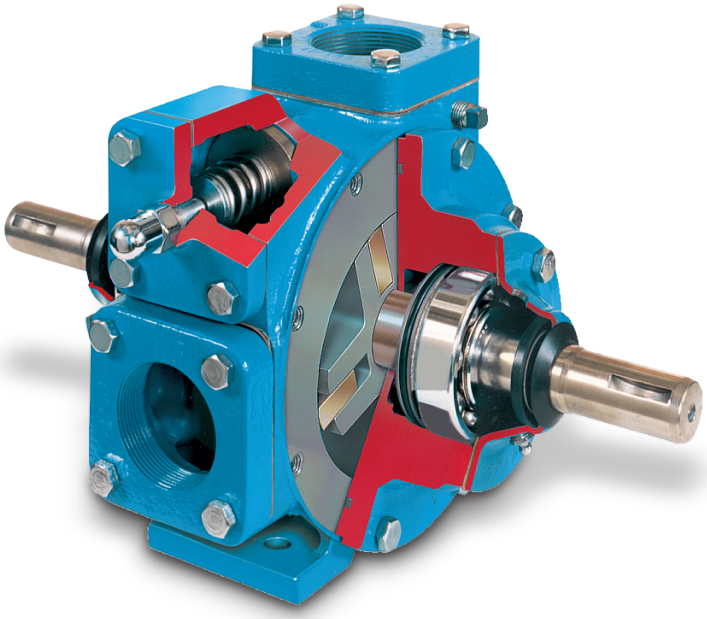
Spec Sheet 202-001

Section: 202
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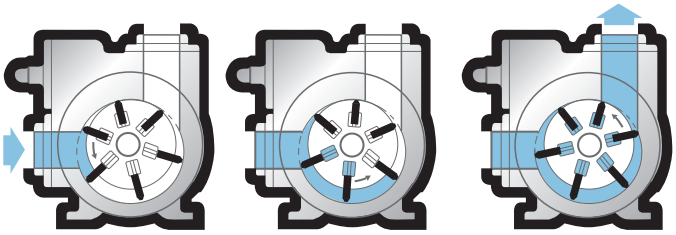
TXV Series

High Temperature, Rotary Vane Pumps for Asphalts and Viscous Fluids





How Blackmer's sliding vane action works



Design

Blackmer TXV pumps provide high volume, low speed transfer of clean fluids compatible with a cast iron construction. For fluids that do not work well with mechanical seals, a TXV pump is the answer. They are well suited for thick, viscous fluids that can solidify when exposed to the air.

The TXV pump models are available in 2 1/2 and 3-inch port sizes. Standard construction includes a special open rotor design that offers easy flushing, bronze vanes, FKM elastomers, PTFE lip seals, high temperature grease lubricated ball bearings isolated from the pumpage and high temperature gasket materials.

The TXV pump delivers more fluid per revolution than comparably ported gear pumps. And slower operating speeds mean longer service life and reduced maintenance requirements.

The TXV's internal relief valve protects the pump from pressure build-up.

High Viscosity

TXV pumps are ideal for handling viscous or shear sensitive fluids. The key to the TXV series' versatility is Blackmer's unique sliding vane rotor design that provides sustained, high level performance over a wide viscosity range. Slow operating speeds and non-pulsating flow minimizes shear and agitation of the fluid.

Self-Priming and Dry Run Capability

TXV pumps are self-priming, and the self-adjusting vanes help maintain this capability. TXV pumps can run dry for short periods of time for priming.

Application

Typical applications for the TXV pumps include: asphalts, greases, lube oils, resins, molasses, bunkered fuels, inks and adhesives.

TXV Series
High Temperature, Rotary Vane Pumps for Asphalts and Viscous Fluids

Characteristic Flow Rates

Pump Model	Pump Speed	Pump Capacity @ 50 psid (345 kPa)					
		1,000 ssu (2,200 cSt)		5,000 ssu (1,050 cSt)		10,000 ssu (2,200 cSt)	
	rpm	gpm	L/min	gpm	L/min	gpm	L/min
TXV 2.5	640	123	465	—	—	—	—
	520	99	374	99	374	—	—
	420	80	302	80	302	80	302
TXV 3	640	268	1,013	—	—	—	—
	520	218	824	218	824	—	—
	420	175	661	175	661	175	661

**Refer to Characteristic Curves for flow rates and torque requirements at other pressures and viscosities.*

Maximum Operating Limits

Pump Model	Nominal Flow Rate		Pump Speed	Viscosity		Differential Pressure		Working Pressure		Temperature	
	gpm	L/min	rpm	ssu	cSt	psi	bar	psi	bar	°F	°C
TXV 2.5	136	513	640	50,000	10,500	125	8.6	175	12.1	375	190
TXV 3	276	1,043	640	50,000	10,500	125	8.6	175	12.1	375	190

Note: Optional materials of construction may be required to meet specific application requirements — refer to Blackmer Material Specification Sheet 202-091. For operating limits that exceed those listed — Consult Factory.

Application Assistance

In some applications, selecting the right pump may require more detailed information than can be presented in this Spec Sheet. Blackmer has a worldwide distribution network to assist you in specifying the proper pump for your application.

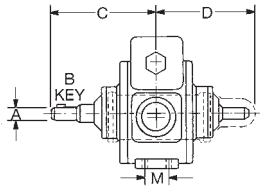
Please contact Blackmer's Customer Care Group at the telephone or fax number listed below for the name of your nearest Blackmer distributor.

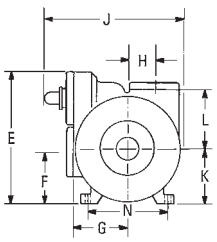
Options

- Duravanes or Laminate vanes
- Lip Seals with PTFE elastomers or a variety of Blackmer cartridge mechanical seals (please consult factory)
- PTFE encapsulated elastomers
- Hydraulic Motor Adaptor
- Nickel plated relief valve for corrosion resistance

Pipe Flanges

Pump Model	Standard	Optional
TXV 2.5	2½" NPT	2½" Weld; 2", 2½", 3" Vic
TXV 3	3" NPT	3" Weld; 3" Vic





Pump Dimensions

Pump Model		A	B	C	D	E	F	G	H	J	K	L	M	N	Approx. Wt. with Std. Flanges
TXV 2.5	in.	1 1/8	1/4	8 3/4	9 1/2	9 5/8	3 3/4	4 5/16	1 3/4	12 7/16	4	5 1/16	3	5 1/2	96 lbs.
	mm	–	–	222	241	244	95	110	44	316	102	129	76	140	44 kgs
TXV 3	in.	1 1/8	1/4	9 5/8	10 5/8	12 1/4	4 5/8	5	2 1/2	15 1/4	5 3/8	5 1/4	2 1/2	6	138 lbs.
	mm	–	–	244	270	311	117	127	64	387	137	133	64	152	63 kgs

Refer to catalog dimension sheets for pumps equipped with hydraulic motor adaptors.

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ISO 9001

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