

# Pressure Booster Pumping Systems

## Multistage Variable Speed (FMV)



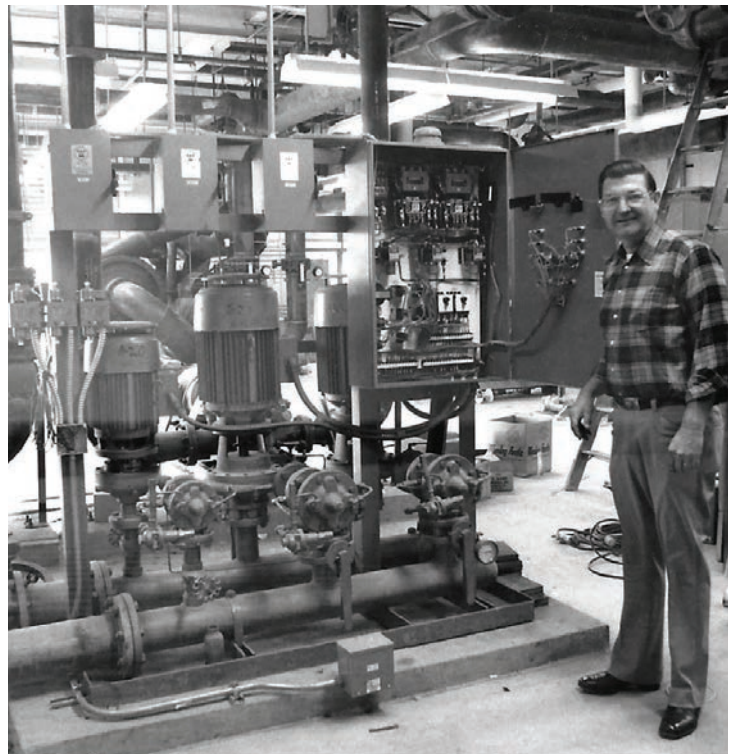
## Notes

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# History Of FlowTherm Systems

In 1970, noticing a need for pre-fabricated engineered equipment, our parent company CHC began a manufacturing division named FlowTherm Systems™ that utilizes many of the components built by the equipment manufacturers we represent. These pre-engineered packaged systems provide a unique product to our industry that have been enjoyed tremendously and widely accepted in the marketplace. To further our commitment to quality, Flowtherm Systems received Underwriters Laboratories (UL) approval status in 1998, has since received IAPMO, NSF/ANSI 61 certification, and approval by the City of Los Angeles. The UL and IAPMO listing provides nationally recognized 3rd party quality assurance which provides a strong specification tool that assures our customers of a product that is built to rigid specifications and code compliance. In 2009, the FlowTherm division was expanded with the addition of a 2,400 sq.ft. work space for engineers, CAD designers, project management, and administration. Now with over 35 years of proven system application experience, FlowTherm Systems™ is a leading supplier of packaged systems for pumping and heat transfer applications.

Considering the overall system requirements of each package is just the beginning. Flowtherm addresses the smallest details and the most rigorous specifications in an effort to produce the most premium and robust engineered packaged equipment to meet customer specifications at an affordable price. We recognize the need of our customers and are fully committed to quality, affordability, and exceptional customer satisfaction.

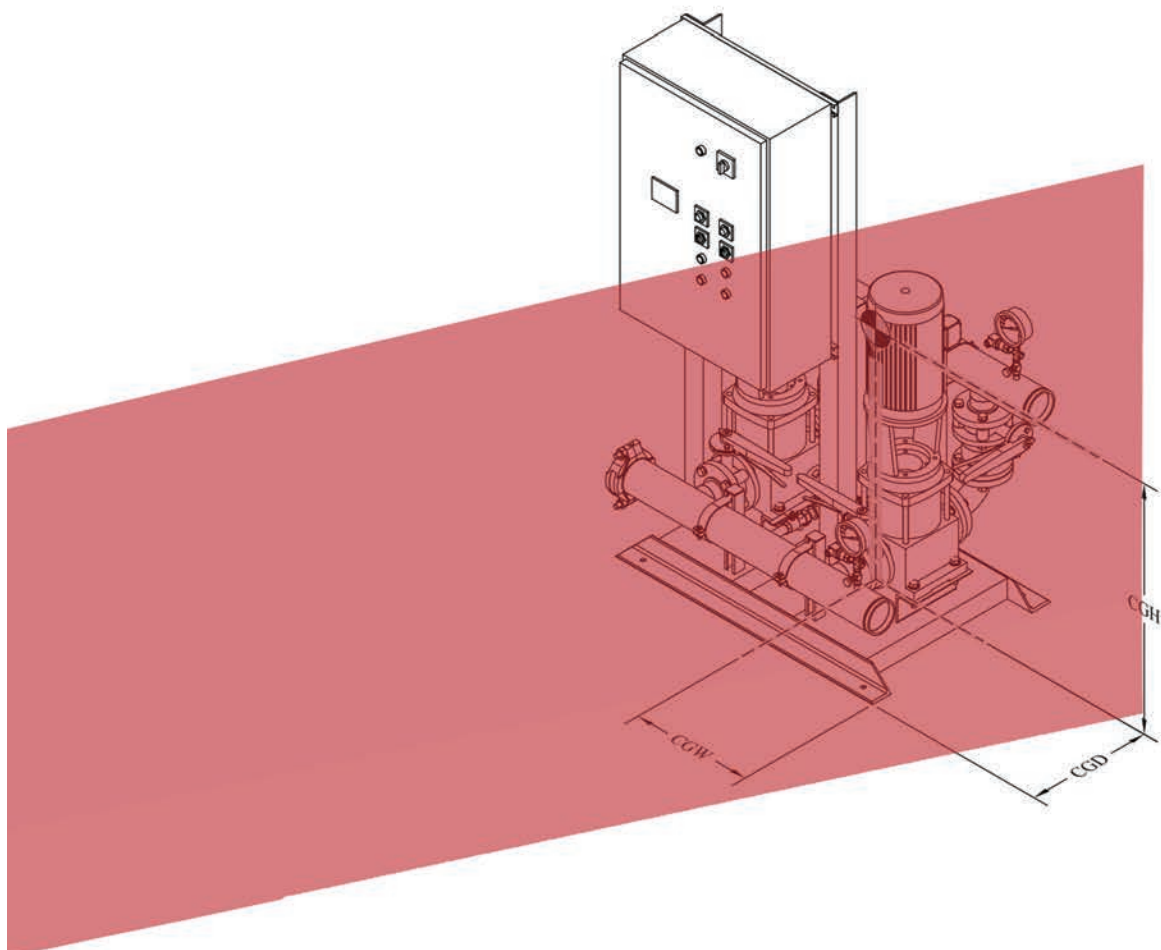
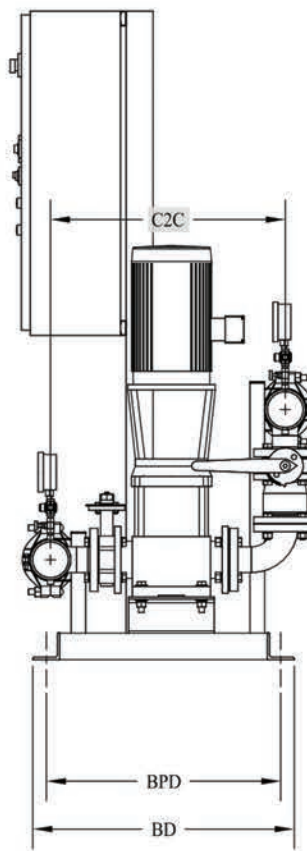
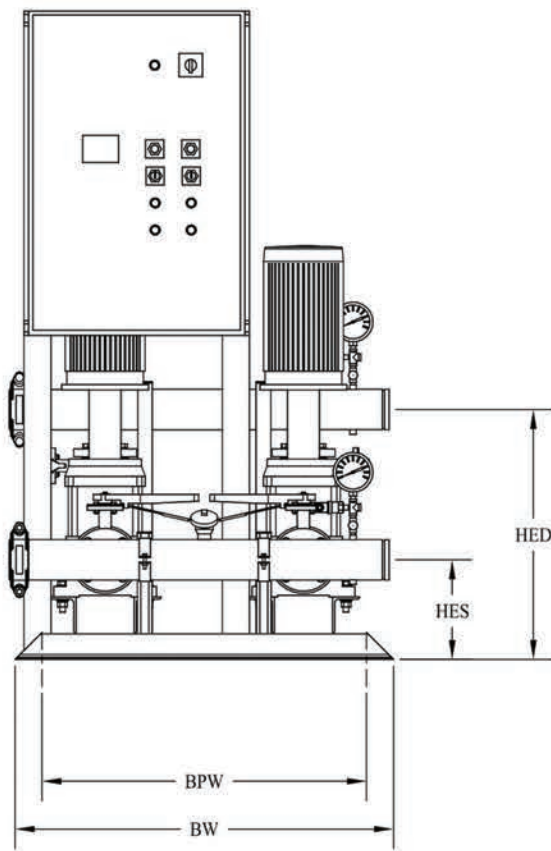


## Our Customers

FlowTherm has designed and manufactured over 4000 equipment packages that have been installed throughout the U.S.A. and in many overseas locations. Our customer list includes hundreds of mechanical, plumbing, and industrial contractors. FlowTherm Systems equipment can be found in the heart of thousands of hospitals, hotels, commercial buildings, sporting facilities, schools, and industrial and manufacturing plants all over the world.







# Pressure Booster Systems

FlowTherm Systems™ FMV series of booster pumps provide the highest level of reliability for the delivery of potable and reclaimed water systems in the industry. Every system is built with series 300 stainless steel manifolds which are supported from the integral structural steel frame. Each system utilizes multistage pumps constructed of stainless steel impellers, pump sleeves, and rugged cast iron or stainless steel pump bodies.

Standard sizes for multistage booster are available with flow rates up to 1,200 gpm and boost pressures exceeding 200 PSI. All of the FMV series of booster are UL listed and built to the requirements of NSF/ANSI 61 and NSF/ANSI 372 certification to ensure the most dependable and safest delivery systems of domestic water. The control system provides an energy efficiency interface while also providing an interface to industry standard Building Automation Systems (BAS) through optional BACnet, LonWorks, and Scada interfaces.

FlowTherm Systems™ continues to develop control strategy solutions that reduce energy usage and the associated environmental impact. Human Machine Interface (HMI) controllers, which feature No Demand Shutdown (NDS) and Dynamic Set-point Adjustment (DSA) are part of that solution and are standard on every FMV model. These booster systems are easy to startup and service with door mounted H-O-A switches and disconnects for each motor and isolation valves for each pump. Non-standard systems are available in any capacity and configuration. Contact FlowTherm Systems™ for custom system requests.

Each completed pumping system is carefully checked for proper operation prior to shipment. Assured by thousands of successful installations over the past 35 years, FlowTherm's series of boosters are GUARANTEED to perform as per the specification requirements.

# Booster Pump Selection Tool

Ready to select your booster? Use our new Pump Selection Tool. We're here to help you, if you have questions contact us at [feedback@flowtherm.com](mailto:feedback@flowtherm.com).

## Booster Pump Selections

FEV, FMV, and FMV-SL Series


### Booster Pump System Selector

- Access FlowTherm Systems Booster Pump Systems drawing library
- Ability to download and save selection files and drawings
- Make multiple selections as needed
- Access custom selections based on your project needs
- Drawing files available in PDF, CAD and Revit
- Specification and Submittal documentation available

Pump Type	Pump Number		
Multistage	Triplex (3)		
Discharge (PSI)	Suction (PSI)	Flow (GPM)	Boost (PSI)
200	30	100	170

Technical Data	
PUMPS	10eSV-9
HP	7.5
HEADER	3"
CHECK VALVE	1.5"
OPER. WEIGHT	1290
FLA 208V/230V/460V	62.4/56.4/28.2

Standard	Slim Line
Booster Model #	Sl. Booster Model #
FMV 3-4.1	FMV 3-4S

 Print Details

### Submittal Info

Complete the form below to receive your downloadable booster pump system selection results.

Company\*

Full Name\*

John Doe

Email\*

Contact Phone Number

Job Name

Current project name if known.

Panel Enclosure

NEMA 1

Comments

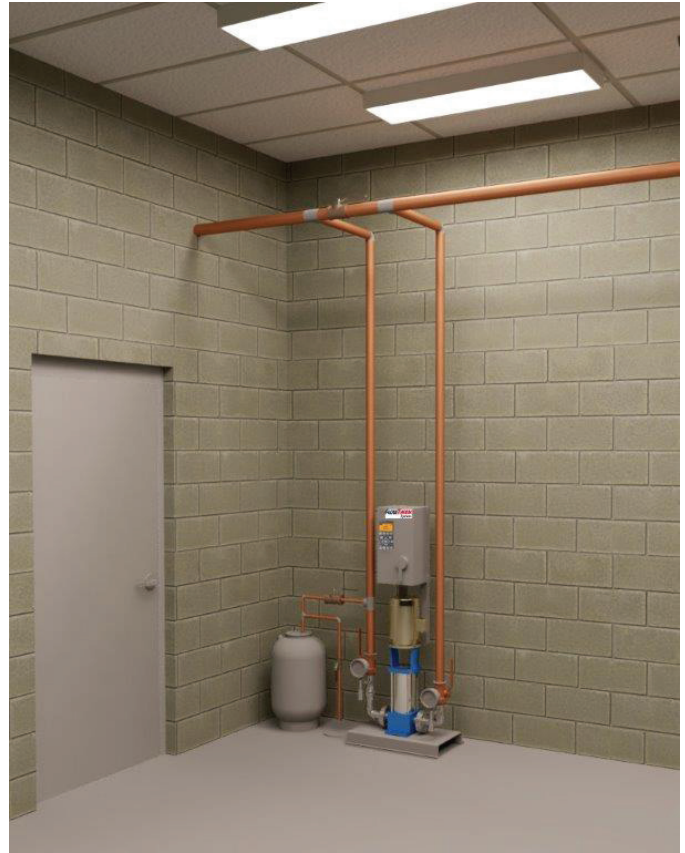
Your message here...

See Drawings & Specifications

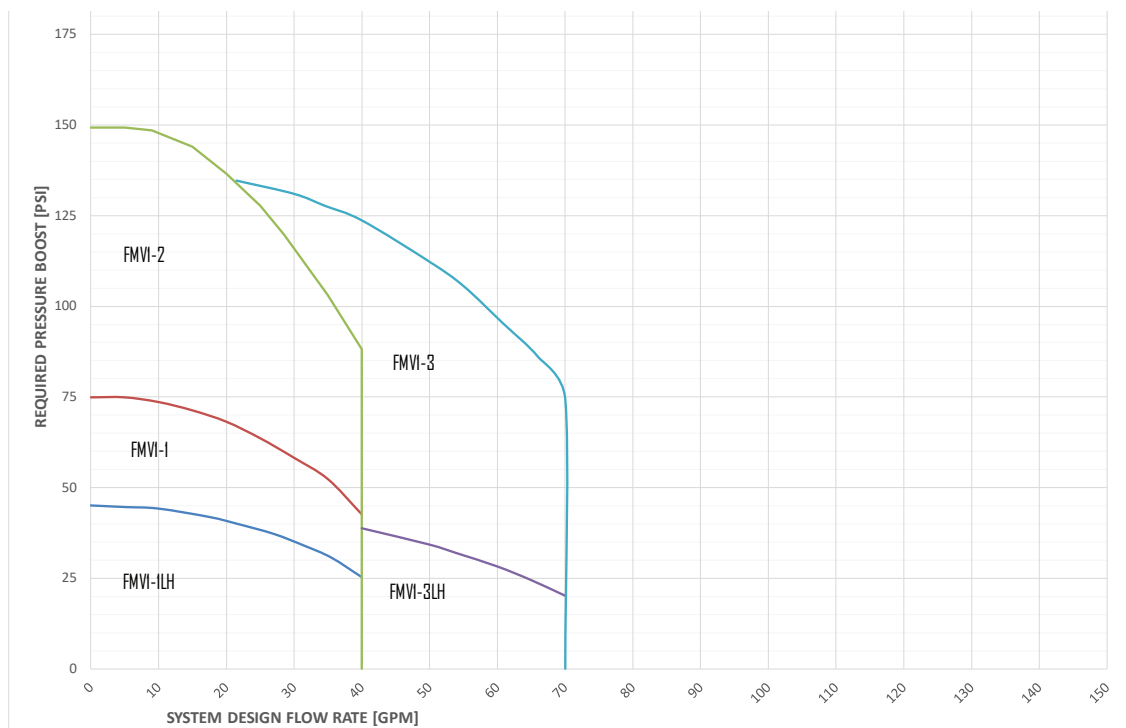
Visit [Flowtherm.com](https://www.flowtherm.com)

# Simplex FMV Multistage Booster

- Compact footprint
- 5 standard models to choose from
- Simple to install
- Energy efficient operation
- Easy startup & service
- Indoor or outdoor installation
- Available in 208/230/460 three phase and 208/230 single phase.
- Standard sizes up to 70GPM and 150 PSI boost.
- Custom sizes available.
- All models are UL Listed and NSF 61 & 372 certified.



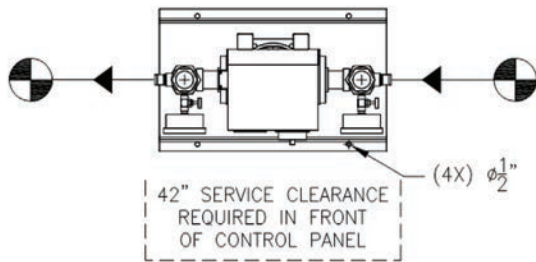
## FMV1 Simplex Capacity Curve



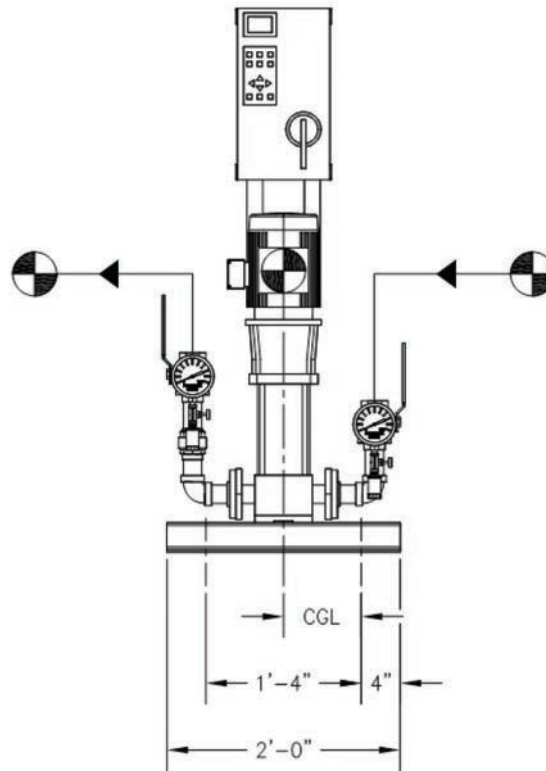


# Simplex FMV Model Details

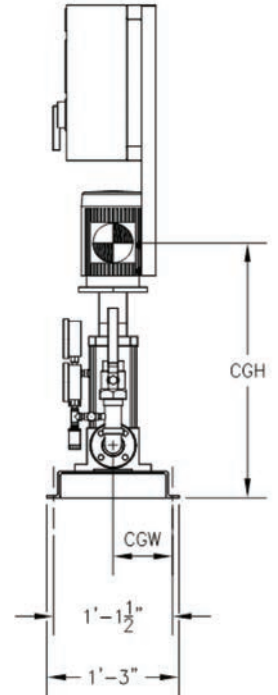
TOP VIEW



FRONT VIEW



SIDE VIEW



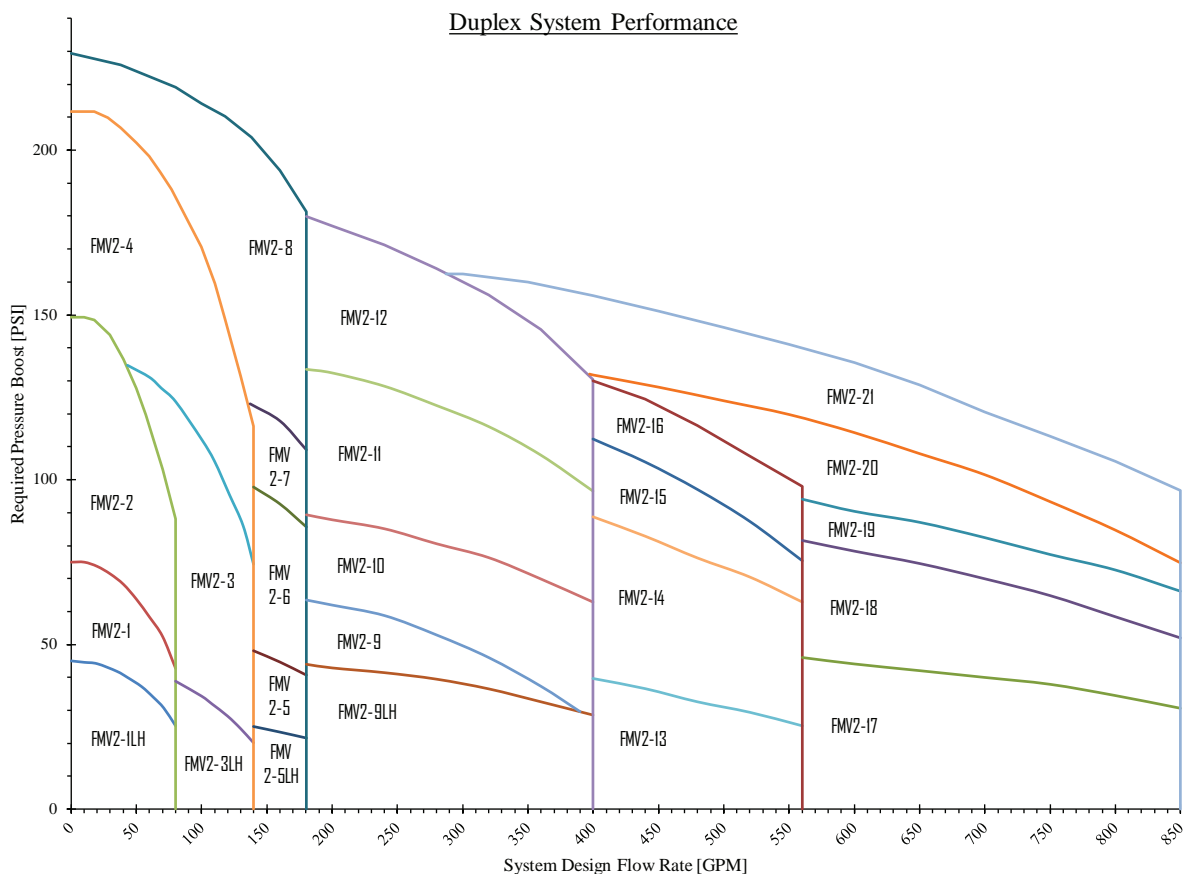
## Simplex FMV Detail Table

Model	Pump	HP	Check Valve [Inch]	Suction & Discharge [Inch]	Operating Weight [Lbs.]	Overall Height	Center of Gravity			FLA
							CGL	CGH	CGW	
FMV1-1LH	5eSV-3	1	1.5	1.5	190	4'-0"	8.0"	2'-0"	6.75"	3.3 / 3 / 1.5
FMV1-1	5eSV-5	1.5	1.5	1.5	200	4'-6"	8.0"	2'-2"	6.75"	4.2 / 3.8 / 2
FMV1-2	5eSV-10	3	1.5	1.5	220	4'-8"	8.0"	2'-5"	6.75"	8 / 7.2 / 3.6
FMV1-3LH	10eSV-2	2	2	2	225	4'-6"	8.0"	2'-3"	6.75"	5.5 / 5 / 2.5
FMV1-3	10eSV-6	5	2	2	275	5'-0"	8.0"	2'-6"	6.75"	13 / 11.8 / 6

# FMV Duplex Booster Pump Selection

FMV series of Simplex/Duplex/Triplex booster pump models are selected using the capacity curves included in this brochure. The required total system flow rate is typically determined by using the fixture unit method and then converting the total fixture unites to gpm using the Hunter Curves. The required pressure boost of the system is typically determined by adding the static lift required to the highest fixture, the friction loss of the system at the maximum flow rate, and then adding the minimum inlet pressure required at the critical fixture. The minimum suction pressure available at the booster pump inlet is then subtracted to determine the required pressure boost. The required pressure boost shown on the capacity curves include all internal pressure losses of the booster system, so there is no need to include any additional pressure losses when using these capacity curves. Standard sizes are available with flow capacities as low as 10 gpm and in excess of 1,200 gpm with pressure boosts exceeding 200 psi. Custom sizes are available in any capacity or configuration.

## FMV Duplex Booster Capacity Curves





# Duplex FMV Detail Table

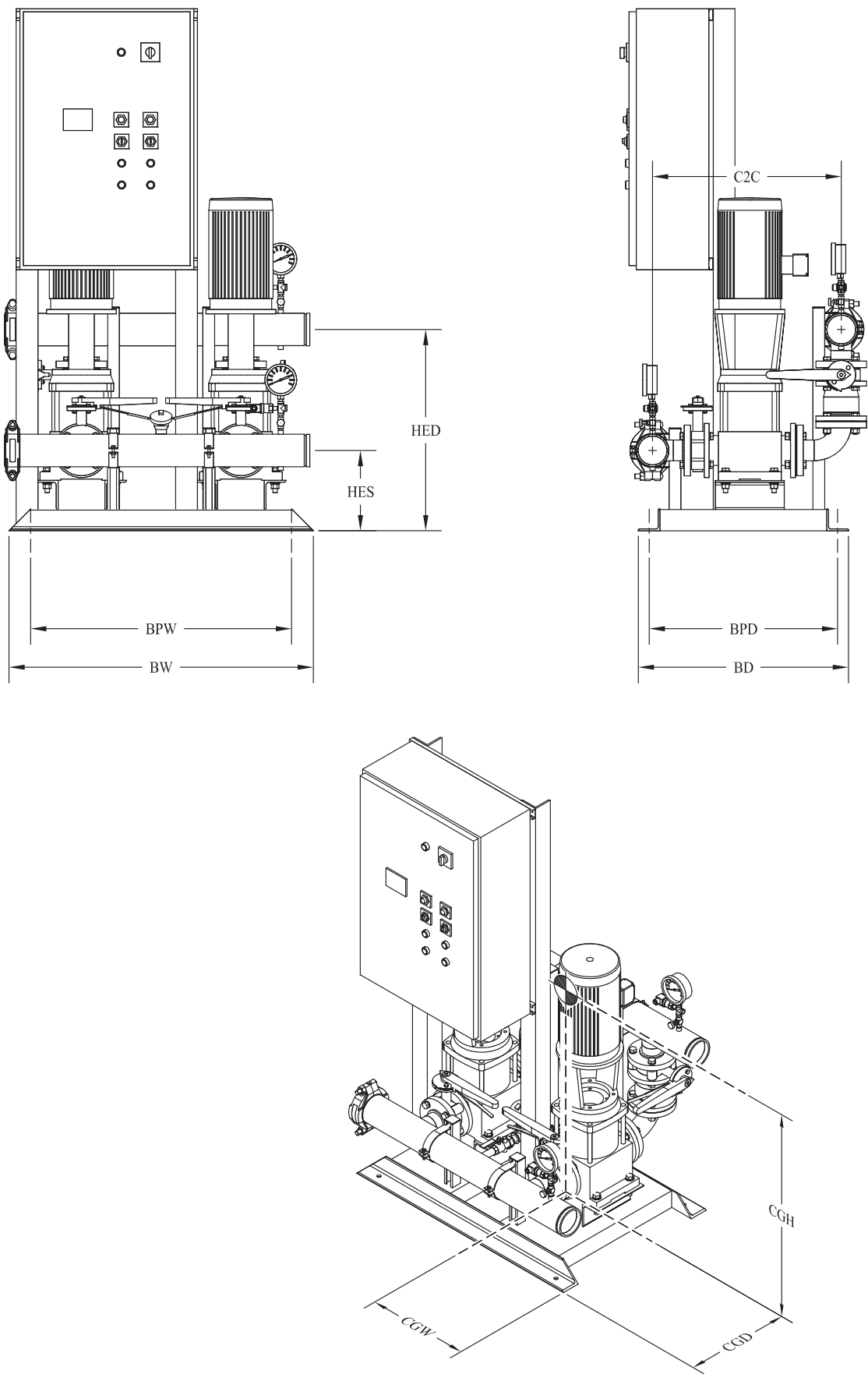
Model	Pump	HP	Check Valve [Inch]	Header [Inch]	Operating Weight [Lbs.]	FLA <sup>1</sup> 208/230/460	Configuration Available		
							XL	CV	SL
FMV2.1-1LH	5eSV-3	1	1.5	2.5	670	7.5 / 7 / 4			
FMV2.1-1	5eSV-5	1.5	1.5 / 2 <sup>2</sup>	2.5	690	9.5 / 8.5 / 5			
FMV2.1-2	5eSV-10	3	1.5 / 2 <sup>2</sup>	2.5	730	17 / 16 / 8			
FMV2.1-3LH	10eSV-2	2	1.5	2.5	730	12 / 11 / 6			
FMV2.1-3	10eSV-6	5	1.5 / 2 <sup>2</sup>	2.5	840	27 / 25 / 13			
FMV2.1-4	10eSV-9	7.5	1.5 / 2 <sup>2</sup>	2.5	890	38 / 35 / 18			
FMV2.1-5LH	22eSV-1	3	2	3	790	17 / 16 / 8			
FMV2.1-5	15eSV-2	5	2	3	850	27 / 25 / 13			
FMV2.1-6	15eSV-4	7.5	2	3	900	38 / 35 / 18			
FMV2.1-7	15eSV-5	10	2	3	1000	53 / 48 / 25			
FMV2.1-8	15eSV-8	15	2	3	1200	79 / 71 / 36			
FMV2.1-9LH	33eSV-1	5	2.5	4	1160	27 / 25 / 13			
FMV2.1-9	33eSV-2/2	7.5	2.5	4	1220	38 / 35 / 18			
FMV2.1-10	33eSV-2/2	10	2.5	4	1300	53 / 48 / 25			
FMV2.1-11	33eSV-3	15	2.5	4	1480	79 / 71 / 36			
FMV2.1-12	33eSV-4	20	2.5	4	1700	103 / 93 / 47			
FMV2.1-13	46eSV-1	10	3	4	1550	53 / 48 / 25			
FMV2.1-14	46eSV-2	15	3	4	1680	79 / 71 / 36			
FMV2.1-15	46eSV3/2	20	3	4	1900	103 / 93 / 47			
FMV2.1-16	46eSV-3	25	3	4	1930	129 / 117 / 59			
FMV2.1-17	66eSV-1	15	4	6	2130	79 / 71 / 36			
FMV2.1-18	66eSV-2/1	20	4	6	2220	103 / 93 / 47			
FMV2.1-19	66eSV-2	25	4	6	2560	129 / 117 / 59			
FMV2.1-20	66eSV3/2	30	4	6	2640	147 / 133 / 67			
FMV2.1-21	66eSV-3	40	4	6	2650	200 / 181 / 91			

<sup>1</sup> Booster full load amperage based on 3500 RPM TEPE motors

<sup>2</sup> Boosters in SL configuration have 2" check valves

 CV control panel for 7.5HP-15HP motors only available for 460V/3Φ incoming power  
 Configuration Available

# Duplex Booster Dimension Detail



## Duplex FMV Dimension Table

Model  [NOT FOR SL]	Booster		Bolt Pattern		Header Elevation		Center to Center	Center of Gravity		
	Width	Depth	Width	Depth	Suction	Discharge		CGW	CGD	CGH
FMV2.1-1LH	42	29	36	26	9.875	30	24.125	16	18	28
FMV2.1-1	42	29	36	26	9.875	30	24.125	16.5	18	29
FMV2.1-2	42	29	36	26	9.875	30	24.125	17	18	30
FMV2.1-3LH	42	29	36	26	10.5	26.25	27.375	16.5	18	29
FMV2.1-3	42	29	36	26	10.5	26.25	27.275	17.5	18	35
FMV2.1-4	42	29	36	26	10.5	26.25	27.375	18	18	35.5
FMV2.1-5LH	42	29	36	26	10.5	26.25	27.625	17	18	30
FMV2.1-5	42	29	36	26	10.5	26.25	27.625	17.5	18	35
FMV2.1-6	42	29	36	26	10.5	26.25	27.625	18	18	35.5
FMV2.1-7	42	29	36	26	10.5	26.25	27.625	18.5	18	36
FMV2.1-8	42	29	36	26	10.5	26.25	27.625	19	18	37
FMV2.1-9LH	42	29	36	26	11.125	27.75	26	17	18	35
FMV2.1-9	42	29	36	26	11.125	27.75	26	17.5	18	35.5
FMV2.1-10	42	29	36	26	11.125	27.75	26	18	18	36
FMV2.1-11	42	29	36	26	11.125	27.75	26	18.5	18	37
FMV2.1-12	42	29	36	26	11.125	27.75	26	19	18	38
FMV2.1-13	42	29	36	25	12.875	31.875	29.625	20	18	36
FMV2.1-14	42	29	36	25	12.875	31.875	29.625	21	18	37
FMV2.1-15	42	29	36	25	12.875	31.875	29.625	21	18	38
FMV2.1-16	42	29	36	25	12.875	31.875	29.625	21	18	41
FMV2.1-17	42	32	36	28	12.875	35.875	32.75	23	21	39
FMV2.1-18	42	32	36	28	12.875	35.875	32.75	23	21	39.5
FMV2.1-19	42	32	36	28	12.875	35.875	32.75	23.5	21	40
FMV2.1-20	42	32	36	28	12.875	35.875	32.75	24	21	40.5
FMV2.1-21	42	32	36	28	12.875	35.875	32.75	24	21	41
	[Inches]									

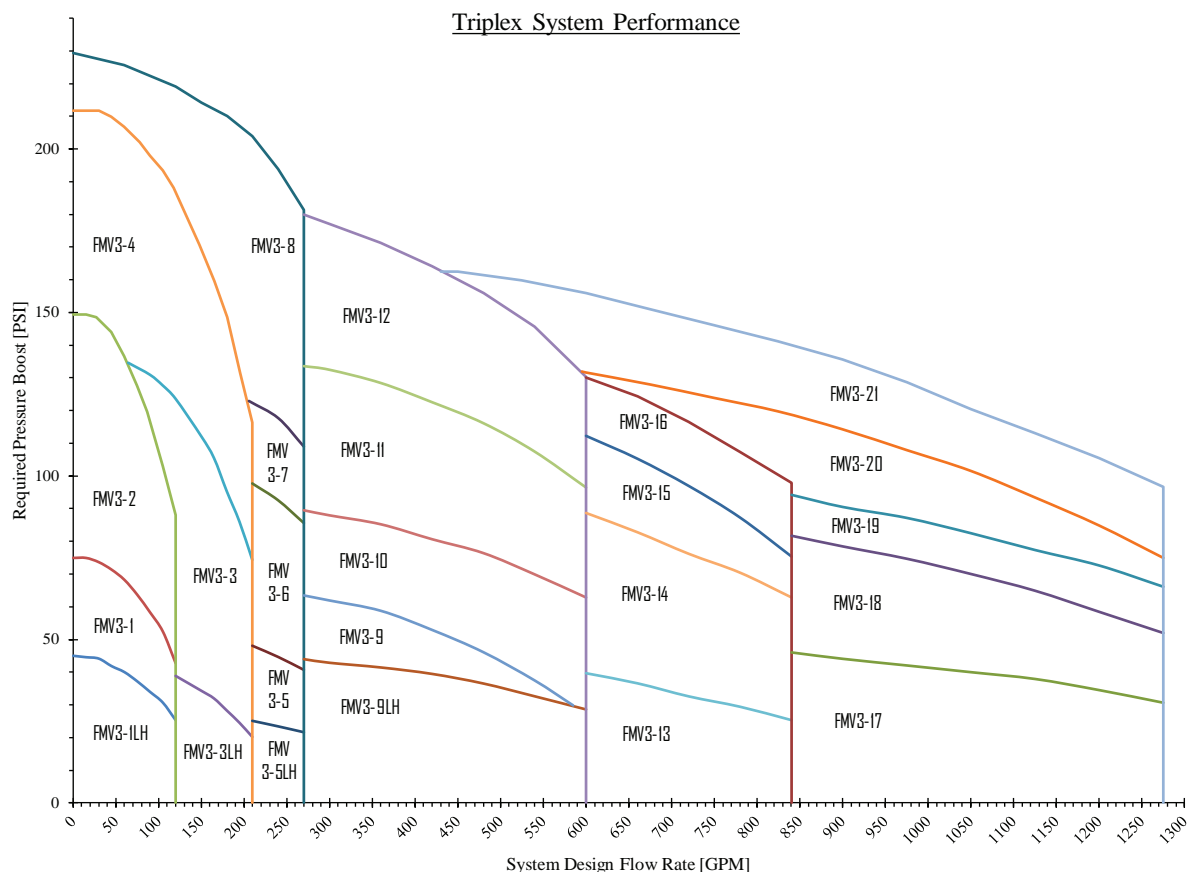


# FMV Triplex Booster Selection

FMV series of Simplex/Duplex/Triplex booster pump models are selected using the capacity curves included in this brochure. The required total system flow rate is typically determined by using the fixture unit method and then converting the total fixture units to gpm using the Hunter Curves. The required pressure boost of the system is typically determined by adding the static lift required to the highest fixture, the friction loss of the system at the maximum flow rate, and then adding the minimum inlet pressure required at the critical fixture.

The minimum suction pressure available at the booster pump inlet is then subtracted to determine the required pressure boost. The required pressure boost shown on the capacity curves include all internal pressure losses of the booster system, so there is no need to include any additional pressure losses when using these capacity curves. Standard sizes are available with flow capacities as low as 10 gpm and in excess of 1,200 gpm with pressure boosts exceeding 200 psi. Custom sizes are available in any capacity or configuration.

## FMV Triplex Capacity Curve



# Triplex FMV Detail Table

Model	Pump	HP	Check Valve [Inch]	Header [Inch]	Operating Weight [Lbs.]	FLA <sup>1</sup> 208/230/460	Configuration Available		
							XL	CV	SL
FMV3.1-1LH	5eSV-3	1	1.5	2.5	930	11 / 10 / 6			
FMV3.1-1	5eSV-5	1.5	1.5 / 2 <sup>2</sup>	2.5	960	14 / 13 / 7			
FMV3.1-2	5eSV-10	3	1.5 / 2 <sup>2</sup>	2.5	1030	25 / 23 / 12			
FMV3.1-3LH	10eSV-2	2	1.5	3	1060	18 / 16 / 9			
FMV3.1-3	10eSV-6	5	1.5 / 2 <sup>2</sup>	3	1220	40 / 37 / 19			
FMV3.1-4	10eSV-9	7.5	1.5 / 2 <sup>2</sup>	3	1390	57 / 52 / 26			
FMV3.1-5LH	22eSV-1	3	2	4	1170	25 / 23 / 12			
FMV3.1-5	15eSV-2	5	2	4	1270	40 / 37 / 19			
FMV3.1-6	15eSV-4	7.5	2	4	1340	57 / 52 / 26			
FMV3.1-7	15eSV-5	10	2	4	1490	80 / 72 / 37			
FMV3.1-8	15eSV-8	15	2	4	1790	117 / 106 / 54			
FMV3.1-9LH	33eSV-1	5	2.5	6	1840	40 / 37 / 19			
FMV3.1-9	33eSV-2/2	7.5	2.5	6	1930	57 / 52 / 26			
FMV3.1-10	33eSV-2/2	10	2.5	6	2050	80 / 72 / 37			
FMV3.1-11	33eSV-3	15	2.5	6	2320	117 / 106 / 54			
FMV3.1-12	33eSV-4	20	2.5	6	2640	154 / 139 / 70			
FMV3.1-13	46eSV-1	10	3	6	2240	80 / 72 / 37			
FMV3.1-14	46eSV-2	15	3	6	2430	117 / 106 / 54			
FMV3.1-15	46eSV3/2	20	3	6	2760	154 / 139 / 70			
FMV3.1-16	46eSV-3	25	3	6	2800	194 / 199 / 88			
FMV3.1-17	66eSV-1	15	4	8	3060	117 / 106 / 54			
FMV3.1-18	66eSV-2/1	20	4	8	3200	154 / 139 / 70			
FMV3.1-19	66eSV-2	25	4	8	3700	194 / 199 / 88			
FMV3.1-20	66eSV3/2	30	4	8	3830	220 / 199 / 100			
FMV3.1-21	66eSV-3	40	4	8	3840	300 / 271 / 136			

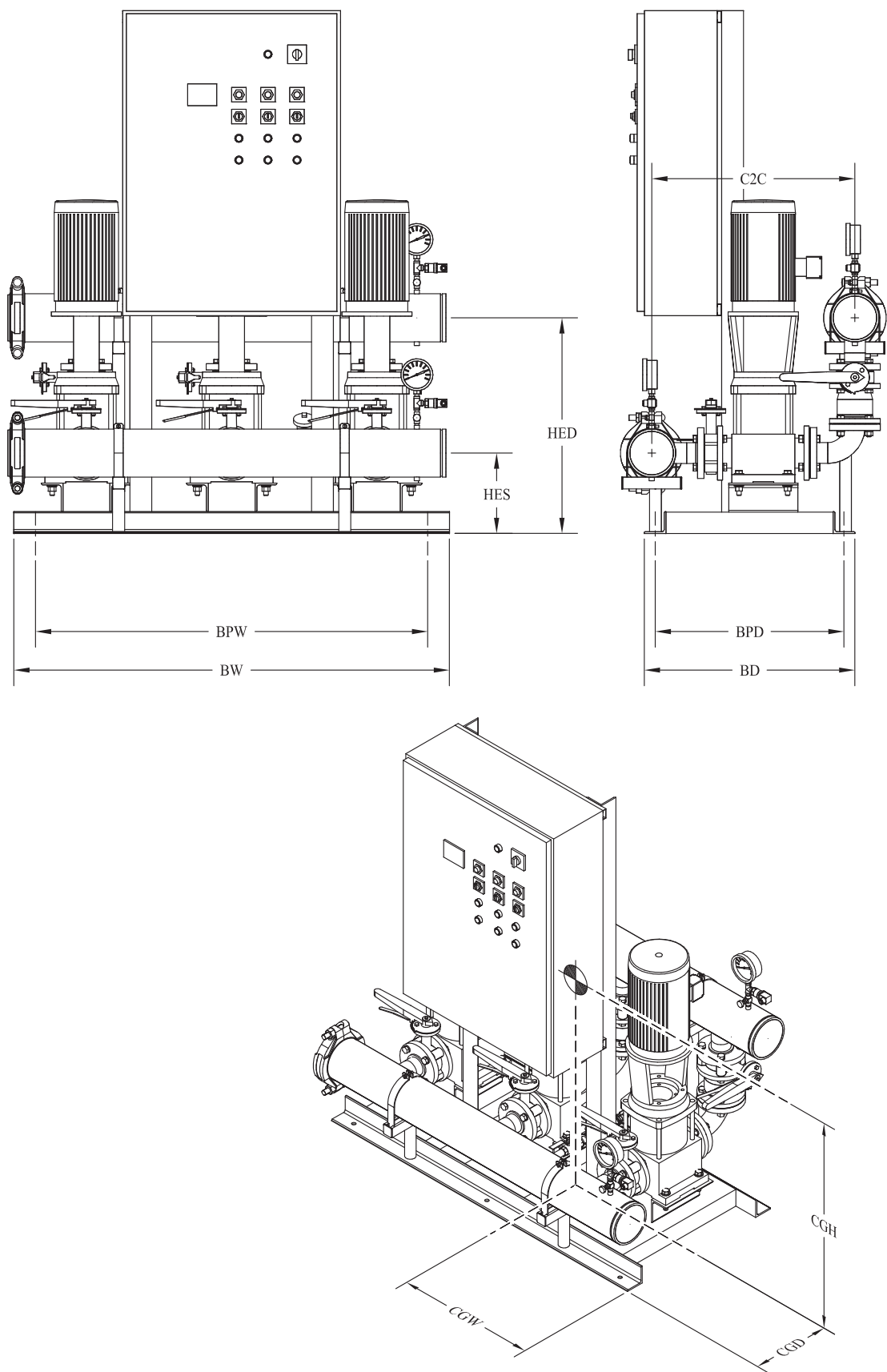
<sup>1</sup> Booster full load amperage based on 3500 RPM TEPE motors

<sup>2</sup> Boosters in SL configuration have 2" check valves

CV control panel for 7.5HP-15HP motors only available for 460V/3Φ incoming power

Configuration available

# Triplex Booster Dimension Detail

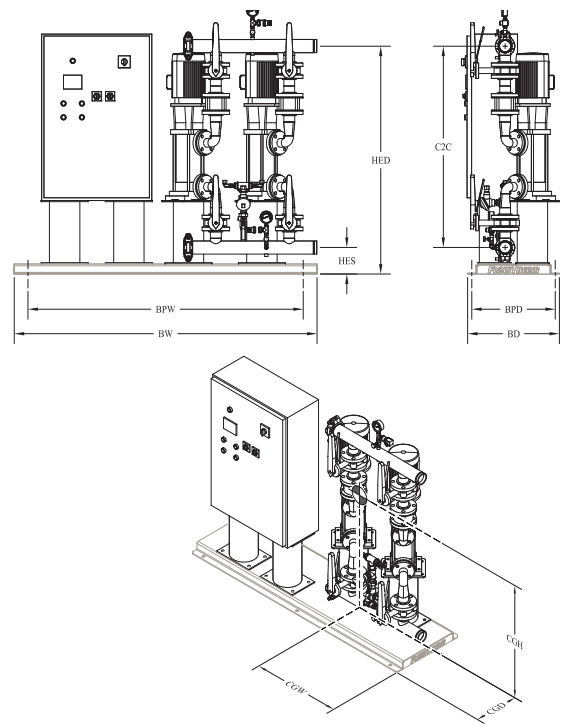


# Triplex FMV Dimension Table

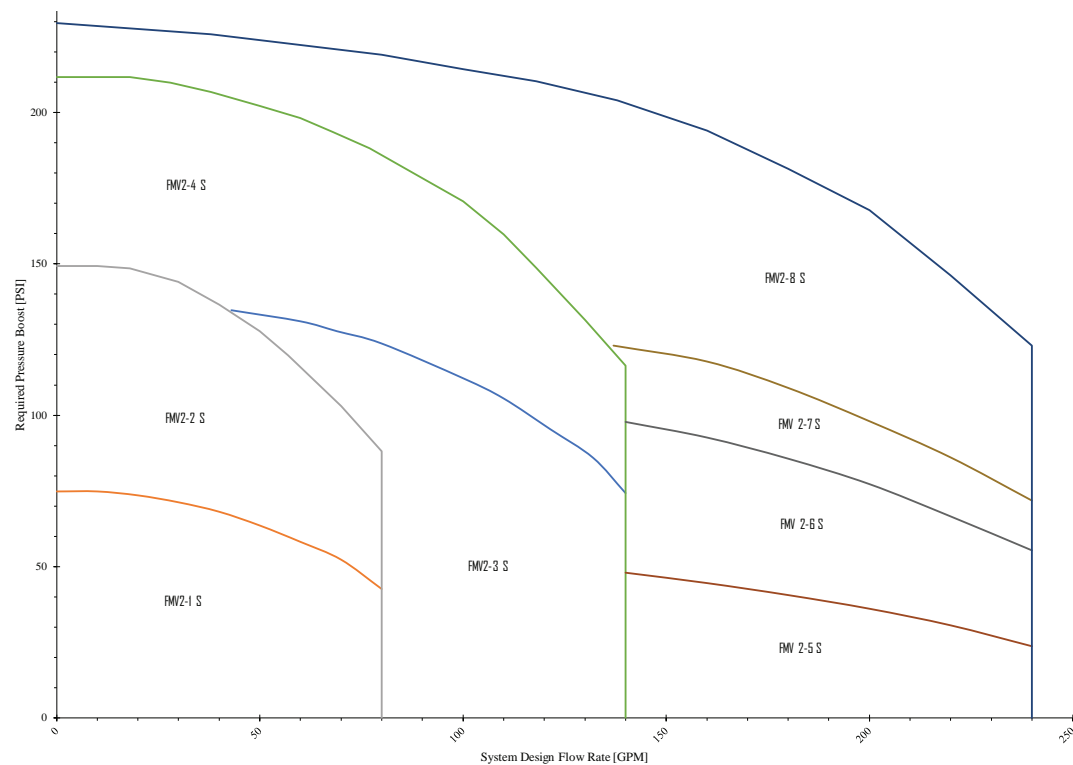
Model  3.1	Booster		Bolt Pattern		Header Elevation		Center to Center	Center of Gravity		
	Width	Depth	Width	Depth	Suction	Discharge		CGW	CGD	CGH
FMV3.1-1LH	60	29	54	26	9.875	30	24.125	24	13	29
FMV3.1-1	60	29	54	26	9.875	30	24.125	24	13	29
FMV3.1-2	60	29	54	26	9.875	30	24.125	24	13	29
FMV3.1-3LH	60	29	54	26	10.5	26.5	27.625	24	13	29
FMV3.1-3	60	29	54	26	10.5	26.5	27.625	24	13.5	31
FMV3.1-4	60	29	54	26	10.5	26.25	27.625	24	13.5	36
FMV3.1-5LH	60	29	54	26	10.5	27	28.125	24	13	29
FMV3.1-5	60	29	54	26	10.5	27	28.125	24	13.5	31
FMV3.1-6	60	29	54	26	10.5	27	28.125	24	13.5	36
FMV3.1-7	60	29	54	26	10.5	27	28.125	25	14	37
FMV3.1-8	60	29	54	26	10.5	27	28.125	25.5	14	38
FMV3.1-9LH	60	29	54	26	11.125	29.75	28	24	13.5	29
FMV3.1-9	60	29	54	26	11.125	29.75	28	24	13.5	36
FMV3.1-10	60	29	54	26	11.125	29.75	28	25	14	37
FMV3.1-11	60	29	54	26	11.125	29.75	28	25.5	14	38
FMV3.1-12	60	29	54	26	11.125	29.75	28	26	15	39
FMV3.1-13	60	29	54	25	12.875	32.875	30.5	25	14	37
FMV3.1-14	60	29	54	25	12.875	32.875	30.5	25.5	14	38
FMV3.1-15	60	29	54	25	12.875	32.875	30.5	26	15	39
FMV3.1-16	60	29	54	25	12.875	32.875	30.5	26.5	15	42
FMV3.1-17	60	29	54	25	12.875	37	33.75	25.5	14	40
FMV3.1-18	60	29	54	25	12.875	37	33.75	26	15	41
FMV3.1-19	60	29	54	25	12.875	37	33.75	27	15.5	44
FMV3.1-20	60	29	54	25	12.875	37	33.75	27	16	44.5
FMV3.1-21	60	29	54	25	12.875	37	33.75	27	16.5	45
	[Inches]									

# FMV Slim Line Duplex Pressure Booster

The Slim Line Pressure Booster brings you the power of our standard duplex and triplex boosters in a slim profile for those projects where space constraints are an issue. Averaging only 20" in depth make this an easy fit for tight spaces.



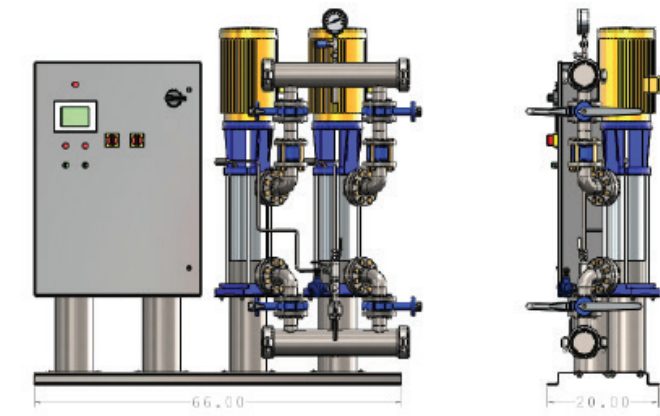
# FMV Slim Line Duplex Capacity Curve





# Slim Line Duplex Detail Tables

Model	Pump	HP	Check Valve [Inch]	Header [Inch]	Operating Weight [Lbs.]	FLA <sup>1</sup> 208/230/460
2SL						
FMV2-1S	5eSV-7	1.5	2	2.5	690	9.5 / 8.5 / 5
FMV2-2S	5eSV-10	3	2	2.5	730	17 / 16 / 8
FMV2-3S	10eSV-6	5	2	2.5	840	27 / 25 / 13
FMV2-4S	10eSV-9	7.5	2	2.5	890	38 / 35 / 18
FMV2-5S	15eSV-2	5	2	3	850	27 / 25 / 13
FMV2-6S	15eSV-4	7.5	2	3	900	38 / 35 / 18
FMV2-7S	15eSV-5	10	2	3	1000	53 / 48 / 25
FMV2-8S	15eSV-8	15	2	3	1200	79 / 71 / 36

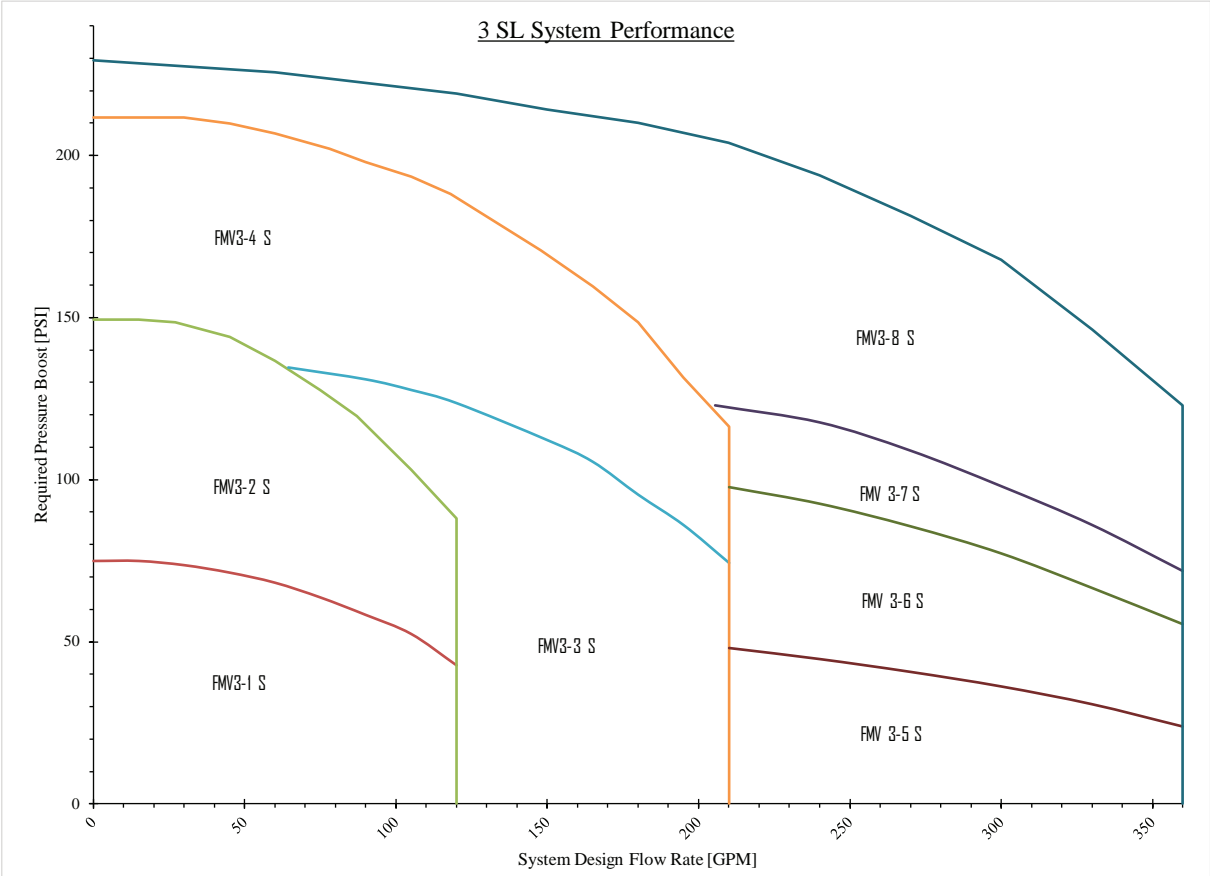
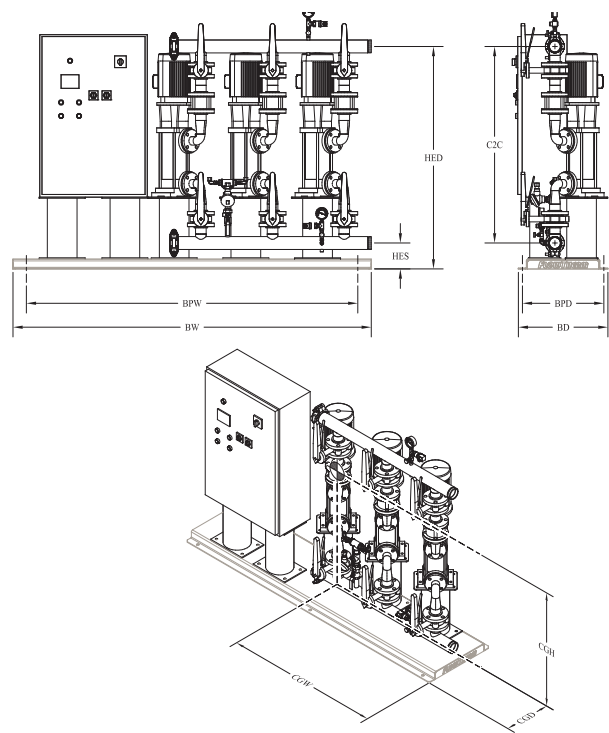
<sup>1</sup> Booster full load amperage based on 3500 RPM TEPE motors

## Slim Line Duplex Dimensions Tables

Model	Booster		Bolt Pattern		Header Elevation		Center to Center	Center of Gravity		
	Width	Depth	Width	Depth	Suction	Discharge		CGW	CGD	CGH
2SL										
FMV2-1S	66	20	60	18	5.75	46.25	40.5	23.875	12.25	30
FMV2-2S	66	20	60	18	5.75	49.175	43.425	24	12	31
FMV2-3S	66	20	60	18	8.875	45.75	36.875	24.75	11.5	32
FMV2-4S	66	20	60	18	8.875	49.5	40.625	25	12.25	33.5
FMV2-5S	66	20	60	18	7.875	47.125	39.25	24.75	12.25	32
FMV2-6S	66	20	60	18	7.875	47.125	39.25	25	12	34.5
FMV2-7S	66	20	60	18	7.875	49	41.125	25.75	11.5	35
FMV2-8S	66	20	60	18	7.875	54.7	46.825	26.75	12.375	36.875
	[Inches]									

# FMV Slim Line Triplex Pressure Booster

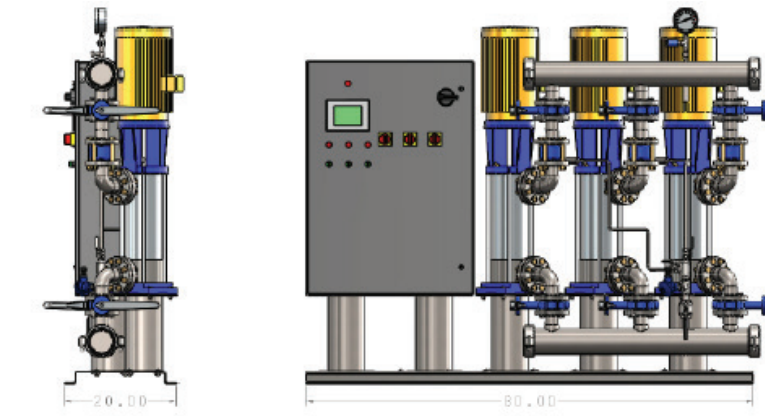
The Slim Line Pressure Booster brings you the power of our standard duplex and triplex boosters in a slim profile for those projects where space constraints are an issue. Averaging only 20" in depth make this an easy fit for tight spaces.



## Slim Line Triplex Detail Tables

Model	Pump	HP	Check Valve [Inch]	Header [Inch]	Operating Weight [Lbs.]	FLA <sup>1</sup>
3SL						208/230/460
FMV3-1S	5eSV-7	1.5	2	2.5	690	9.5 / 8.5 / 5
FMV3-2S	5eSV-10	3	2	2.5	730	17 / 16 / 8
FMV3-3S	10eSV-6	5	2	2.5	840	27 / 25 / 13
FMV3-4S	10eSV-9	7.5	2	2.5	890	38 / 35 / 18
FMV3-5S	15eSV-2	5	2	3	850	27 / 25 / 13
FMV3-6S	15eSV-4	7.5	2	3	900	38 / 35 / 18
FMV3-7S	15eSV-5	10	2	3	1000	53 / 48 / 25
FMV3-8S	15eSV-8	15	2	3	1200	79 / 71 / 36

<sup>1</sup> Booster full load amperage based on 3500 RPM TEPE motors



## Slim Line Triplex Dimensions Tables

Model	Booster		Bolt Pattern		Header Elevation		Center to Center	Center of Gravity		
	Width	Depth	Width	Depth	Suction	Discharge		CGW	CGD	CGH
3SL										
FMV3-1S	80	20	74	18	5.75	46.25	40.5	44	13	31
FMV3-2S	80	20	74	18	5.75	49.175	43.425	43	12.75	32
FMV3-3S	80	20	74	18	8.875	45.75	36.875	43	12.5	34
FMV3-4S	80	20	74	18	8.875	49.5	40.625	42	11.75	35.75
FMV3-5S	80	20	74	18	7.875	47.125	39.25	42.25	11.75	35.75
FMV3-6S	80	20	74	18	7.875	47.125	39.25	41.75	11.625	36.5
FMV3-7S	80	20	74	18	7.875	49	41.125	41.5	11.5	37
FMV3-8S	80	20	74	18	7.875	54.7	46.825	41	11.325	37.75
	[Inches]									

# Aqualogic XL Full Featured Pressure Booster Panel

## The Aqualogic XL Pressure Booster Panel has the following features and benefits:

- 6" Color Touch Screen HMI with integral PLC to provide easy access to view system operation and adjust pressure booster system pressure and alarm set points.
- Single point system power connection, non-fused disconnect.
- Individual through-the-door circuit breaker power disconnects and variable frequency drives for each pump.
- Hand-Off-Auto Selector switches with "run" and "pump out of service" indicator lights
- Adjustable Alarm/Shutdown
  - High System Pressure
  - High and Low Suction Pressure
  - High and Low Suction Level (break tank)
  - High Temperature
  - Communication Failure
  - Controller Failure
  - Low Battery
  - Transducer Failure
- General Fault indicator light with dry contacts for remote monitoring and optional audible alarm
- Remote enable/disable
- Fire pump mode control settings
- Energy saving no demand shutdown control
- Dynamic Setpoint Adjustment (DSA) - Allows main pressure sensor to be installed in the system discharge header vs. hard wired from a remote location
- Pressure staging lead/lag pump control for up to four (4) pumps (flow staging available with addition of optional field installed flow meter)
- Optional Flow Meter input for monitoring/data logging
- UL508A Listed Industrial Control Panel available in NEMA 1, NEMA 3R, NEMA 4X, and NEMA 12 enclosures. Outdoor enclosures are provided with a deadfront door for UV protection.
- Trending logs provided for all critical operations and alarms via door-mounted HMI
- Modbus Building Automation System interface is standard with options for BACnet, Lonworks, and others.



# Aqualogic CV Control Value Pressure Booster Panel

The Aqualogic CV Pressure Booster Panel has the following features and benefits:

- 3.5" Color Touch Screen HMI with integral PLC to provide easy access to view system operation and adjust pressure booster system pressure and alarm set points.
- Single point system power connection, non-fused
- Adjustable Alarm/Shutdown
  - High System Pressure
  - High and Low Suction Pressure
  - High Temperature
  - Transducer Failure
- General Fault dry contacts for remote monitoring
- Energy saving no demand shutdown control
- Dynamic Setpoint Adjustment (DSA) - Allows main pressure sensor to be installed in the system discharge header vs. hard wired from a remote location
- Pressure staging lead/lag pump control for up to three (3) pump
- UL 508A Listed industrial control panel NEMA 1 only





# FlowTest Station

## PERFORMANCE TESTING & CERTIFICATION

FlowTherm Systems now provides testing and certification services for pumping and pressure boosting packages. Testing is carried out to ensure that the complete package performance characteristics conform to applicable specification. FlowTherm Systems utilizes state-of-the-art instruments that are traceable to NIST standards to ensure accurate, repeatable results.

Testing is carried out under the supervision of a registered Professional Engineer to ensure that the methods comply with those of ANSI/HI 14.6, or any other standards required by the client. A certified test report is provided with every performance test.

The FlowTherm Systems Performance Testing Station is a closed system with the ability to be pressurized. This allows the testing of packaged systems under real-world conditions where the suction pressure may be something other than the static head available from the flow test tank.

To comply with NSF/ANSI 61, all wetted components of the FlowTest station are either stainless steel or carbon steel coated in an FDA-approved epoxy. This ensures that testing does not contaminate packaged systems destined for domestic water service.

The FlowTest Station is equipped to monitor the below parameters:

- Suction Pressure
- Discharge Pressure
- Flowrate
- Water Temperature
- Shaft Speed
- System or individual pump current and voltage

## AVAILABLE EVALUATIONS

Flowtherm Systems can perform the evaluations outlined below:



# FlowTest Station Performance Report

## FlowTherm Packaged System Performance Test

Project: Flow Test Sample

Engineer: FlowTherm Systems

Customer: FlowTherm Systems

Date of Test: 10/31/2014

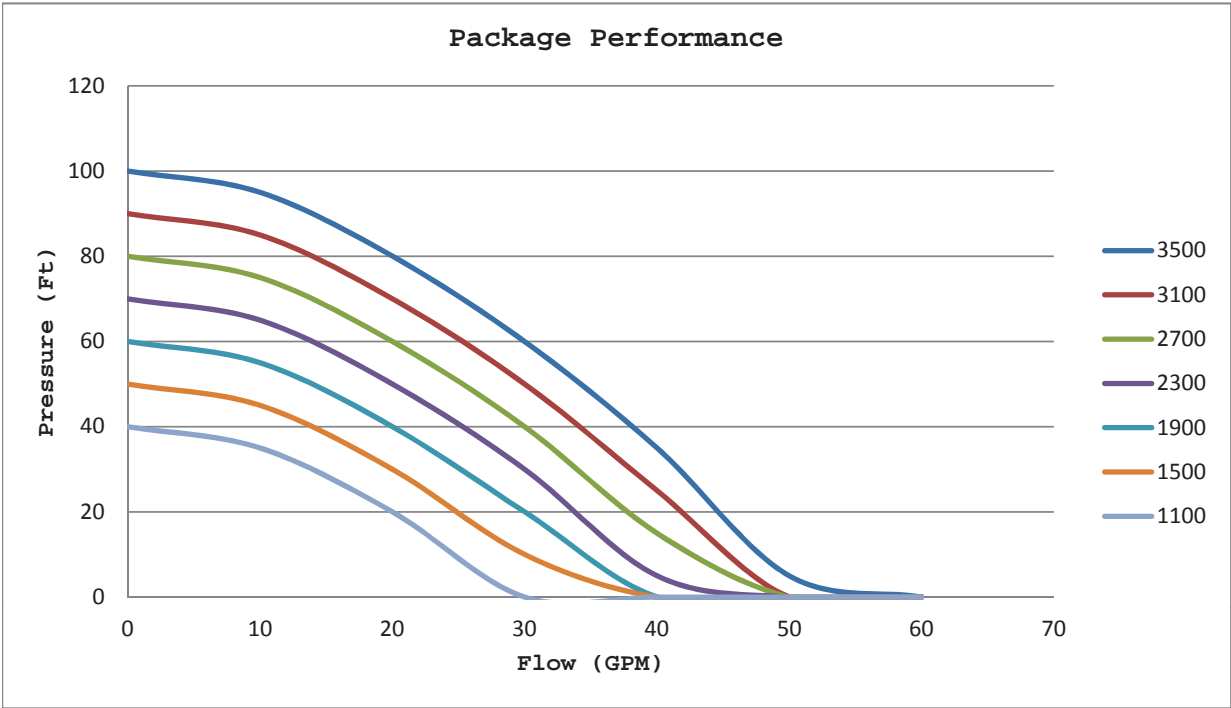
Spec: 13243546

Rep: 

California Hydronics  
2293 Tripaldi Way  
Hayward, CA 94545

Time: 13:25

Duty Point: 100@58



Speed							
3500	0	10	20	30	40	50	60
	100	95	80	60	35	5	0
3100	0	10	20	30	40	50	60
	90	85	70	50	25	0	0
2700	0	10	20	30	40	50	60
	80	75	60	40	15	0	0
2300	0	10	20	30	40	50	60
	70	65	50	30	5	0	0
1900	0	10	20	30	40	50	60
	60	55	40	20	0	0	0
1500	0	10	20	30	40	50	60
	50	45	30	10	0	0	0
1100	0	10	20	30	40	50	60
	40	35	20	0	0	0	0

Testing Engineer:

# The Benefits of FlowTherm Systems

More than ever before, mechanical engineers, owners, and contractor are choosing FlowTherm Systems packaged equipment because of the benefits they provide. We understand that time is money, accuracy is key, and a happy customer makes for better business on all fronts. Here are just a few of the benefits of using FlowTherm Systems in your projects.

## BENEFITS

- Up-front cost assurance eliminates unknown labor costs when compared to field installed components
- Single source responsibility for start-up and warranty issues
- Minimized field coordination issues and field labor
- Rugged structural steel platforms easily rigged and installed at the job site
- High-quality system construction that exceeds national code requirements
- Confidence in dealing with an established company with a long track record of customer satisfaction
- Complete customer support including full submittals, drawings, and O&M instructions in addition to layout and application assistance throughout the project
- Guaranteed system performance
- Experienced application assistance
- Assurance of matched and compatible system components
- Equipment manufactured to ASME/ANSI standards
- UL 3rd party certification for quality assurance on all packaged systems
- High quality components installed in accordance with industry standards and manufacturers' recommendations
- Professional AutoCAD and 3D drawings provided with accurate dimensions and weights
- Flexible system configurations and options for custom requirements
- Extensive selection of standard configured packages

# Our Catalog of Custom Packages

FlowTherm Systems offers an extensive array of packaged pumping and heat transfer application systems. All of our systems include high quality components, valves, piping, and fittings; assembled and mounted on a structural steel frame. All electrical controls and wiring can be included with our systems.

Hydronic Heating System



Heat Transfer System



Electronic Tempering Valve Station



Water Source Heat Pump



Pump System



Process Cooling





Contact Us



**FlowTherm Systems**

Have questions? We're here to help.

2293 Tripaldi Way, Hayward, CA 94545 • 510.293.1993

[www.flowtherm.com](http://www.flowtherm.com)

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