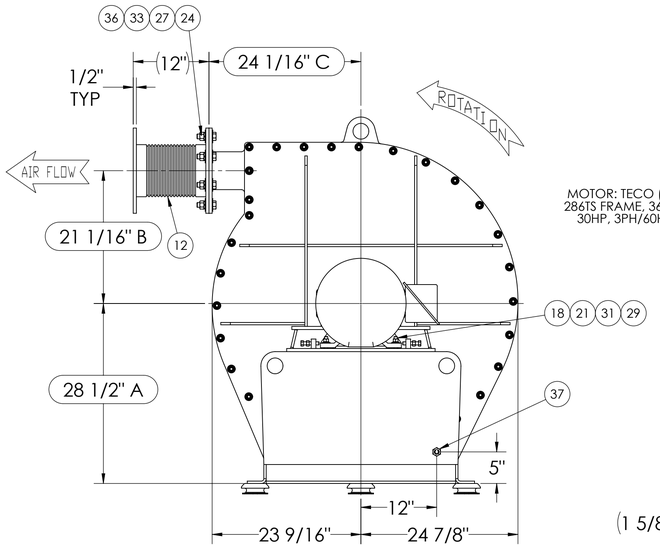
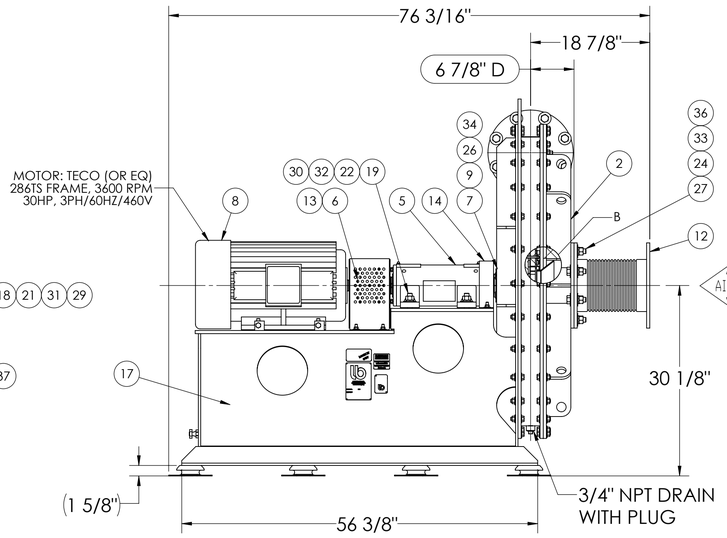
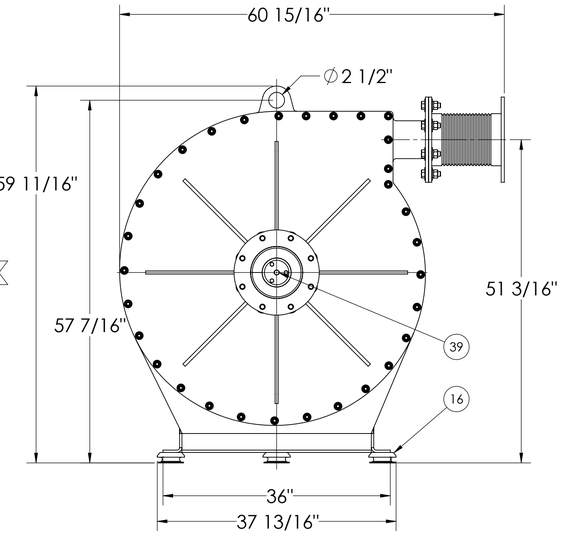
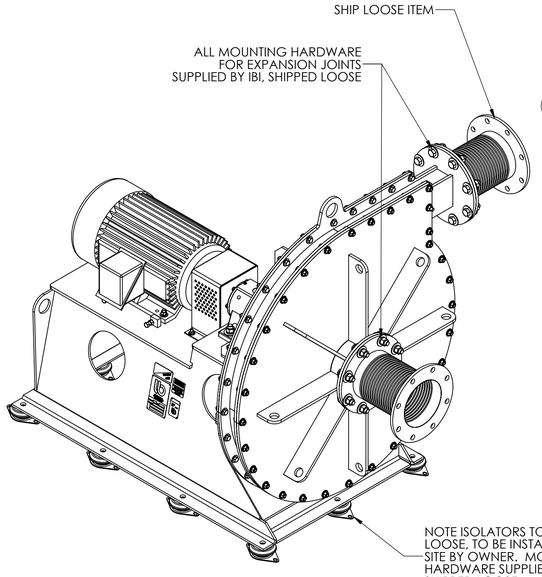
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636/32A-2/119-F-751C

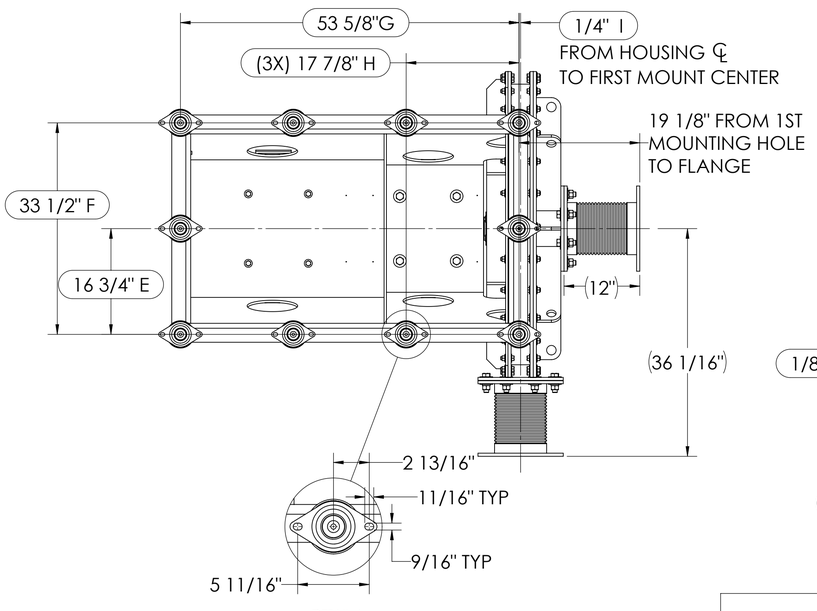




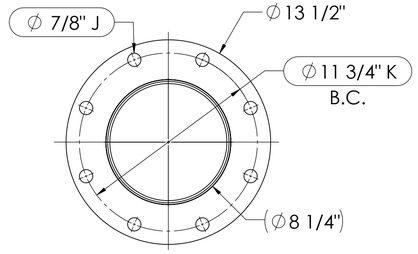


PART / MATERIAL LIST				
QTY	ITEM	DESCRIPTION	PART NUMBER	MATERIAL
1	1	IBI, STD PAINT, 1 COAT AMERON 385	060-0226	SEE BOM
1	2	INL.CVR,HPRB,451H,ALUM, 8-150#	222-0666	SEE BOM
1	3	HSG,WLDT,451H,HPRB,CCW,TH	332-0443	SEE DETAIL
1	4	WHL,HPRB.451H,35.75,CCW,ALUM	432-0375	SEE DETAIL
1	5	BRG,SFT,ASSY,60MM,UNIBLOCK	531-0346	SEE DETAIL
1	6	CPL,GRD,1060T,1.625,1.9375,STL	544-0047	PURCHASE
1	7	SHS,FLOWSERVE,2.1875,CIRCPAC MD	564-0246	PURCHASE
1	8	MTR,TEFC,30,3600,286TS,3/60/460	574-0958	PURCHASE
1	9	RING,ANTI-STC,AEGIS SGR-54.5-0A4W	594-0106	ALUMINUM
1	10	SOUND JACKET,HPRB,451H,CCW,HSG	634-0076	PURCHASE
1	11	SOUND JACKET,8" DIA X 52 SPOOL PIPE	634-0077	PURCHASE
2	12	EXP JOINT,8"DIA,12"F-F,SSTL	644-0252	PURCHASE
1	13	GRD,CPL,HPRB,451H,ALUM	662-0807	SEE BOM
1	14	SHAFT GUARD	663-0465	SEE DETAIL
1	15	PIPE,CONNECTION,8" NPS,SCH 40	692-0163	SEE DETAIL
10	16	VIB ISO, NOVIBRA RA-350-EM	694-0208	RUBBER
1	17	BASE,HPRB,451H,CCW-TH	782-0687	SEE BOM
4	18	BLT,HEX, 1/2-13 X 2 1/2, G5Z, A449	814-0018	A449
4	19	BLT,HEX, 3/4-10 X 3, G5Z, A449	814-0029	A449
60	20	BLT,HX,1/2-13X1 3/4X1 1/4,304,F593C	814-0055	F593C
4	21	NUT,HEX, 1/2-13, G5Z, A153	814-0074	A153
4	22	NUT,HEX, 3/4-10, G5Z, A153	814-0076	A153
6	23	NUT,FLG, 3/8-16, G2Z, A563	814-0100	A563
32	24	NUT,HEX,3/4-10,304,F594D	814-0119	F594D
66	25	NUT,FLG,1/2-13,304,F594D	814-0596	F594D
4	26	BLT,HEX,3/8-16 X 2 1/2 X 1,304,F593C	814-0661	F593C
32	27	BLT,HEX,3/4-10 X 2 1/2,304,F593D	814-0867	F593D
6	28	WHR,FLAT, 3/8, G5Z, F436	834-0003	F436
8	29	WHR,FLAT, 1/2, G5Z, F436	834-0005	F436
8	30	WHR,FLAT, 3/4, G5Z, F436	834-0007	F436
4	31	WHR,LOCK, 1/2, G5Z, F436	834-0014	F436
4	32	WHR,LOCK, 3/4, G5Z, F436	834-0016	F436
32	33	WHR,LOCK,3/4,304	834-0026	SS8
4	34	WHR,FLAT,3/8,304	834-0029	SS8
126	35	WHR,FLAT,1/2,304	834-0031	SS8
64	36	WHR,FLAT,3/4,304	834-0033	SS8
1	37	GROUNDING LUG- BURNDY TYPE KC 25	864-0137	PURCHASED
1	38	NAMPLT,STD KIT	874-0025	SEE BOM
1	39	WIRE,.032 MONEL,ALLOY 400,TIE	929-0208	PURCHASE
1	40	GASKET,C1051,.50 X 30,JOHN CRANE	959-0008	PTFE

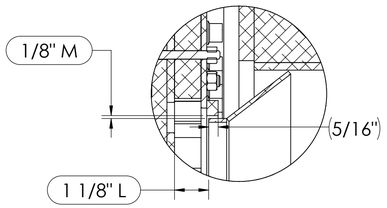




DETAIL A
SCALE 1 : 6



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



DETAIL B
WHEEL TO CONE

STAGE 1 FAN

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 2 INLET/DISCHARGE EXPANSION JOINTS.
FLEXCOMM (OR EQ) SSTL BELLOWS TYPE WITH MATING FLANGE FOR INLET DISCHARGE OF FAN.
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".

REVISIONS				
ZONE	REV.	DESCRIPTION	DATE	APPROVED
	B	ADDED NOZZLE LOADS AND GAS PURGE RATE, PAGE 3	9/2/2022	JDS
F2	A	ADD PRODUCTION BOM	9/1/2022	MST

PERFORMANCE (IPS)

FLOW (CFM)	S.P. (in H2O)	SPEED (RPM)	POWER (BHP)	OPER TEMP (°F)	DESIGN TEMP (°F)	DESIGN P (PSIg)	DENSITY (LB/FT³)	ELEV. (FT)
964	67.52	3550	23.4	116	200	4.0	0.065	-

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)
1638	0.171	3550	17.5	46.7	93.3	0.28	1.041	-

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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

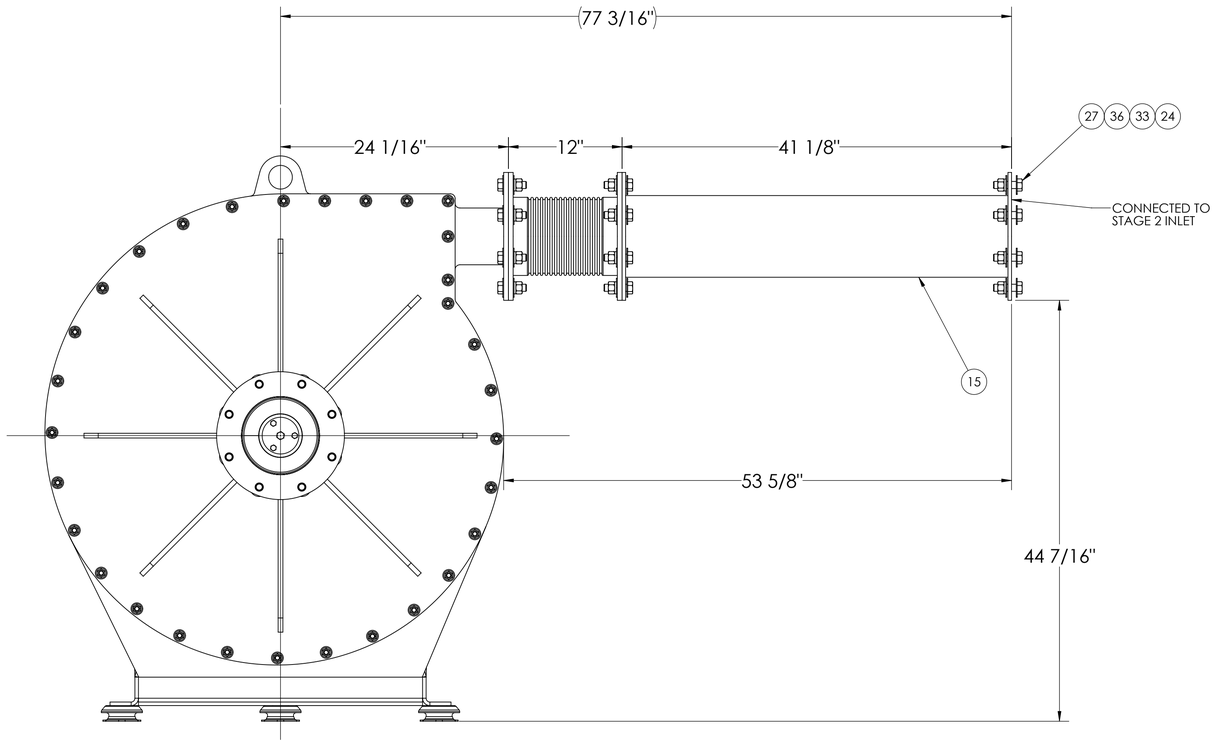
ANGULAR = ±1.0°

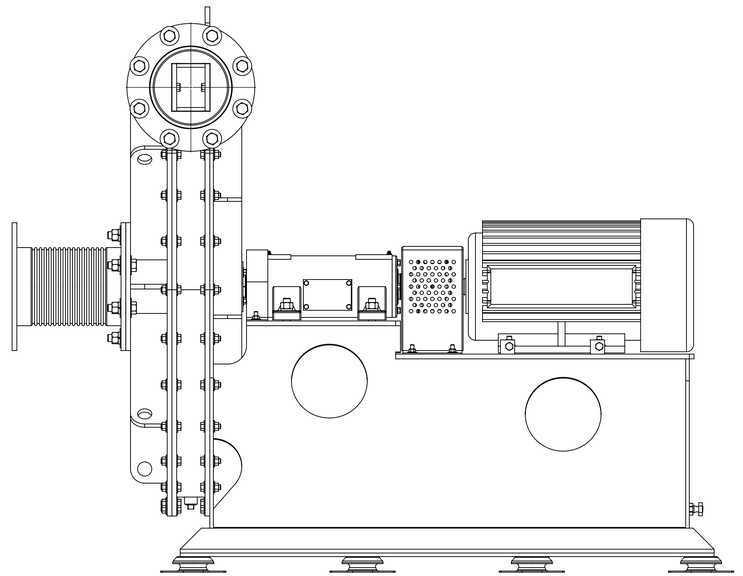
DIMENSIONS IDENTIFIED BY AN OVAL (LE (.750")) ARE CONSIDERED TO BE CRITICAL TO QUALITY (CTQ) AND MUST BE VALIDATED PRIOR TO NEXT OPERATION

DO NOT SCALE DRAWING

ILLINOIS BLOWER, INC.
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,STG1,AMCA A	
DRAWN	JDS
DATE	6/3/22
CHECKED	ENG
DATE	6/3/22
IBI SALES ORDER NUMBER	PART NUMBER / REV
220242	010-1269 / B
SCALE 1:12	SIZE D
MATERIAL SEE DETAIL	WEIGHT: 2223.2 LBS
	SHEET 1 OF 3





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ANGULAR = ±1.0°

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DRAWN	JDS
DATE	6/3/22
CHECKED	ENG
DATE	6/3/22
SCALE	SIZE
1:8	D

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CUSTOMER	CUSTOMER P.O.
DESMET BALLESTRA	28981

DESCRIPTION
FAN,HPRB,451H,A8,CCW,TH,STG1,AMCA A

IBI SALES ORDER NUMBER	PART NUMBER	REV
220242	010-1269	B

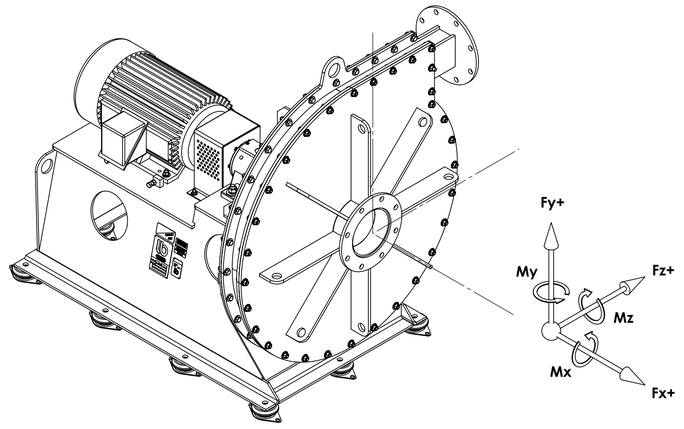
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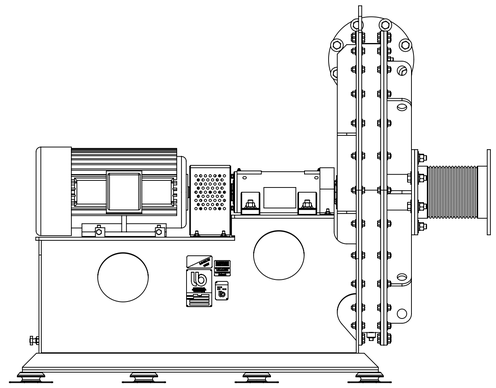
- [x] Approved - No comments
- [ ] Approved with comments (Proceed with Manufacturing)
- [ ] Approved - With Comments (Review & Resubmit)
- [ ] Not Approved. Correct and resubmit

desmet ballestra

JInman 10/12/2022

BY DATE





ALLOWABLE LOADS AND MOMENTS - INLET AND DISCHARGE NOZZLE (SI)						
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: 0.3 kgf/cm2(g)		
	COLD	HOT
NORMAL	4.9 Nm3/hr	3.6 Nm3/hr
AFTER EXTENSIVE OPERATION	9.8 Nm3/hr	7.2 Nm3/hr
NOTE Nm³/hr is defined at 0°C and 1 ATM		
ESTIMATED SEAL PURGE GAS REQUIREMENTS (IMP) BUFFER GAS N2, REQUIRED PRESSURE: 4.3 PSI(g)		
	COLD	HOT
NORMAL	183 SCFH	134 SCFH
AFTER EXTENSIVE OPERATION	367 SCFH	269 SCFH
NOTE SCFH is defined at 70°F and 1 ATM		

B

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DRAWN	JDS
DATE	6/3/22
CHECKED	ENG
DATE	6/3/22
SCALE	1:12
SIZE	D

CUSTOMER: DESMET BALLESTRA
CUSTOMER P.O.: 28981
DESCRIPTION: FAN,HPRB,451H,A8,CCW,TH,STG1,AMCA A
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