

ΕΡΓΟ:

## Έργο Αγωγού EastMed



Τίτλος Εγγράφου:	Ελληνικό Τμήμα EastMed – Μελέτη Περιβαλλοντικών και Κοινωνικών Επιπτώσεων
Υπότιτλος Εγγράφου	Παράρτημα 6Λ – Διάγραμμα Ροής Διεργασιών των Κύριων Σταθμών
Αριθμός Εγγράφου Έργου:	PERM-GREE-ESIA-A06_0012_0_Annex6K

	<b>ΕΡΓΟ ΑΓΩΓΟΥ EASTMED</b>	 
	Ελληνικό Τμήμα EastMed – Μελέτη Περιβαλλοντικών και Κοινωνικών Επιπτώσεων	Αρ. Εγγ.: PERM-GREE-ESIA- A06_0012_0_Annex6K Αναθ. : 00 Σελ. : 2 από 2

Στοιχεία εγγράφου	
Τίτλος Εγγράφου	Ελληνικό Τμήμα EastMed – Μελέτη Περιβαλλοντικών και Κοινωνικών Επιπτώσεων
Υπότιτλος Εγγράφου	Παράρτημα 6Λ – Διάγραμμα Ροής Διεργασιών των Κύριων Σταθμών
Εταιρεία	IGI Poseidon
Συγγραφέας	ASPROFOS
Έργο	Έργο Αγωγού EastMed
Αριθμός Εγγράφου Έργου	PERM-GREE-ESIA-A06_0012_0_Annex6K
Ημερομηνία	03/06/2022
Αναθεώρηση	00

Ιστορικό εγγράφου					
Αναθεώρηση	Συντάκτης	Έλεγχος από	Έγκριση από	Ημερομηνία	Έκδοση
00	ASPROFOS	IGI POSEIDON	IGI POSEIDON	03/06/2022	Για υποβολή στις Υπηρεσίες

Για τον Φορέα του Έργου

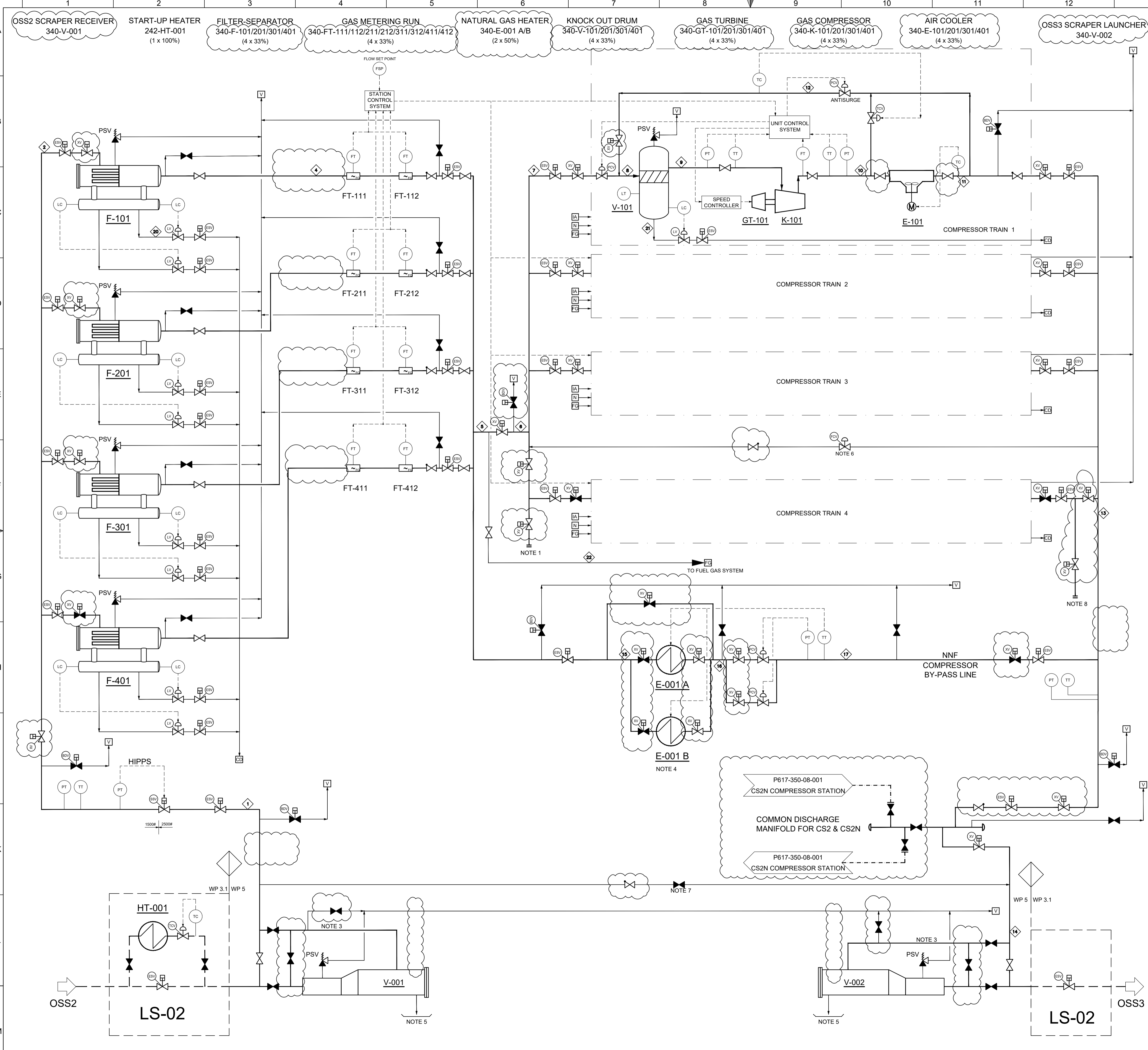
Digitally signed by: RESTELLI MATTEO  
 Location: Milan  
 Date: 07/06/2022 15:28:43



Για τον Περιβαλλοντικό Μελετητή



Digitally signed by  
 Michail Folas  
 Date: 2022.06.07  
 18:36:21 +03'00'



REFERENCE DRAWINGS

ΣΧΕΤΙΚΑ ΣΧΕΔΙΑ

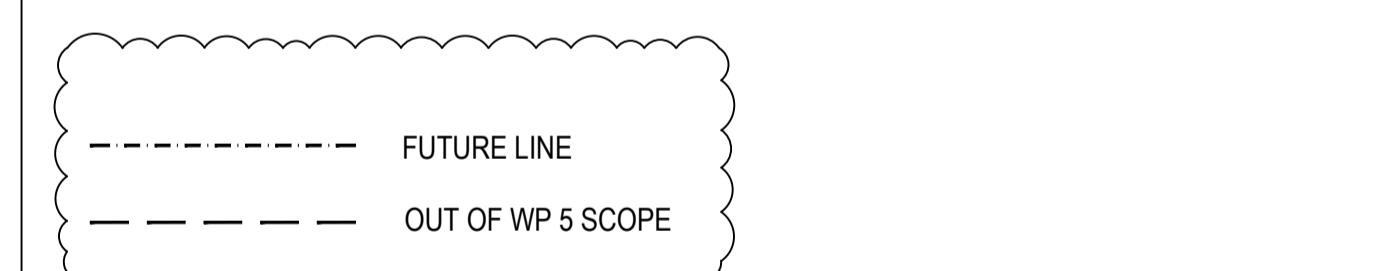
DRAWING NUMBER ΑΡΙΘΜΟΣ ΣΧΕΔΙΟΥ	DRAWING TITLE ΤΙΤΛΟΣ ΣΧΕΔΙΟΥ
P617-340-RP-PRS-01	CRETE COMPRESSOR AND METERING STATION CS2 / MS2 HEAT & MATERIAL BALANCES

NOTES / ΠΑΡΑΤΗΡΗΣΕΙΣ

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

LEGEND / SYMBOLS

<p>ABBREVIATIONS:</p> <p>BDV BLOW DOWN VALVE</p> <p>ESV EMERGENCY SHUTDOWN VALVE</p> <p>FCV FLOW CONTROL VALVE</p> <p>HIPPS HIGH INTEGRITY PRESSURE PROTECTION SYSTEM</p> <p>MOV MOTOR OPERATED VALVE</p> <p>NNF NORMALLY NO FLOW</p> <p>PCV PRESSURE CONTROL VALVE</p> <p>PSV PRESSURE SAFETY VALVE</p> <p>SSV SAFETY SHUTDOWN VALVE</p> <p>TCV TEMPERATURE CONTROL VALVE</p> <p>XV SHUT-OFF 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>
---	---



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	CONTRACT No.: C109-2020
 ENGINEER - ΜΕΛΕΤΗΤΗΣ / CONSORTIUM - ΣΥΜΠΡΑΞΗ	SUPERSEDED BY: ANTIKATAΣΤΑΘΗΚΕ ΑΠΟ:
 PROJECT - ΕΡΓΟ	SUPERSEDES THE: ANTIKAGIZETA TO:

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	COMPANY'S DWG No: ΑΡ. ΣΧ. ΕΤΑΙΡΕΙΑΣ:	3
SIZE - ΜΕΓΕΘΟΣ	ENGINEER'S DWG No: ΑΡ. ΣΧ. ΜΕΛΕΤΗΤΗ:	SHEET / ΦΥΛΛΟ
A1	P617-340-08-001	1. OF / ΑΡΤΟ. 1.

FILTER-SEPARATOR  
360-F-001/2/3/4  
(4 x 33%)

GAS TURBINE  
360-GT-001/2/3/4  
(4 x 33%)

GAS COMPRESSOR  
360-K-001/2/3/4  
(4 x 33%)

GAS COOLER  
360-E-001/2/3/4  
(4 x 33%)

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

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

LEGEND / SYMBOLS

<p>ABBREVIATIONS:</p> <p>BDV BLOW DOWN VALVE</p> <p>ESV EMERGENCY SHUTDOWN VALVE</p> <p>FCV FLOW CONTROL VALVE</p> <p>HIPPS HIGH INTEGRITY PRESSURE PROTECTION SYSTEM</p> <p>MOV MOTOR OPERATED VALVE</p> <p>NNF NORMALLY NO FLOW</p> <p>PCV PRESSURE CONTROL VALVE</p> <p>PSV PRESSURE SAFETY VALVE</p> <p>SSV SAFETY SHUTDOWN VALVE</p> <p>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>
--	---

--- 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	CONTRACT No.: AP.ΣΥΜΒΟΛΑΙΟΥ : C109- 2020
IGI Poseidon	SUPERSEDED BY : ANTIKATAΣΤΑΘΗΚΕ ΑΠΟ :
ENGINEER - ΜΕΛΕΤΗΤΗΣ / CONSORTIUM - ΣΥΜΠΡΑΞΗ	SUPERSEDES THE : ANTIKAGIZATA TO :

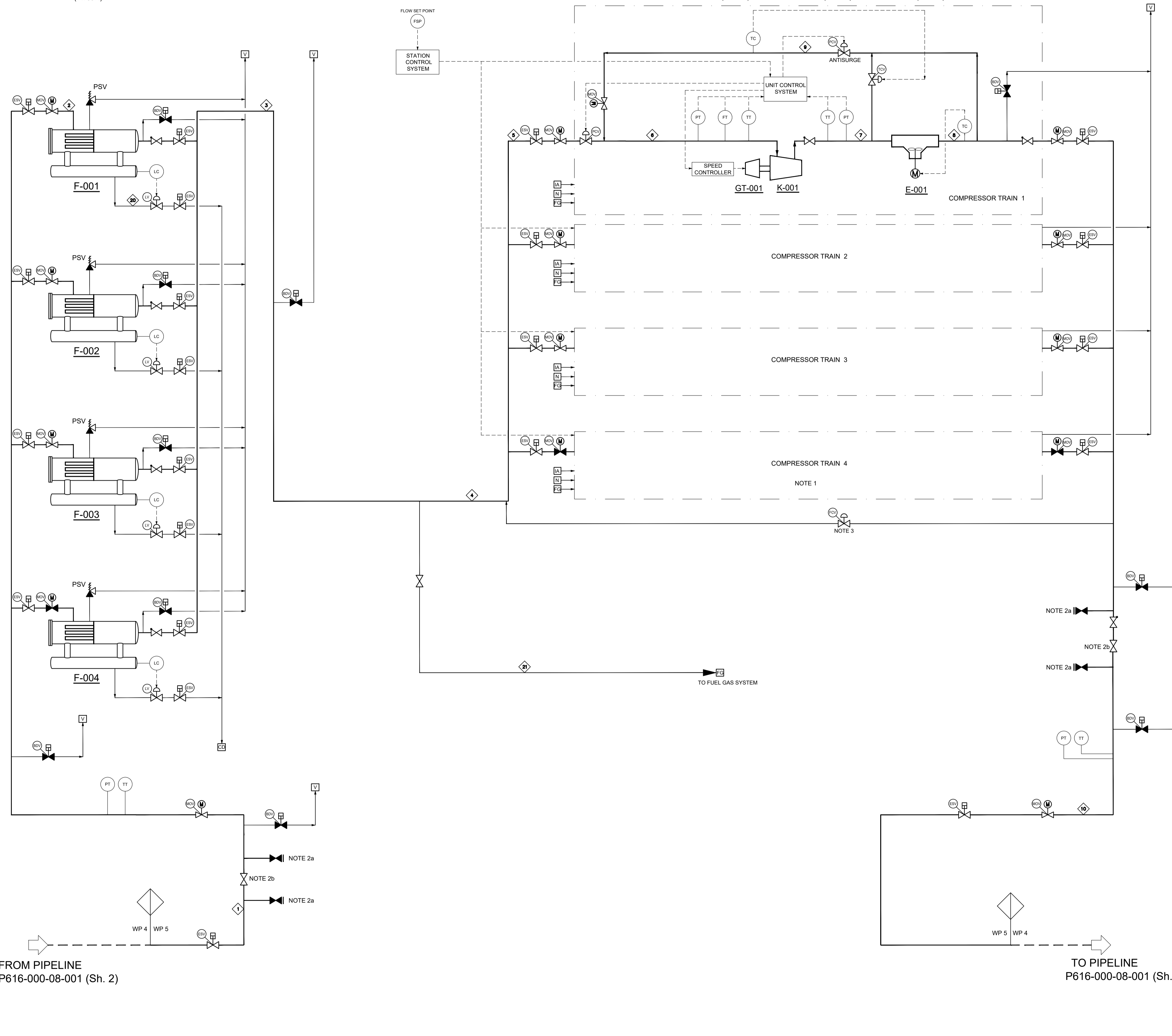


PROJECT - ΕΡΓΟ EASTMED PIPELINE PROJECT  
FRONT END ENGINEERING & DESIGN (FEED) - FACILITIES  
ΕΡΓΟ ΑΓΩΓΟΥ EASTMED  
ΟΡΙΣΤΙΚΗ ΜΕΛΕΤΗ - ΣΤΑΘΜΟΙ

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

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

FILENAME: P617-360-08-001

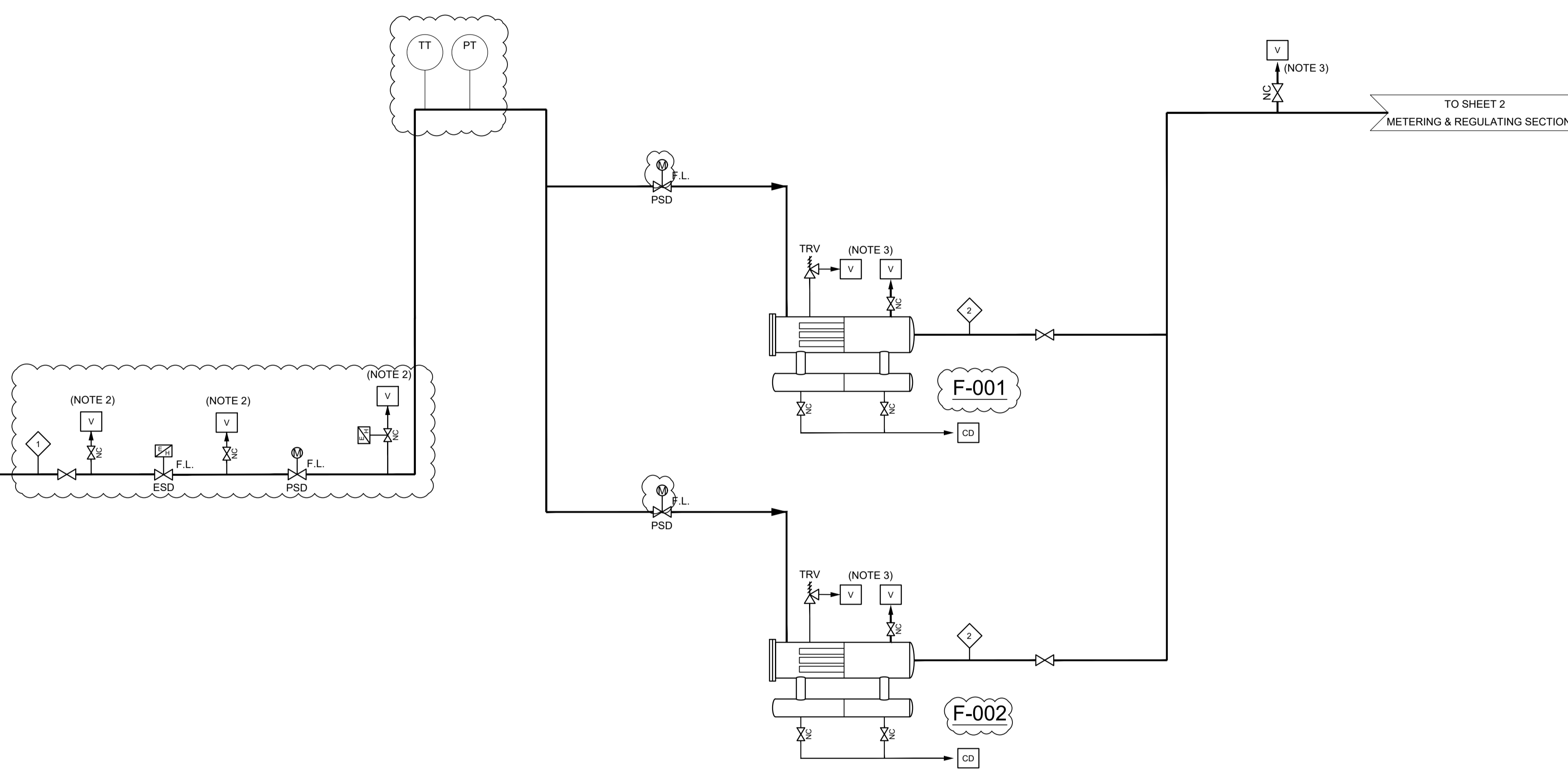


FROM PIPELINE  
P616-000-08-001 (Sh. 2)

TO PIPELINE  
P616-000-08-001 (Sh. 2)

TO FUEL GAS SYSTEM

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



REFERENCE DOCUMENTS / DRAWINGS ΣΧΕΤΙΚΑ 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		

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

REV.	DATE	DESCRIPTION	DRAWN	CHECKED	APPROVED
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.

COMPANY - ΕΤΑΙΡΕΙΑ: IGI Poseidon

ENGINEER - ΜΕΛΕΤΗΤΗΣ / CONSORTIUM - ΣΥΜΠΡΑΞΗ

CONTRACT No.: C108 - 2020

SUPERSEDED BY: ANTIKATASTAGHKE APTO:

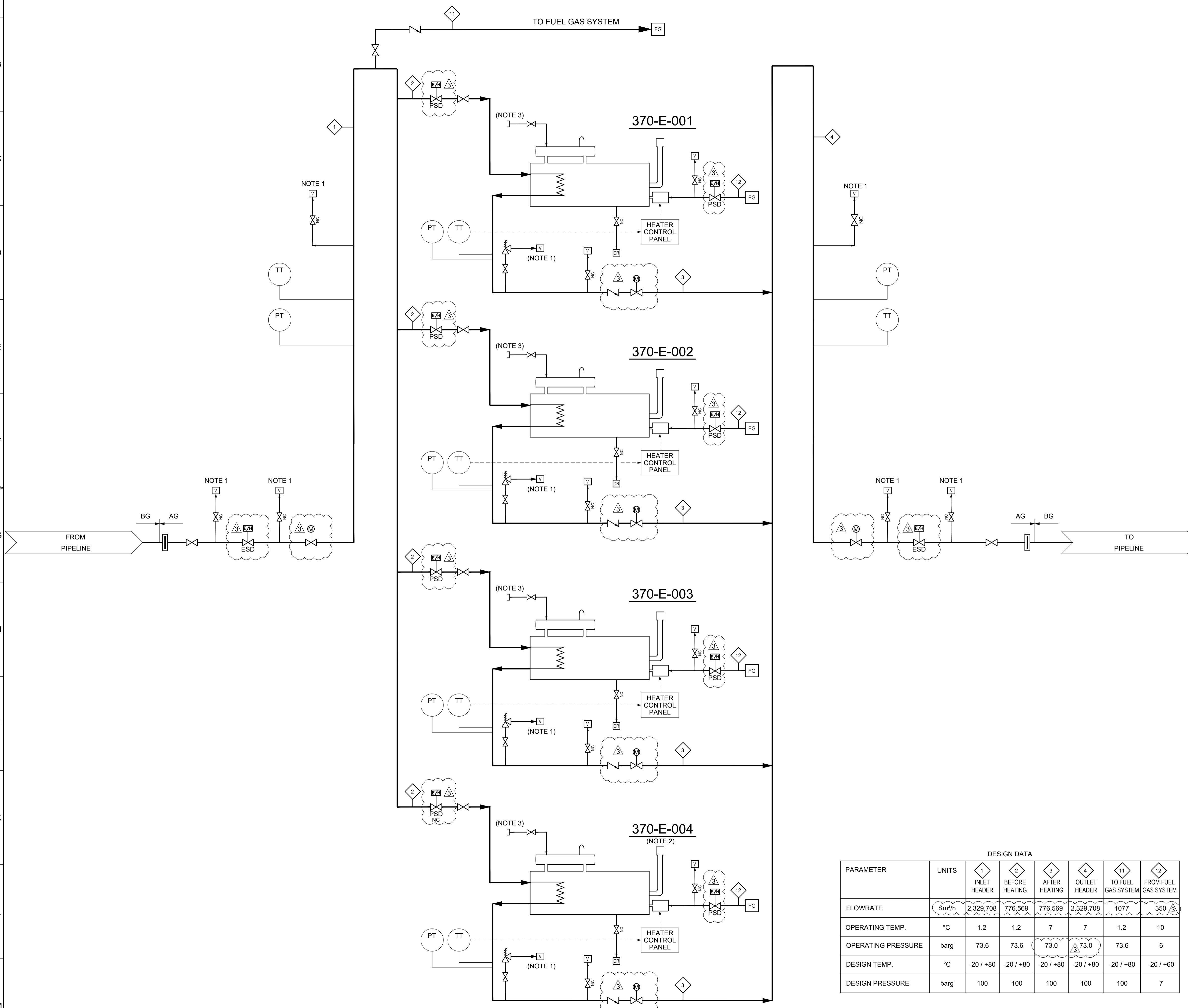
SUPERSEDES THE: ANTIKAGISTA TO:

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 / ΑΝΑΘ. 5
SIZE - ΜΕΤΕΘΟΖ 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%)



DESIGN DATA

PARAMETER	UNITS	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

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: IGI Poseidon

CONTRACT No.: AP.ΣΥΜΒΟΛΑΙΟΥ: C109-2020

SUPERSEDED BY: ANTIKATAΣΤΑΘΗΚΕ ΑΠΟ:

SUPERSEDES THE: ANTIKAGIΣΤΑ ΤΟ:

ENGINEER - ΜΕΛΕΤΗΤΗΣ / CONSORTIUM - ΣΥΜΠΡΑΞΗ: SAIPEM & CM 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

SCALE - ΚΥΜΑΚΑ: NTS	PROJECT DWG No: AP.ΣΧ.ΕΡΓΟΥ:	REVISION / ANAG.:
SIZE - ΜΕΓΕΘΟΣ: A1	COMPANY'S DWG No: AP.ΣΧ.ΕΤΑΙΡΕΙΑΣ:	3
	ENGINEER'S DWG No: AP.ΣΧ.ΜΕΛΕΤΗΤΗ:	SHEET / ΦΥΛΛΟ: 1 OF 1/ΑΤΟ: 1
	616-370-08-001	