

CLIENT & LOCATION : GASSNOVA, NORWAY		EQUIPMENT No : MA-101 / MA-102						
PROJECT : CO2 KARSTO		UNIT :						
SERVICE OF UNIT : FLUE GAS		P & ID REFERENCE DRAWING :						
PFD REFERENCE DRAWING :		DESIGN DATA						
GAS CIRCULATED : FLUE GAS								
SERVICE (LETHAL / CORROSIVE / EROSION) : N/A								
CONTAMINANTS : SOLIDS (e.g. TYPE, SIZE, DISTRIBUTION, DESCRIPTION) : NONE								
OPERATION : CONTINUOUS		No. OF STARTS PER HOUR : N/A						
PRELIM. BLOWER SELECTION: (1)		DRIVER TYPE : ELECTRIC						
FLUID PROPERTIES (2)								
DENSITY @ PT	kg/m ³	1.06	MOLECULAR WEIGHT					
SPECIFIC GRAVITY (S.G.) @ PT		0.9719	Cp/Cv					
COMPRESSIBILITY FACTOR		0.9986	VALUE @ PT					
			28.1471					
			1.3870					
FLOWRATE		TEMPERATURE						
NORMAL FLOW	kg/hr	2584300	NORMAL FLUID TEMPERATURE °C					
NORMAL FLOW	Nm ³ /hr	2212853	DESIGN TEMPERATURE °C					
DESIGN FLOW	kg/hr	2842730	MAX OPERATING TEMPERATURE °C					
DESIGN FLOW	Nm ³ /hr	2434138.3	MIN OPERATING TEMPERATURE °C					
			46.6					
			100					
			60					
			20					
HYDRAULIC CALCULATION (3)								
SUCTION CONDITION		DISCHARGE CONDITION (4)						
DESIGN FLOWRATE	Nm ³ /hr	2434138.3	DESIGN FLOWRATE Nm ³ /hr					
ORIGIN PRESSURE	kPa a	100.2	DESTINATION PRESSURE kPa a					
- LINE LOSS	kPa	0.5	- LINE LOSS kPa					
- P CONTROL VALVES - DAMPERS	kPa	2.0	- P CONTROL VALVES (8) kPa					
- P ORIFICES	kPa		- P ORIFICES kPa					
- P EXCHANGERS	kPa		- P EXCHANGERS kPa					
- P FURNACES	kPa		- P FURNACES kPa					
- P FILTERS	kPa		- P FILTERS kPa					
- P SILENCERS	kPa		- P SILENCERS kPa					
- P PULSATION BOTTLES	kPa		- P PULSATION BOTTLES kPa					
- P OTHERS (7)	kPa	0.1	- P OTHERS kPa					
- P CONTINGENCY	kPa		- P CONTINGENCY kPa					
= BLOWER SUCTION PRESSURE	kPa a	97.6	= BLOWER DISCHARGE PRESSURE kPa a					
BLOWER FACTOR @ DISCHARGE			BLOWER FACTOR @ DISCHARGE					
			109.0					
DIFFERENTIAL PRESSURE		GAS COMPOSITION : MOL %						
DISCHARGE PRESSURE	kPa a	109.0	Oxygen 12.4220 MEA NIL					
- SUCTION PRESSURE	kPa a	97.6	Nitrogen 72.5230 Argon 0.8292					
TOTAL BLOWER DIFFERENTIAL PRESS	kPa a	11.4	Water 10.5244 NO 0.0003					
COMPRESSION RATIO (Pd/Ps)			Carbon Dioxide 3.7006 NO2 0.0001					
BLOWER SUCTION TEMP	°C	46.6	Sulfur Dioxide Trace NH3 0.0004					
BLOWER DISCHARGE TEMP.	°C	59.3						
BLOWER POWER (5)	kW	9558.8						
NOTES								
1 TO BE CONFIRMED BY FINAL MECHANICAL DESIGN								
2 FLUID PROPERTIES LISTED AT SUCTION CONDITIONS								
3 HYDRAULIC CALCULATION VALUES ARE PRELIMINARY AND SHOULD BE CONFIRMED WHEN FINAL SYSTEM DETAILS ARE KNOWN.								
4 BLOWER DISCHARGE CONDITIONS TAKEN AT THE INLET TO THE AMINE ABSORBERS.								
5 ESTIMATED VALUE FROM SIMULATION.								
6 2 x 50% BLOWERS TO BE PROVIDED TO ACHIEVE THE SPECIFIED DESIGN FLOW RATE.								
7 ESTIMATED FOR FOGGER.								
8 ASSUMES 25% OF COLUMN PRESSURE DROP FOR CONTROL.								
9 DESIGN FLOW ENCOMPASSES ALL CASES. TURNDOWN IS 50% OF DESIGN CASE->								
REV.	ISSUE DATE	DESCRIPTION	ORIG.	ORIG. DATE	CHK'D/ LEAD	REVIEW/ ACCEPTED	REVIEW DATE	
0	08-Oct-08	ISSUED FOR DELIVERABLE MILESTONE SCHEDULE M2	JS	08-Oct-08	MJC/DM	ADB/BR	09-Oct-08	
PROCESS DATA SHEET BLOWERS				JOB No		25474		
				DATASHEET No			REV	
				BECHTEL: 25474-000-M5D-BA-00011			0	
				OWNER: 10112936-PB-P-DAS-0007			1 OF 1	
SHEET No.		1		OF		1		

