

Manual Milling of a Metal Block Face - 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 Isolate and fit cutter							
HP-2 Secure stock and path							
HP-3 Hold and correct							
HP-4 Clean 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. Job and machine review	1. Wrong material cut 2. Unsuitable machine 3. Incorrect part	1. Drawing obsolete 2. Machine limits absent 3. Exposure unassessed	1. Match stock and datum 2. Obtain machine instructions 3. Review coolant mist and noise	1. Stock and drawing version 2. Supplier and machine data 3. Exposure-control plan				
2. Retention acceptance	1. Cutter ejection 2. Block lifts 3. Vise shifts	1. Holder unsuitable 2. Poor jaw contact 3. Table bolts loose	1. Verify cutter retention 2. Check block and parallels 3. Check vise-table fastening	1. Tool holder and spindle 2. Grip after material removal 3. Fixture and bolt evidence				
3. Travel and feed review	1. Cutter strikes clamp 2. Sudden table feed 3. Tool breakage	1. Full path unchecked 2. Backlash ignored 3. Direction copied	1. Verify entire travel envelope 2. Review actual backlash 3. Use permitted cutting method	1. Clamp and end clearances 2. Feed and backlash basis 3. Speed feed and depth criteria				
4. Rotating-work control	1. Entanglement 2. Chip strike 3. Unexpected approach	1. Gloves near cutter 2. Guard bypassed 3. Hands clear chips	1. Remove gloves for rotation 2. Maintain guarding 3. Stop before chip removal	1. Dress and shield checks 2. Operator and access boundary 3. First-cut response				
5. Fault and part review	1. Repeat block release 2. Damaged cutter reused 3. Defective part accepted	1. Handle retightened only 2. Cause not found 3. Restart equals quality	1. Isolate and inspect interfaces 2. Correct and verify setup 3. Review affected material	1. Movement and damage findings 2. Correction and test release 3. Part measurement and hold				
6. Final transfer	1. Coasting contact 2. Unexpected restart 3. Lost setup restriction	1. Stop assumed immediate 2. Power left uncontrolled 3. Defect not passed	1. Verify standstill for cleanup 2. Secure unattended machine 3. Transfer settings and holds	1. Standstill and cleanup 2. Machine and part identity 3. Receiving person and actions				

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

4. Pre-work checklist

☐ Stock and drawing version	☐ Tool holder and spindle	☐ Clamp and end clearances
☐ Dress and shield checks	☐ Movement and damage findings	☐ Standstill and cleanup
☐ Exposure-control plan	☐ First-cut response	☐ Receiving person and actions