

Machine history and reliability record

All records

INTERVENTIONS LOGGED
13
9 on CNC-1

BREAKDOWNS
4
43.0 production hours lost

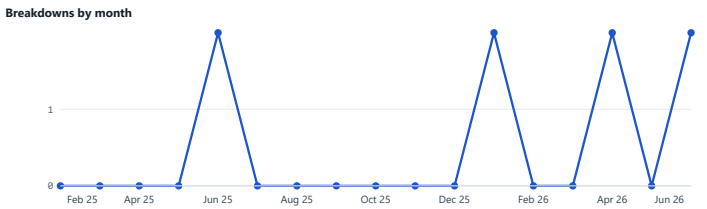
MTBF
193 d
mean days between breakdowns ·
CNC-1 · 3 failures

MTTR
6.9 h
mean repair hours per breakdown · 4
across all machines

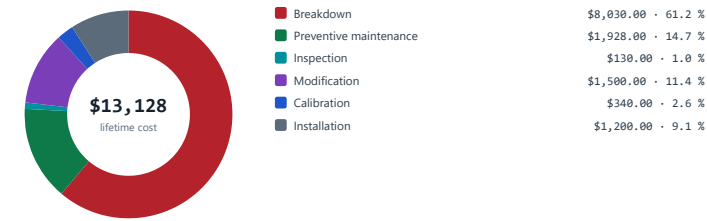
LIFETIME MAINTENANCE COST
\$13,128
\$11,353.00 of it on CNC-1

TOP FAILURE MODE
Bearing seizure
2 occurrences · 32.0 h lost

13 of 13 record(s) included. All records. Amounts in USD.



The reliability trend. A flat or falling line with occasional zeros is a machine being looked after; a line that climbs through the second half of its life is a machine telling you something. Months with no breakdown are drawn as zero on purpose — the gaps are the good news. The reliability trend. A flat or falling line with occasional zeros is a machine being looked after; a line that climbs through the second half of its life is a machine telling you something. Months with no breakdown are drawn as zero on purpose — the gaps are the good news.



The planned-versus-unplanned ratio, in money rather than in counts. A shop with its maintenance under control spends more on preventive work, inspection and planned repair than it does on breakdowns; a breakdown slice that dominates is the sound of a maintenance function running behind the machines rather than ahead of them. The planned-versus-unplanned ratio, in money rather than in counts. A shop with its maintenance under control spends more on preventive work, inspection and planned repair than it does on breakdowns; a breakdown slice that dominates is the sound of a maintenance function running behind the machines rather than ahead of them.



Ranked so the money shows itself. The machine at the top is where the maintenance budget actually goes, which is rarely the machine people name when asked. Colour follows rank only — it carries no judgement about whether the spend was justified. Ranked so the money shows itself. The machine at the top is where the maintenance budget actually goes, which is rarely the machine people name when asked. Colour follows rank only — it carries no judgement about whether the spend was justified.



This is the chart the card exists for. A fault that appears once is bad luck; a fault that appears twice is a design, application or maintenance problem you can go and fix. Anything with a bar longer than one is worth a proper root-cause session before the next spare is ordered. This is the chart the card exists for. A fault that appears once is bad luck; a fault that appears twice is a design, application or maintenance problem you can go and fix. Anything with a bar longer than one is worth a proper root-cause session before the next spare is ordered.

Machine life card

DATE	TYPE	WHAT HAPPENED	FAILURE MODE	DOWNTIME H	REPAIR H	COST	TECHNICIAN	STATUS
2025-02-15	Install	Machine delivered, positioned on new pads and levelled. Power and extraction connected, coolant ...	—	0.0	16.0	\$1,200.00	Maker's engineer	Complete
2025-03-27	PM	First scheduled service at 250 running hours. Way lube topped, filters changed, coolant concentr...	—	0.0	3.0	\$315.00	J. Almeida	Complete
2025-06-05	Breakdown	Spindle stopped mid-cut on a temperature alarm and would not restart. Head stripped, front beari...	Bearing seizure	14.0	9.0	\$3,200.00	Spindle specialist	Complete
2025-07-25	PM	Scheduled service. Filters and way lube changed, coolant replaced, spindle temperature logged at...	—	0.0	3.0	\$335.00	J. Almeida	Complete
2025-10-13	Modification	Guard interlock upgraded from a single mechanical switch to a dual-channel coded unit with a saf...	—	6.0	10.0	\$1,500.00	R. Vasequez	Complete
2025-11-22	Inspection	Condition check with a hand-held vibration meter at the spindle bearing housing after the rebuil...	—	0.0	2.0	\$130.00	J. Almeida	Complete
2026-01-31	PM	Scheduled service plus an unscheduled check of the coolant pump after an intermittent low-flow a...	—	0.0	3.5	\$383.00	J. Almeida	Monitoring
2026-04-11	Breakdown	Coolant pump failed on start-up, tripping the supply. Pump and non-return valve replaced and the...	Coolant pump failure	5.0	4.0	\$740.00	R. Vasequez	Complete
2026-06-25	Breakdown	Spindle seized again on the front bearing, same symptom and same failure as before. Rebuilt with...	Bearing seizure	18.0	11.0	\$3,550.00	Spindle specialist	Follow-up
Life to date — CNC-1 · 9 interventions				43.0	61.5	\$11,353.00		

Reliability summary by machine

MACHINE	INTERVENTIONS	BREAKDOWNS	DOWNTIME H	MTBF DAYS	MTTR H	TOTAL COST	UNPLANNED SHARE
CNC-1	9	3	43.0	193	8.0	\$11,353.00	66.0 %
Press-2	4	1	9.0	—	3.5	\$1,775.00	30.4 %
All machines in this filter	13	4	52.0	—	6.9	\$13,128.00	61.2 %

Machine history

MACHINE	ASSET NO.	DATE	TYPE	FAILURE MODE	DOWNTIME H	REPAIR H	TECHNICIAN	PARTS	LABOUR	STATUS	TOTAL COST	FAILURE
CNC-1	CNC-001	2025-02-15	Install	—	0.0	16.0	Maker's engineer	0.00	1,200.00	Complete	\$1,200.00	—
CNC-1	CNC-001	2025-03-27	PM	—	0.0	3.0	J. Almeida	120.00	195.00	Complete	\$315.00	—
Press-2	PRS-002	2025-04-26	PM	—	0.0	4.0	J. Almeida	180.00	260.00	Complete	\$440.00	—
CNC-1	CNC-001	2025-06-05	Breakdown	Bearing seizure	14.0	9.0	Spindle specialist	2,400.00	800.00	Complete	\$3,200.00	Failure
CNC-1	CNC-001	2025-07-25	PM	—	0.0	3.0	J. Almeida	140.00	195.00	Complete	\$335.00	—
Press-2	PRS-002	2025-09-13	Calibration	—	3.0	2.5	Calibration house	0.00	340.00	Complete	\$340.00	—
CNC-1	CNC-001	2025-10-13	Modification	—	6.0	10.0	R. Vasquez	850.00	650.00	Complete	\$1,500.00	—
CNC-1	CNC-001	2025-11-22	Inspection	—	0.0	2.0	J. Almeida	0.00	130.00	Complete	\$130.00	—
Press-2	PRS-002	2026-01-11	Breakdown	Hydraulic hose failure	6.0	3.5	R. Vasquez	310.00	230.00	Complete	\$540.00	Failure
CNC-1	CNC-001	2026-01-31	PM	—	0.0	3.5	J. Almeida	155.00	228.00	Monitoring	\$383.00	—
CNC-1	CNC-001	2026-04-11	Breakdown	Coolant pump failure	5.0	4.0	R. Vasquez	480.00	260.00	Complete	\$740.00	Failure
Press-2	PRS-002	2026-05-11	PM	—	0.0	4.0	J. Almeida	195.00	260.00	Complete	\$455.00	—
CNC-1	CNC-001	2026-06-25	Breakdown	Bearing seizure	18.0	11.0	Spindle specialist	2,650.00	900.00	Follow-up	\$3,550.00	Failure

Notes

Sample history — two machines over roughly eighteen months, loaded to show the calculations working. Replace every entry with your own before relying on it or circulating it.

Reliability figures built from a handful of events are indicative, not statistical. Two breakdowns produce a mean time between failures, but they do not produce a reliable one — the number moves enormously with the next event, and it says nothing about the spread. Treat MTBF and MTTR here as a way of describing what has happened, not as a forecast of what will. The pattern in the failure modes is usually worth more than either mean: a fault that has now appeared twice tells you where to spend money, whatever the arithmetic says. Costs are the direct parts and labour you enter; they exclude the value of lost production, which belongs in a downtime costing.