



MATHURA REFINERY
MECHANICAL MAINTENANCE
TECHNICAL SPECIFICATION

REF:
TPS/MM

December 18, 2017

Turbine for MOP(Details to be freezed and filled while offering items)

OPERATING CONDITIONS FOR Steam Turbine Power kW									
	Power KW	Speed RPM	Steam Rate Kg/kW- Hr			Inlet steam (Min, Norm, Max)		EXHAUST (Min, Norm, Max)	Hand valve Position
Press Kg/cm ² (g)						Press Kg/cm ² (g)	Temp ° C	Press Kg/cm ² (g)	Temp ° C
PUMP NORMAL						12	275	4	200
TURBINE RATED						13.5	300	4.5	225
Maximum Condition						16	325	5	250
Turbine Speed Range:				Turbine Trip Speed:					
CONSTRUCTION									
Design Specification:	API 611 latest Edition			Bearings:					
Casing:				Radial Bearing Type:			Journal sleeve bearings		
Turbine Type:	Horizontal			Thrust Bearing Type:			Ball thrust bearing		
Number of Stages:	1/2			Lubrication Type:			Non Pressurized lubrication		
Casing Support:	Centerline			Oil Type:			Mineral Base		
End Seal Type:	Carbon rings with brush seals			Hand Valve			No Hand Valve		
Interstage Seal Type:	As applicable			Trip:			Integral to the steam chest		
Rotor:									
Construction:	Between bearing, Built-up with forged shaft and discs			Nozzle:			SIW nozzles specified		
Blading	Profile SiW blading specified			Expected Sound Level @ 1M:			85 dBA		
MATERIALS									
High Pressure Casing:	To be specified by vendor								
Exhaust Casing:	To be specified by vendor			Inlet strainer			Stainless Steel		
Nozzles:	AISI 410								
Rotor Shaft:	AISI 4340 forged								
Rotor Disks:	AISI 4340 forged								
Rotor Blading:	X20Cr13								
TURBINE ONLY - OIL, WATER, AND AIR REQUIREMENTS									
Utility	Flow (steady state)	Flow (transient)	Pressure Kg/cm ² (g)	Viscosity	Heat Load	Temperature			
Lubrication Oil:									
Cooling Water:									
Casing Connections	Size	Rating		Facing		Position *			
Inlet									
Exhaust									

TPS-MM-DS-TECH-SPEC-MOPDT-R00