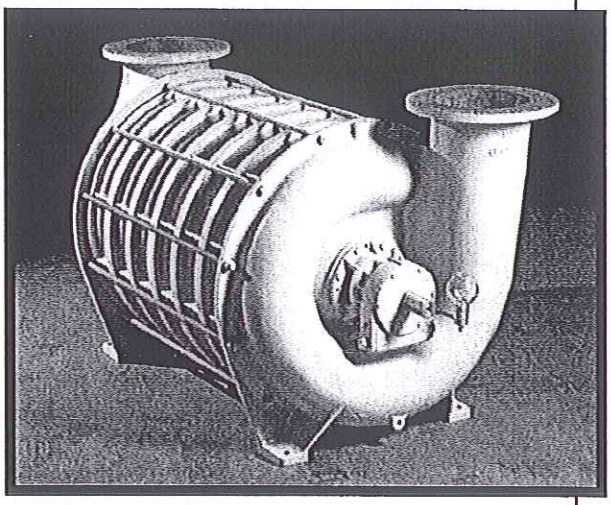
106492
&
106493

HSI 126 SERIES

MULTISTAGE CENTRIFUGAL BLOWER

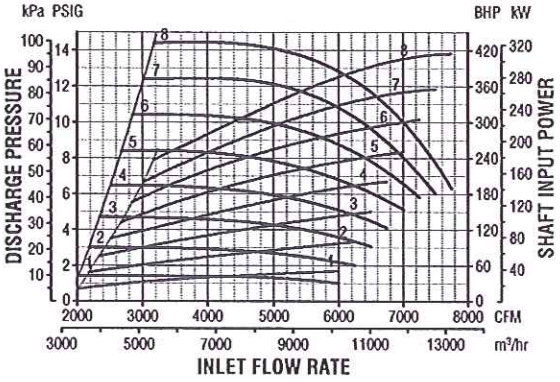
SPECIFICATIONS



GENERAL PERFORMANCE

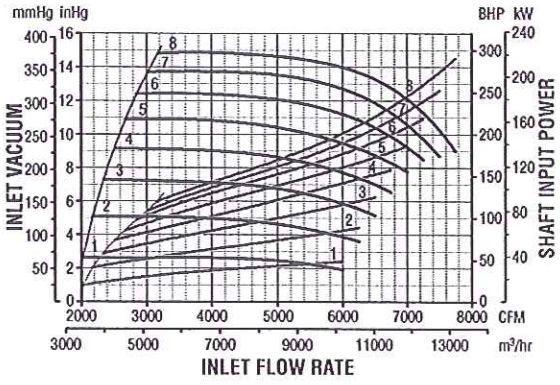
126 SERIES BLOWER

14.7 PSIA (101.4 kPa), 68°F (20°C), 36% RH, 3550 RPM



126 SERIES EXHAUSTER

29.92 inHg (760 mmHg), 68°F (20°C), 36% RH, 3550 RPM



TECHNICAL DATA

Number of Stages	1 through 8
Inlet Connection	12" (304.8 mm) flange, ASA 125# drilling
Outlet Connection	12" (304.8 mm) flange, ASA 125# drilling
Operating Speed	3550 RPM (60 Hz), 2960 RPM (50 Hz)
Casing Pressure (max.)	25 PSIG (1.76 kg/cm²)
Seals (air)	Labyrinth type
Seals (gas)	Carbon ring type (four on each end)
Bearings	Ball, 10-year minimum life per AFBMA L_{10} standard
Lubrication	Oil system
Impeller Diameter	25.00 in (635.0 mm)
Impeller Tip Speed	387 ft/s (118 m/s) @ 3550 RPM
First Critical Speed	4327 RPM (7-stage), 4620 RPM (8-stage)
Drive Type	Direct coupled, Inlet driven (standard) or Outlet driven
Shaft End	2.375 in (60.32 mm) diameter at coupling
Vibration Tolerence	.25 in/s (6.4 mm/s) ISO overall specification, 1.25 mils (0.03 mm) peak to peak
Rotor Balance	Individual impellers statically balanced and complete rotating assembly dynamically balanced

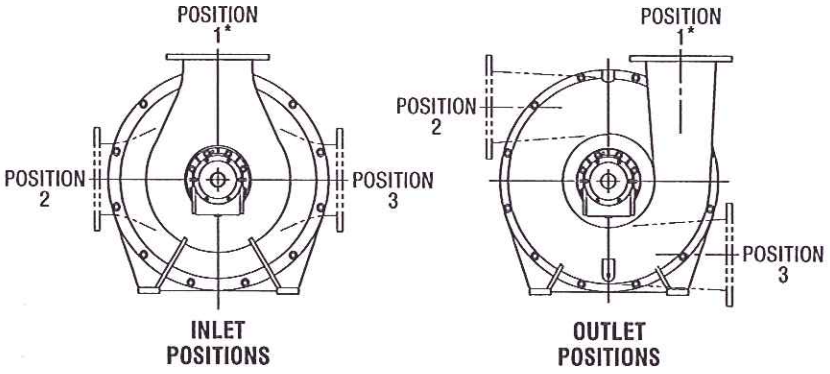
MATERIALS OF CONSTRUCTION

Casing	Cast iron ASTM A48 grade 30
Bearing Caps & Housings	Cast iron ASTM A48 grade 30
Oil Reservoir	Cast iron ASTM A48 grade 30
Shaft	Carbon steel AISI 4140 (stainless steel available)
Impellers	Cast aluminum ANSI AA319 or Fabricated aluminum ANSI AA6061 with Cast Al AA356 Hub
Seals (air)	Cast aluminum ANSI AA356
Seals (gas)	Isostatically molded, high density, fine grain electro-graphite
Interstage Baffle Rings	Stainless steel ASTM A240 304
Tie Rods	.75 in (19.1 mm) diameter, high strength steel ASTM A193-B7
Blower Base	Welded structural steel
Motor Pedestal	Welded steel plate
Joint Sealing Compound	RTV silicone
Base Isolation Pads	Neoprene rubber
Finish	Two-part epoxy ASA61 gray

Note: Specifications subject to change without notice.

INLET & OUTLET ORIENTATION OPTIONS

The orientation of the inlet and outlet is selectable from any of three different positions, as viewed when facing the exterior of the part:



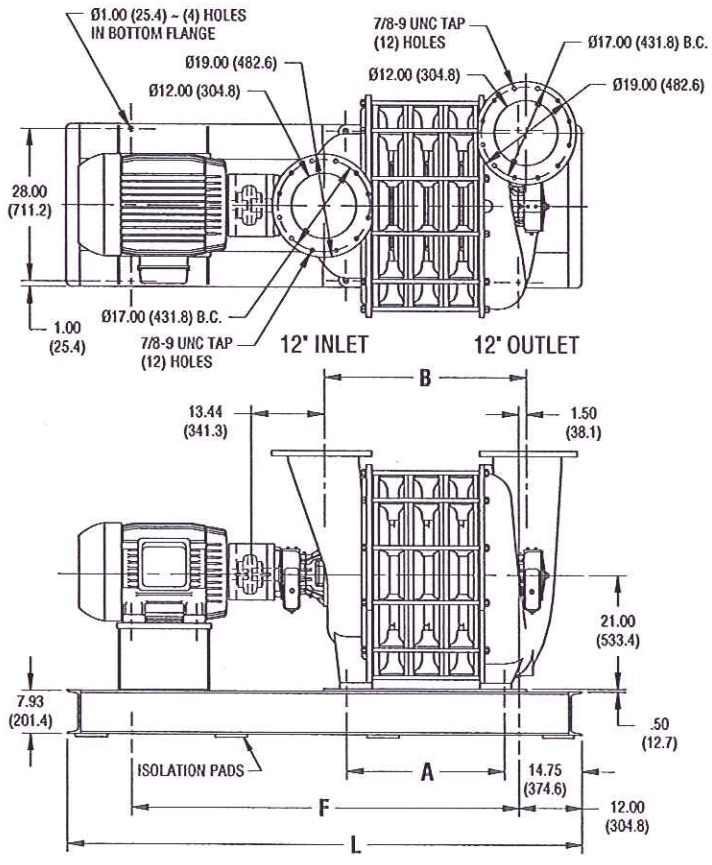
*Standard configuration.

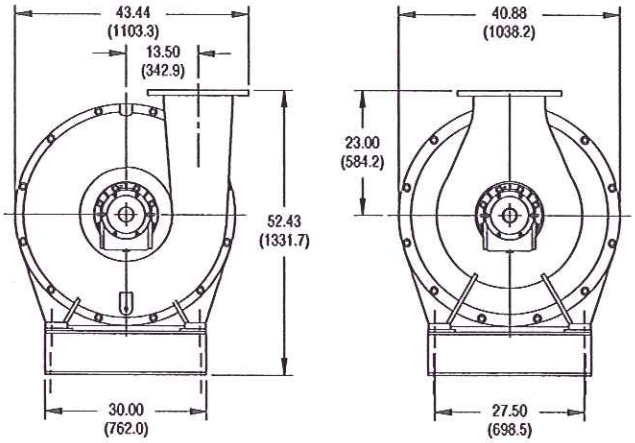
WEIGHT & INERTIA

Model	Weight* lb	Weight* kg	Wk²† lb-ft²	Wk²† kg-m²
12601	2150	975	7	0.29
12602	2700	1225	13	0.55
12603	3350	1520	19	0.80
12604	3900	1769	25	1.05
12605	4450	2018	31	1.31
12606	5100	2313	37	1.56
12607	5500	2495	43	1.81
12608	5950	2699	49	2.06

*Approximate weight for blower only.
† Inertia based on fabricated impellers.

GENERAL ARRANGEMENT



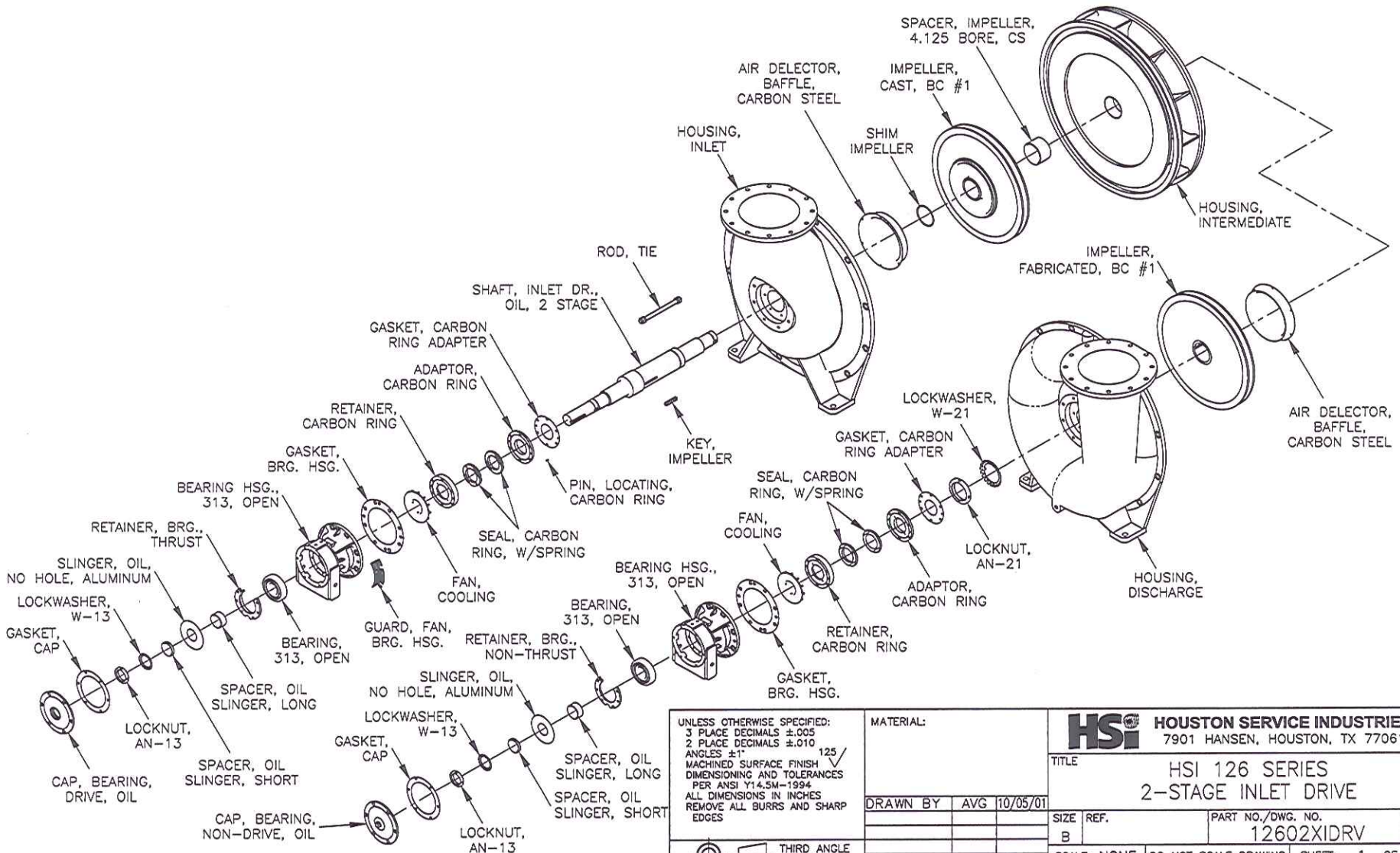


Model	Dimensions* A	B	F†	L†
12601	10.00 (254)	18.25 (464)	48 (1219)	72 (1829)
12602	16.50 (419)	24.75 (629)	60 (1524)	84 (2134)
12603	23.00 (584)	31.25 (794)	72 (1829)	96 (2438)
12604	29.50 (749)	37.75 (959)	84 (2134)	108 (2743)
12605	36.00 (914)	44.25 (1124)	96 (2438)	120 (3048)
12606	42.50 (1080)	50.75 (1289)	96 (2438)	120 (3048)
12607	49.00 (1245)	57.25 (1454)	108 (2743)	132 (3353)
12608	55.50 (1410)	63.75 (1619)	108 (2743)	132 (3353)

*Dimensions in inches and (millimeters) and are approximate. Do not use for construction purposes.
†Dimension may vary depending on motor frame size.

HOUSTON SERVICE INDUSTRIES, INC.
7901 Hansen Rd • Houston, Texas 77061-3428
Phone: 800-725-2291 • 713-947-1623
Fax: 713-947-6409
E-mail: hsi@houserv.com
Web: www.hsiblowers.com

REVISIONS			
REV	DESCRIPTION	DATE	DRAWN BY



UNLESS OTHERWISE SPECIFIED:
3 PLACE DECIMALS ±.005
2 PLACE DECIMALS ±.010
ANGLES ±1°
MACHINED SURFACE FINISH 125
DIMENSIONING AND TOLERANCES PER ANSI Y14.5M-1994
ALL DIMENSIONS IN INCHES
REMOVE ALL BURRS AND SHARP EDGES

THIRD ANGLE PROJECTION

MATERIAL:

DRAWN BY	AVG	10/05/01

HOUSTON SERVICE INDUSTRIES
7901 HANSEN, HOUSTON, TX 77061

TITLE
HSI 126 SERIES
2-STAGE INLET DRIVE

SIZE	REF.	PART NO./DWG. NO.	REV.
B		12602XIDRV	0

SCALE: NONE | DO NOT SCALE DRAWING | SHEET: 1 OF 1

Houston Service Industries, Inc.

Factory Data Sheet

WO21928

Work Order ID	Part ID	Release	Want Date	Start Date	Finish Date	Qty	Drawing ID/Rev
WO21928/1		4/27/2005	7/5/2005			2.00	

Cust Order#: CO022602
Date: 4/27/2005
Ship Via:
Cust PO#: 33457
Contact : HOMER LUMAN

Customer: INTERTREAT
INTERSTATE TREATING, INC.
7141 CLUB DRIVE
ODESSA, TX 79765

Ship To:
INTERSTATE TREATING, INC.
2310 PROSPECT
ODESSA, TX 79765

FACTORY DATA

(2) HSI 12608 AIR MSCB - NEW
SERIAL NO(1): 0505159-21928
SERIAL NO(2): 0505160-21928

BLOWER SPECIFICATIONS

DRIVE : INLET
INLET ORIENT: VERTICAL (POS.#1)
DISCH ORIENT: VERTICAL (POS.#1)
SHAFT MAT'L : 4140 CARBON STEEL
BRG HSG TYPE: OPEN
BRG SIZE : INLET:5313 - DISCHG: 313
AIR SEALS : CARBON RINGS (#26341)
LUBE : OIL
BRASS DFLCTR: NO
PAINT COLOR : GRAY, SPECIAL PAINT PROCEDURE

IMPELLER INFORMATION

STARTING AT INLET
WHEEL #1-7: 5121 FABRICATED BC
WHEEL #8 : 5111 FABRICATED BC

ADDITIONAL COMPONENTS

SKID : YES- 30" X 144"
MOTOR BASE : YES- 449TS
MOTOR : YES- RELIANCE 300HP TEFC PREM. EFF.
36000RPM 460/3/60, CLASS F INSULATION
COUPLING : YES- OMEGA #E50 GUARD: SPECIAL
CHECK VALVE : NO
B/FLY VALVE : NO
EXP JNT/TUBE: YES - (2) 12" GR 1015E
TEMP SENSOR : NO
VIBR SENSOR : NO
PRESS GAUGE : NO
INLET FILTER: YES- (1) 12" UNIV. CCS-12 W/FELT ELEMENT
BOV SILENCER: YES- (1) 6" UNIV. SU5-6
RUBBER BASE : YES- (10) 5/8" X 6" X 6" NEOPRENE

COMMENTS

1) OVERSIZED COUPLING GUARD FOR OMEGA #E50 COUPLING
THE FOLLOWING ITEMS WERE SPECIFIED UNDER PO# 33457
2) PAINT ALL ITEMS OFFERED WITH ZINC PRIMER, TWO COAT EPOXY, ONE COAT FINISH
3) TAG UNITS AS C-501A AND C-501B
4) PO# AND WO# SHOULD BE INCLUDED IN NAMEPLATE
5) WITNESSED MECHANICAL TEST RUN REQUIERED, NOTIFY CUSTOMER WITH ONE WEEK IN ADVANCE
6) 3 COPIES OF IO&M MANUALS REQUIERED
REV 1. - 05/27/05
REV. 2 - 06/02/05 - IMPELLER MIX WAS CHANGED

Houston Service Industries
7901 Hansen Road
Houston, Texas 77061
(800) 725-2291

Offshore Standard Paint Specification

	Primer	1st Coat	2nd Coat	3rd Coat
Pretreatment	Class A 1.5 - 2 mil	Class D	Class D	Class D
Paint Manufacturer	Jones-Blair	Jones-Blair	Jones-Blair	Jones-Blair
Type	Chem-O-Z #33910	Chem-O-Pon #3304	Chem-O-Pon #3304	Acryl HS2
Color	Grey	Grey or Red	Grey or Red	To Choice
Mix	3-1 w/99951	3-1 w/99953/57	3-1 w/99953/57	3-1 w/99951
% Solids	VS 67.5%	VS 55.9%	VS 55.9%	VS 62.9% avg*
Dry Film Thickness	2-3 mil	3-4 mil	3-4 mil	1.5-2.5 mil
Thinner	21102/21092	21064	21064	21102/21092
Remarks	Organic Zinc	Polyamid Epoxy	Polyamid Epoxy	Acrylic Urethane
Spreading Rate				
Theoretical	583sq ft @ 2 mil	298sq ft @ 3 mil	298sq ft @ 3 mil	670sf ft @ 1.5 mil
Practical	310sq ft @ 2 mil	149sq ft @ 3 mil	149sq ft @ 3 mil	500sq ft @ 1.5 mil
Overcoating Intervals				
Minimum	1 hr	8-12 hrs	8-12 hrs	4 hrs
Maximum	24 hrs	72 hrs	72 hrs	8-12 hrs
Application Methods				
Brush	N/R	N/R	N/R	N/R
Roller	N/R	N/R	N/R	N/R
Spray	Agitated Conv.	Airless/Conv.	Airless/Conv.	Airless/Conv.

Pretreatment:

Class A (New Steel) NACE #1
Sandblast to White Metal

Class B (New Steel) NACE #2
Sandblast clean to near white metal

Class C (Pre-Painted)
Thoughly wash down with solvent or ammonia water solution to remove scale, oil , grease and other contaminats as required. Allow surface to dry before painting

Class D (Repair and Touch-up)
Remove all contaminats and loose material such as rust, dirt, loose paint, etc. Bare spots to be mechanically cleaned to highest possilbe degree and dusted off. Feather edges to intact point before touch-up

Remarks:

Alternate coating systems may be used at the customers request
Equipment to be used through blasting and coating application are ex-tape, wet mil gage, dry mil gage and sling at various intervals to insure even coating and proper dew point and DPT
Volume and Solids on items marked may vary depending upon finish coat color
Manufacturer will not warrant products applied over or under coatings of competitors.
all multiple manufacturer coating systems.

Houston Service Industries, Inc.
7901 Hansen Rd • Houston, TX 77061
Phone: 713-947-1623 • 800-725-2291 • Fax: 713-947-6409
Web: www.houserv.com • E-mail: hsi@houserv.com

Blower / Exhauster Design Datasheet

Customer : Interstate Treating, Inc
7141 Club Drive
Odessa, TX 79765
Project : Giant 4200 CFM

Datasheet No. : 6928
Date : 6/2/2005
Quote/Job No. : 6977

Design Data

Inlet Conditions

Volume	: 4200	SCFM @ 68°F
Bar Pressure	: 14.7	PSIA
Inlet Press.	: 14.7	PSIA
Inlet Temp.	: 95	°F
Humidity	: 85	%

Design Point

ICFM	: 4619.27	CFM
Differential Press.:	12.90	PSI
Discharge Press. :	12.90	PSIG

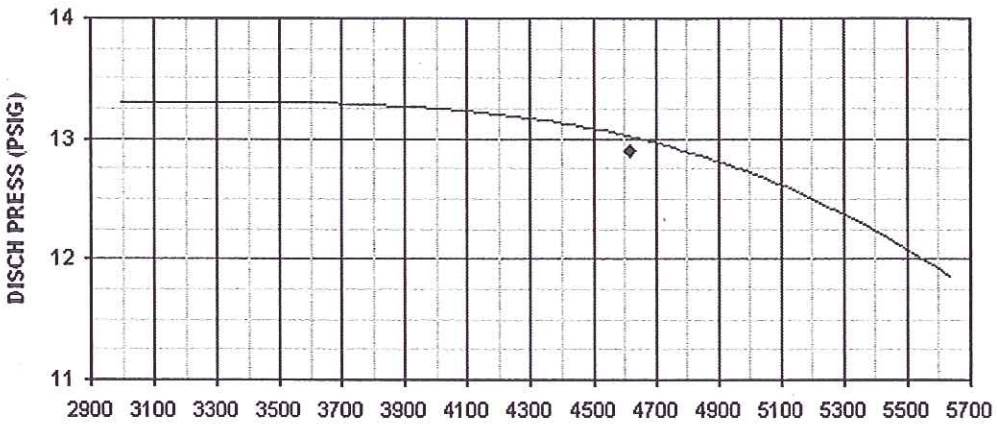
Other Information

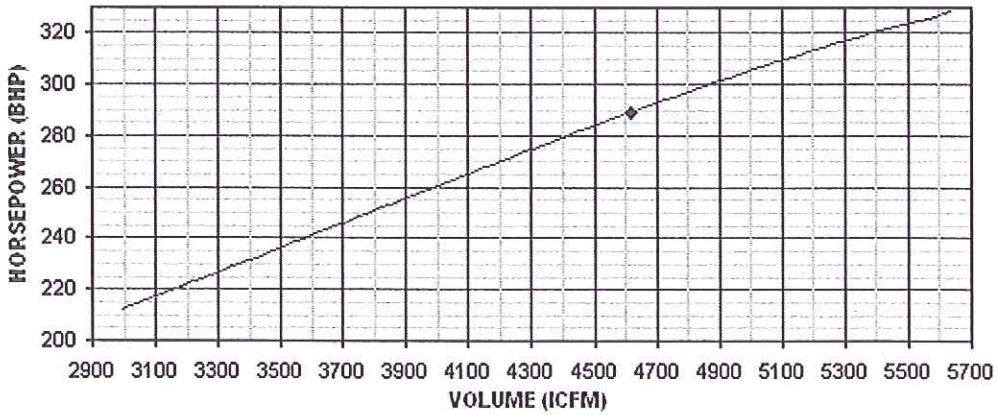
Molecular Wt :	28.4501368
K-1/K Factor :	0.2826608
EAP :	13.79 curve press.
Isentropic HP:	204.28 HP
RPM :	3575

Blower Data

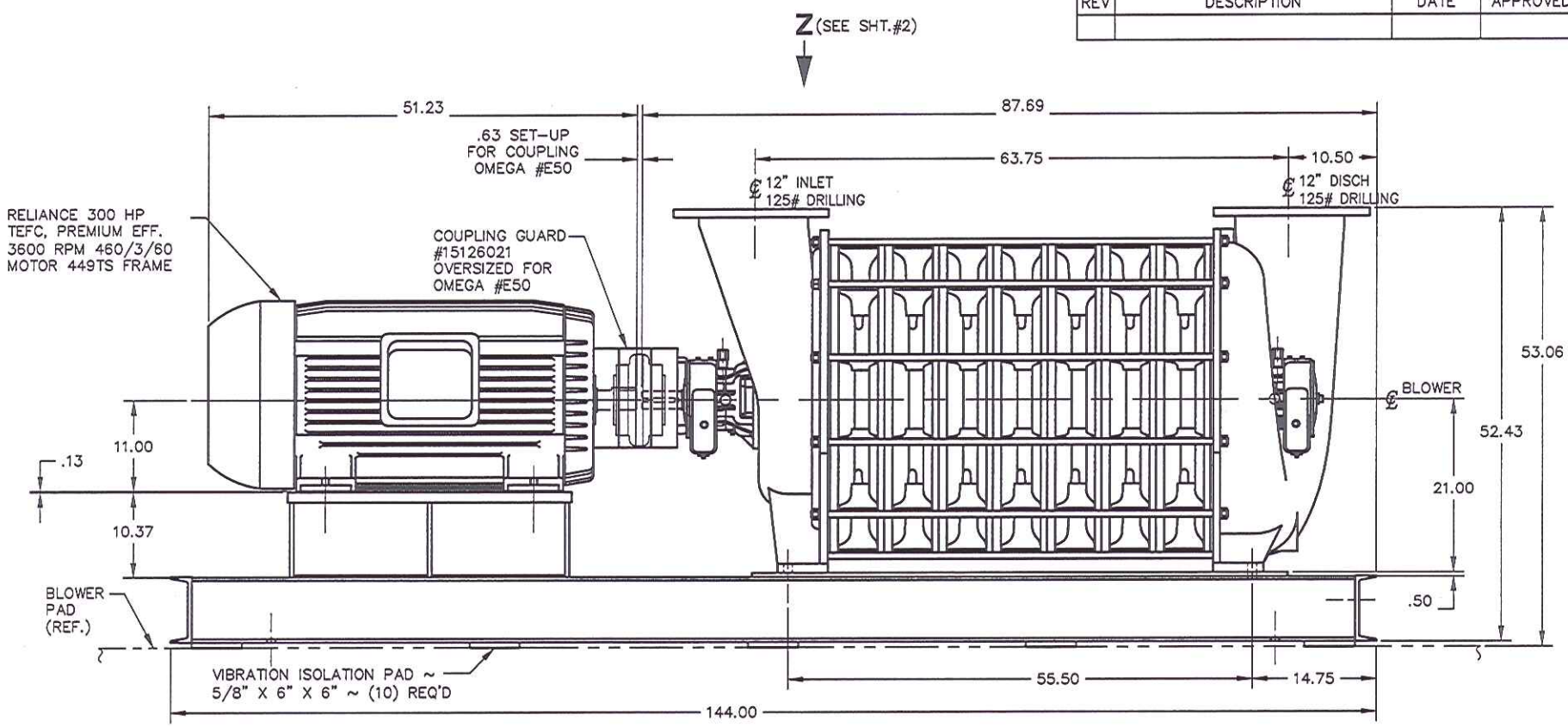
Model : HSI 12608

Impeller(s)	: (7) 5121	
	(1) 5111	
BHP	: 289.21	HP
Efficiency	: 71.38	%
Disch Temp	: 246.01	°F
Rise to Surge	: 0.41	PSI
Turndown	: 35.14	%





REVISIONS			
REV	DESCRIPTION	DATE	APPROVED



NOTES:
1) APPLICATION: AIR
2) AIR SEALS: CARBON RING
3) LUBRICATION: OIL
4) IMPELLER MIX: (7) 5121 & (1) 5111
5) OPERATING SPEED: 3600 RPM

UNLESS OTHERWISE SPECIFIED:
3 PLACE DECIMALS ±.005
2 PLACE DECIMALS ±.010
1 PLACE DECIMAL ±.063
ANGLES ±1°
MACHINED SURFACE FINISH 125
DIMENSIONING AND TOLERANCES PER ANSI Y14.5M-1994
ALL DIMENSIONS IN INCHES
REMOVE ALL BURRS AND SHARP EDGES

THIRD ANGLE PROJECTION

MATERIAL:

DRAWN BY	KOC	05/03/05

HOUSTON SERVICE INDUSTRIES
7901 HANSEN, HOUSTON, TX 77061

TITLE
HSI 12608
BLOWER SYSTEM ASSEMBLY

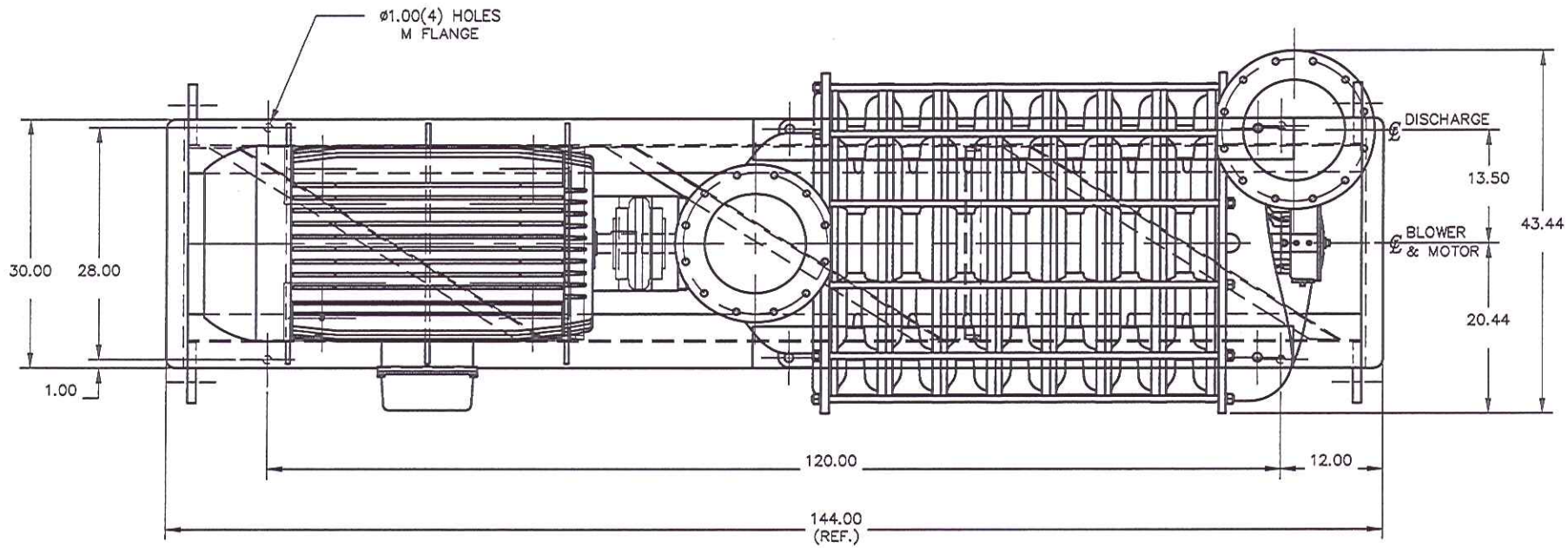
SIZE	REF.	PRT. NO./DWG. NO.	REV
B		21928-001	0

SCALE: NONE	DO NOT SCALE DRAWING	SHEET: 1 OF 4

INTERSTATE TREATING WO#21928

AUTOCAD 2000i

REVISIONS			
REV	DESCRIPTION	DATE	APPROVED



VIEW **Z**
(FROM SHT.#1)

UNLESS OTHERWISE SPECIFIED:
3 PLACE DECIMALS ±.005
2 PLACE DECIMALS ±.010
1 PLACE DECIMAL ±.063
ANGLES ±1°
MACHINED SURFACE FINISH 125
DIMENSIONING AND TOLERANCES PER ANSI Y14.5M-1994
ALL DIMENSIONS IN INCHES
REMOVE ALL BURRS AND SHARP EDGES

THIRD ANGLE PROJECTION

MATERIAL:

DRAWN BY	KOC	05/03/05

HOUSTON SERVICE INDUSTRIES
7901 HANSEN, HOUSTON, TX 77061

TITLE
HSI 12608
BLOWER SYSTEM ASSEMBLY

SIZE	REF.	PRT. NO./DWG. NO.	REV
B		21928-001	0

SCALE: NONE | DO NOT SCALE DRAWING | SHEET: 2 OF 4

INTERSTATE TREATING WO#21928

AUTOCAD 2000i

106492
&
106493

SRU / C-501A/B Air Blowers

ROSEMOUNT INC.
ANNUBAR FLOWMETER SERIES
CALCULATION DATA SHEET

GENERAL DATA

Customer:	
Project:	Nicole Gangl
S. O. No:	
P. O. No:	
Calc. Date:	
Model No:	285G120DCCP1S23
Tag No:	INTERSTATE TREAT

PRODUCT DESCRIPTION

Product Type:	Pak-Lok		Instrument Valve:	Not Applicable
Sensor Size:	2		Valve Material:	Not Applicable
Wetted Material:	316 Stainless Steel		Line Size:	12 Inch (300mm)
Mounting Conn.Type:			Pipe Sch.:	STD
Mounting Conn. Material:	Carbon Steel		Pipe Orientation:	n/a
Electronics Mounting:	Direct-Mount		Flange Type:	n/a
Max. Allow. Pressure@Temp.:	285.696 psia	110 F		
Design Pressure/Temperature:	13 psia	110 F	Max. Allow. Temp.:	300.00 F

INPUT DATA

Fluid Type:	Gas			
Fluid Description:	AIR			
Pipe I.D(Span):	12.000	inch	Wall:	0.375 inch
Pressure:	13	psia	Base Pressure:	14.696 psia
Temperature at Flow:	70.00	F	Base Temperature:	60.00 F
Absolute Viscosity:	0.01827	cP		
Isentropic Exponent:	1.40109			
Compressibility at Flow:	0.999600		Base Compressibility:	0.999505
Density at Flow:	0.066238	lb/ft3	Base Density:	0.076328 lb/ft3
Flow Rates				
Minimum:		SCFM		
Normal:	4400	SCFM		
Maximum:		SCFM		
Full Scale:	5000	SCFM		

CALCULATED DATA

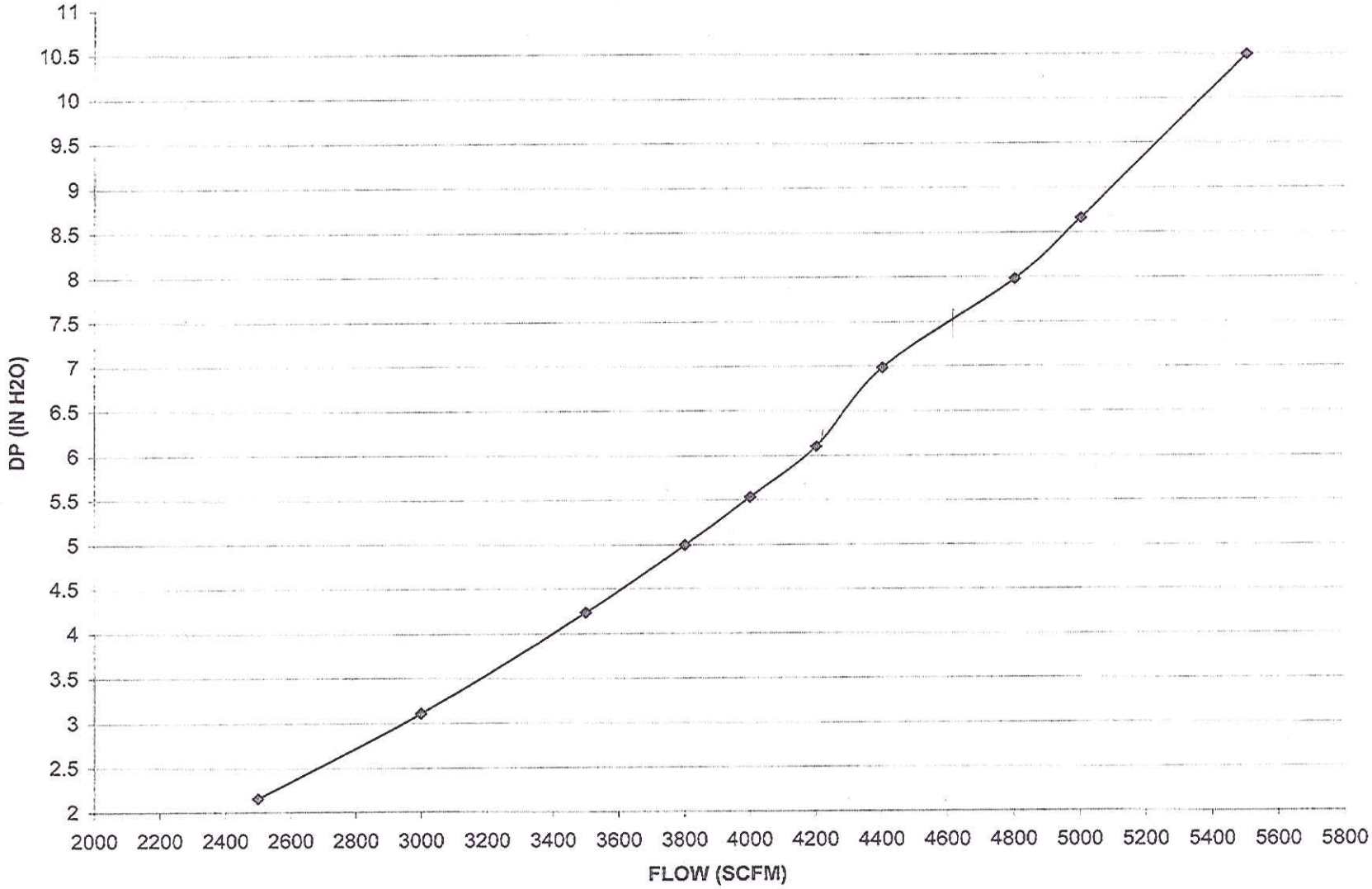
(Calculation Performed at Normal Conditions. DP in inH2O@68F)

DP at Min Flow:	inH2O@68F	Flow Coefficient:	0.5865
DP at Normal Flow:	6.698 inH2O@68F		
DP at Max Flow:	inH2O@68F	Rod Reynolds Number (Normal):	51267
DP at Full Scale Flow:	8.660 inH2O@68F	Pipe Reynolds Number (Full Scale):	659539
Structural Limit (DP):	224.025 inH2O@68F	Gas Expansion Factor:	0.9974
Structural Limit (Flow):	25445.63909 SCFM	Permanent Pressure Loss:	
Minimum Accurate Flow:	1072.8071 SCFM	at Normal Flow:	0.753 inH2O@68F
Resonant Frequency:	350.33 Hz	at Maximum Flow:	-10260436124279800000.000 inH2O@68F
Wake Frequency:	243.600723 Hz	Velocity at Max Flow:	0.000 ft/sec
Blockage:	0.112		

WARNINGS

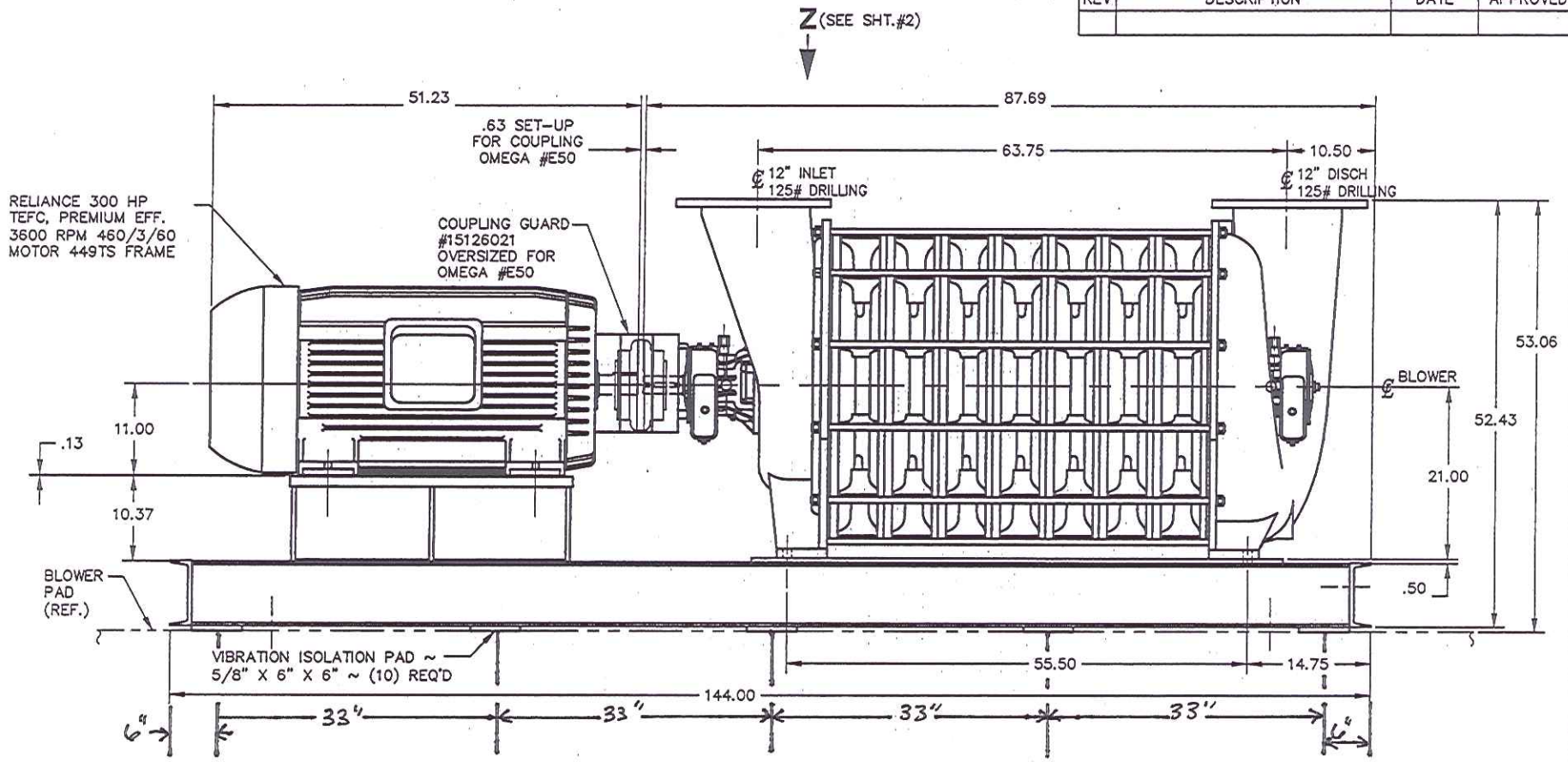
NOTES

Version: 3.0 (Build131E) Printed On: 29-Aug-06


DP (IN H2O)
11
10.5
10
9.5
9
8.5
8
7.5
7
6.5
6
5.5
5
4.5
4
3.5
3
2.5
2
2000 2200 2400 2600 2800 3000 3200 3400 3600 3800 4000 4200 4400 4600 4800 5000 5200 5400 5600 5800
FLOW (SCFM)

PAD PLACEMENT - ℄ SHOWN

REVISIONS			
REV	DESCRIPTION	DATE	APPROVED



NOTES:
1) APPLICATION: AIR
2) AIR SEALS: CARBON RING
3) LUBRICATION: OIL
4) IMPELLER MIX: (7) 5121 & (1) 5111
5) OPERATING SPEED: 3600 RPM

UNLESS OTHERWISE SPECIFIED:
3 PLACE DECIMALS ±.005
2 PLACE DECIMALS ±.010
1 PLACE DECIMAL ±.063
ANGLES ±1°
MACHINED SURFACE FINISH 125 √
DIMENSIONING AND TOLERANCES PER ANSI Y14.5M-1994
ALL DIMENSIONS IN INCHES
REMOVE ALL BURRS AND SHARP EDGES

THIRD ANGLE PROJECTION

MATERIAL:

DRAWN BY: KOC 05/03/05

HOUSTON SERVICE INDUSTRIES
7901 HANSEN, HOUSTON, TX 77061

TITLE: HSI 12608 BLOWER SYSTEM ASSEMBLY

SIZE	REF.	PRT. NO./DWG. NO.	REV
B		21928-001	0

SCALE: NONE | DO NOT SCALE DRAWING | SHEET: 1 OF 4

INTERSTATE TREATING WO#21928

CAD 2000i