SYMBOL	DESCRIPTION		DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
PG	PRESSURE GAUGE	SV	SOLENOID VALVE		GATE VALVE		SOLENOID VALVE		LOCAL MOUNTED		ELECTRIC SIGNAL
PIT	PRESS. IND. TRANSMITTER	TT	TEMP. TRANSMITTER		GLOBE VALVE		UNLOADER		MAIN CONTROL PANEL MOUNTED		DATA LINK SIGNAL
PDIT	PRESS. DIFF. IND. TRANSMITTER	TI	TEMP. INDICATOR		NEEDLE VALVE		PROCESS / INSTRUMENT LINE		GAUGE BOARD MOUNTED		FILTER
TG	TEMP. GAUGE	SG	SIGHT GLASS		CHECK VALVE		OTHER UTILITY LINE (C/W)		DCS		STRAINER
TE	TEMP. ELEMENT	RV	RELIEF VALVE		Y-STRAINER		CAPILLARIES TUBE	UCP	UCP INDICATOR		ESD INTERLOCK
PI	PRESSURE INDICATOR	FG	FLOW GAUGE		SELF PRESS. REDUCING REGULATOR		LUB. OIL LINE	ESD	EMERGENCY SHUT DOWN IN ESD	ESD	PLANT ESD
PSV	PRESSURE SAFETY VALVE		BALL VALVE		PRESSURE SAFETY VALVE		INSTRUMENT AIR LINE		FUNCTION IMPLEMENTED IN UCP		REGULATOR WITH FILTER
TCV	TEMPERATURE CONTROL VALVE	EH	ELECTRICAL HEATER		HEAT TRACE		RESTRICTION ORIFICE		INSULATION		PERSONNEL PROTECTION
TP XXX	TIE IN POINT		LIMITS OF SUPPLY		BATTERY LIMITS						

EQUIPMENT NUMBERING

AA — BCDD E

AA: EQUIPMENT CODE

EQUIPMENT	CODE
AIRCOOLER	AE
COMPRESSOR	C
CONTROL PANEL	LC(LCP)
DIESEL ENGINE	DL
EXCHANGER SHELL-AND TUBE, DOUBLE PIPE, PLATE, COIL, AIR COOLED, REBOILER, BOX COOLER, CASCADE COOLER, SURFACE CONDENSER, BAROMETRIC CONDENSER, WASTE-HEAT BOILER	E
FAN	FA
FILTER	F
FLARE STACK	FS(FST)
GAS TURBINE	GT
HEATER, FIRED, FURNACE	H
HOIST	HI
HOSE HOUSE	HH
HOSE REEL	HR
IGNITION PACKAGE	IG
INDOOR HOSE REELS	IN(HR)
MOTOR ELECTRIC	M
OUTDOOR HOSE REELS	OH(OHR)
PACKAGE UNIT	PK
PIG LAUNCHER	PL
PULSATION DAMPENER	PD
PUMP	P
SCALE, WEIGHING, MEASURING	SC
SILENCER, MUFFLER	SI
STACK, CHIMNY	SE
STRAINER	ST(STR)
SUMP	SU
TANK, SILO, HOPPER	TK
TOWER, COLUMN	T
UNLOADER	UL
VESSEL (SCRUBBER, ACCUMULATOR, K.O. DRUM, SPHERE, BULLET, SEPARATOR)	V

B: PLANT NO ABBREVIATION

GCS PLANT : 2

C: UNIT NO

1	PROCESS
2	UTILITY
3	FIRE WATER

DD: SEQUENTIALTIAL NO (01 TO 09) IF MORE REQUIRED IT CAN BE IDENTIFIED WITH TWO DIGIT SUCH THAT THE FIRST DIGIT COMES FROM THE LAST DIGIT UNIT KEY.

E: ALPHABETICAL LETTER (FOR MULTIPLE IDENTICAL EQ. AND SPARE)

LINE NUMBERING

AAA – XXX – YYYY – ZZZZ – D* – CC(*)

(1) – (2) – (3) – (4) – (5) – (6)

(1) FLUID IDENTIFICATION CODE

CODE	DESCRIPTION
A. AIR SYSTEM	
ISA	INSTRUMENT AIR
PLA	PLANT AIR
B. BLOWDOWN & PUMP OUT SYSTEM/EFFLUENT DISPOSAL	
BDN	BLOW DOWN
CBD	CONTINUOUS BLOW DOWN
IBD	INTERMITTENT BLOW DOWN
C. DRAIN (SEWER) SYSTEM	
CDB	CONCRETE DRAIN BOX
CDH	CLOSED DRAIN HEADER
CSW	CHEMICAL SEWER
CY	CHEMICAL DRAIN PIT
DRP	DRAIN PIT
NSW	NON OILY WATER SEWER
OPD	OPEN DRAIN
OSW	OILY WATER SEWER
SSW	SANITARY WATER SEWER
Y	DRAIN FUNNEL (GENERAL)
D. FLARE SYSTEM AND VENT	
ATM	ATMOSPHERE
FL	FLARE (NORMAL)
HFL	HIGH PRESSURE FLARE
LFL	LOW PRESSURE FLARE
E. FULES	
FLG	FUEL GAS / PURGE GAS
FLO	FUEL OIL
NG	NATURAL GAS
DO	DIESEL OIL
F. SPECIAL GAS SYSTEM	
AIR	AIR (DRYING SERVICE)
FUG	FLUE GAS
NIT	NITROGEN
G. SPECIAL CHEMICAL AND SOLVENT SYSTEM	
CHM	CHEMICALS
MEL	METHANOL
I. WATER SYSTEM	
FWA	FIRE WATER
OWA	OILY WATER
PRW	PROCESS WATER
PTW	POTABLE WATER
PWA	PLANT WATER
RWA	RAW WATER

LINE NUMBERING

K. PROCESS SERVICE

GAS	GAS
GSO	GAS OIL
HCB	HYDROCARBON
PRO	PROCESS FLUID
REG	RECYCLE GAS
SLP	SLOP
CRD	CRUDE OIL
TEG	TRIETHYLENE GLYCOL

(2) UNIT SERIAL NUMBER

PROCESS NUMBER :	111
UTILITY NUMBER :	112
FIRE WATER :	113

(3) PIPING SERIAL NUMBER

(4) PIPING CLASS CODE

PIPING CLASS ACCORDING IPS-E-PI-221, EACH PIPING MATERIAL CLASS IS IDENTIFIED BY A FOUR-DIGIT ALPHANUMERIC CODE. THE FIRST ALPHA CHARACTER IDENTIFIES THE PRESSURE RATING AS FOLLOWS:

A RATING CLASS 150
C RATING CLASS 300
F RATING CLASS 600
G RATING CLASS 900
H RATING CLASS 1500
W RATING CLASS 3000
X RATING CLASS 5000

THE SECOND ALPHA CHARACTER INDICATES THE MATERIAL GROUP AS FOLLOW:

N CARBON
S STAINLESS STEE
X NON METALPIPE
Z GALVANIZED CARBON STEEL

THE TWO DIGIT FIGURES INDICATE DIFFERING SERVICE CONDITIONS (e.g. PROCESS FLUID BEING HANDLED OR SERVICE TEMPERATURE LIMITS, OR CORROSION RATE).

3 RD DIGIT		4 TH DIGIT FOR METAL PIPE			4 TH DIGIT FOR NON-METAL PIPE	
FIG.	DESIGN STANDARD	FIG.	C.A.	PIPE OR ATTACHED *SIZE REQUIREMENT	FIG.	MATERIAL TYPE
0	ASME B 31.3 (FOR MORE OF PLANT)	0	0 mm	NO	1	GRE
		1	1 mm	NO		
1	ASME B 31.4 (FOR LIQUID PIPELINE)	2	1 mm	YES	2	PE
		4	3 mm	NO		
2	ASME B 31.8 (FOR GAS PIPELINE)	5	3 mm	YES	3	RTP(REINFORCED THERMOPLASTIC PIPE)
		6	6 mm	NO		
		7	6 mm	YES		

(5) NOMINAL PIPE SIZE

(6) CODE OF INSULATION OR HEATH TRACING:

CODE	DESCRIPTION
ET (*)	ELECTRICALLY TRACED & INSULATED
ETT (*)	ELECTRICALLY TRACED WITH HEAT TRANSFER CEMENT
IC	INSULATION COLD
IH	INSULATION HOT
IS	INSULATION FOR PERSONNEL PROTECTION
TB	TRACE BODY AND INSULATE
TBB	TRACE BODY AND BONNET AND INSULATE
PT	PAINTING
NP	NO PAINTING, NO INSULATION
UW	UNDERGROUND WRARRING

* H : HEAT CONSERVATION, W : WINTERIZATION

INSTRUMENT NUMBERING

A | a | b | c | d

A : INSTRUMENT TYPE ASPER SECTION 5.3

(a) : PLANT NO. ASPER SECTION 1.

(b) : UNIT NO. ASPER SECTION 1.

(c) : SEQUENCE NO.

(d) : OPTIONAL SUFFIX (ONE LETTER)

EQUIPMENT

ROTARY PUMP WITH INTERNAL RELIEF VALVE

AIR COOLER

SEPARATOR

SHELL AND TUBE EXCHANGER

CENTRIFUGAL PUMP

NOTES

LEGEND

REFERENCE DRAWING	DRG. No.
**********	******

KEY PLAN

REV.	DATE	P.O.I.S	PREP.	CHK.	APP.	AUT.
00						

REV.	DESCRIPTION	BY	DATE	BY	DATE
		CHECKED		REV. APPR.	

PROJECT NAME: BINAK OILFIELD DEVELOPMENT/SURFACE FACILITIES GAS COMPRESSOR STATION

PROJECT NO.: 971020

EPC CONTRACTOR: HIRGAN ENERGY – DESIGN & INSPECTION COMPANIES

EPD/EPC CONTRACTOR (GC): PETROIRAN DEVELOPMENT COMPANY (PEDCO)

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BINAK OILFIELD DEVELOPMENT
SURFACE FACILITIES
GAS COMPRESSOR STATION

DATE	SCALE	DRAWING BY	CHECKED BY	PROJECT ENG.

NO CONSTRUCTION PERMITTED UNLESS DRAWING APPROVED

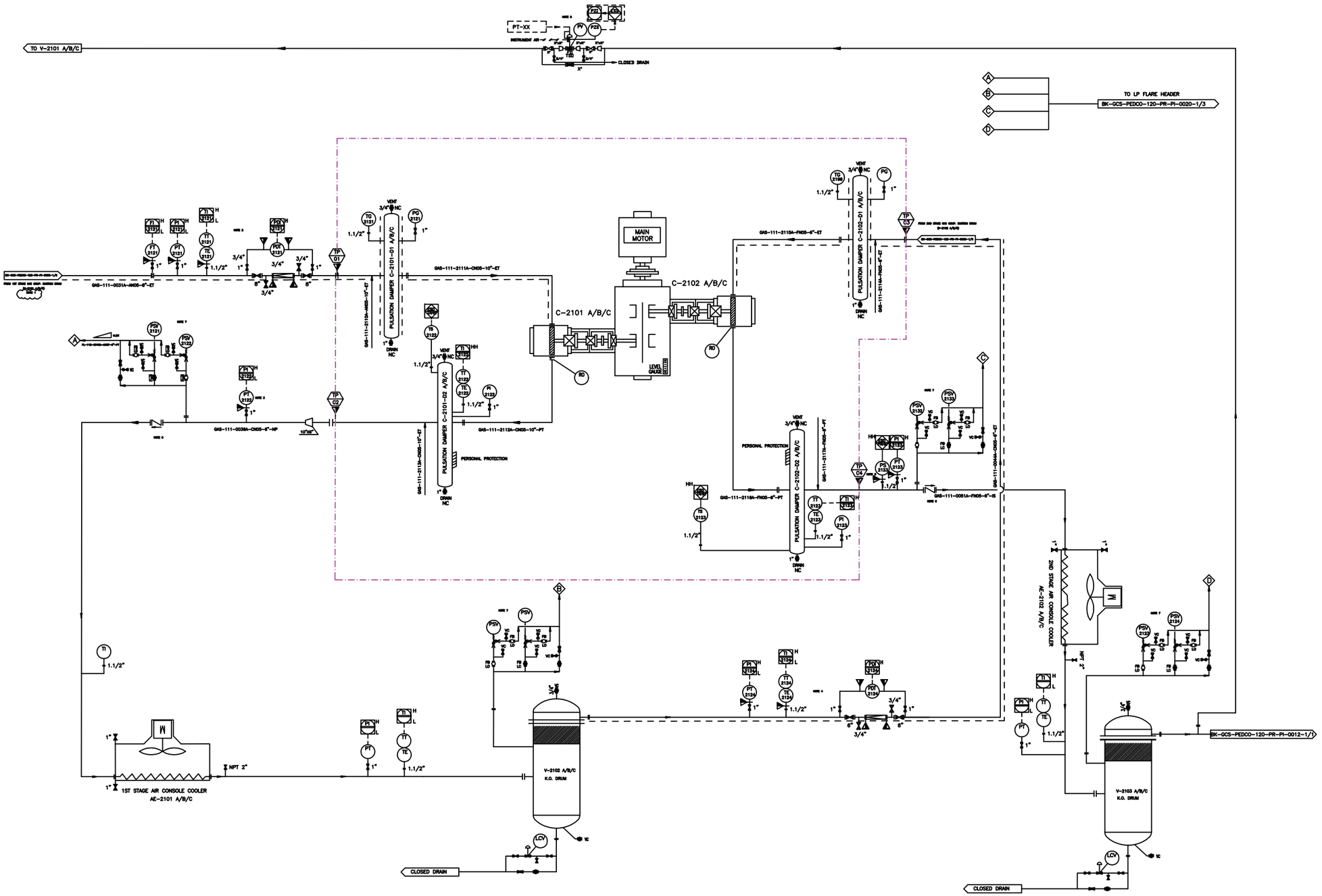
APPROVED FOR CONSTRUCTION BY: DATE:

HAVAYAR

DRAWING TITLE: SYMBOL AND LEGEND

SCALE	SIZE	DRAWING NO.	SHEET NO.	REV.
******	A0	BK-GCS-HY-120-PR-PI-0001	1 OF 9	00

BUDGET REF.	LOCATION	SIZE	CLASS	SERIAL NO.	SHEET	REVISION



NOTES

LEGEND

1. COMPRESSOR B AND C ARE SAME AS A.
2. INLET FILTER AND INSTRUMENT WILL BE SUPPLIED LOOSE ON CLIENT LINE.
3. INSTRUMENT WILL BE SUPPLIED LOOSE ON CLIENT LINE.
4. THE FILTER AND INSTRUMENT WILL BE SUPPLIED LOOSE ON CLIENT LINE.
5. SPILL BACK VALVE WILL BE SUPPLIED LOOSE ON CLIENT LINE.
6. NON SLAM TYPE CHECK VALVE.
7. PSV WILL BE SIZED BY CLIENT.

REFERENCE DRAWING	DRG. No.
**********	******

KEY PLAN

REV.	DATE	P.O.I.S	PREP.	CHK.	APP.	AUT.
00						

REV.	DESCRIPTION	BY	DATE	BY	DATE
		CHECKED		REV. APPR.	

PROJECT NAME: BINAK OILFIELD DEVELOPMENT/SURFACE FACILITIES GAS COMPRESSOR STATION

PROJECT NO.: 971020

EPC CONTRACTOR: HIRGAN ENERGY – DESIGN & INSPECTION COMPANIES

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GAS COMPRESSOR STATION

DATE	SCALE	DRAWING BY	CHECKED BY	PROJECT ENG.

HAVAYAR

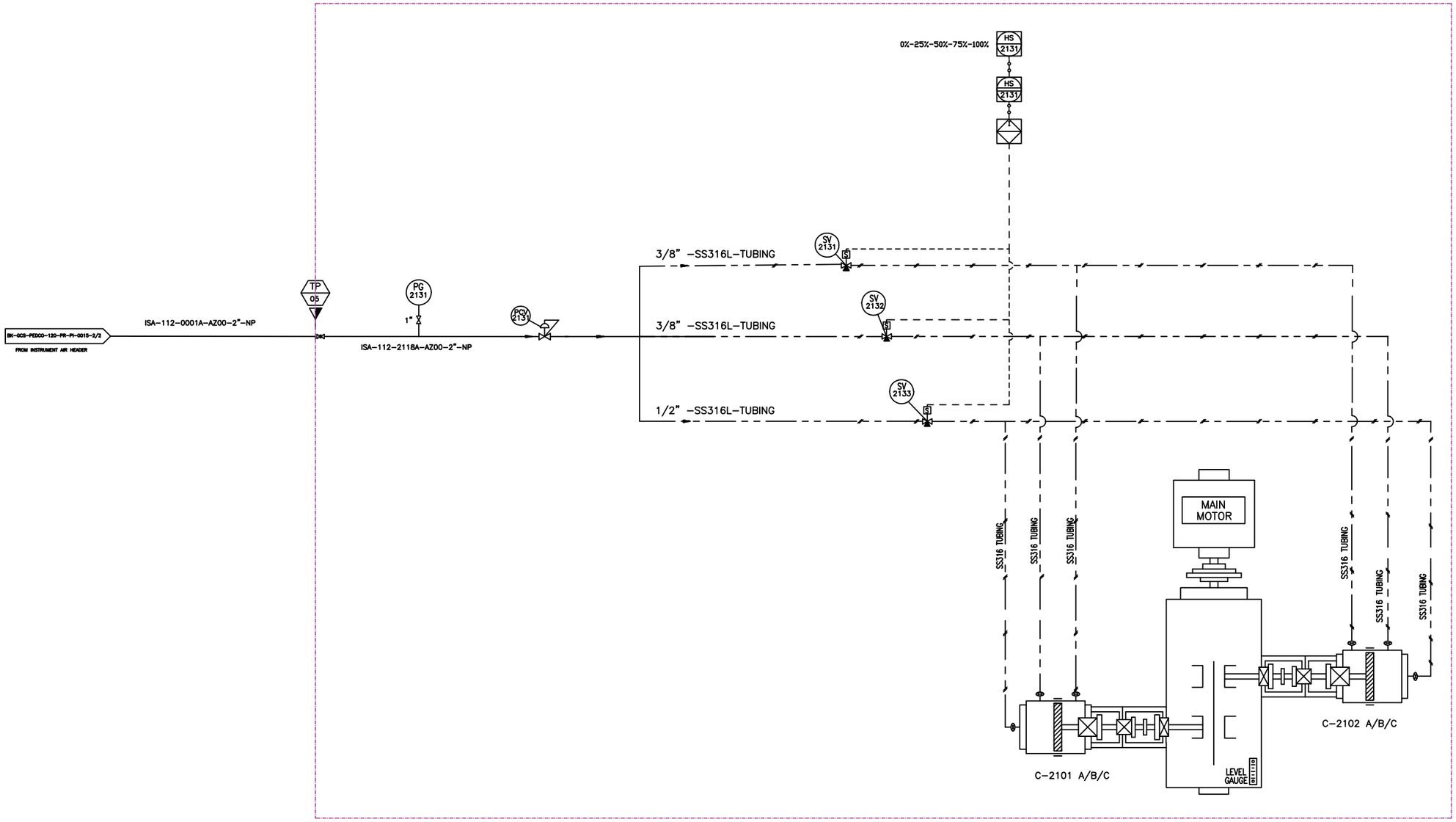
DRAWING TITLE: P&I DIAGRAM FOR PROCESS GAS

SCALE	SIZE	DRAWING NO.	SHEET NO.	REV.
******	A0	BK-GCS-HY-120-PR-PI-0001	2 OF 9	00

NO CONSTRUCTION PERMITTED UNLESS DRAWING APPROVED

APPROVED FOR CONSTRUCTION | BY: | DATE:

BUDGET REF.	LOCATION	SIZE	CLASS	SERIAL NO.	SHEET	REVISION



NOTES

LEGEND

1. LINE SIZING WILL BE FINALIZED.

REFERENCE DRAWING	DRG. No.
**********	******

KEY PLAN

REV.	DESCRIPTION	BY	DATE	BY	DATE
		CHECKED		REV. APPR.	

REV.	DATE	P.O.I.S	PREP.	CHK.	APP.	AUT.
00						

PROJECT NAME: BINAK OILFIELD DEVELOPMENT/SURFACE FACILITIES GAS COMPRESSOR STATION

PROJECT NO.: 971020

EPC CONTRACTOR: HIRGAN ENERGY – DESIGN & INSPECTION COMPANIES

EPD/EPC CONTRACTOR (GC): PETROIRAN DEVELOPMENT COMPANY — PEDCO

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SURFACE FACILITIES
GAS COMPRESSOR STATION

DATE	SCALE	DRAWING BY	CHECKED BY	PROJECT ENG.

HAVAYAR

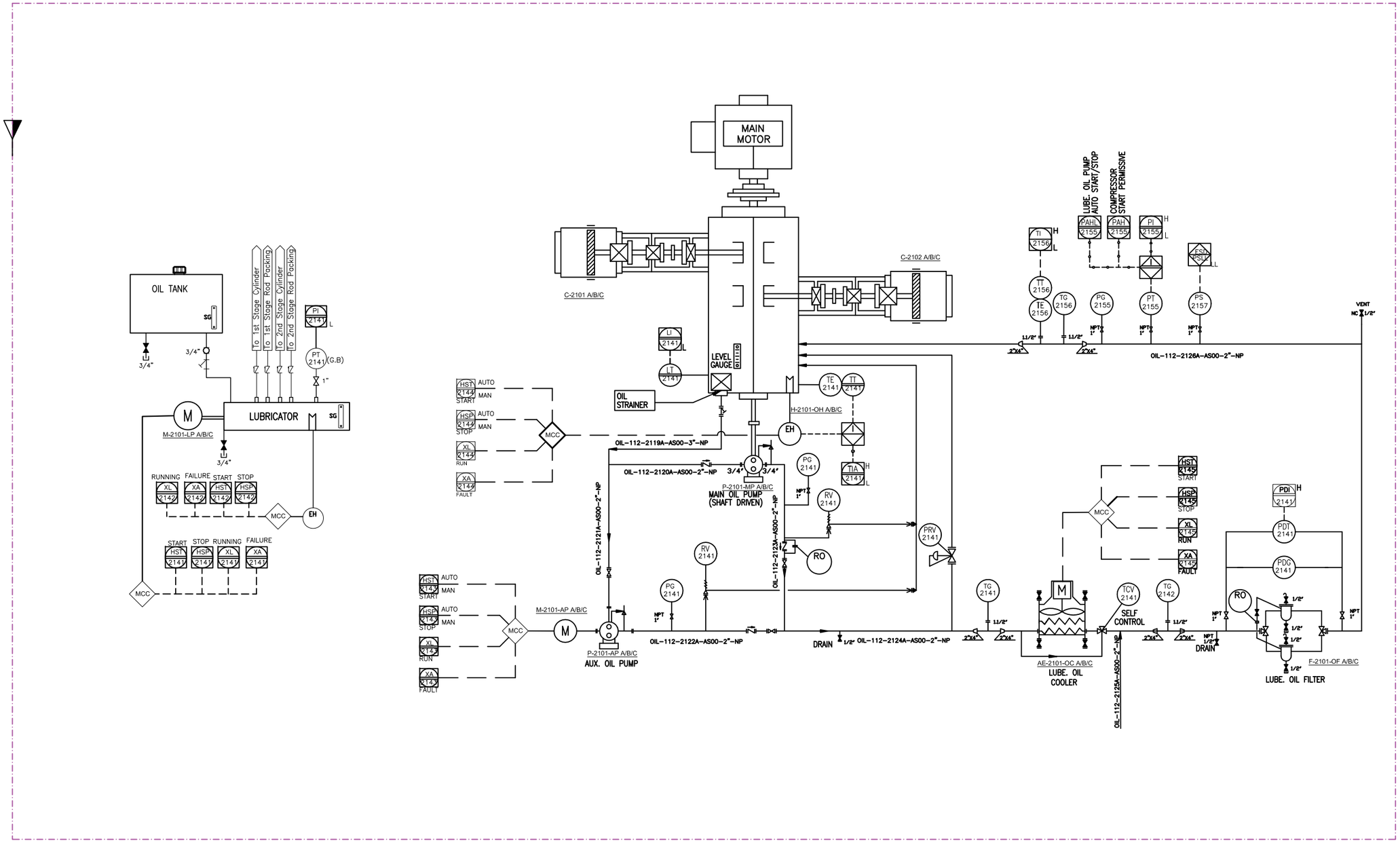
DRAWING TITLE: P&I DIAGRAM FOR CAPACITY CONTROL SYSTEM

NO CONSTRUCTION PERMITTED UNLESS DRAWING APPROVED

APPROVED FOR CONSTRUCTION BY: DATE:

SCALE	SIZE	DRAWING NO.	SHEET NO.	REV.
******	A0	BK-GCS-HY-120-PR-PI-0001	3 OF 9	00

BUDGET REF.	LOCATION	SIZE	CLASS	SERIAL NO.	SHEET	REVISION



NOTES

LEGEND

1. LINE SIZING WILL BE FINALIZED.

REFERENCE DRAWING	DRG. No.
**********	******

KEY PLAN

REV.	DESCRIPTION	BY	DATE	BY	DATE
		CHECKED		REV. APPR.	

REV.	DATE	P.O.I.S	PREP.	CHK.	APP.	AUT.
00						

PROJECT NAME: BINAK OILFIELD DEVELOPMENT/SURFACE FACILITIES GAS COMPRESSOR STATION

PROJECT NO.: 971020

EPC CONTRACTOR: HIRGAN ENERGY – DESIGN & INSPECTION COMPANIES

EPD/EPC CONTRACTOR (GC): PETROIRAN DEVELOPMENT COMPANY (PEDCO)

HAVAYAR

DRAWING TITLE: P&I DIAGRAM FOR LUBRICATION SYSTEM

SCALE	SIZE	DRAWING NO.	SHEET NO.	REV.
******	A0	BK-GCS-HY-120-PR-PI-0001	4 OF 9	00

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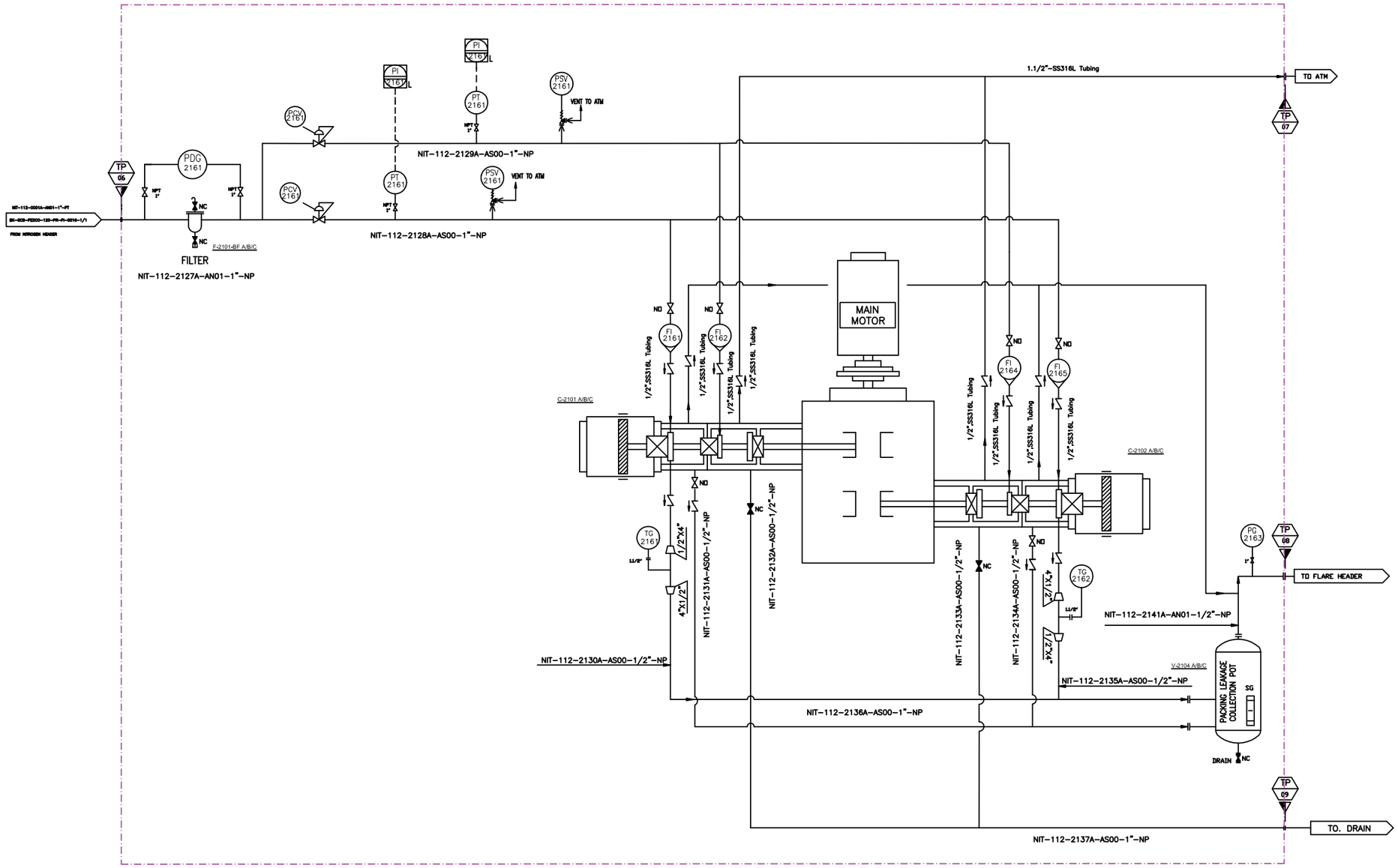
GAS COMPRESSOR STATION

DATE	SCALE	DRAWING BY	CHECKED BY	PROJECT ENG.

NO CONSTRUCTION PERMITTED UNLESS DRAWING APPROVED

APPROVED FOR CONSTRUCTION BY: DATE:

BUDGET REF.	LOCATION	SIZE	CLASS	SERIAL NO.	SHEET	REVISION



NOTES

LEGEND

1. LINE SIZING WILL BE FINALIZED.

REFERENCE DRAWING	DRG. No.
**********	******

KEY PLAN

REV.	DATE	P.O.I.S	PREP.	CHK.	APP.	AUT.
00						

REV.	DESCRIPTION	BY	DATE	BY	DATE
		CHECKED		REV. APPR.	

PROJECT NAME: BINAK OILFIELD DEVELOPMENT/SURFACE FACILITIES GAS COMPRESSOR STATION

PROJECT NO.: 971020

EPC CONTRACTOR: HIRGAN ENERGY – DESIGN & INSPECTION COMPANIES

EPD/EPC CONTRACTOR (GC): PETROIRAN DEVELOPMENT COMPANY (PEDCO)

HAVAYAR

DRAWING TITLE: P&I DIAGRAM FOR PURGING SYSTEM

SCALE	SIZE	DRAWING NO.	SHEET NO.	REV.
******	A0	BK-GCS-HY-120-PR-PI-0001	5 OF 9	00

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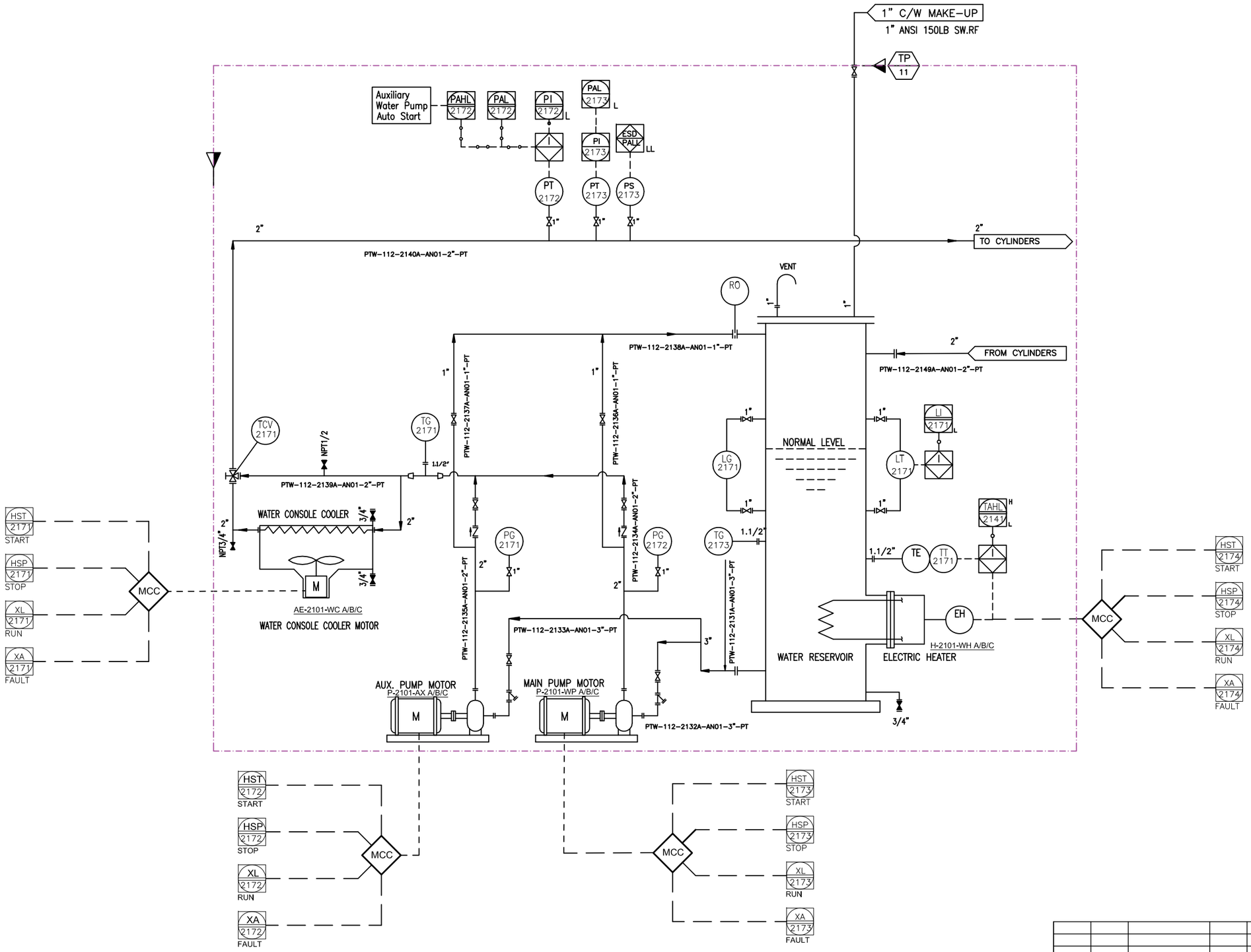
SURFACE FACILITIES
GAS COMPRESSOR STATION

DATE	SCALE	DRAWING BY	CHECKED BY	PROJECT ENG.

NO CONSTRUCTION PERMITTED UNLESS DRAWING APPROVED

APPROVED FOR CONSTRUCTION | BY: | DATE:

BUDGET REF.	LOCATION	SIZE	CLASS	SERIAL NO.	SHEET	REVISION



NOTES

LEGEND

1. LINE SIZING WILL BE FINALIZED.

REFERENCE DRAWING	DRG. No.
**********	******

KEY PLAN

REV.	DESCRIPTION	BY	DATE	BY	DATE
		CHECKED		REV. APPR.	

REV.	DATE	P.O.I.S	PREP.	CHK.	APP.	AUT.
00						

PROJECT NAME: BINAK OILFIELD DEVELOPMENT/SURFACE FACILITIES GAS COMPRESSOR STATION

PROJECT NO.: 971020

EPC CONTRACTOR: HIRGAN ENERGY – DESIGN & INSPECTION COMPANIES

EPD/EPC CONTRACTOR (GC): PETROIRAN DEVELOPMENT COMPANY — PEDCO

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GAS COMPRESSOR STATION

DATE	SCALE	DRAWING BY	CHECKED BY	PROJECT ENG.

HAVAYAR

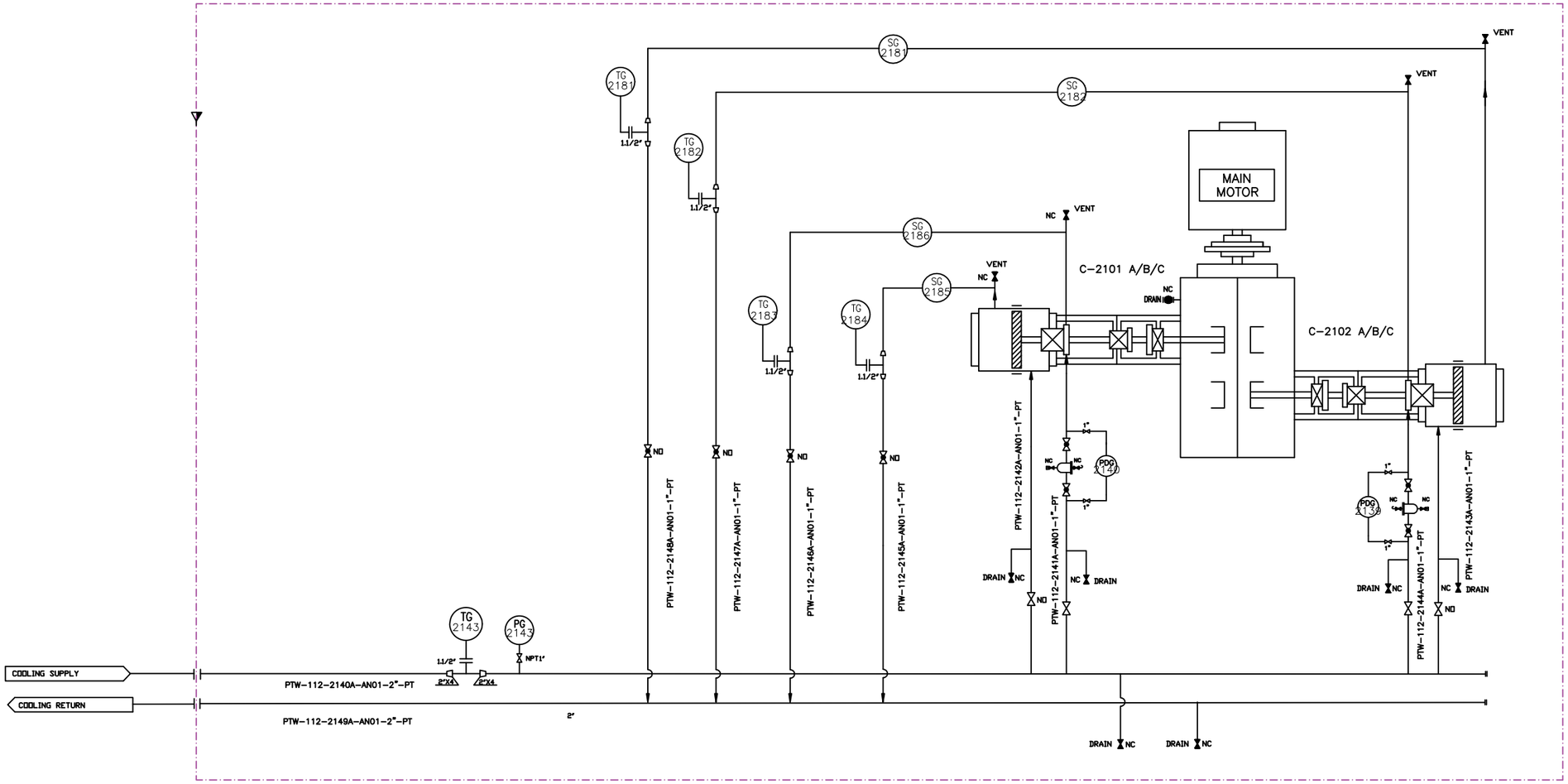
DRAWING TITLE: P&I DIAGRAM FOR WATER SYSTEM

SCALE	SIZE	DRAWING NO.	SHEET NO.	REV.
******	A0	BK-GCS-HY-120-PR-PI-0001	6 OF 9	00

NO CONSTRUCTION PERMITTED UNLESS DRAWING APPROVED

APPROVED FOR CONSTRUCTION BY: DATE:

BUDGET REF.	LOCATION	SIZE	CLASS	SERIAL NO.	SHEET	REVISION



NOTES

LEGEND

1. LINE SIZING WILL BE FINALIZED.

REFERENCE DRAWING	DRG. No.
**********	******

KEY PLAN

REV.	DESCRIPTION	BY	DATE	BY	DATE
		CHECKED		REV. APPR.	

REV.	DATE	P.O.I.S	PREP.	CHK.	APP.	AUT.
00						

PROJECT NAME: BINAK OILFIELD DEVELOPMENT/SURFACE FACILITIES GAS COMPRESSOR STATION

PROJECT NO.: 971020

EPC CONTRACTOR: HIRGAN ENERGY – DESIGN & INSPECTION COMPANIES

EPD/EPC CONTRACTOR (GC): PETROIRAN DEVELOPMENT COMPANY (PEDCO)

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DATE	SCALE	DRAWING BY	CHECKED BY	PROJECT ENG.

HAVAYAR

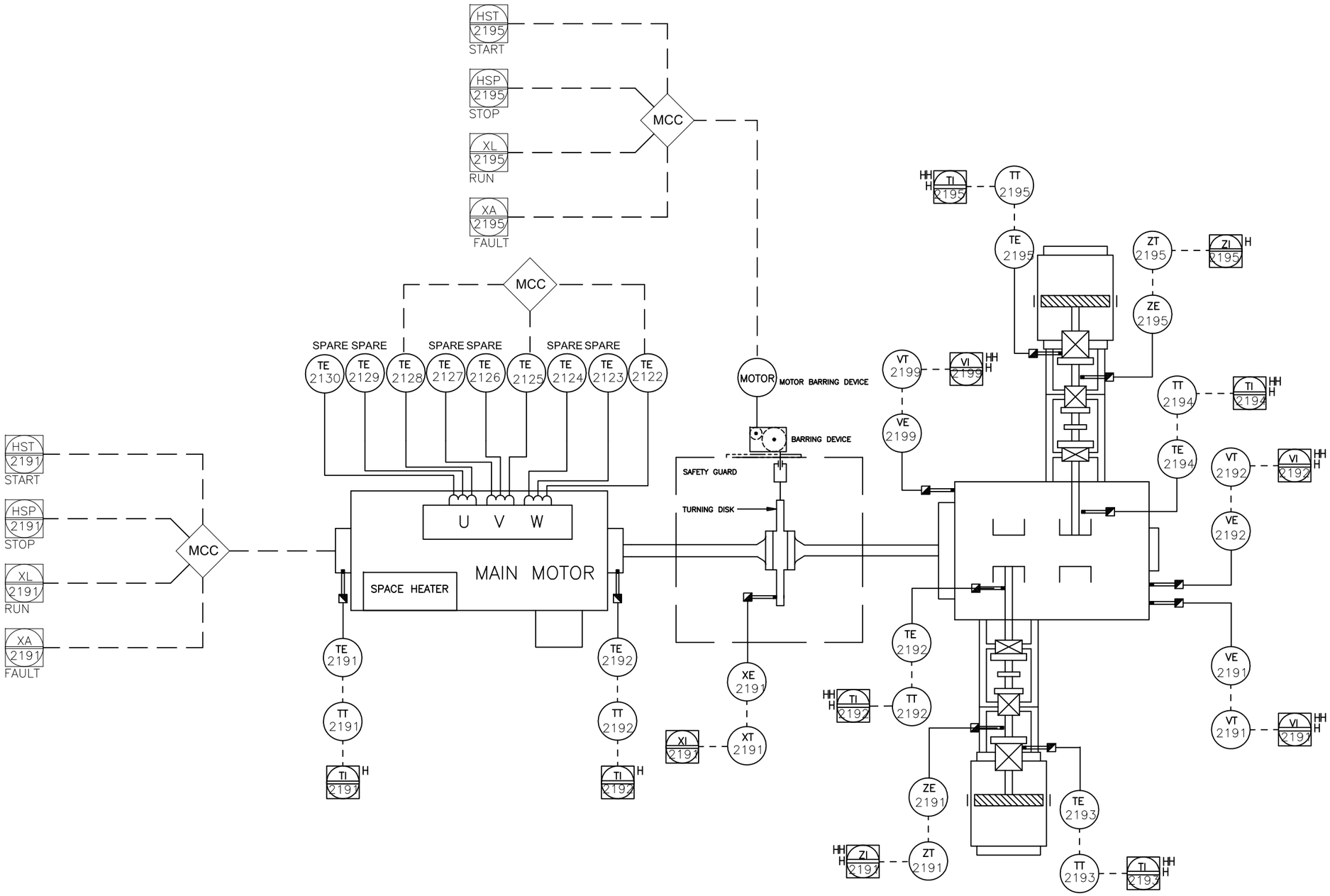
DRAWING TITLE: P&I DIAGRAM FOR COOLING SYSTEM

NO CONSTRUCTION PERMITTED UNLESS DRAWING APPROVED

APPROVED FOR CONSTRUCTION BY: DATE:

SCALE	SIZE	DRAWING NO.	SHEET NO.	REV.
******	A0	BK-GCS-HY-120-PR-PI-0001	7 OF 9	00

BUDGET REF.	LOCATION	SIZE	CLASS	SERIAL NO.	SHEET	REVISION



NOTES

LEGEND

REFERENCE DRAWING	DRG. No.
**********	******

KEY PLAN

REV.	DESCRIPTION	BY	DATE	BY	DATE
		CHECKED		REV. APPR.	

REV.	DATE	P.O.I.S	PREP.	CHK.	APP.	AUT.
00						

PROJECT NAME: BINAK OILFIELD DEVELOPMENT/SURFACE FACILITIES GAS COMPRESSOR STATION

PROJECT NO.: 971020

EPC CONTRACTOR: HIRGAN ENERGY – DESIGN & INSPECTION COMPANIES

EPD/EPC CONTRACTOR (GC): PETROIRAN DEVELOPMENT COMPANY (PEDCO)

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SURFACE FACILITIES
GAS COMPRESSOR STATION

DATE	SCALE	DRAWING BY	CHECKED BY	PROJECT ENG.

NO CONSTRUCTION PERMITTED UNLESS DRAWING APPROVED

APPROVED FOR CONSTRUCTION BY: DATE:

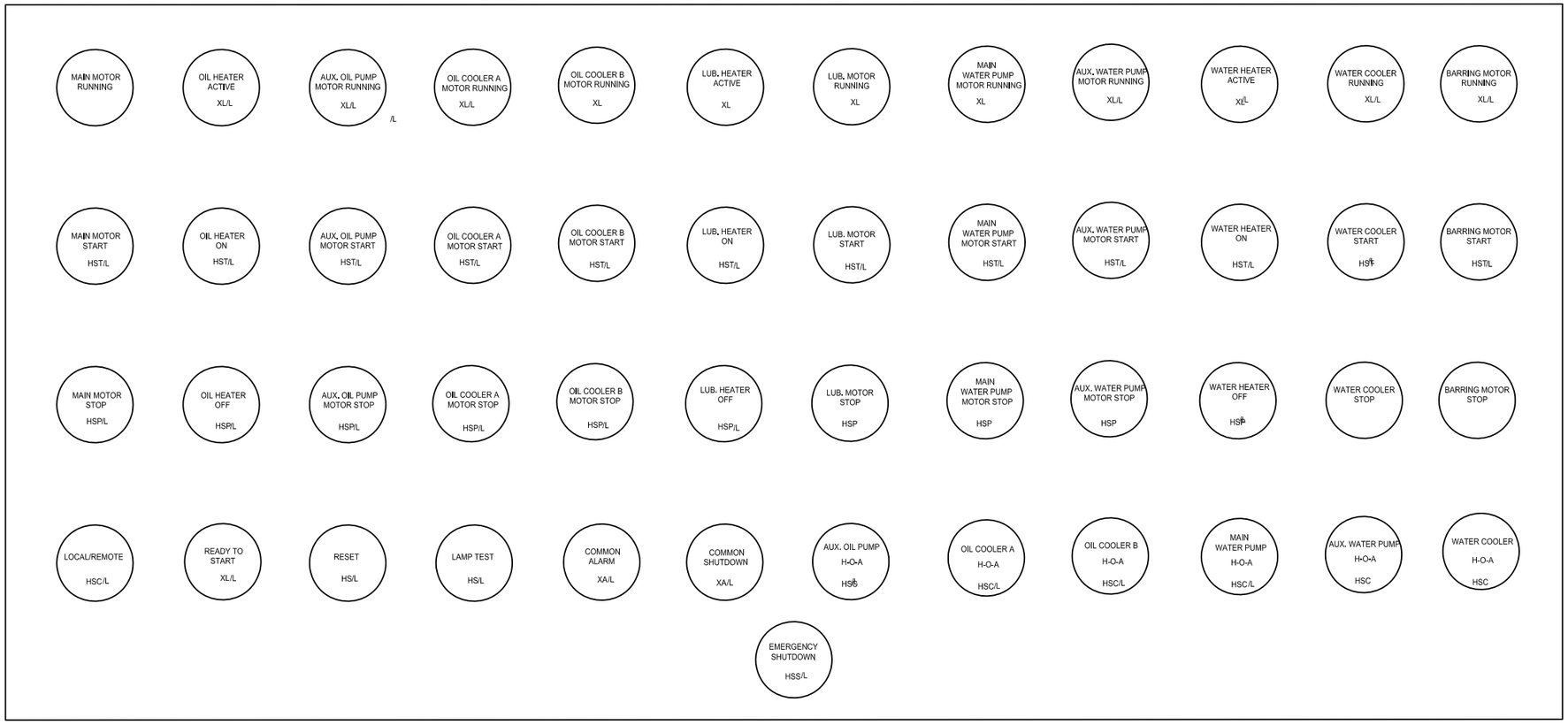
HAVAYAR

DRAWING TITLE: P&I DIAGRAM FOR MACHINE AND MOTOR SYSTEM

SCALE	SIZE	DRAWING NO.	SHEET NO.	REV.
******	A0	BK-GCS-HY-120-PR-PI-0001	8 OF 9	00

BUDGET REF.	LOCATION	SIZE	CLASS	SERIAL NO.	SHEET	REVISION

LOCAT CONTROL STATION



NOTES

LEGEND

REFERENCE DRAWING	DRG. No.
**********	******

KEY PLAN

REV.	DATE	P.O.I.S	PREP.	CHK.	APP.	AUT.
00						

REV.	DESCRIPTION	BY	DATE	BY	DATE
		CHECKED		REV. APPR.	

PROJECT NAME: BINAK OILFIELD DEVELOPMENT/SURFACE FACILITIES GAS COMPRESSOR STATION

PROJECT NO.: 971020

EPC CONTRACTOR: HIRGAN ENERGY – DESIGN & INSPECTION COMPANIES

EPD/EPC CONTRACTOR (GC): PETROIRAN DEVELOPMENT COMPANY (PEDCO)

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BINAK OILFIELD DEVELOPMENT
SURFACE FACILITIES
GAS COMPRESSOR STATION

DATE	SCALE	DRAWING BY	CHECKED BY	PROJECT ENG.

NO CONSTRUCTION PERMITTED UNLESS DRAWING APPROVED

APPROVED FOR CONSTRUCTION BY: DATE:

HAVAYAR

DRAWING TITLE: P&I DIAGRAM FOR LCP

SCALE	SIZE	DRAWING NO.	SHEET NO.	REV.
******	A0	BK-GCS-HY-120-PR-PI-0001	9 OF 9	00

BUDGET REF.	LOCATION	SIZE	CLASS	SERIAL NO.	SHEET	REVISION