

Rectangular duct section lifting and assembly - JSA - C

en-SG · Supervision, records, handover · v1.0 · 2026-10-14 · 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 Review section and supports							
HP-2 Lift and align							
HP-3 Transfer load deliberately							
HP-4 Inspect and 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. Assembly and lift basis	1. Unbalanced section 2. Wrong duct installed 3. Support overloaded	1. Mass changed 2. Section IDs lost 3. Elbow centre ignored	1. Identify complete lifted assembly 2. Verify mass and centre 3. Accept support and lift plan	1. Assembly drawing and IDs 2. Load points and rigging basis 3. Hanger and anchor design				
2. Access coordination	1. Worker fall 2. Platform collision 3. Falling-object strike	1. Access capacity assumed 2. Lift path conflicts 3. Trades remain below	1. Verify permitted access setup 2. Coordinate movement envelope 3. Exclude and brief area below	1. Platform and lifting records 2. Clearances and rescue access 3. Team roles and signals				
3. Joint quality	1. Flange leakage 2. Sharp-edge cuts 3. Sealant exposure	1. Storage damage ignored 2. Joint parts substituted 3. SDS not reviewed	1. Inspect stored parts 2. Match actual joint system 3. Apply product precautions	1. Flange and edge condition 2. Gasket sealant and hardware 3. Joint method and SDS controls				
4. Load-transfer release	1. Hanger pullout 2. Sudden duct sag 3. Worker used as support	1. Anchors unaccepted 2. Transfer abrupt 3. Bolts treated as support	1. Verify full permanent load path 2. Use observed gradual transfer 3. Keep people outside fall zone	1. Hanger and anchor acceptance 2. Transfer steps and observer 3. Movement and release record				
5. Defect disposition	1. Progressive collapse 2. Hidden deformation 3. Unreviewed repair	1. Sag dismissed 2. Insulation starts early 3. Bracket improvised	1. Hold and secure through plan 2. Keep affected joints visible 3. Obtain technical correction	1. Section and hanger location 2. Safe support arrangement 3. Repair and reinspection evidence				
6. Insulation handover	1. Untested leakage 2. Premature system use 3. Open restriction lost	1. Seal appearance equals test 2. Assembly signoff misused 3. Records not linked	1. Separate acceptance stages 2. Record actual test status 3. Transfer drawings and holds	1. Support and joint inspections 2. Leakage test and use status 3. As-built and receiving owner				

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

4. Pre-work checklist

☐ Assembly drawing and IDs	☐ Platform and lifting records	☐ Flange and edge condition
☐ Hanger and anchor acceptance	☐ Section and hanger location	☐ Support and joint inspections
☐ Hanger and anchor design	☐ Movement and release record	☐ As-built and receiving owner