

# APV Vega V028 Binary-Drive Series 2

FULLY AUTOMATED PLATE HEAT EXCHANGER FOR SANITARY APPLICATIONS

## DESCRIPTION

APV Vega V028 Binary-Drive Series 2 is a new hygienic plate heat exchanger designed specifically for high viscosity products. Longer run time, rapid CIP and gentle product treatment combine to deliver significantly enhanced process efficiency and product output. The Vega V028 Binary-Drive Series 2 is a fully-automated frame which opens and closes at the touch of a button, no tools are required.

## APPLICATION

The Vega V028 Binary-Drive Series 2 is used for heating, cooling and pasteurizing of products such as medium- to high-viscosity dairy products including yogurt, juices with short fibers, and non-Newtonian products such as ketchup.

## FEATURES AND BENEFITS

The Vega V028 EasyFlow plate design is a further development of the renowned and widely used APV 4mm average gap "R5" heat transfer area. It is designed to reduce the effect of pressure increase due to fouling and provide for long run times while still maintaining high thermal efficiency. It is also acclaimed for its longer production time, gentle product treatment and reduced fouling.

### ▪ Longer production time

The combination of a large, free-flow port area and a vastly reduced number of contact points on the plate reduces the risk of fouling by products containing fibers and/or particles.

### ▪ Uniform product quality

The diagonal flow reduces the risk of dead areas on the plate and ensures uniform temperature-time treatment of the product. This ensures more uniform product quality and retention of natural aromas and flavors.

### ▪ Shorter and more effective CIP

Up to 80% fewer contact points on the plate help to prevent fiber hang-up and facilitate irrigation during the cleaning cycle. Enhanced distribution of detergents on the plate means shorter and more efficient CIP.

### ▪ Speedy and trouble-free turn around

Vega V028 plates employ the patented "Corner Interlock" plate alignment mechanism and APV EasyClip gaskets. Plate packs can be assembled rapidly without misalignment, and the glue-free design of APV EasyClip gaskets ensures quick refit and plate pack turnaround.

## APV BINARY-DRIVE SERIES 2 FRAME - FULLY AUTOMATED AND 3A COMPLIANT

The new APV V028 Binary-Drive Series 2 frame developed for Vega V028 is designed for hygienic applications requiring frequent and easy opening and closing with minimum operator involvement. A standard, manually opened frame is also available.

### ▪ Optimized plate and gasket life

Intelligent PLC ensures proper opening and closing, thus preventing damage due to plate misalignment or over-compression.

### ▪ Preventive maintenance

The simple user-interface facilitates easy operator input for changing plate quantity and compensating for gasket compression set when required. Total opening and closing time display enables optimum maintenance planning.

### ▪ Reduced downtime and greater operator efficiency

Automatic operation and direct access to any plate in the pack means faster inspection and maintenance by eliminating the need for component removal, lifting of heavy objects and use of tools. Automation also enables operators and maintenance staff to carry out other tasks while the unit is opening or closing.



## PRODUCT SPECIFICATIONS AND DIMENSIONS

APV VEGA V028 EASYFLOW PLATES AND GASKETS	
<b>Plate materials:</b>	AISI 316, Titanium and other alloys
<b>Gasket materials:</b>	Nitrile, EPDM and FKM

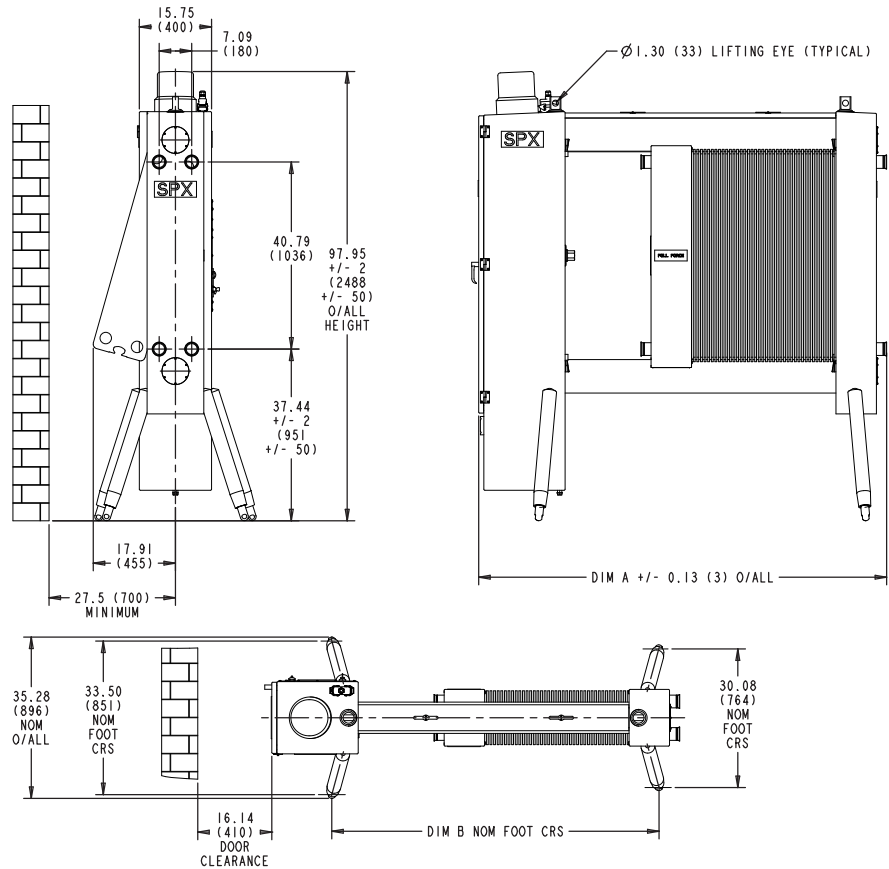
APV VEGA V028 BINARY-DRIVE SERIES 2 FRAME	
<b>Material:</b>	Stainless steel 304/304L cladding around ASME SA-516 grade 70 carbon steel core
<b>Finish:</b>	No. 4 polish on head, follower and end support. Glass blast top and bottom bar
<b>Frame size:</b>	3 length variants up to a maximum of 496 plates*
<b>Connections:</b>	Hygienic 2.5" clamp, ACME bevel seat, CB I-line and plain stub end for welding Finish: 150 grit finish meeting 3A.
<b>Max. temperature:</b>	Up to 177°C (350°F) depending on gasket material
<b>Max. design pressure:</b>	14 bar gauge (200 Psig)
<b>Maximum flow rate:</b>	57 m <sup>3</sup> /h (250 GPM)
<b>Approvals:</b>	3-A and ASME VIII compliant.
<b>Power pack:</b>	Consists of one 5 hp, three-phase motor and hydraulic pump, one hydraulic motor, and one 20 gallon integral oil tank (Chevron FM ISO 32, food grade).
<b>Power requirements:</b>	230/460 VAC 3-phase, 30/15 amp. Mating connector supplied
<b>Manual closing system:</b>	In the event of power failure, the frame may be opened and closed manually
<b>Control system:</b>	PLC controlled, solenoid operated, hydraulic, 2-way valve
<b>User interface:</b>	Backlit LCD touch screen monitor
<b>Tie bars:</b>	Two power-driven 1-3/4" ACME tie bars shrouded by top and bottom bar
<b>Accessories:</b>	Optional stainless steel protective plate pack shroud Optional grids with up to 8 liquid connections Optional solid divider plate

\*Max. plate capacity based on 0.5 mm plate thickness

A grid reduces the capacity by 17 plates.

Gasketed AISI 316 plate weight: 1.86 kg (4.1 lb)

Dimensions = in (mm)



FRAME SIZE	FRAME WEIGHT IN lbs (kg)	MEASUREMENTS IN in (mm)	
		A	B
1	2615 (1,186)	89.05 (2262)	71.38 (1813)
2	2747 (1,246)	128.42 (3262)	110.75 (2813)
3	2881 (1,307)	167.79 (4262)	150.12 (3813)



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