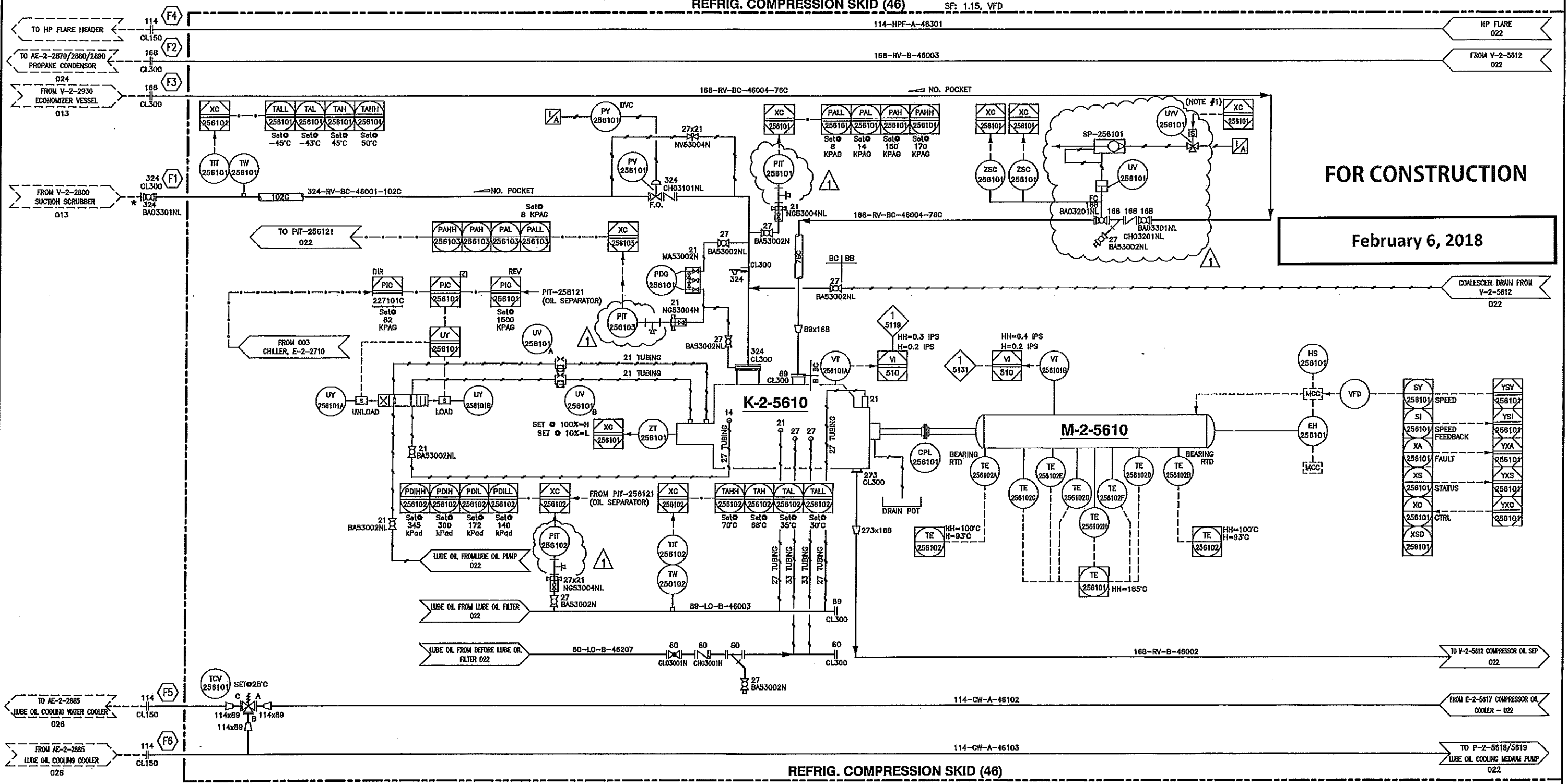


**K-2-5610**  
REFRIGERANT COMPRESSOR  
MAKE/MODEL: HOWDEN WRV321-165  
RATED CAPACITY: 1183 KW(REFRIG)  
POWER: 872 KW  
SPEED: 3550 RPM

**M-2-5610**  
REFRIGERANT COMPRESSOR MOTOR  
MAKE/MODEL: TOSHIBA, WP11  
RATING: 1007 KW @ 4160 VAC/3 PH/60 HZ  
SPEED: 3600 RPM  
CLASS 1 DIV 2 GR C&D T3  
SF: 1.15, VFD

**REFRIG. COMPRESSION SKID (46)**



**FOR CONSTRUCTION**

February 6, 2018

**GENERAL NOTES**

NOTE:  
1. ENERGIZE FROM 40% TO 100% COMPRESSOR LOAD. DE-ENERGIZE ON NORMAL STOP.

\*VALVES AND INSTRUMENTS SUPPLIED BY STARTEC AND SHIPPED LOOSE.

--- FIELD PIPING BY OTHERS

**REVISIONS**

NO.	DATE	BY	AP'D	DESCRIPTION
0	18-01-03	KC		ISSUED FOR CONSTRUCTION
1	18-02-05	KC		REVISED EQUIPMENT AND INSTRUMENTATION TAG NO.



DRAWN STARTEC	DATE 18-01-03	CUSTOMER ARC RESOURCES
CHECKED WAT	DATE 18-02-05	C/O CORNERSTONE ENGINEERING LTD.
ENG. APPL.	DATE	TITLE GAS CHILLING UNIT - P&ID COMPRESSOR SKID "46" LSD: 13-07-80-14 W6M
SCALE N/A	DRAWING NO. 17046-PR-PID-021	REV. 1



**EF-2-5500E**  
GCU BUILDING FAN  
MAKE: JAMES ELECTRIC JEXP  
MODEL#: JE1835001PXP  
18" FAN

**M-2-5500E**  
GCU BUILDING FAN MOTOR  
FOR EF1-2800E  
0.25KW • 1800RPM  
1/60/208 VAC  
ENCLOSURE: TEFC

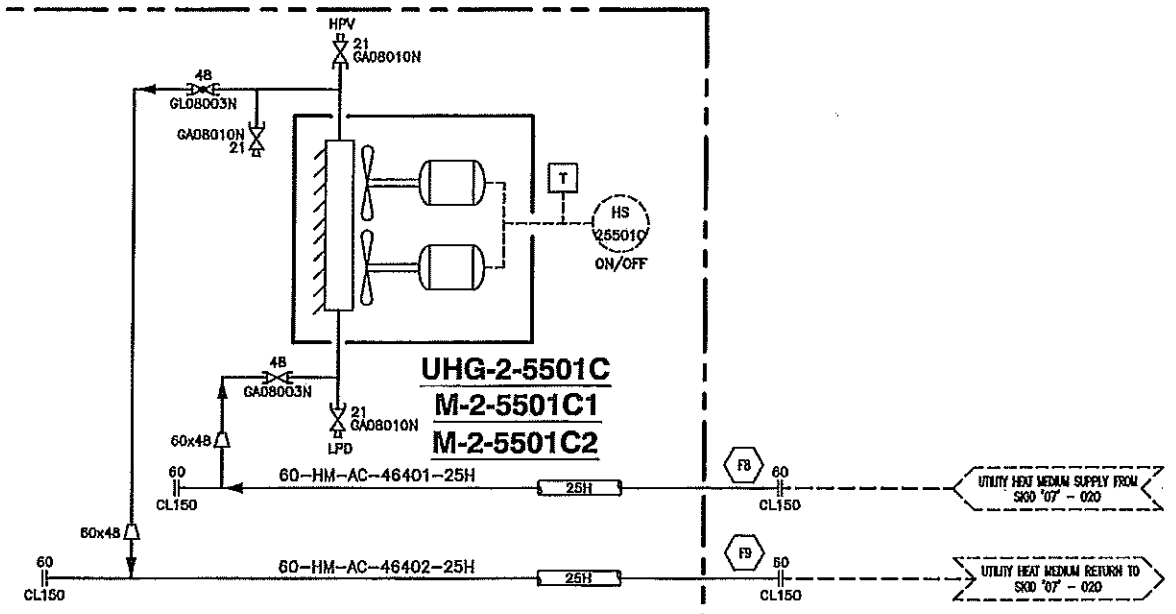
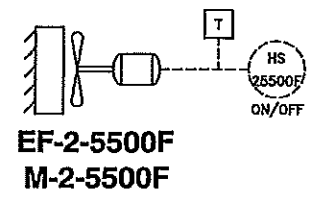
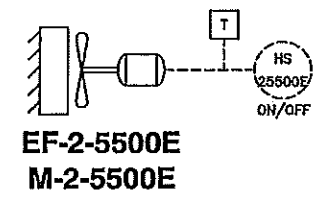
**EF-2-5500F**  
GCU BUILDING FAN  
MAKE: JAMES ELECTRIC JEXP  
MODEL#: JE2047001PXP  
20" FAN

**M-2-5500F**  
GCU BUILDING FAN MOTOR  
FOR EF1-2800E  
0.367KW • 1800RPM  
1/60/208 VAC  
ENCLOSURE: TEFC

**UHG-2-5501C**  
GCU BUILDING HEATER  
MAKE: RUFFNECK  
MODEL: AH-24B-A3B1-A1-2B  
RATED DUTY: 60.51 KW

**M-2-5501 C1/C2**  
GCU BUILDING HEATER FAN MOTOR  
ELECTRIC MOTOR  
0.375KW • 1725RPM  
1/60/208 VAC  
ENCLOSURE: TEFC

REFRIG. COMPRESSION SKID (46)



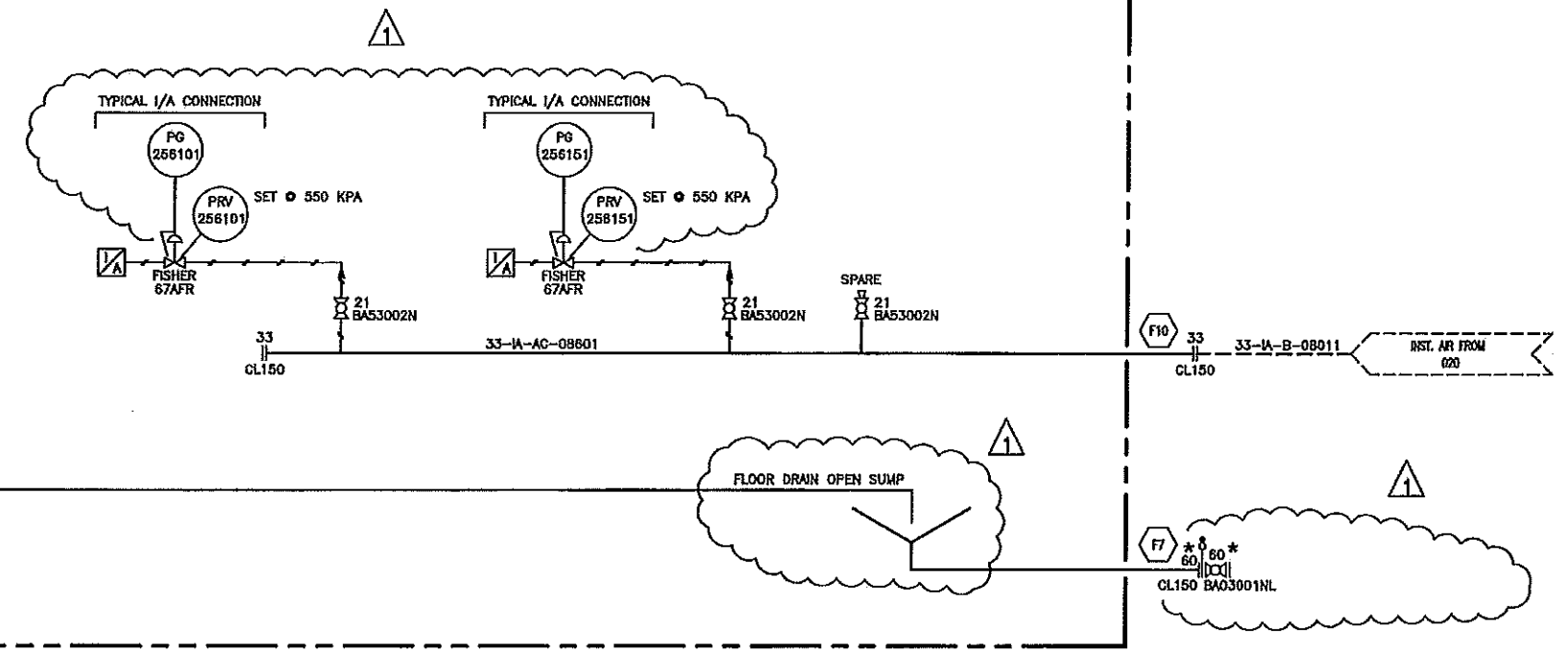
FOR CONSTRUCTION

February 6, 2018

**LCP-2-5600**

LOCAL UNIT CONTROL PANEL

- RSD REMOTE SD COMMAND
- RSP REMOTE STOP COMMAND
- YXS COMPRESSOR RUN STATUS
- YXS POWER SUPPLY STATUS
- YXA COMPRESSOR ALARM
- YSD MAIN DRIVE PERMISSIVE
- YXS MAIN DRIVE ON MFD BUS
- YXS MAIN DRIVE ON BYPASS HDS



GENERAL NOTES

REVISIONS

NO.	DATE	BY	AP'D	DESCRIPTION	NO.	DATE	BY	AP'D	DESCRIPTION
0	18-01-03	KC		ISSUED FOR CONSTRUCTION					
1	18-02-05	KC		REVISED I/A CONNECTION AND SUMP CONNECTION					

**STARTEC**  
COMPRESSION & PROCESS LTD.  
APEQA NO. P13139

CUSTOMER: ARC RESOURCES  
c/o CORNERSTONE ENGINEERING LTD.

TITLE: GAS CHILLING UNIT - P&ID  
COMPRESSOR SKID "46" BUILDING UTILITIES  
LSD: 13-07-80-14 WGM

SCALE: N/A  
DRAWING NO: 17048-PR-PID-023  
REV: 1

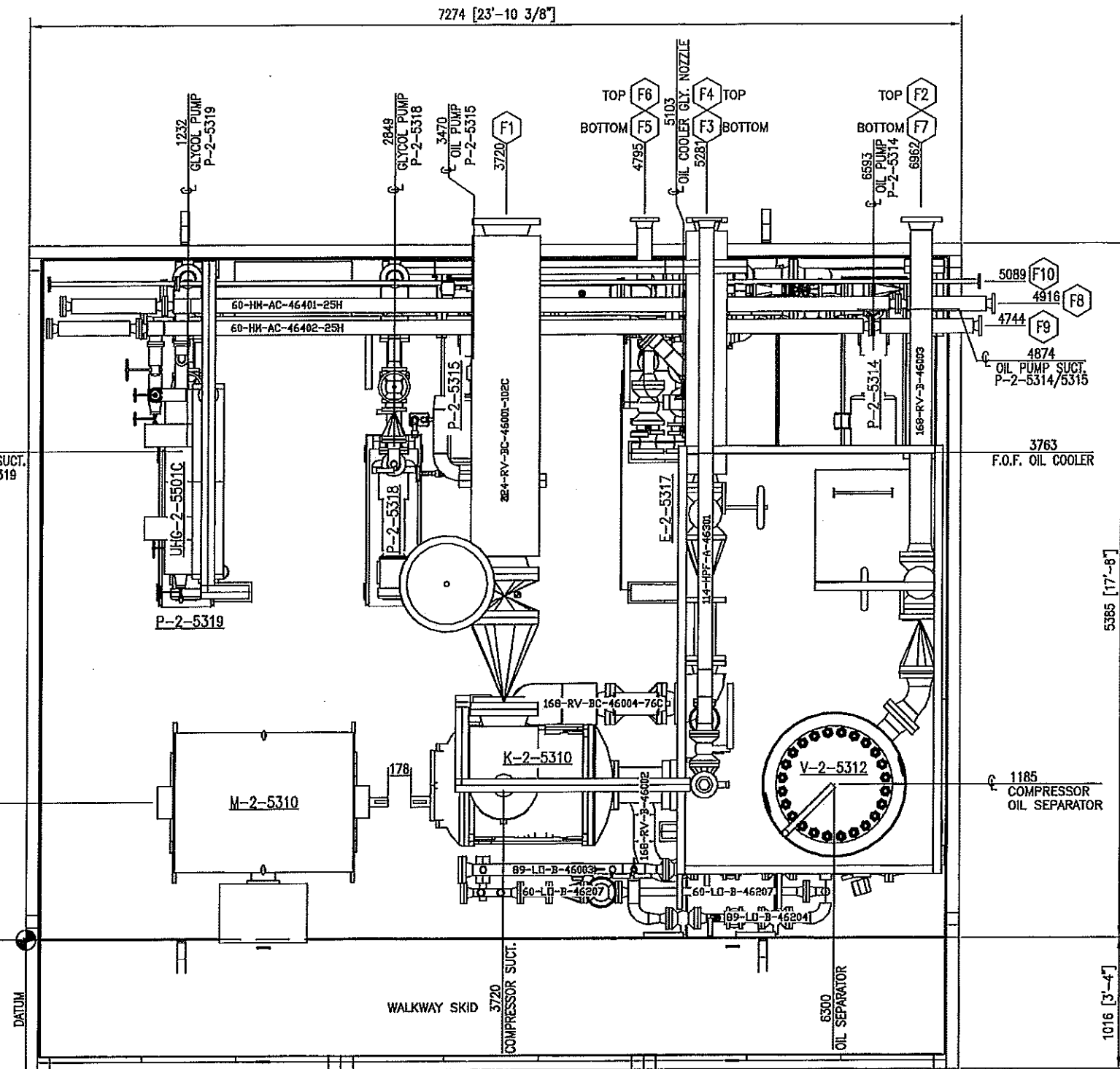
\* VALVES AND INSTRUMENTS SUPPLIED BY STARTEC AND SHIPPED LOOSE.  
--- FIELD PIPING BY OTHERS

- F1 324 - CL.300 RF  
REFRIGERANT VAPOUR FROM SCRUBBER  
PROJ. - 203
- F2 168 - CL.300 RF  
REFRIGERANT VAPOUR TO CONDENSER  
PROJ. - 203
- F3 168 - CL.300 RF  
REFRIGERANT VAPOUR FROM ECONOMIZER - SUPERFEED  
PROJ. - 203
- F4 114 - CL.150 RF  
HP FLARE HEADER  
PROJ. - 203
- F5 114 - CL.150 RF  
COOLING WATER TO COOLER  
PROJ. - 203
- F6 114 - CL.150 RF  
COOLING WATER FROM COOLER  
PROJ. - 203
- F7 60 - CL.150 RF  
SKID DRAIN  
PROJ. - 51
- F8 60 - CL.150 RF  
UTILITY HEAT MEDIUM SUPPLY  
PROJ. - 260
- F9 60 - CL.150 RF  
UTILITY HEAT MEDIUM RETURN  
PROJ. - 158
- F10 33 - CL.150 RF  
INSTRUMENT AIR  
PROJ. - 148

3790 (TYP.)  
F.O.F. GLYCOL PUMP SUCT.  
P-2-5318/P-2-5319

1059  
DRIVER

DATUM




PLAN VIEW  
SCALE: 1:20

FOR CONSTRUCTION

January 23, 2018

- GENERAL NOTES:
- ALL TAIL DIMENSIONS FROM REFERENCE POINT.
  - ELEVATIONS ARE FROM TOP OF STEEL/ BOTTOM OF CHECKERED PLATE.
  - OVERALL SHIPPING DIMENSIONS: 5915 mm WIDE  
7534 mm LONG  
4828 mm HIGH
  - ALL DIMENSIONS IN mm, UNLESS NOTED OTHERWISE.

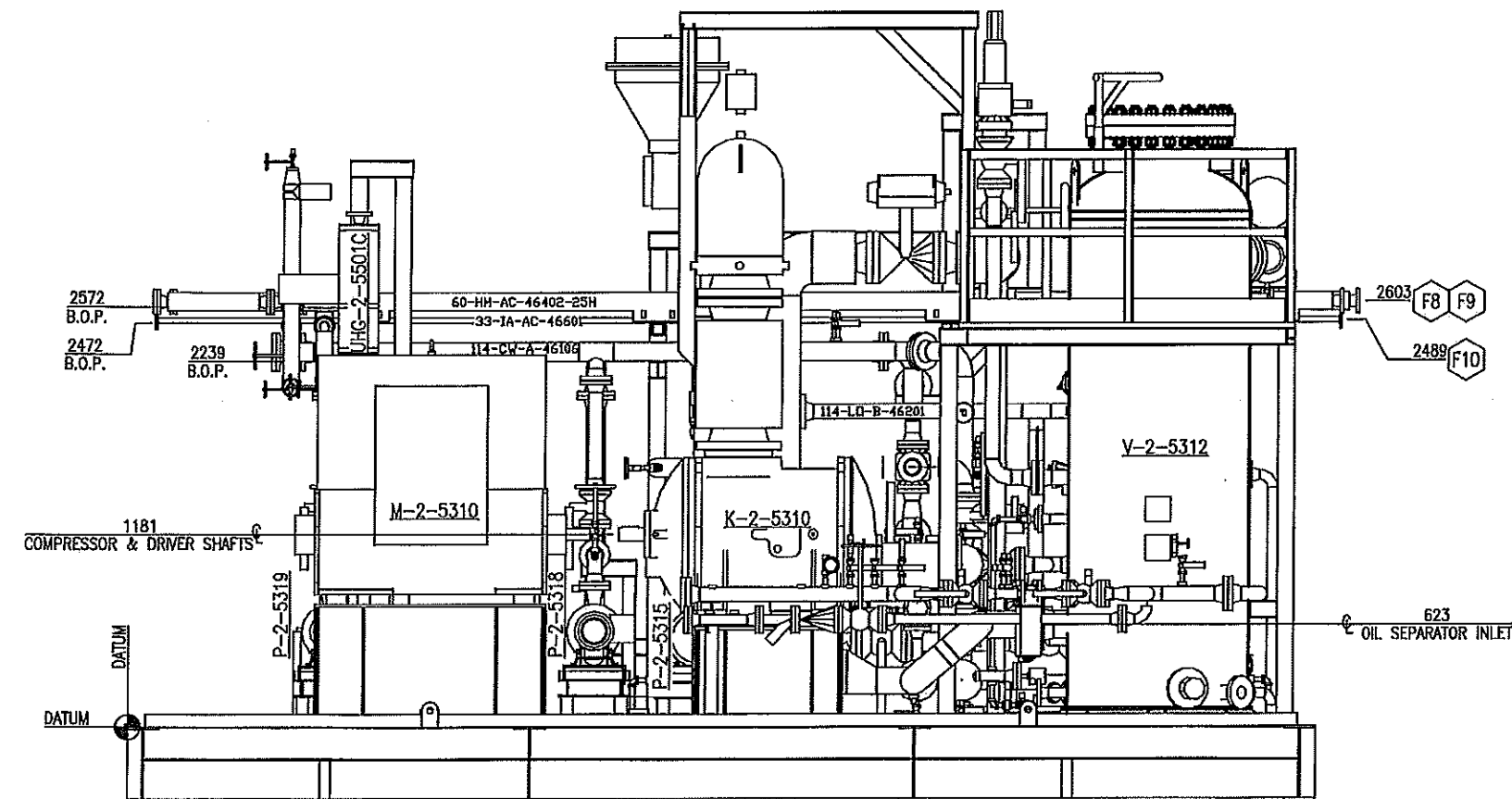
1-3

REFERENCE DRAWINGS				REVISIONS												GAS CHILLING UNIT COMPRESSOR SKID "46" LSD: 13-07-80-14 W6M		 <b>STARTEC</b> COMPRESSION & PROCESS LTD. APEQA NO. P13139								
DWG. NO.	DESCRIPTION	DWG. NO.	DESCRIPTION	NO.	DATE	BY	AP'D	DESCRIPTION	NO.	DATE	BY	AP'D	DESCRIPTION	SHIPPING WEIGHT 34405 Kg	SURFACE PREPARATION —	PRIMER —	PAIN —	DRAWN G.ELLIOTT DATE 18-01-10	CHECKED WAM DATE 18-01-22	ENG. APPL. DATE	PROD. APPL. DATE	ABSX VESSEL DRAWING NO. N/A	VESSEL JOB NO. N/A	SCALE 1:20	DRAWING NO. 17046-ME-GAD-001	REV.
				0	18-01-10	KC		ISSUED FOR CONSTRUCTION																		
				1	18-01-22	KC		NO CHANGES ON THIS SHEET																		

CUSTOMER  
ARC RESOURCES  
c/o CORNERSTONE ENGINEERING LTD.

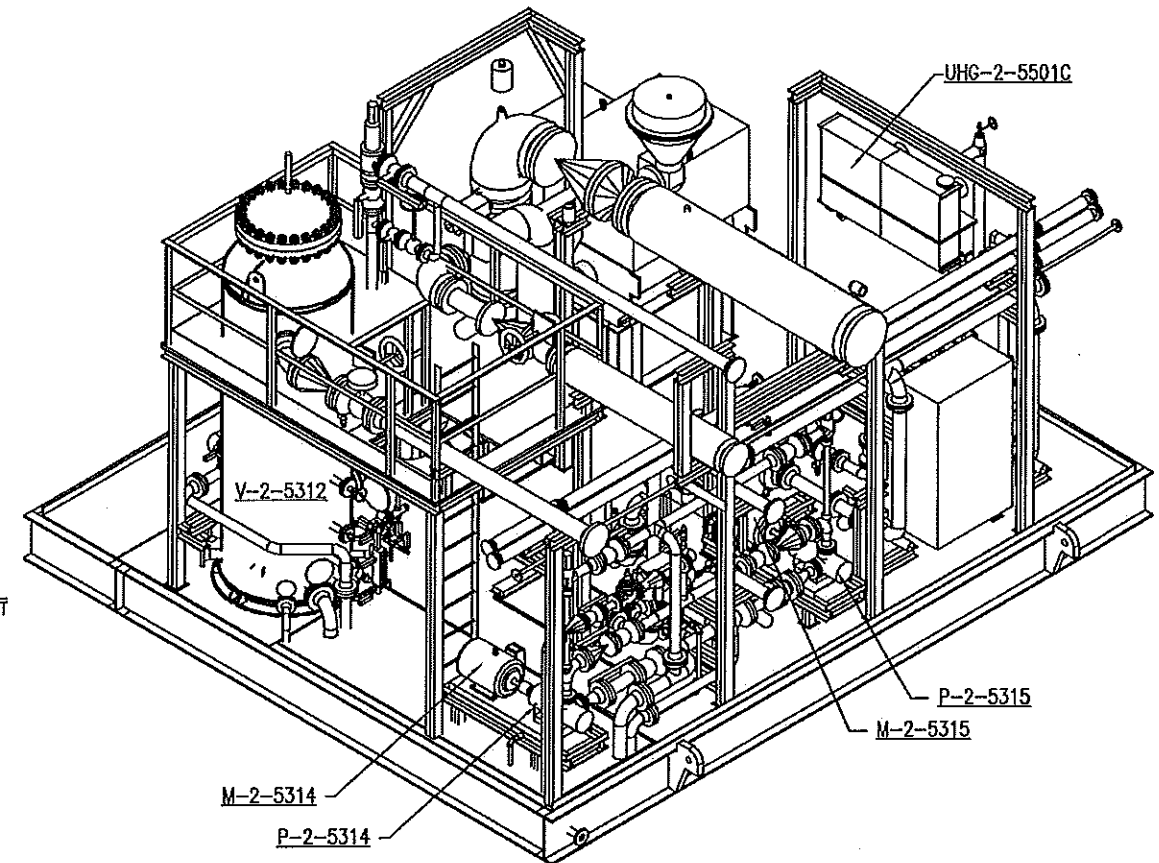
TITLE  
GAS CHILLING UNIT  
COMPRESSOR SKID "46"  
GENERAL ARRANGEMENT DRAWING  
PLAN VIEW





FRONT ELEVATION VIEW  
SCALE: 1:20

- F8 60 - CL.150 RF  
UTILITY HEAT MEDIUM SUPPLY
- F9 60 - CL.150 RF  
UTILITY HEAT MEDIUM RETURN
- F10 33 - CL.150 RF  
INSTRUMENT AIR




ISO VIEW  
SCALE: 1:30

GENERAL NOTES:

- ALL TAIL DIMENSIONS FROM REFERENCE POINT.
- ELEVATIONS ARE FROM TOP OF STEEL/ BOTTOM OF CHECKERED PLATE.
- OVERALL SHIPPING DIMENSIONS: 5915 mm WIDE  
7534 mm LONG  
4828 mm HIGH
- ALL DIMENSIONS IN mm, UNLESS NOTED OTHERWISE.

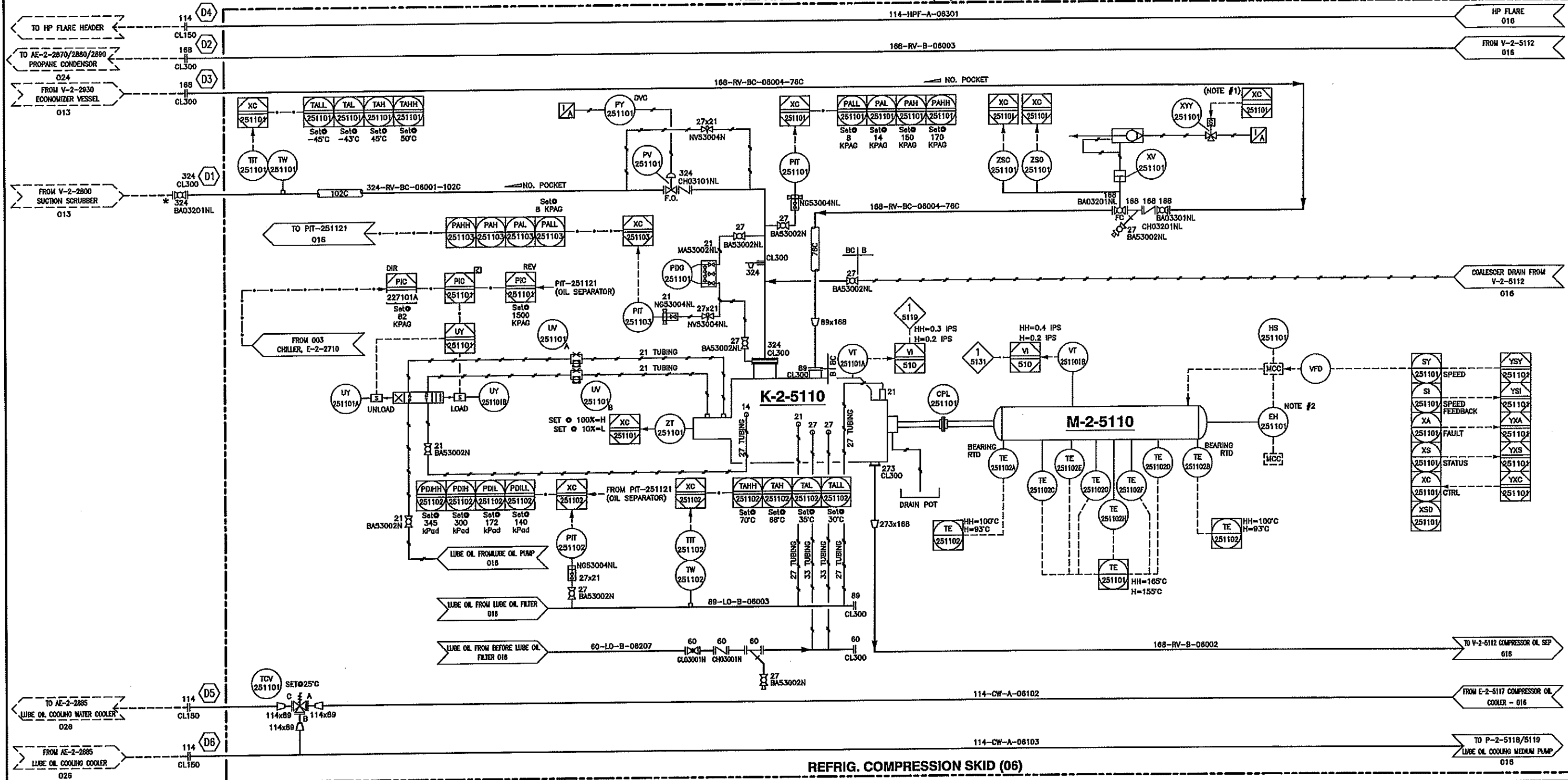
3-3

REFERENCE DRAWINGS				REVISIONS										GAS CHILLING UNIT COMPRESSOR SKID "46" LSD: 13-07-80-14 W6M		 COMPRESSION & PROCESS LTD. APEGA NO. P13139	
DWG. NO.	DESCRIPTION	DWG. NO.	DESCRIPTION	NO.	DATE	BY	AP'D	DESCRIPTION	NO.	DATE	BY	AP'D	DESCRIPTION	SHIPPING WEIGHT 34405 Kg	DATE		
				0	18-01-10	KC		ISSUED FOR CONSTRUCTION							18-01-10	CUSTOMER ARC RESOURCES c/o CORNERSTONE ENGINEERING LTD.	
				1	18-01-22	KC		NO CHANGES ON THIS SHEET							18-01-22		
																TITLE GAS CHILLING UNIT COMPRESSOR SKID "46" GENERAL ARRANGEMENT DRAWING FRONT ELEVATION VIEW & NE ISO VIEW	
																SCALE AS SHOWN	
																DRAWING NO. 17046-ME-GAD-003	
																REV. 1	

**K-2-5110**  
REFRIGERANT COMPRESSOR  
MAKE/MODEL: HOWDEN WRV1321-165  
RATED CAPACITY: 1183 KW(REFRIG)  
POWER: 872 KW  
SPEED: 3550 RPM

**M-2-5510**  
REFRIGERANT COMPRESSOR MOTOR  
MAKE/MODEL: TOSHIBA, WP11  
RATING: 1007 KW @ 4160 VAC/3 PH/60 HZ  
SPEED: 3600 RPM  
CLASS 1 DIV 2 GR C&D T3  
SF: 1.15, VFD

## REFRIG. COMPRESSION SKID (06)



## GENERAL NOTES

NOTE:  
1. ENERGIZE FROM 40% TO 100% COMPRESSOR LOAD. DE-ENERGIZE ON NORMAL STOP.

\* VALVES AND INSTRUMENTS SUPPLIED BY STARTEC AND SHIPPED LOOSE.  
--- FIELD PIPING BY OTHERS

## REVISIONS

NO.	DATE	BY	AP'D	DESCRIPTION	NO.	DATE	BY	AP'D	DESCRIPTION
A	17-02-16	GE		PRELIMINARY - ISSUED FOR REVIEW					
0	17-04-13	PH		ISSUED FOR CONSTRUCTION					
1	17-07-31	KC		REVISED FV-228101 & CONE STRAINER ORIENTATION					
2	18-01-11	KC		REVISED EQUIPMENT & INSTRUMENTATION TAGS FOR SKID NEW LOCATION					

FOR CONSTRUCTION

January 23, 2018

**STARTEC**  
COMPRESSION & PROCESS LTD.  
APEGA NO. P13139

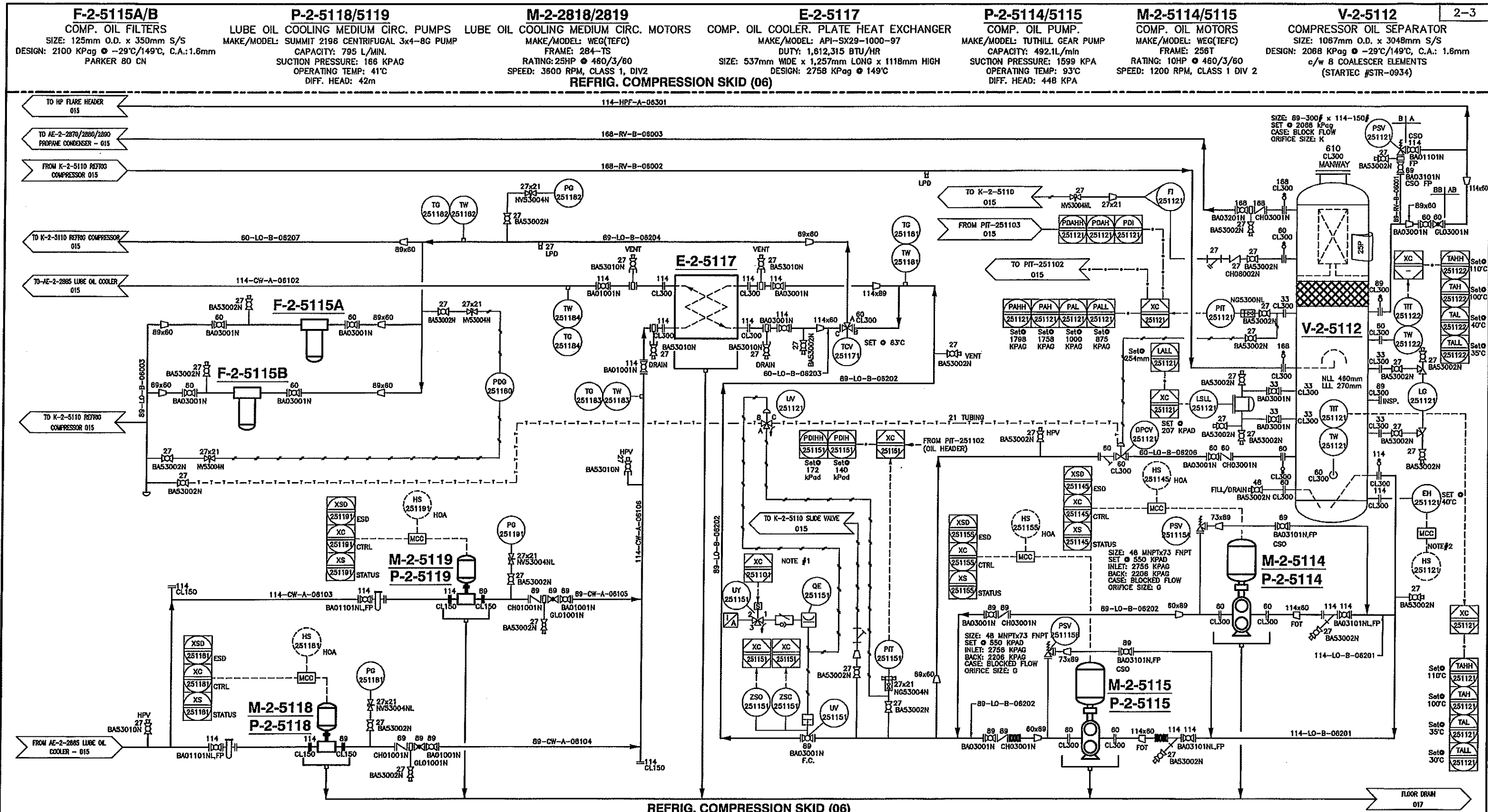
CUSTOMER  
ARC RESOURCES  
c/o CORNERSTONE ENGINEERING LTD.

TITLE  
GAS CHILLING UNIT - P&ID  
COMPRESSOR SKID "06"  
LSD: 13-07-80-14 W&M

SCALE  
N/A  
DRAWING NO.  
17006-PR-PID-015  
REV.  
2

DRAWN  
STARTEC  
CHECKED  
W. P. M.  
ENG. APPL.  
DATE  
17-04-13  
DATE  
20-02-18





GENERAL NOTES				REVISIONS								DRAWN STARTEC CHECKED WAA ENG. APPL		DATE 17-04-13 DATE 30-01-18 DATE 1		CUSTOMER ARC RESOURCES c/o CORNERSTONE ENGINEERING LTD.		TITLE GAS CHILLING UNIT - P&ID COMPRESSOR SKID "06" LSD: 13-07-80-14 W&M		SCALE N/A DRAWING NO. 17008-PR-PID-016 REV. 2	
NOTE:				NO.	DATE	BY	AP'D	DESCRIPTION	NO.	DATE	BY										
1. ENERGIZE WHEN MINIMUM SLIDE VALVE POSITION (10%) ACHIEVED ON START. DE-ENERGIZE ON NORMAL STOP.				A	17-02-16	GE		PRELIMINARY - ISSUED FOR REVIEW							FOR CONSTRUCTION  January 23, 2018						
2. ENERGIZE WHEN K-2-5110 STOPPED AND LSSL-251121 CLEAR, INTERLOCK WITH LSSL-251121. DE-ENERGIZE WHEN K-2-5110 RUNNING.				0	17-04-13	PH		ISSUED FOR CONSTRUCTION													
				1	17-07-31	KC		REVISED XC-228401 & UV-228151													
				2	18-01-11	KC		REVISED EQUIPMENT & INSTRUMENTATION TAGS FOR SKID NEW LOCATION													



**EF-2-5500A**

GCU BUILDING FAN  
MAKE: JAMES ELECTRIC JEXP  
MODEL#: JE1B35001PXP  
18" FAN

**M-2-5500A**

GCU BUILDING FAN MOTOR  
 FOR EF1-2800A  
 0.25KW • 1800RPM  
 1/60/208 VAC  
 ENCLOSURE: TEFC

**EF-2-5500B**

GCU BUILDING FAN  
MAKE: JAMES ELECTRIC JEXP  
MODEL#: JE2047001PXP  
20" FAN

**M-2-5500B**

GCU BUILDING FAN MOTOR  
 FOR EF1-2800B  
 0.367KW • 1800RPM  
 1/60/208 VAC  
 ENCLOSURE: TEFC

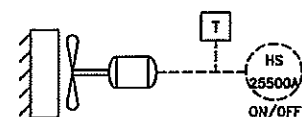
**UHG-2-5501A**

GCU BUILDING HEATER  
MAKE: RUFFNECK  
MODEL: AH-24B-A3B1-A1-2B  
RATED DUTY: 60.51 KW

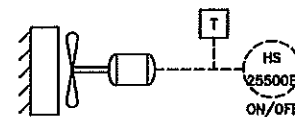
**M-2-5501 A1/A2**

GCU BUILDING HEATER FAN MOTOR  
ELECTRIC MOTOR  
0.375KW @ 1725RPM  
1/60/208 VAC  
ENCLOSURE: TEFC

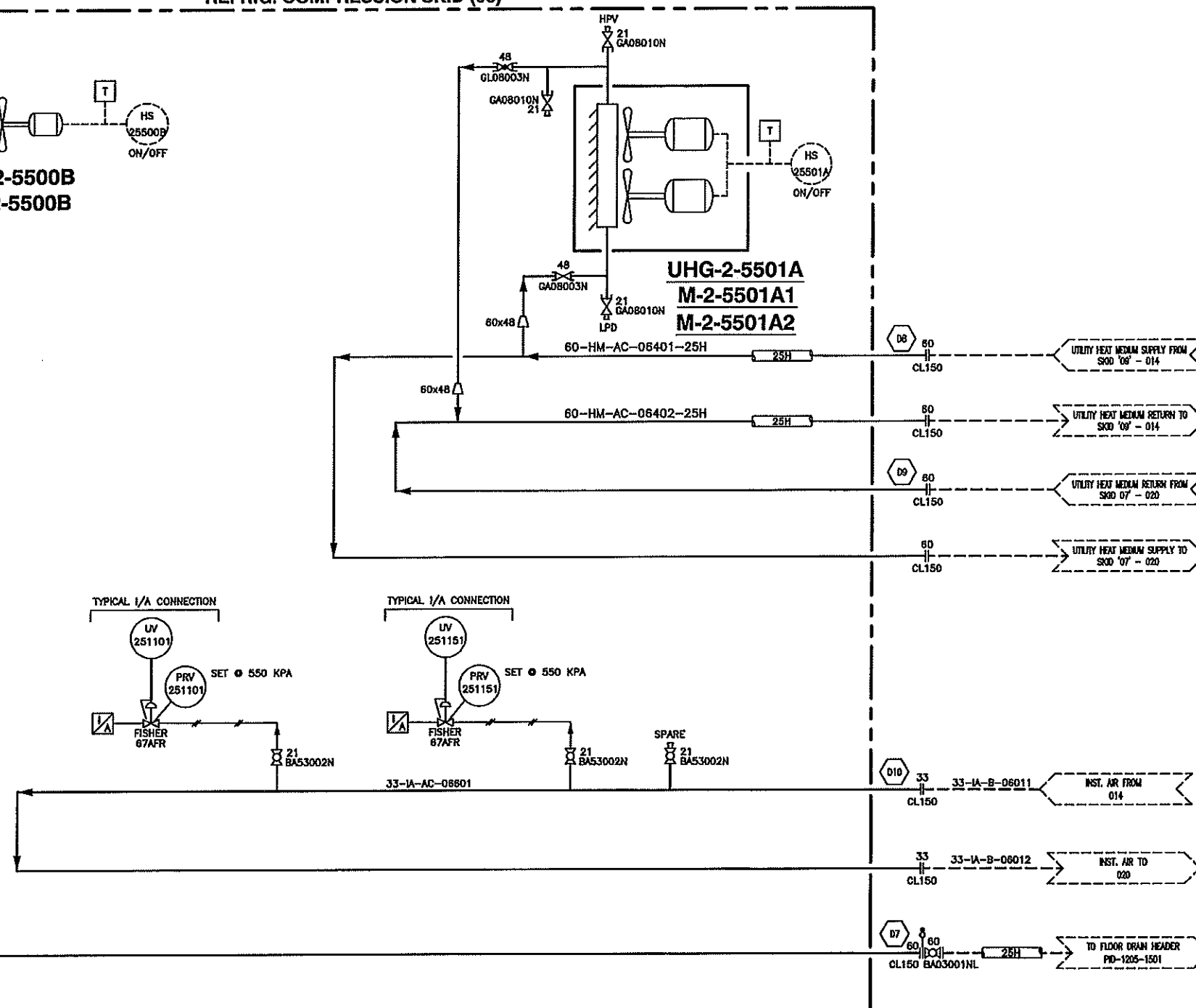
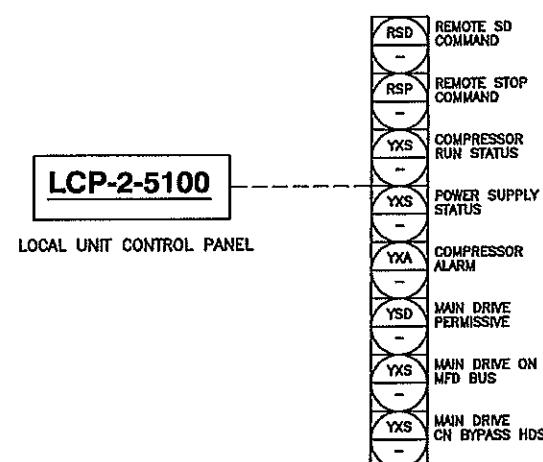
**REFRIG. COMPRESSION SKID (06)**



EF-2-5500A  
M-2-5500A



EF-2-5500B  
M-2-5500B



## GENERAL NOTES

## REVISIONS

NO.	DATE	BY	AP'D	DESCRIPTION
A	17-02-16	GE		PRELIMINARY – ISSUED FOR REVIEW
O	17-04-13	PH		ISSUED FOR CONSTRUCTION
1	17-07-31	KC		REVISED LCP–2–2B10 INSTRUMENTATION TAGS & BUILDING EXHAUST FAN CONTROLS
2	18-01-11	KC		REVISED EQUIPMENT & INSTRUMENTATION TAGS FOR SKID NEW LOCATION

DRAWN	DATE
STARTEC	17-04-1
CHECKED	DATE
WAM	20/04/1
ENG. APPL	DATE

**STARTEC**  
COMPRESSION & PROCESS LTD  
APEGA NO. P13133

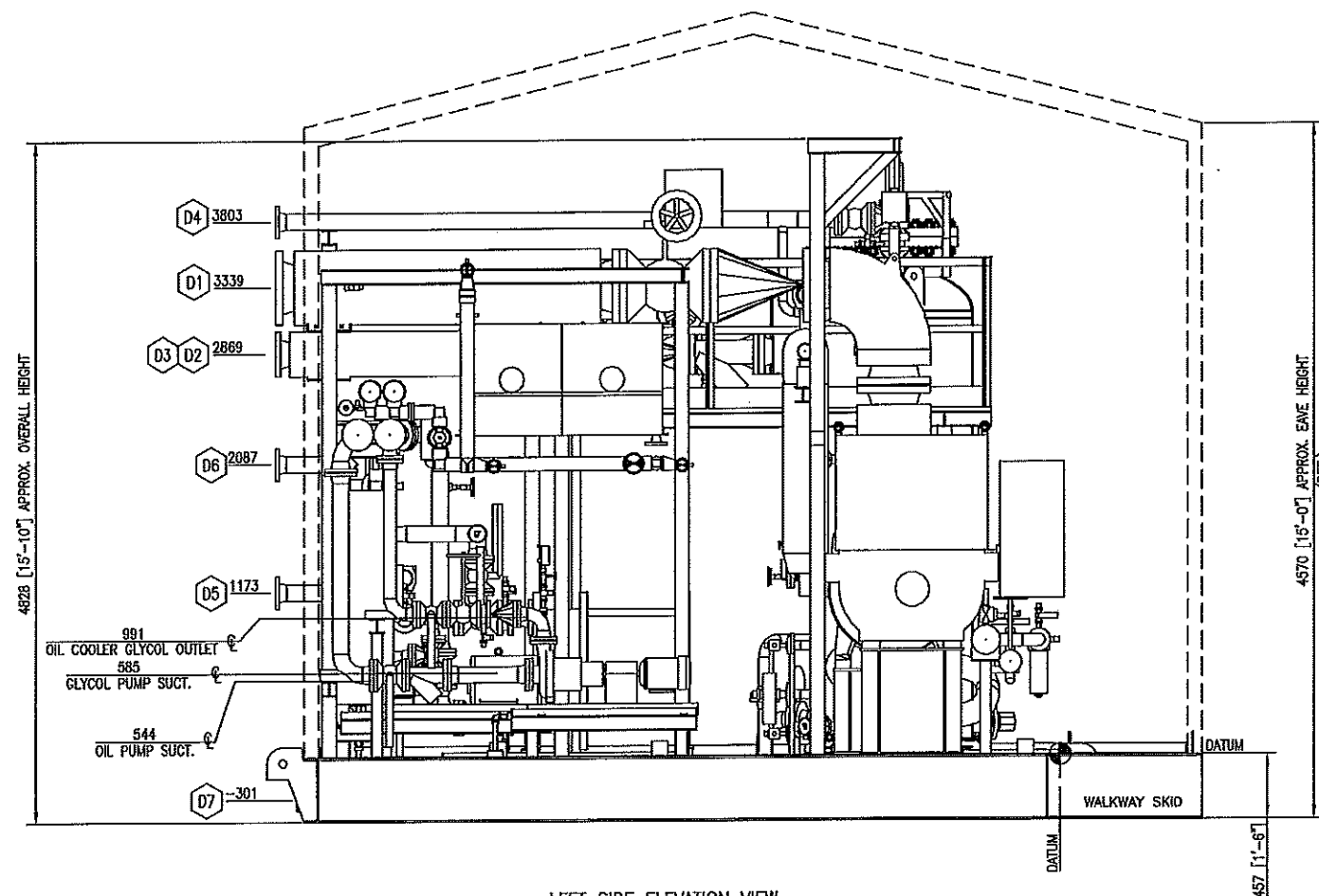
CUSTOMER	ARC RESOURCES
	c/o CORNERSTONE ENGINEERING LTD.

TITLE	GAS CHILLING UNIT - P&ID COMPRESSOR SKID "06" BUILDING UTILITIES LSD: 13-07-80-14 W6M
-------	---

SCALE	DRAWING NO.	R
N/A	17006-PR-PID-017	


--- FIELD PIPING BY OTHERS

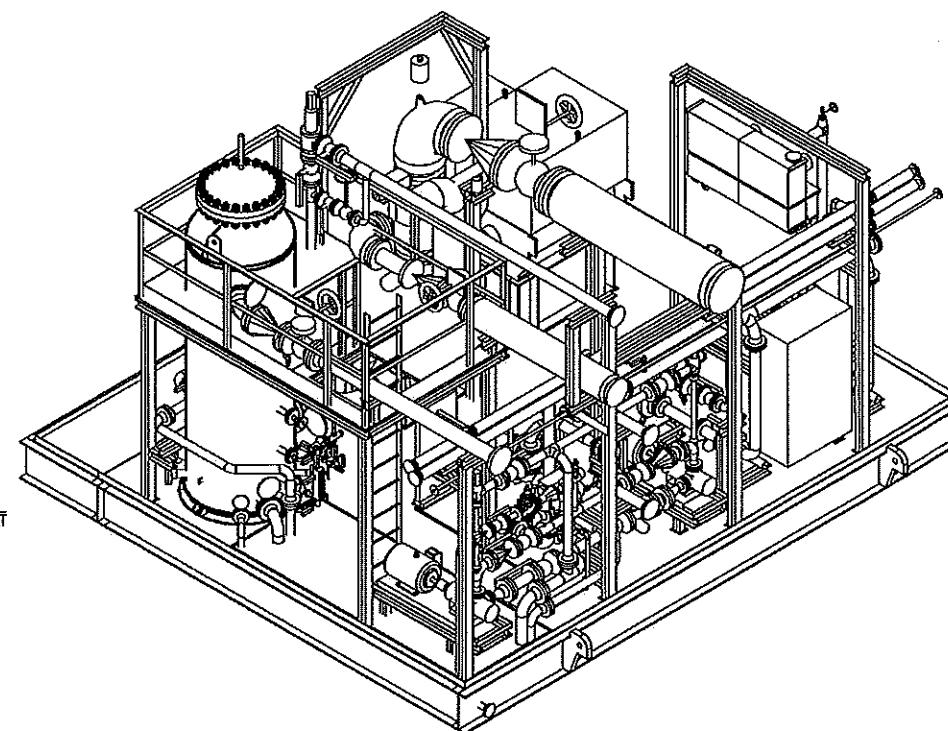




LEFT SIDE ELEVATION VIEW  
SCALE: 1:20

**FOR CONSTRUCTION**

REFERENCE DRAWINGS				REVISIONS										SHIPPING WEIGHT 34405 Kg	GAS CHILLING UNIT COMPRESSOR SKID "06" LSD: 03-09-81-16 WGM		 COMPRESSION & PROCESS LTD. APEQA NO. P13130	
DWG. NO.	DESCRIPTION	DWG. NO.	DESCRIPTION	NO.	DATE	BY	AP'D	DESCRIPTION	NO.	DATE	BY	AP'D	DESCRIPTION		DRAWN	DATE		CUSTOMER
				0	17-05-02	KC		ISSUED FOR CONSTRUCTION		05-04-17	WAB					02-16		ARC RESOURCES
															CHECKED			c/o CORNERSTONE ENGINEERING LTD.
															ENG. APPL	05-04-17		TITLE
															PROD. APPL			GAS CHILLING UNIT COMPRESSOR SKID "06"
															PAINT			GENERAL ARRANGEMENT DRAWING LEFT SIDE ELEVATION VIEW
																SCALE 1:20		
																DRAWING NO. 17008-ME-CAD-002		
																REV. 0		



NE ISO VIEW  
SCALE: 1:30

**D10** 33 - CL150 RF  
INSTRUMENT AIR

GENERAL NOTES:  
1.  ALL TAIL DIMENSIONS FROM REFERENCE POINT.

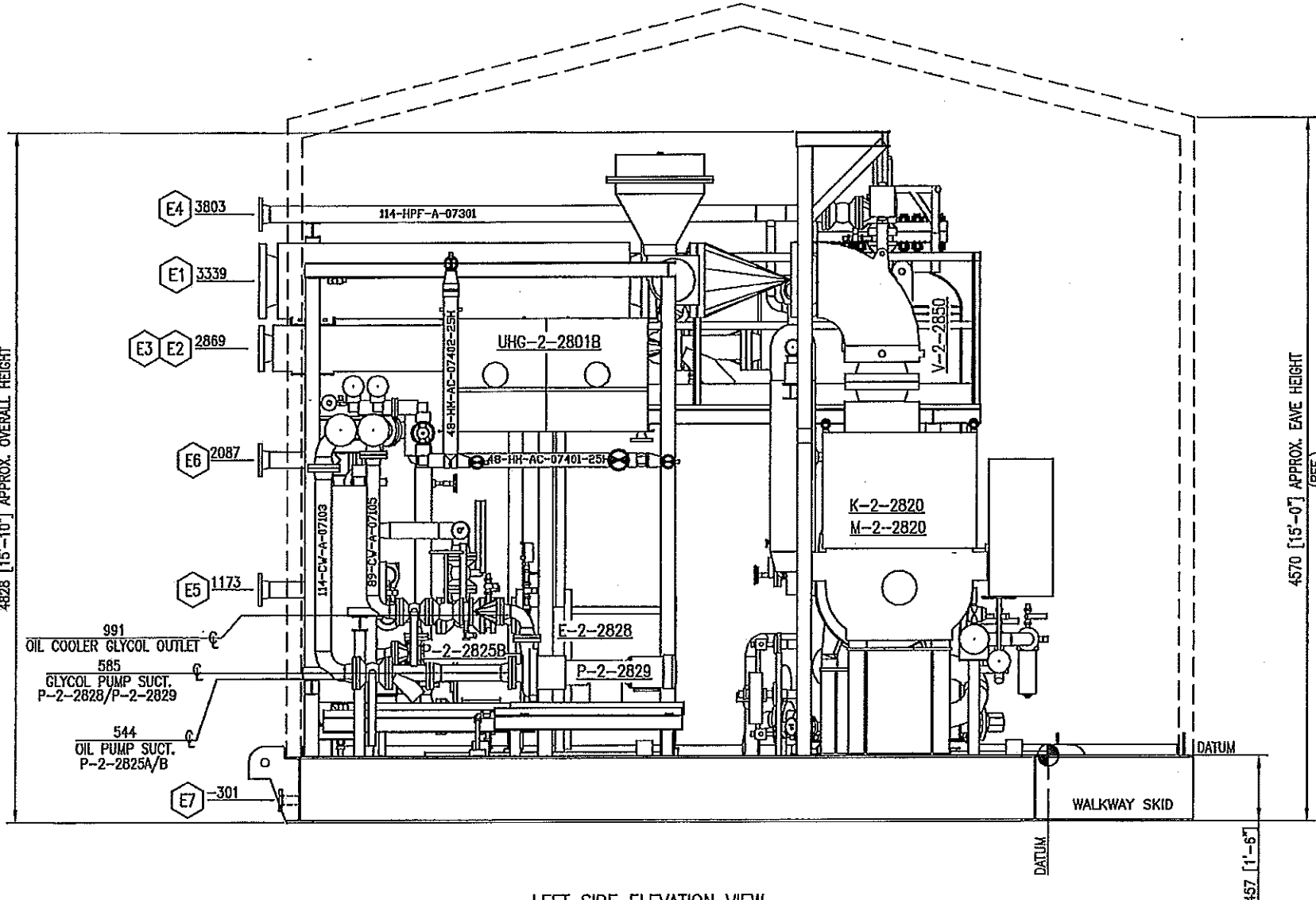
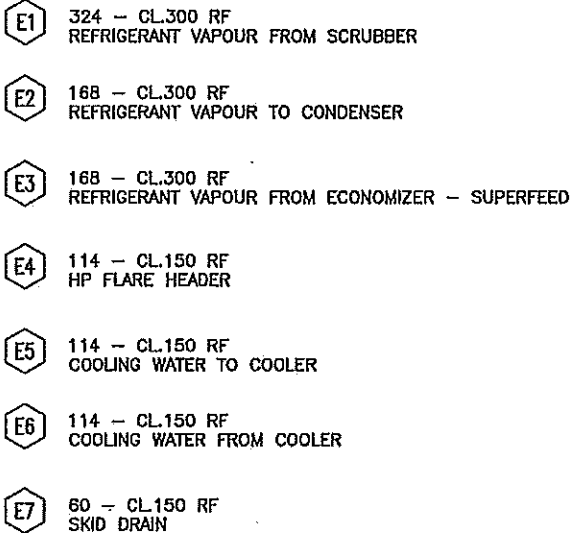
3-3

[illegible]



June 1, 2017

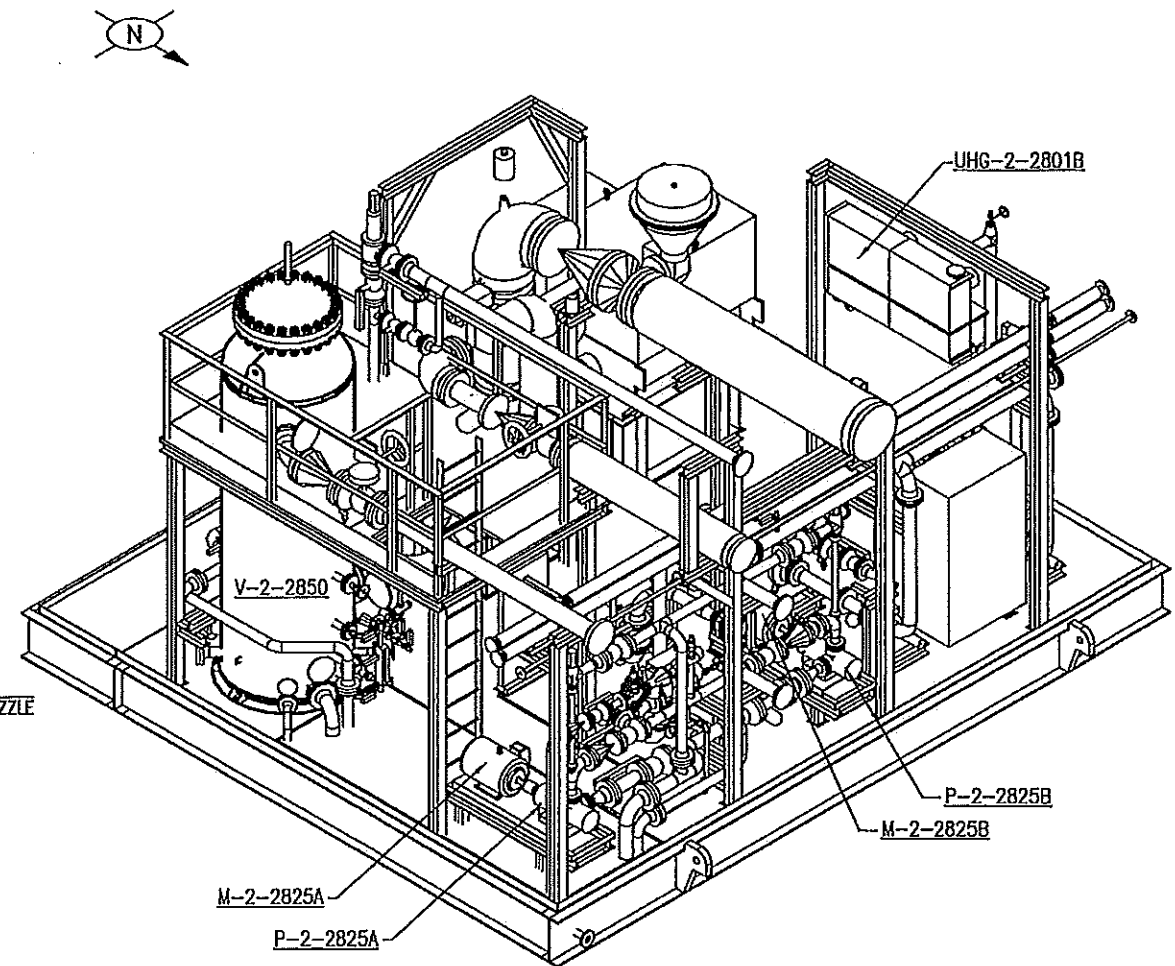
# FOR CONSTRUCTION



LEFT SIDE ELEVATION VIEW  
SCALE: 1:20

**GENERAL NOTES:**  
1. Ⓞ ALL TAIL DIMENSIONS FROM REFERENCE POINT.


[illegible]



NE ISO VIEW  
SCALE: 1:30

**June 1, 2017**

GENERAL NOTES:  
1.  ALL TAIL DIMENSIONS FROM REFERENCE POINT.

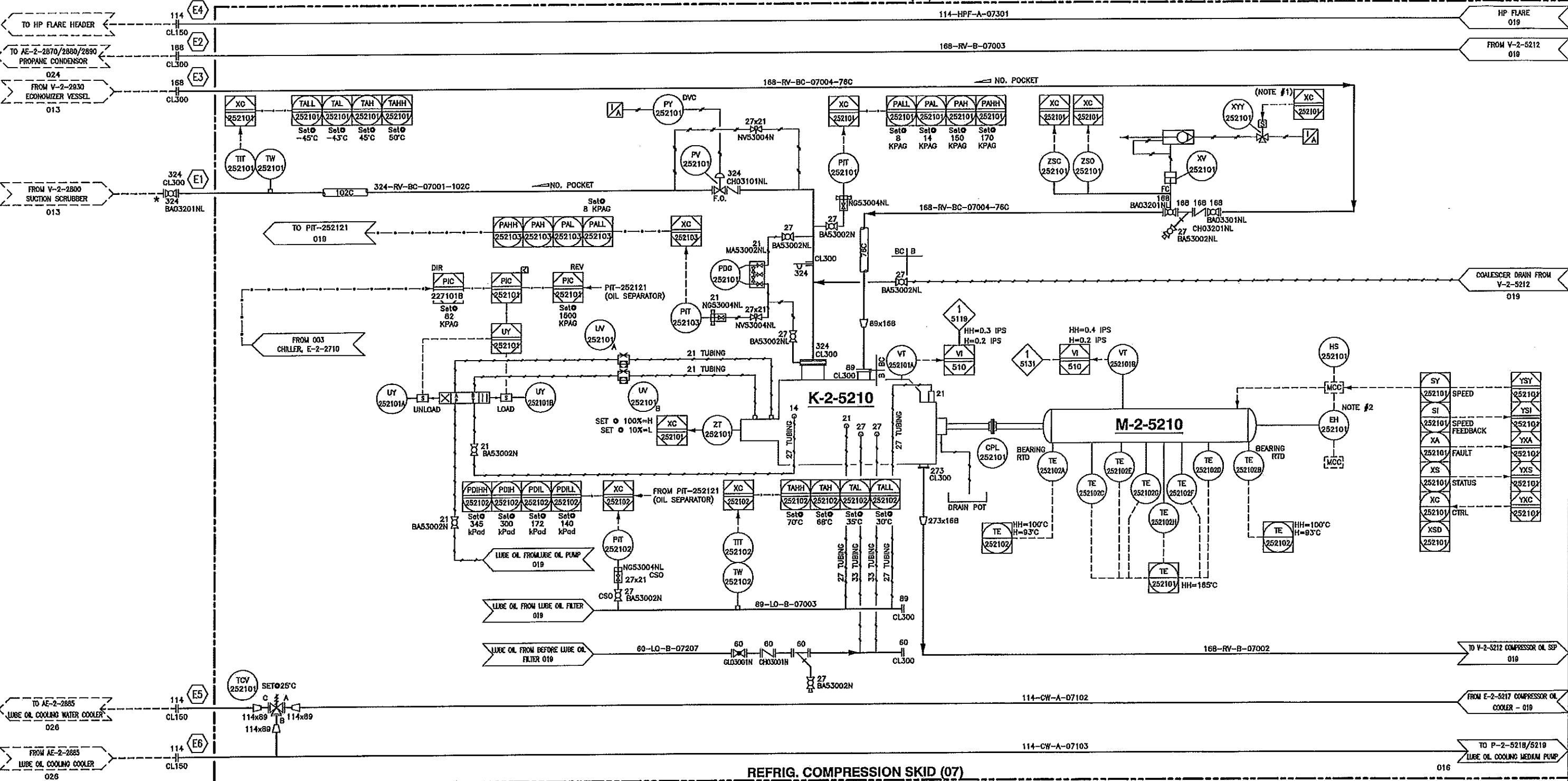
REFERENCE DRAWINGS				REVISIONS										GAS CHILLING UNIT COMPRESSOR SKID "07" LSD: 03-09-81-16 W6M		 <b>STARTEC</b> COMPRESSION & PROCESS LTD. APEGA NO. P13139		
DWG. NO.	DESCRIPTION	DWG. NO.	DESCRIPTION	NO.	DATE	BY	AP'D	DESCRIPTION	NO.	DATE	BY	AP'D	DESCRIPTION					SHIPPING WEIGHT 34405 Kg
				0	17-05-31	KC		ISSUED FOR CONSTRUCTION		May 31/17		WAM						
	</																	



**K-2-5210**  
REFRIGERANT COMPRESSOR  
MAKE/MODEL: HOWDEN WRV321-165  
RATED CAPACITY: 1183 KW(REFRIG)  
POWER: 872 KW  
SPEED: 3550 RPM

**M-2-5210**  
REFRIGERANT COMPRESSOR MOTOR  
MAKE/MODEL: TOSHIBA, WPII  
RATING: 1007 KW @ 4160 VAC/3 PH/60 HZ  
SPEED: 3600 RPM  
CLASS 1 DIV 2 GR C&D T3  
SF: 1.15, VFD

REFRIG. COMPRESSION SKID (07)



GENERAL NOTES

NOTE:  
1. ENERGIZE FROM 40% TO 100% COMPRESSOR LOAD. DE-ENERGIZE ON NORMAL STOP.

\* VALVES AND INSTRUMENTS SUPPLIED BY STARTEC AND SHIPPED LOOSE.


--- FIELD PIPING BY OTHERS

REVISIONS

NO.	DATE	BY	AP'D	DESCRIPTION
A	17-02-16	GE		PRELIMINARY - ISSUED FOR REVIEW
0	17-04-13	PH		ISSUED FOR CONSTRUCTION
1	17-07-31	KC		REVISED FV-228201 & CONE STRAINER ORIENTATION
2	18-01-11	KC		REVISED EQUIPMENT & INSTRUMENTATION TAGS FOR SKID NEW LOCATION

FOR CONSTRUCTION

January 23, 2018



COMPRESSION & PROCESS LTD.  
APEQA NO. P13139

CUSTOMER  
ARC RESOURCES  
c/o CORNERSTONE ENGINEERING LTD.

TITLE  
GAS CHILLING UNIT P&ID  
COMPRESSOR SKID "07"  
LSD: 13-07-80-14 W&M

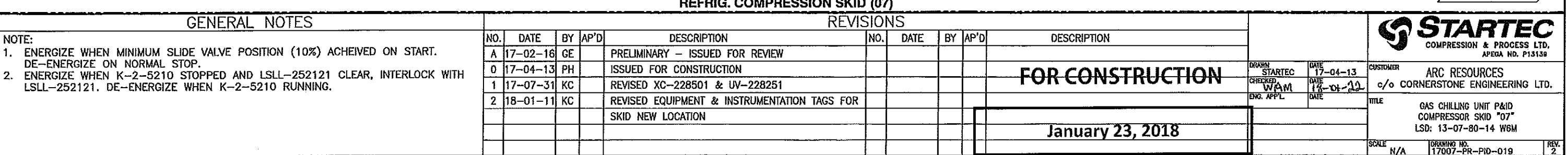
SCALE  
N/A

DRAWING NO.  
17007-PR-PID-018

REV.  
2

DRAWN  
CHECKED  
ENG. APPL.

DATE  
17-04-13  
DATE  
18-02-16  
DATE



**EF-2-5500C**

GCU BUILDING FAN  
MAKE: JAMES ELECTRIC JEXP  
MODEL#: JE1835001PXP  
18" FAN

**M-2-5500C**

GCU BUILDING FAN MOTOR  
FOR EF1-2800C  
0.25KW • 1800RPM  
1/60/208 VAC  
ENCLOSURE: TEFC

**EF-2-5500D**

GCU BUILDING FAN  
MAKE: JAMES ELECTRIC JEXP  
MODEL#: JE2047001PXP  
20" FAN

**M-2-5500D**

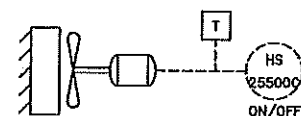
GCU BUILDING FAN MOTOR  
FOR EF1-2800D  
0.367KW • 1800RPM  
1/60/208 VAC  
ENCLOSURE: TEFC

**UHG-2-5501B**

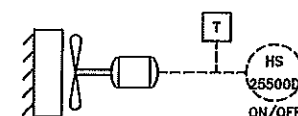
GCU BUILDING HEATER  
MAKE: RUFFNECK  
MODEL: AH-24B-A3B1-A1-2B  
RATED DUTY: 60.51 KW

**M-2-5501 B1/B2**

GCU BUILDING HEATER FAN MOTOR  
ELECTRIC MOTOR  
0.375KW • 1725RPM  
1/60/208 VAC  
ENCLOSURE: TEFC

**REFRIG. COMPRESSION SKID (07)**

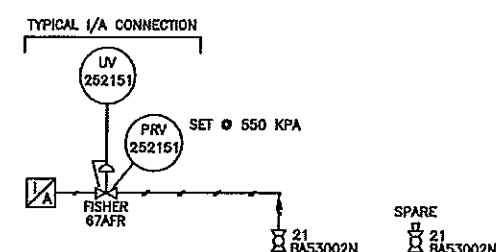
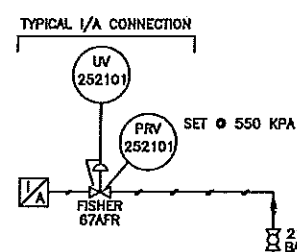
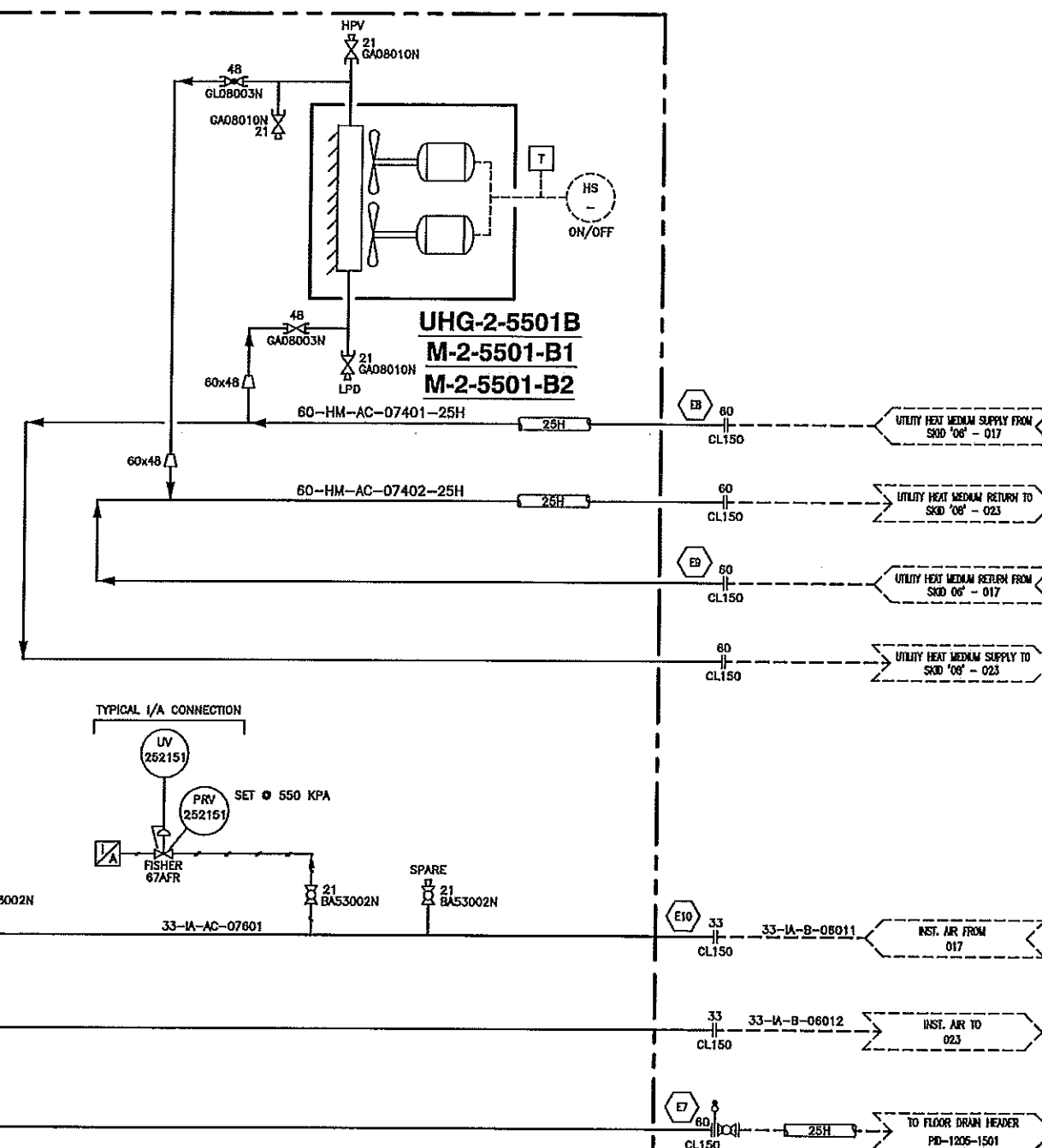
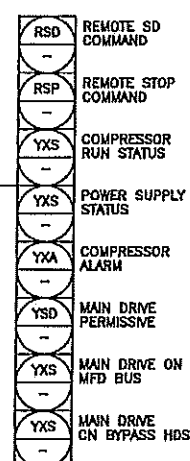
**EF-2-5500C**  
**M-2-5500C**



**EF-2-5500D**  
**M-2-5500D**

**LCP-2-5200**

LOCAL UNIT CONTROL PANEL

**GENERAL NOTES****REVISIONS**

NO.	DATE	BY	AP'D	DESCRIPTION	NO.	DATE	BY	AP'D	DESCRIPTION
A	17-02-16	GE		PRELIMINARY - ISSUED FOR REVIEW					
0	17-04-13	PH		ISSUED FOR CONSTRUCTION					
1	17-07-31	KC		REVISED LCP-2-2820 INSTRUMENTATION TAGS & BUILDING EXHAUST FAN CONTROLS					
2	18-01-11	KC		REVISED EQUIPMENT & INSTRUMENTATION TAGS FOR SKID NEW LOCATION					

**FOR CONSTRUCTION**

January 23, 2018

**STARTEC**  
COMPRESSION & PROCESS LTD.  
APEGA NO. P13139

DRAWN: STARTEC  
CHECKED: WAM  
ENG. APP'L: DATE: 17-04-13  
DATE: 18-01-20  
DATE: 18-01-20

CUSTOMER: ARC RESOURCES  
c/o CORNERSTONE ENGINEERING LTD.

TITLE: GAS CHILLING UNIT - P&ID  
COMPRESSOR SKID "07" BUILDING UTILITIES  
LSD: 13-07-80-14 WGM

SCALE: N/A  
DRAWING NO. 17007-PR-PID-020  
REV. 2

--- FIELD PIPING BY OTHERS