

Binary-Drive Ser 2 Paraflow PHE

PLC-Controlled or Manual-Closing V028







As an industry leader in heat transfer equipment, APV raises the standard for process efficiency, and reliability once again with the Vega Binary-Drive Heat Exchanger.

SPX FLOW, Inc. (NYSE:FLOW) is a leading manufacturer of innovative flow technologies, many of which help define the industry standard in the market segments they serve. From its headquarters in Charlotte, North Carolina, it operates a sales and support network, centers of manufacturing excellence, and advanced engineering facilities, throughout the world. Its cutting-edge flow components and process equipment portfolio includes a wide range of pumps, valves, heat exchangers, mixers, homogenizers, separators, filters, UHT, and drying technology that meet many application needs. Its expert engineering capability also makes it a premium supplier of customized solutions and complete, turn-key packages to meet the most exacting of installation demands.

Incorporating many leading brands, SPX FLOW has a long history of serving the food and beverage, power and energy, and industrial market sectors. Its designs and engineered solutions help customers drive efficiency and productivity, increase quality and reliability, and meet the latest regulatory demands. In-depth understanding of applications and processes, state-of-the-art Innovation Centers, and advanced pilot/testing technology further assist in optimizing processes and reducing timescales to reliably meet production targets.

To learn more about SPX FLOW capabilities, its latest technology innovations and complete service offerings, please visit www.spxflow.com.

Process Efficiency, Reliability and Integrity

Super hygienic/sanitary Vega Easyflow plates are ideally suited for a wide range of food processing, dairy, beverage, pharmaceutical and cosmetic applications, offering superior performance under the following conditions:

- Where there is a tendency for the product to foul the heated surface
- Where large temperature-induced viscosity changes are likely to occur
- When processing viscous and non-Newtonian processed foods including stabilizers

R5-STYLE HEAT TRANSFER AREA MAINTAINS OPERATING EFFICIENCY

The Vega design reduces the effects of pressure increases (due to any fouling build-up) and provides for long run times while maintaining high thermal efficiency.

INNOVATIVE PLATE DESIGN

Superior Diagonal Flow Protects Product Integrity

Most vertical flow plates require an expanded inlet design to achieve adequate flow distribution that can compromise thermal, mechanical and process performance. By contrast, Vega's diagonal flow plates help ensure gentle, uniform heat treatment along the entire product path.

Large Inlet Port Resists Plugging

Vega plate's large port entry area easily accommodates products containing small particulates and fibers. Up to 80% fewer contact points provide superior fiber handling capabilities compared with conventional chevron plates, while facilitating irrigation during CIP operations.



Vega plates feature patented corner interlocks that provide unmatched plate-toplate alignment. This highly effective, metal-to-metal system is stronger and more resistant to damage than plate designs that simply use gasket or edge alignment.

Easy Clip Gaskets Simplify Refits

Patented Easy Clip tabs provide fast and secure adhesive-free gasket retention. Simply align the gasket tabs with the plate and snap the gasket into place. With Easy Clip, gaskets can be fitted and removed time after time as needed without the fear of traditional snap-in clip breakage.

Manual Closure

Ideally suited to applications where infrequent opening is anticipated, a manual frame with dual geared closure is offered. An operator can effortlessly bring the machine close to pitch and then transfer the supplied wrench to the second drive point and close to the final dimension. With synchronous tie bar movement, the follower stays parallel to the head at all times, eliminating uneven compression.



Intelligent Frame Design Provides Unmatched Safety and Control

Vega's patented PLC-controlled powered Binary-Drive frame opens and closes at the touch of a button - no heavy tools are required. Intelligent control is flexible and scalable for various applications. For added safety, controls are key protected to limit operator access. In the event of a power failure, the frame can be opened and closed manually. This unit can be equipped with a 7" (179 mm), full color 800 x 480 pixel touchscreen with audio feedback. The frame's compact, self-contained design is easy to install and maintain. All plates are easily accessible without removing any components. In addition, automatic closure helps optimize plate and gasket life by eliminating over-compression and uneven compression.

KEY SPECIFICATIONS

Heat Transfer Area/Plate	3 ft ² (0.28 m ²)
Port Diameter	2.5" (64 mm)
Plate Liquid Capacity/ Fluid Channel	0.27 gal (1 L)
Maximum Flow Rate	250 gal/min (60 cu. m/h)
Maximum Design Pressure	Up to 200 psi (13.8 bar)
Operating Temperature	Up to 350° (177°C) depending on gasket material
Plate Materials	Stainless steel 316, Titanium and other corrosion- resistant materials
Gasket Materials	Nitrile, EPDM and Viton
Frame Materials	All stainless steel 304L cladding around ASME SA 516 grade 70 carbon steel core
Frame Finish	#4 polish on head, follower and end support. Glass blasted carrying bars.
Frame Sizes	Three sizes up to 496 plates (0.5 mm plates)
Power Pack	Includes one 5 hp three-phase motor and hydraulic pump; one hydraulic motor and 20 gal (76 L) integral oil tank (oil FM ISO 32)
Power Requirements	460 or 230 VAC three-phase, mating connector supplied (other voltages can be special ordered)
Control System	PLC controlled, solenoid operated, hydraulic, two-way valve
User Interface	Siemens: Backlit 7" (179 mm) color LCD touchscreen monitor, 800 x 480 resolution. Allen-Bradley: Backlit 5.6" (142 mm) monochrome LCD touchscreen monitor, 320 x 240 resolution
Tie Bars	Two chain driven 1.75" (44 mm) ACME tie bars shrouded by top and bottom bar
Connection Positions	Four head, four follower
Connection Types	2.5" Tri-Clamp™, ACME (bevel seat), CB I-line and plain stub end for welding. Industrial 2.5" L/T lap joint and weld neck flanges.
Options	Stainless steel protective plate pack shroud
	Grids with up to eight liquid connections
	Solid divider plate
Codes	Authorized 3-A symbol holder, available as Certified to ASME Sec, VIII, Div. 1

Typical product applications

Dairy Products

Uniform thermal treatment of:

- Milk
- Ice cream
- Cream
- Yogurt
- Desserts Sour cream
- Cheeses
- Butter
- Condensed milk

Egg products

Syrups

Purees

And more

Foods and Beverages

Designed to process foods where large temperatureinduced viscosity changes are likely to occur, such as:

- Fat substitutes
- Baby foods
- Dressings
- Vegetable juices
- Liqueurs
- Tomato products
- Peanut butter
- Infant formulas
- Fruit juices
- Juice concentrates
- Sauces

Healthcare and Cosmetics

Wide average gap results in reduced pressure drop when processing viscous material as in:

- Ointments
- Antibiotic creams
- Hair products
- Lotions
- Conditioners
- Nail polishes Skin creams
- Shampoos
- Lipsticks
- And more

 Chocolate Nutritional products

Beverage emulsions

- Non-Newtonian supplements
- Reduced fat products
- Flavors and fragrances





2.5" TRI-CLAMP



2.5" CB I-LINE FEMALE





MAX FRAME CAPACITIES (0.6 MM PLATE) **MEASUREMENTS IN (MM)** NET WEIGHT LB (KG) FRAME SIZE MAX PLATE MAX PLATE QUANTITY в **2,615** (1,186) **36.5** (927) **89.1** (2,262) **71.2** (1,813) 1 154 **2,747** (1,246) **75.9** (1,927) 128.4 110.7 2 321 (3,262) (2,813) 167.8 2.881 115.2 150.1 2 487 (1,307)(2,927) (4,262) (3,813) MANUAL V028 BINARY-DRIVE SER 2 **2,112** (958) **71.2** (1,813) 36.5 89.1 1 154 (2, 262)(927)**2,244** (1,018) 75.9 128.4 110.7 2 321 (1,927) (3, 262)(2, 813)2,379 167.8 115.2 150.1 3 487 (1,079)(2, 927)(4, 262)(3,813)

POWERED V028 BINARY-DRIVE SER 2

Based in Charlotte, North Carolina, SPX FLOW, Inc. (NYSE: FLOW) is a multi-industry manufacturing leader. For more information, please visit www.spxflow.com



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