Machines and rotating equipment come in many forms: turbines, compressors, pumps, fans, agitators, centrifuges, extruders, refrigeration systems and solids handling and processing systems. Hugely important parts of all industrial processes, they are often highly sophisticated and specialised, as well as expensive and time-consuming to replace or repair. A large or complicated piece of machinery may take many months to be delivered or even repaired.

Machines also require regular maintenance and must be correctly specified, maintained and inspected. Subject to a large number of safety regulations and design codes, their reliability and safety are crucial. Changes of use, age (resulting in worn parts, corrosion and decreasing effectiveness), as well as lack of expertise in this complicated area, often expose owners to high incidence of breakdown and undesirable risk. A balance between the issues of safety integrity, reliability and cost needs to be struck in every case.

What we offer
We have extensive knowledge of many different kinds of machinery and can offer day-to-day operational and emergency breakdown support.

Our range of services can support:
- Breakdowns, problems and troubleshooting
- Repairs, refurbishment and re-rates
- Shutdowns
- Commissioning new equipment and processes
- Equipment evaluation, inspection and maintenance
- New designs, from feasibility to full specification
- Optimising spares holdings
- Condition monitoring

Equipment breakdown
At any point during an equipment breakdown we can provide total support and get your assets operational in minimum time, with maximum safety. We will also ensure that any learning from an incident is captured, communicated and used to define appropriate checks on other equipment.
Extending asset life. Assuring plant integrity and reducing maintenance costs.
Here are a few examples of our services which can help reduce the risks of breakdowns or large expenditure.

- Condition monitoring
  • Vibration analysis, oil analysis, acoustic emission, thermography and other specialist services
- Tribology
  • Lubrication surveys and specifications, seals, bearings and gears
- Problem solving
  • Fault-finding, failure investigations, material investigation and breakdown support
- Work management
  • Turnarounds, breakdowns and commissioning
- Improvement
  • Machinery and asset care, criticality assessments, reliability, benchmarking and efficiency improvements

New design / up-rates
We’re also able to optimise life cycle costs by devising new designs or re-vamping existing ones. We can help with feasibility studies and to explore options. We’re able to create detailed plans and manage the procurement, installation and commissioning of new equipment.

Services include:

- Assurance of compliance with current machinery legislation
- FEEP support. Independent advice
- Option evaluation and cost estimation
- Technical specification including datasheet preparation
- Fabricator management / interface
- Technical appraisals and purchasing assistance
- Independent design verification
- Design calculations

Benefits
- Increased reliability of machines
- Lower maintenance costs
- Quicker repairs
- Optimum life and performance for equipment
- Cost efficient, tailor-made solutions
- Total, design-to-delivery solutions

Why ABB?
ABB are independent from OEMs (Original Equipment Manufacturers), so offer an impartial view.

ABB have a long track record of extensive technical knowledge and operational support of machinery and rotating equipment in both process and manufacturing industries.

Our engineers and consultants have operational backgrounds and make pragmatic technical judgements based on their experience. It’s an approach that ensures cost-effective, practical-to-implement solutions which work.

Accessing this expertise is cost-effective and enables the team to construct engineering justifications for the proposed action.

We’re also able to call on a broad range technical knowledge from across our services.