

# 96580  
# 96581

NOTE: DIMENSIONS IN MILLIMETERS

331-583  
P.O. NO. 42-40,143-1

W.O. NO. 2-9227

ITEM C-70 & C-71

SIHI-Teil Nr. 90.160.7202

		XXX erste Spann- und Anlagelfläche		Ⓐ Ausgangsmaß		Maße ohne Toleranzangabe nach		DIN A3	
		( ) Hilfsmaß ohne Toleranz		○ Kontrollmaß		..... DIN 7168		SIHI	
		Datum		Name		Rahteil-Nr			
		Gez		18.11.75		Ful		▽ R <sub>t</sub> < 100 μm	
		Gepr						▽▽ R <sub>t</sub> < 40 μm	
		Bearb gepr				Zeichnungssatz besteht aus		▽▽▽ R <sub>t</sub> < 6,3 μm	
		Normgepr				Bl.		▽▽▽▽ R <sub>t</sub> < 1 μm	
		Maßstab						Zeichnung-Nr	
								180.125.1168	
								Ersatz für	
								Ersetzt durch	
Anderungs-Nr		geändert wurde		am von Geändert		Passung Maß		Gut Aussch Toleranzen	
								Welle-SHAFT LPHY 10 534/CELANESE	

CELANESE CHEMICAL COMPANY  
Pampa Plant...Pampa, Texas

96580  
96581

no of 2/94  
New 2-71

PUMP AND DRIVER SPECIFICATION SHEET

Spec. No.	Page 1 of 2	Process Engineer
Item No. C-70	Service T-79 O.H.	Project Engineer CEP
Manufacturer SIHI	Size 10534	Type LIQ. RING Stages 2

PUMP PERFORMANCE SEE PAGE 2 OF 2, C-70

Material Handled	Speed (preferred)	rpm
Flow @ Pumping Temp.	gpm	Strokes/min.
Pumping Temp. °F	°C	Efficiency, Rated %
Sp. Gr.	Bhp, Rated	
Viscosity	Rotation	(facing pump end)
NPSH Available	ft.	Cooling Water °F gpm
NPSH Required	ft.	Performance Curve No.
Suction Pressure	psig	Dischg. Pressure psig
Rated Diff. Head	ft.	

PUMP CONSTRUCTION

Impeller Type	Number	Diameter
ROTOR Type FABRICATED	Number 2	Diameter
type	Number	Diameter
Plunger Diameter	Stroke Length	Strokes/min.
Shaft Seal-Packing *	Mech. Seal	
Steam Plunger Diameter	inches	Water Cooled
Maximum Allowable Steam Pressure	psig	

\*VENDOR RECOMMEND FOR APPROVAL

MATERIALS OF CONSTRUCTION 316 SS

Impeller	316 SS	Case	316 SS
Shaft	17-4 PH	Seal	
Pump Suction Connection	Size 8" ANSI	Rating	150 psig
Pump Dischg. Connection	Size 8" ANSI	Rating	150 psig

ACCESSORIES

Coupling	BELT DRIVE	Coupling Guard	yes <input checked="" type="checkbox"/> no <input type="checkbox"/>
Base Plate	SLIDE PLATES	Other DISCHARGE SEPARATOR, ITEM V-960	
Drill and Tap for oil mist tube	yes <input type="checkbox"/> no <input checked="" type="checkbox"/>	other <input checked="" type="checkbox"/>	see below
GREASE			

PUMP DRIVER-MOTOR  TURBINE

CLASS I, GROUP D, DIV. II AREA, TEFC, 1.15 SERVICE FACTOR

Item No.	bhp 200	rpm 1200	Frame
Phase 3	Cycles 60 cps	Voltage 440	Chemical Duty yes <input checked="" type="checkbox"/> no <input type="checkbox"/>
NEMA Class B <input checked="" type="checkbox"/>	Other (Specify) <input type="checkbox"/>		
Type - Squirrel Cage <input checked="" type="checkbox"/>	Other (Specify) <input type="checkbox"/>	Insul. Class	
Inlet Temp. °F	°C	Inlet Pressure psig	Exhaust Pressure psig
Tripping setting	rpm	Governor	rpm

PUMP PERFORMANCE

Material Handled DECOMP GAS Total Flow 1520 (Lb./Hr.)

Non-Condensables Flow Rate 1250 (Lb./Hr.) Temperature 90 °F

Avg. MW 32.8

Condensables Flow Rate 270 (Lb./Hr.)

<u>Constituents</u>	<u>Wt. %</u>
<u>ACETIC ACID (HAc)</u>	<u>93</u>
<u>ACETIC ANHYDRIDE (Ac<sub>2</sub>O)</u>	<u>7</u>
_____	_____
_____	_____

Suction Pressure 70 (mm Hg A)

Discharge Pressure 740 (mm Hg A)

Specific Gravity 1.14

Viscosity 0.015 (cp)

Density at Flowing T & P 0.0075 (Lb./Cu.Ft.)

BHP, Rated 136

Rotation \* Clockwise (Facing Pump End)  
From Drive

Performance Curve No. \*

Elevation Above Sea Level 3300 (Ft.)

LIQUID SEAL

Fluid HAc - Ac<sub>2</sub>O Flow 125 GPM (Lb./Hr) Specific Heat (Cp) 0.49 (BTU/Lb-°F)

Specific Gravity 1.04 Density @ Flowing P & T 64.7 (Lb./Cu. Ft.)

Inlet Temp. 88 (°F) Outlet Temp \* (°F)

Type of Seal Fluid System RECIRCULATED Blowdown Rate \_\_\_\_\_ (Lb./Hr.)

Viscosity 1.04 (cp)

Cooling Water Temp. NA (°F) Cooling Water Pressure NA (PSIG)

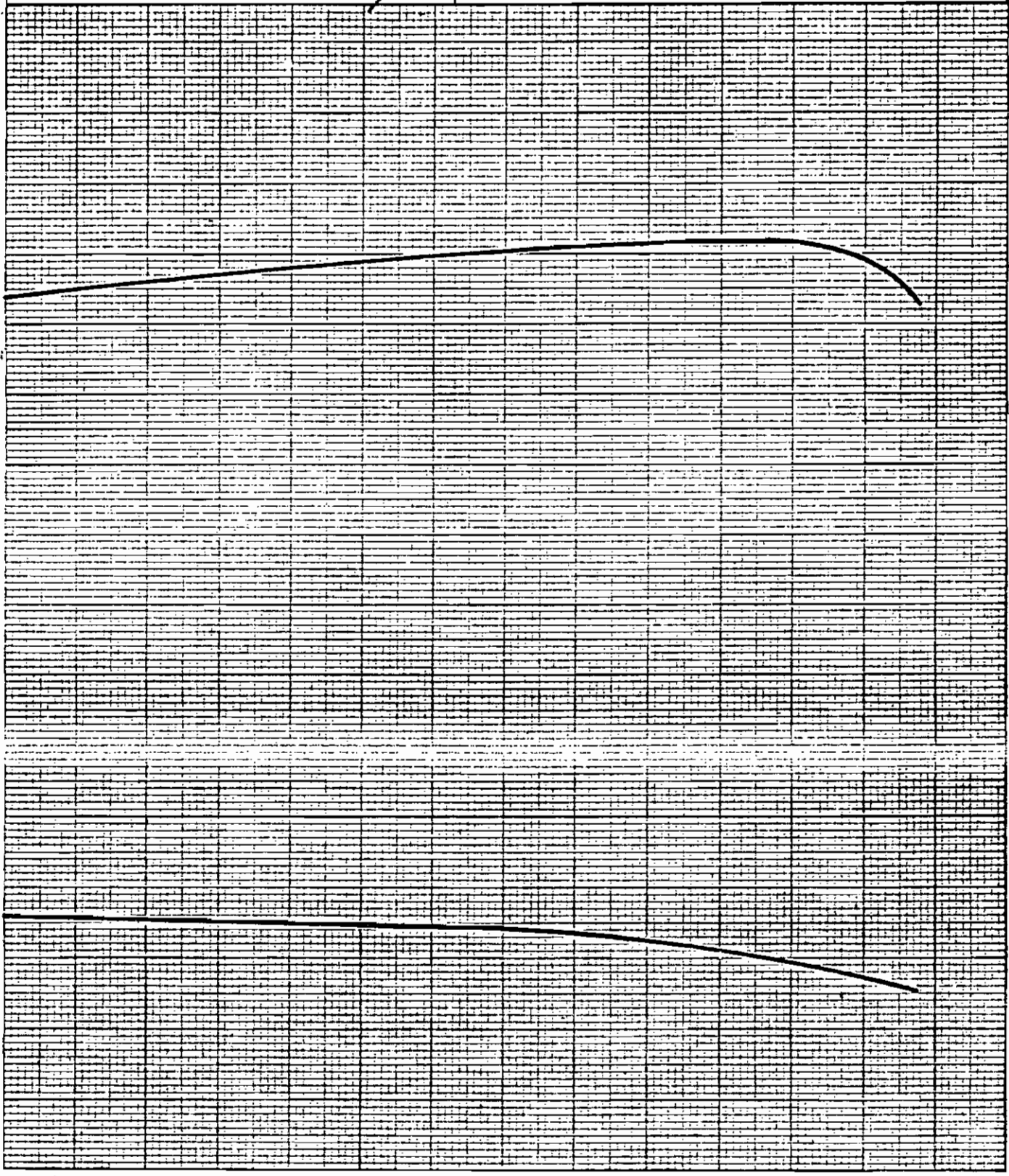
\* VENDOR SPECIFY

Discharge Pressure 0 Abs.  
 Service Liquid, H<sub>2</sub>O at 88°F  
 Specific Gravity 1.03  
 Viscosity 1.035 CPS  
 Tolerance 5 % Vp < 21mm Hg. A.  
 Date 9-7-82  
 Drawn J.W.W. Chkd. [Signature]

Pump model 1 HQ 10534 BN 041.48,0  
 Serial Number  
 Pump Speed 410 R.P.M. # 96580  
 CELANESE ITEMS C-70/C-71 96581  
 SIHI SO# 8110-304/5/6

Rarefied Gas/Cu. ft. min.

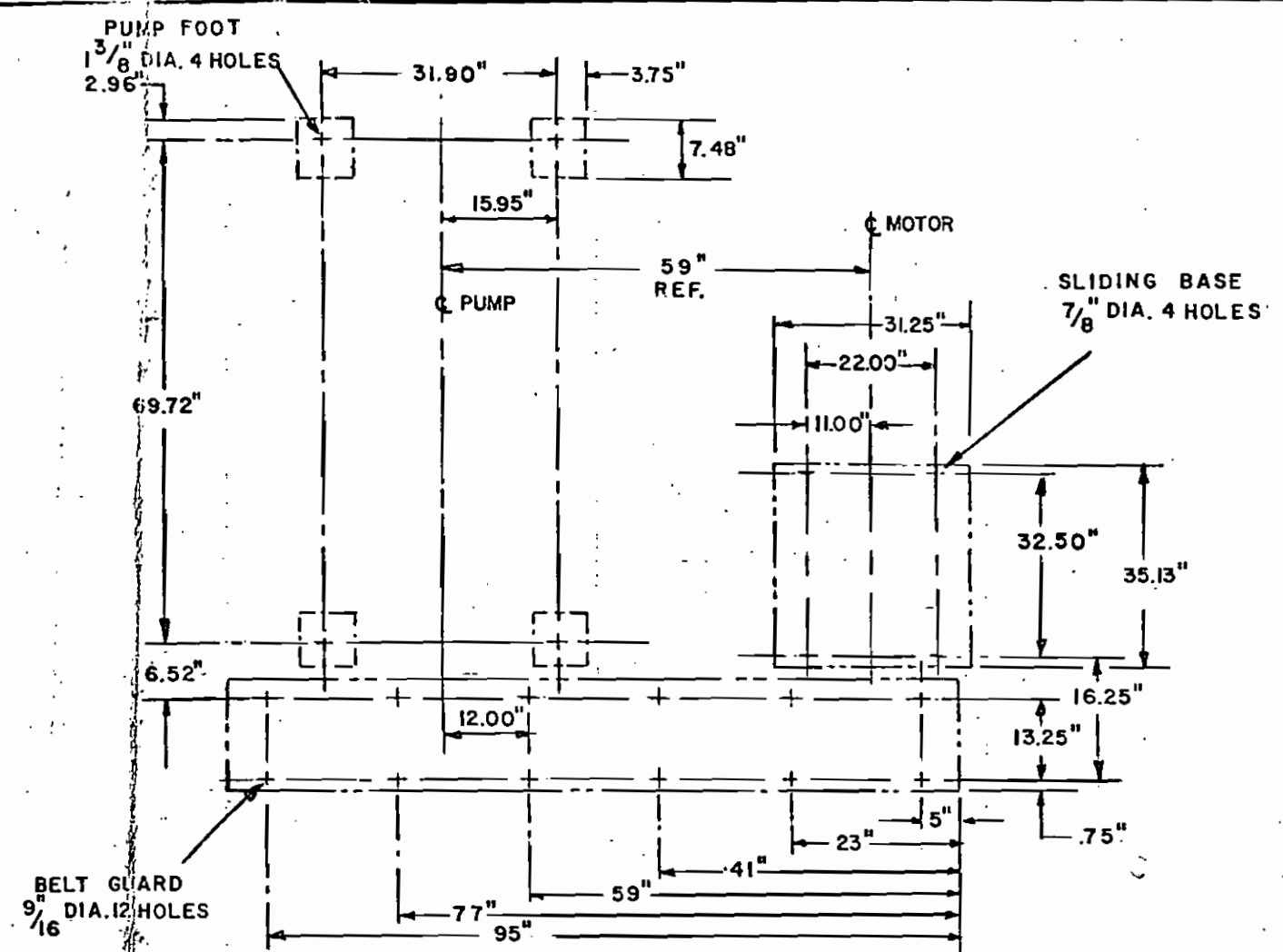
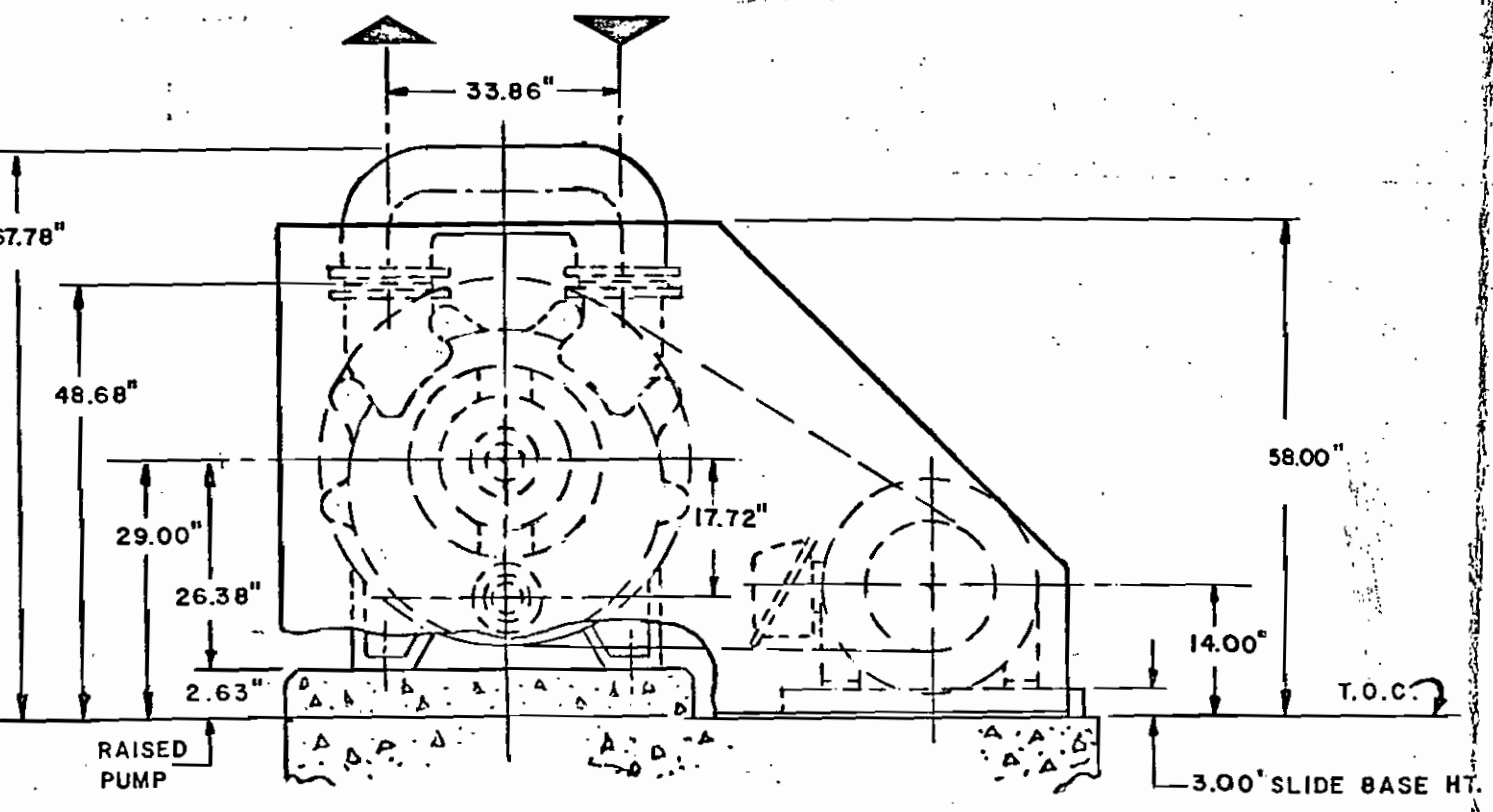
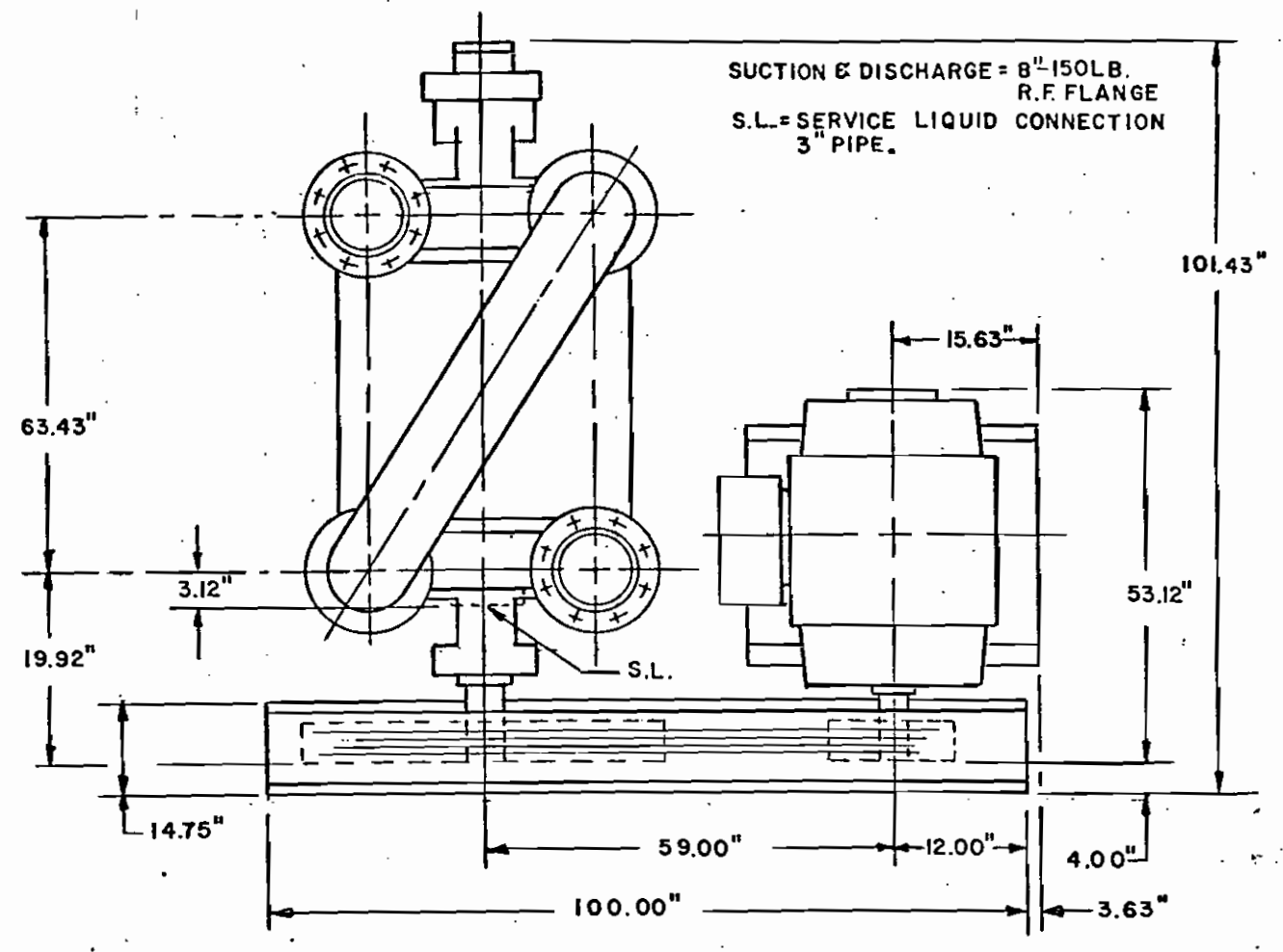
Hp.



270 250 230 210 190 170 150 130 110 90 70 50 30

Suction Pressure, mm Hg. Abs.

#96580  
#96581



FOUNDATION & MOUNTING BOLT LOCATIONS

**CERTIFIED DRAWING**  
 CUSTOMER Celanese Chemical  
 REFERENCE 42-40,143-1  
 SIHI PUMPS REF 8110-306  
 BY mm DATE 12/1/81  
 Item# C-70 Tag V-960  
 Item# C-71 Tag V-961

PUMP: LPH-10534 BN  
 MOTOR: 449T (T.E.F.C.)  
 BELT GUARD: D860  
 BELT DRIVES: MOTOR=8V/19.00"  
 PUMP=8V/53.00"  
 BELTS=4/8V/2360  
 SLIDING BASE FOR 449T

C-70  
C-71

TOTAL APPROX. WT.=11,500 LBS.

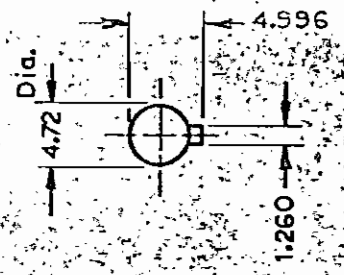
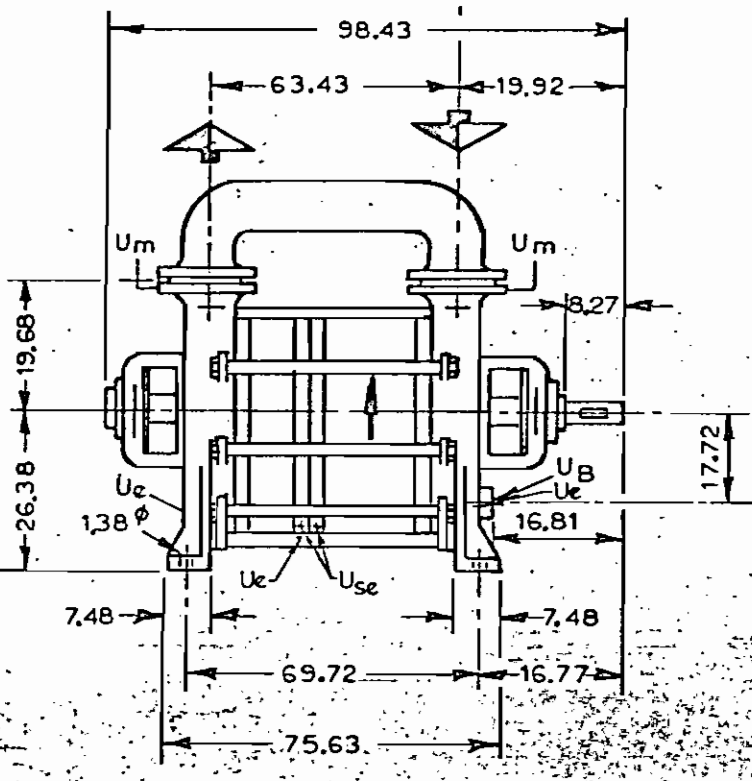
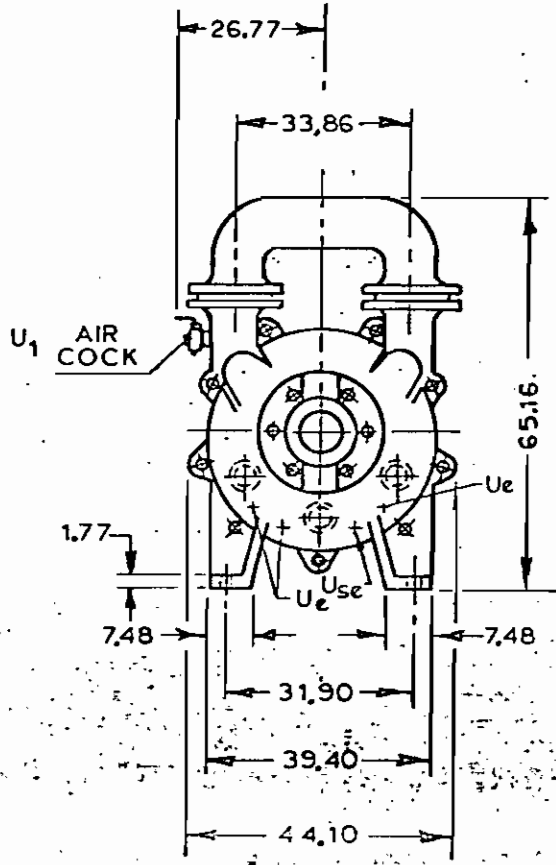
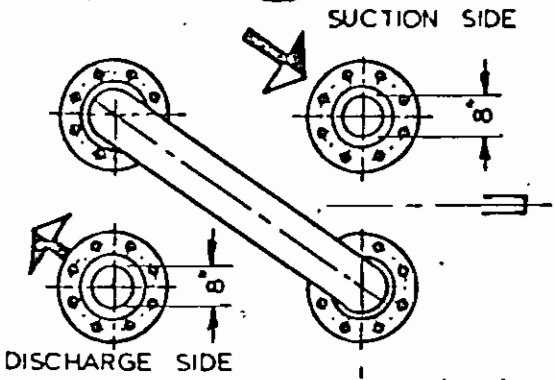
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REVISIONS	DRAWN KRL	DATE 11-17-81	DRAWING NO. G05562
	CHECKED	SCALE	



COMPANION FLANGES TO BE SUPPLIED WITH PUMP

96 580  
96 581



LPH 10 534 BN 041

- U<sub>e</sub> - DRAIN PLUGS: 3/4"
- U<sub>B</sub> - SERVICE LIQUID CONNECTION: 3"
- U<sub>m</sub> - MANOMETER CONNECTION: 1/2"
- U<sub>m1</sub> - DRAIN VALVE.
- U<sub>1</sub> - AIR COCK - 1 1/2" PIPE
- U<sub>se</sub> - CLEAN OUT - 3/4" PIPE (OPERATING DRAIN)

WEIGHT 8500 lbs.

C-70  
C-11

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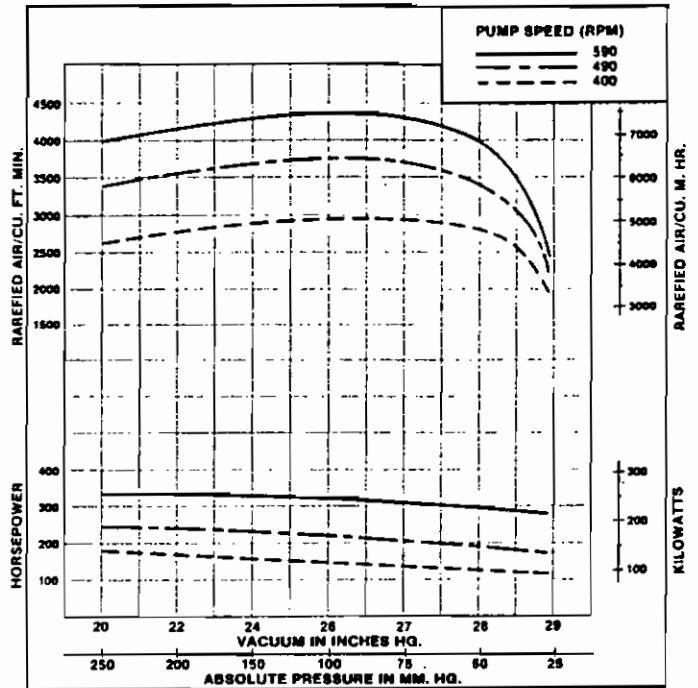
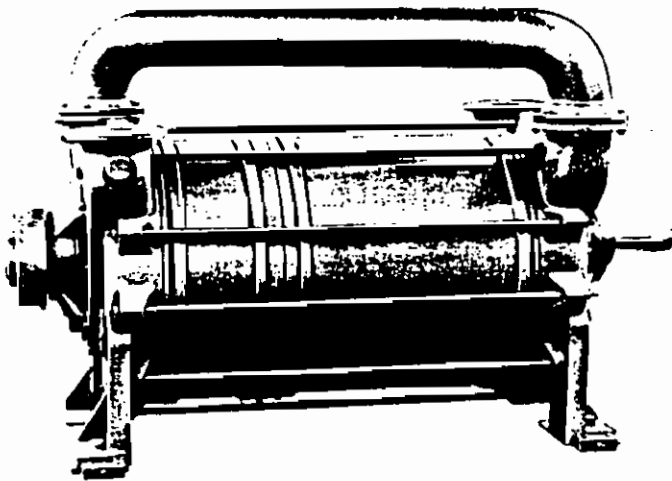
140-71240-51-01

REVISIONS 95-72, 30-73, 40-74, A150-79, A231-82	DRAWN J. Mac N.	DATE 1 - 12 - 81	DRAWING NO. GO4699	REV. E	A SIHI International Company
	CHECKED <i>[Signature]</i>	SCALE			

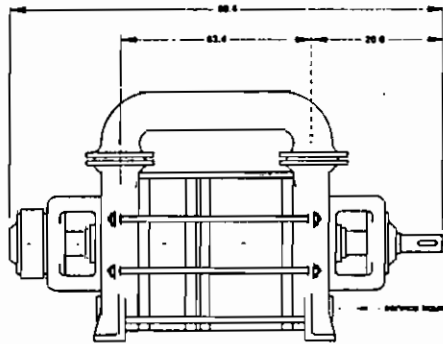
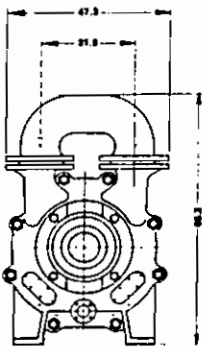
# SIHI Vacuum Pumps

C-70 & C-71

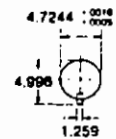
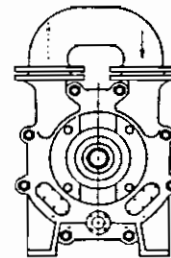
#96580  
#96581  
Series LPH . 10534



## Dimensions in Inches



Weight Pump Only: approx. 8470 lbs./3850 kg



Suction and Discharge: 6 Inch  
 Flange RF: 150 PSIG  
 Service liquid connection: 3 Inch

## Capacity Table

Speed RPM	20" Hg. 252 mm Hg. abs.		22.5" Hg. 188 mm Hg. abs.		25" Hg. 125 mm Hg. abs.		27.5" Hg. 81.6 mm Hg. abs.		28" Hg. 49 mm Hg. abs.		28.7 Hg. 31 mm Hg. abs.		28.9" Hg. 28 mm Hg. abs.	
	cfm	HP	cfm	HP	cfm	HP	cfm	HP	cfm	HP	cfm	HP	cfm	HP
590	4000	335	4220	334	4350	330	4180	295	3950	293	3100	293	2475	293
490	3400	248	3640	245	3750	230	3600	205	3450	200	2800	190	2260	189
400	2660	181	2850	175	2980	157	2950	138	2850	130	2350	128	1975	127

This data represents average values for pumps in standard material of construction.  
 Capacity in cubic feet per minute at inlet pressure for air at 20°C (68°F) and 15°C (59°F) water as service liquid.  
 Vacuum in inches Hg. Barometric pressure (at sea level) 760 mm Hg. abs. (29.92 inch Hg. abs.).  
**Not recommended for continuous operation below 20" Hg. vacuum.**

October 1979 - Supersedes all previously published information.  
 Subject to change without notice.