ABV Eng & Technology	PROJECT: Razavi Yeast Company Expansion Project PHASE IV - Step 1		
Document Title:	Datasheet of agitator of Yeast Cream Stoarge Tank	Rev.	Page
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Datasheet of the Agitator of Yeast Cream Storage Tank 07-R-515

D00	18-Nov-20	Issue For Approval	RMR	ABV	ABV	DKN	KRG	RYC
Rev	Date	Status	Prepared	Checked	Approved 1, 2, 3, 4			

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Document Revision History

PAGE	REVISION						PAGE	REVISION						PAGE	REVISION					
	D00	D01						D00							D00					
1	X						23							45						
2	X						24							46						
3	X						25							47						
4	X						26							48						
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MOTOR DATA (Continued from Page 1)

DRIVE BY:	AC power, 380 - 400 Volt, 3 phase
CONTROL LOCATION:	
PROTECTION CLASS:	IP55
SPEED	Max. 200 rpm
FULL LOAD AMPS:	
LOCKED ROTOR AMPS:	
EXPLOSION PROTECTION:	

MATERIAL DATA

PROCESS SIDE:	SS 316
SHAFT / STIRRER:	SS 316
BOLTS (OUTSIDE / INSIDE):	
NUTS (OUTSIDE / INSIDE):	
SHAFT SEALS:	

SHAFT SEAL

TYPE:	Mechanical Seal
RING MATERIAL:	VTA
SEALING LIQUID:	By Vendor
SEALING PRESSURE:	(barg)
SEAL MANUFACTURER:	

AUXILIARY EQUIPMENT (BY VENDOR)

○ THERMOSYPHON	○ SPACED TYPE
○ REFILL UNIT	○ CIRCULATION UNIT
○ MEASURING SYSTEM	○ OTHERS

VESSEL DATA

NUMBER OF BAFFLES:	0	
BAFFLES DIMENSION:	External half pipe coil cooling	
DIAMETER:	3200	(mm)
HEIGTH :	6000	(mm)
NOMINAL VOLUME:	52.2	(m^3)
OPERATION VOLUME:		(m^3)
MAX	47 / MIN.:	0
OPERATION FILLING LEVEL:		(mm)
MAX	5450 / MIN.:	0

AGITATOR DATA

IMPELLER TYPE:	Propeller	
NO. IMPELLER:	1	
BLADE:		
IMPELLER DIAMETER:	VTA	mm
IMPELLER WIDTH:	VTA	mm
INSTALLATION	Side Installation	
INCLINATION:	VTA	Degrees
AGITATOR INSTALL/ LEVEL	1050	mm
CONNECTION SIZE:	VTA	
CONNECTION Type:	Flange	

NOTES

1 - Agitator to vessel connection has to be checked with supplyer

2 - Installation details shall be provided by vendor to be considered by vessel constraction contractor

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Razavi Yeast Company Expansion Project
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ITEM TAG NO.:	07-R-515		VESSEL TAG NO.:	07-T-115
QUANTITY:	1		VESSEL VOLUME (m3):	52.2
DESCRIPTION:	Yeast Cream Agitator		MAUNFACTURER:	Inoxpa, Stelko, Alfa-laval
MODE OF OPERATION:	Periodic, 5 minutes working, 20 minutes rest		MODEL:	

SITE & UTILITY DATA:

LOCATION: ○ INDOOR ● OUTDOOR
○ UNDER ROOF ○ PARTIAL SIDES
○ HEATED ○ UNHEATED

ELECTRICAL AREA CLASSIFICATION:
CL.: GR.: DIV.:

○ WINTERIZATION REQ'D: ○ TROPICALIZATION REQ'D

AMBIENT TEMP. (MAX / MIN): 40 / -15 (°C)

RELATIVE HUMIDITY: Max. 86% In Winter

ALTITUDE: 1180.00 (m)

BAROMETRIC PRESSURE: (mbara)
MIN. 802 / MAX. 818 / AVG. 810

OTHER CONDITIONS:
PLEASE ALSO SEE SPECIFICATION NO.

UTILITY CONDITIONS:
PLEASE SEE SPECIFICATION FOR SITE & UTILITY DATA,
DOC. NO.

MEDIUM DATA

PROCESS FLUID:	Yeast Cream	
COMPOSITION:	(Note 1)	
DENSITY SLURRY:		(kg/m^3)
DENSITY LIQUID:	1050	(kg/m^3)
BULK DENSITY OF SOLID:	880-890	(kg/m^3)
DYNAMIC VISCOSITY:	300	(cP)
pH Value:	5.0 - 6.5	
SOLID CONTENT:	800	(kg/m^3)
PARTICLE SIZE:	4-7	(µm)

MEDIUM PROPERTIES:
○ GASEOUS ● LIQUID ○ SOLID
○ COMBUSTIBLE ○ EXPLODABLE ○ TOXIC

OPERATING TEMPERATURE: 2 - 10 (°C)
OPERATING PRESSURE: 1.5 (barg)

DESIGN DATA

DESIGN TEMPERATURE: (°C)
MIN.: -20 / MAX.: 120
DESIGN PRESSURE:(barg)
MIN.: -1 / MAX.: 2
SPL at 1m: 70 (dB)

AGITATION

TYPE OF AGITATION:
○ BLEND ○ EMULSIFY
○ DISSOLVE ● SUSPEND SOLIDS
● DISPERSE ● HEAT TRANSFER

DEGREE OF AGITATION:
○ VIOLENT ● MEDIUM ○ MILD

LOW AGITATION WILL DETERMINE PARTICLES SETTLING
FOAMING TENDENCY:
○ NONE ● MILD ○ FULLY

MIXING CYCLE:

○ CONTINUOUS MIXING ● PERIODIC MIXING

FLOW RATE AT CONTINUOUS MIXING:
TIME OF COMPLETE MIXING: (h) 5 (min.)

VESSEL WILL FILL OR EMPTY WHILE MIXING:
● YES ○ NO

POSITION OF AGITATOR: Side installation
AGITATOR SHAPE: Propeller Agitator
AGITATOR DIAMETER: VTA (mm)
SHAFT DIAMETER: VTA (mm)
CLEARANCE (WALL TO IMPELLER): (mm)

DIRECTION OF ROTATION (FROM DRIVER):
● CLOCKWISE ○ COUNTER-CLOCKWISE

SPEED: 0-200 (rpm)
CRITICAL SPEED: (rpm)

SHAFT TORQUE (Nm):
WHILE IN OPERATION:
DURING START-UP:

REQUIRED SHAFT POWER: 7-11 (kW)

MOTOR DATA

MAUFACTURER:	ABB, Siemens, Bosch	
TAG NO.:		
SERVICE FACTOR:		
TYPE:		
FRAME:		
COUPLING TYPE:	Direct	
POWER:		(kW)
RATED SPEED:	Max. 200	(RPM)

(MOTOR DATA CONTINUED ON NEXT PAGE)

NOTES

1 - Yeast Cream of Bakery Yeast, 18 - 20% dry material
2 -
3 -