



SAARTHI - सारथी

करियर मार्गदर्शन पोर्टल · Career Guidance Portal

"सही मार्गदर्शन, उज्ज्वल भविष्य।"

करियर शीट · CAREER SHEET

ऑपरेटर – बोरिंग मशीन

A Boring Machine Operator makes precise holes in metal workpieces or enlarges (bores) existing holes to exact size. They read engineering drawings, select the right cutting tool and cutter, set the workpiece on the machine, run...



Scan for everything on this career

Salary, exams, colleges, the routes in and the steps after — all on the portal.

career.gsssjethantri.in/#/career/voc-6276

राजकीय उच्च माध्यमिक विद्यालय, जेठन्तरी

Govt. Sr. Sec. School, Jethantri · ब्लॉक समदड़ी · बालोतरा (Block Samdari · Balotra)

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सुशील कुमार शर्मा

प्रधानाचार्य, रा.उ.मा.वि. जेठन्तरी · मास्टर ट्रेनर
Principal, GSSS Jethantri · Master Trainer



श्री चेनाराम चौधरी

प्रधानाचार्य, डाइट बाड़मेर
Principal, DIET Barmer



श्रीमती संघमित्रा

वरिष्ठ व्याख्याता, डाइट बाड़मेर (सहयोग)
Sr. Lecturer, DIET Barmer (Support)



भरत चौधरी

अभिकल्पना व विकास · व्याख्याता (इतिहास)
Designed & developed · Lecturer (History)

विशेष धन्यवाद · SPECIAL THANKS



सुरेन्द्र सिंह राठौड़

व्याख्याता (इतिहास) · रा.उ.मा.वि. कानाना



सुरेश कुमार सैन

व्याख्याता (भूगोल) · रा.उ.मा.वि. रामसीन मूंगड़ा



वनिता कुमारी

व्याख्याता (इतिहास) · रा.उ.मा.वि. रामसीन मूंगड़ा



कमलेश चौधरी

व्याख्याता (राजनीति विज्ञान) · रा.उ.मा.वि. टापरा

करियर मार्गदर्शन कार्यशाला, डाइट बाड़मेर (14-17 जुलाई 2026) में विकसित व लोकार्पित
Developed & unveiled at the Career Guidance Workshop, DIET Barmer (14-17 July 2026)

यह एक स्वतंत्र परियोजना है, जो सरकार की आधिकारिक करियर-मार्गदर्शन सामग्री पर आधारित है। · An independent project based on the Government's official career-guidance content.

1 About this career

A Boring Machine Operator makes precise holes in metal workpieces or enlarges (bores) existing holes to exact size. They read engineering drawings, select the right cutting tool and cutter, set the workpiece on the machine, run the boring machine to cut the hole, and check dimensions with instruments like vernier calipers, micrometers and bore gauges. It is a skilled, trust-based job in machine tools, automobile components, pumps, valves and heavy engineering, where micron-level accuracy matters. After Class 10 you can enter through an ITI (Machinist/Turner) or an NSQF skill course.

2 At a glance

Minimum qualification	Class 10 pass + age 18 (NSQF Level 2)
Course duration	6 months–2 years (as per course/ITI trade)
Starting salary	₹12,000–16,000/month
Work mode	Full-time in workshop/factory (shift & overtime)

3 What you need

INTERESTS

- Enjoy hands-on work with machines and tools
- Like solving problems and technical challenges
- Interest in precision and accurate measurement

ABILITIES

- Physical fitness and stamina to stand and work
- Team-friendly, good communication and safety discipline
- Concentration and attention to detail (micron-level accuracy)

KEY SKILLS

- Setting the boring machine and boring holes to size
- Precise measurement using vernier, micrometer and bore gauge
- Inspecting and preparing metal workpieces and raw material
- Basic mathematics and workshop calculations
- Reading engineering drawings and blueprints
- Selecting the right cutting tool, cutter and speed-feed
- Machine maintenance and following health-safety-environment (HSE) rules

4 How to get there

- 1 Complete Class 10 and reach the age of 18.
- 2 Enrol in an ITI Machinist or Turner trade, or an NSQF Level 2 skill course for boring/machine operator.
- 3 Practise vernier/micrometer use, drawing reading and basic machining.
- 4 Gain hands-on experience as an apprentice/helper in a workshop, tool room or factory.
- 5 With experience, grow from operator to senior machinist and shop supervisor.
- 6 In Rajasthan, government ITIs, RSLDC and PMKVY centres offer training and placement support.

MAIN EXAMS

- NCVT/NIMI All India Trade Test (AITT) for ITI Machinist/Turner trade
- Capital Goods & Strategic Skill Council (CGSSC)/NSDC trade assessment and certification

5 Where to study**GOVERNMENT INSTITUTES**

- राजकीय आईटीआई (मशीनिस्ट/टर्नर ट्रेड), राजस्थान — Jaipur, Jodhpur, Kota and other districts (<https://dte.rajasthan.gov.in/>)
- राजस्थान कौशल एवं आजीविका विकास निगम (RSLDC) — Jaipur, Rajasthan (<https://livelihoods.rajasthan.gov.in/rsldc/>)
- एनसीवीटी एमआईएस - आईटीआई खोजें — Centres across Rajasthan (<https://www.ncvtmis.gov.in/>)
- एनआईओएस व्यावसायिक प्रशिक्षण केंद्र — Online / locate nearest centre (<https://voc.nios.ac.in/registration/locate-study-centre>)

PRIVATE INSTITUTES

- भारतीय स्किल डेवलपमेंट यूनिवर्सिटी (BSDU) — Jaipur, Rajasthan (<https://www.bsdu.in/>)
- कैपिटल गुड्स एवं स्ट्रैटेजिक स्किल काउंसिल (CGSSC) — All-India / New Delhi (<https://cgssc.org/>)

ONLINE

- स्किल इंडिया डिजिटल हब — Online (<https://www.skillindiadigital.gov.in/>)
- भारत स्किल्स (डीजीटी) – मशीनिस्ट अध्ययन सामग्री — Online (<https://bharatskills.gov.in/>)

FEES

At government ITIs and most government skill schemes (NSDC, RSLDC, PMKVY) this course is free or very low-cost. Private ITI/machining courses can cost roughly ₹10,000–40,000 per year.

SCHOLARSHIPS

- राष्ट्रीय छात्रवृत्ति पोर्टल (NSP) (<https://scholarships.gov.in/>)
- Buddy4Study – ITI/Vocational Scholarships (<https://www.buddy4study.com/article/iti-scholarships>)
- SJE Rajasthan – सामाजिक न्याय एवं अधिकारिता विभाग छात्रवृत्ति (<https://sje.rajasthan.gov.in/>)

6 What the work is like

WHERE YOU WORK

Machine tool and goods-manufacturing companies, tool rooms, automobile and auto-component factories, pump-valve and heavy engineering workshops, and machine tool distributors and service providers.

WORK CULTURE

Typically 6 days a week, 8–9 hours a day; shift duty and overtime are common. Work is on the shop floor, standing at the machine, where safety shoes, goggles and strict rules are essential.

WHO HIRES

- | | |
|--|--|
| • Machine tool and capital goods makers (e.g. HMT, Jyoti CNC, Lakshmi Machine Works) | • Automobile and auto-component companies (e.g. Bharat Forge, Bosch, Sona Comstar) |
| • Tool rooms, die-mould shops and precision engineering workshops | • Pump, valve, compressor and heavy engineering manufacturers |
| • Defence and public-sector undertakings (e.g. BHEL, HAL, BEML) | • Factories in Rajasthan's Bhiwadi, Neemrana, Jaipur and other industrial areas |

DEMAND (2026)

With 'Make in India' and the growth of automobile, defence, railway and capital-goods industries, demand for skilled operators who can do precision machining stays strong. Tasks like boring, turning and milling are not fully replaced by automation, so trained machine operators are always needed. Opportunities are also rising in Rajasthan's industrial hubs such as Bhiwadi and Neemrana.

7 Career growth

- 1 Boring / Machine Operator (Trainee)
- 2 Senior Machinist / Machine Operator
- 3 Shop Supervisor / Foreman
- 4 Production / Workshop Manager

EARNINGS

Starting	₹12,000–16,000/माह
Mid level	₹20,000–30,000/माह
Senior level	₹35,000–55,000+/माह

Per Indeed (2026), a machinist in India earns on average about ₹25,892/month. Pay is modest at entry level, but with experience in precision boring/machining, overtime and CNC skills it rises considerably; senior machinists and supervisors earn more. (Figures are indicative and vary by location and company.)

8 The good parts · The challenges**The good parts**

- Skilled, hands-on work with steady demand in industry
- Fast growth in pay and role with experience and CNC skills
- After ITI/skill course, apprenticeship and both government and private opportunities

The challenges

- Noisy, metal-dust shop-floor and long hours of standing
- Injury risk from rotating tools—strict safety is essential
- Limited entry pay; shifts and overtime are common

9 Real-life journeys

Ganesan R.

CNC Milling competitor, WorldSkills Kazan 2019 (India)

From a farming family in Karnataka, Ganesan R. completed a diploma in tool and die making at the Nettur Technical Training Foundation (NTTF) and became so skilled in precision machining that he was selected to represent India in the CNC Milling trade at the 45th WorldSkills Competition in Kazan, Russia in 2019. Whether milling or boring, both demand micron-level accuracy on metal workpieces. His story shows that even from a humble start, skill and practice can earn a machine operator national and international recognition.

WorldSkills India · <https://worldskillsindia.co.in/kazan2019.php>

Monica Rajendra Goswami

Shop-floor team leader, Tata Motors (Pimpri-Chinchwad, Pune)

At 23, Monica Rajendra Goswami began as an assembly-line operator at a Tata Motors manufacturing unit where the work was long seen as 'men's work'. Learning from scratch, she started by assembling brake systems and rose to lead a team handling the rejection and salvage of auto components—saving the company large costs. This role is slightly adjacent to the exact boring-machine niche (auto-manufacturing shop floor), but her journey inspires every girl who wants to grow in industry as a machine operator or machinist.

Tata Group Newsroom · <https://www.tata.com/newsroom/careers/all-women-car-assembly-line-tata-motors>

10 Sources & further reading

1. Rajasthan Career Guidance – Boring Machine Operator — <https://cg.rajasthan.gov.in/careerguidance/hi/career/%e0%a4%91%e0%a4%aa%e0%a4%b0%e0%a5%87%e0%a4%9f%e0%a4%b0-%e0%a4%ac%e0%a5%8b%e0%a4%b0%e0%a4%bf%e0%a4%82%e0%a4%97-%e0%a4%ae%e0%a4%b6%e0%a5%80%e0%a4%a8/>
2. Indeed – Machinist Salary in India (2026) — <https://in.indeed.com/career/machinist/salaries>
3. ITI Machinist Trade Syllabus (NCVT/DGT) — <https://syllabus.iti.directory/cts/machinist>
4. Capital Goods Skill Council – Qualification Packs — https://www.cgsc.in/qualification_pack.html
5. WorldSkills India – Competitors (Kazan 2019) — <https://worldskillsindia.co.in/kazan2019.php>



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