

Category	Tier	Item	Description	Price	Source	Amazon Available	Notes
Machine Tools	Must-Have	Haas VF-2 Vertical Machining Center	3-axis VMC, 30x16x20 travels, 40-taper	\$95,000	Haas CNC	No	New machine price estimate
Machine Tools	Must-Have	Haas ST-20 CNC Lathe	CNC turning center, 8.4" chuck, 20 HP	\$66,995	Haas CNC	No	Starting price new
Machine Tools	Must-Have	Used Haas VF-2 (2016)	Used 3-axis VMC in good condition	\$49,500	CNC Machines.com	No	Used equipment option
Machine Tools	Nice-to-Have	DMG MORI DMU 50 5-Axis	5-axis machining center	\$350,000	DMG MORI	No	Estimate for 5-axis capability
Machine Tools	Nice-to-Have	Star CNC Swiss Lathe	Swiss-type automatic lathe	\$200,000	Star CNC	No	Estimate for Swiss capability
Workholding & Tooling	Must-Have	Kurt DX6 CrossOver Vise	6" precision machine vise	\$1,077	Kurt Workholding	Yes	Official manufacturer price
Workholding & Tooling	Must-Have	Kurt DX6 Vise (Distributor)	6" precision machine vise	\$619	DGI Supply	Yes	Distributor pricing
Workholding & Tooling	Must-Have	CAT40 Tool Holder Set	Various CAT40 tool holders	\$50-200	Amazon	Yes	Multiple options available
Workholding & Tooling	Must-Have	CNC Tool Rack CAT40	Tool storage rack for CAT40 holders	\$100-300	Amazon	Yes	Various capacities
Workholding & Tooling	Nice-to-Have	HSK Tool Holders	High-speed machining tool holders	\$150-400	Big Daishowa	Limited	Per holder pricing
Measurement & Inspection	Must-Have	Mitutoyo 500-197-30 Digital Caliper	8"/200mm digital caliper	\$224.74	MSI Viking	Yes	Also available on Amazon
Measurement & Inspection	Must-Have	Starrett Micrometer Set	0-1" outside micrometer	\$100-200	Amazon	Yes	Various models available
Measurement & Inspection	Must-Have	Mitutoyo Height Gauge 12"	Dial height gauge with counter	\$300-500	Amazon	Yes	Multiple models available
Measurement & Inspection	Must-Have	Starrett Crystal Pink Surface Plate 12x18x4	Granite surface plate Grade A	\$617.50	Manson Tool	Limited	Precision reference surface
Measurement & Inspection	Must-Have	Starrett Surface Plate 18x24x4	Superior Black granite Grade AA	\$720	MSI Viking	Limited	Higher grade option
Measurement & Inspection	Nice-to-Have	ZEISS CONTURA CMM	Coordinate measuring machine	\$150,000	ZEISS	No	Professional metrology
CAD/CAM & Software	Must-Have	Mastercam 2024	CAM software annual subscription	\$382-545	Mastercam	No	Annual subscription pricing
CAD/CAM & Software	Must-Have	Autodesk Fusion 360	Integrated CAD/CAM software	\$545/year	Autodesk	No	Commercial subscription
CAD/CAM & Software	Nice-to-Have	CGTech Vericut	CNC simulation and verification	\$15,000	CGTech	No	Professional simulation
CAD/CAM & Software	Nice-to-Have	ProShop ERP	Shop management software	\$200/month	ProShop	No	Per user monthly
Material Handling	Must-Have	Standard Forklift 5000 lb	Internal combustion forklift	\$25,000-35,000	Various Dealers	No	New equipment pricing
Material Handling	Must-Have	Pallet Jack	Manual pallet jack 5500 lb	\$300-800	Amazon	Yes	Multiple options available
Material Handling	Must-Have	Utility Cart	Heavy-duty shop cart	\$200-500	Amazon	Yes	Various sizes available
Material Handling	Nice-to-Have	Overhead Bridge Crane 5-ton	Overhead crane system	\$15,000-25,000	Crane Manufacturers	No	Installation not included
Safety & Ergonomics	Must-Have	Safety Glasses (Pack of 12)	ANSI Z87.1 safety glasses	\$25-50	Amazon	Yes	Bulk pricing available
Safety & Ergonomics	Must-Have	First Aid Kit	Industrial first aid kit	\$50-150	Amazon	Yes	OSHA compliant options
Safety & Ergonomics	Must-Have	Fire Extinguisher	ABC dry chemical extinguisher	\$30-80	Amazon	Yes	Multiple sizes available
Safety & Ergonomics	Nice-to-Have	Ergonomic Anti-Fatigue Mats	Industrial floor mats	\$100-300	Amazon	Yes	Various sizes available
Facility Infrastructure	Must-Have	Flood Coolant System	Universal coolant system	\$199.99	Precision Matthews	Limited	Basic flood coolant
Facility Infrastructure	Must-Have	MR-1 Flood Coolant System	Complete flood coolant system	\$299.95	Langmuir Systems	No	More advanced system
Facility Infrastructure	Must-Have	LED Shop Lighting	High-bay LED fixtures	\$100-300	Amazon	Yes	Per fixture pricing
Facility Infrastructure	Nice-to-Have	Compressed Air System 10 HP	Rotary screw compressor	\$8,000-15,000	Industrial Suppliers	Limited	Professional installation required
Automation & Industry 4.0	Nice-to-Have	Barfeeder for Lathes	Automatic bar feeding system	\$15,000-25,000	Automation Suppliers	No	Machine-specific
Automation & Industry 4.0	Nice-to-Have	Machine Monitoring System	Basic machine monitoring	\$2,000-5,000	Various Suppliers	Limited	Per machine pricing

Automation & Industry 4.0	Cutting-Edge	Robotic Machine Tending	6-axis industrial robot	\$50,000-100,000	Robot Manufacturers	No	Integration costs additional
Training & Employee Amenities	Must-Have	Training Desk and Chairs	Classroom furniture set	\$500-1,500	Amazon	Yes	Various configurations
Training & Employee Amenities	Must-Have	Break Room Furniture	Tables, chairs, refrigerator	\$2,000-5,000	Amazon	Yes	Complete break room setup
Training & Employee Amenities	Nice-to-Have	CNC Simulator Software	Training simulation software	\$5,000-10,000	Training Companies	No	Per license pricing
Future Expansion	Nice-to-Have	Modular Office Furniture	Expandable office systems	\$3,000-8,000	Amazon	Yes	Scalable configurations
Future Expansion	Cutting-Edge	VR Planning System	Virtual reality facility planning	\$10,000-25,000	VR Companies	No	Software and hardware
Machinist's Personal Toolbox	Must-Have	Mitutoyo Digital Calipers 6"	500-196-30 Absolute Digimatic caliper	\$180	Amazon	Yes	Essential daily measurement tool
Machinist's Personal Toolbox	Must-Have	Starrett Micrometer Set 0-3"	Outside micrometers 0-1", 1-2", 2-3"	\$350	Amazon	Yes	Precision measurement set
Machinist's Personal Toolbox	Must-Have	Mitutoyo Depth Micrometer	0-6" depth micrometer	\$200	Amazon	Yes	For measuring depths and shoulders
Machinist's Personal Toolbox	Must-Have	Dial Indicator Set	0.001" dial indicator with magnetic base	\$80	Amazon	Yes	Setup and inspection tool
Machinist's Personal Toolbox	Must-Have	Steel Rules Set	6", 12", 18" flexible steel rules	\$25	Amazon	Yes	Basic layout and measurement
Machinist's Personal Toolbox	Must-Have	Mitutoyo Gauge Block Set	516-935-26 Steel rectangular gage blocks	\$450	Amazon	Yes	9-piece inspection set 0.0625-2.0"
Machinist's Personal Toolbox	Nice-to-Have	Mitutoyo Grade 0 Gauge Blocks	81-piece steel rectangular set	\$1,200	Amazon	Yes	Complete precision reference set
Machinist's Personal Toolbox	Must-Have	Gauge Pin Set	0.061-0.250" minus pin gauge set	\$105	Amazon	Yes	190-piece precision pin set
Machinist's Personal Toolbox	Must-Have	Thread Pitch Gauge Set	Metric and SAE thread pitch gauges	\$25	Amazon	Yes	60-degree thread profiles
Machinist's Personal Toolbox	Nice-to-Have	Radius Gauge Set	Concave and convex radius gauges	\$40	Amazon	Yes	For checking radii and fillets
Machinist's Personal Toolbox	Must-Have	Combination Square Set	12" combination square with center head	\$60	Amazon	Yes	Layout and angle measurement
Machinist's Personal Toolbox	Must-Have	Scribe Set	Precision scribes and dividers	\$30	Amazon	Yes	Layout and marking lines
Machinist's Personal Toolbox	Must-Have	Center Punch Set	Automatic and manual center punches	\$20	Amazon	Yes	Marking hole centers
Machinist's Personal Toolbox	Must-Have	Surface Gauge	Adjustable height surface gauge	\$45	Amazon	Yes	Layout work on surface plate
Machinist's Personal Toolbox	Must-Have	Machinist Square Set	2", 3", 4" precision squares	\$50	Amazon	Yes	Checking perpendicularity
Machinist's Personal Toolbox	Must-Have	File Set	Mill bastard, single/double cut files	\$40	Amazon	Yes	Hand finishing and deburring
Machinist's Personal Toolbox	Must-Have	Needle File Set	Precision needle files various shapes	\$25	Amazon	Yes	Fine detail work
Machinist's Personal Toolbox	Must-Have	Deburring Tool Set	Adjustable deburring tools	\$35	Amazon	Yes	Edge finishing
Machinist's Personal Toolbox	Must-Have	Hex Key Sets	Metric and SAE hex key sets	\$30	Amazon	Yes	Machine setup and adjustment
Machinist's Personal Toolbox	Must-Have	Precision Screwdriver Set	Small precision screwdrivers	\$25	Amazon	Yes	Fine adjustment work
Machinist's Personal Toolbox	Must-Have	Tap and Die Set	Metric and SAE tap and die set	\$80	Amazon	Yes	Threading operations

Machinist's Personal Toolbox	Must-Have	Tap Handle Set	Adjustable tap handles various sizes	\$40	Amazon	Yes	Manual tapping operations
Machinist's Personal Toolbox	Must-Have	Drill Bit Set	1/16-1/2" by 64ths drill bit set	\$60	Amazon	Yes	High-speed steel twist drills
Machinist's Personal Toolbox	Must-Have	Countersink Set	82° and 90° countersinks	\$35	Amazon	Yes	Screw head preparation
Machinist's Personal Toolbox	Nice-to-Have	End Mill Set	2-flute and 4-flute end mills	\$120	Amazon	Yes	Personal milling cutters
Machinist's Personal Toolbox	Nice-to-Have	Bore Gauge Set	Telescoping bore gauges 5/16-6"	\$150	Amazon	Yes	Internal diameter measurement
Machinist's Personal Toolbox	Nice-to-Have	Inside Micrometer Set	2-12" inside micrometers	\$200	Amazon	Yes	Precise internal measurement
Machinist's Personal Toolbox	Must-Have	Feeler Gauge Set	0.0015-0.035" feeler gauges	\$15	Amazon	Yes	Gap and clearance checking
Machinist's Personal Toolbox	Nice-to-Have	Sine Bar Set	5" and 10" sine bars with blocks	\$180	Amazon	Yes	Angle setup and measurement
Machinist's Personal Toolbox	Nice-to-Have	Optical Comparator Charts	Thread and gear overlay charts	\$50	Specialized Suppliers	Limited	Profile inspection aids
Machinist's Personal Toolbox	Must-Have	Parallel Set	1/8-1" matched parallels	\$60	Amazon	Yes	Workpiece setup and support
Machinist's Personal Toolbox	Must-Have	V-Block Set	Matched V-blocks with clamps	\$45	Amazon	Yes	Round work holding
Machinist's Personal Toolbox	Must-Have	Angle Blocks	30-60-90 degree angle blocks	\$40	Amazon	Yes	Angular setup work
Machinist's Personal Toolbox	Must-Have	Clamp Set	Strap clamps and step blocks	\$80	Amazon	Yes	Workpiece clamping
Machinist's Personal Toolbox	Nice-to-Have	Magnetic Base Set	Various magnetic bases and arms	\$70	Amazon	Yes	Indicator and gauge mounting
Machinist's Personal Toolbox	Nice-to-Have	Starrett Basic Tool Set	S909Z precision measuring set	\$743	Starrett	Limited	Professional complete set
Machinist's Personal Toolbox	Nice-to-Have	Haas Precision Tool Kit	7-piece measuring tool kit	\$400	Haas Tooling	No	CNC-focused tool set
Machinist's Personal Toolbox	Must-Have	Machinist Handbook	Machinery's Handbook 31st Edition	\$85	Amazon	Yes	Essential reference book
Machinist's Personal Toolbox	Must-Have	Pocket Reference Cards	Tap drill, decimal equivalents	\$15	Amazon	Yes	Quick reference guides
Machinist's Personal Toolbox	Nice-to-Have	Digital Protractor	Electronic angle measurement	\$60	Amazon	Yes	Precise angle measurement
Machinist's Personal Toolbox	Must-Have	Machinist Tool Chest	7-drawer rolling tool chest	\$400	Amazon	Yes	Professional tool storage
Machinist's Personal Toolbox	Must-Have	Tool Organizer Trays	Foam organizer inserts	\$50	Amazon	Yes	Tool organization system
Machinist's Personal Toolbox	Must-Have	Precision Tool Wraps	Protective tool wraps	\$25	Amazon	Yes	Protect precision instruments