ROTARY LOBE PRODUCT LINE:
STAINLESS STEEL PUMPS

RTP® Series

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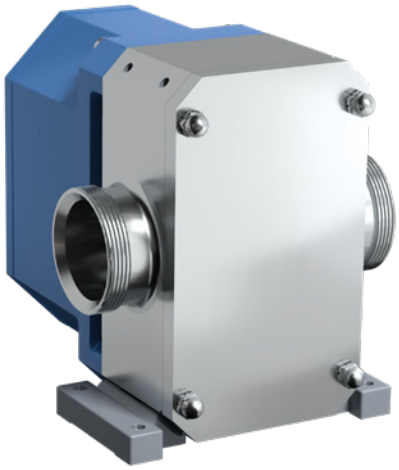


RTP®

SERIES DESCRIPTION

The RTP® Series rotary lobe pump was designed specifically for the hygienic stainless steel road tanker industry. It's the perfect solution for transferring high fructose corn syrup, chocolate, dairy, and more. The RTP® can handle flows up to 338 GPM (76.8 m³/h).

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
  - » Easily handles higher viscosity liquids with improved pressure capabilities for faster unloading
  - » Excellent displacement/weight ratios, meaning more in the tank & less in the cabinet
  - » Precision helical gears, rotors & shaft design, with optimized bearing position, minimize overhung load – extending seal & bearing life

OPERATING RANGE

	NOMINAL FLOW		MAXIMUM PRESSURE		TEMPERATURE		VISCOSITY RANGE*	
SERIES	GPM	m³/h	PSI	Bar	°F	°C	SSU	cSt
RTP®	0 to 264	0 to 30	145	10	to +230	to +110	to 910,000	to 200,000

ROTARY LOBE PRODUCT LINE:
STAINLESS STEEL PUMPS
RTP® Series

MODEL NUMBER KEY

R T P 2 0 / 0 1 0 0 / 1 0

- **R T P** — Pump Range
- **2 0** — Model Size: 20 30
- **0 1 0 0** — Displacement (1 Ltrs/Rev.)
- **1 0** — Max Pressure (BAR)

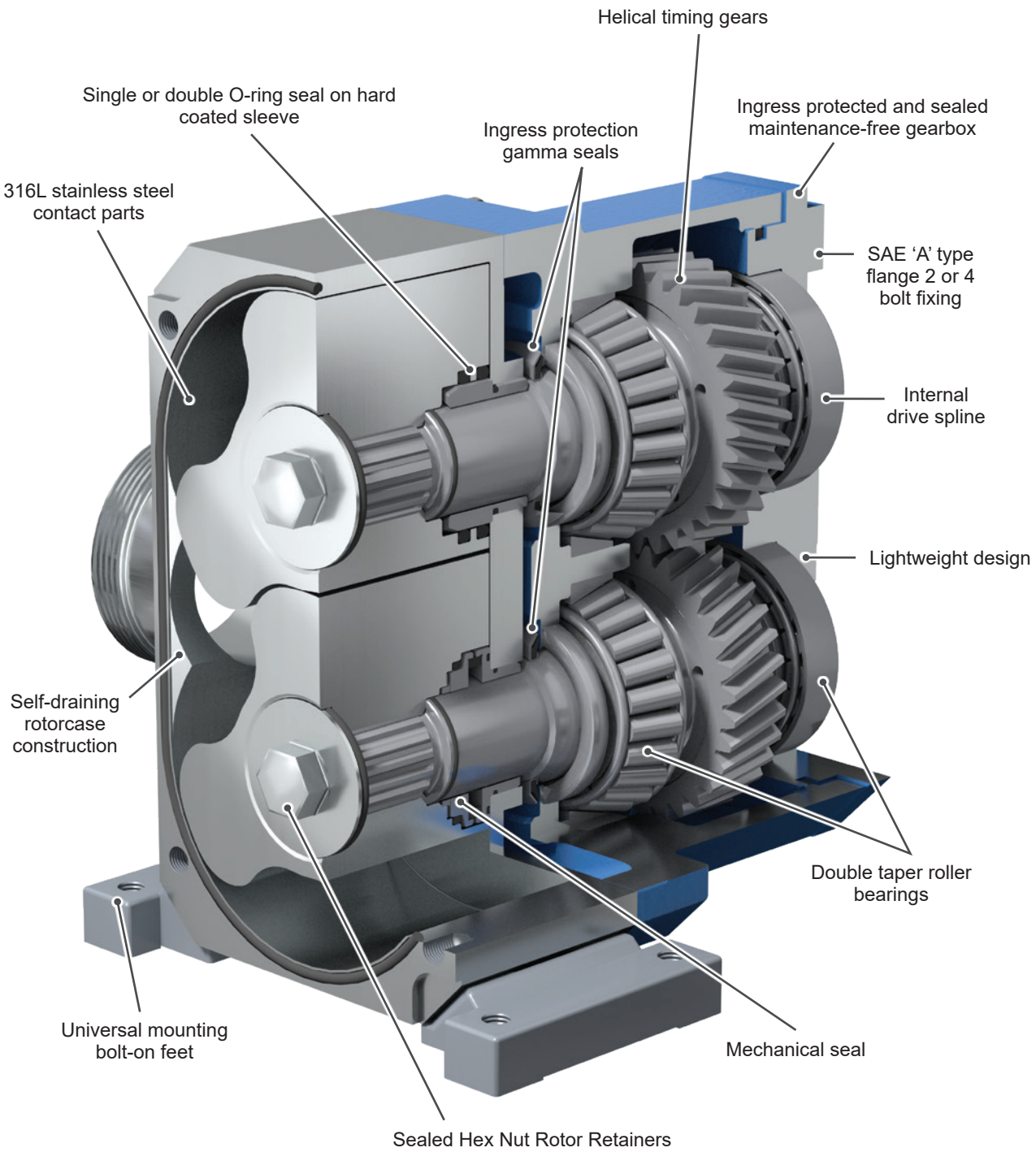
SPECIFICATIONS

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^3/h	RPM	USG/rev.	l/rev.	PSIG	BAR	°F	°C	Lbs.	Kg.
RTP20	2 or 3	264	60	1000	0.264	1	145	10	230	110	108	49
RTP30	3 or 4	338	76.8	1000	0.338	1.28	174	12	300	150	148	67

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	1060 Aluminum
Wetted End O-Rings	FDA EPDM, FDA FKM, FDA Nitrile
O-Ring Seal Sleeve	316 Stainless Steel
Component Mechanical Seal Faces	Carbon/Silicon Carbide or Silicon Carbide/Silicon Carbide

CUTAWAY VIEW & PUMP FEATURES



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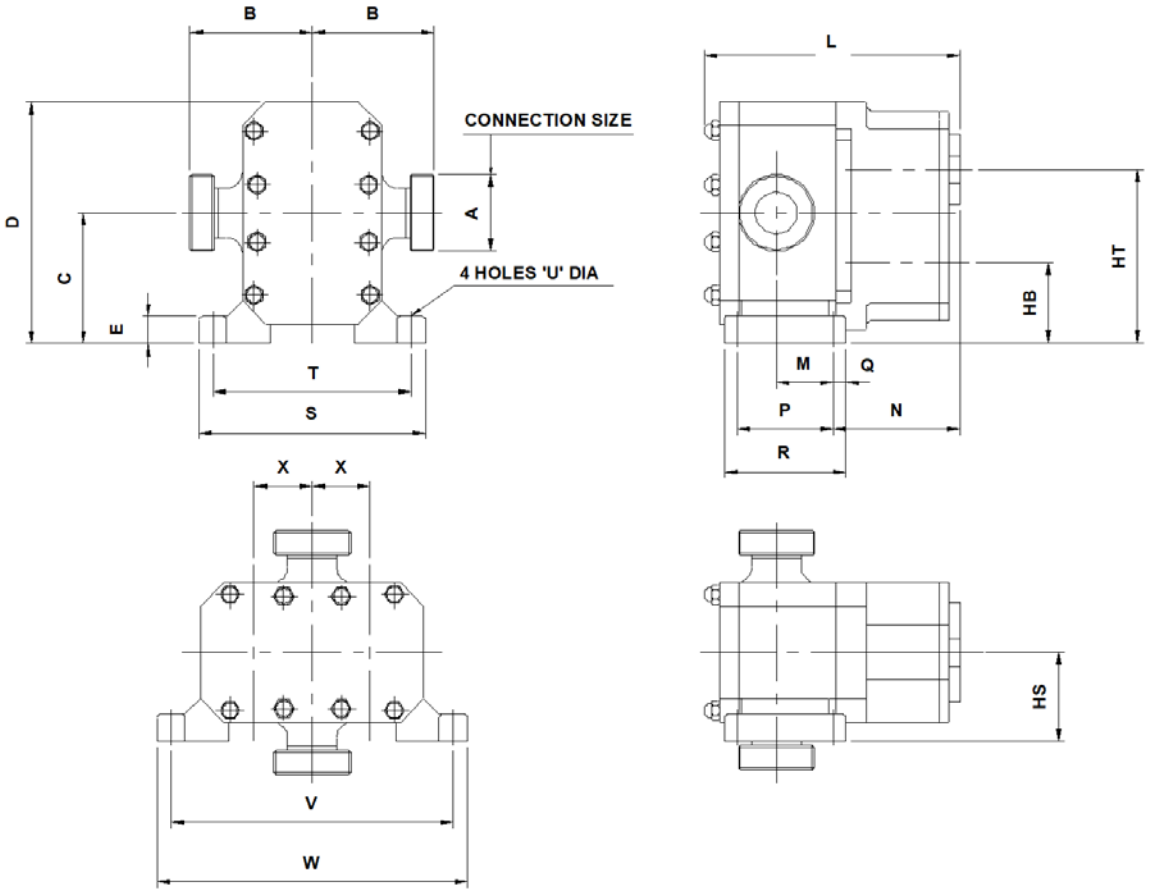
STAINLESS STEEL PUMPS
RTP® Series

DIMENSIONS – ALL MODELS – INCHES



Model	A	B1	B2	B3	B4	B5	C	D	E	HB	HS	HT
RTP20	2	4.61	5.47	5.16	5.16	5.47	5.59	10.83	0.87	3.46	3.46	7.72
	3		5.87		5.47	5.67						
RTP30	3	5.16	6.42	5.71	6.02	6.22	6.18	12.01	1.14	3.82	3.94	8.54
	4	5.31	7.01									

Model	L	M	N	P	Q	R	S	T	U	V	W	X	WEIGHT (Lbs)
RTP20	11.77	1.65	6.85	3.54	0.55	4.61	8.74	7.68	0.43	11.93	12.99	2.13	108
RTP30	12.24	2.44	6.34	4.88	0.55	5.98	9.57	8.43	0.51	12.95	14.09	2.36	148

B1 applies for all threaded connections (including ACME & Triclamp) except BSPT and NPT.

B2 applies for BSPT and NPT thread connections.

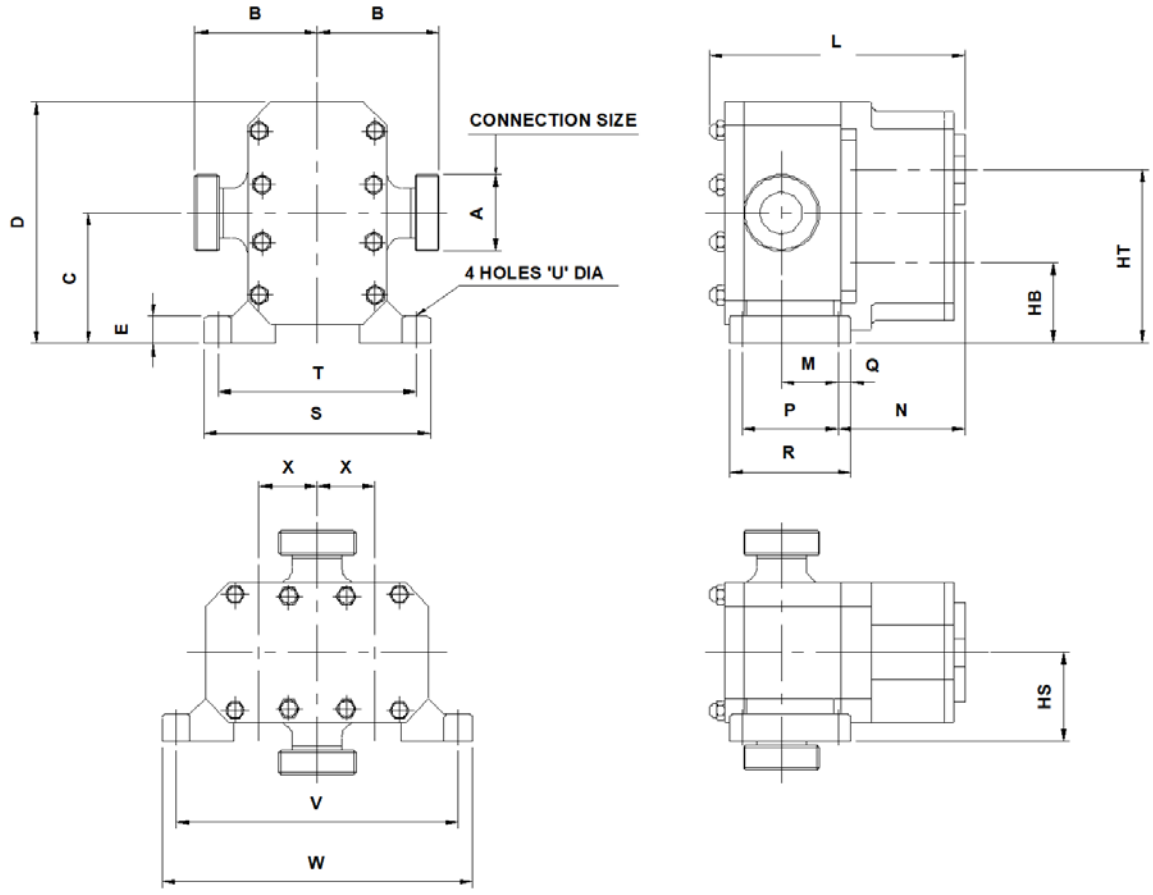
B3 applies for all flange connections except ASA150, BS4504 and ASA300.

B4 applies for ASA150 and BS4504 flange connections.

B5 applies for ASA300 flange connections.

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

DIMENSIONS – ALL MODELS – MILLIMETERS



Model	A	B1	B2	B3	B4	B5	C	D	E	HB	HS	HT
RTP20	50	117	139	131	131	139	142	275	22	88	88	196
	80		149		139	144						
RTP30	80	131	163	145	153	158	157	305	29	97	100	217
	100	135	178									

Model	L	M	N	P	Q	R	S	T	U	V	W	X	WEIGHT (Kg)
RTP20	299	42	174	90	14	117	222	195	11	303	330	54	49
RTP30	311	62	161	124	14	152	243	214	13	329	358	60	67

B1 applies for all threaded connections (including ACME & Triclamp) except BSPT and NPT.

B2 applies for BSPT and NPT thread connections.

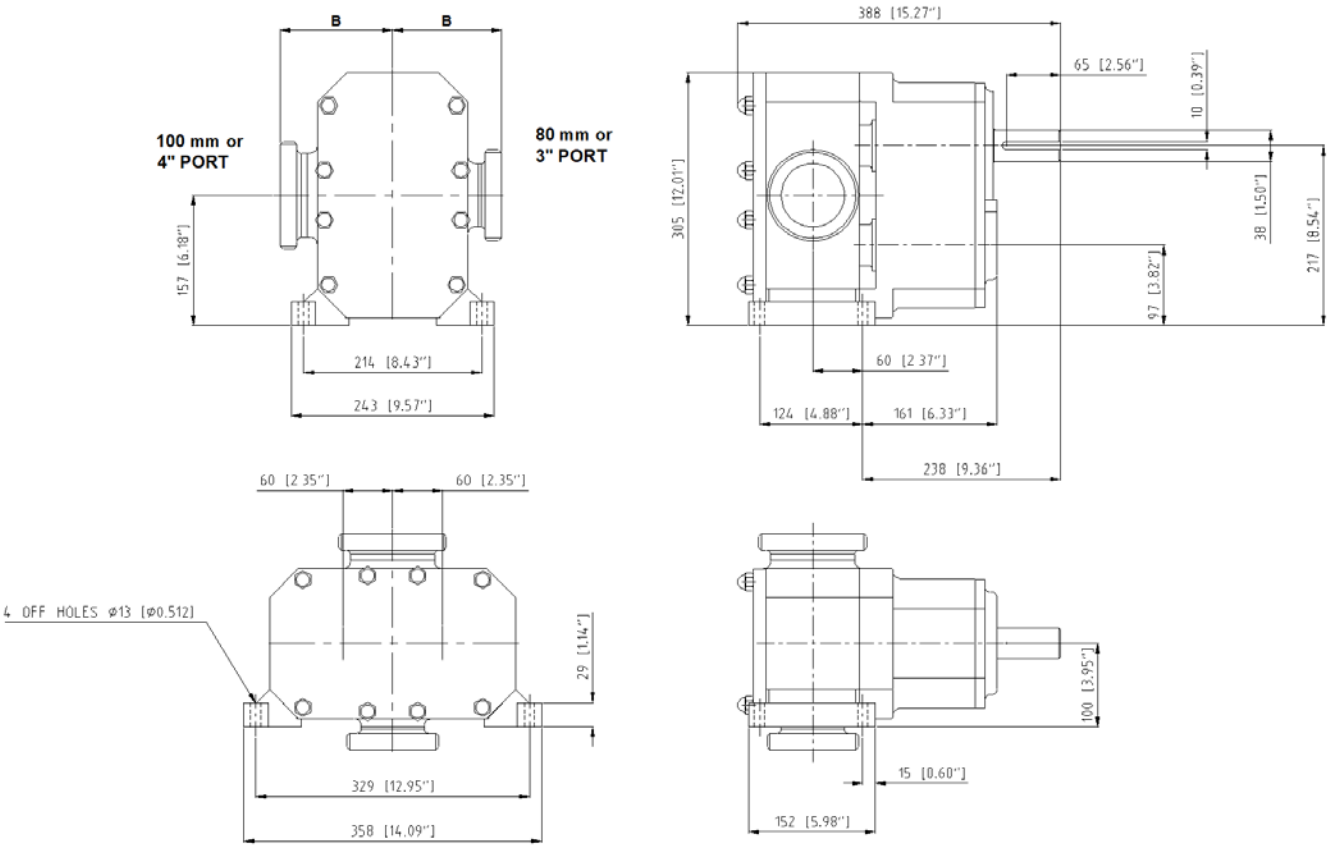
B3 applies for all flange connections except ASA150, BS4504 and ASA300.

B4 applies for ASA150 and BS4504 flange connections.

B5 applies for ASA300 flange connections.

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

DIMENSIONS – STUB SHAFT DRIVE



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

NPSH REQUIRED

Printed performance curves are not available.

Performance curves can be electronically generated with the Viking Pump Curve Generator on vikingpump.com.

NPSHR data is available in the Viking Pump Hygienic Pump Selector Tool.

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						
Pump Model	**400**	**500**	**600**	**700**	**800**	**900**	**1000**
RTP20	8.7	9.8	11.3	13.2	15.2	17.6	20.1
RTP30	10.3	11.9	13.8	16.0	18.6	21.6	24.9

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

