

	<p>Toase-che Park Sanati Gohar Ofogh Petrochemical Co.</p> <p>CONCEPTUAL, BASIC and DETAIL DESIGN ENGINEERING OF STYRENE PARK OFFSITE</p>			
	<p>Document Title: P&ID for Active Carbon Filter</p>			
	<p>Document No. : EI027-ENR-VD-PR-PID-003</p>		<p>Rev.: R1</p>	<p>Page 1 of 6</p>

STYRENE PARK OFFSITE

Document Title:

P&ID for Active Carbon Filter

Rev.	Issued Date	DESCRIPTION	PREPARED	CHECKED	APPROVED
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



Toase-eh Park Sanati Gohar Ofogh Petrochemical Co.

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



Document Title: P&ID for Active Carbon Filter

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

Rev.: R1

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Page	Revisions						
	R0	R1	R2	R3	R4	R5	R6
1	X	X					
2	X	X					
3	X	X					
4	X	X					
5	X	X					
6	X	X					
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Page	Revisions						
	R0	R1	R2	R3	R4	R5	R6
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INSTRUMENT

SYMBOLS

INSTRUMENT SUPPLY OR CONNECTION TO PROCESS

ELECTRIC SIGNAL (HARD WIRE)

CAPILLARY TUBE (FIELD SYSTEM)

PNEUMATIC SIGNAL

HYDRAULIC SIGNAL

SOFTWARE OR DATA LINK

FIBER OPTIC SIGNAL

FIELD MOUNTED INSTRUMENT

MOUNTED ON PANEL BOARD IN THE CONTROL ROOM

MOUNTED ON LOCAL PANEL BOARD

MOUNTED ON THE REAR OF PANEL BOARD IN THE CONTROL ROOM

MOUNTED ON THE REAR OF LOCAL PANEL BOARD

PILOT LIGHT

INSTRUMENTS WITH COMMON HOUSING

F & G INTERLOCK

ESD INTERLOCK

EMERGENCY DEPRESSURIZING

TRIP OR INTERLOCKING FOR PACKAGE

DCS PROCESS INTERLOCK

SHARED DISPLAY/CONTROL FIELD MOUNTED INST (NOT NORMALLY ACCESSIBLE TO OPERATOR)

AUXILIARY OPERATORS INTERFACE DEVICE (EXAMPLE BACK UP CONTROLLER OR MANUAL STATION)

PRIMARY DCS SHARED DISPLAY SHARED CONTROL FUNCTION ACCESSIBLE TO OPERATOR

PRIMARY DCS SHARED DISPLAY SHARED CONTROL FUNCTION INACCESSIBLE TO OPERATOR

LOCAL PLC SHARED CONTROL FUNCTION

UCP INTERLOCK

PRIMARY DCS SHARED DISPLAY SHARED CONTROL FUNCTION ACCESSIBLE TO OPERATOR (INSIDE VENDOR BATTERY LIMIT)

MOTOR OPERATED VALVE

CONTROL VALVE WITH POSITIONER

DIAPHRAGM OPERATED VALVE

THREE WAY SOLENOID WITH MANUAL RESET

THREE WAY SOLENOID VALVE

PRESSURE REDUCING REGULATOR (SELF CONTAINED)

BACK-PRESSURE REGULATOR (SELF CONTAINED)

ORIFICE&SIZE
SET PRESSURE (barg)

SAFETY RELIEF VALVE

PRESSURE/VACUUM VALVE

CONTROL VALVE WITH HAND WHEEL

BUTTERFLY CONTROL VALVE

ON-OFF VALVE WITH SINGLE ACTING SPRING RETURN TYPE ACTUATOR

THERMAL RELIEF VALVE

CHOKE VALVE

ORIFICE PLATE/RESTRICTION ORIFICE

ROTAMETER

TURBINE METER

PITOT TUBE-OR ANNUBER

VENTURI TUBE

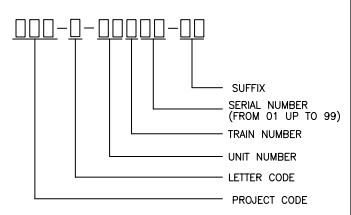
FLOW SIGHT GLASS

CORIOLIS

ULTRASONIC

LINE BREAK VALVE

INSTRUMENT CODE



INSTRUMENT ABBREVIATIONS

- SS SELECTOR SWITCH
- CAS CASCADE
- FC FAIL CLOSED
- FO FAIL OPEN
- PV PROCESS VARIABLE
- RSP REMOTE SET POINT
- SP SET POINT
- TW THERMOWELL
- REV REVERSE
- E/H ELECTRIC TO HYDRAULIC
- ADD ADD
- √ EXTRACT SQUARE ROOT
- ☒ RATIO/MULTIPLY
- ☑ HIGH SELECT
- ☐ LOW SELECT
- ESD EMERGENCY SHUTDOWN
- RO RESTRICTION ORIFICE
- BDV BLOW DOWN VALVE
- GOV GAS OPERATED VALVE
- ERP ELECTRICAL RESISTANCE PROBE
- CC CORROSION COUPON
- CP CORROSION PROBE
- TSO TIGHT SHUT OFF
- ZI PIG SIGNALER
- TDS TRAP DOOR SWITCH
- SPD SIGNAL PIG DETECTOR
- ± BIAS
- LBV LINE BREAK VALVE
- PB PUSH BUTTON
- PLC PROGRAMMABLE LOGIC CONTROLLER
- MOV MOTORIZED VALVE
- MCC MOTOR CONTROL CENTER

INSTRUMENT TYPICAL CONTROL SCHEMATICS

FIRST LETTER	INITIATING OR MEASURING VARIABLE	CONTROLLERS			DEVICES		ALARM DEVICES SHUT DOWN		LIGHT	BUTTON	TRANSMITTERS		RELAYS, SOLENOIDS COMPUTING DEVICES		WELL OR PROBE	VIEWING DEVICE GLASS	SAFETY DEVICE	FINAL ELEMENT	STATUS	SWITCH			
		RECORDING	INDICATING	BLIND	SELF-ACTIVATED REGULATOR WALK	RECORDER	INDICATOR	HIGH			LOW	COMB.	VERY HIGH	VERY LOW						RECORDING	INDICATION	RELAY	SOLENOID
A	ANALYSIS	ARC	AIC	AC	AR	AI	AAH	AAL			AT	AY	AE	AP					ASH	ASL	ASHH	ASLL	
B	BURNERS/COMBUSTION	BRC	BIC	BC	BR	BI	BAH	BAL			BT	BY	BE										
C	DUTY CALCULATION					CI	CAH																
E	VOLTAGE					EI						EY						ESDV	ESH	ESL	ESHH	ESLL	
F	FLOW RATE	FRC	FIC	FC	FR	FI	FAH	FAL			FT	FY	FE					FV	FSH	FSL	FSHH	FSLL	
FQ	FLOW QUANTITY	FQRC	FQIC	FQC	FQR	FQI	FQAH	FQAL			FQIT	FQY	FQE										
FF	FLOW RATIO	FFRC	FFIC	FFC	FFR	FFI	FFAH	FFAL											FFSH	FFSL	FFSHH	FFSLL	
H	HAND		HIC	HC						HS								HV	HSH	HSL	HSHH	HSLL	
I	CURRENT		IIC			II	IAH				IT												
J	POWER					JR	JH				JT												
K	TIME											KY											
L	LEVEL	LRC	LIC	LC	LR	LI	LAH	LAL			LT	LY			LG			LV	LSH	LSL	LSHH	LSLL	
P	PRESSURE/VACUUM	PRC	PIC	PC	PR	PI	PAH	PAL			PT	PY			PP	PI	PSV	PV	PSH	PSL	PSHH	PSLL	
PD	PRESSURE DIFFERENTIAL	PDRC	PDIC	PDC	PDR	PDI	PDH	PDAL			PDT	PDY						PDV	PDH	PSL	PDH	PDLL	
Q	QUANTITY										QT												
S	SPEED/FREQUENCY	SRC	SIC	SC	SR	SI	SAH	SAL			ST	SY	SE					SV					
T	TEMPERATURE	TRC	TIC	TC	TR	TI	TAH	TAL			TT	TY	TE	TI				TV	TSH	TSL	TSHH	TSL	
TD	TEMPERATURE DIFFERENTIAL	TDRC	TDIC	TDC	TDR	TDI	TDH	TDAL			TDY							TDV	TDH	TDL	TDH	TDLL	
U	MULTIVARIABLE																						
V	VIBRATION/MACHINERY ANALYSIS					VR	VAH	VAL			VT	VY	VE						VSH	VSL	VSHH	VSL	
W	WEIGHT/FORCE	WRC	WIC	WC	WR	WI	WAH	WAL			WT	WE											
X	UNCLASSIFIED	XRC	XIC	XC	XR	XI	XAH	XAL			XZ	XE						XV	XL	XSH	XSL	XSHH	XSL
Z	POSITION/DIMENSION REQUEST CONSENT					ZI	ZLO	ZLC			ZT	ZY							ZSH	ZSL	ZSHH	ZSL	

REFERENCE DRAWING DWG NO. REV.

LEGENDS :

NOTES :

KEY PLAN :

R1	07-Apr-24	Issued for Comment	M.T.	E.M.	H.K.	HRCO
R0	20-Feb-24	Issued for Comment	M.T.	E.M.	H.K.	HRCO
REV.	ISSUE DATE	DESCRIPTION	PREPARED	CHECKED	APPROVED	COMPANY

CLIENT:

CONSULTING ENGINEER:

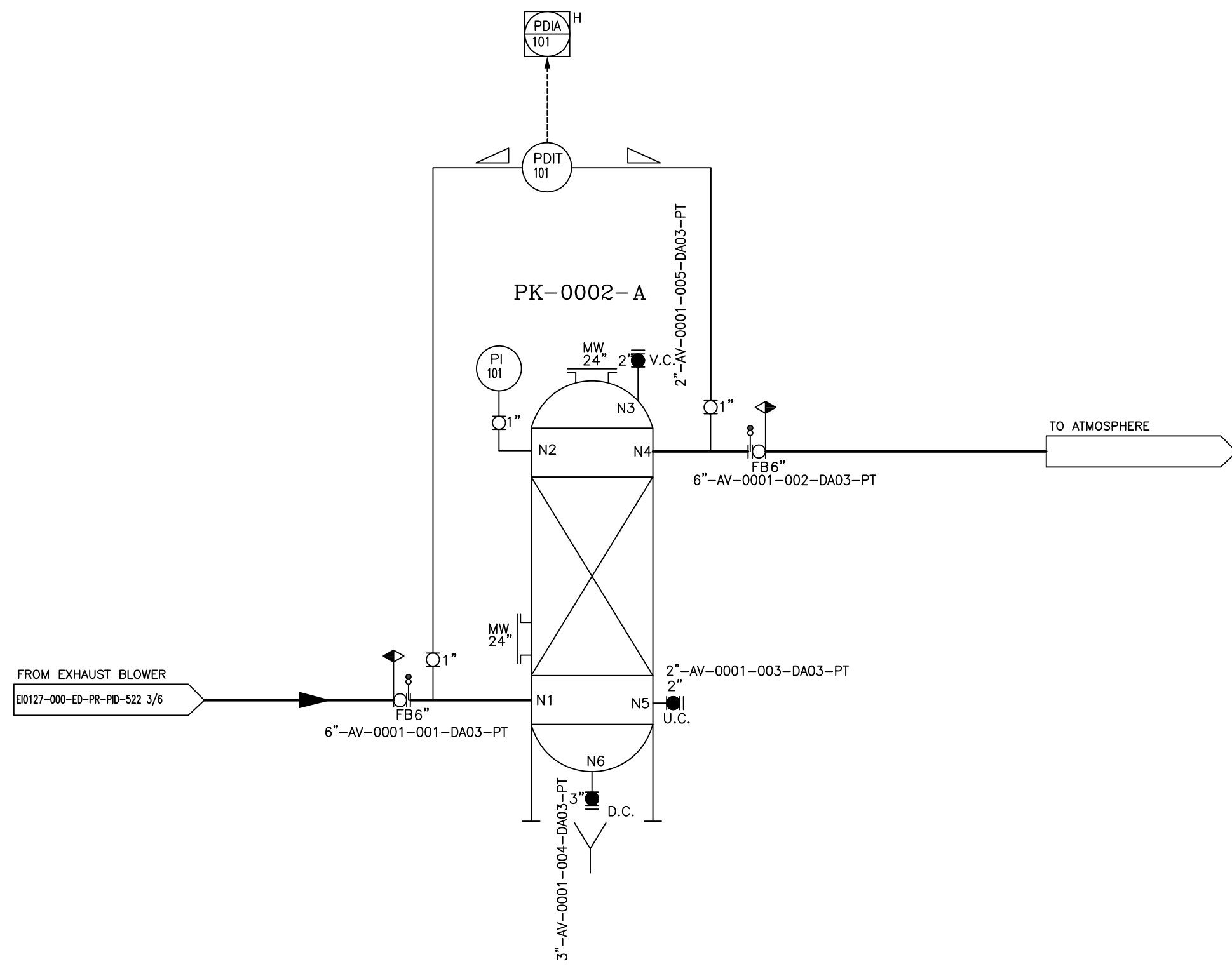
VENDOR:

PROJECT: **STYRENE PARK OFFSITE**

DRAWING TITLE: **P&ID for Active Carbon Filter**

DRAWING NO.	REV.	SIZE	SCALE	SHEET
E1027-ENR-VD-PR-PID-003	R1	A3	NTS	4 of 6

PK-0002-A	
AIR CARBON FILTER	
TYPE	: ACTIVATED CARBON
RATED CAPACITY	: 1188 Nm ³ /hr
VOLUME	: 20.8 m ³
ID x TT	: 2100 x 5300 mm
DP INT/EXT	: 0.2 barg / -0.1 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 :

NOTES :

- The package is skid mounted

KEY PLAN :

REV.	ISSUE DATE	DESCRIPTION	PREPARED	CHECKED	APPROVED	COMPANY
R1	07-Apr-24	Issued for Comment	M.T.	E.M.	H.K.	HRCO
R0	20-Feb-24	Issued for Comment	M.T.	E.M.	H.K.	HRCO

CLIENT:



پتروشیمی توسعه پارک
صنعتی گوهر الماس

CONSULTING ENGINEER:



PJPC
پروجکت

VENDOR:

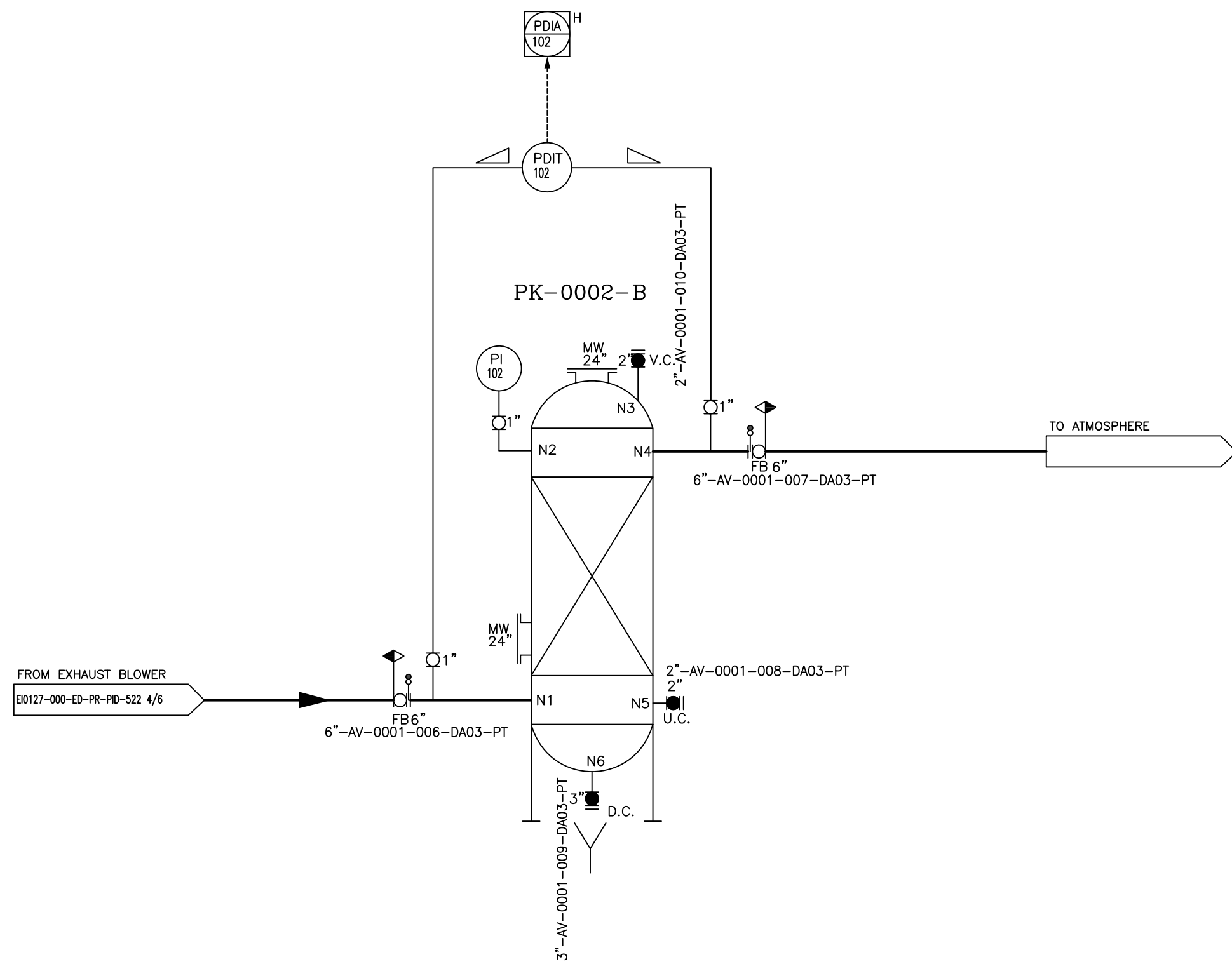



PROJECT: **STYRENE PARK OFFSITE**

DRAWING TITLE: **P&ID for Active Carbon Filter**

DRAWING NO.	REV.	SIZE	SCALE	SHEET
EI027-ENR-VD-PR-PID-003	R1	A3	NTS	5 of 6

PK-0002-B	
AIR CARBON FILTER	
TYPE	: ACTIVATED CARBON
RATED CAPACITY	: 1188 Nm ³ /hr
VOLUME	: 20.8 m ³
ID x TT	: 2100 x 5300 mm
DP INT/EXT	: 0.2 barg / -0.1 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 :

NOTES :

- The package is skid mounted

KEY PLAN :

REV.	ISSUE DATE	DESCRIPTION	PREPARED	CHECKED	APPROVED	COMPANY
R1	07-Apr-24	Issued for Comment	M.T.	E.M.	H.K.	HRCO
R0	20-Feb-24	Issued for Comment	M.T.	E.M.	H.K.	HRCO

CLIENT:



پتروشیمی توسعه پارک
صنعتی گوهر الماس

CONSULTING ENGINEER:



پروجکشن
پتروشیمی

VENDOR:




PROJECT: **STYRENE PARK OFFSITE**

DRAWING TITLE: **P&ID for Active Carbon Filter**

DRAWING NO.	REV.	SIZE	SCALE	SHEET
EI027-ENR-VD-PR-PID-003	R1	A3	NTS	5 of 6