

# LIQUID SPECIFIC PRODUCT LINE: STAINLESS STEEL CHEMICAL TANKER PUMPS

RTPe Series™

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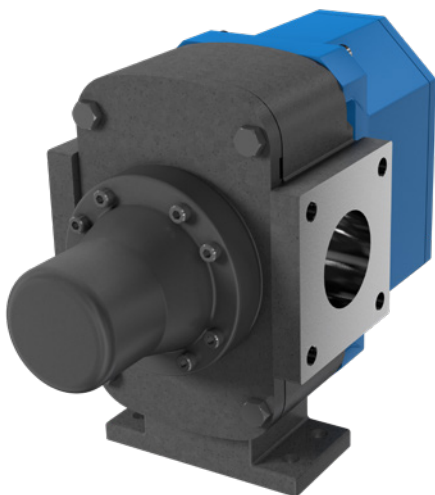
## SERIES DESCRIPTION

The RTPe Series™ rotary lobe pump is the ideal solution for your chemical tanker system. This stainless steel pump can handle caustics, corrosives, fertilizers, and more without fear of compromising the integrity of the chemicals. It can handle flows up to 264 GPM (60m³/h).



## RELATED PRODUCTS

Stainless Steel, RTP® Series: Catalog Section 1727



RTPe

## FEATURES & BENEFITS

- **Cleanability**
  - » The simple design behind the rotor makes strip cleaning easy and fast
  - » Choose the cleaning process that fits your needs: COP (Clean Out of Place) or CIP (Clean In Place)
- **Ease of Maintenance**
  - » Innovative front loading seal design enables quick inspection and easy servicing
  - » Sealed gearcase with long-life lubrication eliminates oil inspection and filling
  - » Easy to service design requires no special tools for disassembly and eliminates need for end clearance adjustments
- **Performance**
  - » Wide range of chemical compatibility
  - » Efficiently handles both low and high viscosity liquids with improved pressure capabilities for faster loading and unloading
  - » Excellent displacement/weight ratios, which means more in the tank and less in the cabinet (1 l/rev. / 0.264 USG/rev.)
  - » Precision helical gears, rotors and shaft design, with optimized bearing position, minimize overhung load – extending seal & bearing life

## OPERATING RANGE

SERIES	NOMINAL FLOW		MAXIMUM PRESSURE		TEMPERATURE		VISCOSITY RANGE*	
	GPM	m³/h	PSI	Bar	°F	°C	SSU	cSt
RTPe	0 - 264	0 - 60	145	10	to 230	to 110	to 910,000	to 200,000

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**LIQUID SPECIFIC PRODUCT LINE:  
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**STANDARD MATERIALS OF CONSTRUCTION**

Component	Standard Material
Rotors	316L Stainless Steel
Rotorcase	316L Stainless Steel
Shafts	316L Stainless Steel
Front Cover	316L Stainless Steel
Rotor Retainer	316L Stainless Steel
Gearbox Housing	Grade 220 Grey Cast Iron, Coated
Wetted End O-Ring	FDA FKM or PTFE/FFKM
Composite O-Ring Seal	PTFE/Carbon Fiber Filler
Component Mechanical Seal Faces	Silicon Carbide/Silicon Carbide

**MODEL NUMBER KEY**



**SPECIFICATIONS**

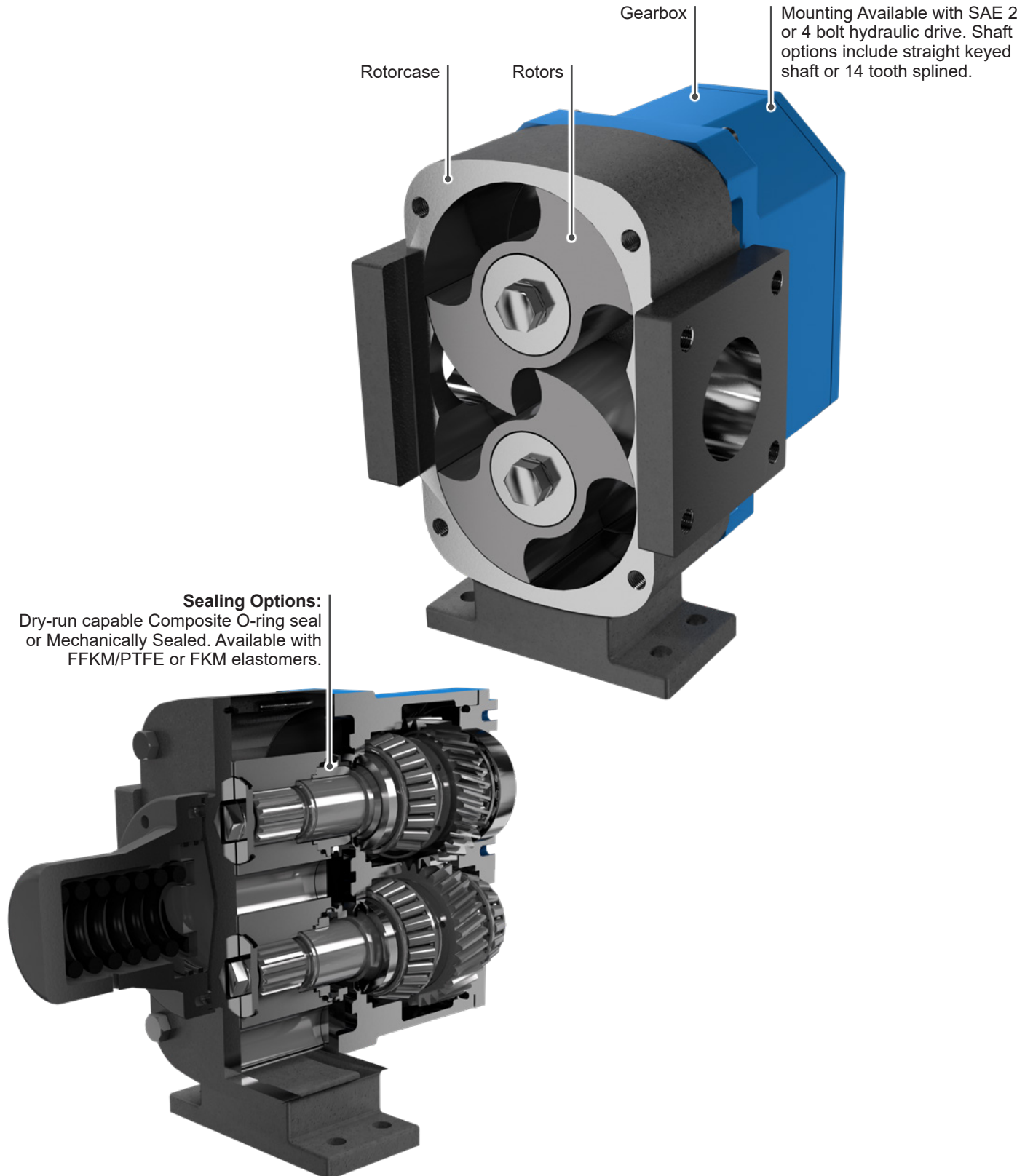
Model Number	Standard Port Size	Nominal Pump Rating (100 SSU & below)			Displacement		Maximum Differential Pressure		Maximum Recommended Temperature for Standard Pump		Approx. Shipping Weight with Grease	
	Inches	GPM	m <sup>3</sup> /h	RPM	USG/rev.	l/rev.	PSIG	BAR	°F	°C	Lbs.	Kg.
RTPe20	3	264	60	1,000	0.264	0.099	145	10	230	110	128	58

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## CUTAWAY VIEW & PUMP FEATURES

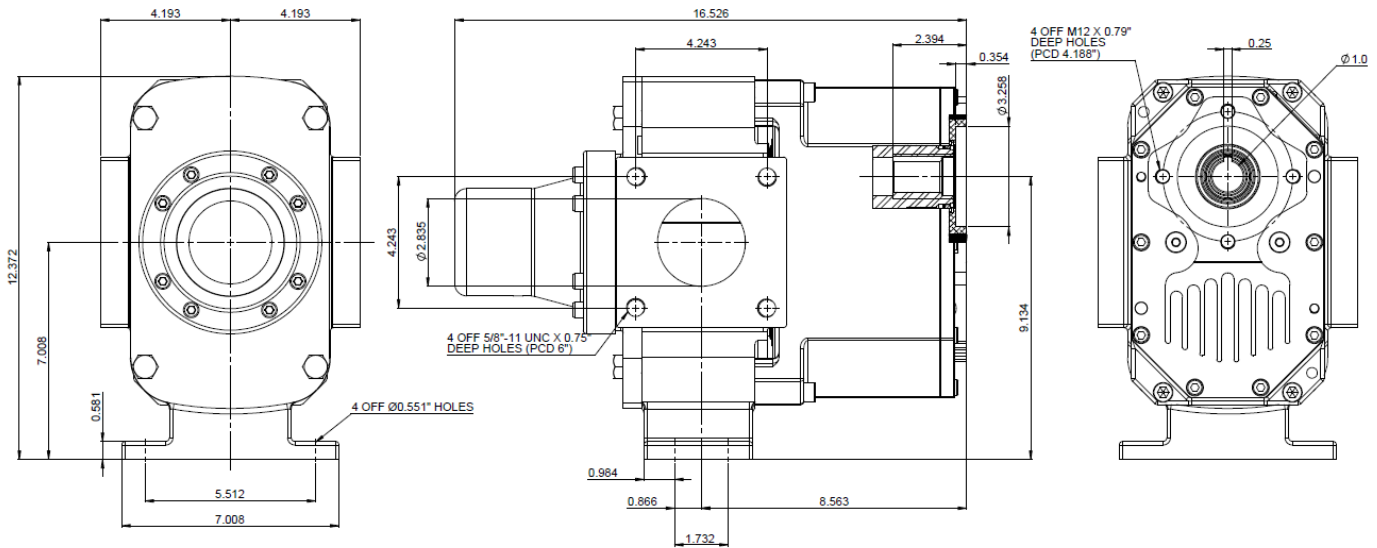
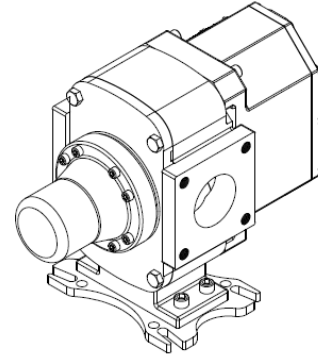


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**DIMENSIONS – INCHES**

INSTALLATION DETAILS	
<b>PUMP INFORMATION</b>	
PUMP MODEL	RTPe20/0100/08
INLET CONNECTION	3" ASA/ANSI 150 lb RF FLANGE
OUTLET CONNECTION	3" ASA/ANSI 150 lb RF FLANGE
SPECIAL FEATURES	SPRING LOADED PRV
	1" FEMALE DRIVE INSERT



Dimensions given are for guidance only and should **not** be used for installation purposes. Certified dimensions will be supplied on request.

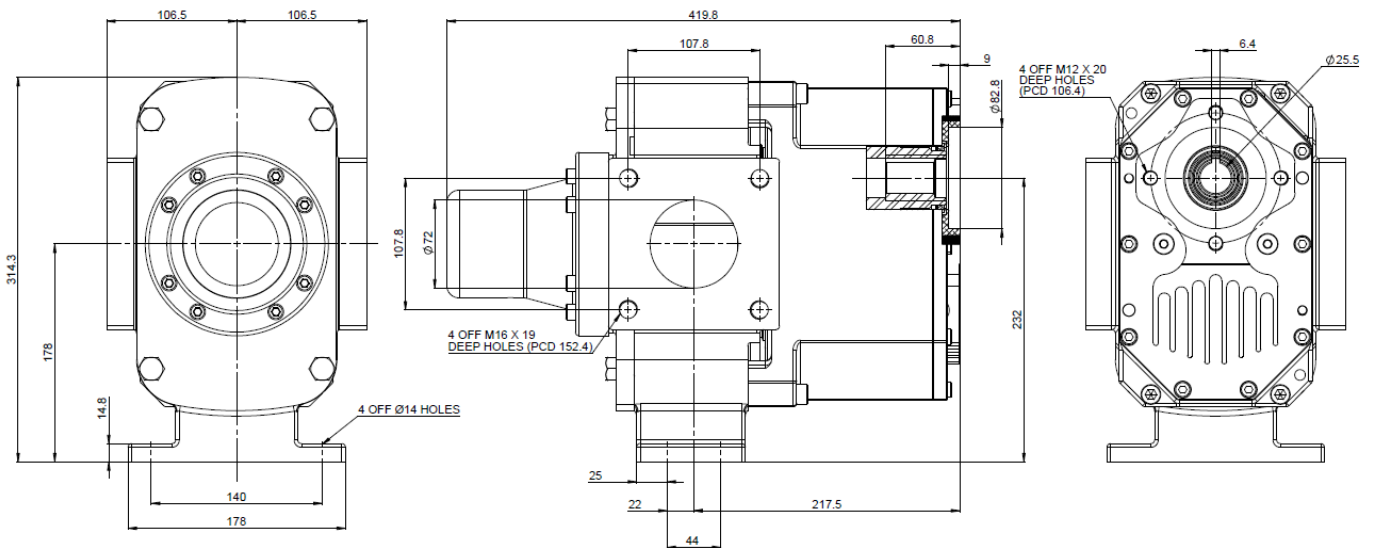
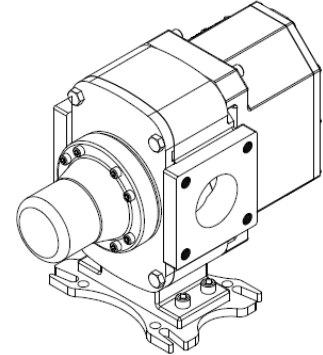
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## DIMENSIONS – MILLIMETERS

INSTALLATION DETAILS	
<b>PUMP INFORMATION</b>	
PUMP MODEL	RTPe20/0100/08
INLET CONNECTION	3" ASA/ANSI 150 lb RF FLANGE
OUTLET CONNECTION	3" ASA/ANSI 150 lb RF FLANGE
SPECIAL FEATURES	SPRING LOADED PRV 1" FEMALE DRIVE INSERT



Dimensions given are for guidance only and should **not** be used for installation purposes. Certified dimensions will be supplied on request.

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**NPSH REQUIRED**

Application specific curves available upon request.

NPSHR data is not available on the pump selector.

**NPSH (Net Positive Suction Head):** The  $NPSH_R$  (Net Positive Suction Head Required by the pump) is given in the table below and applies for viscosities through 750 SSU.  $NPSH_A$  (Net Positive Suction Head – Available in the system) must be greater than the  $NPSH_R$ . For a complete explanation of NPSH, see Application Data Sheet AD-19.

**FOR VISCOSITIES UP TO 750 SSU** – See  $NPSH_R$  table below.

**$NPSH_R$  for high viscosities can be estimated using the following method:**

1. Calculate line loss for a 1 foot long pipe of a diameter matching the pump inlet port size. Use your flow rate and max viscosity.
2. Convert this value into Feet of Liquid (S.G. 1.0)
3. Add this value to the  $NPSH_R$  value in the chart below.

PUMPS SPEED, RPM						
400	500	600	700	800	900	1000
8.7	9.8	11.3	13.2	15.2	17.6	20.1

$NPSH_R$  – FEET OF LIQUID (Specific Gravity 1.0), Viscosities up to 750 SSU