



ASPC Project


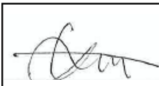





| | |
|------------------------------|-----------------------------------|
| END CUSTOMER | : Arya Sasol Polymer Company |
| CONTRACTOR | : DYPNF Co., Ltd. |
| VENDOR NAME | : Airpack Netherlands BV |
| EQUIPMENT DESCRIPTION | : Screw Compressor & Roots Blower |
| PURCHASE ORDER NUMBER | : PO-PC2312-08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






Customer Number Document : 3944-VD-0171-DYP-RE-400-ITP-0120

Airpack Document Number : 23383-08

Document Title : Inspection & Test Plan

| Review Code and Status | | Contractor Initials/Signature | Date signed |
|---|--|---|-------------|
|  | Code 1 REJECTED - Vendor to revise and Resubmit. Work cannot proceed |  | 09 May 2025 |
|  | Code 2 Comments As Noted - Work May proceed, subject to compliance with and incorporation of comments | | |
|  | Code 3 No Comments - Work may proceed. | | |
|  | Code 4 Information only - Review not required. | | |

| | | | | | |
|----------|---------------------|------------|-------------|------------|-------------|
| 01 | Issued for Approval | 28-02-2025 | SC | KP | JJ |
| 00 | Issued for Approval | 11-02-2025 | SC | KP | JJ |
| Rev. No. | Description | Date | Prepared by | Checked by | Approved by |

| CONTRACTOR:   | 300 KT POLYETHYLENE PLANT ARYA SASOL POLYMER COMPANY (ASPC) | OWNER:  شرکت پلیمر آریا ساسول ARYA SASOL POLYMER COMPANY | | | | | | | | | | | | | | | | | | | | |
|--|--|---|-------------|------------|-------------|------------|---------|-------|---------|-------|------|------|----|------|-----|----|-----|-----|------|----|---------|--|
| VENDOR LOGO:  | INSPECTION & TEST PLAN | MC:  شرکت ایزدکو ISED CO | | | | | | | | | | | | | | | | | | | | |
| Owner Document Number : | <table border="1"> <thead> <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> </thead> <tbody> <tr> <td>3944</td> <td>VD</td> <td>0171</td> <td>DYP</td> <td>RE</td> <td>400</td> <td>ITP</td> <td>0120</td> <td>01</td> <td>1 of 39</td> </tr> </tbody> </table> | OWNER Project No. | Vendor DOC. | MR No. | Vendor Code | Discipline | Unit | Type | Seq. No | Rev.: | Page | 3944 | VD | 0171 | DYP | RE | 400 | ITP | 0120 | 01 | 1 of 39 | |
| OWNER Project No. | Vendor DOC. | MR No. | Vendor Code | Discipline | Unit | Type | Seq. No | Rev.: | Page | | | | | | | | | | | | | |
| 3944 | VD | 0171 | DYP | RE | 400 | ITP | 0120 | 01 | 1 of 39 | | | | | | | | | | | | | |

CSX Comment:
 use correct format of ITP
 ITP will be finalized in PIM

MC/Client:
 please used the project format for ITP,
 -All certificates shall be provided as per EN 10204 type 3.1
 -ITP will be finalized in pre inspection meeting

INSPECTION & TEST PLAN

| | | |
|---------------------------|--------------------------|---|
| 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-800-MRQ-0180 | 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

2025-May-04

| Rev. | Date | Purpose of Issue | Prepared | Checked | Approved | AC Code |
|------|-------------|--------------------|----------|---------|----------|---------|
| 01 | 28.Feb,2025 | Issue for Approval | H.J.Kim | S.M.Han | C.K.Choi | |
| 00 | 02.May,2024 | Issue for Approval | H.J.Kim | S.M.Han | C.K.Choi | |

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8. Diverter Valve
9. Auto & Manual Valve[All Valve]
10. Pipe Spool with Pipe Support
11. Instrument
12. PLC Panel
13. Auxiliaries
14. Accessory
15. NDE Map

RED: ITP shall include all equipment of
Powder Conveying system:
16- Tanks (for example: Blow tank / Feed
Hopper)
17- Conveying Station
18- Filters / Cyclone (if any)
19- Separators
20- Piping
21- Truck unloading station
22- Powder loading device



Inspection and Test Plan [ITP] &
For PowderConveying System

3944-VD-0171-DYP-RE-400-ITP-0120

DYJob No.: PC2312

1. Compressor & Roots Blower(Include MV motor)

MC/Client:
Include



INSPECTION AND TEST PLAN (ITP)

Inspection and Test Plan Number 23383-08

| | | | |
|-------------------------|----------------------|--|--|
| Contract Number: | PO-PC2312-08 | Inspection and Test Plan For: Screw Compressor & Roots Blower Package | |
| Customer: | a Sasol Polymer Comp | | |
| Contractor: | DYPNF Co., Ltd. | | |
| Project: | 23383-COM | | |



DRAWINGS FOR APPROVAL

For drawings and documents for approval, we refer to the Supplier Master Document List with Airpack reference number 23383-01.

LIST OF ABBREVIATIONS:

- H = HOLD POINT
Means that a hold shall be applied to the production schedule.
For materials: the buyer must be invited for the inspection / test and the inspection / test must be carried out with the buyer in attendance.
For drawings / documents: Airpack must receive approved drawings / documents, stamped by buyer.
- R = REVIEW POINT
Means that documents shall be available at final inspection for review as part of the data book.
- RA = REVIEW AND APPROVE POINT
Means that documents shall be reviewed and approved
- W = WITNESS POINT
Means that the buyer requires notification of the inspection timing. However, if the inspection is performed as scheduled and if the buyer is not present, Airpack will carry out the test and proceed with production.
- Q = QUALITY INSPECTION
Means that fabricated/purchased materials / parts of the package are checked by Airpack to be in accordance with the specifications.
- TPA = THIRD PARTY AGENCY
- E.P.M. = Engineering and Production Manual (mandatory reference - ISO)

INSPECTION & TEST PLAN (ITP) PIM

MC/Client:
please add the new column for MC/Owner

| Activity No. | Inspection Activity | Characteristic to be verified | Extent of Examination | Reference Document | Acceptance Criteria | Verifying Document | Participation | | | | | | REMARKS |
|--------------|------------------------|-------------------------------|-----------------------|---|---------------------|--------------------|---------------|------|----------|------|-------------|------|---------|
| | | | | | | | Airpack | | Customer | | Enduser/TPA | | |
| | | | | | | | Code | Date | Code | Date | Code | Date | |
| A. | PIM | | | | | | | | | | | | |
| 1. | Pre-inspection meeting | Document review | 100% | Purchase order approved ITP approved procedures | MR, PO | ITP (23383-08) | H | | H | | H | H | |

MCT:
A section as "Document review" should be added to ITP and relevant vendor procedures such as pressure testing procedure, NDE procedure, welding document, PMI procedure, etc shall be listed in this section.

MCT:
Numbering of reference document shall be as per project format.

MCT:
WPS & PQR shall be mentioned as reference document and/or acceptance criteria.
For verifying document, "QC report" should be written.

MC/Client:
please add the new column for MC/Owner

INSPECTION & TEST PLAN (ITP) SKID AND AIR PIPING

| Activity No. | Inspection Activity | Characteristic to be verified | Extent of Examination | Reference Document | Acceptance Criteria | Verifying Document | Participation | | | | | | REMARKS |
|--------------|---------------------|--|-----------------------|------------------------|-----------------------------|--------------------------------------|---------------|------|----------|------|-------------|------|------------|
| | | | | | | | Airpack | | Customer | | Enduser/TPA | | |
| | | | | | | | Code | Date | Code | Date | Code | Date | |
| B. | Skid (S355) | | | | | | | | | | | | |
| 1. | Materials | Visual check Certificate check | 100% | E.P.M. 11.1.1 | EN 10204 - 3.1 | 3.1 Material certificate | Q | | R | | W | R | During FAT |
| 2. | Welding | Visual check Certificate check | 100% | E.P.M. 11.1.2 - 11.1.7 | AWS D1.1 | PQR / WPS | Q | | R | | SW | | |
| 3. | NDT | Welds check | 100% Lifting lugs | E.P.M. 11.4 | NDT procedure | MT certificate | Q | | R | | | | |
| 4. | Dimensions | Dimensional check | Random | E.P.M. 11.3 | General Arrangement Drawing | General Arrangement Drawing as built | Q | | R | | W | | During FAT |
| 5. | Painting | Certificate check Paint thickness check | Random | E.P.M. 14.2.1 | Painting procedure | Painting report | Q | | R | | W | | During FAT |

INSPECTION & TEST PLAN (ITP) E-MOTOR COMPRESSOR

MC/Client:
please add the new column for MC/Owner

| Activity No. | Inspection Activity | Characteristic to be verified | Extent of Examination | Reference Document | Acceptance Criteria | Verifying Document | Participation | | | | | | REMARKS |
|------------------------|---------------------|--|-----------------------|--------------------|-----------------------------|--|---------------|------|----------|------|-------------|------|---------------------------------|
| | | | | | | | Airpack | | Customer | | Enduser/TPA | | |
| | | | | | | | Code | Date | Code | Date | Code | Date | |
| C. Compressor | | | | | | | | | | | | | |
| 1 | Materials | Visual check Certificate check | 100% | E.P.M. 7.2.1 | EN 10204 | 3.1 Inspection certificate for compressor/blower stage 2.2 works certificate 3.1 material certificate for silencer and compensator | Q | | R | | RA | | To be checked in MRB during FAT |
| 2 | Components | Visual check | Random | E.P.M. 2.1 | Equipment data sheet | Equipment data sheet approved | Q | | R | | RA | | |
| 3 | Dimensions | Dimensional check | Random | E.P.M 2.2.3 | General Arrangement Drawing | General Arrangement Drawing as built | Q | | R | | RA | | |
| 4 | Painting | Certificate check Paint thickness check | Random | E.P.M. 14.2.3 | Painting procedure | Painting report | Q | | R | | RA | | To be checked in MRB during FAT |
| D. Main E-motor | | | | | | | | | | | | | |
| 1. | Components | Visual check | 100% | E.P.M. 3.1 | Motor data sheet | Motor data sheet as built | Q | | R | | R | | |
| 2. | Dimensions | Dimensional check | 100% | E.P.M. 3.1.4 | Motor drawing | Motor drawing as built | Q | | R | | R | | |
| 3. | Performance | Certificate check | 100% | E.P.M. 3.1 | IEC 60034-1 | Routine Test Certificate Type Test Certificate (1 per type) | Q | | R | | R | | |
| 4. | Painting | Certificate check Paint thickness check | Random | E.P.M. 14.2.1 | Painting procedure | Painting report | Q | | R | | R | | |

MC/Client:
 Submitted test is not accepted. Mentioned tests in standard IEC 60034 shall be followed.
 Tests such as:
 . Type test
 . Measurement of insulation resistance - winding
 . Measurement of winding resistance at cold condition
 . Check of direction of rotation
 . Heat Run Test

 Shall be added

INSPECTION & TEST PLAN (ITP) INSTRUMENTATION AND VALVES

MC/Client:
please add the new column for MC/Owner

| Activity No. | Inspection Activity | Characteristic to be verified | Extent of Examination | Material | Acceptance Criteria | Verifying Document | Participation | | | | | | REMARKS |
|--|---------------------|--|-----------------------|------------------------------|---------------------|------------------------------|---------------|------|----------|------|-------------|------|---------|
| | | | | | | | Airpack | | Customer | | Enduser/TPA | | |
| | | | | | | | Code | Date | Code | Date | Code | Date | |
| E. Pressure/Temperature Gauges | | | | | | | | | | | | | |
| 1. | Materials | Visual check Certificate check | 100% | E.P.M. 8.1 / 8.2 | EN 10204 - 3.1 | 3.1 Material certificate | Q | | R | | R | | |
| 2. | Calibration | Certificate check | 100% | E.P.M. 8.1 / 8.2 | EN 10204 | Calibration certificate | Q | | R | | R | | |
| F. Pressure/Temperature Transmitter | | | | | | | | | | | | | |
| 1. | Materials | Visual check Certificate check | 100% | E.P.M. 8.3 / 8.4 / 8.6 / 8.8 | EN 10204 -3.1 | 3.1 Material certificate | Q | | R | | W | | |
| 2. | Calibration | Certificate check | 100% | E.P.M. 8.3 / 8.4 / 8.6 / 8.8 | EN 10204 | Calibration certificate | Q | | R | | RA | | |
| 3. | ATEX | Certificate check Label check | 100% | E.P.M. 8.3 / 8.4 / 8.6 / 8.8 | EN 60079 | Ex certificate | Q | | R | | | | |
| 4. | SIL | Certificate check | 100% | E.P.M. 8.3 / 8.4 / 8.6 / 8.8 | IEC 62061 | SIL Certificate | Q | | R | | | | |
| 5. | Ingress Protection | Certificate or declaration check | 100% | E.P.M. 8.3 / 8.4 / 8.6 / 8.8 | EN / IEC 60529 | IP 65 Certificate | Q | | R | | | | |
| J. Pressure Safety Valves | | | | | | | | | | | | | |
| 1. | Materials | Visual check Certificate check | 100% | E.P.M. 8.5 | EN 10204 - 3.1 | 3.1 Material certificate | Q | | R | | W | | |
| 2. | Calibration | Certificate check | 100% | E.P.M. 8.5 | API Std 526 | Calibration certificate | Q | | R | | RA | | |
| 3. | Leakage Test | Certificate check | 100% | E.P.M. 8.5 | API Std 527 | Hydrostatic Test Certificate | Q | | R | | RA | | |
| 4. | Painting | Certificate check Paint thickness check | Random | E.P.M. 8.13 | Painting procedure | Painting report | Q | | R | | RA | | |

INSPECTION & TEST PLAN (ITP) ELECTRIC PANEL

MC/Client:
please add the new column for MC/Owner

| Activity No. | Inspection Activity | Characteristic to be verified | Extent of Examination | Reference Document | Acceptance Criteria | Verifying Document | Participation | | | | | | REMARKS |
|--------------|---------------------|-------------------------------|-----------------------|--------------------|----------------------|-------------------------------|---------------|------|----------|------|-------------|------|------------|
| | | | | | | | Airpack | | Customer | | Enduser/TPA | | |
| | | | | | | | Code | Date | Code | Date | Code | Date | |
| K. | Junction Box | | | | | | | | | | | | |
| 1. | Dimensions | Visual check | 100% | E.P.M. 9.1.1 | Panel Layout Drawing | Panel Layout Drawing as built | Q | | R | | W | | During FAT |
| 2. | ATEX | Certificate check | 100% | E.P.M. 9.1.1 | EN 10204 - 3.1 | Ex certificate | Q | | R | | W | | During FAT |
| 3. | Ingress Protection | Certificate check | 100% | E.P.M. 9.1.1 | EN / IEC 60529 | IP 65 Certificate | Q | | R | | W | | During FAT |

MC/Client:
Check of wiring shall be added

MC/Client:
please add the new column for MC/Owner

INSPECTION & TEST PLAN (ITP) FACTORY ACCEPTANCE TEST

| Activity No. | Inspection Activity | Characteristic to be verified | Extent of Examination | Reference Document | Acceptance Criteria | Verifying Document | Participation | | | | | | REMARKS |
|-----------------------------------|---------------------|-----------------------------------|-----------------------|----------------------------------|----------------------|---|---------------|------|----------|------|-------------|------|---------------------------------|
| | | | | | | | Airpack | | Customer | | Enduser/TPA | | |
| | | | | | | | Code | Date | Code | Date | Code | Date | |
| L. Manufacturing Data Book | | | | | | | | | | | | | |
| 1. | Content | Content check | 100% | Index Manufacturing Data Book | Inspection Test Plan | Manufacturing Data Book | Q | | R | | RA | | |
| M. Test Instruments | | | | | | | | | | | | | |
| 1. | Calibration | Certificate check | 100% | - | - | Calibration certificate | Q | | W | | R | | |
| N. Mechanical checks | | | | | | | | | | | | | |
| 1. | Quality | Visual check | 100% | General Arrangement Drawing P&ID | FAT Procedure | Signed FAT Procedure; attachment 2: equipment check list | Q | | W | | R | | |
| 2. | P&ID Review | Visual check | 100% | P&ID | FAT Procedure | Signed FAT Procedure; attachment 2: equipment check list | Q | | W | | R | | |
| 3. | Dimensions | Visual check Measurement check | 100% | General Arrangement Drawing | FAT Procedure | Signed FAT Procedure; attachment 2: equipment check list | Q | | W | | W | | |
| 4. | Painting | Visual check | Random | Painting procedure | FAT Procedure | Signed FAT Procedure; attachment 2: equipment check list | Q | | W | | SW | | |
| 5. | Junction boxes | Visual check | 100% | Wiring diagram Panel lay-out | FAT Procedure | Signed FAT Procedure; attachment 2: equipment check list | Q | | W | | SW | | |
| 6. | Instruments | Visual check | 100% | Wiring diagram P&ID | FAT Procedure | Signed FAT Procedure; attachment 2: equipment check list | Q | | W | | W | | |
| O. Performance Test | | | | | | | | | | | | | |
| 1. | Performance | Performance check | 100% | P&ID | FAT Procedure | Signed FAT Procedure; attachment 4: performance test result | W | | W | | H | H | Performance test per compressor |

INSPECTION & TEST PLAN (ITP) PACKING

| Activity No. | Inspection Activity | Characteristic to be verified | Extent of Examination | Reference Document | Acceptance Criteria | Verifying Document | Participation | | | | | | REMARKS |
|----------------------------------|-------------------------|-------------------------------|-----------------------|--------------------|---|--------------------------------|---------------|------|----------|------|-------------|------|---------|
| | | | | | | | Airpack | | Customer | | Enduser/TPA | | |
| | | | | | | | Code | Date | Code | Date | Code | Date | |
| P. Punch List | | | | | | | | | | | | | |
| 1. | Punch items | Close out check | 100% | - | - | Signed Punch List | W | | W | | H | | |
| Q. Packing and Marking | | | | | | | | | | | | | |
| 2. | Quantity | Quantity check | 100% | - | Packing and Preservation Procedure Commissioning and Start-up Spare Part List | Signed Packing List | Q | | W | | W | | |
| 2. | Packing | Visual check | 100% | - | Packing and Preservation Procedure | Signed Packing List | Q | | W | | | | |
| 2. | Marking | Visual check | 100% | - | Packing and Preservation Procedure | Signed Packing List | Q | | W | | | | |
| R. Release of the Package | | | | | | | | | | | | | |
| 1. | Inspection Release Note | - | - | - | Signed ITP | Signed Inspection Release Note | Q | | H | | H | | |

**PART 2: Client Comments on ITP; Doc no:
3944-VD-0171-DYP-RE-400-ITP-0120:
Please see client separate comments in Next
Pages for AirPack part.**

INSPECTION AND TEST PLAN (ITP)

Inspection and Test Plan Number 23383-08

Contract Number:
Customer:
Contractor:
Project:

Inspection and Test Plan For:
Screw Compressor & Roots Blower Package



DRAWINGS FOR APPROVAL

Format of this document need to modify accordance with project documentation.



For drawings and documents for approval, with Airpack reference number 23383-01.

LIST OF ABBREVIATIONS:

H = HOLD POINT

Means that a hold shall be applied to the production schedule.

For materials: the buyer must be invited for the inspection / test and the inspection / test must be carried out with the buyer in attendance.

For drawings / documents: Airpack must receive approved drawings / documents, stamped by buyer.

R = REVIEW POINT

Means that documents shall be available at final inspection for review as part of the data book.

W = WITNESS POINT

Means that the buyer requires notification of the inspection timing. However, if the inspection is performed as scheduled and if the buyer is not present, Airpack will carry out the test and proceed with production.

Q = QUALITY INSPECTION

Means that fabricated/purchased materials / parts of the package are checked by Airpack to be in accordance with the specifications.

RA= Review and Approve

E.P.M. = Engineering and Production Manual (mandatory reference - ISO)

TPA = Thirty Party Agency

A= Approval



for all welding activities of all parts need to be added NDT and Weld map ar required, WPS&PQR, Welder Qualification Certificates, NDT person Certificates and NDT procedurs

TPA

INSPECTION & TEST PLAN (IT) SKID AND AIR PIPING

| Activity No. | Inspection Activity | Characteristic to be verified | Extent of Examination | Reference Document | Acceptance Criteria | Verifying Document | Participation | | | | | | REMARKS |
|--|---------------------|--|-----------------------|----------------------------|-----------------------------|--------------------------------------|---------------|------|----------|------|-----------|------|---------|
| | | | | | | | Airpack | | Customer | | Enduser | | |
| | | | | | | | Code | Date | Code | Date | Code | Date | |
| Pre Inspection meeting need to be added | | | | | | | | | | | | | |
| A. Skid (S235) | | | | | | | | | | | | | |
| 1. | Materials | Visual check Certificate check | 100% | E.P.M. 11.1.1 | EN 10204 3.1 | 2.2 Material certificate | Q | | R | | W | | |
| Add the WPS &PQR RA,RA,RA | | | | | | | Q | | R | | RA | | |
| 2. | Welds | Welds check | 100% Lifting lugs | E.P.M. 11.4 | NDT procedure | NDT certificate | Q | | R | | R | | |
| 3. | Dimensions | Dimensional check | Random | E.P.M. 11.3 | General Arrangement Drawing | General Arrangement Drawing as built | Q | | R | | W | | |
| 4. | Painting | Certificate check Paint thickness check | Random | E.P.M. 14.2.1 | Painting procedure | Painting report | Q | | R | | W | | |
| B. Air piping (outside enclosure) | | | | | | | | | | | | | |
| 1. | Materials | Visual check Certificate check | 100% | E.P.M. 7.2.1 | EN 10204 3.1 | 3.1 Material certificate | Q | | R | | RA | | |
| Add the WPS &PQR RA,RA,RA | | | | | | | Q | | R | | R | | |
| 2. | Welds | Welds check | 5% | ASME B31.3 | NDT procedure | NDT Certificate | Q | | R | | R | | |
| 3. | Hydrostatic Test | Welds check | 100% | E.P.M. 7.3.1 ASME B31.3 | Hydrostatic Test Procedure | Hydrostatic Test Certificate | Q | | R | | W | | |
| 4. | Painting | Certificate check Paint thickness check | Random | E.P.M. 14.2.3 | Painting procedure | Painting report | Q | | R | | W | | |



The below mentioned items should be added to Compressor and blower test:

| | Vendor | DYPNF | TPI/ Client | Acceptance Criteria |
|---|--------|-------|-------------|-------------------------------|
| 1. Screw Balance test (main and spare screws): | H | H | W / R | ISO 1940 & approved procedure |
| 2. MRT & Performance Test (FAT) (Consist of vibration, sound, temperature measurement) | H | H | W / R | API 619/Approved procedure |
| 3. Lube Oil Unit Functional Test (During MRT) | H | H | W / R | API 619/Approved procedure |
| 4. Surface preparation prior to painting ,coating, lining | H | H | W / R | Approved procedure |
| 5. Base plate Test (If Applicable) | H | H | W / R | Approved procedure |
| 6. Complete Unit test | H | H | W / R | Approved procedure |
| 7. Hydrostatic test (for pressure containing parts such as casing, vessels, ...) | H | H | W / R | Approved procedure |

TPA

| Activity No. | Inspection Activity | Enduser | | REMARKS | | | | |
|---------------------------|--|-------------------------|---------------|---|--------------------------------------|---|----|---|
| | | Code | Date | | | | | |
| C. Compressor/blow | | | | | | | | |
| 1. | Materials Visual check Certificate check | 100% | E.P.M. 7.2.1 | EN 10204 3.1 3.1 inspection certificate for compressor/blower stage 2.2 works certificate 3.1 material certificate for silencer and compensator | Q | R | RA | |
| 2. | Components Visual check | Random | E.P.M. 2.1 | Equipment data sheet | Equipment data sheet approved | Q | R | |
| 3. | Dimensions Dimensional check | Random | E.P.M 2.2.3 | General Arrangement Drawing | General Arrangement Drawing as built | Q | R | |
| 4. | Painting Certificate check Paint thickness check | Random | E.P.M. 14.2.3 | Painting procedure | Painting report | Q | R | |
| D. Main E-motor | | | | | | | | |
| 1. | Components Visual check | Random 100 % | E.P.M. 3.1 | Motor data sheet | Motor data sheet as built | Q | R | W |
| 2. | Dimensions Dimensional check | Random 100 % | E.P.M. 3.1.4 | Motor drawing | Motor drawing as built | Q | R | |
| 3. | Performance Certificate check | 100% | E.P.M. 3.1 | IEC 60034-1 | Routine Test Certificate | Q | R | |
| 4. | Painting Certificate check Paint thickness check | Random | E.P.M. 14.2.1 | Painting procedure | Painting report | Q | R | |

Oil demister motor tests should be added

- MV Motor :**
- 1- Insulation resistance test
 - 2- Temperature rise test
 - 3- High voltage test
 - 4- Motor Junction Box,Gland and Termination Check
 - 5- IP Test Certificate for enclosure & terminal box
 - 6- EX Certificate
 - 7- Protection Device Operation Test
 - 8- PT 100 sensor Check
 - 9- Type test certificate's review
 - 10- No-load test
 - 11- Locked-rotor test
- LV Motor :**
- 1- Insulation resistance test
 - 2- Motor Junction Box,Gland and Termination Check
 - 3- IP Test Certificate for enclosure & terminal box
 - 4- EX Certificate
 - 5- Protection Device Operation Test
 - 6- Type test certificate's review
 - 7- No-load test
 - 8- Locked-rotor test

| | Vendor | DYPNF | TPI / Client |
|-----|--------|-------|--------------|
| 1- | H | H | W |
| 2- | H | H | W |
| 3- | H | H | W |
| 4- | H | H | W |
| 5- | H | RA | W |
| 6- | H | RA | W |
| 7- | H | W | W |
| 8- | H | W | W |
| 9- | H | W | W |
| 10- | H | W | W |
| 11- | H | W | W |
| 1- | H | H | W / RA |
| 2- | H | H | W / RA |
| 3- | H | RA | W / RA |
| 4- | H | RA | W / RA |
| 5- | H | W | W / RA |
| 6- | H | W | W / RA |
| 7- | H | W | W / RA |
| 8- | H | W | W / RA |



INSPECTION & TEST PLAN (ITP) INSTRUMENTATION AND VALVES

TPA

| Activity No. | Inspection Activity | Characteristic to be verified | Extent of Examination | Reference Document | Acceptance Criteria | Verifying Document | Participation | | | | | | REMARKS |
|--|---------------------|-----------------------------------|-----------------------|------------------------------|---------------------|--------------------|--------------------------|------|----------|------|---------|------|---------|
| | | | | | | | Airpack | | Customer | | Enduser | | |
| | | | | | | | Code | Date | Code | Date | Code | Date | |
| E. Pressure/Temperature Gauges | | | | | | | | | | | | | |
| 1. | Materials | Visual check Certificate check | 100% | E.P.M. 8.1 / 8.2 | EN 10204 | 3.1 | 3.1 Material certificate | Q | | R | | R | |
| 2. | Calibration | Certificate check | 100% | E.P.M. 8.1 / 8.2 | EN 10204 | | Calibration certificate | Q | | R | | R | |
| F. Pressure/Temperature Transmitter | | | | | | | | | | | | | |
| 1. | Materials | Visual check Certificate check | 100% | E.P.M. 8.3 / 8.4 / 8.6 / 8.8 | EN 10204 | | 3.1 Material certificate | Q | | R | | R | |
| 2. | Calibration | Certificate check | 100% | E.P.M. 8.3 / 8.4 / 8.6 / 8.8 | EN 10204 | | Calibration certificate | Q | | R | | R | |
| 3. | ATEX | Certificate check Label check | 100% | E.P.M. 8.3 / 8.4 / 8.6 / 8.8 | EN 60079 | | Ex certificate | Q | | R | | R | |
| 4. | SIL | Certificate check | 100% | E.P.M. 8.3 / 8.4 / 8.6 / 8.8 | IEC 62061 | | SIL Certificate | Q | | R | | R | |
| 5. | Ingress Protection | Certificate or declaration check | 100% | E.P.M. 8.3 / 8.4 / 8.6 / 8.8 | EN / IEC 60529 | | IP 65 Certificate | Q | | R | | R | |

| G. Hand Valves and Strainers | | | | | | | | | | | | | |
|-------------------------------------|-------------|--|--------|-------------|---------------------|--------------------------|---|--|---|--|-----------|--|--|
| 1. | Materials | Visual check Certificate check | 100% | E.P.M. 8.12 | EN 10204 3.1 | 3.1 Material certificate | Q | | R | | RA | | |
| 2. | Painting | Certificate check Paint thickness check | Random | E.P.M. 14.2 | Painting procedure | Painting report | Q | | R | | | | |
| H. Check Valves | | | | | | | | | | | | | |
| 1. | Materials | Visual check Certificate check | 100% | E.P.M. 8.13 | EN 10204 3.1 | 3.1 Material certificate | Q | | R | | RA | | |
| 3. | Painting | Certificate check Paint thickness check | Random | E.P.M. 8.13 | Painting procedure | Painting report | Q | | R | | | | |
| I. Solenoid Valves | | | | | | | | | | | | | |
| 1. | Materials | Visual check Certificate check | 100% | E.P.M. 8.14 | EN 10204 3.1 | 3.1 Material certificate | Q | | R | | RA | | |
| 2. | Calibration | Certificate check | 100% | E.P.M. 8.14 | EN 10204 | Calibration certificate | Q | | R | | | | |
| 3. | ATEX | Certificate check Label check | 100% | E.P.M. 8.14 | EN 60079 | Ex certificate | Q | | R | | | | |

| J. <u>Pressure Safety Valves</u> | | | | | | | | | | | | |
|----------------------------------|------------------|--|--------|-------------|---------------------|--|---|--|---|--|-----------|--|
| 1. | Materials | Visual check Certificate check | 100% | E.P.M. 8.5 | EN 10204 3.1 | 3.1 Material certificate | Q | | R | | RA | |
| 2. | Calibration | Certificate check | 100% | E.P.M. 8.5 | API Std 526 | Calibration certificate | Q | | R | | | |
| 3. | Leakage Test | Certificate check | 100% | E.P.M. 8.5 | API Std 527 | Hydrostatic Test Certificate | Q | | R | | | |
| 4. | Hydrostatic Test | Certificate check | 100% | E.P.M. 8.5 | ASME UV STAMP div.1 | Hydrostatic Test Certificate UV Stamp | Q | | R | | | |
| 5. | Painting | Certificate check Paint thickness check | Random | E.P.M. 8.13 | Painting procedure | Painting report | Q | | R | | | |



INSPECTION & TEST PLAN (ITP) ELECTRIC PANEL

TPA

| Activity No. | Inspection Activity | Characteristic to be verified | Extent of Examination | Reference Document | Acceptance Criteria | Verifying Document | Participation | | | | | | REMARKS |
|--------------|---------------------|-------------------------------|-----------------------|--------------------|----------------------|-------------------------------|---------------|------|----------|------|---------|------|---------|
| | | | | | | | Airpack | | Customer | | Enduser | | |
| | | | | | | | Code | Date | Code | Date | Code | Date | |
| K. | Junction Box | | | | | | | | | | | | |
| 1. | Dimensions | Visual check | 100% | E.P.M. 9.1.1 | Panel Layout Drawing | Panel Layout Drawing as built | Q | | R | | W | | |
| 2. | ATEX | Certificate check | 100% | E.P.M. 9.1.1 | EN 10204 3.1 | Ex certificate | Q | | R | | | | |
| 3. | Ingress Protection | Certificate check | 100% | E.P.M. 9.1.1 | EN / IEC 60529 | IP 65 Certificate | Q | | R | | | | |



INSPECTION & TEST PLAN (ITP) FACTORY ACCEPTANCE TEST

TPA

| Activity No. | Inspection Activity | Characteristic to be verified | Extent of Examination | Reference Document | Acceptance Criteria | Verifying Document | Participation | | | | | | REMARKS |
|-----------------------------------|---------------------|-----------------------------------|-----------------------|----------------------------------|----------------------|--|---------------|------|----------|------|---------|------|---------|
| | | | | | | | Airpack | | Customer | | Enduser | | |
| | | | | | | | Code | Date | Code | Date | Code | Date | |
| L. Manufacturing Data Book | | | | | | | | | | | | | |
| 1. | Content | Content check | 100% | Index Manufacturing Data Book | Inspection Test Plan | Manufacturing Data Book | Q | | R | | RA | | |
| M. Test Instruments | | | | | | | | | | | | | |
| 1. | Calibration | Certificate check | 100% | - | - | Calibration certificate | Q | | W | | R | | |
| N. Mechanical checks | | | | | | | | | | | | | |
| 1. | Quality | Visual check | 100% | General Arrangement Drawing P&ID | FAT Procedure | Signed FAT Procedure; attachment 2: equipment check list | Q | | | | R | | |
| 2. | P&ID Review | Visual check | 100% | P&ID | FAT Procedure | Signed FAT Procedure; attachment 2: equipment check list | Q | | | | R | | |
| 3. | Dimensions | Visual check Measurement check | 100% | General Arrangement Drawing | FAT Procedure | Signed FAT Procedure; attachment 2: equipment check list | Q | | | | R | | |
| 4. | Painting | Visual check | Random | Painting procedure | FAT Procedure | Signed FAT Procedure; attachment 2: equipment check list | Q | | | | R | | |
| 5. | Junction boxes | Visual check | 100% | Wiring diagram Panel lay-out | FAT Procedure | Signed FAT Procedure; attachment 2: equipment check list | Q | | | | R | | |
| 6. | Instruments | Visual check | 100% | Wiring diagram P&ID | FAT Procedure | Signed FAT Procedure; attachment 2: equipment check list | Q | | | | R | | |



INSPECTION & TEST PLAN (ITP) PACKING

TPA

| Activity No. | Inspection Activity | Characteristic to be verified | Extent of Examination | Reference Document | Acceptance Criteria | Verifying Document | Participation | | | | | | REMARKS |
|----------------------------------|-------------------------|-------------------------------|-----------------------|--------------------|---|--------------------------------|---------------|------|----------|------|---------|------|---------|
| | | | | | | | Airpack | | Customer | | Enduser | | |
| | | | | | | | Code | Date | Code | Date | Code | Date | |
| Q. Punch List | | | | | | | | | | | | | |
| 1. | Punch items | Close out check | 100% | - | - | Signed Punch List | W | | W | | R | | |
| P. Packing and Marking | | | | | | | | | | | | | |
| 1 | Quantity | Quantity check | 100% | - | Packing and Preservation Procedure Commissioning and Start-up Spare Part List | Signed Packing List | Q | | W | | R | | |
| 2 | Packing | Visual check | 100% | - | Packing and Preservation Procedure | Signed Packing List | Q | | | | R | | |
| 3 | Marking | Visual check | 100% | - | Packing and Preservation Procedure | Signed Packing List | Q | | | | R | | |
| Q. Release of the Package | | | | | | | | | | | | | |
| 1. | Inspection Release Note | - | - | - | Signed ITP | Signed Inspection Release Note | Q | | H | | H | | |