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# VED Engineering

## TECHNICAL SPECIFICATIONS SKID MOUNTED DUAL DUTY MILK HEATER CUM PASTEURISATION SYSTEM SUITABLE FOR PANEER & SUPER PASTERUISATION OF MILK FOR DAHI

## FUNCTIONAL REQUIREMENT:

THE DUAL DUTY MILK HEATER CUM PASTEURISATION SYTEM OFFEERD IS SUITABLE FOR SUPER PASTEURIATION OF MILK FOR MANUAFCTURING DAHI AS WEEL AS MILK HEATER FOR MANUFACTURE OF PANEER.. THEY SUSTEM OFFERED IS HAVING PROVISION TO FIX HOMOGENSIER ON LINE FOR SUPER PASTERISATION OF MILK FOR DAHI, REGERNERATION OF HEAT IN CASE OF SUPER PASTEIRSATION AS WELL HEAT RGENERATION FROM THE WHEY WHILE MANUFACTURING PANEER. THE PROVISONS ARE ALSO GIVEN FOR CHILLING THE MILK AT 4 C IN CASE OF SUPER PASTEURISATION. THE EXTERNAL TUBULA HODING TUBE BUNDLE IS PROVIDED FOR HOLDING THE MILK FOR 10 MINUTES.

THE SYSTEM SHOULD ALSO HAVE THE PROVISION FOR INTERCONNECTING WITH MILK HOMOGENISER ON LINE.

THE SYSTEM SHOULD ALSO HAVE FACILITIES TO PRODUCE HOT WATER BY USING STEAM REQUIRED FOR HETAING THE MILK. THE SYSTEM SHALL ALSO HAVE PROVISION FOR AUTO FLOW CONTROL OF STEAM FOR MAINTAINING THE PASTEURISATION TEMERATURE, AUTO DIVERSION OF MILK FOR RECIRCULATION IN CASE OF UNDER HEATED MILK.

THE INSTRUMENT CONTROL PANEL SHALL ALSO HAVE PROVISION TO HAVE EIGHT SETS OF REMOTE PUSH BUTTONS FOR OPERATING AVRIOUS MOTORS.





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SALIENT FEATURES:

- THE SYSTEM OFFERED IS HAVING ALL CONNECT PARTS OF SS304 / SS316. THE INETRMEDIATE CONNECTION BLOCKS ARE MANUAFCTURED WITH LASER CUT
  PRECSION SHEETS FOR MAINATINING THE DIMENSIONS.
- THE PHE FRAME IS MANUFACTURED FROM IS2062 GARDE PLATE DULY CLAD WITH SS304 SHEET.
- THE HEAT EXCHANGER PLATES SHALL BE OF SS316 WITH NBR GASKETS.
- THE INTERMEIDATE CONNECTION BLOCKS ARE MANUAFCTRUED FROM LASER CUT SS 304 PLATES.
- ALL EXTERNAL SURFACES IS GROUND AND POLISHED WITH 120 GRIT FINISH.

MODEL NO	PMD_A_2X2S	PM_M_2X2S	REMARK
TECHNICAL PARAMETERS OF THE MULTI-SECTION PLATE HEAT EXCHANGERS			
CAPACITY	VAIALBLE FROM 1,000 LPH TO 2,000 LPH		PLAESE DEFINE THE CAPACITY
MILK FEED TEMPERATURE	Generally the feed temperature is 4/ 6 C		In case feed temperature is different pl specify
PROVSION TO TAKE MILK OUT FOR MILK HOMOGENISER AT 65C	YES	YES	
PASTEURISATION TEMPERATURE	92 C	92 C	
HEAT REGENRATION EFFICIENCY IN CASE OF SUPER PASTEURSATION	69 %	69%	In case you need higher heat regeneration pl specify
HEAT REGENRATION EFFICIENCY IN CASE OF HEATING MILK FOR PANEER	58 % MAX	58 % MAX	IT MAY VARY DEPENDING UPON THE TEMPERATURE OF WHEY
NOS OF HEAT REGENRATION SECTIONS	тwo	TWO	ONE FOR MILK AND ONE FOR WHEY
OUTLET TEMERATURE OF PAST. MILK	4 C	4C	PL NOTE THAT THE SYSTEM CAN BE
OUTLET TEMERATURE OF HOT MILK FOR PANEER	92 C	92C	USED AS HEATER / PASTEURISER ONE BY ONE ONLY
HOLDING SETCION FOR PAST MILK	EXTERNAL TUBULAR HOLDING FOR 10 MINUTES		INSULATION OF HOLDING TUBES TO BE DONE BY CUSTOMER AT SITE
TOTAL NO OF SECTION AND MULTI SECTION PHE	TWO NOS PHE WITH TWO SECTION EACH		THESE TWO NOS OF TWO SECTION PHE ARE INTERCONNECTED WITH FLOW PLATE FOR DUAL DUTY CONDITIONS



MODEL NO	PMD_A_2X2S	PM_M_2X2S	REMARK
ACCESSORIES OF THE DUAL DUTY MILK HEATER CUM PASTEURISATION SYSTEM SUPPLIED ALONG WITH THE SKID MOUNTED UNITS			
MILK FEED BALANCE TANK CAP 125 LITRES WITH FLOAT VALVE SUIATBEL TO WORK AGAINST MAX 3 BAR PRESSURE. THE TANK IS FABRICATED FROM SS304 SHEET	YES	YES	
S.S. MILK FEED PUMP TO MATCH WITH THE CAPACITY	YES	YES	
MANUAL FLOW CONTROL VALVE	YES	YES	
HOT WATER GENERATOR TO PRODCUE HOTW ATER BY USING THE STEAM AT 1.5 BAR TO BE USED AS HEATING MEDIA. THE SYSTEM OFFERED CONSIST OF:			
HOT WATER CIRCULATION PUMP WITH SS SHROUD TO MATCH WITH CAPACITY OF THE SYSTEM	One	One	
POP TYPE OF SAFETY VALVE FOR DRAINAGE OF STEAM CONDESATE	One	One	
SS BUFFER TANK WITH PLATE EHAT EXCHANGER SUITABLE TO HEAT WATER BY USING STEAM AT 1.5 BAR PRESSURE ALONG WITH CONDENSATE TRAP AND BY PASS VALVES FOR GENERATING HOT WATER	One	One	
MAKE UP WATER VALVE ALONG WITH NRV VALVE AT THE SUCTION OF THE HOT WATER PUMP.	One	One	



MODEL NO	PMD_4	A_2X2S	PM_M_2X2S	REMARK
PENUAMTICALLY CONTROLLED STEAM FLOW CONTROL VALVE WITH I2P CONVERTER AND POSITIONER ALONG WITH BY PASS VALVE	PROVIDED	PROVIDED	IN THIS CASE ONLY ONE GLOBE TSEAM VALVE IS PROVIDED, THE STEAM FLOW IS TO BE ADJUSTED MANUALLY	SAMSON CONTROL MAKE
PNEUMATICALLY CONTROLLED MILK FLOW DIVERSION VALVE IN CASE OF UNDER HEATED MILK	PROVIDED	PROVIDED	IN THIS CASE ONLY ONE THREE WAY PLUG VALVE IS PROVIDED WHICH IS TO BE OPERATED MANUALLY WHENEVER REQUIRED.	DONJOY MAKE
ONE SET OF SS PIPE AND FIITINGS TO INTERCOONECT ALL	ONE SET OF PREFABRIACTED SS PIPE LINES BASED			
ABOVE ACCESOOIRES WITH THE MULTI SECTION PLATE HEAT	ON OUR CLOSE DCOUPLE LAYOUT ARE PROVIDED			
EXCHANGER	TO INTERCONNECT ALL ACCESSORIES			
ONE NO OF SS TUBULAR PIPE STRUCTURE TO HOUSE ALL ACCESSOIRES ON THE SKID	THE RECTAANGULAR PIPE BASE FRAME WITH SS BALL FEET TO HOUSE ALL THE ACCESSOIRES. IN CASE OF SMALL CAPCITY THE MULTI SECTION PHE IS ALSO MOUNTED ON THIS FRAME. BUT IN ACSE OF HIGHER CAPCITY THE PHE IS PLACE ON THE GROUND.			



MODEL NO	PMD_A_2X2S	PM_M_2X2S	REMARK
INSTRUMENT CONTROL PANEL WITH SS ENSLOSURE CONSIST OF :			
EIGHT SETS OF REMOTE CONTROLLED PUSH BUTTON STATION FOR OPERATING AVRIOUS EUIPMENTS FROM THIS PANEL	YES	NO	L&T / SIEMENS MAKE
THREE NOS OF MOTOR STARTES WITH ON/ OFF PUSH BUTTONS	NO	YES	L& T / SIEMENS MAKE
PID TEMPERATURE CONTROLLER WITH AUDIO VISUAL ALARM FOR UNDER HEATED MILK	YES	NO	HONEYWELL MAKE
TEMPERATURE CONTROLLER WITH AUDIO VISUAL ALARM FOR UNDER HEATED MILK	NO	YES	SLELECT MAKE
TEMPERATURE CONTROLLER FOR FLOW DIVERSION VALVE	YES	NO	SLEECT MAKE
TEMPERATURE INDICATOR FOR OUTGOING PAST MILK	YES	YES	SLECET MAKE
AIR PRESSURE REGULATOR CUM WATER SEPARATOR WITH AUTO DRAIN ALONG WITH TWO NOS SOLENOID VALVES	YES	NO	GENETICS / REPUTED MAKE
PT-100 TEMPERATURE SENSORE	THREE	тwo	DIGITAL MAKE
PREWIRED CONTROL PANEL WITH SS ENCLOSUE DULY MOUNTED ON THE SS TUBULAR SKID FARME	YES	YES	
PRE WIRED POWER CABLES FOR MILK FEED PUMP AND HOT WATER PUMP	NO	YES	



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NOTE: HOW TO DEFINE THE MODEL NO OF YOUR MILK PASTEURISER

#### MODEL NO : PMD\_A\_2X2S\_ 10K

THE LAST THREE DIGITS IN RED COLOUR IS THE CAPACITY OF YOUR MILK PASTEURISER

#### THE OTHER OPTIONS ONE CAN HAVE IS:

- SPECIAL REQUEST FOR PROVIDEING HOT WATER GENERATING SYSTEM WITH BRAZED PLATE HEAT EXCHANGER OR SHELL N TUBE TYPE HEAT EXCHANGER.
- SPECIAL REQUEST FOR AUTO CONTROL PANEL WITH THREE NOS OF MOTOR STARTERS ( DOL TYPE)
- PLC CONTROLLED PANEL WITH TOUCH SCREEN
- TWO PEN TEMPERATURE RECORDER IN THE PANEL FOR RECORDING THE PASTEURISATION TEMPERATURE.

#### UTILITIES REQUIRMENT FOR THE MILK PASTERISATION SYSTEM

CAPACITY	1000 LPH	2,000 LPH	
SOFT WATER CONSUMPTION FOR STSRT UP OPERATION:	150 Ltrs	150 Ltrs	
COMPRESED AIR AT 6.5 BAR	0.5 CFM	0.5CFM	
NOT REQUIRED FOR MANUAL CONTROLLED PASTEURISERS			
STEAM REQUIREMENT AT 1.5 BAR FOR HEATING MILK	START UP 163 Kgs/Hr, RUNNING- 68	START UP 326 Kgs/Hr, RUNNING-	
STEAM REQUIREMENT AT 1.5 BAR FOR HEATING MILK	Kgs/Hr	136 Kgs/Hr	
STEAM REQUIREMENT AT 1.5 BAR FOR PASTEURISEATION	50 Kgs/Hr	100 Kgs/Hr	
OF MILK			
CHILLED WATER REQUIREMENT AT 1.5 C	3,000 LPH	6,000 LPH	
SPACE REQUIRED LXW mm	1200 X 2500	1200 X 2500	





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**OTHER PRODUCTS** 





















