

# Submittal

split-coupled vertical in-line pump

**Model:** Series 4300 - 4x4x6 - 4p - 5 hp - (Factory Choice Motor) with Suction Guide

**Project name:** Clinton

**Representative:** Texas AirSystems

**Location:**

**Phone number:** 817-201-0843

**Date submitted:** 7/23/25

**e-mail:** rick.vanburen@texasairsystems.com

**Engineer:** Enfra

**Submitted by:** Rick VanBuren

## Application design data

Tag number:	CSED-HPCH-HW	Piping configuration:	Single
Service:		Suction pressure:	0 ft
Equipment Location:		Fluid:	Non-Potable Fluid - Water
Qty:	1	Operating temperature:	60 °F
Total system flow:	300 USgpm	Duty flow per pump:	300 USgpm
System head:	30 ft	Viscosity:	31 SSU
Total dissolved solids:	0 ppm	Specific gravity:	1.0000
NPSHR:	7.43 ft	Absorbed Power/BHP:	2.94 hp
%Mtr Safety*:	69.73%	Efficiency at Design:	77.34 %
Outlet velocity:	7.56 ft/s	Impeller diameter:	6.19 in
PEIcl:	0.54	ERcl:	46
Standby qty:	0	Pump/motor run qty:	1
Load Profile Location:	NA	Building Type:	NA
Climate Zone Type:	NA	Time Period:	8760 (1 Year)

\*Motor safety factor above duty point.

## Materials of construction

Construction:	Bronze Fitted	Impeller:	Bronze
Rating:	ANSI-125	Pump shaft:	416 Stainless Steel
Connections:	Inlet: 4 in, Outlet: 4 in	Flush line:	Braided Stainless Steel
Casing (volute):	Cast Iron, E-coated	Casing gasket:	Confined Non-Asbestos Fiber
Casing wear ring:	Bronze		

Note: Surface behind the casing wear ring and casing wear ring are not E-coated.

## Mechanical seal data

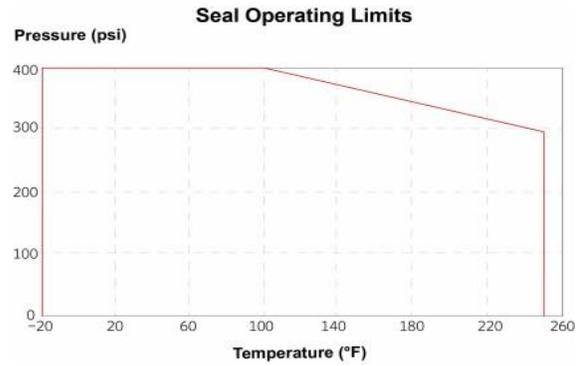
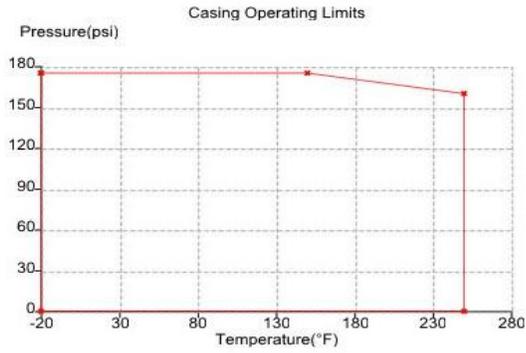
Seal type:	Outside Balanced	Rotating face:	Resin Bonded Carbon
Manufacturer code:	C-SSC AB2	Stationary seat:	Sintered Silicon Carbide
Springs:	Stainless Steel	Secondary seal:	Viton
Rotating hardware:	Stainless Steel	Maximum total dissolved solids (TDS)*:	2000 PPM

\*Note: Please ensure proper seal is selected by inputting Total Dissolved Solids (TDS) in PPM in ADEPT if water quality is poor at site. Also select Flush Line Filter or Cyclone Separator if there are other contaminants in the fluid.

## Electrical data

Supplier:	Factory Choice	Insulation class:	Class F Insulation
Frame size:	184TC	Motor type:	Inverter Duty
Speed:	1761 rpm	Size:	5 hp
Enclosure:	ODP	Efficiency:	NEMA Premium 12.12
Power supply:	460/3/60		

## Operating limits (temperature - pressure)

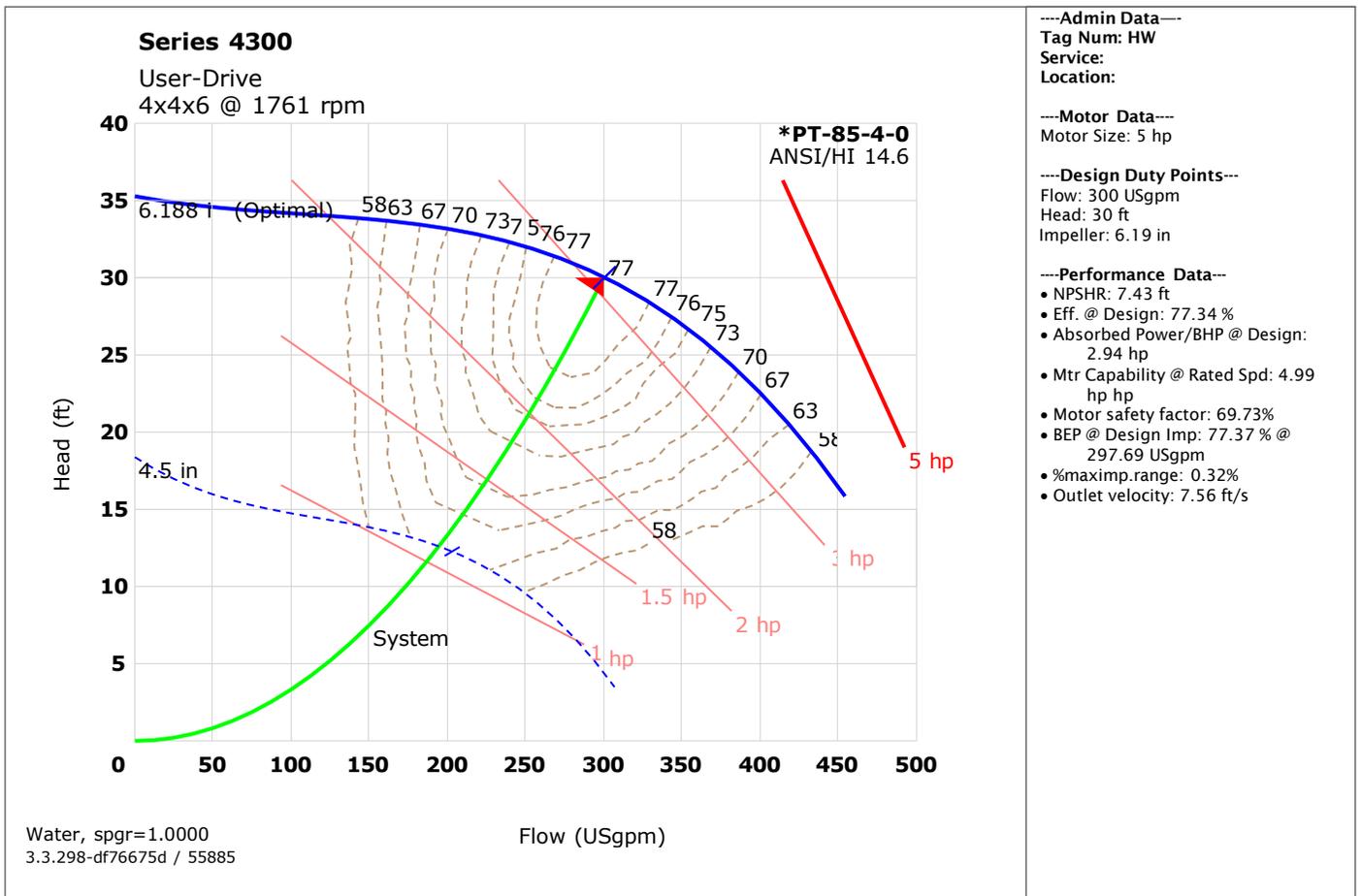


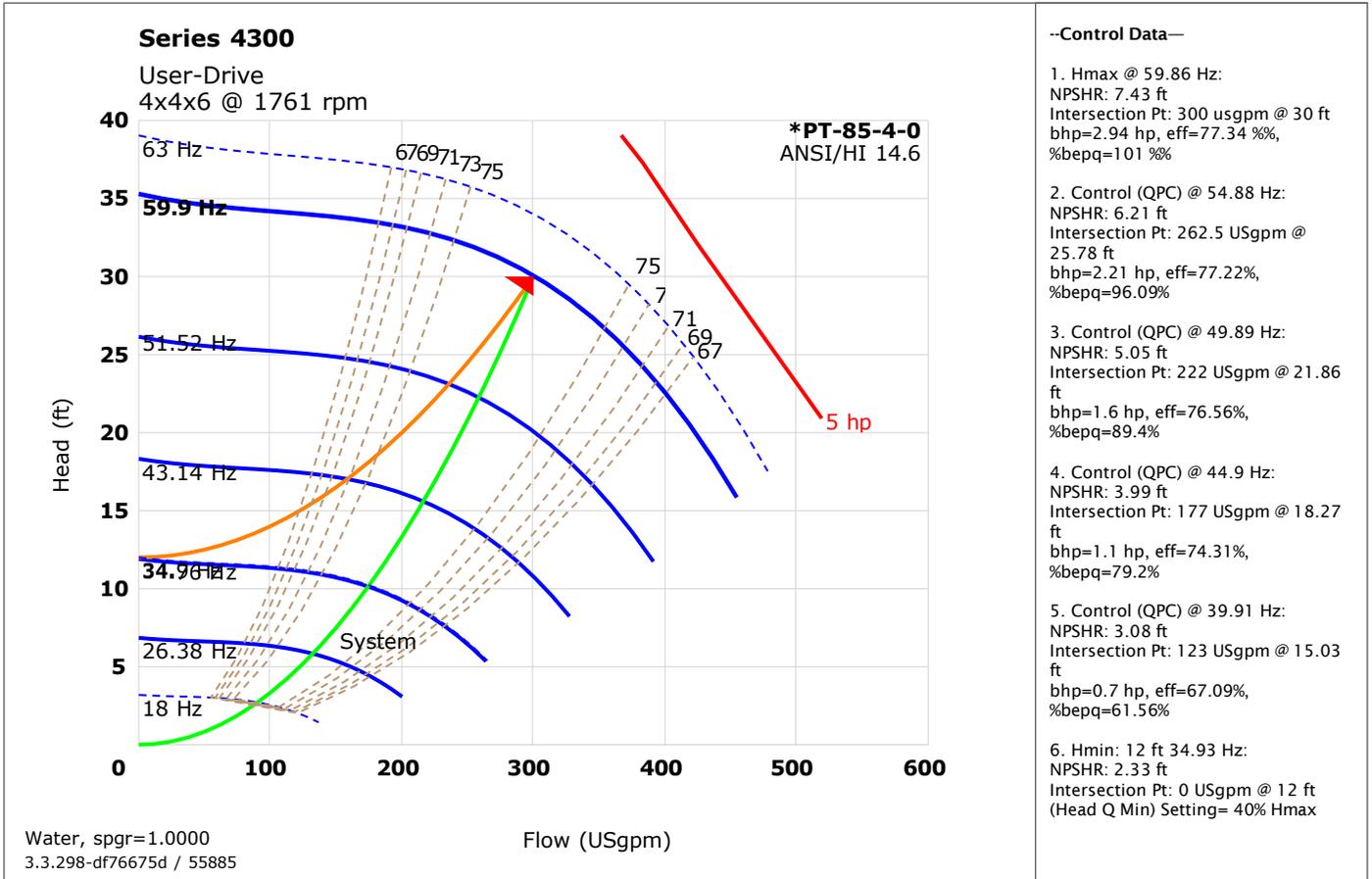
**Maximum pressure:** 175 psi

**Maximum temperature:** 250 F

All Pump casings are hydrostatically tested to requirements of ANSI/HI 14.6 standard.

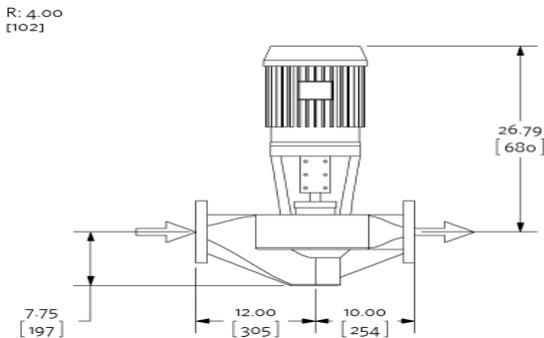
## Performance curve



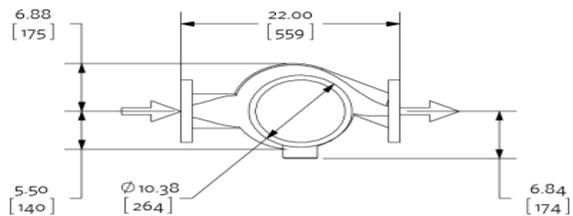


**Dimensional data (not for construction)**

Side view



Top view



Inverter motor type: Inverter duty

Weight: 308 lb [139.71 kg], Units of measure: inches [millimeters]

- Not to scale
- R = minimum lifting clearance required above motor
- Coupling guard and flush line (not shown) are supplied
- Tolerance of ± 0.125 inch (± 3 mm) should be used
- For certified dimensions, please contact your Armstrong representative
- Pump equipped drain plug and ¼ inch NPT suction with casing and discharge gauge ports

### Connection details

Connection	Size	Rating	OD	Bolt quantity*	BCD	Bolt size
Inlet	4	ANSI-125	9.00	8	7.50	0.625
Outlet	4	ANSI-125	9.00	8	7.50	0.625

\*Equally spaced straddling centreline

### Special instructions

Reference Motor Specification AES 05007.

The program has defaulted to a NEMA Premium Efficiency motor supplied with NEMA MG-1 Part 31.4.4.2 insulation standards for inverter-fed polyphase motors.

Impeller Balancing: Standard (Grade G6.3)

Pump Primer: Armstrong Standard Primer

### Selected options

Testing: No Test Certification Required

Seal Environment Accessories: 50 micron Sediment Filter with Sight Flow Indicator (300 psi) [fif-300]

Pre-Wired Control Bridge: No

Space Heater: No

Motor Thermistor: No Thermistors

Wye-Delta Starting: No

## Submittal

### Suction guide

**Model: SGG-44**

<b>Project name:</b>	<b>Representative:</b>
<b>Location:</b>	<b>Phone number:</b>
<b>Date submitted:</b>	<b>e-mail:</b>
<b>Engineer:</b>	<b>Submitted by:</b>

#### Application design data

Tag	Qty	Model	Pipe Conn.size	Pump Conn.size	Design flowrate	Pressure Drop*	Associated pump
HW	1	SGG-44	4 in	4 in	300 USgpm	1.1 ft	4300 - 4x4x6 - 4p - 5 hp - (Factory Choice Motor)

\*at design flow

#### Materials of construction

##### SGG-44

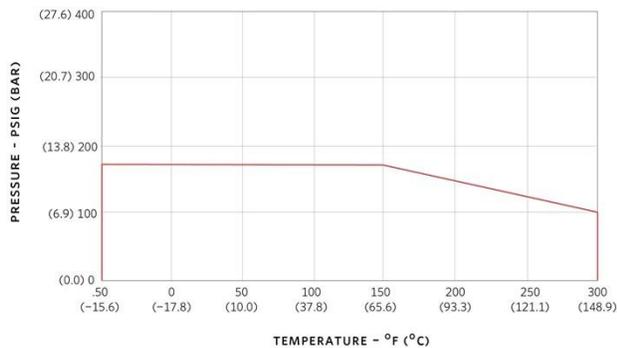
Body:	Ductile iron	Cover gasket:	Synthetic fiber
Guide vanes:	Ductile iron	Strainer:	Stainless Steel, 0.125"(3mm)Perf..
Cover plate:	Ductile iron	Start-up strainer*:	Fine Mesh Galvanized Steel

\*Remove start up strainer after 24 hours of pump operation

#### Operating limits (temperature - pressure)

##### SGG-44-Suction Guide-ANSI-125

###### PRESSURE TEMPERATURE LIMITS



**Maximum pressure: 175 psi**  
**Maximum temperature: 300 F**

Units are hydrostatically tested to 150% of maximum working pressure

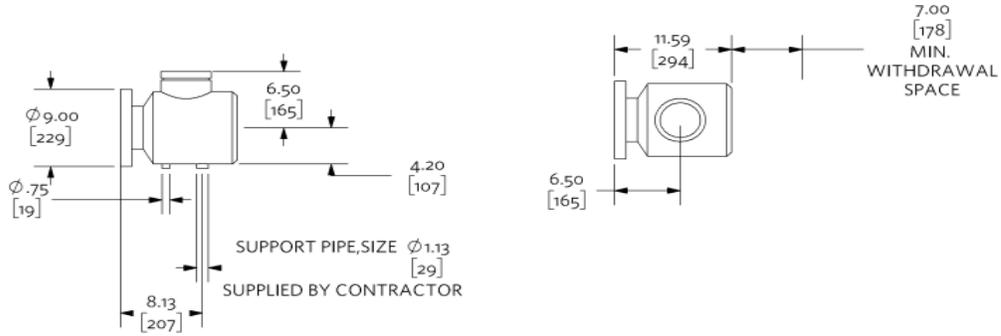
**Dimensional data (not for construction)**

SGG-44

Weight: 58 lb [26.31 kg]

Side view

Top view



Not to scale

Units of measure: inches [millimeters]

Tolerance of +/- 0.125 inch (+/- 3 mm) should be used

For certified dimensions, please contact your Armstrong representative

Single Curve

