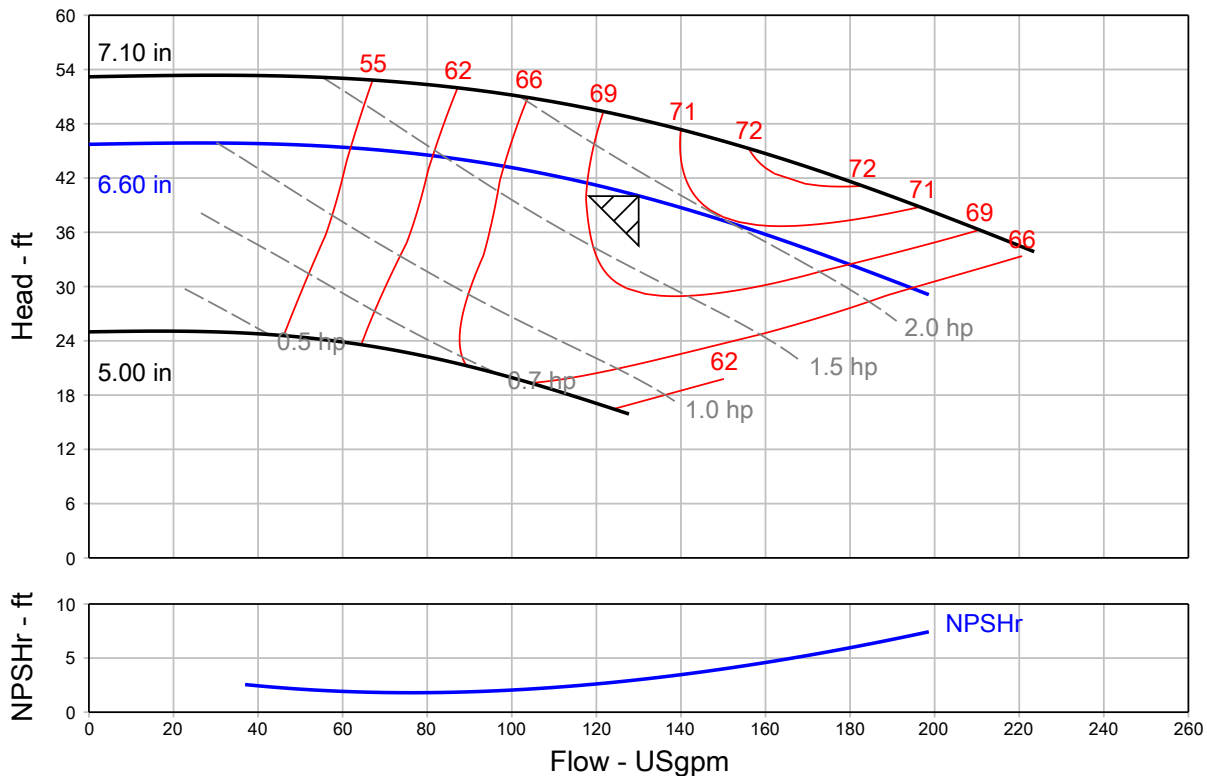


Pump Performance Datasheet

Customer	: Oakland ES	Quote Number / ID	: 2204568
Customer ref. / PO	:	Model	: 25709 VL
Tag Number	: Boiler Pumps	Stages	: 1
Service	:	Based on curve number	: VL_25709_4P Rev May22
Quantity	: 2	Basic model number	: -
		Date last saved	: 03/20/2024 2:11 PM

Operating Conditions		Liquid	
Flow, rated	: 130.0 USgpm	Liquid type	: Cold Water
Differential head / pressure, rated (requested)	: 40.00 ft	Additional liquid description	:
Differential head / pressure, rated (actual)	: 40.04 ft	Solids diameter, max	: 0.00 in
Suction pressure, rated / max	: 0.00 / 0.00 psi.g	Solids concentration, by volume	: 0.00 %
NPSH available, rated	: Ample	Temperature, max	: 68.00 deg F
Site Supply Frequency	: 60 Hz	Fluid density, rated / max	: 1.000 / 1.000 SG
		Viscosity, rated	: 1.00 cP
		Vapor pressure, rated	: 0.34 psi.a
Performance		Material	
Speed, rated	: 1760 rpm	Material selected	: Cast iron - 125#
Impeller diameter, rated	: 6.60 in		
Impeller diameter, maximum	: 7.10 in	Pressure Data	
Impeller diameter, minimum	: 5.00 in	Maximum working pressure	: 19.85 psi.g
Efficiency	: 70.14 %	Maximum allowable working pressure	: 175.0 psi.g
NPSH required / margin required	: 3.00 / 0.00 ft	Maximum allowable suction pressure	: 175.0 psi.g
Ns (imp. eye flow) / Nss (imp. eye flow)	: 1,362 / 6,618 US Units	Hydrostatic test pressure	: 263.0 psi.g
MCSF	: 45.16 USgpm		
Head, maximum, rated diameter	: 45.88 ft	Driver & Power Data (@Max density)	
Head rise to shutoff	: 14.22 %	Motor sizing specification	: Max power (non-overloading)
Flow, best eff. point	: 151.0 USgpm	Margin over specification	: 0.00 %
Flow ratio, rated / BEP	: 86.09 %	Service factor	: 1.00
Diameter ratio (rated / max)	: 92.96 %	Power, hydraulic	: 1.31 hp
Head ratio (rated dia / max dia)	: 82.54 %	Rated power (based on duty point)	: 1.87 hp
Cq/Ch/Ce/Cn [ANSI/HI 9.6.7-2010]	: 1.00 / 1.00 / 1.00 / 1.00	Max power (non-overloading)	: 2.25 hp
Selection status	: Acceptable	Nameplate motor rating	: 3.00 hp / 2.24 kW
Energy Indexes			
PEI (CL)	: 0.95		
ER (CL)	: 5		



Construction Datasheet

Project name	: Oakland Elem	Tag Number	: Boiler Pumps
Consulting engineer	:	Service	:
Customer	: Thermal Resource Sales Inc	Model	: 25709 VL
Customer ref. / PO	:	Quantity	: 2
Quote Number / ID	: 2204568	Quoted By (Sales Office)	: Thermal Resource Sales
Date last saved	: 03/20/2024 2:11 PM	Quoted By (Sales Engineer)	: Christina Dusinberre

Construction				Motor Information	
Nozzle	Size (in.)	Nozzle Configuration	Pos'n	Manufacturer	: Baldor
Suction	2.5	125# ANSI	Side	Frame Size	: 182JM
Discharge	2.5	125# ANSI	Side	Power	: 3.00 hp

Orientation / Configuration	: Vertical	RPM	: 1800 rpm
Rotation	: Clockwise	Enclosure	: ODP
Wear Ring Configuration	: Single - Case	Operating Power Supply	: 230/460/3/60
Discharge Elbow Size	: -	Efficiency	: Premium
Subplate	: -	Service factor	: 1.15
Sump Depth (feet)	: -	Motor Application	: General Purpose
Bearing Frame	: -	Motor Options/Accessories	: -
Bearing Frame Foot	: -	Cord Length (feet)	: -

Materials	
Case	: Cast Iron, ASTM A48 - Class 30
Motor Bracket	: Cast Iron, ASTM-A48, CL 30
Impeller	: Stainless Steel, AISI-304 (H304)
Impeller Cap Screw and Washer	: Stainless Steel, AISI-303
Impeller Key	: Stainless Steel, AISI 316
Case wear ring	: Tin Bronze, ASTM B584-90500 (B18)
Impeller wear ring	: -
Pump Shaft	: Steel, AISI-1040
Sleeve	: Bronze, III932, C89835
Line Shaft	: -
Column	: -
Discharge Pipe	: -
Discharge Elbow	: -
Suction Elbow	: -
Subplate	: -
Hardware	: Steel, Grade 5
O Rings	: Buna N
Pump Coatings	: Standard Manufacturers Paint

Baseplate, Coupling and Guard	
Baseplate	: Not Applicable
Drip Pan	: -
Coupling	: -
Guard	: OSHA Approved

Seal & Packing Construction	
Sealing Method	: Single Seal, Type 21S
Seal Material	: Buna Carbon Ceramic SS-Spring and Hardware
Packing Gland	: -
Lantern Ring	: -
Recirculation Lines	: Nylon Tubing with Brass Fittings

Weights (Approx.)	
Pump	: 91.00 lb
Baseplate	: -
Driver	: 98.00 lb
Estimated Shipping gross weight	: 189.0 lb

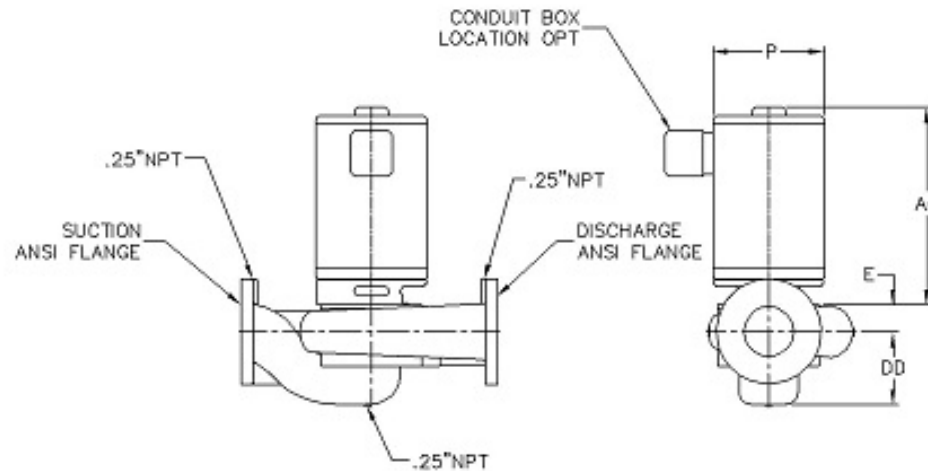
General Arrangement

Project name	: Oakland Elem	Tag Number	: Boiler Pumps
Consulting engineer	:	Service	:
Customer	:	Model	: 25709 VL
Customer ref. / PO	:	Quantity of pumps	: 2
Quote Number / ID	: 2204568	Quoted By (Sales Office)	: Thermal Resource Sales
Date last saved	: 03/20/2024 2:11 PM	Quoted By (Sales Engineer)	: Christina Dusinberre

Do not install pump larger than 215JM in vertical piping.

Pressure and drain tap locations are approximate.

Suction and discharge flanges, are cast per 250# ANSI thickness and diameter. All flanges are flat face. Some holes may be threaded because of nut clearances.



NOT FOR CONSTRUCTION, UNLESS CERTIFIED AND REFERENCED ON ORDER

Units	Frame	S x D (in.)	AG (Max)	DC	DD	DE	E	P (Max)	X	YY	Weight ea
inches	182JM	2.5 X 2.5	20.00	4.75	5.84	5.50	1.75	10.00	8.50	8.50	189.0
Conditions of Service			Motor Data								
Flow: 130.0 USgpm	Fluid: Cold Water	HP: 3	Encl: ODP	Phase: 3	Efficiency: Premium						
TDH: 40.00 ft	Temp.: 68.00 deg F	RPM: 1760 rpm	Hz: 60	Voltage: 230/460	S.F.: 1.15						

Project name	: Oakland Elem	Tag Number	: 002
Consulting engineer	:	Service	:
Customer	: Thermal Resource Sales Inc	Model	: CV30-125
Customer ref. / PO	:	Quantity	: 2
Quote Number / ID	: 2204568	Quoted By (Sales Office)	: Thermal Resource Sales
Date last saved	: 03/20/2024 2:12 PM	Quoted By (Sales Engineer)	: Christina Dusinberre

Construction

Nozzle	Size (in.)	Nozzle Configuration	Pos'n
Inlet	3	-	Side
Outlet	3	-	Side

Valve Body	: ASTM A395
Seat Guide	: -
Disc	: Bronze ASTM B124 C37700
Spring	: Stainless Steel, ASTM A240-304
Packing Gland	: Bronze ASTM B124 C37700
Stem Packing	: -
Yoke	: Steel ASTM A283-C
Indicator	: -
Hand wheel	: Ductile iron A395
Construction Code/Part Number	: 96877844

Weights (Approx.)

Estimated Shipping gross weight	: 52.00 lb
---------------------------------	------------

Grundfos Combination Valves



Description

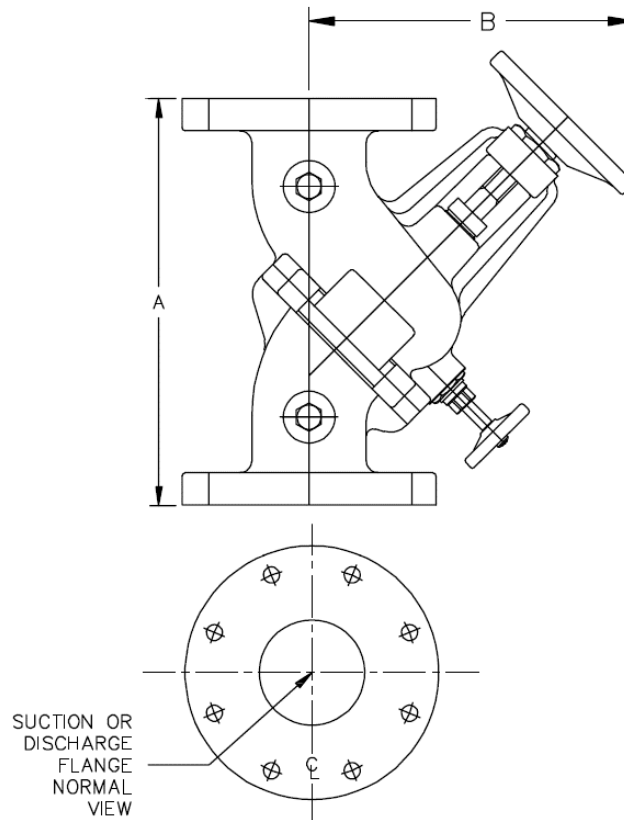
Grundfos Series CV, Combination valve combines three valves in one: shut-off valve, balancing valve, and check valve. The combination valve makes it possible to reduce the overall system pressure drop since fewer individual components are needed when installing a pump.

The combination valve provides the feature of changing the flange orientation to allow 90° pipe connection. Additional feature includes a built-in bypass valve allowing for drainage of water upstream of the check valve.

-

General Arrangement

Project name	: Oakland Elem	Tag Number	: 002
Consulting engineer	:	Service	:
Customer	:	Model	: CV30-125
Customer ref. / PO	:	Quantity of pumps	: 2
Quote Number / ID	: 2204568	Quoted By (Sales Office)	: Thermal Resource Sales
Date last saved	: 03/20/2024 2:12 PM	Quoted By (Sales Engineer)	: Christina Dusinberre



NOT FOR CONSTRUCTION, UNLESS CERTIFIED AND REFERENCED ON ORDER

Units	Inlet (in)	Outlet (in)	A (in)	B (in)	Weight (lbs)
inches	3	3	11.65	9.61	52.00