Sazeh RED Comment: This procedure just cover the valve run test. Other rotating equipment such as compressor, fan, blower to be added to this procedure.
Based on Approved ITP; below items to be added.

1- Compressor & Blowers
2- Fan
3- Rotary Feeder / Rotary Valves /Conveying Station

MECHANICAL RUNNING TEST PROCEDURE FOR ROTARY EQUIPMENT AND VALVES

P.O. No.:	SHAU23-006-DYPNF-ASS
MR. No.:	3944-SZP-RE-800-MRQ-0180
Item No. (Equipment No.):	PELLET CONVEYING SYSTEM(W-80001)
Vendor Job No.:	PC2312

RESULT CODE : ☐AP ☐AN ☒CO ☐RE
NEXT STATUS : ☐ IFI ☑ IFA ☐ AFC ☐ ASB or FIN
RESUBMISSION DATE :
Approval or review hereunder shall not be considered to relieve Vendor/ Subcontractor of his responsibilities and liability under the Contract.

M.Shakiba 12-Sep-2025

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

CONTRACTOR:	300 KT POLYETHYLENE PLANT ARYA SASOL POLYMER COMPANY (ASPC)	OWNER:
VENDOR LOGO:	MECHANICAL RUNNING TEST PROCEDURE FOR ROTARY EQUIPMENT AND VALVES	MC:

Owner Document Number :	OWNER Project No.	Vendor DOC.	MR No.	Vendor Code	Discipline	Unit	Type	Seq. No	Rev.:	Page
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ASPC Rotary:
Reference documents shall be added.

Project definitions

Project name : 300 KT POLYETHYLENE PLANT

Owner : Arya Sasol Polymer Company (ASPC)

MC : ISEDCO

Purchaser : SAZEH

Vendor : DYPNF

1. Scope

RED-1: Please add the name of equipment which this procedure cover mechanical run these for them.

1.1 This procedure describes the requirements of inspection and tests for ASPC Project

RED-2: Please add the applicable codes and standards for compressor, fan, blower as well.

2. Applicable Code, Standards and Specification

2.1	API 598	Valve Inspection and Testing	**2023Edition**
2.2	MSS SP-25	Standard Marking System for Valve, Fitting, Flanges, and Unions	**2018Edition**
2.3	MSS SP-55	Quality Standard for Steel Castings for Valves, Flange, Fittings, and Other Piping Components	**2011Edition**

RED-3: Reference document shall be added as well.

RED-17: Please add:
1- Before perform the test all internals of valves shall be cleaned.
2- Be sure that actuator or gear box is installed and aligned.
3- All measuring instrumentation shall be calibrated and have certificates to submit third part.
4- No abnormal condition of friction shall be existed after test.

3. Operation Inspection

3.1 Assembly Check

RED-4: this sentence is not clear.

3.1.1 Dimension check shall be performed in accordance with assembly drawings.
Note, however, that the tolerance for when there is no requierment rotor clearance ± 0.05 mm or generally according to approved data sheet & drawing

3.2 Operation Check

RED-5: This section shall be defined for each equipment separately.
Tag no. of each equipment which the procedure could be applicable for those shall be mentioned at above of procedure.

(Applicable Item shall be according to inspection and test pla

7.2.1 Operation check shall be performed in accordance with assembly drawing & data sheet.

7.2.2 During the operation test, shall be check following items & mechanical shut off and full open the valve

After test, shall be submit test report

RED-6: What do you mean "mechanical shut off"?
Which valve?
For which equipment?

RED-7: To be explain for the acceptance criteria for each part.

1) Geared Motor specification
2) Interference
3) Voltage, Ampere
   - Voltage : ±5%
   - Ampere : less than rating (Gear speed reducer with rotary feeder)

RED-8: Motor test procedure shall be submitted at type and routine test procedure for electrical motor and deleted at this document.

RED-9: Please add the job vibration sensor will be used.

4) Vibration of the bearing housing

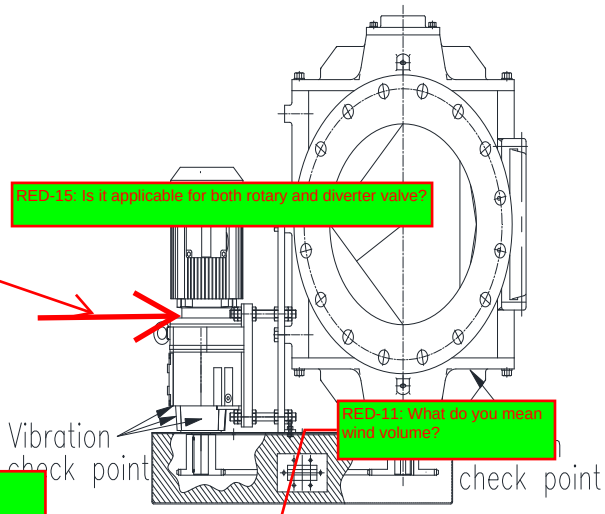
- Gear speed reducer with rotary feeder

Table 7. Vibration value

Size	R.m.s velocity
≤ 6"	
≤ 14"	2.3 ㎜/s Max.
≤ 16"	2.8 ㎜/s Max.
≤ 24"	4.5 ㎜/s Max.
≤ 30"	

ASPC Rotary:
This point should be added to vibration check point.

RED-15: Is it applicable for both rotary and diverter valve?



RED-11: What do you mean wind volume?

RED-10: Noise tester??
Please add the technical name of instrument.

5) Noise

Use the noise tester to measure noise at a specified revolution and wind volume

- For the sound radiating from the inlet and outlet ; Measure noise across the diameter of the casing or at a distance of 1 meter, whichever is larger.
- Maximun 85db for if applicable item

RED-12: The acceptable criteria for noise level is max : 85 dB from 1 meter of each side of equipment's skid.

6) On & Off

- Check smoothness of open & closed.

7) Fail Safe Requirement

- All instruments, pneumatic o e safest position or lock in place upon instrument air or electrical p

RED-13: Please add the procedure for instrumentation and control valves which show the passing fail safe condition.

- Control valves which are required to fail safe on instrument air failure shall normally be equipped with spring load actuator. Use of accumulator (volume tank) to meet control valve fail safe positions shall be minimized.
- Input contacts to alarm, interlock and emergency shutdown system shall be closed during normal operation and open on alarm or trip.
- Solenoids shall be energized during normal operation and de-energized on trip.

8) Opening Rate for Control Valve

- Position signal versus Position (0%, 25%, 50%, 75%, 100%).
- Valve stroking (Open & Close)
- Power failure mode or air failure (Open & Close)

9) Actuators

- Actuators shall also be sized to drive valve full stroke (full open - full close) within the time as specified below, unless otherwise specified Approved Data Sheet

Table 8. Actuators speed(full open - full close) value

ASPC Rotary / Sazeh RED: This paragraphs are repeated and should be deleted.

~~7) Fail Safe Requirement~~

~~- All instruments, pneumatic or electronic, shall fail to the safest position or lock in place upon instrument air or electrical power failure.~~

~~- Control valves which are required to fail safe on instrument air failure shall normally be equipped with spring load actuator. Use of accumulator (volume tank) to meet control valve fail safe positions shall be minimized.~~

~~- Input contacts to alarm, interlock and emergency shutdown system shall be closed during normal operation and open on alarm or trip.~~

~~- Solenoids shall be energized during normal operation and de-energized on trip.~~

~~8) Opening Rate for Control Valve~~

~~- Position signal versus Position (0%, 25%, 50%, 75%, 100%).~~

~~- Valve stroking (Open & Close)~~

~~- Power failure mode or air failure (Open & Close)~~

~~9) Actuators~~

~~- Actuators shall also be sized to drive valve full stroke (full open - full close) within the time~~ as ~~specified below, unless otherwise specified Approved Data Sheet~~

Table 8. Actuators speed(full open - full close) value

Body Size	Control Valves	On-Off Valve	Operation pressure
2” and below	less than 10 sec.	less than 3 sec.	Minimum 3.39bar(0.39MPa)
3” and 4”	less than 15 sec.	less than 4 sec.	Minimum 3.39bar(0.39MPa)
6”	less than 20 sec.	less than 6 sec.	Minimum 3.39bar(0.39MPa)
8"	less than 35 sec.	less than 10 sec.	Minimum 3.39bar(0.39MPa)
10”	less than 50 sec.	less than 15 sec.	Minimum 3.39bar(0.39MPa)
10” and above	less than 60 sec.	less than 20 sec.	Minimum 3.39bar(0.39MPa)

RED-14: is it applicable for both rotary and diverter valve?

10) RPM

- RPM data according to approved drawing & data sheet.
- Accepatance criteria : ±10%

RED-15: Following items shall be added/specify:
1- Measuring of Oil temperature of bearing and accepted limitation
2- The duration to run no load of valve