



Toase-eh Park Sanati Gohar Ofogh Petrochemical Co.

**CONCEPTUAL, BASIC and DETAIL DESIGN
ENGINEERING OF STYRENE PARK OFFSITE**



Document Title: P&ID for Basket Filter

Document No. : EI027-ENR-VD-PR-PID-003

Rev.: R3

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STYRENE PARK OFFSITE

Document Title:

P&ID for Basket Filter

R3	23/04/2024	Issued for Comment	M.Tavakoli	E.Malek	H.Keshmiri
R2	14/04/2024	Issued for Comment	M.Tavakoli	E.Malek	H.Keshmiri
R1	07/04/2024	Issued for Comment	M.Tavakoli	E.Malek	H.Keshmiri
R0	20/02/2024	Issued for Comment	M.Tavakoli	E.Malek	H.Keshmiri
Rev.	Issued Date	DESCRIPTION	PREPARED	CHECKED	APPROVED



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Page	Revisions						
	R0	R1	R2	R3	R4	R5	R6
1	X	X	X	X			
2	X	X	X	X			
3	X	X	X	X			
4	X	X	X	X			
5	X	X	X	X			
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PIPING SYMBOLS

	MAIN PROCESS LINES
	SECONDARY PROCESS AND UTILITY LINES
	FLOW DIRECTION
	TRACED PIPELINE
	FUTURE PIPELINE
	VENDOR PACKAGE
	JACKETED OR DOUBLE CONTAINMENT PIPELINE
	LINE CROSSING (CONNECTED)
	LINE CROSSING (UNCONNECTED)
	TWO PHASE FLOW (REQUIRE VIBRATION OR SUPPORT ANALYSIS)
	VIBRATION OR PULSATION LINE (REQUIRE VIBRATION OR SUPPORT ANALYSIS)
	BATTERY LIMIT
	SLOP
	CONTINUATION OF PIPE LINE BEYOND THE PIPE OR EQUIPMENT
	BOUNDARY OF SCOPE
	QUICK COUPLING (HOSE CONNECTION)
	HOLED PIPE SPRAY HEADER REDUCER
	HOSE
	REMOVABLE SPOOLPIECE
	FLANGE
	CHEMICAL SEWER TO DRAIN RECOVERY
	OILY SEWER
	STORM WATER SEWER
	GROUND OR PAVING SURFACE
	VENDOR OTHERS LIMITS OF SUPPLY

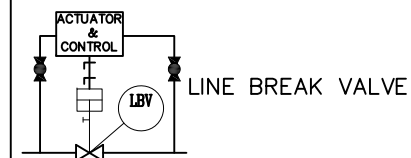
	GROUNDING FOR STATIC ELECTRICITY PROTECTION
	CHANGE OF PIPING CLASS DESIGNATION (CLASS BREAK)
	CHANGE OF INSULATION & PAINTING (DESIGN BREAK)
	CHANGE OF LINE NUMBER
	TEMPORARY STRAINER
	SP: SPECIAL PIECE
	SCH: CORROSION METER ELEMENT
	T TYPE STRAINER
	Y TYPE STRAINER
	BARRED TEE

PIPING CONNECTORS

	REFERENCE ARROWS FOR TWO DIRECTION LINE
	REFERENCE ARROWS AT THE SIDE OF THE DRAWING. (ONLY TO USED FOR PROCESS AND INSTRUMENT LINES.)
	REFERENCE ARROW FOR UTILITIES
	UTILITY TO CONTINUATION
	UTILITY FROM CONTINUATION
	PSV/TSV SIZE INLET PSV/TSV ORIFICE PSV/TSV SIZE OUTLET PSV/TSV SET PRESSURE (Barg)

VALVES SYMBOLS

	GATE VALVE
	GLOBE VALVE
	CHECK VALVE
	GATE VALVE BEHIND OFF
	ANGLE VALVE
	BALL VALVE (F.B.)
	BALL VALVE (R.B.)
	GATE VALVE WITH BODY BLEED
	BUTTERFLY VALVE
	HYDRAULIC CONTROL VALVE
	PLUG VALVE
	PILOT OPERATED RELIEF VALVE
	SELF ACTUATED REGULATOR VALVE
	SPRING LOADING VALVE
	THREWAY VALVE
	PRESSURE SAFETY VALVE/ PRESSURE VACUUM SAFETY VALVE
	PILOT OPERATED SAFETY VALVE/VACUUM RELIEF VALVE
	TEMPERATURE SAFETY VALVE
	PRESSURE/ VACUUM RELIEF VALVE
	MOTOR OPERATED VALVE
	DIAPHRAGM VALVE
	JACKETED GATE VALVE
	JACKETED GLOBE VALVE
	JACKETED CHECK VALVE
	JACKETED BALL VALVE
	JACKETED ANGLE VALVE



FITTINGS

	REDUCER
	FLANGE CONNECTION
	SPADE (BLIND)
	RING SPACER
	CAP
	FLANGED END
	QUICK COUPLING
	SPECTACLE BLIND (NORMALLY CLOSE)
	SPECTACLE BLIND (NORMALLY OPEN)
	STEAM TRAP WITH BUILT-IN STRAINER (THERMOSTATIC/THERMODYNAMIC TYPE)

REFERENCE DRAWING	DWG NO.	REV.

LEGENDS :

NOTES :

KEY PLAN :

REV.	ISSUE DATE	DESCRIPTION	PREPARED	CHECKED	APPROVED	COMPANY
R3	23-Apr-24	Issued for Approval	M.T.	E.M.	H.K.	HRCO
R2	14-Apr-24	Issued for Comment	M.T.	E.M.	H.K.	HRCO
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CLIENT:	CONSULTING ENGINEER:

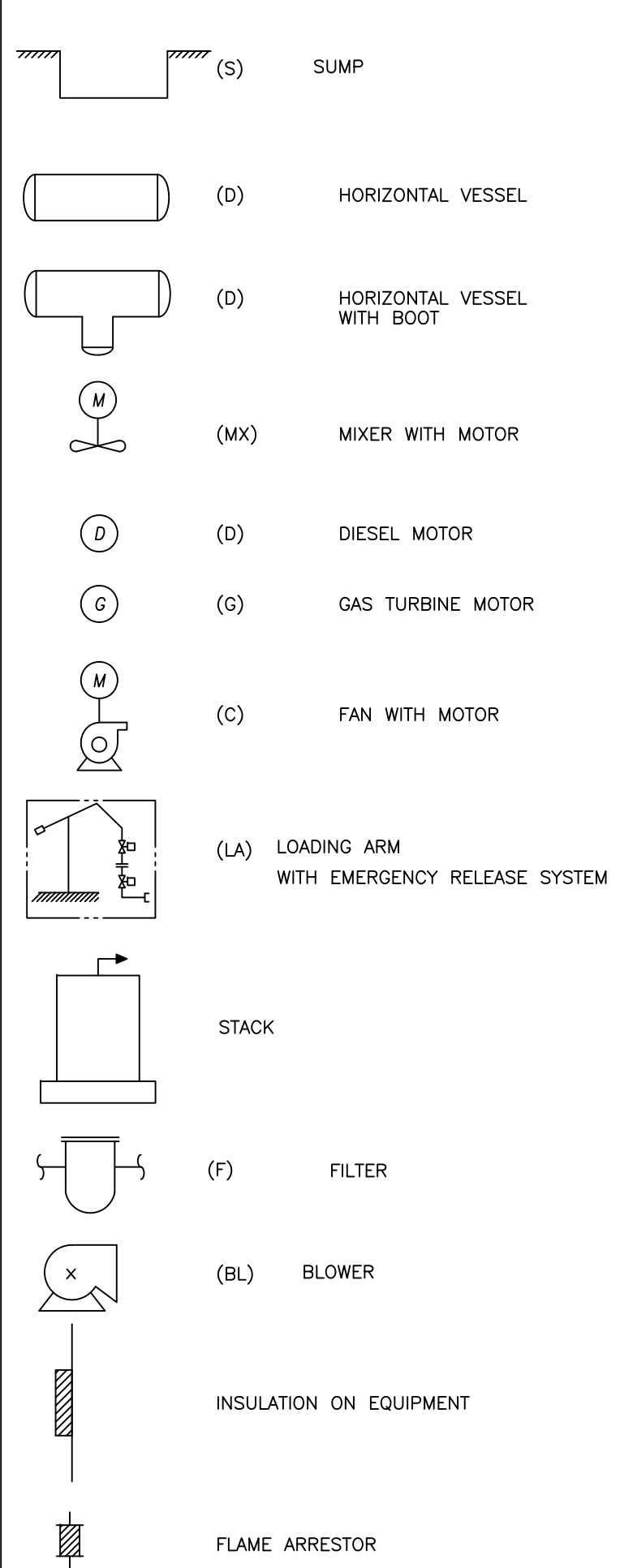
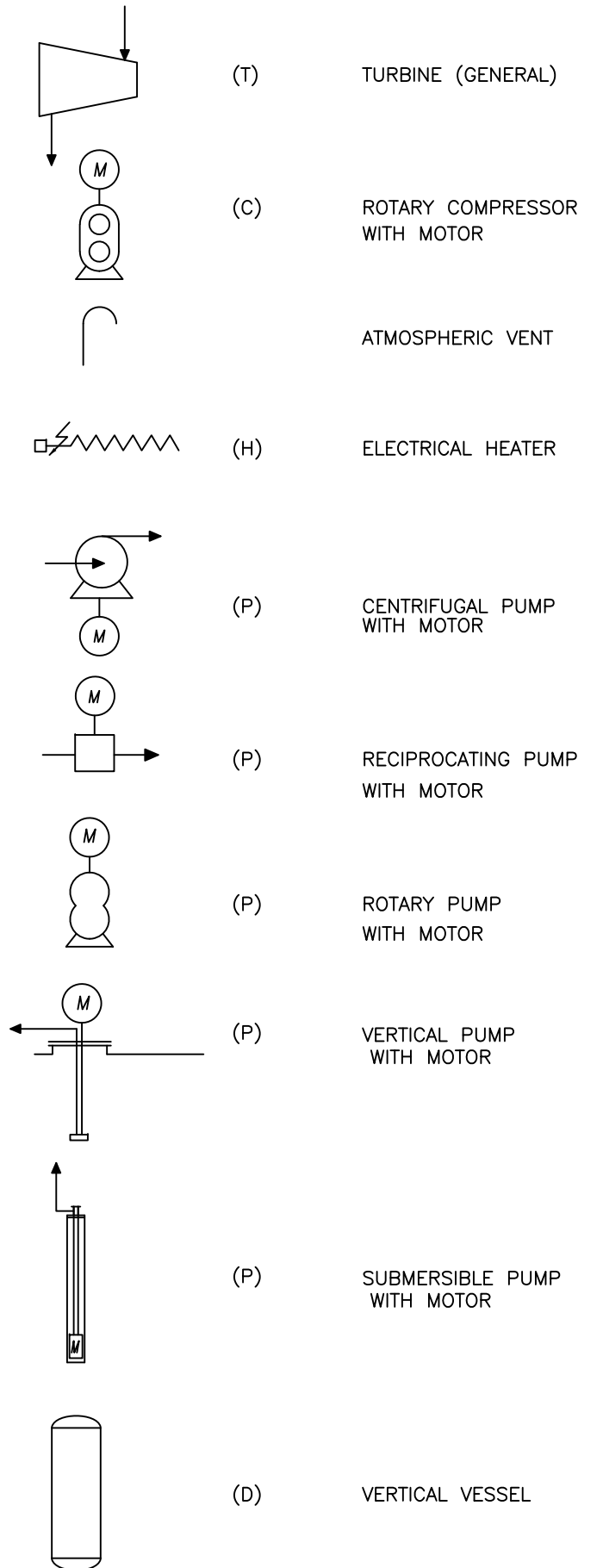
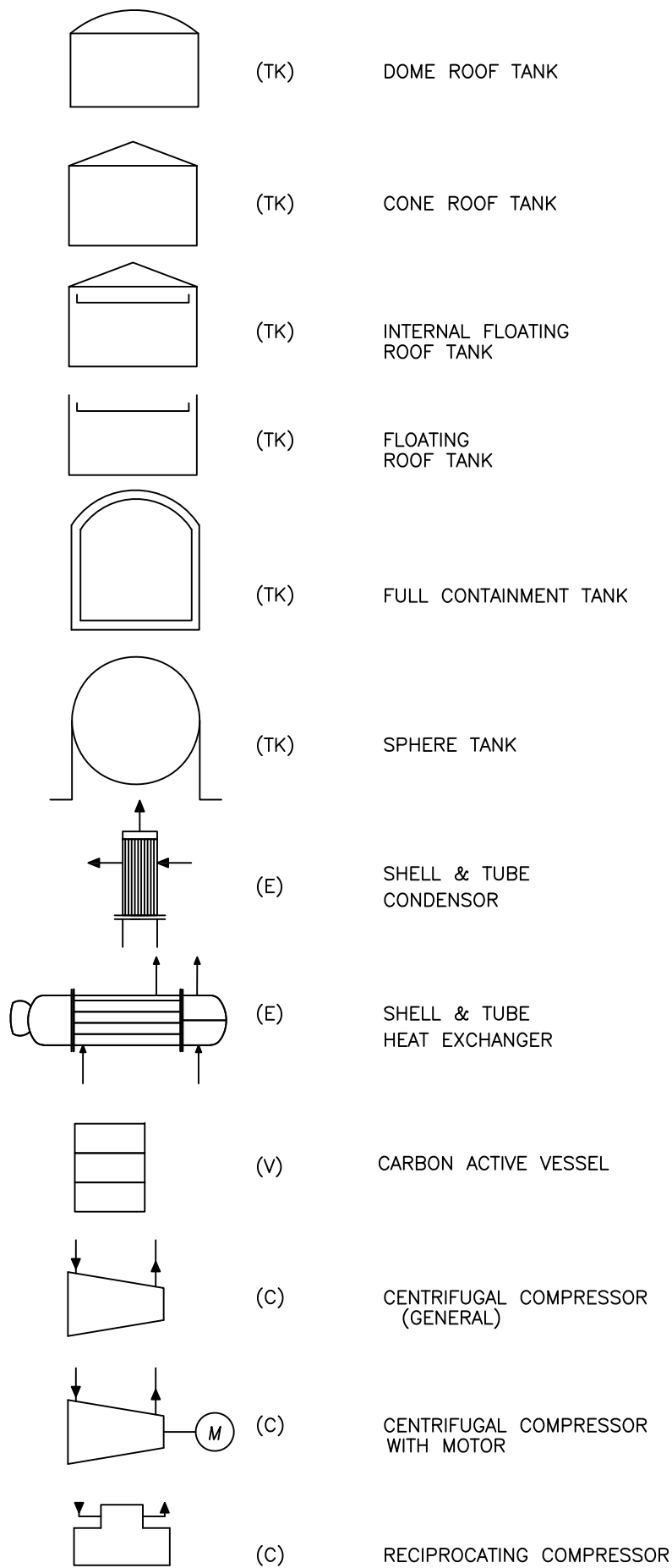
VENDOR:		
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PROJECT: **STYRENE PARK OFFSITE**

DRAWING TITLE: **P&ID for Basket Filter**

DRAWING NO.	REV.	SIZE	SCALE	SHEET
EI027-ENR-VD-PR-PID-003	R3	A3	NTS	3 of 8

EQUIPMENT SYMBOLS



REFERENCE DRAWING	DWG NO.	REV.

LEGENDS :

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CLIENT:  PJPC

CONSULTING ENGINEER:  پتروشیمی توسعه پارک
صنعتی گوهرداران

VENDOR:  EN3R TEKNOLOJI  HAMOON RAH

PROJECT: **STYRENE PARK OFFSITE**

DRAWING TITLE: **P&ID for Basket Filter**

DRAWING NO.	REV.	SIZE	SCALE	SHEET
EI027-ENR-VD-PR-PID-003	R3	A3	NTS	5 of 8

CONTROL VALVES OR REGULATORS

- CONTROL VALVE (GENERAL)
- CONTROL GLOBE VALVE
- CONTROL BALL VALVE
- CONTROL BUTTERFLY VALVE
- S = SOLENOID VALVE
R = MANUAL RESET WHEN INDICATED
- SELF CONTAINED REGULATOR
- THREWAY CONTROL VALVE
- CONTROL VALVE WITH HANDWHEEL
- THREWAY CONTROL VALVE (WITH HANDWHEEL)
- DIRECT ACTING CONTROL VALVE
- JACKETED GLOBE CONTROL VALVE
- JACKETED BUTTERFLY CONTROL VALVE
- DIAPHRAGM CONTROL VALVE
- DAMPER CONTROL VALVE
- SELF ACTUATED REGULAR VALVE
- (CONTROL VALVE) WITH LIMIT SWITCH "ZSC" FOR CLOSE, "ZSO" FOR OPEN.
- (CONTROL VALVE) WITH SOLENOID VALVE
- CLOSE ON AIR FAILURE
- OPEN ON AIR FAILURE
- LOCK ON AIR FAILURE (AIR-TO-CLOSE POSITION)
- LOCK ON AIR FAILURE (AIR-TO-OPEN POSITION)
- CONTROL VALVE IDENTIFICATION

PRIMARY ELEMENT SYMBOLS

- CORIOLIS FLOW METER
- TURBIN FLOW ELEMENT
- AUTOMATIC REGULATOR WITH INTEGRAL FLOW INDICATION
- POSITIVE DISPLACER
- ROTAMETER
- ORIFICE PRIMARY ELEMENT
- MAGNETIC FLOW METER
- VORTEX FLOW METER
- ULTRASONIC FLOW METER
- RESTRICTION ORIFICE
- FLOW STRAIGHTENER
- FLOW NOZZLE
- LEVEL GAUGE
- LEVEL TRANSMITTER EXTERNAL LEVEL INSTRUMENT IE. DISPLACER OR DIFFERENTIAL PRESSURE TYPE. XX DP: DIFFERENTIAL
- XX LD: DISPLACER TYPE INTERNAL FLOAT TYPE
- DENSITY ELEMENT
- PRESSURE TAP DIAPHRAGM TYPE

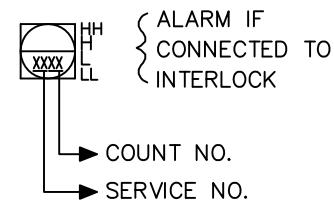
ACTUATORS

- DIAPHRAGM ACTUATOR
- ACTUATOR WITH HANDWHEEL
- PRESSURE BALANCED DIAPHRAGM ACTUATOR
- SINGLE/DOUBLE ACTING CYLINDER ACTUATOR
- MOTOR OPERATED ACTUATOR
- ELECTROHYDRAULIC ACTUATOR
- ELECTRIC PNEUMATIC TRANSDUCER
- SINGLE SOLENOID ACTUATOR
- SINGLE SOLENOID ACTUATOR WITH MANUAL RESET
- HAND ACTUATOR OR HANDWHEEL
- OFF-LINE SINGLE SOLENOID WITH SINGLE ACTUATOR
- OFF-LINE ANGLE SOLENOID WITH SINGLE ACTUATOR
- OFF-LINE 3-WAY SOLENOID WITH SINGLE ACTUATOR

INSTRUMENT SIGNAL LINE

- PROCESS CONNECTION OR MECHANICAL LINK/ INSTRUMENT SUPPLY
- PNEUMATIC SIGNAL
- ELECTRICAL SIGNAL
- CAPILLARY TUBING (FILLED SYSTEM)
- SOFTWARE LINK/DATA
- HYDRAULIC SIGNAL
- ELECTROMAGNETIC OR SONIC SIGNAL

INSTRUMENT CODES



INSTRUMENT OR FUNCTION SYMBOLS

- ESD LOGIC CONTROL (LOCATED IN FIELD)
- ESD LOGIC CONTROL (MOUNTED ON CONSOLE OR PANEL)
- ESD LOGIC CONTROL (MOUNTED ON LOCAL PANEL)
- INSTRUMENT MOUNTED ON PIPING / EQUIPMENT (LOCATED IN FIELD)
- INSTRUMENT MOUNTED ON CONSOLE
- INSTRUMENT MOUNTED ON LOCAL PANEL OR LOCAL GAUGE BOARD
- DCS FUNCTION NOT NORMALLY ACCESSIBLE TO OPERATOR
- DCS SHARED DISPLAY INDICATOR/CONTROLLER/ALARM
- PLC INSTRUMENT MOUNTED ON VENDOR PANEL
- DCS AUXILIARY OPERATORS INTERFACE DEVICE
- COMPUTER FUNCTION (LOCATED IN FIELD)
- COMPUTER FUNCTION (MOUNTED ON CONSOLE OR PANEL)
- DIAPHRAGM SEAL

REFERENCE DRAWING	DWG NO.	REV.

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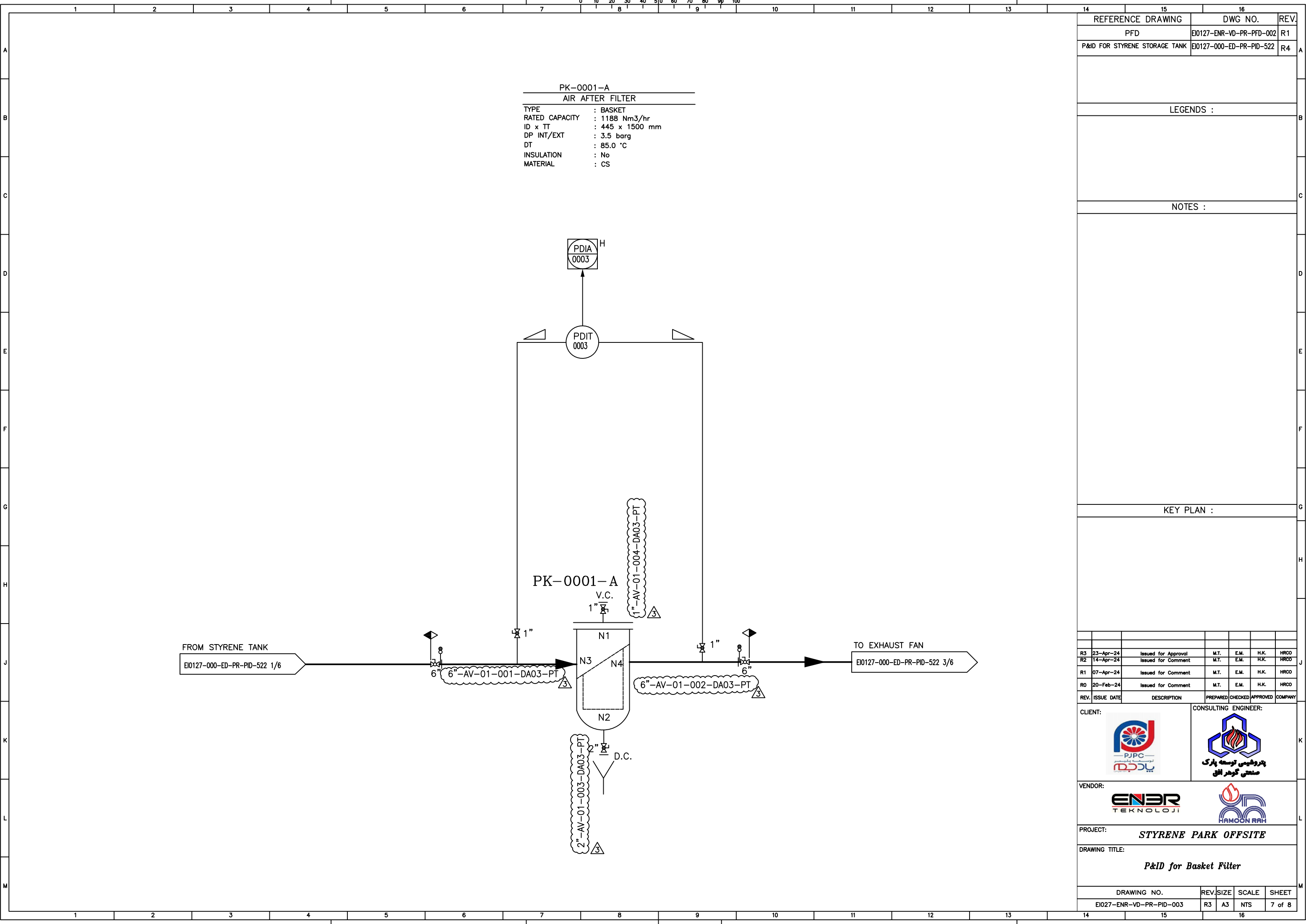
CONSULTING ENGINEER:

VENDOR:

PROJECT: **STYRENE PARK OFFSITE**

DRAWING TITLE: **P&ID for Basket Filter**

DRAWING NO.	REV.	SIZE	SCALE	SHEET
E1027-ENR-VD-PR-PID-003	R3	A3	NTS	6 of 8



PK-0001-A
 AIR AFTER FILTER
 TYPE : BASKET
 RATED CAPACITY : 1188 Nm³/hr
 ID x TT : 445 x 1500 mm
 DP INT/EXT : 3.5 barg
 DT : 85.0 °C
 INSULATION : No
 MATERIAL : CS

REFERENCE DRAWING	DWG NO.	REV.
PFD	EI0127-ENR-VD-PR-PFD-002	R1
P&ID FOR STYRENE STORAGE TANK	EI0127-000-ED-PR-PID-522	R4

LEGENDS :

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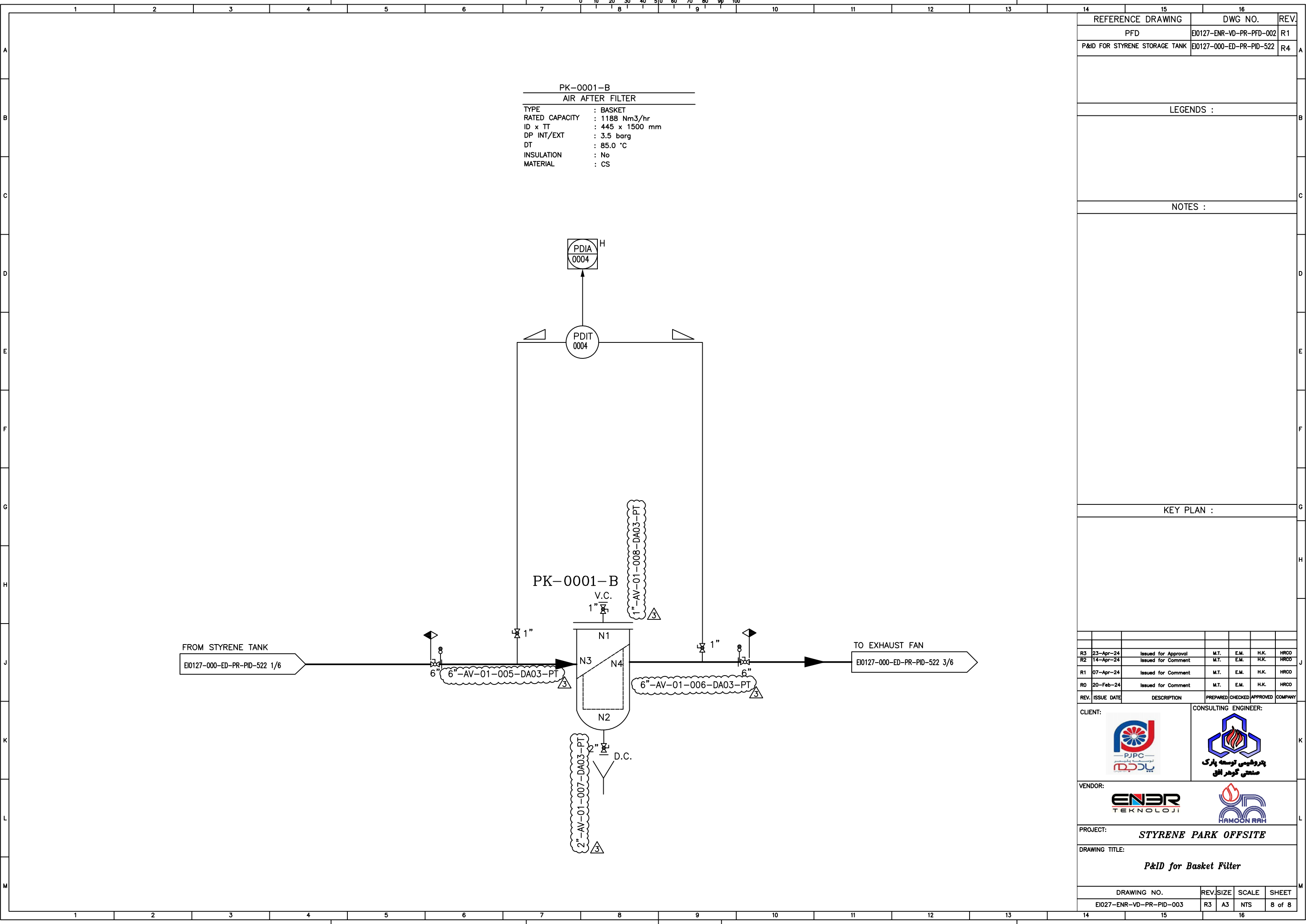
VENDOR:




PROJECT: **STYRENE PARK OFFSITE**

DRAWING TITLE: **P&ID for Basket Filter**

DRAWING NO.	REV.	SIZE	SCALE	SHEET
EI027-ENR-VD-PR-PID-003	R3	A3	NTS	7 of 8



PK-0001-B
 AIR AFTER FILTER

TYPE : BASKET
 RATED CAPACITY : 1188 Nm³/hr
 ID x TT : 445 x 1500 mm
 DP INT/EXT : 3.5 barg
 DT : 85.0 °C
 INSULATION : No
 MATERIAL : CS

REFERENCE DRAWING	DWG NO.	REV.
PFD	E10127-ENR-VD-PR-PFD-002	R1
P&ID FOR STYRENE STORAGE TANK	E10127-000-ED-PR-PID-522	R4

LEGENDS :

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CONSULTING ENGINEER:



VENDOR:




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