

Argon Cylinder Regulator Replacement - JSA - B

en-US · Technical failure review · v1.0 · 2026-10-12 · Sources: article section 9

Site: | Item ID: | Work area:

Approval	Work supervisor	Technical reviewer	Release / handover authority

1. Job details and team signatures

Date / time	Location / area		Assessor		Supervisor	
Team signatures						

2. Conditions and hold points

Stage	Time	Location / area	Environment / readings	Item / condition	Controls	Plant / tools	Approval / signature
HP-0 Start							
HP-1 Isolate and bleed							
HP-2 Fit replacement							
HP-3 Leak check							
HP-4 Hand over							

Complete after actual checks. Recheck after changes, defects or shift handover.

3. JSA risk assessment

Job stage	Hazards and effects	Failure factors	Technical and procedural controls	Site verification	P	S	R	A
1. Secure and ventilate	1. Valve impact 2. Oxygen displacement 3. Blocked escape	1. Handling by regulator 2. Enclosed leak location 3. Work zone obstructed	1. Use suitable cylinder cart 2. Assess release ventilation 3. Keep exit and zone clear	1. Valve protection condition 2. Ventilation assessment 3. Oxygen-monitoring needs				
2. Isolate and bleed	1. Hose movement 2. Cold gas contact 3. Unexpected process flow	1. Downstream pressure trapped 2. Unsafe bleed direction 3. Process not stopped	1. Close designated isolation 2. Bleed by approved route 3. Verify pressure removed	1. Both pressure indications 2. Bleed path verification 3. Downstream stop record				
3. Remove regulator	1. Hand injury 2. Cylinder movement 3. Contaminated connection	1. Wrong wrench used 2. Cylinder restraint lost 3. Open inlet left exposed	1. Use specified hand tools 2. Maintain secure restraint 3. Protect clean connections	1. Tool and access check 2. Cylinder remains secured 3. Removed part condition				
4. Fit replacement	1. Seal failure 2. Regulator damage 3. Gas incompatibility	1. Thread damage ignored 2. Excess fitting force 3. Tape used on wrong joint	1. Inspect mating surfaces 2. Use specified seal only 3. Keep body unstressed	1. Seal and surface check 2. Assembly method record 3. Orientation and support				
5. Leak check	1. Gas accumulation 2. Hose whip 3. Process overpressure	1. Ventilation ineffective 2. Outlet not controlled 3. Wrong test pressure	1. Keep release path clear 2. Use approved leak method 3. Stay within equipment limits	1. Leak result recorded 2. Ventilation functioning 3. Outlet pressure setting				
6. Correct a fault	1. Worsening leakage 2. Oxygen-deficient area 3. Repeat seal failure	1. Cause not identified 2. Alarm disregarded 3. Damaged parts reused	1. Relieve trapped pressure 2. Withdraw on gas alarm 3. Replace defective parts	1. Compatibility rechecked 2. Safe atmosphere evidence 3. Retest result and release				

P/S/R/A: Complete only after actual site assessment using the site risk method.

4. Pre-work checklist

☐ Valve protection condition	☐ Both pressure indications	☐ Tool and access check
☐ Seal and surface check	☐ Leak result recorded	☐ Compatibility rechecked
☐ Oxygen-monitoring needs	☐ Orientation and support	☐ Retest result and release