



# ASPC Project




<b>END CUSTOMER</b>	: Arya Sasol Polymer Company
<b>CONTRACTOR</b>	: DYPNF Co., Ltd.
<b>VENDOR NAME</b>	: Airpack Netherlands BV
<b>EQUIPMENT DESCRIPTION</b>	: Screw Compressor & Roots Blower : Package
<b>PURCHASE ORDER NUMBER</b>	: PO-PC2312-08

Customer Number            Document :    3944-VD-0171-DYP-RE-400-DSH-0077

Airpack Document Number    :    23383-12A

Document Title                    :    Instrument data sheet

Review Code and Status		Contractor Initials/Signature	Date signed
<input checked="" type="checkbox"/>	<b>Code 1</b> <b>REJECTED</b> - Vendor to revise and Resubmit. Work cannot proceed		28 May 2025
<input type="checkbox"/>	<b>Code 2</b> Comments As Noted - Work May proceed, subject to compliance with and incorporation of comments		
<input type="checkbox"/>	<b>Code 3</b> No Comments - Work may proceed.		
<input type="checkbox"/>	<b>Code 4</b> Information only - Review not required.		

00	Issued for Approval	23-04-2025	LK	SC	JJ
Rev. No.	Description	Date	Prepared by	Checked by	Approved by

	<b>INSTRUMENT DATA SHEET</b>	
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Project Name :  
**300 KT POLYETHYLENE PLANT  
ARYA SASOL POLYMER COMPANY (ASPC)**

Site Location :

Document Title :  
**INSTRUMENT DATA SHEET**

Document No :  
**23383-12A**

- |   |
|---|
| 1. Native file shall be submitted in next revision. |
| 2. All VTA shall be filled in the next revision.    |
| 3. Pressure Gauge will be added in this document.   |

00	23-4-2025	For Approval	LK	SC	
Rev	Date	Description	Prepared	Reviewed	Approved

GENERAL	1	Tag Number		Refer to next page		
	2	Service		Refer to next page		
	3	P&ID No.		Refer to next page		
	4	Area Classification		Zone 2, Ex'ia, IIC, T3		
	5	Line No. or Vessel No.		Refer to next page		
	6	Pipe Class		Refer to next page		
	7	NACE Requirement		N/A		
PROCESS CONDITIONS	8	Fluid (State)		Refer to next page		
	9	Pressure Max (barg)	Oper.	Refer to next page	Refer to next page	
	10	Temperature Max. (°C)	Oper.	Refer to next page	Refer to next page	
	11	Oper. Spec. Gravity	Oper. Viscosity (cP)	Air: 1; N <sub>2</sub> : 1,038	Air: 0,025 cP; N <sub>2</sub> : 0,024 cP	
	12	Design Pressure (barg)	Design Temperature (°C)	4,2 barg	215 °C	
TRANSMITTER	13	Application		Pressure transmitter		
	14	Type		Diaphragm		
	15	Enclosure Class		IP65		
	16	Housing	Paint	Aluminium (epoxy coated)	Manufacturer standard	
	17	Power Supply	Load Resist	24VDC 2-wire loop powered	VTA	
	18	Process Connection	Electrical Connection	1/2" NPT-M	ISO M20x1,5	
	19	Accuracy	Response Time	± 0.1% of span	VTA	
	20	Output Signal		4-20 mA, HART		
	21	Element Material		SS316L		
	22	Wetted O - Ring Material		VTA		
	23	Fill Fluid		VTA		
	24	Instrument Range		VTA		
	25	Calibrated Range		Refer to next page		
	26	Elevation	Suppression	N/A	N/A	
27	Allow.Oper. Pressure	Allow.Oper.Temp.	VTA	VTA		
28						
DIAPHRAGM SEAL	29	Process Connection & Rating (H / L)		N/A		
	30	Diaphragm Material		N/A		
	31	Capillary Type / Material / Length (M)		N/A		
	32	Fill Fluid		N/A		
	33	Housing Material / Flange Material		N/A		
	34	Allowable Over Temperature		N/A		
	35	Flushing Connection	Flushing Ring	N/A	N/A	
MANIFOLD	36	Type	Body Material	2-way block&bleed	SS316	
	37	Trim	Packing	VTA	PTFE	
	38	Max. Rating Pressure	Temperature	4,2 barg	215 °C	
	39	Held Terminal		N/A		
	40	Process Conn.	Size	Type	Rating	1/2" NPT-F 800#
	41	Manufacturer		According to approved vendor list		
OPTIONS	42	Model		VTA		
	43	Integral Meter	Scale	Yes, LCD	bar(g)	
	44	Lightning Protection		N/A		
	45	Pressure Testing		N/A		
	46	Mounting Brackets		Yes, SS316		
PURCHASE	47	Burnout		N/A		
	48	Manufacturer		According to approved vendor list		
	49	Model		VTA		
	50	KOSHA/KGS Explosion Proof Certification No		N/A		

Note. :

- Calibration, 3.1 material test, ATEX and IP certification to be included with transmitters

					PRESSURE TRANSMITTER	
					Deleted	
					Vendor shall submit to SIL 2 certificate. All those instruments will be supplied SIL 2 Certified.	
00	LK	23-4-2025		For Approval		SHEET 2 OF 11

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Please combine them into one sheet.

(General)  
All blanks must be filled in next revision.

All TBDs must be filled in next revision.

NO	TAG NO.	Q'TY	Line No. or Vessel No.	SET RANGE (Calibrated range) (barg)	OPERATING		FLUID (STATE)	SERVICE	PIPING CLASSIFIC ATION	P&ID NO.	NOTES
					NOR/MAX (barg)	NOR/MAX (°C)					
1	44PT-4001003	1	44C-40001A	-1..1	0	48	Nitrogen (Gas)	Nitrogen compressor inlet pressure	Mfr. Standard	23383-03	
2	44PT-4001054	1	44C-40001A	0..5	3,5	TBD	Oil (liquid)	Nitrogen compressor oil pressure	Mfr. Standard	23383-03	
3	44PT-4001011	1	44C-40001A	0..3	2	189	Nitrogen (Gas)	Nitrogen compressor outlet pressure	Mfr. Standard	23383-03	
4	44PT-4002003	1	44C-40001B	-1..1	0	48	Nitrogen (Gas)	Nitrogen compressor inlet pressure	Mfr. Standard	23383-03	
5	44PT-4002005	1	44C-40001B	0..5	3,5	TBD	Oil (liquid)	Nitrogen compressor oil pressure	Mfr. Standard	23383-03	
6	44PT-4002001	1	44C-40001B	0..3	2	189	Nitrogen (Gas)	Nitrogen compressor outlet pressure	Mfr. Standard	23383-03	
7	44PT-8004001	1	44C-80001A	-1..1	0	48	Air (Gas)	Air compressor inlet pressure	Mfr. Standard	23383-03	
8	44PT-8004041	1	44C-80001A	0..6	4,2	TBD	Oil (liquid)	Air compressor oil pressure	Mfr. Standard	23383-03	
9	44PT-8004002	1	44C-80001A	0..3	1,5	167	Air (Gas)	Air compressor outlet pressure	Mfr. Standard	23383-03	
10	44PT-8004003	1	44C-80001B	-1..1	0	48	Air (Gas)	Air compressor inlet pressure	Mfr. Standard	23383-03	
11	44PT-8004042	1	44C-80001B	0..6	4,2	TBD	Oil (liquid)	Air compressor oil pressure	Mfr. Standard	23383-03	
12	44PT-8004004	1	44C-80001B	0..3	1,5	167	Air (Gas)	Air compressor outlet pressure	Mfr. Standard	23383-03	
13	44PT-8004005	1	44C-80002A	-1..1	0	48	Air (Gas)	Roots blower inlet pressure	Mfr. Standard	23383-03	
14	44PT-8004006	1	44C-80002A	0..2	1	154	Air (Gas)	Roots blower outlet pressure	Mfr. Standard	23383-03	
15	44PT-8004009	1	44C-80002B	-1..1	0	48	Air (Gas)	Roots blower inlet pressure	Mfr. Standard	23383-03	
16	44PT-8004010	1	44C-80002B	0..2	1	154	Air (Gas)	Roots blower outlet pressure	Mfr. Standard	23383-03	
17	44PT-8004013	1	44C-80004A	-1..1	0	48	Air (Gas)	Air compressor inlet pressure	Mfr. Standard	23383-03	
18	44PT-8004043	1	44C-80004A	0..5	3,5	TBD	Oil (liquid)	Air compressor oil pressure	Mfr. Standard	23383-03	
19	44PT-8004014	1	44C-80004A	0..3	2,2	205	Air (Gas)	Air compressor outlet pressure	Mfr. Standard	23383-03	
20	44PT-8004016	1	44C-80004B	-1..1	0	48	Air (Gas)	Air compressor inlet pressure	Mfr. Standard	23383-03	
21	44PT-8004044	1	44C-80004B	0..5	3,5	TBD	Oil (liquid)	Air compressor oil pressure	Mfr. Standard	23383-03	
22	44PT-8004017	1	44C-80004B	0..3	2,2	205	Air (Gas)	Air compressor outlet pressure	Mfr. Standard	23383-03	
23	44PT-8005001	1	44C-80005A	-1..1	0	48	Air (Gas)	Air compressor inlet pressure	Mfr. Standard	23383-03	
24	44PT-8005041	1	44C-80005A	0..6	4,2	TBD	Oil (liquid)	Air compressor oil pressure	Mfr. Standard	23383-03	
25	44PT-8005002	1	44C-80005A	0..3	1,5	164	Air (Gas)	Air compressor outlet pressure	Mfr. Standard	23383-03	
26	44PT-8005004	1	44C-80005B	-1..1	0	48	Air (Gas)	Air compressor inlet pressure	Mfr. Standard	23383-03	
27	44PT-8005042	1	44C-80005B	0..6	4,2	TBD	Oil (liquid)	Air compressor oil pressure	Mfr. Standard	23383-03	
28	44PT-8005005	1	44C-80005B	0..3	1,5	164	Air (Gas)	Air compressor outlet pressure	Mfr. Standard	23383-03	
29	44PT-8005006	1	44C-80005C	-1..1	0	48	Air (Gas)	Air compressor inlet pressure	Mfr. Standard	23383-03	
30	44PT-8005043	1	44C-80005C	0..6	4,2	TBD	Oil (liquid)	Air compressor oil pressure	Mfr. Standard	23383-03	
31	44PT-8005007	1	44C-80005C	0..3	1,5	164	Air (Gas)	Air compressor outlet pressure	Mfr. Standard	23383-03	

Note :


PRESSURE TRANSMITTER



GENERAL	1	Tag Number		Refer to next page		
	2	Service		Refer to next page		
	3	P&ID No.		Refer to next page		
	4	Area Classification		Zone 2, Ex'ia, IIC, T3		
	5	Line No. or Vessel No.		Refer to next page		
	6	Pipe Class		Refer to next page		
	7	NACE Requirement		N/A		
PROCESS CONDITIONS	8	Fluid (State)		Refer to next page		
	9	Pressure Max (barg)	Oper.	Refer to next page	Refer to next page	
	10	Temperature Max. (°C)	Oper.	Refer to next page	Refer to next page	
	11	Oper. Spec. Gravity	Oper. Viscosity (cP)	Air: 1; N <sub>2</sub> : 1,038	Air: 0,025 cP; N <sub>2</sub> : 0,024 cP	
TRANSMITTER	12	Design Pressure (barg)	Design Temp. (°C)	4,2 barg	215 °C	
	13	Application		Pressure differential transmitter		
	14	Type		Diaphragm		
	15	Enclosure Class		IP65		
	16	Housing	Paint	Aluminium (epoxy coated)	Manufacturer standard	
	17	Power Supply	Load Resist	24VDC 2-wire loop powered	VTA	
	18	Process Connection	Electrical Connection	1/2" NPT-M	ISO M20x1,5	
	19	Accuracy	Response Time	± 0.1% of span	VTA	
	20	Output Signal		4-20 mA, HART		
	21	Element Material		SS316L		
	22	Wetted O - Ring Material		VTA		
	23	Fill Fluid		VTA		
	24	Instrument Range		VTA		
	25	Calibrated Range		Refer to next page		
26	Elevation	Suppression	N/A	N/A		
27	Allow.Oper. Pressure	Allow.Oper.Temp.	VTA	VTA		
28						
DIAPHRAGM SEAL	29	Process Connection & Rating (H / L)		N/A		
	30	Diaphragm Material		N/A		
	31	Capillary Type / Material / Length		N/A		
	32	Fill Fluid		N/A		
	33	Housing Material / Flange Material		N/A		
	34	Allowable Over Temperature		N/A		
	35	Flushing Connection	Flushing Ring	N/A	N/A	
MANIFOLD	36	Type	Body Material	5-way manifold	SS316	
	37	Trim	Packing	VTA	PTFE	
	38	Max. Rating	Pressure	Temperature	4,2 barg	215 °C
	39	Held Terminal		N/A		
	40	Process Conn.	Size	Type	Rating	1/2"   NPT-F   800#
	41	Manufacturer		According to approved vendor list		
	42	Model		VTA		
OPTIONS	43	Integral Meter	Scale	Yes, LCD	bar(g)	
	44	Lightning Protection		N/A		
	45	Pressure Testing		N/A		
	46	Mounting Brackets		Yes, SS316		
	47	Burnout		N/A		
PURCHASE	48	Manufacturer		According to approved vendor list		
	49	Model		VTA		
	50	KOSHA/KGS Explosion Proof Certification No		N/A		

Note. :

- Calibration, 3.1 material test, ATEX and IP certification to be included with transmitters

				D/P TYPE PRESSURE TRANSMITTER	
				Deleted	

Vendor shall submit to SIL 2 certificate. All those instruments will be supplied SIL 2 Certificated.

00	LK	23-4-2025	For Approval			SHEET 4 OF 11	
No.	By	Date	Revision	Code:	Doc. No.	23383-12	Rev.: 00



Please combine them into one sheet.



00	LK	23-4-2025	For Approval		SHEET 5 OF 11
No.	By	Date	Revision	Doc. No.: 23383-12	Rev.: 00



Please combine them into one sheet.

GENERAL	1	Tag Number		Refer to next sheet	
	2	Service		Refer to next sheet	
	3	P&ID No.		Refer to next sheet	
	4	Area Classification		Zone 2, Ex'ia, IIC, T3	
	5	Line No. or Vessel No.		Refer to next sheet	
	6	Pipe Class		Refer to next sheet	
	7	NACE Requirement		N/A	
	8				
PROCESS CONDITIONS	9	Fluid (State)		Refer to next sheet	
	10	Pressure Max (MPaG)	Oper.	Refer to next sheet	Refer to next sheet
	11	Temperature Max. (°C)	Oper.	Refer to next sheet	Refer to next sheet
	12	Oper. Spec.Gravity	Oper. Viscosity (cP)	Air: 1; N2: 1,038	Air: 0,025 cP; N2: 0,024 cP
	13	Design Pressure (barg)		4,2 barg	
	14	Design Temperature (°C)		215 °C	
TRANSMITTER	15	Type		Field mounted transmitter	
	16	RTD Types Supported		N/A	
	17	Thermocouple Supported Types		Type 'K'	
	18	MV Supported Type		N/A	
	19	Cold Junction Compensation		Internal compensation	
	20	Enclosure Class		IP65	
	21	Housing	Paint	Aluminium (epoxy coated)	Manufacturer standard
	22	Power Supply	Load Resist	24VDC, 2-wire loop powered	VTA
	23	Process Connection	Electrical Connection	N/A	ISO M20x1,5
	24	Accuracy	Response Time	± 0.1% of span	
	25	Output Signal		4-20mA, HART	
	26	Range Limits		VTA	
	27	Calibrated Range		Refer to next sheet	
28	Display		Digital, LCD		
29					
30					
COMMUNICATION AND SOFTWARE	31	Communication Type		Smart, HART	
	32	Baud - Rate		N/A	
	33	Communication with:		N/A	
	34	Configuration from:		N/A	
	35	Internal Diagnostics		Yes	
	36	Held Terminal		N/A	
	37				
OPTIONS	38	Integral Meter	Scale	Yes	°C
	39	Lightning Protection		N/A	
	40	Custom Configuration		N/A	
	41	Mounting Brackets		Yes	
	42	Burnout		Overrange	
PURCHASE	43	Manufacturer		According to approved vendor list	
	44	Model		VTA	
	45	KOSHA/KGS Explosion Proof Certification No		N/A	
	46				
	47				

Note. :

- Calibration, 3.1 material test, ATEX and IP certification to be included with transmitters

Vendor shall submit to SIL 2 certificate.  
All those instruments will be supplied SIL 2 Certificated.

Deleted

				TEMPERATURE TRANSMITTER			
00	LK	23-4-2025	For Approval		SHEET 6 OF 11		
No.	By	Date	Revision	Code:	Doc. No.:	23383-12	Rev.: 0

NO.	TAG NO.	Q'TY	OPERATING		CALIBRATION RANGE	FLUID (STATE)	SERVICE	LINE NO. /VESSEL NO.	PIPING CLASS.	P&ID NO.	NOTES
			Oper. (°C)	MAX Oper. barg							
1	44TT-4001056	1	TBD		3,5	TBD	Oil (Liquid)	Oil system temperature	44C-40001A	Mfr. std	23383-03
2	44TT-4001057	1	189	1,903		0...300	Nitrogen (Gas)	Outlet temperature	44C-40001A	Mfr. std	23383-03
3	44TT-4001001	1	48	Amb.		0...100	Air (Gas)	Enclosure temperature	44C-40001A	Mfr. std	23383-03
4	44TT-4002056	1	TBD		3,5	TBD	Oil (Liquid)	Oil system temperature	44C-40001B	Mfr. std	23383-03
5	44TT-4002057	1	189	2,903	3,5	0...300	Air (Gas)	Outlet temperature	44C-40001B	Mfr. std	23383-03
6	44TT-4002001	1	TBD	Amb.		0...100	Air (Gas)	Enclosure temperature	44C-40001B	Mfr. std	23383-03
7	44TT-8001041	1	TBD		4,2	TBD	Oil (Liquid)	Oil system temperature	44C-80001A	Mfr. std	23383-03
8	44TT-8004001	1	167	1,473	4,2	0...250	Air (Gas)	Outlet temperature	44C-80001A	Mfr. std	23383-03
9	44TT-8001042	1	TBD		4,2	TBD	Oil (Liquid)	Oil system temperature	44C-80001B	Mfr. std	23383-03
10	44TT-8004003	1	167	1,473	4,2	0...250	Air (Gas)	Outlet temperature	44C-80001B	Mfr. std	23383-03
11	44TT-8004005	1	TBD		4,2	TBD	Air (Gas)	Outlet temperature	44C-80002A	Mfr. std	23383-03
12	44TT-8004007	1	154	0,983	1,067	0...250	Air (Gas)	Outlet temperature	44C-80002B	Mfr. std	23383-03
13	44TT-8004043	1	TBD		3,5	TBD	Oil (Liquid)	Oil system temperature	44C-80004A	Mfr. std	23383-03
14	44TT-8004009	1	205	2,213	3,5	0...300	Air (Gas)	Outlet temperature	44C-80004A	Mfr. std	23383-03
15	44TT-8004044	1	TBD		3,5	TBD	Oil (Liquid)	Oil system temperature	44C-80004B	Mfr. std	23383-03
16	44TT-8004011	1	205	2,213	3,5	0...300	Air (Gas)	Outlet temperature	44C-80004B	Mfr. std	23383-03
17	44TT-8005041	1	TBD		3,5	TBD	Oil (Liquid)	Oil system temperature	44C-80005A	Mfr. std	23383-03
18	44TT-8005001	1	164	1,423	4,2	0...250	Air (Gas)	Outlet temperature	44C-80005A	Mfr. std	23383-03
19	44TT-8005042	1	TBD		4,2	TBD	Oil (Liquid)	Oil system temperature	44C-80005B	Mfr. std	23383-03
20	44TT-8005003	1	164	1,423	4,2	0...250	Air (Gas)	Outlet temperature	44C-80005B	Mfr. std	23383-03
21	44TT-8005043	1	TBD		4,2	TBD	Oil (Liquid)	Oil system temperature	44C-80005C	Mfr. std	23383-03
22	44TT-8005004	1	164	1,423	4,2	0...250	Air (Gas)	Outlet temperature	44C-80005C	Mfr. std	23383-03

why are these value different?

44TT - 8004041

44TT - 8004042

4.2

Note. :

				TEMPERATURE TRANSMITTER									
00	LK	23-4-2025	For Approval							SHEET 7 OF 11			
No.	By	Date	Revision			Doc. No.: 23383-12				Rev.: 00			