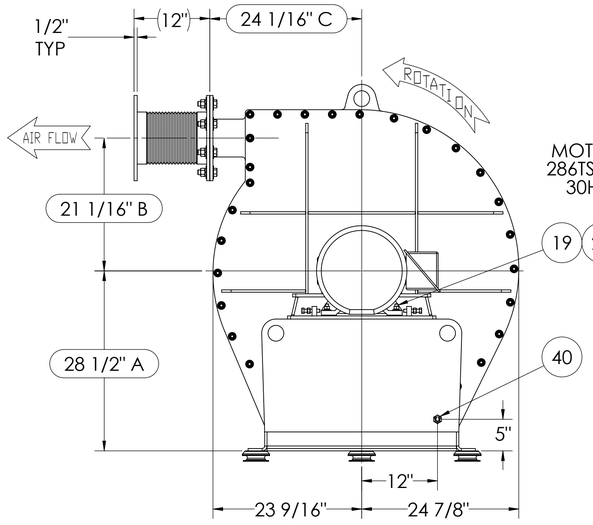
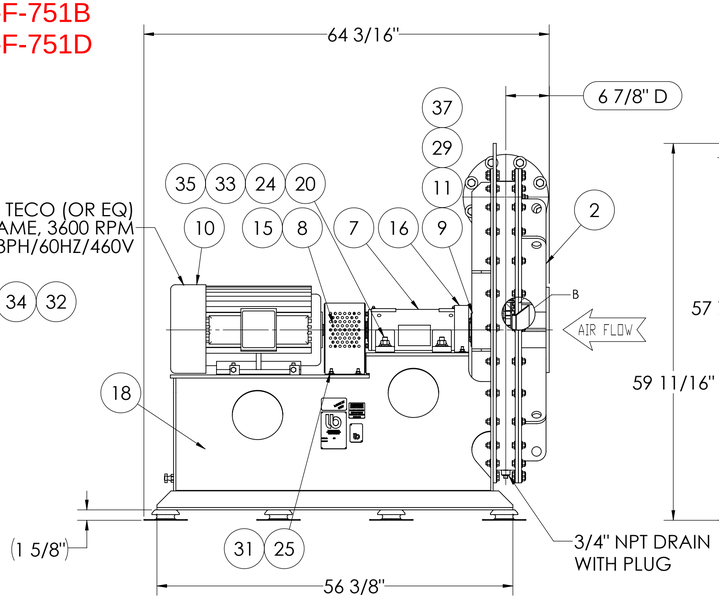
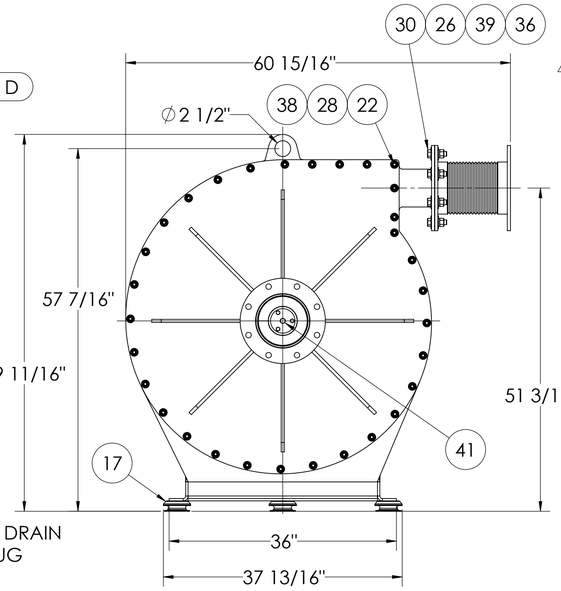
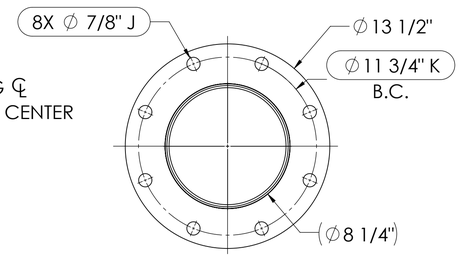
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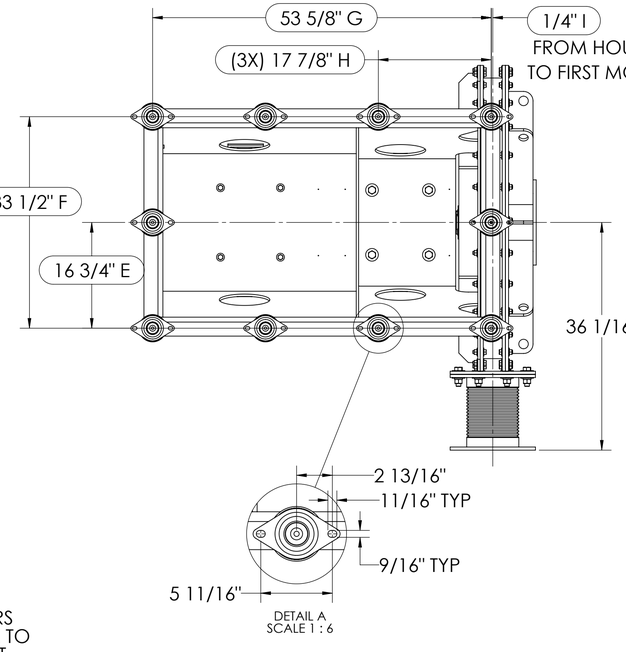


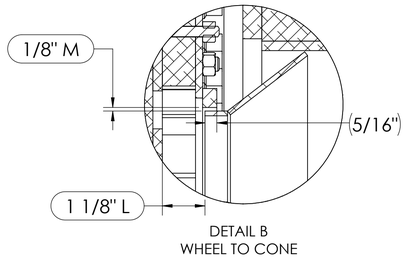


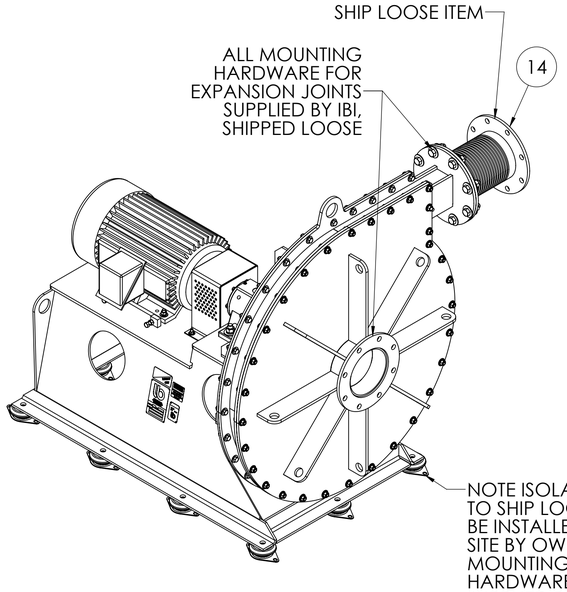




FAN INLET/DISCHARGE FLANGE
ANSI 8" 150# B16.5







PART / MATERIAL LIST				
QTY	ITEM	DESCRIPTION	PART NUMBER	MATERIAL
1	1	IBI, STD PAINT, 1 COAT AMERON 385	060-0226	SEE BOM
1	2	INL.CVR,HPRB,451H,ALUM, 8-150#	222-0666	SEE BOM
1	3	TRANS,SIL INLET-8"DIA - RECT,SS	292-0176	304L SSTL
1	4	TRANS,SIL OUTLET-6"DIA - RECT,SS	292-0177	304L SSTL
1	5	HSG,WLDT,451H,HPRB,CCW,TH	332-0443	SEE DETAIL
1	6	WHL,HPRB.451H,35.75,CCW,ALUM	432-0375	SEE DETAIL
1	7	BRG,SFT,ASSY,60MM,UNIBLOCK	531-0346	SEE DETAIL
1	8	CPL,GRD,1060T,1.625,1.9375,STL	544-0047	PURCHASE
1	9	SHS,FLOWSERVE,2.1875,CIRCPAC MD	564-0246	PURCHASE
1	10	MTR,TEFC,30,3600,286TS,3/60/460	574-0958	PURCHASE
1	11	RING,ANTI-STC,AEGIS SGR-54.5-0A4W	594-0106	ALUMINUM
1	12	SIL,OUTLET,18VRDS-S15	624-0378	304L SSTL
1	13	SOUND JACKET,HPRB,451H,CCW,HSG	634-0076	PURCHASE
1	14	EXP JOINT,8"DIA,12"F-F,SSTL	644-0252	PURCHASE
1	15	GRD,CPL,HPRB,451H,ALUM	662-0807	SEE BOM
1	16	SHAFT GUARD	663-0465	SEE DETAIL
10	17	VIB ISO, NOVIBRA RA-350-EM	694-0208	RUBBER
1	18	BASE,HPRB,451H,CCW-TH	782-0687	SEE BOM
4	19	BLT,HEX, 1/2-13 X 2 1/2, G5Z, A449	814-0018	A449
4	20	BLT,HEX, 3/4-10 X 3, G5Z, A449	814-0029	A449
28	21	BLT,HEX,3/8-16 X 1,304,F593C	814-0049	F593C
60	22	BLT,HX,1/2-13X1 3/4X1 1/4,304,F593C	814-0055	F593C
4	23	NUT,HEX, 1/2-13, G5Z, A153	814-0074	A153
4	24	NUT,HEX, 3/4-10, G5Z, A153	814-0076	A153
6	25	NUT,FLG, 3/8-16, G2Z, A563	814-0100	A563
8	26	NUT,HEX,3/4-10,304,F594D	814-0119	F594D
28	27	NUT,FLG,3/8-16,304,F594C	814-0542	F594C
66	28	NUT,FLG,1/2-13,304,F594D	814-0596	F594D
4	29	BLT,HEX,3/8-16 X 2 1/2 X 1,304,F593C	814-0661	F593C
8	30	BLT,HEX,3/4-10 X 2 1/2,304,F593D	814-0867	F593D
6	31	WHR,FLAT, 3/8, G5Z, F436	834-0003	F436
8	32	WHR,FLAT, 1/2, G5Z, F436	834-0005	F436
8	33	WHR,FLAT, 3/4, G5Z, F436	834-0007	F436
4	34	WHR,LOCK, 1/2, G5Z, F436	834-0014	F436
4	35	WHR,LOCK, 3/4, G5Z, F436	834-0016	F436
8	36	WHR,LOCK,3/4,304	834-0026	SS8
60	37	WHR,FLAT,3/8,304	834-0029	SS8
126	38	WHR,FLAT,1/2,304	834-0031	SS8
16	39	WHR,FLAT,3/4,304	834-0033	SS8
1	40	GROUNDING LUG- BURNDY TYPE KC 25	864-0137	PURCHASED
1	41	NAMPLT,STD KIT	874-0025	SEE BOM
1	42	WIRE,.032 MONEL,ALLOY 400,TIE	929-0208	PURCHASE
1	43	GASKET,C1051,.50 X 30,JOHN CRANE	959-0008	PTFE

NOTES:
HOUSING TO CONSIST OF 6061-T6 ALUMINUM CONSTRUCTION. HOUSING TO BE OF CONTINUOUSLY WELDED GAS TIGHT CONSTRUCTION, PRESSURE TESTED TO 1.5X OPERATING PRESSURE. HOUSING TO BE CONSTRUCTED IN ACCORDANCE WITH AMCA 'A' SPARK RESISTANCE LEVEL. WHEEL REMOVAL THROUGH INLET SIDE. PTFE GASKETING WILL BE SUPPLIED BY AND MOUNTED BY ILLINOIS BLOWER AT THE HOUSING AND INLET COVER BOLTED INTERFACES.
BASE TO BE OF A-36 CARBON STEEL CONSTRUCTION CONTINUOUSLY WELDED ON EXTERIOR WELDS. ALL CARBON STEEL SURFACES TO BE CLEANED TO SSPC-SP6 AND COATED WITH GRAY EPOXY FINISH COAT.
ROTOR ASSEMBLY DESIGNED TO MEET AMCA 'A' SPARK RESISTANCE, CONSISTING OF AN ALUMIUNUM WHEEL, ALUMINUM OR MONEL HUB, CLEARANCE FIT ONTO STAINLESS STEEL SHAFT WITH A BOLTED AND SAFETY WIRED END CAP. SHAFT SHALL HAVE A MONEL SLEEVE INTERFERENCE FIT AT THE AREA OF THE SHAFT SEAL.
MOTOR: 30HP EXPLOSION PROOF TEFC ENCLOSURE. 286TS FRAME, 3PH/60HZ/460V, 3600 RPM.
SHAFT SEAL TO BE FLOWSERVE OR EQ. DUAL CARBON RING NITROGEN PURGED SEAL. SEAL TO HAVE A 1/2" NPT CONNECTION. N2 SUPPLY PRESSURE TO BE MINIMUM 1.5PSI ABOVE HOUSING OPERATING PRESSURE AT FAN DISCHARGE.
AEGIS SPLIT STYLE GROUNDING RING WITH STRAP TO BE EPOXY MOUNTED TO SHAFT SEAL BY ILLINOIS BLOWER.
COUPLING TO BE FALK OR EQ. TYPE T10 BORED FOR CLEARANCE FIT ON MOTOR AND SHAFT.
BEARINGS TO BE ILLINOIS BLOWER 60MM MONOBLOCK GREASE LUBRICATED. BEARING TO BE FURNISHED AND MOUNTED BY ILLINOIS BLOWER.
ILLINOIS BLOWER TO SUPPLY QTY 1 DISCHARGE EXPANSION JOINTS. FLEXCOMM (OR EQ) SSTL BELLOWS TYPE WITH MATING FLANGE FOR DISCHARGE OF FAN.
ILLINOIS BLOWER TO SUPPLY QTY 1 DISCHARGE SILENCER, VAW CRT STYLE OR EQ. WITH DISCHARGE TRANSITION FROM 8" ANSI 150# FLANGE TO RECTANGULAR SILENCER DISCHARGE FLANGE. IBI TO SUPPLY ALL MATING HARDWARE SHIPPED LOOSE WITH SILENCER. SILENCER SUPPORT BY OTHERS.
ILLINOIS BLOWER TO SUPPLY REMOVABLE SOUND JACKET WHICH COVERS THE HOUSING ENTIRELY EXCEPT FOR THE FLANGES AND DRAIN PORT.
NOVIBRA OR EQ. RUBBER IN SHEAR VIBRATION ISOLATORS TO BE SUPPLIED BY ILLINOIS BLOWER, SHIPPED LOOSE.
GUARDS TO BE VENTED OSHA STYLE, FABRICATED FROM ALUMINUM AND PAINTED SAFETY ORANGE.
MINIMUM RECOMMENDED STRAIGHT RUN BEFORE BLOWER INLET IS 42".

STAGE 2 FAN

REVISIONS					
REV.	ECN	ZONE	DESCRIPTION	DATE	APPR
E			ADDED NOZZLE LOADS AND SEAL PURGE RATE, PAGE 4	9/2/2022	JDS
D			ADD PRODUCTION BOM	9/1/2022	MST
C			CUSTOMER REQUEST STAGE BACK TO TOP HORZ & SILENCER TRANSITION BACK TO (1) 8" & (1) 6"	8/10/2022	MST
B			CUSTOMER REQUEST STAGE UP BLAST, HORZ. SILENCER & (2) 8" SILENCER TRANSITIONS	7/15/2022	MST
A			CUSTOMER REQUEST VERTICAL SILENCER	7/8/2022	MST

PERFORMANCE (IPS)

FLOW (CFM)	S.P. (in H2O)	SPEED (RPM)	POWER (BHP)	OPER TEMP (°F)	DESIGN TEMP (°F)	DESIGN P (PSI)	DENSITY (LB/FT³)	ELEV. (FT)
890	72.33	3550	23.4	162	200	4.0	.0699	-

PERFORMANCE (METRIC)

FLOW (M³/HR)	S.P. (KG/CM²)	SPEED (RPM)	POWER (KW)	OPER TEMP (°C)	DESIGN TEMP (°C)	DESIGN P (KG/CM²)	DENSITY (KG/M³)	ELEV. (M)
1512	0.184	3550	17.5	72.2	93.3	0.28	1.12	-

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THIRD ANGLE PROJECTION

DIMENSIONS UNLESS OTHERWISE SPECIFIED ARE IN INCHES [MM]
FRACTIONAL DIMS > 36" = ±1/8"
FRACTIONAL DIMS ≤ 36" = ±1/16"

INCHES	DECIMAL	MM
X.X	± 0.03	X ± 0.8
X.XX	± 0.015	X.X ± 0.4
X.XXX	± 0.005	X.XX ± 0.13

ANGULAR = ± 1.0°

DIMENSIONS IDENTIFIED BY AN OVAL (I.E. (1.750)) ARE CONSIDERED TO BE CRITICAL TO QUALITY (CTQ) AND MUST BE VALIDATED PRIOR TO NEXT OPERATION

DO NOT SCALE DRAWING

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750 Industrial Drive, Cary, IL 60013
Ph: 847-639-5500, Fx: 847-639-9527
www.illinoisblower.com

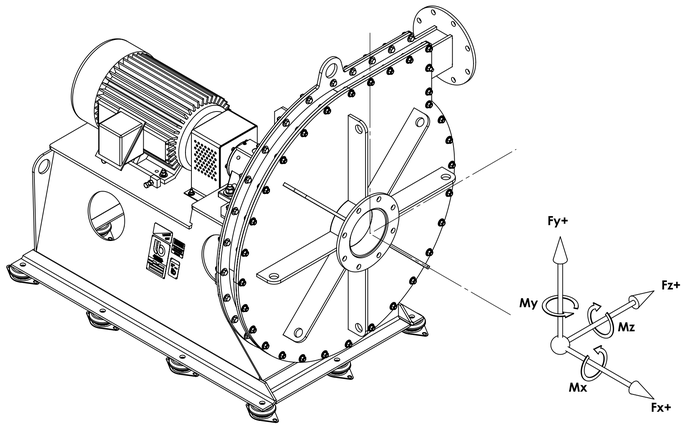
CUSTOMER	CUSTOMER P.O.
DESMET BALLESTRA	28981
DESCRIPTION	
FAN,HPRB,451H,A8,CCW,TH,STG2,AMCA A	
DRAWN JDS	DATE 6/3/22
CHECKED ENG	DATE 6/3/22
IBI SALES ORDER NUMBER 220242	PART NUMBER 010-1270 REV E
SCALE 1:12	SIZE D
MATERIAL SEE DETAIL	WEIGHT: 4005.83 LBS
	SHEET 1 OF 4

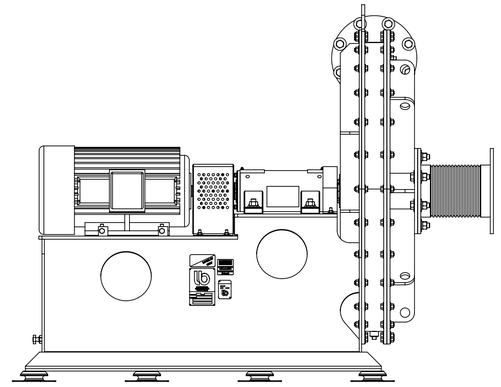
- [X] Approved - No comments
- [ ] Approved with comments (Proceed with Manufacturing)
- [ ] Approved - With Comments (Review & Resubmit)
- [ ] Not Approved. Correct and resubmit

desmet ballestra

JInman 10/12/2022

BY DATE





ALLOWABLE LOADS AND MOMENTS - INLET AND DISCHARGE NOZZLE						
NOZZLE	Fx (N)	Fy (N)	Fz (N)	Mx (N-m)	My (N-m)	Mz (N-m)
SUCTION (INLET)	+/- 1800	+/- 1700	+/- 1400	+/- 550	+/- 700	+/- 800
DISCHARGE	+/- 1900	+/- 1550	+/- 1300	+/- 700	+/- 750	+/- 750
ALLOWABLE LOADS AND MOMENTS - INLET AND DISCHARGE NOZZLE (IMP UNITS)						
NOZZLE	Fx (LBf)	Fy (LBf)	Fz (LBf)	Mx (LBf-FT)	My (LBf-FT)	Mz (LBf-FT)
SUCTION (INLET)	+/- 405	+/- 382	+/- 315	+/- 406	+/- 516	+/- 590
DISCHARGE	+/- 427	+/- 349	+/- 292	+/- 516	+/- 553	+/- 553

ESTIMATED SEAL PURGE GAS REQUIREMENTS (SI) BUFFER GAS N2, REQUIRED PRESSURE: 0.5 kgf/cm2(g)		
	COLD	HOT
NORMAL	5.8 Nm3/hr	4.3 Nm3/hr
AFTER EXTENSIVE OPERATION	11.6 Nm3/hr	8.6 Nm3/hr
NOTE Nm³/hr is defined at 0°C and 1 ATM		
ESTIMATED SEAL PURGE GAS REQUIREMENTS (IMP) BUFFER GAS N2, REQUIRED PRESSURE: 7.1 PSI(g)		
	COLD	HOT
NORMAL	217 SCFH	161 SCFH
AFTER EXTENSIVE OPERATION	434 SCFH	322 SCFH
NOTE SCFH is defined at 70°F and 1ATM		

△E

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DESMET BALLESTRA	28981
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IBI SALES ORDER NUMBER	PART NUMBER / REV
220242	010-1270 / E
MATERIAL	WEIGHT: / SHEET
SEE DETAIL	2223.2 LBS / 4 OF 4

DRAWN	JDS
DATE	6/3/22
CHECKED	ENG
DATE	6/3/22
SCALE	SIZE
1:4	D