




PROJECT:

# EastMed Pipeline Project

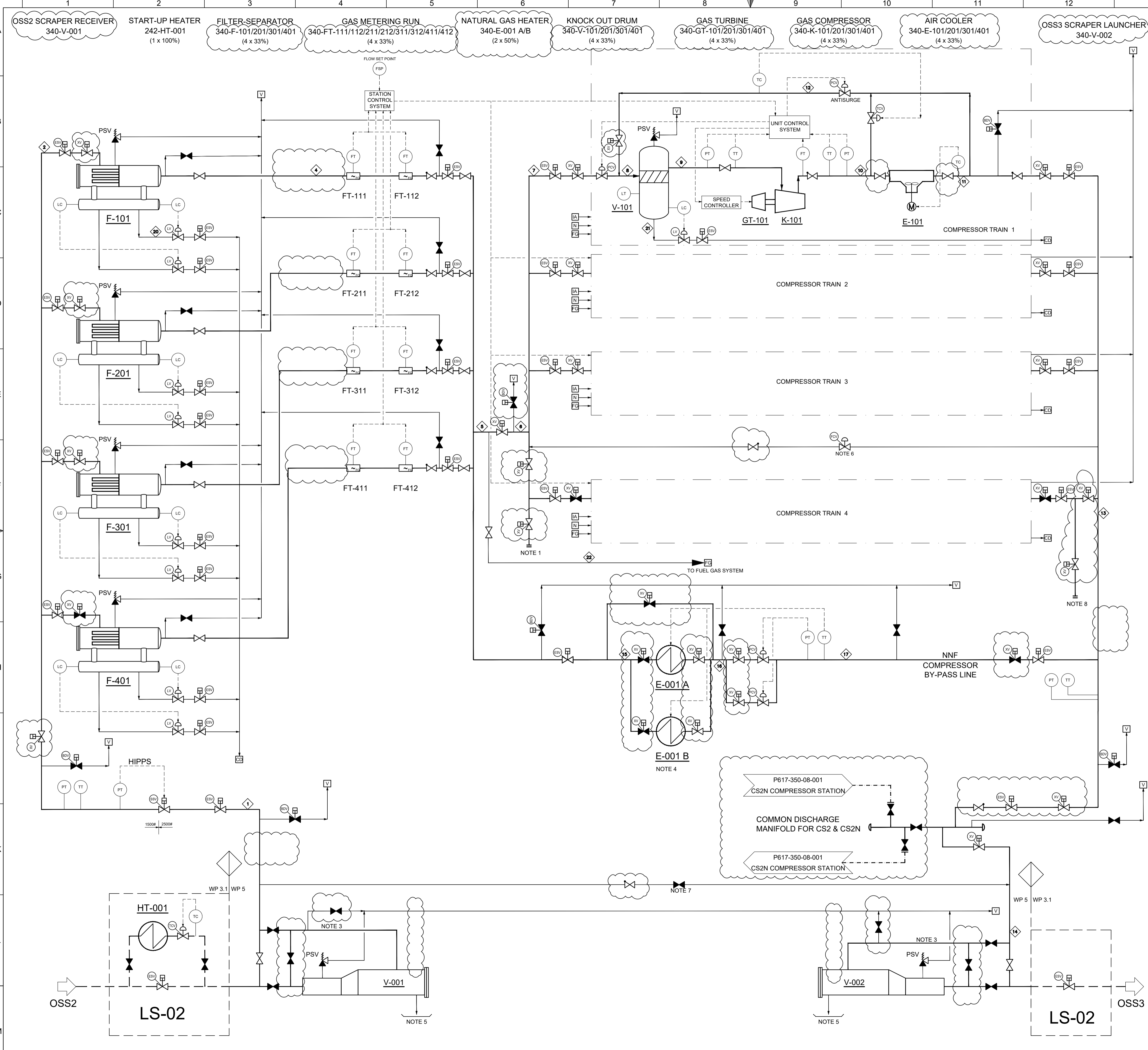


Document Title:	EastMed Greek Section – Environmental and Social Impact Assessment
Document Subtitle:	Annex 6K – General Process Flow Diagram of Main Stations
Project Document No:	PERM-GREE-ESIA-A06_0012_0_Annex6K

	<b>EASTMED PIPELINE PROJECT</b>	 
	EastMed Greek Section – Environmental and Social Impact Assessment	DOC No: PERM-GREE-ESIA- A06_0012_0_Annex6K
		REV. : 00 PAGE : 2 OF 2

Document details	
Document title	EastMed Greek Section – Environmental and Social Impact Assessment
Document subtitle	Annex 6K – General Process Flow Diagram of Main Stations
Company	IGI Poseidon
Author	ASPROFOS
Project	EastMed Pipeline Project
Project Document No.	PERM-GREE-ESIA-A06_0012_0_Annex6K
Date	03/06/2022
Version	00

Document history					
Revision	Author	Reviewed by	Approved by	Date	Status
00	ASPROFOS	IGI POSEIDON	IGI POSEIDON	03/06/2022	For submission to Authorities



REFERENCE DRAWINGS

ΣΧΕΤΙΚΑ ΣΧΕΔΙΑ

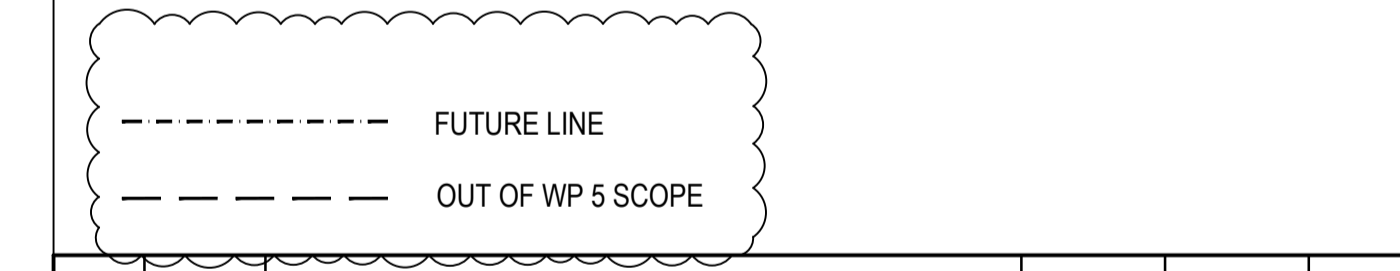
DRAWING NUMBER ΑΡΙΘΜΟΣ ΣΧΕΔΙΟΥ	DRAWING TITLE ΤΙΤΛΟΣ ΣΧΕΔΙΟΥ
P617-340-RP-PRS-01	CRETE COMPRESSOR AND METERING STATION CS2 / MS2 HEAT & MATERIAL BALANCES

NOTES / ΠΑΡΑΤΗΡΗΣΕΙΣ

- STUB-OUT FOR CONNECTION OF CS2N SUCTION HEADER. CS2 AND CS2N WILL SHARE THE ONE COMMON SPARE COMPRESSOR TURBINE UNIT.
- DELETED.
- REQUIREMENT FOR HEATING OF PIGGING BY-PASS (KICKER LINE) SHALL BE INVESTIGATED.
- GAS HEATERS WILL BE UTILIZED DURING LOW FLOW CASES WHERE COMPRESSION SECTION WILL BE BY-PASSED.
- DUE TO THE LIMITED PROBABILITY OF LIQUID COLLECTED DURING PIGGING, THE COLLECTION IS FORESEEN LOCALLY.
- RECYCLE LINE FOR START UP AND FLOW ADJUSTMENT.
- STATION BY-PASS FOR COMMISSIONING DOWNSTREAM PIPELINE SECTIONS.
- CONNECTION TO CS2/MS2 N.

LEGEND / SYMBOLS

<p>ABBREVIATIONS:</p> <ul style="list-style-type: none"> <li>BDV BLOW DOWN VALVE</li> <li>ESV EMERGENCY SHUTDOWN VALVE</li> <li>FCV FLOW CONTROL VALVE</li> <li>HIPPS HIGH INTEGRITY PRESSURE PROTECTION SYSTEM</li> <li>MOV MOTOR OPERATED VALVE</li> <li>NNF NORMALLY NO FLOW</li> <li>PCV PRESSURE CONTROL VALVE</li> <li>PSV PRESSURE SAFETY VALVE</li> <li>SSV SAFETY SHUTDOWN VALVE</li> <li>TCV TEMPERATURE CONTROL VALVE</li> <li>XV SHUT-OFF VALVE</li> </ul>	<ul style="list-style-type: none"> <li> CLOSED DRAIN SYSTEM</li> <li> FUEL GAS SYSTEM</li> <li> INSTRUMENT AIR SYSTEM</li> <li> NITROGEN</li> <li> VENT SYSTEM</li> <li> PNEUMATIC VALVE</li> <li> MOTOR OPERATED VALVE</li> <li> CONTROL VALVE</li> <li> CHECK VALVE</li> <li> STREAM NUMBER</li> <li> ULTRASONIC FLOWMETER</li> <li> BATTERY LIMIT (FEED SCOPE)</li> </ul>
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REV.	DATE	DESCRIPTION	DRAWN	CHECKED	APPROVED
3	2021.09.29	ISSUED FOR USE	AF	MD	EK
2	2021.05.28	ISSUED FOR APPROVAL	AF	MD	EK
1	2021.04.26	ISSUED FOR CPY'S REVIEW	AF	MD	EK
A	2021.04.14	ISSUED FOR INTERNAL REVIEW	AF	MD	EK

COMPANY - ΕΤΑΙΡΕΙΑ

**IGI Poseidon**

ENGINEER - ΜΕΛΕΤΗΤΗΣ / CONSORTIUM - ΣΥΜΠΡΑΞΗ

**SAIPEM** & **CM ENGINEERING S.A.**

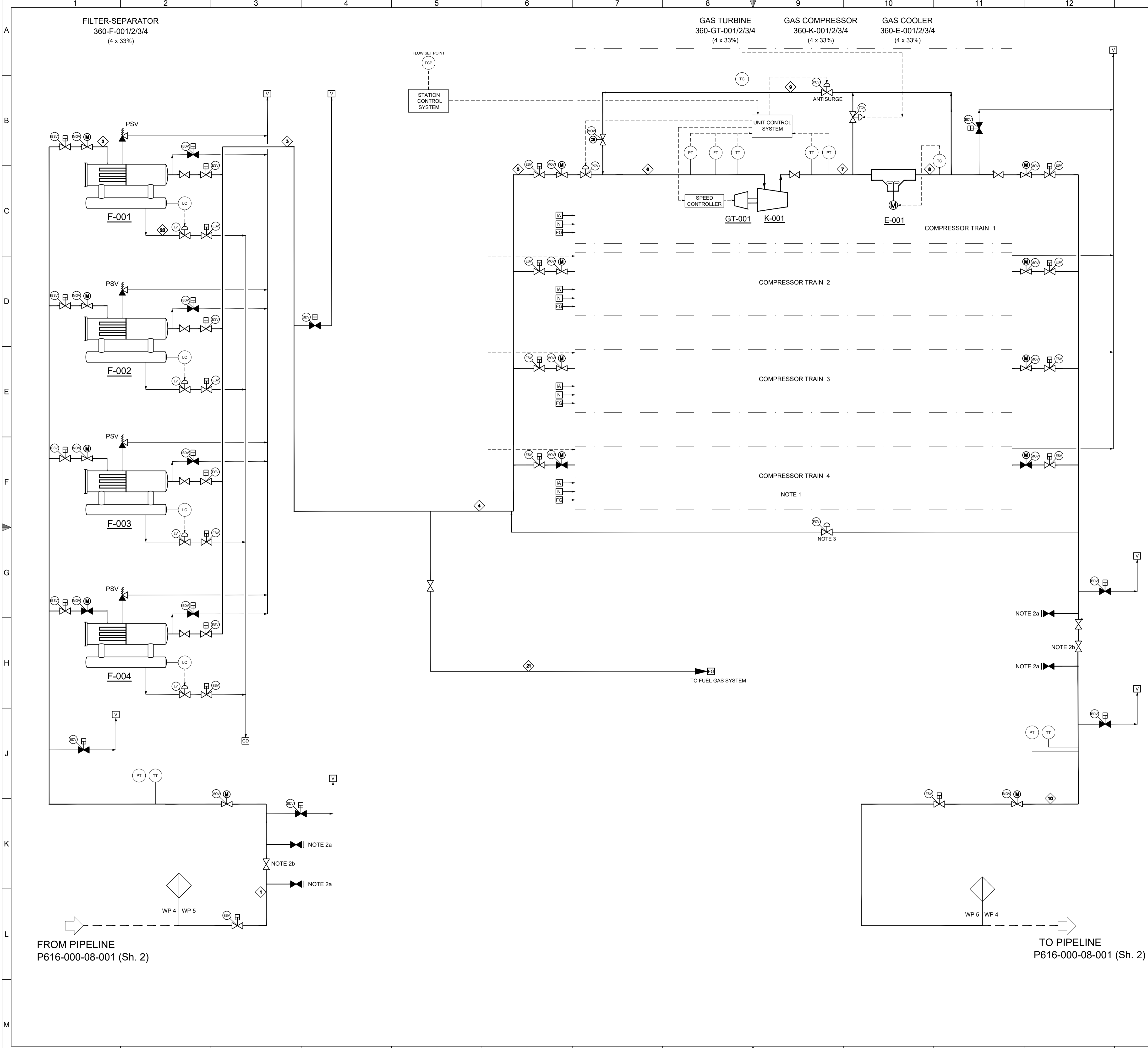
PROJECT - ΕΡΓΟ

EASTMED PIPELINE PROJECT  
FRONT END ENGINEERING & DESIGN (FEED) - FACILITIES  
ΕΡΓΟ ΑΓΩΓΟΥ EASTMED  
ΟΡΙΣΤΙΚΗ ΜΕΛΕΤΗ - ΣΤΑΘΜΟΙ

TITLE - ΤΙΤΛΟΣ

**CRETE COMPRESSOR AND METERING STATION CS2 / MS2  
FILTERING / METERING AND COMPRESSION SYSTEM  
PROCESS FLOW DIAGRAM**

SCALE - ΚΛΙΜΑΚΑ	PROJECT DWG No: ΑΡ. ΣΧ. ΕΡΓΟΥ:	REVISION / ΑΝΑΘ.
NTS		3
SIZE - ΜΕΓΕΘΟΣ	COMPANY'S DWG No: ΑΡ. ΣΧ. ΕΤΑΙΡΕΙΑΣ:	SHEET / ΦΥΛΛΟ
A1		1. OF 1.01
	ENGINEERS DWG No: ΑΡ. ΣΧ. ΜΕΛΕΤΗΤΗ:	
	P617-340-08-001	



**REFERENCE DRAWINGS**  
ΣΧΕΤΙΚΑ ΣΧΕΔΙΑ

DRAWING NUMBER ΑΡΙΘΜΟΣ ΣΧΕΔΙΟΥ	DRAWING TITLE ΤΙΤΛΟΣ ΣΧΕΔΙΟΥ
P617-360-RP-PRS-01	GREECE (MAINLAND) COMPRESSOR STATION CS3 HEAT & MATERIAL BALANCES

**NOTES / ΠΑΡΑΤΗΡΗΣΕΙΣ**

1. SPARE COMPRESSOR TRAIN.
2. VALVES TO BE UTILIZED FOR STATION REVERSE FLOW OPERATION.
  - a. VALVE SHALL BE OPENED FOR REVERSE FLOW OPERATION
  - b. VALVE SHALL BE CLOSED FOR REVERSE FLOW OPERATION
3. RECYCLE LINE FOR START UP AND FLOW ADJUSTMENT.

**LEGEND / SYMBOLS**

<p><b>ABBREVIATIONS:</b></p> <p>BDV BLOW DOWN VALVE          ESV EMERGENCY SHUTDOWN VALVE          FCV FLOW CONTROL VALVE          HIPPS HIGH INTEGRITY PRESSURE PROTECTION SYSTEM          MOV MOTOR OPERATED VALVE          NNF NORMALLY NO FLOW          PCV PRESSURE CONTROL VALVE          PSV PRESSURE SAFETY VALVE          SSV SAFETY SHUTDOWN VALVE          TCV TEMPERATURE CONTROL VALVE</p>	<p>  CLOSED DRAIN SYSTEM   FUEL GAS SYSTEM   INSTRUMENT AIR SYSTEM   NITROGEN   VENT SYSTEM   PNEUMATIC VALVE   MOTOR OPERATED VALVE   CONTROL VALVE   CHECK VALVE   STREAM NUMBER   ULTRASONIC FLOWMETER   BATTERY LIMIT (FEED SCOPE)         </p>
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- - - - - OUT OF WP 5 SCOPE

REV.	DATE	DESCRIPTION	DRAWN	CHECKED	APPROVED
1	2021.05.28	ISSUED FOR CPY'S REVIEW	AF	MD	EK
A	2021.05.07	ISSUED FOR INTERNAL REVIEW	AF	MD	EK

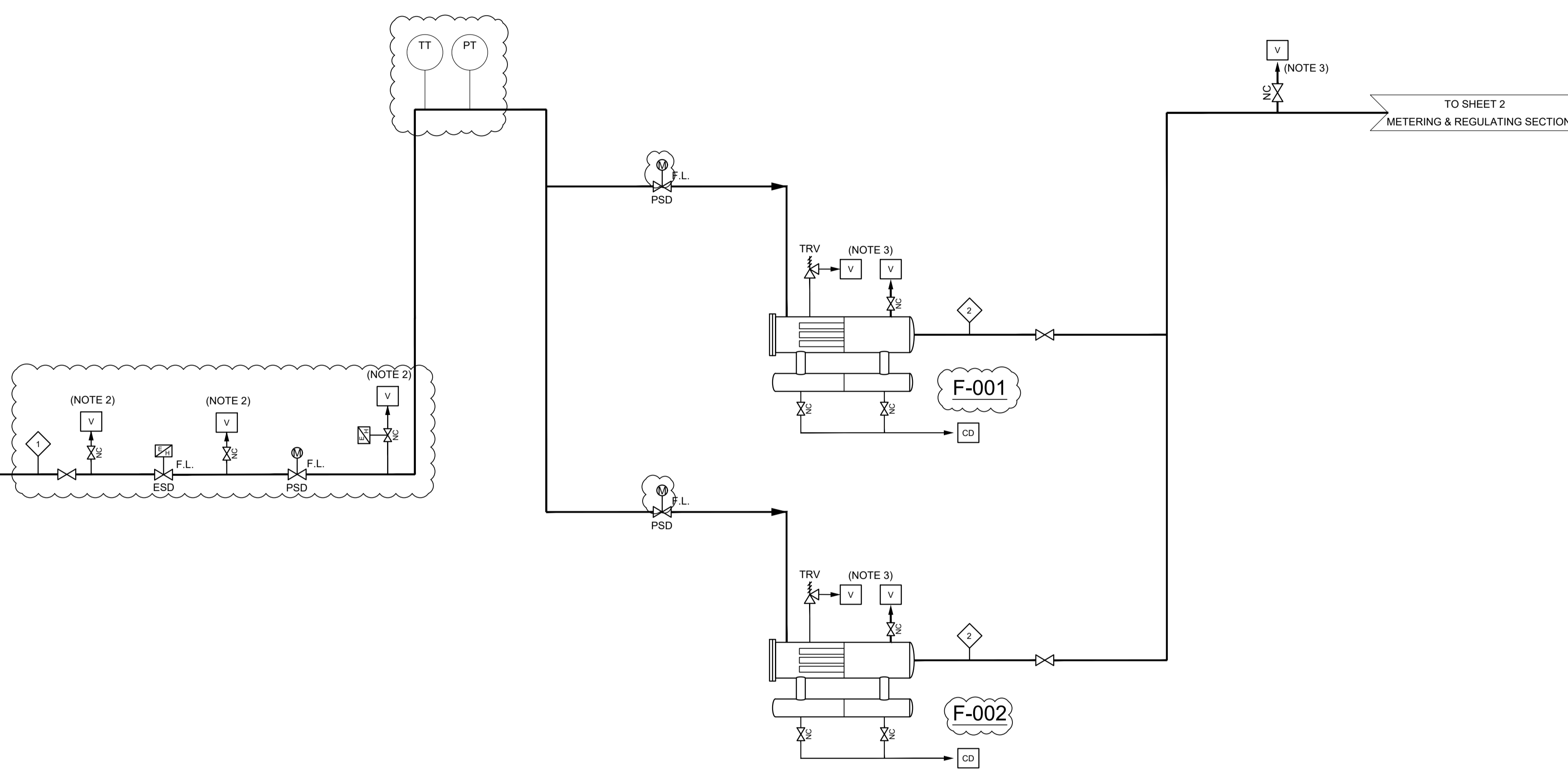
COMPANY - ΕΤΑΙΡΕΙΑ  ENGINEER - ΜΕΛΕΤΗΤΗΣ / CONSORTIUM - ΣΥΜΠΡΑΞΗ &	CONTRACT No.: C109-2020 SUPERSEDED BY: ANTIKATAΣΤΑΘΗΚΕ ΑΠΟ: SUPERSEDES THE: ANTIKAGIZATA TO:
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PROJECT - ΕΡΓΟ  
**EASTMED PIPELINE PROJECT**  
 FRONT END ENGINEERING & DESIGN (FEED) - FACILITIES  
 ΕΡΓΟ ΑΓΩΓΟΥ EASTMED  
 ΟΡΙΣΤΙΚΗ ΜΕΛΕΤΗ - ΣΤΑΘΜΟΙ

TITLE - ΤΙΤΛΟΣ  
**GREECE (MAINLAND) COMPRESSOR STATION CS3**  
**FILTERING & COMPRESSION SYSTEM**  
**PROCESS FLOW DIAGRAM**

SCALE - ΚΑΙΜΑΚΑ NTS	PROJECT DWG No: ΑΡ. ΣΧ. ΕΡΓΟΥ: COMPANY'S DWG No: ΑΡ. ΣΧ. ΕΤΑΙΡΕΙΑΣ:	REVISION / ANAG. 1
SIZE - ΜΕΓΕΘΟΣ A1	ENGINEERS DWG No: ΑΡ. ΣΧ. ΜΕΛΕΤΗΤΗ: P617-360-08-001	SHEET / ΦΥΛΛΟ 1 OF 1/10 1

V-001 / 002  
GAS FILTER SEPARATORS  
(2x100%)



REFERENCE DOCUMENTS / DRAWINGS ΣΧΗΤΙΚΑ ΕΓΓΡΑΦΑ / ΣΧΕΔΙΑ	
DOCUMENT / DRAWING No ΑΡ. ΕΓΓΡΑΦΟΥ / ΣΧΕΔΙΟΥ	DOCUMENT / DRAWING TITLE ΤΙΤΛΟΣ ΕΓΓΡΑΦΟΥ / ΣΧΕΔΙΟΥ
P616-000-08-001	PROCESS FLOW DIAGRAM - PIPELINE OVERALL (SHEET 2)
P616-380-08-002	UTILITY FLOW DIAGRAM - FUEL GAS SYSTEM
P616-380-08-003	UTILITY FLOW DIAGRAM - CLOSED DRAIN SYSTEM
P616-380-08-004	UTILITY FLOW DIAGRAM - HOT WATER SYSTEM
P616-380-08-005	UTILITY FLOW DIAGRAM - VENT SYSTEM

NOTES

- ALL COMPONENTS HAVE THE PREFIX "380-".
- VENT TO STATION VENT STACK.

LEGEND / ΥΠΟΜΝΗΜΑ

—	MAIN PROCESS LINE	CD	CLOSED DRAIN
—	SECONDARY LINE	HW	HOT WATER SYSTEM
NC / NO	NORMALLY CLOSE / NORMALLY OPEN	FG	FUEL GAS SYSTEM
NNF	NORMALLY NO FLOW	V	VENT
ESD	EMERGENCY SHUTDOWN	N2	NITROGEN SYSTEM
SSV	SLAM-SHUT VALVE		
PSD	PROCESS SHUT-DOWN		
FL	FAIL LOCKED TO POSITION		
LO / LC	LOCKED CLOSE / LOCKED OPEN		

5	2021.11.30	RE-ISSUED FOR USE	S.V.	M.D.	P.K.
4	2021.07.26	ISSUED FOR USE	S.M.	J.M.	P.K.
3	2021.05.24	ISSUED FOR APPROVAL	S.M.	J.M.	P.K.
2	2021.04.02	ISSUED FOR APPROVAL	S.M.	J.M.	P.K.
1	2021.03.02	ISSUED FOR CPY'S REVIEW	S.M.	J.M.	P.K.
A	2021.02.26	ISSUED FOR INTERNAL REVIEW	S.M.	J.M.	P.K.

REV.	DATE	DESCRIPTION	DRAWN	CHECKED	APPROVED
ANAB.	ΗΜΕΡΟΜ.	ΠΕΡΙΓΡΑΦΗ	ΣΧΕΔΙΑΣΤΗΣ	ΕΛΕΓΧΘΗΣ	ΕΥΧΡΙΣΤΗΣ

COMPANY - ΕΤΑΙΡΕΙΑ: IGI Poseidon

CONTRACT No.: C108 - 2020

SUPERSEDED BY: ANTIKATASTAGHKE APTO:

SUPERSEDES THE: ANTIKAGISTA TO:

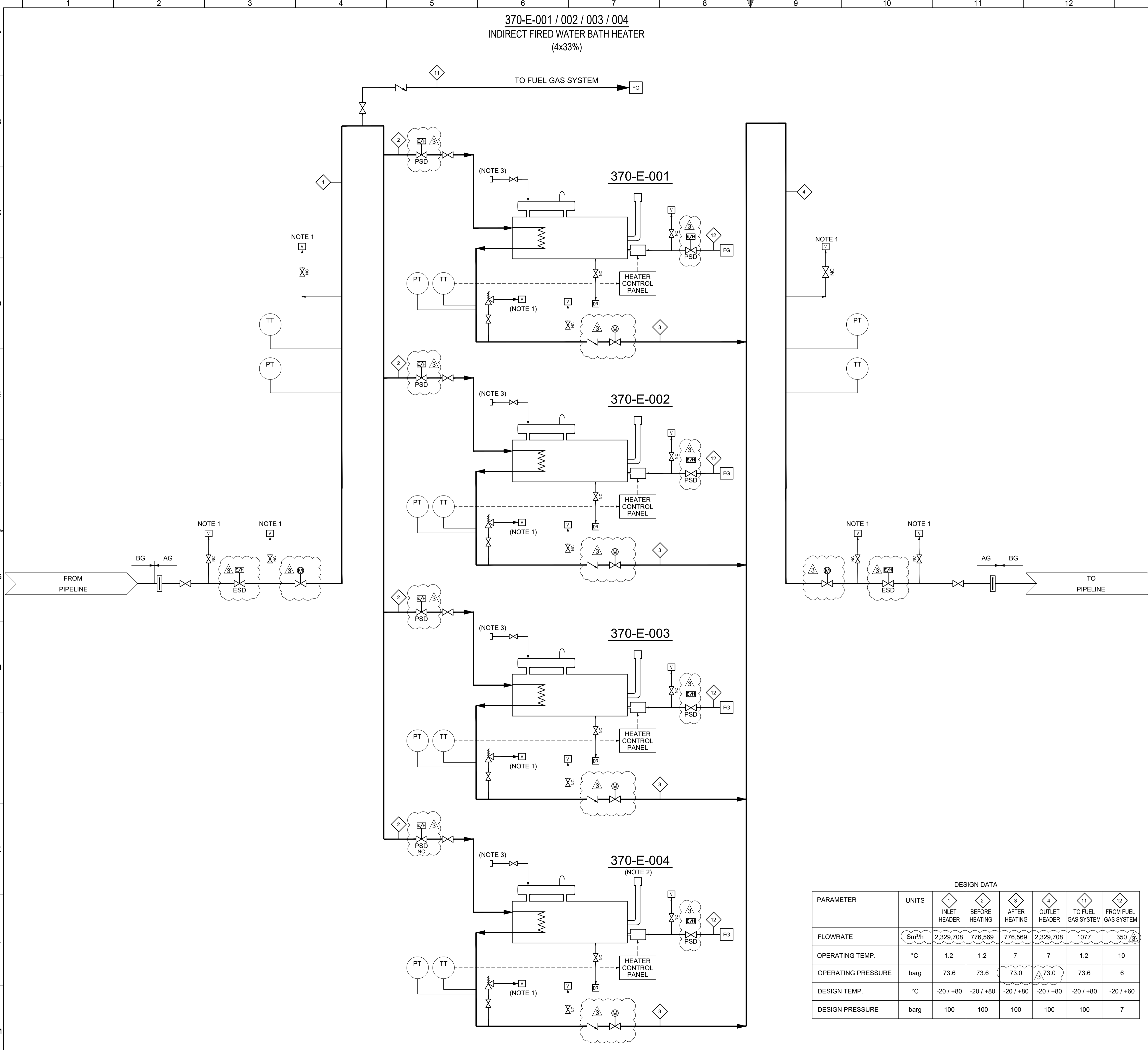
DESIGN DATA				
PARAMETER	UNITS	1 INLET HEADER	2 FILTERING SECTION	
FLOWRATE	Nm <sup>3</sup> /h	120.175	120.175	
OPERATING PRESSURE	bar <sub>g</sub>	40 - 93	40 - 93	
DESIGN TEMP.	°C	-20 / +60	-20 / +80	
DESIGN PRESSURE	bar <sub>g</sub>	100	100	

PROJECT - ΕΡΓΟ  
EASTMED PIPELINE PROJECT  
FRONT END ENGINEERING & DESIGN (FEED) - ONSHORE  
ΕΡΓΟ ΑΓΩΓΟΥ EASTMED  
ΟΡΙΣΤΙΚΗ ΜΕΛΕΤΗ - ΧΕΡΖΑΙΟ ΤΜΗΜΑ

TITLE - ΤΙΤΛΟΣ  
MEGALOPOLIS METERING & PRESSURE REDUCTION  
STATION MS4 / PRS4  
METERING & REGULATING STATION  
PROCESS FLOW DIAGRAM

SCALE - ΚΑΙΜΑΚΑ NTS	PROJECT DWG No: ΑΡ. ΣΧ. ΕΡΓΟΥ:	ENGINEERS DWG No: ΑΡ. ΣΧ. ΜΕΛΕΤΗΣ:	REVISION / ANAB. 5
SIZE - ΜΕΤΕΘΟΣ A1	COMPANY'S DWG No: ΑΡ. ΣΧ. ΕΤΑΙΡΕΙΑΣ:	P616-380-08-001	SHEET / ΦΥΛΛΟ 01 OF / ΑΠΟ 03

370-E-001 / 002 / 003 / 004  
INDIRECT FIRED WATER BATH HEATER  
(4x33%)



REFERENCE DRAWINGS ΣΧΕΤΙΚΑ ΣΧΕΔΙΑ	
DRAWING NUMBER ΑΡΙΘΜΟΣ ΣΧΕΔΙΟΥ	DRAWING TITLE ΤΙΤΛΟΣ ΣΧΕΔΙΟΥ
P616-000-08-001	PROCESS FLOW DIAGRAM - PIPELINE OVERALL (SHEET 2)
P616-370-08-002	UTILITY FLOW DIAGRAM - FUEL GAS SYSTEM
P616-370-08-003	UTILITY FLOW DIAGRAM - WATER SYSTEM

NOTES / ΠΑΡΑΤΗΡΗΣΕΙΣ	
1.	VENTING TO SAFE LOCATION
2.	HEATER 370-E-004 IS A COMMON SPARE
3.	HOSE CONNECTION FOR WATER FILLING

LEGEND / SYMBOLS	
ABBREVIATIONS: NC NORMALLY CLOSE ESD EMERGENCY SHUTDOWN PSD PROCESS SHUT-DOWN	MOTORIZED VALVE ELECTRO-HYDRAULIC VALVE GENERAL VALVE CHECK VALVE SLAM SHUT VALVE STREAM NUMBER OPEN VENT
FUEL GAS SYSTEM VENT SYSTEM WATER SYSTEM (DRAIN)	

REV.	DATE	DESCRIPTION	DRAWN	CHECKED	APPROVED
3	2021.11.25	ISSUED FOR USE	V.L.	M.D.	E.K.
2	2021.07.30	ISSUED FOR USE	V.L.	M.D.	E.K.
1	2021.06.25	ISSUED FOR COPY'S REVIEW	V.L.	M.D.	E.K.
A	2021.06.18	ISSUED FOR INTERNAL REVIEW	V.L.	M.D.	E.K.

COMPANY - ΕΤΑΙΡΕΙΑ

CONTRACT No.: C109-2020

SUPERSEDED BY: ANTIKATAΣΤΑΘΗΚΕ ΑΠΟ:

SUPERSEDES THE: ANTIKAGIΣΤΑ ΑΠΟ:

IGI Poseidon

ENGINEER - ΜΕΛΕΤΗΤΗΣ / CONSORTIUM - ΣΥΜΠΡΑΞΗ

SAIPEM

ENGINEERING S.A.

PROJECT - ΕΡΓΟ

EASTMED PIPELINE PROJECT  
FRONT END ENGINEERING & DESIGN (FEED) - ONSHORE  
ΕΡΓΟ ΑΓΩΓΟΥ EASTMED  
ΟΡΙΣΤΙΚΗ ΜΕΛΕΤΗ - ΧΕΡΣΑΙΟ ΤΜΗΜΑ

TITLE - ΤΙΤΛΟΣ

HEATING STATION  
PROCESS FLOW DIAGRAM

PARAMETER	UNITS	DESIGN DATA					
		1 INLET HEADER	2 BEFORE HEATING	3 AFTER HEATING	4 OUTLET HEADER	11 TO FUEL GAS SYSTEM	12 FROM FUEL GAS SYSTEM
FLOWRATE	Sm <sup>3</sup> /h	2,329,708	776,569	776,569	2,329,708	1077	350
OPERATING TEMP.	°C	1.2	1.2	7	7	1.2	10
OPERATING PRESSURE	barg	73.6	73.6	73.0	73.0	73.6	6
DESIGN TEMP.	°C	-20 / +80	-20 / +80	-20 / +80	-20 / +80	-20 / +80	-20 / +80
DESIGN PRESSURE	barg	100	100	100	100	100	7

SCALE - ΚΥΜΑΚΑ	PROJECT DWG No: ΑΡ. ΣΧ. ΕΡΓΟΥ	REVISION / ANAG.
NTS		3
SIZE - ΜΕΓΕΘΟΣ	COMPANY'S DWG No: ΑΡ. ΣΧ. ΕΤΑΙΡΕΙΑΣ	ENGINEER'S DWG No: ΑΡ. ΣΧ. ΜΕΛΕΤΗΣ
A1		616-370-08-001