# TEMPERATURE CONTROL UNITS VTO SERIES

- Process Temperatures to 400°F
- Microprocessor Control
- 12 24 KW Heaters
- 1 3 HP Centrifugal Pumps
- Cooling via Heat Exchanger Option
- In Stock or Short Lead Time

The VTO Series temperature controller provides precision temperature control from an economically affordable and reliable unit. Perfect for applications such as plastic molding. Other features include:

#### TEMPERATURE RANGE

• 100° - 400°F

#### **ELECTRICAL**

- · Nema 1 style electrical contruction
- · 3 Phase service with 110 volt control circuit transformer
- · Control circuit fusing.

#### **INSTRUMENTATION:**

- · Custom electronic microprocessor based controller
- · Power ON indicating light
- · Pump ON indicating light
- · Heat ON indicating light
- · Cool ON indicating light
- · On/ off rock switch
- · Setpoint selector dial
- · Large and easy to read digital temperature display
- · Sensor: ungrounded type J thermocouple

# **HEATING CYLINDER AND COMPONENTS:**

- 5" ID cast iron cylinder
- · Cylinder is mounted directly to pump casing
- · Flange mounted heater
- · Stainless steel heater sheath

### **PUMP AND COMPONENTS**

- · Horizontal centrifugal pump
- · Water cooled pump seal (prolongs seal life)
- · ODP motor with high temperature bearings,
- · Stainless steel motor shaft
- · Brass impeller with
- · 500°F carbon/niresist shaft seal,
- · Custom cast pump casing accepts heater and cooling cylinders



# **HEAT EXCHANGER (optional)**

- · Stainless steel 3.5 sq ft. heat exchanger provides cooling of process fluid
- · Consult factory for more information.

#### LIMIT DEVICES

- · Water supply pressure switch
- Motor overload protection
- · Dual high temperature limits

# PROCESS CONNECTIONS

· Female NPT fittings

#### WARRANTY

· 1 year on parts & labor



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# **SPECIFICATIONS**

# **VTO SERIES SPECIFICATIONS**

MODELS with 12KW Heaters		2100	2150	2200	2300
HEATER <sup>1</sup>	KW	12	12	12	12
PROCESS PUMP	HP	1	1-1/2	2	3
	GPM	30	45	50	60
	PSI	24	26	28	26
FULL LOAD AMPERAGE <sup>2</sup>	230 / 3 / 60	34.8	36.4	38.0	46.6
	460 / 3 / 60	17.9	18.7	19.5	23.3
DIMENSIONS (inches)	Height	44	44	44	44
	Width	16	16	16	16
	Depth	24	24	24	24
CONNECTIONS	To / From Process	1	1	1	1
	Water Supply / Drain	1/2	1/2	1/2	1/2
WEIGHTS (lbs)	Shipping <sup>3</sup>	275	285	300	290

MODELS with 16KW Heaters		3100	3150	3200	3300
HEATER <sup>1</sup>	KW	16	16	16	16
PROCESS PUMP	HP	1	1-1/2	2	3
	GPM	30	45	50	60
	PSI	24	26	28	26
FULL LOAD AMPERAGE <sup>2</sup>	230 / 3 / 60	50.6	47.0	49.0	21.0
	460 / 3 / 60	25.4	23.5	24.5	25.5
DIMENSIONS (inches)	Height	58	58	58	58
	Width	23	23	23	23
	Depth	47	47	47	47
CONNECTIONS	To / From Process	1	1	1	1
	Water Supply / Drain	1/2	1/2	1/2	1/2
WEIGHTS (lbs)	Shipping <sup>3</sup>	580	585	595	610

MODELS with 24KW Heaters		4100	4150	4200	4300
HEATER <sup>1</sup>	KW	24	24	24	24
PROCESS PUMP	HP	1	1-1/2	2	3
	GPM	30	45	50	60
	PSI	24	26	28	26
FULL LOAD AMPERAGE <sup>2</sup>	230 / 3 / 60	73.8	75.8	77.8	71.0
	460 / 3 / 60	36.9	37.9	38.9	35.5
DIMENSIONS (inches)	Height	58	58	58	58
	Width	23	23	23	23
	Depth	47	47	47	47
CONNECTIONS	To / From Process	1	1	1	1
	Water Supply / Drain	1/2	1/2	1/2	1/2
WEIGHTS (lbs)	Shipping <sup>3</sup>	625	630	635	645

- 1. Derate heater by 25% for 208/3/60 operation.
- 2. Full load amps are higher than run load amps and must be used for sizing disconnects and supply wiring. Service disconnect by owner. Actual running amps at design conditions. Consult factory for 50Hz operation.
- 3. Unit weight crated for shipment.

# **MECHANCAL COMPONENTS**

- A Control Instrument B - Optional Heat
- Exchanger C - Fluid Fill Port
- D Hinged Electrical Panel Cover
- E Caster
- F Pump Motor
- G Pressure Relief Valve
- H Power Cord
- I Drain Manifold
- J Drain Connection K - Fluid Level Sight

- Glass
- To Process Connection

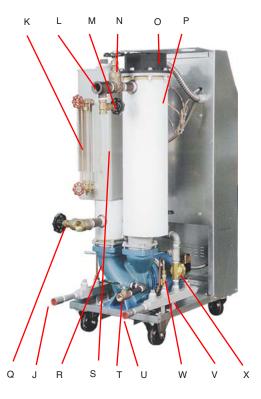
Valve

- M Compressed Air Connection and
- To Process Shut-Off Valve
- O Heater
- P Insulated Cylinder
- Q From Process Connection & Shut-Off Valve
- R Centrifugal Pump

- S Expansion Tank
- Oil Drain Valve
- Water Supply Connection
- Water Supply Manifold
- Pump Seal Cooling
- X Cooling Valve (supplied with heat exchanger)



**MECHANCAL COMPONENTS** 





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