



ASPC Project



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

Airpack Document Number : 23383-08

Document Title : Inspection & Test Plan

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

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|----------|---------------------|------------|-------------|------------|-------------|
| | | | | | |
| 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 |

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)
- A = Approval**

INSPECTION & TEST PLAN (ITP) PIM

| 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 | |
| <u>A.</u> | <u>PIM</u> | | | | | | | | | | | | |
| 1. | Pre-inspection meeting | Document review | 100% | Purchase order approved ITP approved procedures | MR, PO | ITP (23383-08) | H | | H | | R | | |

INSPECTION & TEST PLAN (ITP) SKID

| 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 | | 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 | | R | | |
| 3. | NDT | Welds check | 100% Lifting lugs | E.P.M. 11.4 | NDT procedure | MT certificate | Q | | R | | R | | |
| 4. | Dimensions | Dimensional check | Random | E.P.M. 11.3 | General Arrangement Drawing | General Arrangement Drawing as built | Q | | W | | W | | During FAT |
| 5. | Painting | Certificate check Paint thickness check | Random | E.P.M. 14.2.1 | Painting procedure | Painting report | Q | | W | | W | | During FAT |

INSPECTION & TEST PLAN (ITP) E-MOTOR COMPRESSOR

| 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 | | |

INSPECTION & TEST PLAN (ITP) INSTRUMENTATION AND VALVES

| 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 | |
| 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 | | |
| E. 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 | | 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 | | |
| 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 | | RA | | |
| 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

| 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 | | W | | W | | During FAT |
| 2. | ATEX | Certificate check | 100% | E.P.M. 9.1.1 | EN 10204 - 3.1 | Ex certificate | Q | | R | | R | | During FAT |
| 3. | Ingress Protection | Certificate check | 100% | E.P.M. 9.1.1 | EN / IEC 60529 | IP 65 Certificate | Q | | R | | R | | During FAT |

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 | | R | | |
| 4. | Painting | Visual check | Random | Painting procedure | FAT Procedure | Signed FAT Procedure; attachment 2: equipment check list | Q | | W | | R | | |
| 5. | Junction boxes | Visual check | 100% | Wiring diagram Panel lay-out | FAT Procedure | Signed FAT Procedure; attachment 2: equipment check list | Q | | W | | R | | |
| 6. | Instruments | Visual check | 100% | Wiring diagram P&ID | FAT Procedure | Signed FAT Procedure; attachment 2: equipment check list | Q | | W | | R | | |
| O. Performance Test | | | | | | | | | | | | | |
| 1. | Performance | Performance check | 100% | P&ID | FAT Procedure | Signed FAT Procedure; attachment 4: performance test result | W | | W | | R | 1 performance test per type 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. | <u>Punch List</u> | | | | | | | | | | | | |
| 1. | Punch items | Close out check | 100% | - | - | Signed Punch List | W | | W | | R | | |
| Q. | <u>Packing and Marking</u> | | | | | | | | | | | | |
| 2. | Quantity | Quantity check | 100% | - | Packing and Preservation Procedure Commisioning 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 | | W | | R | | |
| 2. | Marking | Visual check | 100% | - | Packing and Preservation Procedure | Signed Packing List | Q | | W | | R | | |
| R. | <u>Release of the Package</u> | | | | | | | | | | | | |
| 1. | Inspection Release Note | - | - | - | Signed ITP | Signed Inspection Release Note | Q | | H | | H | | |