

Process-instrument impulse tubing - JSA - B

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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 verify							
HP-2 Assemble and support							
HP-3 Test controlled boundary							
HP-4 Restore and transfer							

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. Prepare access	1. Spill exposure 2. Dropped tool 3. Blocked escape	1. Drain destination unknown 2. Work below occupied 3. Hoses cross access	1. Plan controlled collection 2. Separate area below 3. Keep escape route open	1. Collection route 2. Area boundary 3. Emergency access				
2. Isolate and verify	1. Hot residual liquid 2. Pressure reaccumulation 3. Unexpected backflow	1. Vent path blocked 2. Valve leakage ignored 3. Boundary incomplete	1. Vent/drain by approved route 2. Verify safe residual state 3. Monitor possible reaccumulation	1. Vent/drain verification 2. Temperature/energy state 3. Recheck requirements				
3. Cut and form tube	1. Contaminated instrument 2. Tube cracks 3. Wrong pressure capability	1. Bend forced 2. Wall/material wrong 3. Open ends exposed	1. Cut/debur by instructions 2. Use proper forming tools 3. Clean and cap ends	1. Ends and cleanliness 2. Bend/support detail 3. Damage inspection				
4. Assemble and support	1. Fatigue leak 2. False pressure signal 3. Instrument overload	1. Tube not seated 2. Supports omitted 3. Hookup slope guessed	1. Follow new/reassembly method 2. Fit designed supports 3. Follow service-specific hookup	1. Assembly procedure 2. Supports/thermal movement 3. High/low and routing				
5. Test controlled boundary	1. Unseen leakage 2. Instrument damage 3. Wrong acceptance	1. Leak felt by hand 2. Device unprotected 3. Pressure guessed	1. Exclude release paths 2. Protect instrument as specified 3. Record required test results	1. Pressure and criteria 2. Instrument protection 3. Leak and function evidence				
6. Hold fault and retest	1. Repeated release 2. Wrong part reused 3. False restart	1. Cause not identified 2. Parts untraceable 3. Affected tests skipped	1. Identify affected assembly 2. Replace by matched method 3. Repeat affected tests	1. Safe residual state 2. Replacement traceability 3. Retest and disposition				

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

4. Pre-work checklist

☐ Collection route	☐ Vent/drain verification	☐ Ends and cleanliness
☐ Assembly procedure	☐ Pressure and criteria	☐ Safe residual state
☐ Emergency access	☐ High/low and routing	☐ Retest and disposition