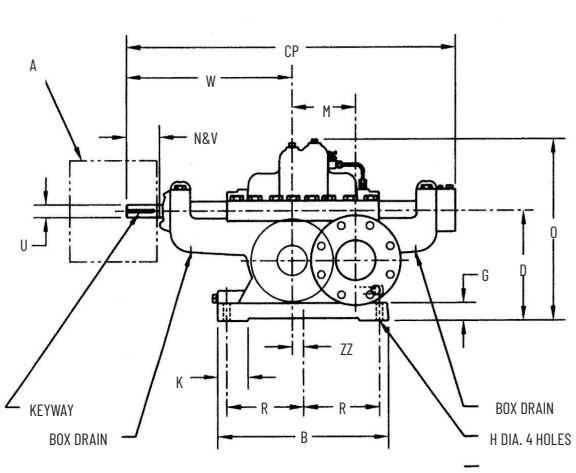
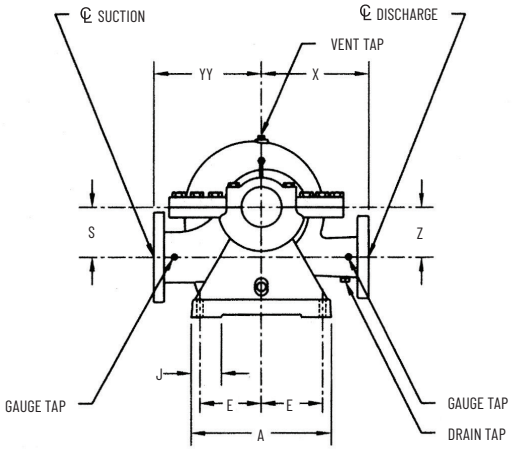
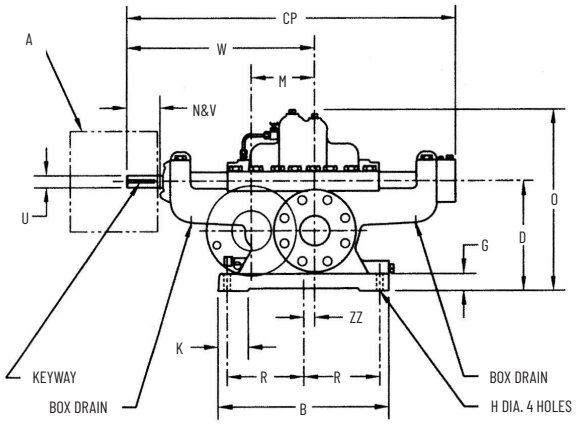
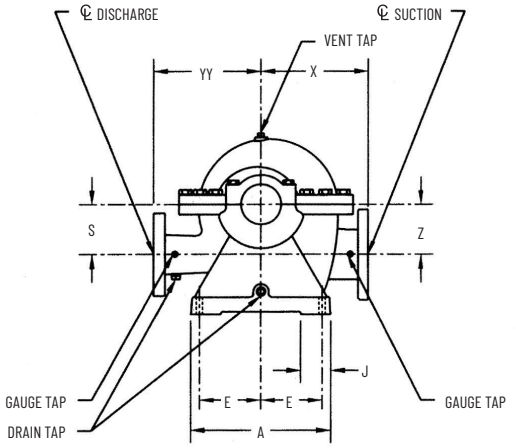
Dimensional Data – BASIC PUMP DIMENSIONS 5972





CLOCKWISE





COUNTERCLOCKWISE

PUMP	SUCTION	DISCH	A	B	D	E	G	H	J	K	M	N & V	O	R	S	U	W (CW)	W (CCW)	X	Z	CP	YY	ZZ	KEYWAY
2" 5972	3	2	11	16	10	4-3/4	1-3/4	5/8	3	3	5-3/8	2-7/8	16-1/2	7-1/4	5	1-1/16	14-11/16	16-9/16	9	5	29-9/16	9	15/16	1/4 X 1/8
2-1/2" 5972	3	2-1/2	11	16	10	4-3/4	1-3/4	5/8	3	3	5-3/4	2-7/8	17	7-1/4	5	1-1/16	14-5/8	16-5/8	9	5	29-9/16	9	1	1/4 X 1/8
3" 5972	4	3	14	17-1/8	11	6-1/8	1-3/4	5/8	3	3	6-3/8	3-5/8	18-1/4	7-11/16	5	1-1/4	16-5/8	18-7/8	10-3/4	5	32-13/16	10-3/4	1-1/8	1/4 X 1/8
5" 5972	8	5	20	26-5/8	18	8-3/4	2-1/4	1-1/8	4-1/2	4-1/2	12-1/8	4-9/16	26-3/4	12-1/6	7	2	23-7/16	29-7/16	13-1/2	7	50-7/8	13-1/2	3	1/2 X 1/4

NOTES:

Suction flanges are standard 125# ANSI drilling. Optional 250# ANSI flanges are available.

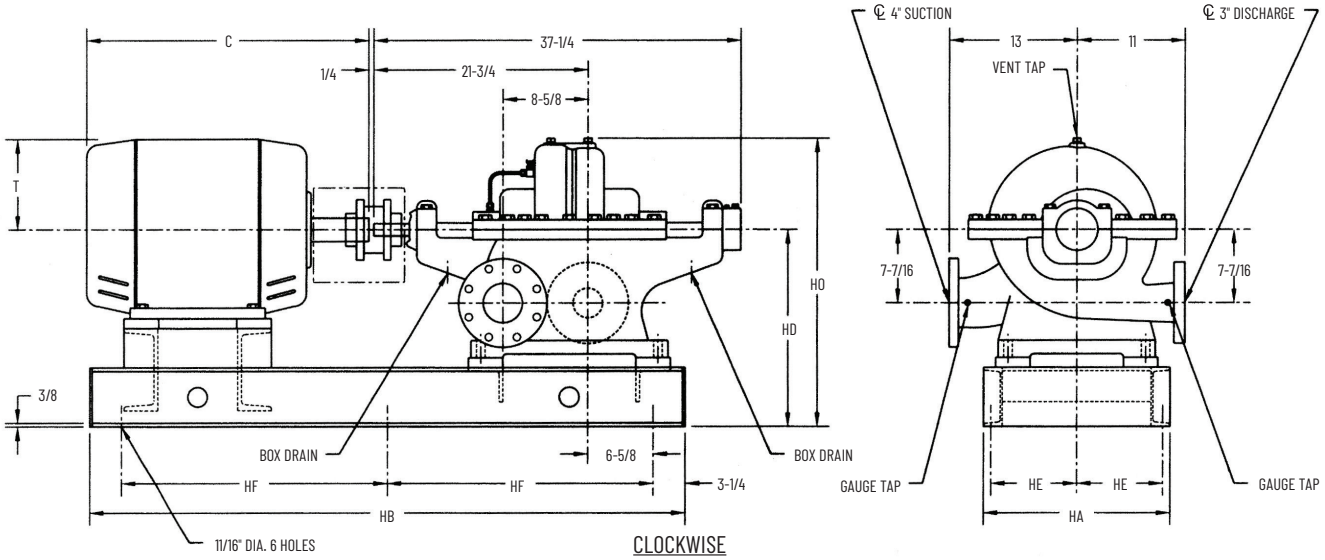
Discharge flanges are standard 250# ANSI drilling.

All dimensions are in inches unless noted.

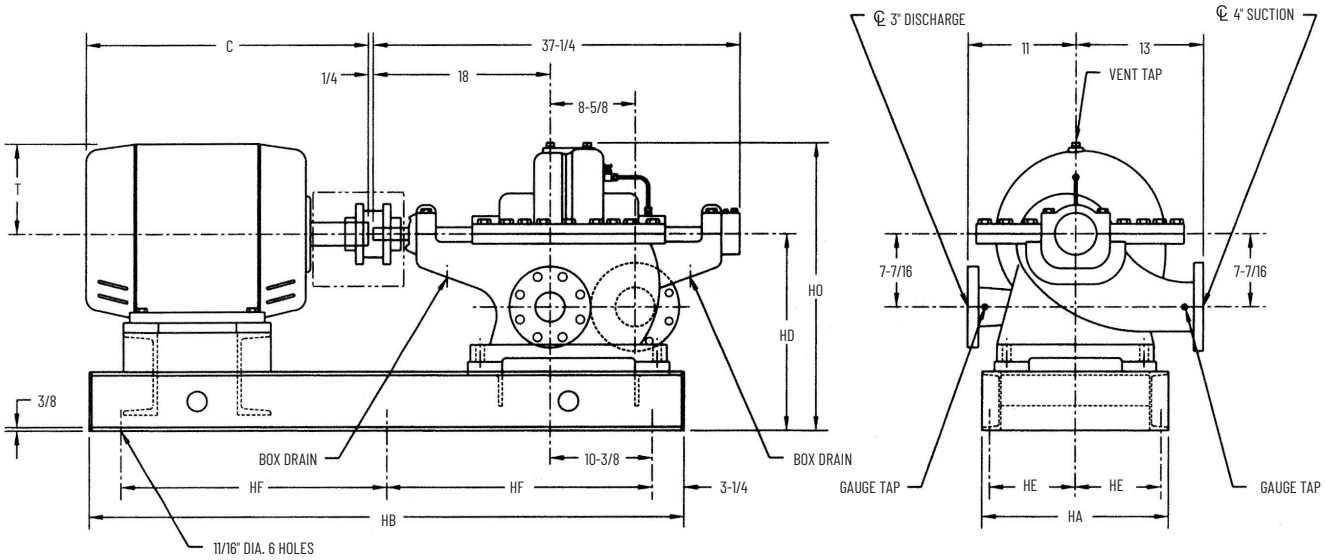
Rotation is always viewed from the driver end. For C.C.W. rotation, suction and discharge positions will be on opposite sides of that shown and dimensions in the end view will be reversed.

Not for construction, installation, or application purposes unless certified. Dimensions shown may vary due to normal manufacturing tolerances.

Dimensional Data – SETTING PLAN 3" 5922 STRUCTURAL BASE



CLOCKWISE



COUNTERCLOCKWISE

UNIT DIMENSIONS						
MOTOR FRAME SIZE	BASE					
	HA	HB	HD	HE	HF	HO
213T-215T	22-1/4	48-1/2	18	10-1/2	21	27-1/4
254T-284TS	22-3/4	54-1/2	20	10-5/8	24	29-1/4
286T-364TS	22-3/4	60-1/2	20	10-5/8	27	29-1/4

MOTOR DIMENSIONS	
C	T

NOTES:

Suction flanges are standard 125# ANSI drilling. Optional 250# ANSI flanges are available.

Discharge flanges are standard 250# ANSI drilling.

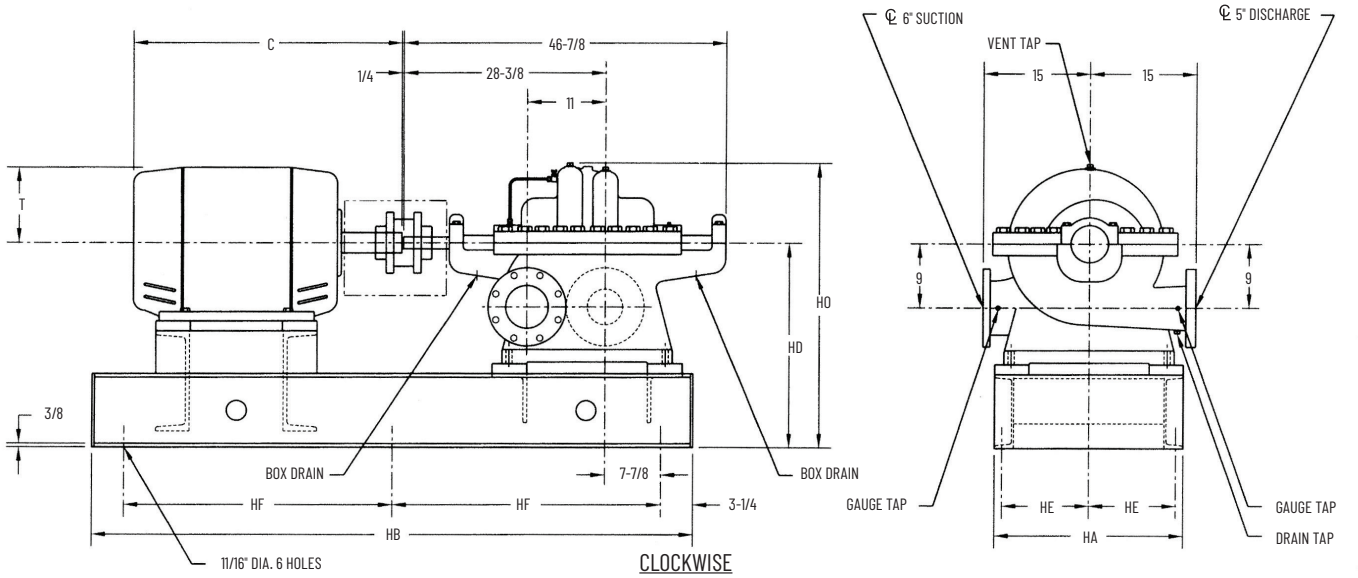
All dimensions are in inches unless noted.

Rotation is always viewed from driver end.

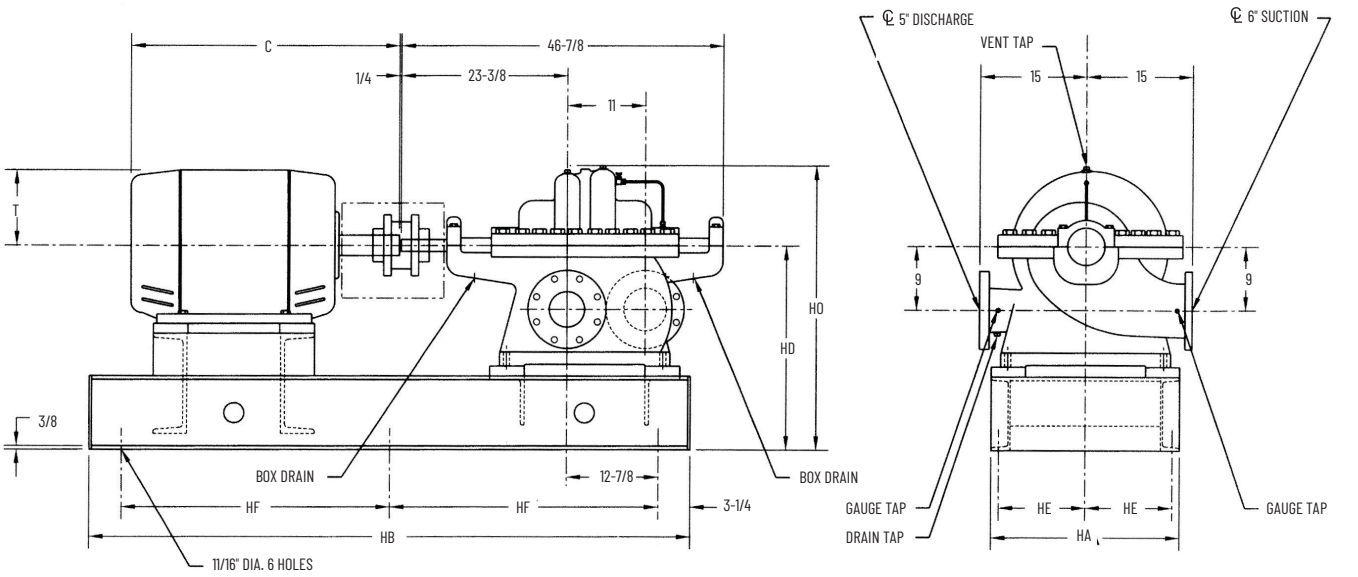
Bases are designed to be completely filled with grout.

Not for construction, installation, or application purposes unless certified. Dimensions shown may vary due to normal manufacturing tolerances.

Dimensional Data – SETTING PLAN 5" 5922 STRUCTURAL BASE



CLOCKWISE



COUNTERCLOCKWISE

UNIT DIMENSIONS						
MOTOR FRAME SIZE	BASE					
	HA	HB	HD	HE	HF	HO
254T-256T	30-1/2	60-1/2	24	14-1/2	27	35-1/4
284T-365TS	30-1/2	66-1/2	24	14-1/2	30	35-1/4
404T-405TS	31-1/4	72-1/2	26	14-3/4	33	37-1/4
444TS-444T	31-1/4	84-1/2	26	14-3/4	39	37-1/4

MOTOR DIMENSIONS	
C	T

NOTES:

Suction flanges are standard 125# ANSI drilling. Optional 250# ANSI flanges are available.

Discharge flanges are standard 250# ANSI drilling.

All dimensions are in inches unless noted.

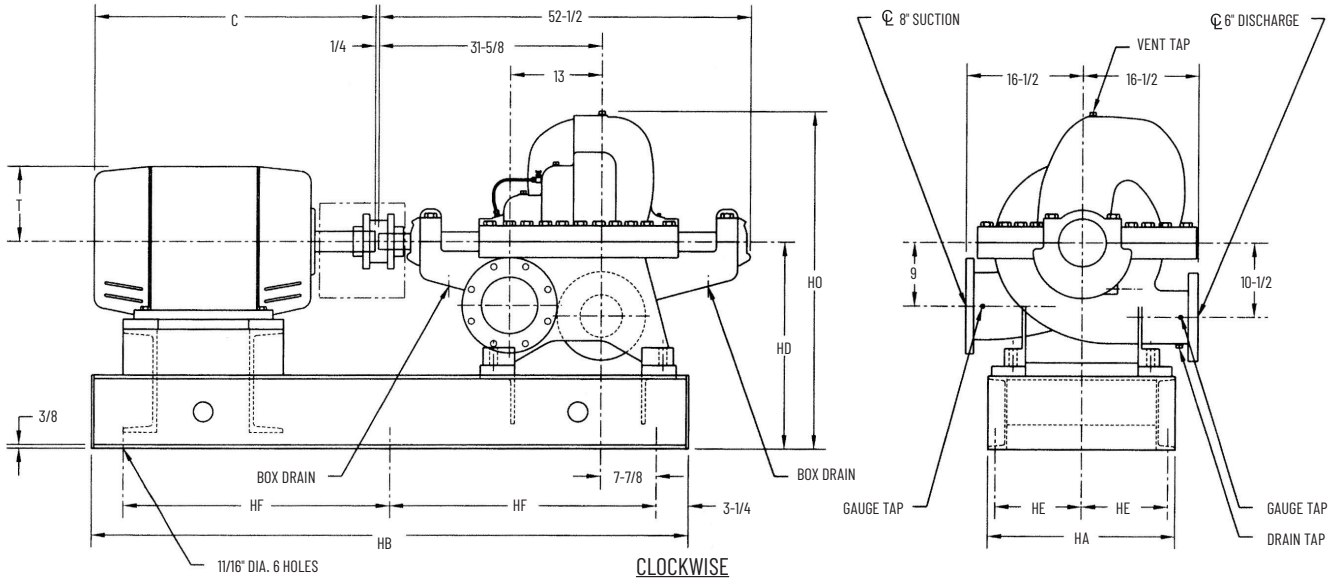
Rotation is always viewed from driver end.

Bases are designed to be completely filled with grout.

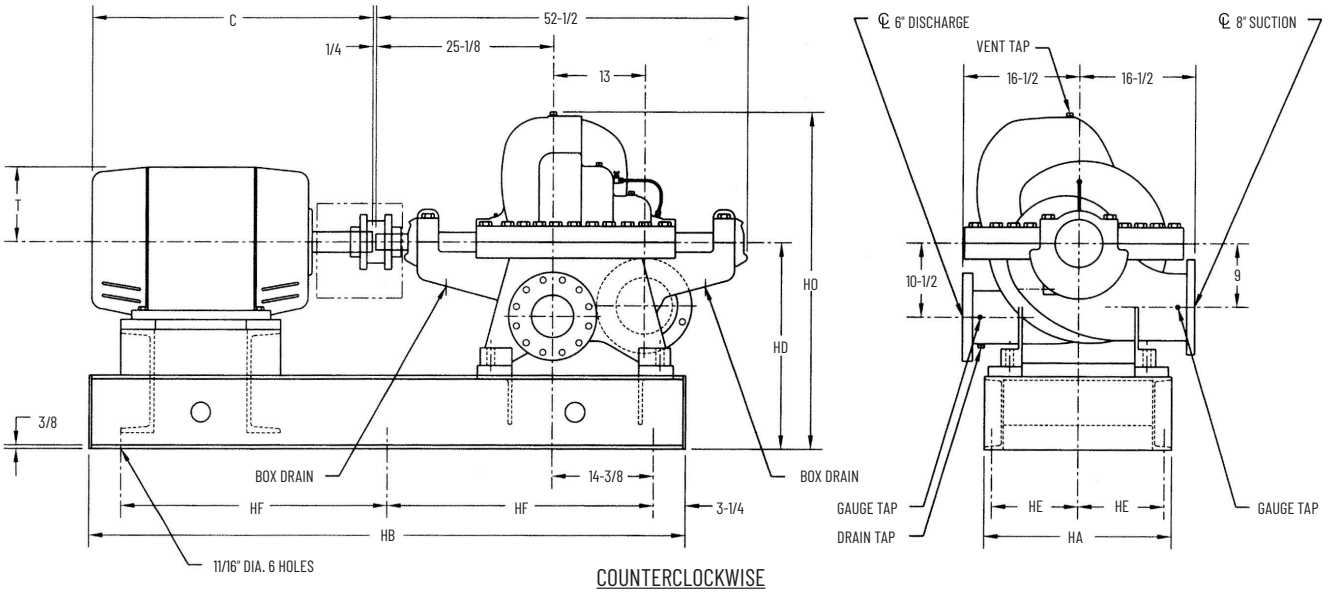
Not for construction, installation, or application purposes unless certified. Dimensions shown may vary due to normal manufacturing tolerances.

PENTAIR FAIRBANKS NIJHUIS®

Dimensional Data – SETTING PLAN 6" 5922 STRUCTURAL BASE



CLOCKWISE



COUNTERCLOCKWISE

UNIT DIMENSIONS						
MOTOR FRAME SIZE	BASE					
	HA	HB	HD	HE	HF	HO
326T-404TS	31-1/4	72-1/2	26-1/2	14-3/4	33	44-7/8
405T-445T	31-1/4	84-1/2	26-1/2	14-3/4	39	44-7/8

MOTOR DIMENSIONS	
C	T

NOTES:

Suction flanges are standard 125# ANSI drilling. Optional 250# ANSI flanges are available.

Discharge flanges are standard 250# ANSI drilling.

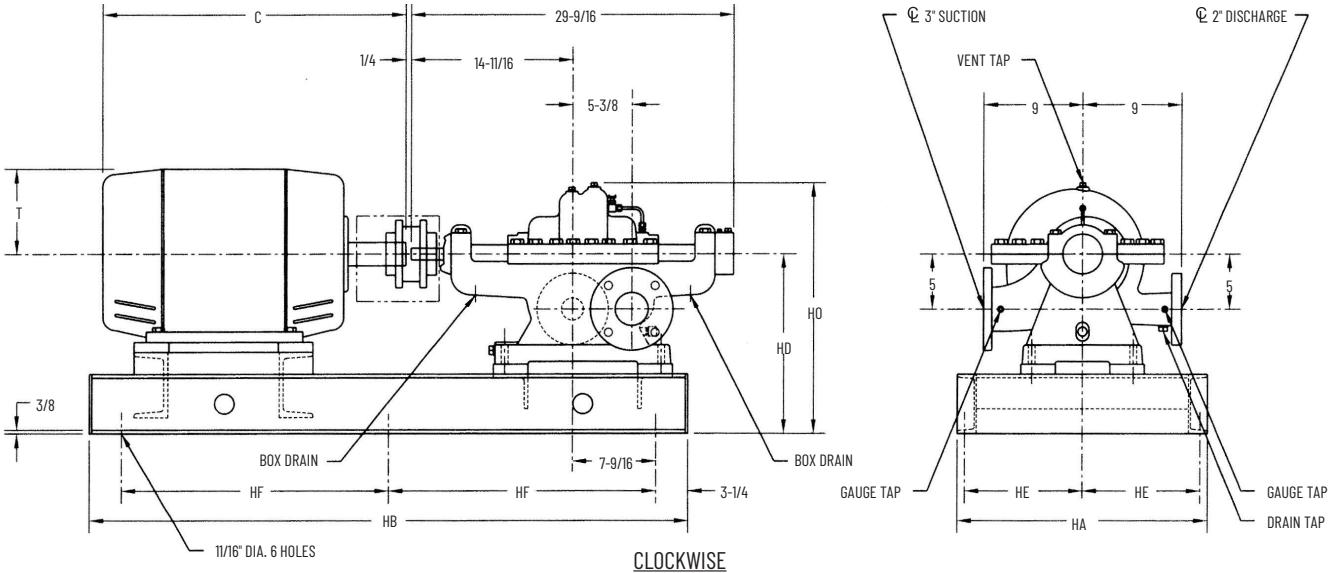
All dimensions are in inches unless noted.

Rotation is always viewed from driver end.

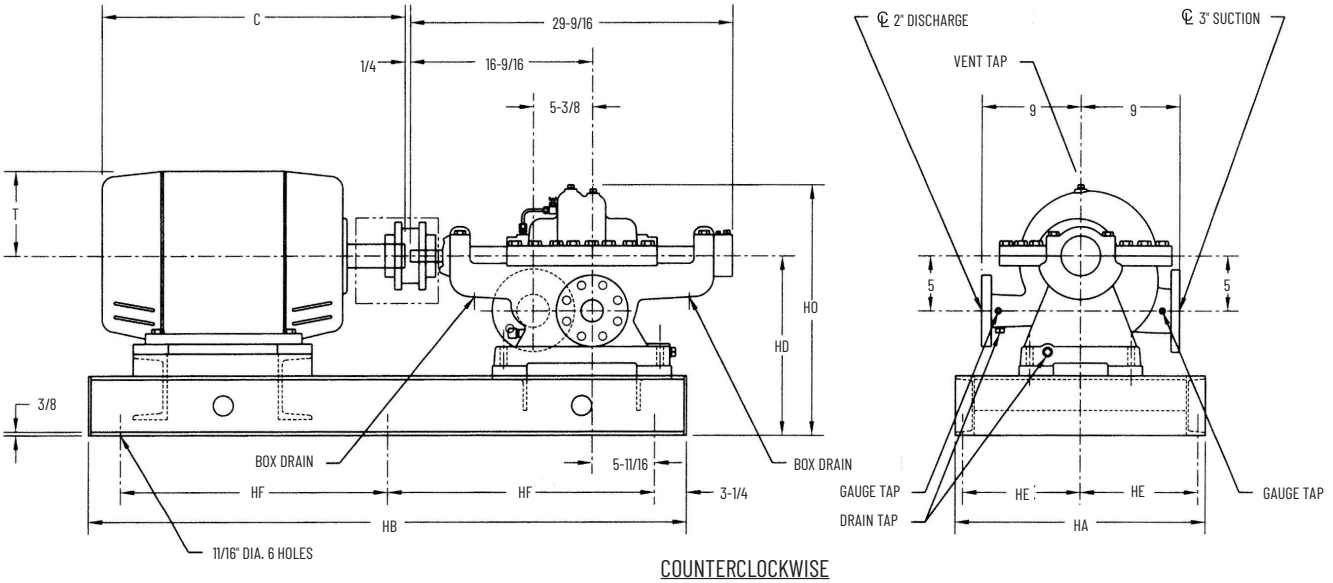
Bases are designed to be completely filled with grout.

Not for construction, installation, or application purposes unless certified. Dimensions shown may vary due to normal manufacturing tolerances.

Dimensional Data – SETTING PLAN 2" 5972 STRUCTURAL BASE



CLOCKWISE



COUNTERCLOCKWISE

UNIT DIMENSIONS						
MOTOR FRAME SIZE	BASE					
	HA	HB	HD	HE	HF	HO
143T-215T	22-1/4	42-1/2	15	10-1/2	18	21-1/2
254T-286TS	22-1/4	48-1/2	15	10-1/2	21	21-1/2
324TS-326T	22-3/4	54-1/2	17	10-5/8	24	23-1/2

MOTOR DIMENSIONS	
C	T

NOTES:

Suction flanges are standard 125# ANSI drilling. Optional 250# ANSI flanges are available.

Discharge flanges are standard 250# ANSI drilling.

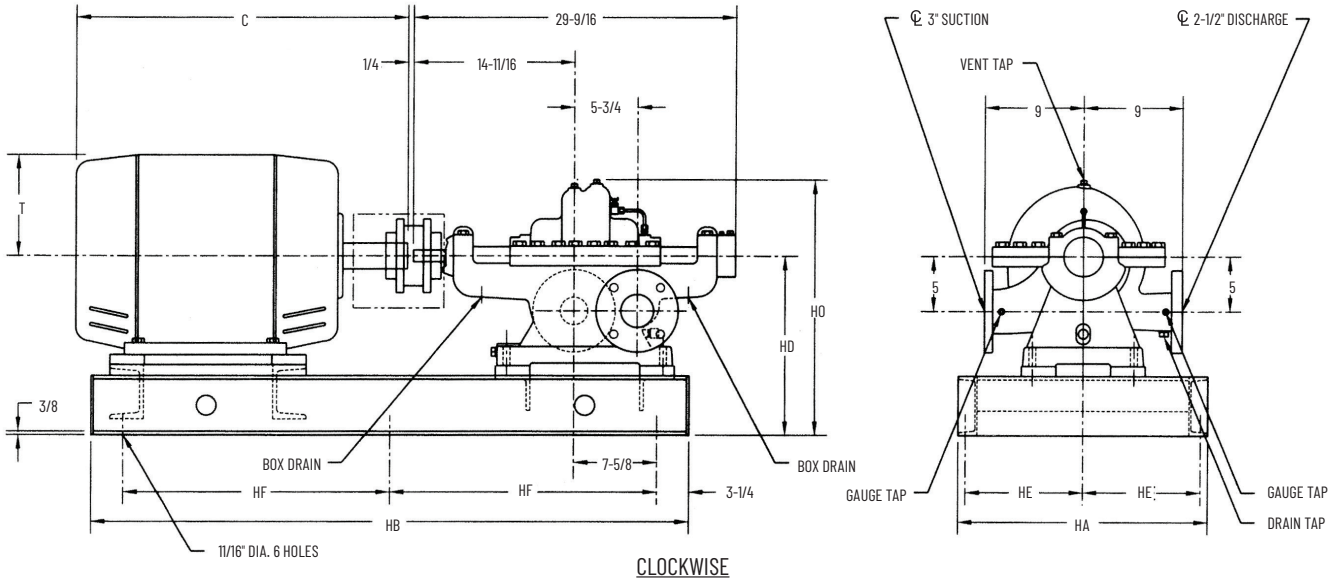
All dimensions are in inches unless noted.

Rotation is always viewed from driver end.

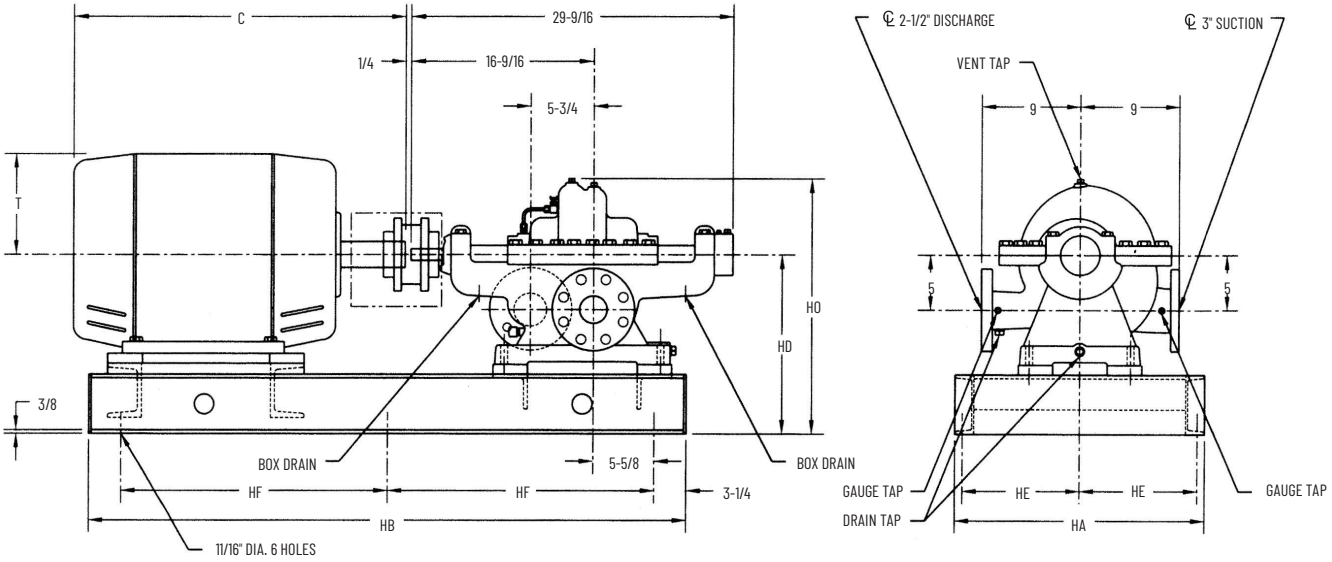
Bases are designed to be completely filled with grout.

Not for construction, installation, or application purposes unless certified. Dimensions shown may vary due to normal manufacturing tolerances.

Dimensional Data – SETTING PLAN 2ç" 5972 STRUCTURAL BASE



CLOCKWISE



COUNTERCLOCKWISE

UNIT DIMENSIONS						
MOTOR FRAME SIZE	BASE					
	HA	HB	HD	HE	HF	HO
143T-215T	22-1/4	42-1/2	15	10-1/2	18	21-7/8
254T-324TS	22-1/4	48-1/2	15	10-1/2	21	21-7/8
326TS-365T	22-3/4	54-1/2	17	10-5/8	24	23-7/8

MOTOR DIMENSIONS	
C	T

NOTES:

Suction flanges are standard 125# ANSI drilling. Optional 250# ANSI flanges are available.

Discharge flanges are standard 250# ANSI drilling.

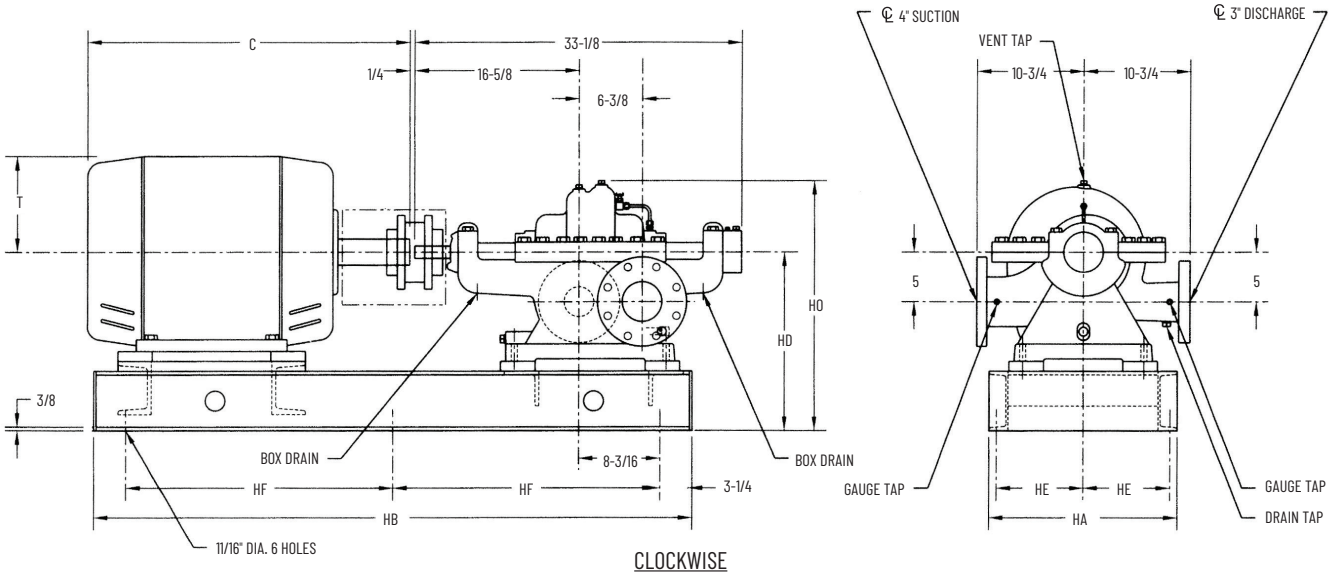
All dimensions are in inches unless noted.

Rotation is always viewed from driver end.

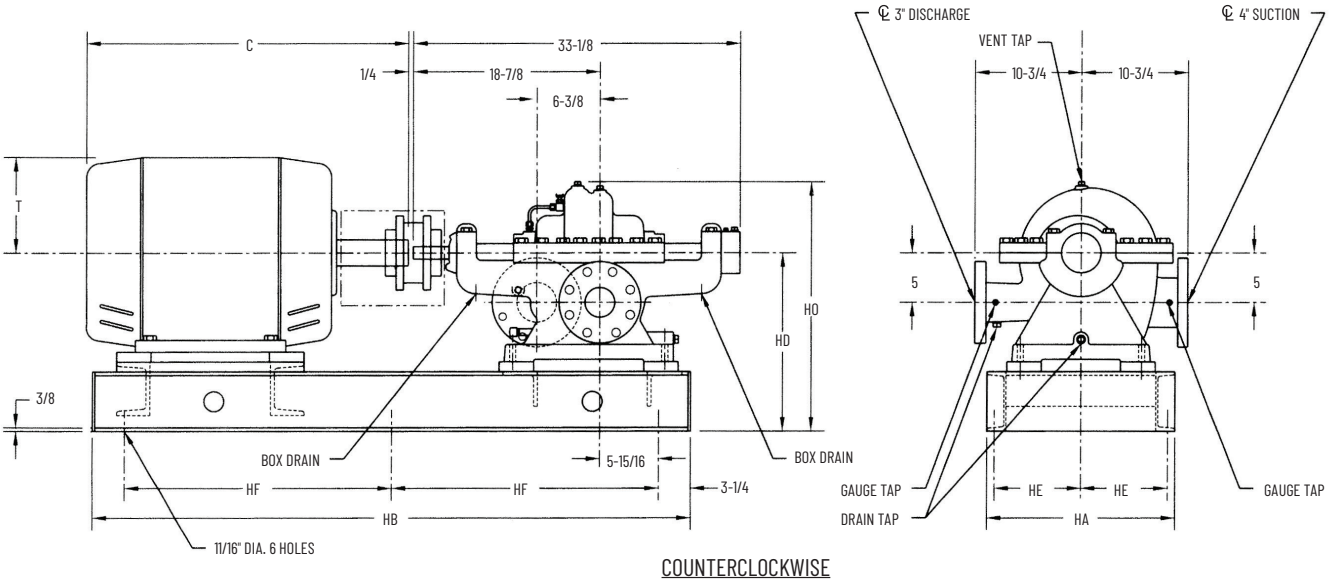
Bases are designed to be completely filled with grout.

Not for construction, installation, or application purposes unless certified. Dimensions shown may vary due to normal manufacturing tolerances.

Dimensional Data – SETTING PLAN 3" 5972 STRUCTURAL BASE



CLOCKWISE



COUNTERCLOCKWISE

UNIT DIMENSIONS						
MOTOR FRAME SIZE	BASE					
	HA	HB	HD	HE	HF	HO
145T-184T	22-1/4	42-1/2	16	10-1/2	18	23-1/8
213T-254T	22-1/4	48-1/2	16	10-1/2	21	23-1/8
256T-365TS	22-3/4	54-1/2	18	10-5/8	24	25-1/8
365T-404T	30-1/2	60-1/2	18	14-1/2	27	25-1/8

MOTOR DIMENSIONS	
C	T

NOTES:

Suction flanges are standard 125# ANSI drilling. Optional 250# ANSI flanges are available.

Discharge flanges are standard 250# ANSI drilling.

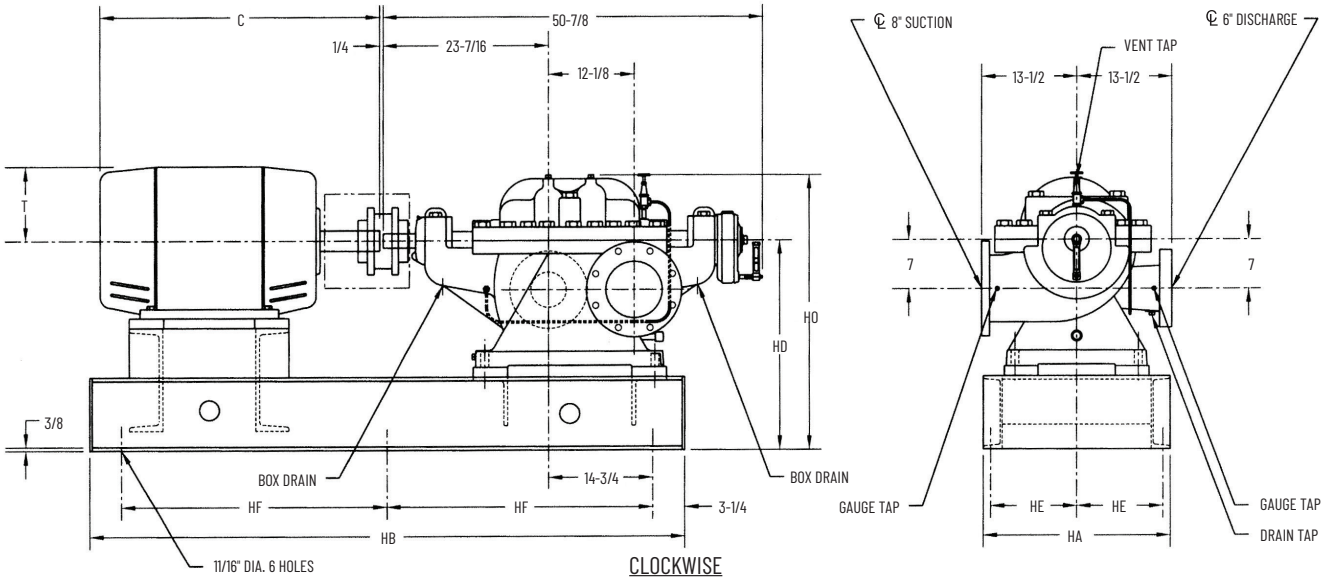
All dimensions are in inches unless noted.

Rotation is always viewed from driver end.

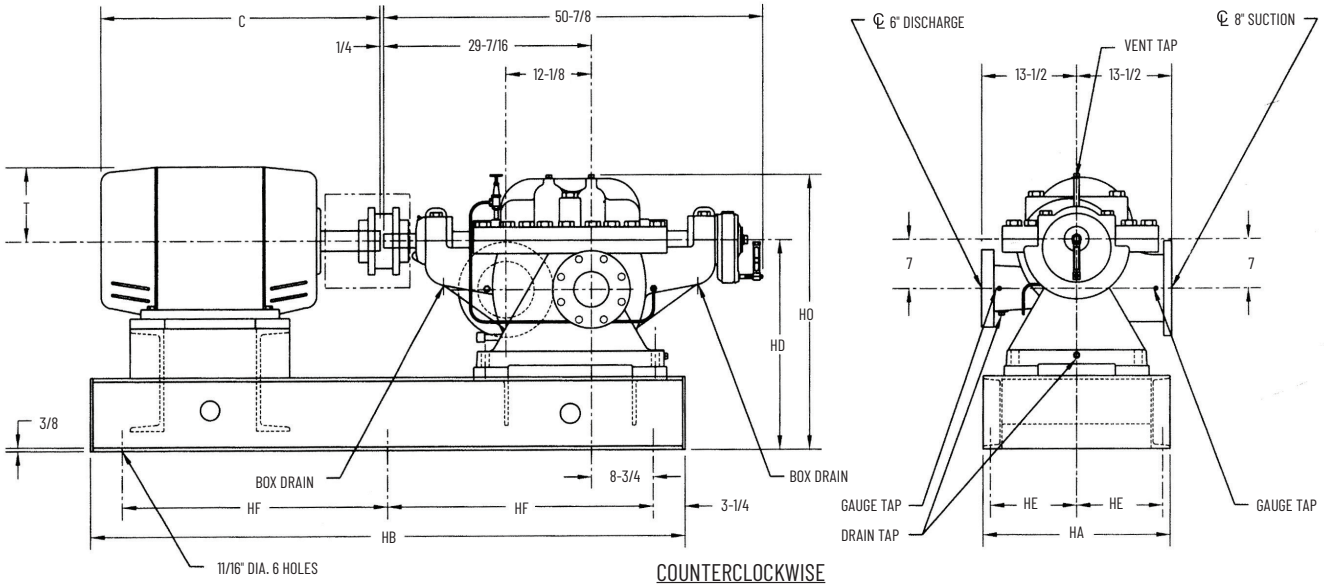
Bases are designed to be completely filled with grout.

Not for construction, installation, or application purposes unless certified. Dimensions shown may vary due to normal manufacturing tolerances.

Dimensional Data – SETTING PLAN 5" 5972 STRUCTURAL BASE



CLOCKWISE



COUNTERCLOCKWISE

UNIT DIMENSIONS						
MOTOR FRAME SIZE	BASE					
	HA	HB	HD	HE	HF	HO
215T	30-1/2	60-1/2	25	14-1/2	27	34-1/4
254T-286TS	30-1/2	66-1/2	25	14-1/2	30	34-1/4
324T-444TS	31-1/4	72-1/2	27	14-3/4	33	36-1/4
445TS-8188S	31-1/4	84-1/2	27	14-3/4	39	36-1/4

MOTOR DIMENSIONS	
C	T

NOTES:

Suction flanges are standard 125# ANSI drilling. Optional 250# ANSI flanges are available.

Discharge flanges are standard 250# ANSI drilling.

All dimensions are in inches unless noted.

Rotation is always viewed from driver end.

Bases are designed to be completely filled with grout.

Not for construction, installation, or application purposes unless certified. Dimensions shown may vary due to normal manufacturing tolerances.

Typical Specifications – MULTI-STAGE HORIZONTAL SPLIT CASE PUMPS

Pump Model	**5922**			**5972A**			**5972**
Pump Size (Discharge Size)	3	5	6	2	2-1/2	3	5
Suction Size	4	6	8	3	3	4	8
Number of Stages	2	2	2	2	2	2	2
Nominal Wear Ring Clearance	.019	.020	.024	.018	.018	.019	.020
Impeller:							
Weight (lbs.)	13.00	15.00	17.00	9.00	9.00	9.00	11.00
Eye Area (sq. inches)	14.00	(2)	40.60	5.90	8.60	9.80	24.20
WR^2 ($lb\text{-}ft^2$)	4.30	8.90	16.70	1.00	1.10	1.00	3.20
Sphere Size, Maximum	15/32	(3)	15/16	7/32	5/16	1/2	5/8
Shaft Diameter:							
at Impeller	1-11/16	2-1/4	3-1/8	1-9/16	1-9/16	1-11/16	2-5/8
at Sleeve	1-5/8	2-1/8	2-7/8	1-1/2	1-1/2	1-5/8	2-3/8
at Thrust/Radial Bearing	1.38	1.77	2.36	1.18	1.18	1.38	2.36
at Coupling	1-1/4	1-11/16	2-1/4	1-1/16	1-1/16	1-1/4	2
Center to Center of Bearings	29-1/4	37-1/8	41-3/4	22-9/16	22-9/16	24-9/16	36-7/16
Thrust Bearing No.	5207	5309	7312BG	5306	5306	5307	7312BG
Radial Bearing No.	6307	6309	6312	6306	6306	5307	6312
Sealing Box:							
Packing:							
Size	3/8	1/2	1/2	3/8	3/8	3/8	1/2
No. Rings per Box	6	6	8	6	6	6	8
Seal Cage Width	3/4	1	7/8	3/4	3/4	3/4	7/8
Mechanical Seal:							
Type (Standard)	(4)	(4)	(4)	(4)	(4)	(4)	(4)
Recommended Flush Water:							
Pressure (psi)	(5)	(5)	(5)	(5)	(5)	(5)	(5)
Flow (GPM)	1/2–1	1/2–1	1/2–1	1/2–1	1/2–1	1/2–1	1/2–1
Sleeve OD	1-7/8	2-1/2	3-1/2	1-3/4	1-3/4	2	2-7/8
Box ID	2-5/8	3-1/2	4-1/2	2-1/2	2-1/2	2-3/4	3-7/8
Box Depth	3	4	5-1/4	3	3	3	5-1/8
Box Inlet Tap Size (NPT)	1/4	1/4	1/4	1/4	1/4	1/4	1/4
Casing Drain Tap Size:							
1st Stage	1/4	1/4	1/2	3/8	3/8	3/8	1/2
2nd Stage	1/2	1/2	3/4	1/2	1/2	1/2	1/2
Vent/Priming Tap Size (NPT)	1/2	1/2	3/4	3/8	3/8	3/8	1/2
Gauge Tap Size:							
Suction & Discharge (NPT)	1/4	1/4	1/4	1/4	1/4	1/4	1/4
Hydrostatic Test, PSI (6)	375	450	525	450	450	450	750
Casing Working, PSI (6)	300	350	300	300	300	300	500
Operating Temperature °F (18)	160	160	160	160	160	160	160
Nominal Casing Thickness	1/2	5/8	3/4	3/8	7/16	1/2	3/4
Anchor Bolt Size, recommended	1/2	1/2	1/2	1/2	1/2	1/2	1/2
Shipping Weight, Basic Pump Only (lbs.)	645	1460	2000	300	350	425	1490

(1) All dimensions are in inches.
(2) K5T1A&B impellers have an eye area of 18.90 sq. inches and K5T1C&D impellers have an eye area of 24.6 sq. inches.
(3) K5T1A&B impellers can pass a 5/8" sphere and K5T1C&D impellers can pass a 13/32" sphere.
(4) John Crane type 21 or equal.
(5) One to 10 PSI above suction pressure on 1st stage seal only.
(6) If higher values are required, contact Application Engineering.

5900 Multi-Stage Horizontal Split Case Pumps Construction Features	
Type	Horizontal, Multi-stage, Impellers
Rotation	CW or CCW facing coupling end, specify on order
Casing	Axially split, 2-piece doweled, single volute, integral bearing supports, casing wear rings, one piece standing diaphragm
Nozzles	Lower case flanged side suction and discharge
Impellers	Single suction, back to back for hydraulic balance, radial flow, enclosed, impeller wear rings
Shaft	Reversible for rotation
Shaft Sleeve	Straight or bell (Mfg. Option) type for impeller positioning, and locking nut
Stuffing Box	Packing, with seal tap and box bushing (seperate)
	Mechanical seals, single with one piece gland (optional)
Gland	Two swing type bolts, 2 piece, split interlocking
Frame	Intergral foot and bearing arms in lower casing
Bearing-radial	Models 5922 double row, ball, cartridge housing
	Models 5972 single row ball, cartridge housing
Bearing-thrust	Double row ball (except double angular on 6" 5922 and 5" 5972) cartridge housing
Lubricaton	Grease, except 5" 5972 thrust bearing is oil (water-cooled)
Auxiliary Connections	Volute priming, drain and suction side stuffing box seal
	Suction and discharge gauge connections
Baseplate: Fabricated Steel	Welded structural steel
	Drip tray on fabricated base plate (optional)
Couplings	Flexible sleeve (Mfg. Option)
	Steelflex (optional)
	Gear type (optional)
	Clutch (optional)
Coupling Guard	One piece, closed, base mount

Maximum Operating Temperatures

For working temperatures above 160 degrees F (71 degrees C) contact Application Engineering for construction parameters.

Standard Fitted Pumps		
Description	**Material**	**Specification (1)**
Impeller, 1st Stage	Bronze	B584-AL875
Impeller, 2nd Stage	Bronze	B584-AL875
Casing, Lower Half	Cast Iron	A48-CL30
Casing, Upper Half	Cast Iron	A48-CL30
Shaft	Steel	A311, Class B, Grade 1141 or 1144 (2)
Cap, Bearing Housing	Cast Iron	A48-CL30
Ring Half, Seal Water	Bronze	B584-AL836
Ring, Oil	Stainless Steel	A582-416
Sleeve, Shaft	Bronze	B505-AL932
Wear Ring, Casing	Cast Iron	A48-CL30
Wear Ring, Impeller	Bronze	B505-AL932
Collar, Shaft	Steel	A108 GR1018
Gland Half, Interlocking	Bronze	B584-AL836
O-ring, Sleeve	Rubber	Commercial
O-ring, Bearing Housing Cover	Rubber	Commercial
Diaphragm, Casing	Cast Iron	A48-CL30
O-ring, Casing Diaphragm	Rubber	Commercial
Brushing, Casing Diaphragm	Bronze	B505-AL932
Spacer, Bearing Housing	Stainless Steel	A582-416
Lock Collar, Shaft Sleeve	Stainless Steel	A582-416
Bushing, Sealing Box	Bronze	B505-AL932
Key, Impeller	Steel	A108 GR1018
End Cap, Bearing Housing	Steel	Commercial
Deflector	Rubber	Neoprene
Gasket, Casing	Tagboard	F104
Housing, Thrust Bearing	Cast Iron	A48-CL30
Housing, Radial Bearing	Cast Iron	A48-CL30
Restrainer, Oil Ring	Stainless Steel	A582-416
Cooling Coil	Copper	B75
Lock Collar, Oil Ring Restrainer	Stainless Steel	A582-416
Lip Seal	Steel & Rubber	Commercial
Pin, Dowel	Steel	Commercial
Cover, Bearing Housing	Cast Iron	A48-CL30
Cover, Thrust Bearing Housing Outer	Cast Iron	A48-CL30
Cover, Thrust Bearing Housing Inner	Cast Iron	A48-CL30
Cover, Radial Bearing Housing	Cast Iron	A48-CL30
Lip Seal	Steel & Rubber	Commercial
Locknut, Bearing	Steel	Commercial
Lockwasher, Bearing	Steel	Commercial
Bearing, Radial	Steel	Commercial
Bearing, Thrust	Steel	Commercial
Snap-ring, Bearing	Steel	SAE 1075
Spacer, Center Sleeve Adapter	Stainless Steel	A582-416
Packing	Synthetic Packing, Graphite Impregnated	-
Nuts, Shaft Sleeve	Bronze	B505-AL932
Key, Coupling	Steel	A108 GR1018
Gland, Solid	Bronze	BB584-AL836
Mechanical Seal	-	(2) (3)

(1) All material designations are ASTM unless otherwise noted, and are for description of chemistry only. (2) Manufacturer's option
(3) Bronze sleeves and solid steel glands are standard when optional mechanical seals are used.

Iron Fitted Pumps		
Description	**Material**	**Specification (1)**
Impeller, 1st Stage	Cast Iron	A48-CL30
Impeller, 2nd Stage	Cast Iron	A48-CL30
Casing, Lower Half	Cast Iron	A48-CL30
Casing, Upper Half	Cast Iron	A48-CL30
Shaft	Steel	A108-C1141 (2)
Cap, Bearing Housing	Cast Iron	A48-CL30
Ring Half, Seal Water	Cast Iron	A48-CL30
Ring, Oil	Stainless Steel	A582-416
Sleeve, Shaft	Stainless Steel	A582-416
Wear Ring, Casing	Cast Iron	A48-CL30
Wear Ring, Impeller	Cast Iron	A48-CL30
Collar, Shaft	Steel	A108 GR1018
Gland Half, Interlocking	Cast Iron	A48-CL30
O-ring, Sleeve	Rubber	Commercial
O-ring, Bearing Housing Cover	Rubber	Commercial
Diaphragm, Casing	Cast Iron	A48-CL30
O-ring, Casing Diaphragm	Rubber	Commercial
Bushing, Casing Diaphragm	Steel	Commercial
Spacer, Bearing Housing	Stainless Steel	A582-416
Lock Collar, Shaft Sleeve	Stainless Steel	A582-416
Bushing, Sealing Box	Steel	Commercial
Key, Impeller	Steel	A108 GR1018
End Cap, Bearing Housing	Steel	Commercial
Deflector	Rubber	Neoprene
Gasket, Casing	Tagboard	-
Housing, Thrust Bearing	Cast Iron	A48-CL30
Housing, Radial Bearing	Cast Iron	A48-CL30
Restrainer, Oil Ring	Stainless Steel	A582-416
Cooling Coil	Copper	B75
Lock Collar, Oil Ring Restrainer	Stainless Steel	A582-416
Lip Seal	Steel & Rubber	Commercial
Pin, Dowel	Steel	Commercial
Cover, Bearing Housing	Cast Iron	A48-CL30
Cover, Thrust Bearing Housing Outer	Cast Iron	A48-CL30
Cover, Thrust Bearing Housing Inner	Cast Iron	A48-CL30
Cover, Radial Bearing Housing	Cast Iron	A48-CL30
Lip Seal	Steel & Rubber	Commercial
Locknut, Bearing	Steel	Commercial
Lockwasher, Bearing	Steel	Commercial
Bearing, Radial	Steel	Commercial
Bearing, Thrust	Steel	Commercial
Snap-ring, Bearing	Steel	SAE 1075
Spacer, Center Sleeve Adapter	Stainless Steel	A582-416
Packing	Synthetic Packing, Graphite Impregnated	-
Nuts, Shaft Sleeve	Steel	Commerical
Key, Coupling	Steel	A108 GR1018
Gland, Solid	Cast Iron	A48-CL30
Mechanical Seal	-	(2) (3)

(1) All material designations are ASTM unless otherwise noted, and are for description of chemistry only.
(2) Manufacturer's option. (3) Bronze sleeves and solid steel glands are standard when optional mechanical seals are used.