ENVELOPE™
By Armstrong Fluid Technology®

SYSTEM ENVELOPE FLUID MANAGEMENT STATION | SEFMS-00-SIXX-XXX.0 | SUBMITTAL

File No: 91.201
Date: JANUARY 19, 2026
Supersedes: NEW
Date: NEW

Job: _____ Representative: _____

_____ Order No: _____ Date: _____

Engineer: _____ Submitted by: _____ Date: _____

Contractor: _____ Approved by: _____ Date: _____

PUMP DESIGN DATA

No. of modules: 1 Tag: _____

Total system design flow: _____USgpm(L/s)

Head: _____ft(m)

Capacity split per Tango Head: 50%

Flow per pump head: _____USgpm(L/s)

Parallel flow: _____USgpm(L/s)

Liquid: _____ Viscosity: _____

Temperature: _____ °F (°C) Specific gravity: _____

Suction: _____ Discharge: _____

Min Flow Redundancy:_____

System type:

☐ Chilled Water Primary Loop

☐ Chilled Water Secondary Loop

☐ Heating System

☐ Heat Pump System

UL STD 778 & CSA STD C22.2 NO.108 certified
Test report is supplied with each pump

MATERIALS OF CONSTRUCTION

☐ **ANSI 125**

CONSTRUCTION: SF

E-coated cast iron, 316 stainless steel fitted

MECHANICAL SEAL DESIGN DATA

See file no. 43.50 for standard mechanical seal details as indicated below

Armstrong seal reference number

☐ C1 (a) ☐ Others: _____

DEPMH MOTOR AND CONTROL DATA

HP:	_____
Motor enclosure:	TEFC
Volts:	_____
Phase:	3
Efficiency:	IE5
Protocol (standard):	☐ BACnet™ MS/TP ☐ BACnet™ TCP/IP ☐ Modbus RTU
Enclosure:	Indoor – UL TYPE 12
EMI/RFI control:	Integrated filter designed to meet EN61800-3
Harmonic suppression:	Dual DC-link reactors (Equivalent: 5% AC line reactor) Supporting IEEE 519-1992 requirements**
System Flow Turndown:	_____
Control:	DEPC
Cooling:	Fan-cooled through back channel
Ambient temperature:	-10°C to +45°C up to 1000 meters above sea level (+14°F to +113°F, 3300 ft)
Analog I/O:	Two current or voltage inputs, one speed output
Digital I/O:	Two inputs, two outputs
Pulse inputs:	Two programmable
Relay outputs:	Two programmable
Communication port:	1-RS485

** The IVS drive is a low harmonic drive via built-in DC line reactors. This does not guaranty performance to any system wide harmonic specification or the costs to meet a system wide specification. If supplied with the system electrical details, Armstrong will run a computer simulation of the system wide harmonics. If system harmonic levels are exceeded Armstrong can also recommend additional harmonic mitigation and the costs for such mitigation.

FLOW READOUT ACCURACY

The Design Envelope model selected will provide flow reading on the controls local keypad & digitally for the BMS. The model readout will be factory tested to ensure ±5% accuracy.

OPTIONS

SENSORLESS BUNDLE (STANDARD)

Operation of pump without a remote sensor. Includes:

- Sensorless control
- Flow readout
- Constant flow
- Constant pressure

Minimum system pressure to be maintained _____ ft (m)

* If minimum maintained system pressure is not known: Default to 40% of design head

☐ PARALLEL SENSORLESS

Operation of multiple pumps without a remote sensor

Minimum system pressure to be maintained _____ ft (m)

* If minimum maintained system pressure is not known: Default to 40% of design head

☐ ENERGY PERFORMANCE BUNDLE

Provides energy savings on oversized systems by adjusting pump parameters to on-site conditions. Includes:

- **Auto-flow balancing –** Automatically determines control curve between design flow at on-site system head, and minimum (zero-head) flow for energy savings
- **Maximum flow control –** Limits flow rate to pre-set maximum for potential energy savings

Maximum flow rate _____ gpm (L/s)

*Only available if sensorless bundle is enabled
*Available in single pump operation only

☐ PROTECTION BUNDLE

Protects other flow sensitive equipment by setting limits of pump operation. Includes:

- **Minimum flow control –** Attempts to maintain flow rate to pre-set minimum to protect equipment in system
- **Bypass valve control –** Actuates a bypass valve to protect flow sensitive equipment if pre-set minimum flow rate is reached

Minimum flow rate _____ gpm (L/s)

*Only available if sensorless bundle is enabled

☐ DUAL SEASON SETUP

Pre-sets heating and cooling parameters for pumps in 2-pipe systems

Cooling

Duty point ___ gpm (L/s) at ___ ft (m)

Minimum system pressure to be maintained ___ ft (m)

Heating

Duty point ___ gpm (L/s) at ___ ft (m)

Minimum system pressure to be maintained ___ ft (m)

*Available in single pump operation only

OPTIONAL SERVICES

ON-SITE PUMP COMMISSIONING

ENVELOPE CORE

Online service for sustained pump performance and enhanced reliability.

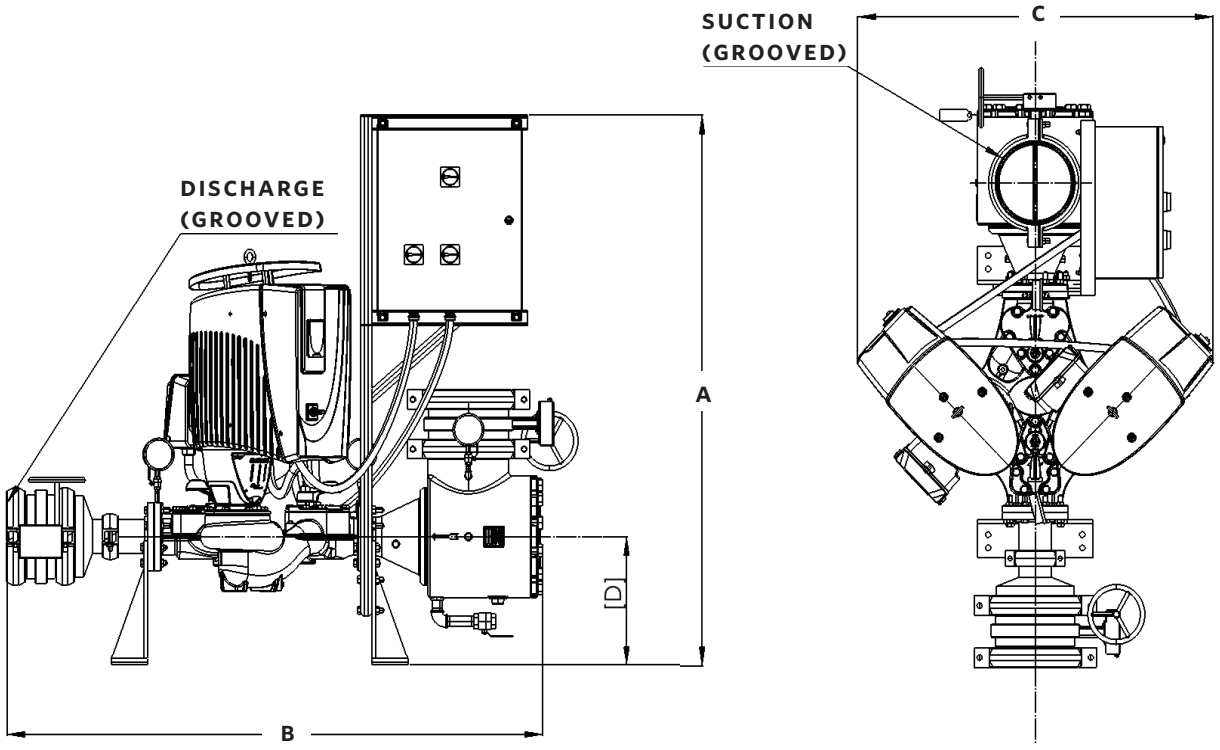
Available in 3 or 5 year terms

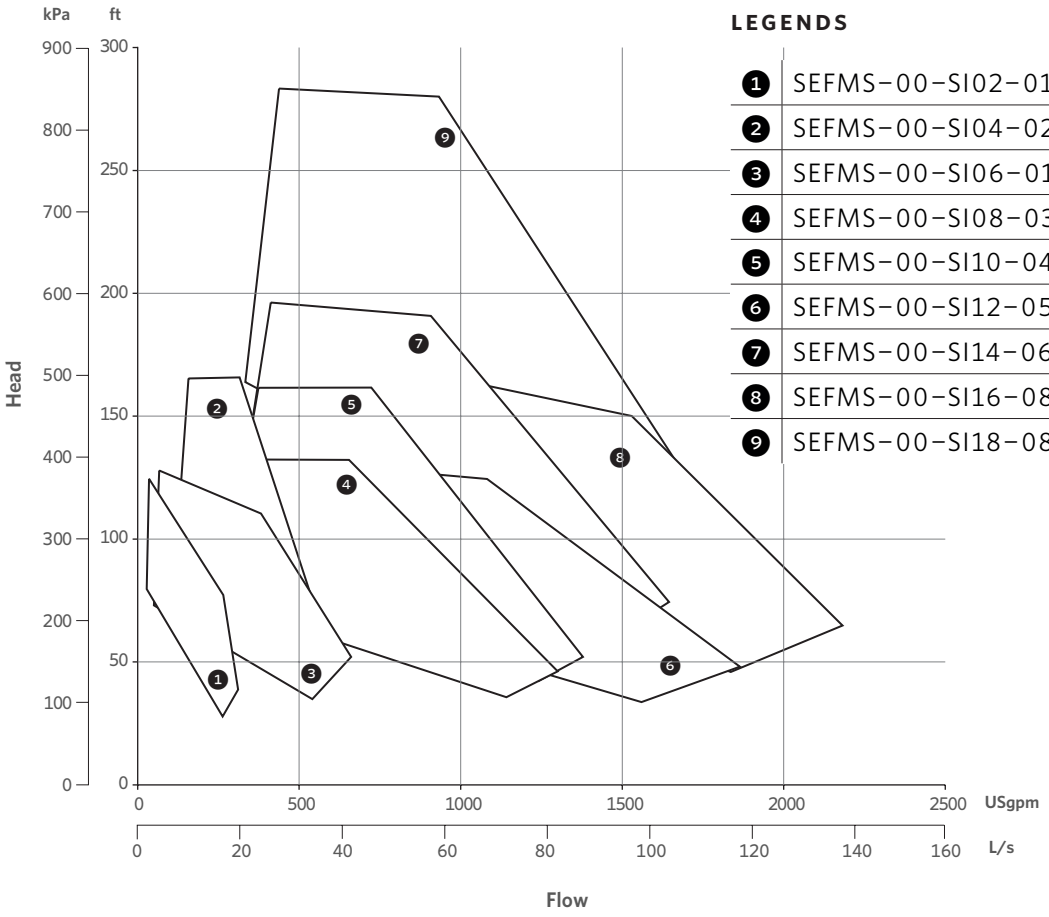
* Requires an internet connection to be provided by building
* Includes an extended warranty for parts and labour (wearable parts excluded)

DIMENSION DATA - SIMPLEX

PUMP MODEL	SEFMS MODEL (NEMA)	DIMENSIONS in inches(mm)				WEIGHT in lbs (kg)		SYSTEM CONNECTION	
		A	B	C	D	DRY	WET	INLET	OUTLET
4322-1505-005	SEFMS-00-SI02-010.0	72.50 (1842)	56.00 (1422)	26.00 (660)	17.00 (432)	380 (172.4)	390 (176.9)	4"	4"
4322-0205-010	SEFMS-00-SI04-020.0	72.50 (1842)	69.00 (1753)	26.00 (660)	17.00 (432)	450 (204.1)	462 (209.6)	5"	5"
4322-2505-007.5	SEFMS-00-SI06-015.0	72.50 (1842)	62.00 (1575)	26.00 (660)	17.00 (432)	480 (217.7)	512 (232.2)	5"	5"
4332-0406B-015	SEFMS-00-SI08-030.0	72.50 (1842)	69.00 (1753)	49.00 (1245)	17.00 (432)	550 (249.5)	615 (279.0)	8"	8"
4332-0406B-020	SEFMS-00-SI10-040.0	72.50 (1842)	69.00 (1753)	49.00 (1245)	17.00 (432)	700 (317.5)	765 (347.0)	8"	8"
4332-0406C-025	SEFMS-00-SI12-050.0	72.50 (1842)	74.00 (1880)	49.00 (1245)	17.00 (432)	900 (408.2)	1000 (453.6)	10"	10"
4332-0406B-030	SEFMS-00-SI14-060.0	72.50 (1842)	74.00 (1880)	53.00 (1346)	17.00 (432)	630 (285.8)	730 (331.1)	10"	10"
4332-0406C-040	SEFMS-00-SI16-080.0	72.50 (1842)	74.00 (1880)	49.00 (1245)	17.00 (432)	750 (340.2)	850 (385.6)	10"	10"
4332-0407-040*	SEFMS-00-SI18-080.0	72.50 (1842)	74.00 (1880)	49.00 (1245)	17.00 (432)	550 (249.5)	650 (294.8)	10"	10"

NOTE: The pump weight is not included in the listed weights.





LEGENDS

1	SEFMS-00-SI02-010.0
2	SEFMS-00-SI04-020.0
3	SEFMS-00-SI06-015.0
4	SEFMS-00-SI08-030.0
5	SEFMS-00-SI10-040.0
6	SEFMS-00-SI12-050.0
7	SEFMS-00-SI14-060.0
8	SEFMS-00-SI16-080.0
9	SEFMS-00-SI18-080.0

Performance curves are for reference only.
Confirm current performance data with Armstrong ADEPT Quote or ADEPT Select selection software.

TORONTO
+1 416 755 2291

BUFFALO
+1 716 693 8813

DROITWICH SPA
+44 8444 145 145

MANCHESTER
+44 8444 145 145

BANGALORE
+91 80 6510 3555

SHANGHAI
+86 21 5237 0909

BEIJING
+86 21 5237 0909

SÃO PAULO
+55 11 4785 1330

LYON
+33 4 20 10 26 21

DUBAI
+971 4 887 6775

JIMBOLIA
+40 256 360 030

FRANKFURT
+49 6173 999 77 55