






CONTRACTOR:  	300 KT POLYETHYLENE PLANT ARYA SASOL POLYMER COMPANY (ASPC)	OWNER:  شرکت پلیمر آریا ساسول ARYA SASOL POLYMER COMPANY ساسول پارس																				
VENDOR LOGO: 	PERFORMANCE TEST PROCEDURE FOR EQUIPMENT	MC:  شرکت طرح و مهندسی ISED CO شرکت مهندسی سازه‌های تخصصی																				
Owner Document Number :	<table border="1"> <tr> <th>OWNER Project No.</th> <th>Vendor DOC.</th> <th>MR No.</th> <th>Vendor Code</th> <th>Discipline</th> <th>Unit</th> <th>Type</th> <th>Seq. No</th> <th>Rev.:</th> <th>Page</th> </tr> <tr> <td>3944</td> <td>VD</td> <td>0171</td> <td>DYP</td> <td>RE</td> <td>400</td> <td>PRC</td> <td>0126</td> <td>00</td> <td>1 of 16</td> </tr> </table>	OWNER Project No.	Vendor DOC.	MR No.	Vendor Code	Discipline	Unit	Type	Seq. No	Rev.:	Page	3944	VD	0171	DYP	RE	400	PRC	0126	00	1 of 16	
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3944	VD	0171	DYP	RE	400	PRC	0126	00	1 of 16													

RED:
 Submitted document is not the procedure to carry out the performance test and could not be nominated the procedure of test.
 Please submit the complete procedure of sub vendors to check and review.

PERFORMANCE TEST PROCEDURE FOR EQUIPMENT

ASPC:
 General comment:
 Equipment shall be suitable for continuous operation with voltage variations ranging within $\pm 5\%$ of rated values and frequency variations ranging within $\pm 2\%$ of rate values.
 • Total harmonic distortion (THD) of the supply network voltage will not exceed 5% the motor current test should be based on start, 0.25 , 0.5,0.75,100% full load

P.O. No.:	SHAU23-006-DYPNF-ASS	RESULT CODE : <input type="checkbox"/> AP <input type="checkbox"/> AN <input checked="" type="checkbox"/> CO <input type="checkbox"/> RE
MR. No.:	3944-SZP-RE-400-MRQ-0171	NEXT STATUS : <input type="checkbox"/> IFI <input checked="" type="checkbox"/> IFA <input type="checkbox"/> AFC <input type="checkbox"/> ASB or FIN
Item No. (Equipment No.):	Common	RESUBMISSION DATE :
Vendor Job No.:	PC2312	Approval or review hereunder shall not be considered to relieve Vendor/ Subcontractor of his responsibilities and liability under the Contract.

M.Shakiba

03-Sep-2025

00	22.Aug,2025	Issue for Approval	H.J Kim	S.M Han	C.K Choi	
Rev.	Date	Purpose of Issue	Prepared	Checked	Approved	AC Code

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1. Compressor & Blower
2. Fan

Project definitions

Project name : 300 KT POLYETHYLENE PLANT

Owner : Arya Sasol Polymer Company (ASPC)

MC : ISEDCO

Purchaser : SAZEH

Vendor : DYPNF

1. Compressor & Blower

RED:

Please specify the test will be done at which operating points (only guarantee point or performance curve will be adopt?)

RED:

- contract bearing, motor, coupling, seal, oil system etc shall be used during test.
- pressure, temperature, vibration, humidity, speed, oil temp measurement to be described.
- calculation procedure for shaft power, efficiency and other parameters shall be specified and included in this procedure.
- During the test, the lubricant and the rate of feed shall comply with the operating instructions.
- Before readings are taken, the compressor shall be run long enough to ensure that steady-state conditions are reached so that no systematic changes occur in the instrument readings during the test.

test acceptance criteria to be mentioned taking into account **ISO 1217**.

Sazeh RED:

Please add the table based on vendor and ISO 1217 standard.
Please see below sample table for "**Maximum deviation permissible at test**" and add the table which is applicable for AREZEN standard.

Volume flow rate at specified conditions (m ³ /s) × 10 ⁻³	Volume flow rate %	Specific energy requirement %	Power requirement (at zero volume flow rate or at pressure ratio of 1) ^a %
0 < q _v ≤ 8,3	± 7	± 8	± 10
8,3 < q _v ≤ 25	± 6	± 7	± 10
25 < q _v ≤ 250	± 5	± 6	± 10
q _v > 250	± 4	± 5	± 10

NOTE The tolerance values in this table cover and include manufacturing tolerances of the compressor and tolerances relating to the measurements taken during the test.

^a Where specified, the manufacturer shall state the method used.

NOTE Compressors of this type are usually manufactured in batches or in continuous production quantities and the performance guarantee offered by the manufacturer to the purchaser is implicit in the information stated in the relevant sales data.



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PERFORMANCE TEST PROCEDURE FOR Compressor & Blower

ASPC Rotary:
It shall be Fan/Compressor

YP-RE-400-PRC-

DYJob No.: PC2312

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1. Scope

1.1 This standard will be applied to test method of the fan at shop and standard for judgment

2. Purpose

ASPC Rotary:
Data sheet and performance curve shall be added to reference document.

Sazeh RED:
Bellow documents to be added to Reference doc table. Items which are marked by Yellow color are applicable for Tongyang Fans. Items which are marked by Orange color are applicable for Arezen Compressors/Blowers.

2.1 Checking the performance and functioning of the package against

3. Reference

Document Number	Document Title	P&ID
3944-VD-0171-DYP-RE-400-DSH-0155	EQUIPMENT DATA SHEET OF EXHAUST FAN (44C-50008)	
3944-VD-0171-DYP-RE-400-DWG-0156	GA DRAWING FOR EXHAUST FAN WITH PART LIST (44C-50008)	
3944-VD-0180-DYP-RE-800-DSH-0035	EQUIPMENT DATA SHEET OF ELUTRIATOR FAN (44C-80006 A/B)	
3944-VD-0180-DYP-RE-800-DWG-0036	GA DRAWING FOR ELUTRIATOR FAN WITH PART LIST (44C-80006A/B)	
3944-VD-0180-DYP-RE-800-DSH-0019	EQUIPMENT DATA SHEET OF CONVEYING AIR COMPRESSOR (44C-80001A/B)	
3944-VD-0180-DYP-RE-800-DSH-0023	EQUIPMENT DATA SHEET OF CONVEYING AIR BLOWER (44C-80002A/B)	
3944-VD-0180-DYP-RE-800-DSH-0027	EQUIPMENT DATA SHEET OF CONVEYING AIR COMPRESSOR (44C-80004A/B)	
3944-VD-0180-DYP-RE-800-DSH-0031	EQUIPMENT DATA SHEET OF CONVEYING AIR (44C-80005A-C)	
3944-VD-0180-DYP-RE-800-DWG-0020	GA DRAWING FOR CONVEYING AIR COMPRESSOR WITH PART LIST (44C-80001A/B)	
3944-VD-0180-DYP-RE-800-DWG-0024	GA DRAWING FOR CONVEYING AIR BLOWER WITH PART LIST (44C-80002A/B)	
3944-VD-0180-DYP-RE-800-DWG-0032	GA DRAWING FOR CONVEYING AIR COMPRESSOR WITH PART LIST (44C-80005A-C)	
3944-VD-0171-DYP-RE-400-DSH-0019	EQUIPMENT DATA SHEET OF CONVEYING NITROGEN COMPRESSOR (44C-40001A/B)	
3944-VD-0171-DYP-RE-400-DWG-0020	GA DRAWING FOR CONVEYING NITROGEN COMPRESSOR WITH PART LIST (44C-40001A/B)	
3944-VD-0180-DYP-RE-800-DWG-0028	GA DRAWING FOR CONVEYING AIR COMPRESSOR WITH PART LIST (44C-80004A/B)	
3944-VD-0171-DYP-RE-400-DWG-0020	23383-04	General Arrangement Drawing
3944-VD-0171-DYP-RE-400-DIA-0002	23383-05	Wiring Diagram
3944-VD-0171-DYP-RE-400-DWG-0003	23383-07	Panel lay-out
3944-VD-0171-DYP-RE-400-ITP-0120	23383-08	Inspection & Test Plan (ITP)
3944-VD-0171-DYP-RE-400-PRC-0004	23383-21	Control Philosophy
3944-VD-0171-DYP-RE-400-PRC-0004	23383-27	Cause and Effect chart

Sazeh RED:
Reference standards to be added including ISO 10440, ISO 1217, I SO 5167

4. Performance test (two hours)

ASPC Rotary:
Base on API standard it shall be 4 hours.

Test set-up for the package is as follows:

- The power from the package will come from internal power supply
- 6kV / 50Hz / 3ph and 230V / 50Hz / 1ph
- Power is ON
- One performance test will be done per type of compressor/blower

ASPC:
6kV±5%, 50Hz±2%
230V±5% , 50Hz±2%

ASPC Rotary:
As per BID stage agreement, it shall be done for all main and spare compressor/Blower.

The following measurements will be taken during the performance test

- Sound level at 1 metre distance from skid (max. 85 dB(A))
- Refer to Attachment 4 for an example of the performance test results sheet, which will be filled in during FAT.
- Data is extracted from all the transmitters to check the performance. Gauges can be checked during running and will not be listed in the performance test sheet

ASPC Rotary:
Bearing temperature shall be measured during performance test/MRT.

ASPC Rotary:
Vibration shall be measured during performance test/MRT.



All in house instruments required / used during performance test shall be certified, which will be attached to the FAT test report.

Sazeh RED:
Please add Test Layout schematic include Measurement device and required instrumentation. Also please add a section for "Test Plan" Description/

The FAT recordings can be found in attachment 4: Performance test results

Calibration records of the instruments shall be available prior to the test

ASPC Rotary;
 This procedure is for unit 400 and just should be include 44C-40001A/B & 44C-50008.
 other equipment in attachement 4 belongs to unit 800.

	300 KT polyethylene plant project (ASPC)	
DATE: 07-03-2025	DOC NO.: 23383-14 ATTACHMENT 4 Performance test	REV. 00 PAGE: 1

ASPC Rotary:
 This table shall be updated to 4 hours.

Performance Test Results - 44C-40001A											
	00:00	00:15	00:30	00:45	01:00	01:15	01:30	01:45	02:00	UNIT	OPERATING VALUES
44PT-4001003 Compressor inlet pressure										Bar	
44TT-4001056 Compressor oil temperature										°C	
44PT-4001054 Compressor oil pressure										Bar	
44PT-4001011 Compressor discharge pressure										Bar	
44TT-4001057 Compressor discharge temperature										°C	
44TT-4001001 Compressor enclosure temperature										°C	
ASPC Rotary: Below items shall be added to this table. Bearing temperature Casing temperature inlet temperature Speed	START										

Running test starting time:	
Humidity:	R.H. %
Ambient temperature:	°C
Ambient pressure:	hPa

SIGNATURE:	
Airpack Test Engineer:	
Client inspector:	

NOTES;



300 KT polyethylene plant project (ASPC)



DATE: 07-03-2025

DOC NO.: 23383-14 ATTACHMENT 4 Performance test

REV. 00

PAGE:

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ASPC Rotary:
This table shall be updated to 4 hours.

Performance Test Results - 44C-80001A

	00:00	00:15	00:30	00:45	01:00	01:15	01:30	01:45	02:00	UNIT	OPERATING VALUES
44PDT-8001001A Compressor inlet filter diff. pressure										Bar	
44PT-8004001 Compressor inlet pressure										Bar	
44TT-8001056A Compressor oil temperature										°C	
44PT-8001054A Compressor oil pressure										Bar	
44PT-8004002 Compressor discharge pressure										Bar	
44TT-8004001 Compressor discharge temperature										°C	
ASPC Rotary: Below items shall be added to this table. Bearing temperature Casing temperature inlet temperature Speed	START										

Running test starting time:	
Humidity:	R.H.%
Ambient temperature:	°C
Ambient pressure:	hPa

SIGNATURE:	
Airpack Test Engineer:	
Client inspector:	

NOTES;



300 KT polyethylene plant project (ASPC)



DATE: 07-03-2025

DOC NO.: 23383-14 ATTACHMENT 4 Performance test

REV. 00

PAGE:

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ASPC Rotary:
This table shall be updated to 4 hours.

Performance Test Results - 44C-80004A

	00:00	00:15	00:30	00:45	01:00	01:15	01:30	01:45	02:00	UNIT	OPERATING VALUES
44PDT-8004001A Compressor inlet filter diff. pressure	START									Bar	
44PT-8004101 Compressor inlet pressure										Bar	
44TT-8004056A Compressor oil temperature										°C	
44PT-8004054A Compressor oil pressure										Bar	
44PT-8004102 Compressor discharge pressure										Bar	
44TT-8004101 Compressor discharge temperature										°C	

ASPC Rotary:
Below items shall be added to this table.
Bearing temperature
Casing temperature
inlet temperature
Speed

Running test starting time:	
Humidity:	R.H.%
Ambient temperature:	°C
Ambient pressure:	hPa

SIGNATURE:	
Airpack Test Engineer:	
Client inspector:	

NOTES;



300 KT polyethylene plant project (ASPC)



DATE: 07-03-2025

DOC NO.: 23383-14 ATTACHMENT 4 Performance test

REV. 00

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ASPC Rotary:
This table shall be updated to 4 hours.

Performance Test Results - 44C-80005A

	00:00	00:15	00:30	00:45	01:00	01:15	01:30	01:45	02:00	UNIT	OPERATING VALUES	
44PDT-8005001A Compressor inlet filter diff. pressure										Bar		
44PT-8004107 Compressor inlet pressure										Bar		
44TT-8005056A Compressor oil temperature										°C		
44PT-8005054A Compressor oil pressure										Bar		
44PT-8004108 Compressor discharge pressure										Bar		
44TT-8004105 Compressor discharge temperature										°C		
ASPC Rotary: Below items shall be added to this table. Bearing temperature Casing temperature inlet temperature Speed	START											

Running test starting time:	
Humidity:	R.H.%
Ambient temperature:	°C
Ambient pressure:	hPa

SIGNATURE:	
Airpack Test Engineer:	
Client inspector:	

NOTES;