

Manual Milling of a Metal Block Face - JSA - B

en-SG · Technical failure review · 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. Inspect machine and area	1. Chip impact 2. Table crush 3. Electrical injury	1. Shield absent 2. Travel shares access 3. Coolant enters damaged supply	1. Provide eye and face protection 2. Clear movement envelope 3. Resolve leaks and power faults	1. Shield and protective equipment 2. Table and handle clearance 3. Supply and floor condition				
2. Isolate and fit cutter	1. Sharp-tool cuts 2. Tool release 3. Wrench projection	1. Tool unsupported 2. Holder unsuitable 3. Setup tool left in place	1. Support sharp tooling 2. Use specified retention 3. Remove keys pins and wrenches	1. Cutter and holder condition 2. Retention method and seating 3. Tools removed and cover restored				
3. Secure stock and path	1. Whole-vise movement 2. Cutter-bolt collision 3. Parallel ejection	1. Table fastening missing 2. Full travel unchecked 3. Support retention uncertain	1. Verify vise-to-table fixing 2. Check entire cutting path 3. Secure supports and clearance	1. Fixture fastening record 2. Cutter clamp and endpoint path 3. Parallels and support condition				
4. Feed and cut	1. Cutter fracture 2. Glove entanglement 3. Body trapped by table	1. Excess cut or damaged tool 2. Hands near rotation 3. Operator leans on travel	1. Apply specified cutting data 2. Remove gloves and secure clothing 3. Stop for movement or vibration	1. Speed feed and depth basis 2. Hands clothing and shielding 3. Stock and table movement				
5. Stop and inspect	1. Sharp-chip cuts 2. Hot-surface burn 3. Repeated dimensional defect	1. Chips removed by hand 2. Residual heat ignored 3. Datum or units wrong	1. Prevent restart for access 2. Use suitable chip tools 3. Measure against actual criteria	1. Restart prevention 2. Heat cutter position and burrs 3. Datum instrument value and units				
6. Hold and correct	1. Damaged-cutter fracture 2. Recurring collision 3. Unbriefed restart	1. Tool effects omitted 2. New path unverified 3. Hold not communicated	1. Inspect tool stock and fixture 2. Verify revised path and settings 3. Obtain restart release	1. Cutter holder support inspection 2. Correction and travel evidence 3. Release owner and time				

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

4. Pre-work checklist

☐ Shield and protective equipment	☐ Cutter and holder condition	☐ Fixture fastening record
☐ Speed feed and depth basis	☐ Restart prevention	☐ Cutter holder support inspection
☐ Supply and floor condition	☐ Stock and table movement	☐ Release owner and time