R−1004

AUTOTHERMAL REFORMER

Vnom	332.4 m3
od	5744 mm
1TL−TL	10250 mm
pe *	41 bar
t *	350/450 °C
* = MECH.DESIGN	

SIGNAL TO PD−101016 — SHEET 110 | L5

SIGNAL TO PDI−101017 — SHEET 110 | B5

4"−MSS−10−10−023−BD1−H−53−W1−BW1

MP STEAM SUPERHEATED — C15 | SHEET 110 — TO SATELLITE BURNER

MP−STEAM SUPERHEATED — C15 | SHEET 110 — TO CENTRAL BURNER

3"−MSS−10−10−006−BD1−H−53−W1−BW1

CENTR. BURNER

PI 101119 H | PDI 101118 H L

PT 101119 | TI 101127 L | TT 101127 | TT 101145

MIN. TO R−1004

TDI 101127 H | TT 101125 | TI 101125 L | TT 101147

100XS012 ND1 ZD1 100XS008

2"−OXS−10−11−006− ND1−P−53−WP1−

ZD1 100XS001 ND1 100XS006 TO SAFE LOCATION

TDI 101125 H | PT 101139 | PI 101139 H | TI 101134 H

2"−OXS−10−11−012− ND1−P−53−WP1− TO SAFE LOCATION

10SPP 087

TT 101134 | TS 101134 LL | I 1008

PDI 101138 H L — SATELLITE BURNER

TS 101135 HH — DETAIL 3

TI 101135 H L | TT 101135A | TT 101135B | TT 101135C

TT 101141A | TS 101141 HH | TT 101141B | TT 101141C | TI 101141 H L

TT 101136A | TS 101136 HH | TT 101136B | TT 101136C | TI 101136 H L

TT 101142A | TS 101142 HH | TT 101142B | TT 101142C | TI 101142 H L

DETAIL 3

TT 101140 | TI 101140 H L

1"−FEG−10−11−027 −JF1−H−53−W1− INCOLLOY BOOHT

1"−MSS−10−11−024− BD1−P−53−WP1−BW1

BREAK FLANGE

1"−MSS−10−11−007− BD1−H−53−W1−BW1

TO SAFE LOCATION

R−1004 VT−R−1004 JF1/BD1

1 CENTRAL BURNER

7 SATELL. BURNERS

M1 | M2 | N1 | N2A | N2B | N3 | N4 | N5 | N6A | N6B | N7 | N8 | N9 | N10 | N11A.B/N12 | N13 | N14

P1 | P2

T1 | T1−T4 | T2 | T3 | T4 | T5 | T5−T7 | T6 | T7 | T8 | T9 | T9−T10 | T10

A ... P TT 101131 | A ... P TI 101131

LT 101101 | L1 | L2

VT−R−1004 NB1

REFRACTORY LINED

TRANSFER LINE

10"−OXS−10−10−001−ZD1−H−53−W1−

10"−OXS−10−10−008−ZD1−H−53−W1−

OXYGEN/STEAM MIXTURE E−1020 A — G15 | SHEET 110 — TO CENTERL BURNER

TDY−101127 — G15 | SHEET 110

TDY−101125 — H15 | SHEET 110

OXYGEN/STEAM MIXTURE E−1020 B — H15 | SHEET 110 — TO CENTERL BURNER

1"−FEG−10−11−030− JF1−H−53−W1−

1"−FEG−10−11−027−JF1−H−53−W1−

3/4"−FEG−10−11−031 −JF1−H−53−W1− INCOLLOY BOOHT

3/4"−FEG−10−11−031 −JF1−H−53−W1−

CATALYST PDI 101123 H

FO 101151 | FO 101152 | FO 101153 | FO 101154 | FO 101155 | FO 101156 | FO 101157 | FO 101158 | FO 101159

PDT 101123 | PDT 101122A | PDT 101122B | PDT 101122C | PDT 101121

10SPP 072 | 10SPP 100

PT 101120 | PI 101120 H

PDI 101117 DEVIATION BURNER/ TRANSFER LINE

PDS 101122 HH — DETAIL 3

PDI 101121 H L — TRANSFER LINE

PDI 101122 H L — CENTRAL BURNER

16"−FEG−10−08−018− JF1−H−53−W1−

1"−FEG−10−11−028− JF1−H−53−W1−

16"/12" | 1 1/2"

FEED GAS FROM E−1009 II — SHEET 108 | L1

IMPULSE LINE FROM FO−100660 — SHEET 106 | L2

REFORMED GAS FROM H−1001 — SHEET 106 | L4

FT 101122A | FT 101122B | FT 101122C | FE 101122 | 10SPP 026

FS 101122 LL LLL — DETAIL 3 — I 1008

FC 101122 H L | UY 101008 — RAMP TO MIN. SIGNAL

FV 101122 — FL/FO

TI 101146 — MIN. TO R−1004

FY 101122 S — ATM. — TYPICAL−1A

TT 101137A | TT 101137B | TT 101137C | TS 101137 HH | TI 101137 H L

LC 101101 L

TT 101138A | TT 101138B | TT 101138C | TS 101138 HH | TI 101138 H L

TDS 101114 HH | TDI 101114 H — DEVIATION

TT 101139A | TT 101139B | TT 101139C | TS 101139 HH | TI 101139 H L

TT 101132A | TT 101132B | TS 101132 HH LL | TI 101132 H

2 OUT OF 2

TT 101128A | TT 101128B | TS 101128 HH LL | TI 101128 H

2 OUT OF 2

8"−CJW−10−11−003− AA2−P−53−WP1−BW1 — COOLING JACKET WATER TO D−1009 — SHEET 116 | L5

4"−CJW−10−16−002− AA2−P−53−WP1−BW1 — COOLING JACKET WATER FROM E−1019 A/B — SHEET 116 | L2

SIGNAL TO LY−101602 — SHEET 116 | L8

3"−CJW−10−16−001− AA2−P−53−WP1−BW1 — COOLING JACKET WATER FROM CJW−10−16−002 — SHEET 116 | L1

FE 101125 — 10SPP 027

FT 101125C | FT 101125B | FT 101125A

FS 101125 LL LLL — DETAIL 3 — I 1008

FC 101125 H L | UY 101008 — RAMP TO MIN. SIGNAL

FV 101125 — FL/FO

TI 101148 — MIN. TO R−1004

FY 101125 S — ATM. — TYPICAL 1A

PDT 101142A | PDT 101142B | PDT 101142C

PDS 101142 — DETAIL 3

PY1 101142 | PY2 101142

PDI 101142 H L

FFI 101125 H L — DEVIATION ANNULAR STEAM

FFS 101125 H L

I 1008 — CLOSE FV−101039

RESET — HS 101105 — I 1008

STOP ATR — HS 101122 — I 1008 — LOCAL PANEL IN CR

E−1003 B — G1 | SHEET 112

E−1003 A — H1 | SHEET 112

REMARKS:

ALL PRESSURES ARE IN GAUGE IF NOT STATED OTHERWISE

1) IMPULSE LINES FOR DELTA−P MEASUREMENT 1" MIN.
3) IMPULSE LINES FOR DELTA−P MEASUREMENT TO BE SELF−DRAINING
4) LOW ALARM IS ONLY ACTIVE IF T−100629 IS ABOVE 300°C (SHEET 106)
6) ALL DRAINS TO BE PROVIDED WITH ELBOW−OUT PIPES TO ATMOSPHERE
7) INSULATE 6 M FROM TAP POINT
8) LOCATE TAP POINT CLOSE TO REACTOR INLET NOZZLE
9) ALL RESTRICTION ORIFICES (FO) AT INLET OF DP−MEASUREMENTS WITH 2 MM DIA. BORE HOLE. DP−CELLS WITH MANIFOLD
10) ELBOW IN INCOLOY 800
11) KEEP APP.1 M WITHOUT INSULATION TO ALLOW DETECTION OF HEAT SHIELD FAILURE
12) THERMOWELL FLANGED , 1 1/2"
14) CONTROL VALVE STATION TO BE LOCATED AT GRADE
15) EXCENTRIC REDUCER WITH FLAT BOTTOM
16) PERMISSIVE START−UP
18) KEEP ABOUT 1 M WITHOUT INSULATION TO ALLOW DETECTION OF HEAT SHIELD FAILURE
19) DISTANCE BETWEEN REDUCERS =2.5 M
20) TEMPERATURE COMPENSATED BY T−101020
21) DEVIATION OF T−101135/36/37/38/39/42

STEAM LINES TO BE THOROUGHLY CLEANED / STEAM BLOWN DURING PRE−COMMISSIONING

REV.	LF/PS	NAME	DATE	NAME	NAME	DATE	STATUS	KIND OF REVISION
	PREPARED/CHANGED			CHECKED	APPROVED			
11		E.N	17.03.21	AR.MOEINI			ASBUILT	REVISED AS MARKED
10		RP	11.10.19	A.Rezaei		11.10.19		REVISED AS MARKED
9		RP	29.06.13	E.B		29.06.13		REVISED AS MARKED
8		BYL	14.03.06	ZMM	PTK	16.03.06	AFC	REVISED AS MARKED
7		KKP	15.12.03	ZMM	PTK	16.12.03	AFC	REVISED AS MARKED

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ZAGROS PETROCHEMICAL COMPANY

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SIGNATURE DATE

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SCALE: ORIGINAL SIZE:

NOMINATION: R−1004

BASIC DOCUMENT:

DCC | DG | DL−NO.: RT

JOB NAME: MEGA METHANOL IRAN

OWNER: NATIONAL PETROCHEMICAL COMPANY ZAGROS PETROCHEMICAL COMPLEX شرکت پتروشیمی زاگرس

PROJECT: 4th METHANOL PROJECT

OWNER: | CONTRACTOR: | DWG. NO.: DIG−PI−015 | REV.: 11

CONTRACTOR: PETROCHEMICAL INDUSTRIES DESIGN & ENGINEERING COMPANY شرکت طراحی ومهندسی صنایع پتروشیمی

ZPC PROJ.NO.: 40404277 | PIDEC PROJ.NO.: 1175 | DWG. NO. | REV.: 11

engineering Lurgi

REFORMING AUTOTHERMAL REFORMER UNIT 100 P&ID DIAGRAM SHEET 111

LURGI JOB NO.: I6966601 | LURGIDOCUMENT NO.: 37115 | REV.: 11

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