



ETG POWER GENERATION MANUFACTURING SECTOR



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ETG ARE YOUR POWER GENERATION SUPPLY CHAIN PARTNER

The maintenance, service and ability to maximise the uptime of a power plant, whether it be thermal or nuclear are of critical importance.

Whether it is the production of a new power plant or the replacement of components during a maintenance shutdown; precision, quality and production times are essential for

keeping the lights on – for everyone! A preventative maintenance shutdown on a power plant can cost tens of thousands of pounds per hour, so component longevity and quality of this critical as ensuring the right parts are produced to exacting standards – every time. It is for these reasons that machine tools from ETG are widely used throughout the supply chain for this critical industry sector.





NAKAMURA-TOME

The power generation industry is awash with pneumatic and hydraulic machinery and systems. What better machine could you make the respective fittings, valves, flanges and joints than on a Nakamura-Tome mill/turn centre? When it comes to safety-critical components, regardless of the industry – Nakamura-Tome is the brand that you can trust.

Flanges, fittings valves and joints are key components in the power generation sector due to the extreme pressures and temperatures that fluids can reach during operation. Extreme conditions can accelerate wear and corrosion, so precision high-quality fittings are essential. As a world leader in the field of multi-tasking mill/turning machines, Nakamura-Tome CNC mill/turn centres are applied worldwide in this safety-critical industry.



WINBRO TECHNOLOGIES

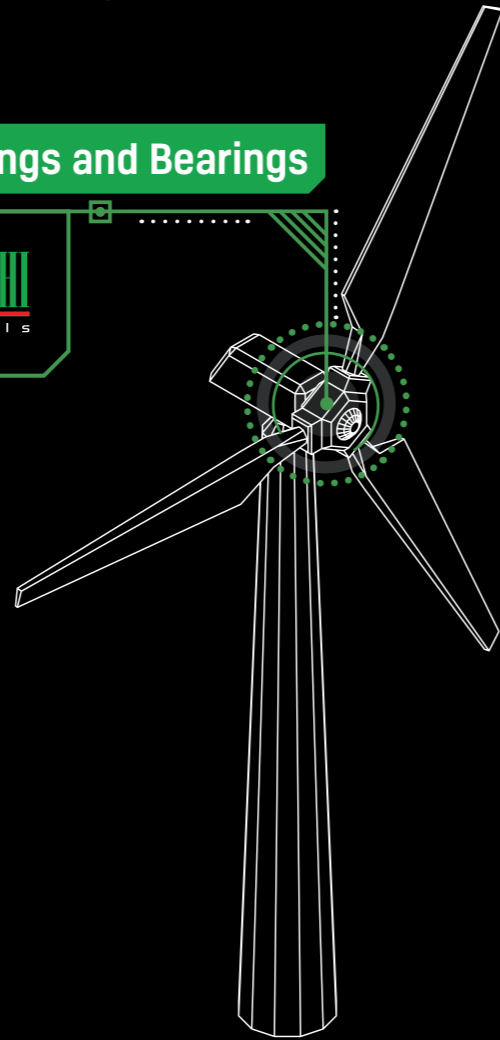
Winbro was borne of the aerospace industry in the 1980s. Whilst the power generation sector and aerospace industry appear light years apart, at the centre of both sectors are safety critical turbines and rotating parts that are the driving force of everything else in the industry.

Winbro has evolved its advanced EDM machine systems to drill cooling holes in turbine blades, vanes, combustors and all other high-precision critical components that are often produced from some of the most challenging materials known to industry. Winbro has established itself as the global technology leader in the turbine sector – and this technology is available from ETG.

Winbro has expanded its range of technologies to include laser systems, multi-axis grinding and ECM (electrochemical machining).

This technology has been successfully adopted in the power generation sectors with some of the world's leading companies from both the wind and green energy and nuclear energy segments employing winbro machine tools. The winbro group uses four primary processes within its comprehensive range of machining systems. This includes electrical discharge machining (EDM) technology for high-speed drilling, laser technology for drilling, cutting, ablation, welding and cladding, creep-feed grinding and electrochemical machining (ECM) for finish forming. These four main processes form just a part of winbro's overall portfolio, with many additional integrated technologies, features and capabilities available. This technology is extensively utilised by the world's leading power generation OEMs to generate complex cooling holes and forms in the most challenging of applications and materials.

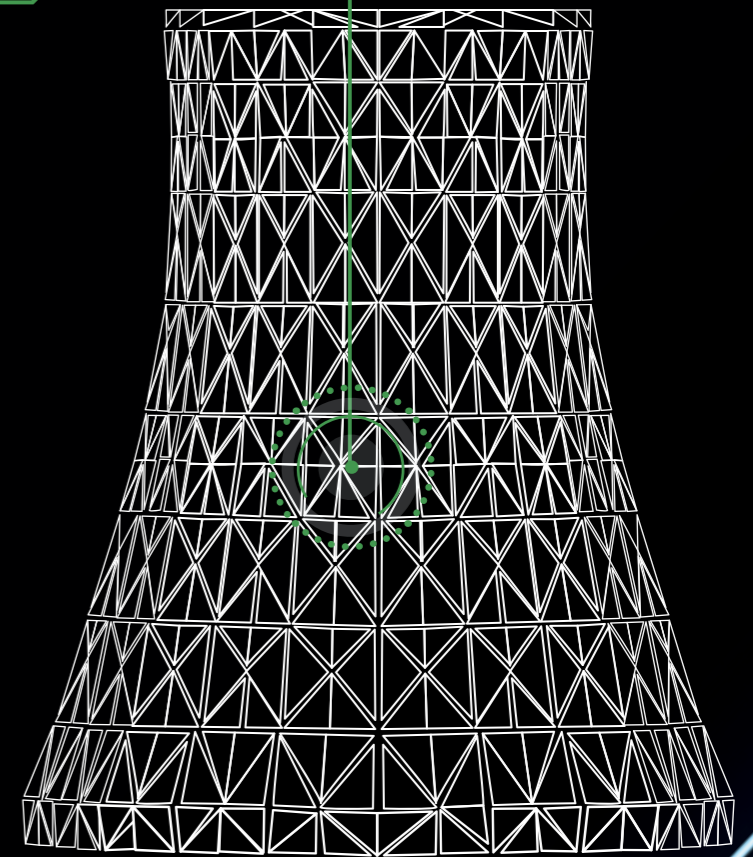
Planetary Gearbox, Gear Rings and Bearings



Gas Turbine
Planetary Gearbox



Nuclear Reactor
Pressure Vessels



Safety-critical
components

Including, fittings, valves,
flanges and joints



Blades



EDM high speed drilling technology

POWER GENERATION PRODUCTION



PIETRO CARNAGHI

As a key supplier to the energy industry, Pietro Carnaghi has a wide and diversified range of vertical turning centres that can satisfy the needs of the power generation sector in every field; from nuclear energy, to wind energy through to hydroelectric power generation.

A vertical turning centre is a fundamental machine for manufacturing components designed for energy production.

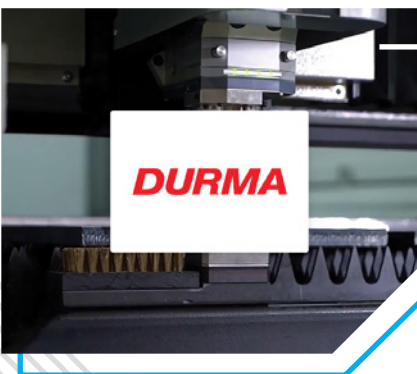
In modern manufacturing, particularly large parts, the most desirable technology is the acquisition of machine tools for completing the machining phase in a single set-up. To avoid the transfer of parts from one machine to the next, a multi-axis machine tool is a preferred choice to reduce continual set-ups. It is here, where Pietro Carnaghi exercises its expertise with an approach that increases productivity and precision whilst reducing setups and potential errors.



AXILE

The offshore industry, ETG now has the ideal machine tool range with the AXILE brand of agile and smart 5-axis vertical machining centres, mill/turn and large bed double-gantry machining centres.

Perfect for the manufacturer that needs a precision machine with the strength and agility for machining particularly challenging materials that are used in the oil & gas industry – AXILE is the machine of choice. With nimble and agile kinematics that combine with power, rigidity and speed – AXILE delivers the perfect combination for the industry.



DURMA

Whether it's onshore, offshore, solar, nuclear or wind-powered. The power generation industry is always evolving. Now, manufacturers will be delighted to know that ETG and the Durma brand can deliver their pressed, punched or formed sheet metal parts.

The DURMA product range includes servo, hydraulic and electric press brakes, laser and fibre laser cutting, bending centres, plasma cutting, guillotine shears, tube bending, punch presses and automated loading/unloading technology. Whether you're cutting frames for solar panels or composite and lightweight parts for wind turbines, DURMA has the answer for your production challenge.

CONTACT ETG - THE POWER GENERATION SECTOR, MACHINE TOOL SPECIALISTS

If you are a cutting tool manufacturer, or a company involved in tool and die manufacturing for the mould-making sector, ETG's principals will have a solution for your component manufacture. Please call 01926 818 418 to find out more or contact us via email.





Making Engineers Champions...

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