

Manual Milling of a Metal Block Face - JSA - A

en-SG · Basic task controls · 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. Review stock and drawing	1. Block ejection 2. Wrong-face cutting 3. Tool fracture	1. Datum confused 2. Material ID missing 3. Cutter mismatched	1. Match stock and drawing 2. Mark face and datum 3. Verify cutter application	1. Stock ID material and size 2. Drawing face and tolerance 3. Cutter and machine basis				
2. Isolate and fit cutter	1. Unexpected start 2. Sharp-tool cuts 3. Tool release	1. Power remains connected 2. Tool unsupported 3. Holder unsuitable	1. Apply required isolation 2. Support sharp tooling 3. Use specified retention	1. Isolation and actual stop 2. Cutter and holder condition 3. Retention method and seating				
3. Secure stock and path	1. Block lift 2. Whole-vise movement 3. Cutter-bolt collision	1. Jaw contact inadequate 2. Table fastening missing 3. Full travel unchecked	1. Verify block-to-vise grip 2. Verify vise-to-table fixing 3. Check entire cutting path	1. Block contact and grip depth 2. Fixture fastening record 3. Cutter clamp and endpoint path				
4. Feed and cut	1. Abrupt table movement 2. Cutter fracture 3. Glove entanglement	1. Backlash unreviewed 2. Excess cut or damaged tool 3. Hands near rotation	1. Use permitted feed direction 2. Apply specified cutting data 3. Remove gloves and secure clothing	1. Rotation feed and backlash 2. Speed feed and depth basis 3. Hands clothing and shielding				
5. Hold and correct	1. Repeated block lift 2. Damaged-cutter fracture 3. Recurring collision	1. Retightening ends review 2. Tool effects omitted 3. New path unverified	1. Stop and isolate 2. Inspect tool stock and fixture 3. Verify revised path and settings	1. Symptoms face and settings 2. Cutter holder support inspection 3. Correction and travel evidence				
6. Clean and transfer	1. Chip or edge cuts 2. Uninspected part used 3. Missing-guard restart	1. Cleanup before isolation 2. Part status unmarked 3. Guard not restored	1. Isolate for removal and cleanup 2. Identify part inspection status 3. Restore machine configuration	1. Chip coolant and tool storage 2. Part ID face and inspection 3. Guards and setup tools				

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

4. Pre-work checklist

☐ Stock ID material and size	☐ Isolation and actual stop	☐ Block contact and grip depth
☐ Rotation feed and backlash	☐ Symptoms face and settings	☐ Chip coolant and tool storage
☐ Cutter and machine basis	☐ Hands clothing and shielding	☐ Guards and setup tools