



APV Binary-Drive Paraflow PHE

PLC-Controlled or Manual-Closing V028



Process Efficiency, Reliability and Integrity

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

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

Dairy Products

Uniform thermal treatment of:

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



Foods and Beverages

Designed to process foods where large temperature-induced viscosity changes are likely to occur, such as:

- Fat substitutes
- Dressings
- Liqueurs
- Peanut butter
- Fruit juices
- Sauces
- Syrups
- Purees
- Nutritional products
- Reduced fat products
- Baby foods
- Vegetable juices
- Tomato products
- Infant formulas
- Juice concentrates
- Egg products
- Beverage emulsions
- Chocolate
- Non-Newtonian supplements
- Flavors and fragrances



Healthcare and Cosmetics

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

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



Wide-Gap R5-Style Heat Transfer Area Maintains Operating Efficiency

Vega's wide-gap 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

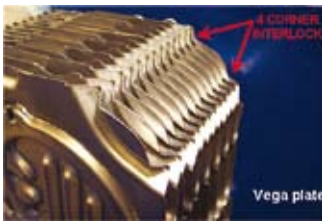
Vega plate's large port entry area easily accommodates products containing small particulates and fibers. Up to 80% fewer contact points provide superior fiber handling capabilities compared with conventional chevron plates, while facilitating irrigation during CIP operations.

Exclusive Corner Interlock Enhances Alignment

Vega plates feature patented corner interlocks that provide unmatched plate-to-plate 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.



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. The unit includes a large (5.7"), backlit LCD touchscreen monitor.

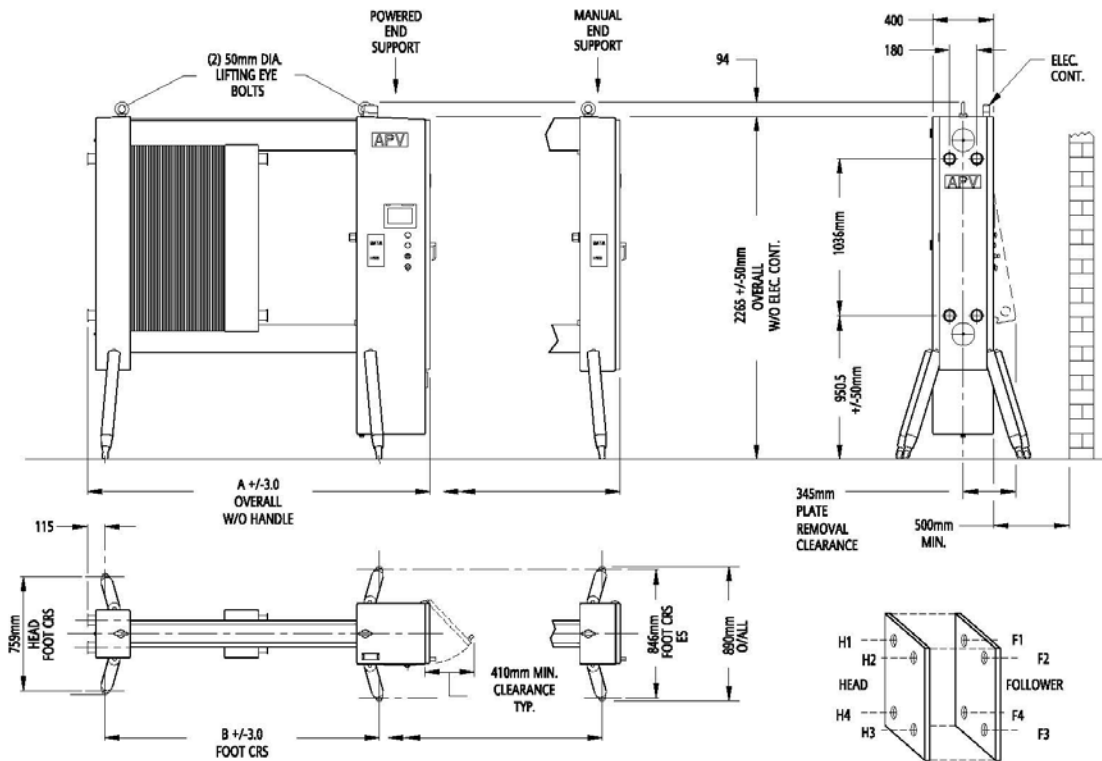
The frame's compact, self-contained design is easy to install and maintain. All plates are easily accessible without removing any components. In addition, automatic closure helps optimize plate and gasket life by eliminating over-compression and uneven compression.

Manual Closure

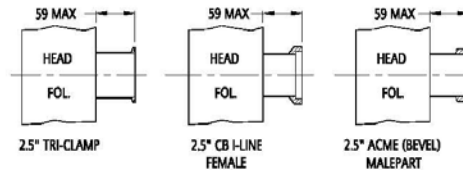
Ideally suited to applications where infrequent opening is anticipated, a manual frame with dual geared closure is offered. An operator can effortlessly bring the machine close to pitch and then transfer the supplied wrench to the second drive point and close to the final dimension. With synchronous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

Key Specifications

Heat Transfer Area/Plate	3 ft ² (0.28 m ²)
Port Diameter	2.5"
Plate Liquid Capacity/ Fluid Channel	0.27 gallons (1 liter)
Maximum Flow Rate	250 GPM (60 cu. m/h)
Maximum Design Pressure	Up to 200 psig (13.8 barg)
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 (0.5mm plates)
Power Pack	Includes one 5 hp three-phase motor and hydraulic pump; one hydraulic motor and 20 gallon integral oil tank (oil A/W32)
Power Requirements	460 VAC three-phase, mating connector supplied (other voltages can be special ordered)
Control System	PLC controlled, solenoid operated, hydraulic, two-way valve
User Interface	Backlit 5.7" LCD touchscreen monitor, 320 x 240 resolution
Tie Bars	Two chain driven 1-3/4" ACME tie bars shrouded by top and bottom bar
Connection Positions	Four head, four follower
Connection Types	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	3A compliant



POWERED V028 BINARY-DRIVE					
FRAME SIZE	NET WEIGHT IN KILOGRAMS (NO PLATES)	MAX FRAME CAPACITIES (0.6mm PLATE)		MEASUREMENTS IN MILLIMETERS	
		MAX PLATE QUANTITY	MAX PLATAGE DIM. (mm/in)	A	B
1	1186 / 2615	154	927 / 36.5	2262 / 89.1	1813 / 71.4
2	1246 / 2747	321	1927 / 75.9	3262 / 128.5	2813 / 110.8
3	1307 / 2881	487	2927 / 115.4	4262 / 167.9	3813 / 150.2
MANUAL V028 BINARY-DRIVE					
1	958 / 2112	154	927 / 36.5	2046 / 80.6	1813 / 71.4
2	1018 / 2244	321	1927 / 75.9	3046 / 120.0	2813 / 110.8
3	1079 / 2379	487	2927 / 115.4	4046 / 159.4	3813 / 150.2



Your local contact:



APV, An SPX Brand
 1200 West Ash Street
 Goldsboro, NC 27530
 Phone: (919) 735-4570 Fax: (919) 581-1167
 Email: answers.us@apv.com

For more information about our worldwide locations, approvals, certifications, and local representatives, please visit www.apv.com.

SPX Corporation reserves the right to incorporate our latest design and material changes without notice or obligation. Design features, materials of construction and dimensional data, as described in this bulletin, are provided for your information only and should not be relied upon unless confirmed in writing.