







Contractor: 	Project :MKP Methanol Project			Owner : 		
	Unit	Flare	Phase			Basic Engineering
	Doc. Title :	Process Data Sheet for Flare Stack Package				
	Owner No.	MKP-11-BE-8500-PR-DSH-001				
	ContractorNo.:	MKP-11-BE-8500-PS11-DSH-018				
Licensor: 	TOPSOE No.	N/A		Rev. : 0	Page : 1 of 4	



# Process Data Sheet for Flare Stack Package

REV.	DATE	PURPOSE OF ISSUE	PREPARE	CHECK	REVIEW	APPROVE
0	7.6.2016	Final Issue	Li Yanan	Xu Hang	Shi Jing	
B2	14.4.2016	Issued for Review	LuoJiaqi	Xu Hang	Shi Jing	
B1	14.3.2016	Issued for Review	LuoJiaqi	Xu Hang	Shi Jing	
B	18.2.2016	Issued for Review	LuoJiaqi	Xu Hang	Shi Jing	
A	30.12.2015	Issued for Comments	LuoJiaqi	Xu Hang	Shi Jing	



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PROCESS DATA				
Gas Composition:	mol %	Process Conditions:		
		Variable	Value	Units
		Flow Rate	510000(Max)	Kg/hr
CO	15.17	Pressure	26.3	Bar g
CO <sub>2</sub>	5.17	Temperature	360	°C
H <sub>2</sub>	48.85	Molecular Weight	13.14	
H <sub>2</sub> O	29.42	LHV	7350	KJ/Nm <sup>3</sup>
CH <sub>4</sub>	0.46	Max. Operating Temp	390	°C
Ar	0.02	Operating Press	1.5	Barg
N <sub>2</sub>	0.92	Process/Waste Stream	<input checked="" type="checkbox"/> Gas <input type="checkbox"/> Liquid	
<b>Detailed process Description / Process Notes:</b>				
1. Max. Allow. Radiation at Ground 1.58 kW/m <sup>2</sup> . 2. Actual gas composition varies by site.				
<b>Available Utilities:</b>				
Utilities	Pressure(barg)		Temperature(°C)	
Fuel/Pilot Gas	4.0		40	
Instrumental Air	8.3		Ambient-48	
Nitrogen	8.7		Ambient-48	
Low Pressure Steam	7		188	
SW	5.9		35	
<b>GESIGN DATA</b>				
Ambient Temperature:		Noise Performance Requirements:		
Low, °C	5	Structural Design Code:		
High, °C	52	Wind Design Code:		
Max. Relative Humidity:				
Maximum in summer	76%			
Minimum in winter	74%	Seismic Design code:		
<b>EQUIPMENT SPECIFICATION</b>				
<b>Flare Type :</b> <input checked="" type="checkbox"/> Elevated <input type="checkbox"/> Enclosed <input type="checkbox"/> Above Ground <input type="checkbox"/> Stack <input type="checkbox"/> Multiple Stack <input type="checkbox"/> Portable/ Trailer		<b>Equipment Design</b> Component      Material/Size/Rating/Other		
<b>Smokeless By:</b> <input checked="" type="checkbox"/> Steam <input type="checkbox"/> Assist Air <input type="checkbox"/> Gas Assist <input type="checkbox"/> Staging <input type="checkbox"/> Assist Air <input type="checkbox"/> None		Burner Burner Tip Burner Body <b>Pilot:</b> Pilot Tip No. Required <b>Firebox / Stack:</b>	310S.S C.S 310S.S 4 (vender to advise)	
<b>Stack:</b> <input checked="" type="checkbox"/> Self Supporting				
<b>Flare Burner:</b> <input checked="" type="checkbox"/> <input type="checkbox"/> Smokeless <input type="checkbox"/> Gas Assist		Shell Piping Piping Nozzles		
<b>Pilot:</b> <input checked="" type="checkbox"/> Intermittent <input checked="" type="checkbox"/> Continuous		CS CS		
<b>Pilot Air Inspirator :</b> <input type="checkbox"/> Local <input type="checkbox"/> Remote		CS		

Contractor:  <b>TIANCHEN CORP. CHINA</b>	Project :MKP Methanol Project			Owner :  شرکت کیمیای پارس خاورمیانه Middle East Kemiya Pars Co.	
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<b>Pilot Flame Control:</b> <input type="checkbox"/> No <input type="checkbox"/> Yes	Flanges	CS
	Insulation	By vendor
<b>Pilot Ignition:</b>	Insulation Pins	By vendor
<input type="checkbox"/> Flamefront <input type="checkbox"/> Generator	Refractory	By vendor
<input type="checkbox"/> Inspiring <input checked="" type="checkbox"/> Electronic	Refractory Anchors	By vendor
<input checked="" type="checkbox"/> Automatic <input type="checkbox"/> Manual	Ladders and Platforms	By vendor
<b>Drum Type:</b>	Sight Glass	By vendor
<input type="checkbox"/> Vertical Knockout	Other	By vendor
<input checked="" type="checkbox"/> Liquid Seal	<b>Auxiliary Equipment</b>	
<input checked="" type="checkbox"/> Horizontal Knockout <input type="checkbox"/> None	Valves	By vendor
<b>Purge Seal Type:</b>	Inlet KO	By vendor
<input checked="" type="checkbox"/> Gas Purge Seal	Liquid Seal	By vendor
<input type="checkbox"/> Velocity Purge Seal	Flame/Detonation Arrestor	YES
<input type="checkbox"/> None	Instrumentation & Controls	By vendor
	Shut-Off Valves	By vendor
	Flow Meters	By vendor
	Calorimeter	By vendor
	Pressure	By vendor
	Thermocouples	By vendor
	Temperature Switches / Transmitters	By vendor

#### FABRICATION AND INSPECTION

Special Requirements : <input type="checkbox"/> Skid Mounted <input checked="" type="checkbox"/> Concrete <input type="checkbox"/> Other	Equipment info	
	Component	Weight / Dimensions
<b>Inspection:</b> <input checked="" type="checkbox"/> Vendor Standard	<b>Burner</b>	
<input type="checkbox"/> Other Specify:	Burner Assembly	By vendor
<b>Material Certification:</b> <input checked="" type="checkbox"/> Vendor Standard	Stack Assembly	By vendor
<input type="checkbox"/> MTR	Pilot Tip	By vendor
<input type="checkbox"/> Certificate of Compliance	Pilot line(s)	By vendor
<input type="checkbox"/> Other(specify)	Stack Assembly	By vendor
<b>NDE:</b> <input type="checkbox"/> Vendor Standard	<b>Auxiliary Equipment</b>	
<input type="checkbox"/> Radiography Specify	KO Drum	By vendor
<input type="checkbox"/> Ultrasonic Specify	Liquid Seal	By vendor
<input type="checkbox"/> Liquid Penetrant	<b>Instrumentation &amp; Controls</b>	
<input type="checkbox"/> Magnetic Particles	BMS	By vendor
<input type="checkbox"/> PMI Specify	Control Panel	By vendor
<input type="checkbox"/> Other Specify		
<b>Surface preparation:</b> <input checked="" type="checkbox"/> Vendor Standard		
<input type="checkbox"/> Other Specify		
<b>Paint System:</b> <input checked="" type="checkbox"/> Vendor Standard		
<input type="checkbox"/> Other Specify		
<b>Finished Color</b> <input checked="" type="checkbox"/> Vendor Standard		
<input type="checkbox"/> Other Specify		