

<b>X 7201 A/B</b> CARTRIDGE FILTER CAPACITY: 150 m <sup>3</sup> /h ID x LENGTH: 1000 x 1500 mm DESIGN PRESS.: 10 barg DESIGN TEMP.: 85 °C MATERIAL: C.S+R.L. INTERNAL-PP	<b>E 7201 A/B</b> PLATE HEAT EXCHANGER HOT MEDIUM/COLD MEDIUM: 60~40/(48~40) °C/38~48 HEAT EXCHANGE AREA: 280 m <sup>2</sup> DESIGN PRESS.: 10 barg DESIGN TEMP.: 85 °C MATERIAL SHELL: SS304	<b>TK 7201</b> INTERMEDIATE WATER TANK ID x LENGTH: 8000 x 12000 mm VOLUME: 450 m <sup>3</sup> DESIGN PRESS.: ATM barg DESIGN TEMP.: 85 °C MATERIAL SHELL: SS304	<b>P 7201 A/B</b> INTERMEDIATE WATER PUMP CAPACITY: 300 m <sup>3</sup> /h Head: 50 m POWER: 75 kW MATERIAL: SS304 DRIVER TYPE: MOTOR	<b>R 7201 A/B</b> MIXED-ION EXCHANGER CAPACITY: 250 m <sup>3</sup> /h ID x LENGTH: 2500 x 5500 mm DESIGN PRESS.: 10 barg DESIGN TEMP.: 85 °C MATERIAL: C.S+RUBBER	<b>X 7204</b> CARTRIDGE FILTER CAPACITY: 150 m <sup>3</sup> /h ID x LENGTH: 1000 x 1500 mm DESIGN PRESS.: 10 barg DESIGN TEMP.: 85 °C MATERIAL: C.S+R.L. INTERNAL-PP
<b>D 7205</b> COMPRESSED AIR VESSEL ID x LENGTH: 2000 x 4880 mm VOLUME: 12.5 m <sup>3</sup> DESIGN PRESS.: 10.5 barg DESIGN TEMP.: 85 °C MATERIAL SHELL: SS304	<b>P 7205 A/B</b> NEUTRALIZATION WATER PUMP CAPACITY: 25 m <sup>3</sup> /h Head: 50 m POWER: 7.5 kW MATERIAL: SS316L DRIVER TYPE: MOTOR	<b>P 7204 A/B</b> REGENERATION PUMP CAPACITY: 85 m <sup>3</sup> /h Head: 35 m POWER: 15 kW MATERIAL: SS304 DRIVER TYPE: MOTOR	<b>P 7002 A/B</b> DEMIN WATER PUMP CAPACITY: 265 m <sup>3</sup> /h Head: 85 m POWER: 132 kW MATERIAL: SS304 DRIVER TYPE: MOTOR	<b>TK 7001 1/2</b> DEMIN WATER TANK ID x LENGTH: 15000 x 22000mm VOLUME: 3500 m <sup>3</sup> DESIGN PRESS.: ATM barg DESIGN TEMP.: 85 °C MATERIAL SHELL: SS304	<b>TK 7202</b> ACID METERING TANK ID x LENGTH: 2500 x 5500 mm VOLUME: 25 m <sup>3</sup> DESIGN PRESS.: ATM barg DESIGN TEMP.: 85 °C MATERIAL SHELL: SS316L
			<b>P 7203 A/B</b> ALKALI TRANSFER PUMP CAPACITY: 10 m <sup>3</sup> /h Head: 10 m POWER: 2.2 kW MATERIAL: SS316 DRIVER TYPE: MOTOR	<b>P 7202 A/B</b> ACID TRANSFER PUMP CAPACITY: 10 m <sup>3</sup> /h Head: 10 m POWER: 2.2 kW MATERIAL: C.I.+PVDF DRIVER TYPE: MOTOR	<b>TK 7204</b> ALKALI METERING TANK ID x LENGTH: 2500 x 5500 mm VOLUME: 25 m <sup>3</sup> DESIGN PRESS.: ATM barg DESIGN TEMP.: 85 °C MATERIAL SHELL: SS304L

**GENERAL NOTES**

NOTE 1: ACID AND ALKALI ARE USED FOR REGENERATION OF ION EXCHANGER RESINS AND ALSO NEUTRALIZING THE EFFLUENTS INTERMITTENTLY.

NOTE 2: THE CARTRIDGE FILTER X 7204 WILL SHARE THE SPARE FILTER WITH X 7201A/B. THE INLET AND OUTLET PIPING SHOULD BE CONNECTED WITH THE SPARE FILTER.

NOTE 3: VENDOR CONFIRM COMPRESSED AIR VESSEL OR BLOWERS ARE ADOPTED.

NOTE 4: THIS DRAWING HAS BEEN MODIFIED SINCE DMW WATER FROM DAMAVAND NEEDS TO BE POLISHED, THE REVISED CAPACITY OF POLISHING UNIT IS 250 M<sup>3</sup>/H.

NOTE 5: THIS DRAWING IS ONLY FOR VENDOR'S REFERENCE. THE DETAILED DESIGN SHOULD BE FINISHED BY VENDOR AND APPROVED BY TCC.

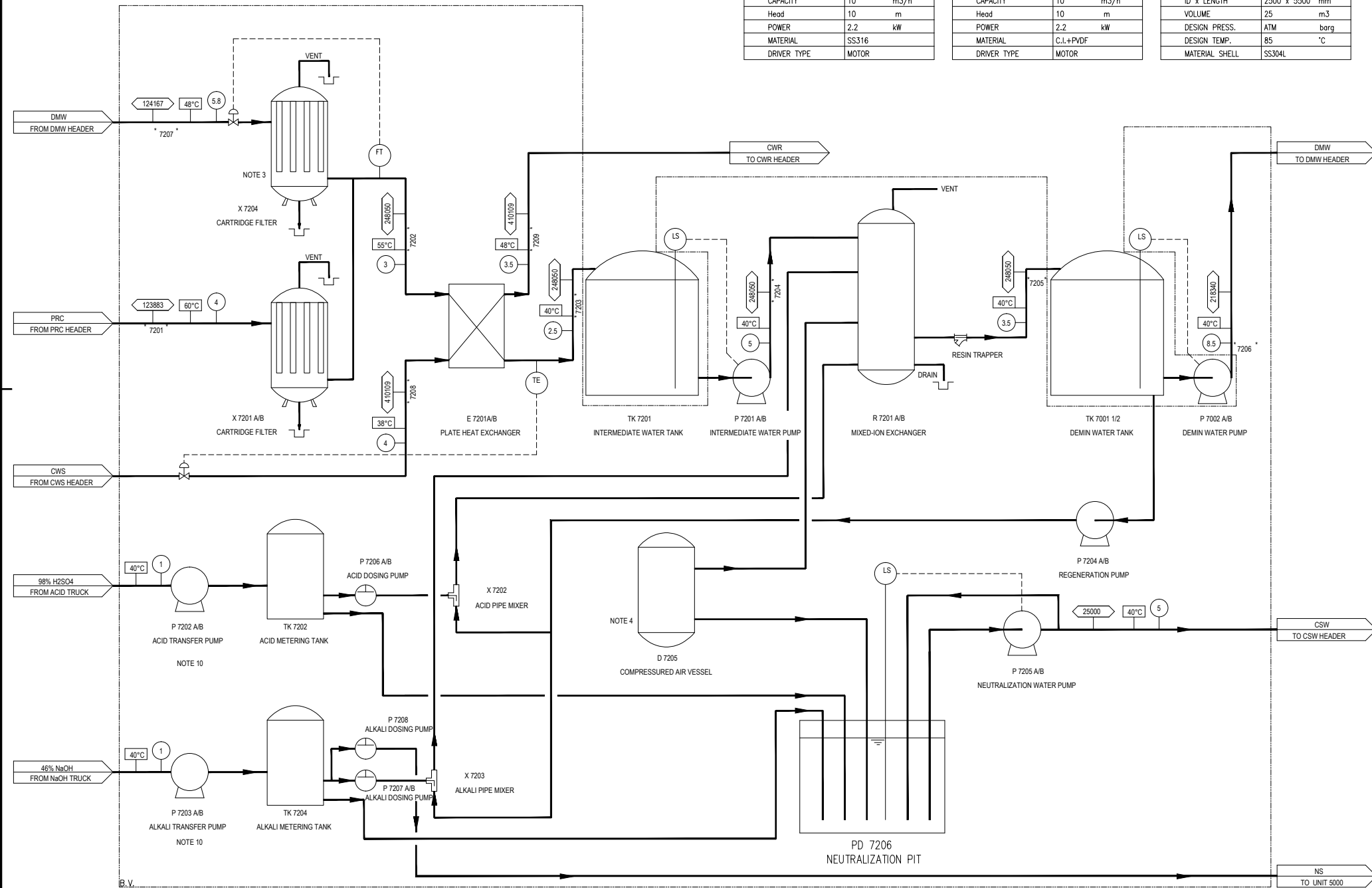
NOTE 6: THE B.L. OF VENDOR IS ALL THE EQUIPMENTS ON THIS DIAGRAM EXCEPT FOR TK 7201, TK 7001 1/2 AND THEIR STRUCTURAL ACCESSORIES; INSTRUMENTS; LOCAL LEVEL GAUGES AND LOCAL TEMPERATURE GAUGES; AND DEMIN WATER MOTORS MP 7002 AB AND PUMPS P 7002 AB.

NOTE 7: THE ACTUAL DIMENSIONS OF R 7201 AB NEED TO BE CONFIRMED BY VENDOR.

NOTE 8: THIS DRAWING HAS BEEN GENERALLY REVISED ON REV. B.

NOTE 9: THE TURBINE CONDENSATE QUALITY MAY BE REVISED AS PER VENDOR OF COMPRESSOR DATA.

NOTE 10: STANDBY PUMP SHALL BE CONSIDERED FOR ACID TRANSFER PUMP AND ALKALI TRANSFER PUMP. IF THERE IS NO SPACE FOR INSTALLATION, THE STANDBY PUMP WILL BE STORED IN THE WAREHOUSE. THIS MATTER WILL BE DISCUSSED WITH POLISHING UNIT PACKAGE VENDOR.



**REFERENCE DRAWINGS**


**SYMBOLS AND LEGENDS**

- Flow line
- Temperature °C
- Pressure bar(G)

**KEY PLAN**


Approved for Construction	10.02.2017	Liang Zhipeng	Tian Tao	Xie Xuan			
Issued For Approval	20.01.2017	Liang Zhipeng	Tian Tao	Xie Xuan			
Issued For Approval	05.01.2017	Liang Zhipeng	Tian Tao	Xie Xuan			
Issued For Review	14.12.2016	Liang Zhipeng	Tian Tao	Xie Xuan			
Issued For Comments	28.10.2016	Liang Zhipeng	Tian Tao	Xie Xuan			
REV.	PURPOSE OF ISSUE	DATE	DESIGN	DRAW	CHECK	REVIEW	APPROVE

OWNER: Middle East Kimiaye Pars Company

CONTRACTOR: HALDOR TOPSØE A/S

CONTRACTOR DRAWING NO. MKP-11-DE-7200-EE06-PFD-001

SHEET 01 TOTAL

SUB-CONTRACTOR DRAWING NO.

SHEET TOTAL

	*7201* NOTE 9	*7202*	*7203*	*7204*	*7205*	*7206*	*7207*	*7208*	*7209*	*7210*
STREAM	TURBINE CONDENSATE	TURBINE CONDENSATE	TURBINE CONDENSATE	TURBINE CONDENSATE	DEMIN WATER	DEMIN WATER	DEMIN WATER FROM B.L.	COOLING WATER SUPPLY	COOLING WATER RETURN	CLEAN SALTY WATER
TEMPERATURE (°C)	60	60	40	40	40	40	48	38	48	40
PRESSURE (Bar G)	4	2	1.5	4.5	3	8.5	MIN./NOR./MAX. 5/5.8/6.7	4	3.5	5
DENSITY (kg/m <sup>3</sup> )	983.2	983.2	992.2	992.2	992.2	992.2	989.0	993.0	990.0	10000
LIQUID RATE (kg/hr)	104650 (TC AT ITS NOR.) 123883 (TC AT ITS MAX.)	248050	248050	248050	248050	218340	143400 (TC AT ITS NOR.) 124167 (TC AT ITS MAX.)	410109	410109	25000

PROCESS FLOW DIAGRAM FOR POLISHING UNIT

PROJCT	MKP Methanol Project
UNIT	POLISHING UNIT
PHASE	DETAIL ENGINEERING
SCALE	SHEET 1 TOT. 1 SIZE A1
COUNTER SIGNING	Sign Date
OWNER DWG NO.	MKP-11-DE-7200-PR-PFD-001