

ROLE OVERVIEW

We are seeking a highly skilled and experienced Centreless Grinding Operator to join our precision engineering team. The successful candidate will take full ownership of the centreless grinding function, operating at a level that exceeds standard production requirements. This is a senior, autonomous role that demands an exceptional standard of technical knowledge, independent judgement, and a commitment to quality that meets or surpasses automotive-grade specifications.

POSITION DETAILS

Job Title	Senior Centreless Grinding Operator
Department	Precision Machining / Manufacturing
Reports To	Production / Engineering Manager
Experience Required	Minimum 5 years in centreless grinding
Employment Type	Full-Time, Permanent
Quality Standard	Automotive (IATF 16949) and above

KEY RESPONSIBILITIES

1. Process Configuration & Machine Readiness

- Independently configure and prepare centreless grinding machines for both in-feed and through-feed operations, selecting and dressing wheels, adjusting regulating and work rest blade geometry to achieve specified results.
- Establish and validate all critical process parameters including feed rates, rotational speeds, work rest height, and blade angles in accordance with component drawings and process sheets.
- Carry out pre-production trials and confirm dimensional conformance before releasing any batch to full production.

2. New Component Introduction & First-Off Qualification

- Lead the setup development for new components from print to proven process, defining grinding parameters, datum strategies, and inspection points from scratch.
- Collaborate with engineering and quality functions to create and document setup sheets, control plans, and process sign-off records for new part introductions.
- Validate first-article submissions against customer or internal dimensional requirements, taking full accountability for dimensional and surface finish conformance.

3. Production Operation & Throughput Management

- Maintain consistent, efficient production output while upholding the highest standards of dimensional accuracy and surface integrity throughout the shift.

- Monitor process stability, react promptly to drift or variation, and make controlled adjustments to maintain capability within defined control limits.
- Complete all associated production documentation accurately, including travellers, inspection records, and non-conformance reports where required.

4. Team Leadership & Operational Support

- Provide guidance, coaching, and day-to-day technical direction to less experienced operators on the grinding section.
- Act as the primary technical reference for the grinding cell in the absence of the shift supervisor or engineering lead.
- Participate in shift handovers, communicating machine status, ongoing issues, and production progress clearly and accurately to incoming personnel.

5. Machine Maintenance & Reliability

- Perform scheduled preventive maintenance tasks including lubrication, coolant system management, wheel balancing, bearing and spindle checks, and wear part replacement.
- Carry out first-line electrical and mechanical fault diagnosis; resolve minor issues independently and escalate complex faults to maintenance with clear and detailed findings.
- Maintain machine condition logs and contribute to maintenance scheduling to minimise unplanned downtime.

6. Fault Diagnosis & Process Problem-Solving

- Systematically investigate and resolve recurring or complex grinding defects including chatter, lobing, taper, out-of-roundness, and surface finish anomalies.
- Apply structured root cause analysis techniques to identify contributing factors and implement permanent corrective actions.
- Document findings and corrective actions in a clear, traceable manner to support continuous improvement and knowledge retention.

7. Surface Finish & Dimensional Accuracy

- Achieve and sustain tight dimensional tolerances – routinely working to micron-level accuracy on diameter, roundness, cylindricity, and surface texture (Ra/Rz).
- Select appropriate grinding wheel specifications, dressing cycles, and coolant strategies to meet prescribed surface finish requirements without compromise.
- Demonstrate a thorough understanding of surface integrity as it relates to component function, fatigue life, and downstream assembly requirements.

8. Quality Assurance & Standards Compliance

- Apply statistical process control (SPC) techniques and use measurement data proactively to maintain process capability (Cpk) at levels demanded by automotive and OEM supply chains.
- Operate in full compliance with IATF 16949, ISO 9001, or equivalent customer-specific quality management requirements.

- Conduct and record in-process inspections using appropriate metrology equipment including micrometers, air gauges, CMM outputs, and surface roughness testers; escalate non-conformances immediately through the correct channels.
- Support internal and external quality audits, providing objective evidence of process control and compliance.

ESSENTIAL SKILLS & EXPERIENCE

- A minimum of five years of hands-on centreless grinding experience in a precision engineering or manufacturing environment.
- Proven ability to set up and operate both through-feed and in-feed grinding processes across a range of component geometries and materials.
- Strong command of grinding wheel technology: specification selection, dressing technique, balancing, and the relationship between wheel condition and workpiece quality.
- Demonstrable experience working to automotive-grade quality standards, ideally within an IATF 16949-certified facility.
- Competent in reading and interpreting engineering drawings including GD&T (Geometric Dimensioning and Tolerancing).
- Proficient in the use of precision measurement equipment: bore gauges, micrometers, surface profilometers, roundness testing equipment, and CMMs.
- Practical understanding of first-line mechanical and electrical maintenance relevant to grinding machines.
- Familiarity with SPC methodology and the use of control charts in a production environment.

DESIRABLE QUALIFICATIONS

- Formal apprenticeship or technical qualification in engineering machining, manufacturing engineering, or a related discipline.
- Experience of new product introduction (NPI) processes and first article inspection (FAI) reporting.
- Exposure to Lean Manufacturing, 5S, and continuous improvement methodologies.
- Knowledge of PPAP documentation and APQP processes within an automotive supply chain context.

PERSONAL ATTRIBUTES

- A meticulous, quality-first mindset with an instinctive drive to get it right first time.
- Self-reliant and proactive: capable of taking initiative and solving problems without requiring close supervision.
- A collaborative team member who leads by example and supports the development of those around them.
- Strong communication skills: able to convey technical information clearly to colleagues across all levels.
- Receptive to change and committed to continuous personal and process improvement.