

Air Preheater. Global Solutions



- Gear Units
- Worm Gears
- Couplings and Freewheels

Global Air Preheater Solutions

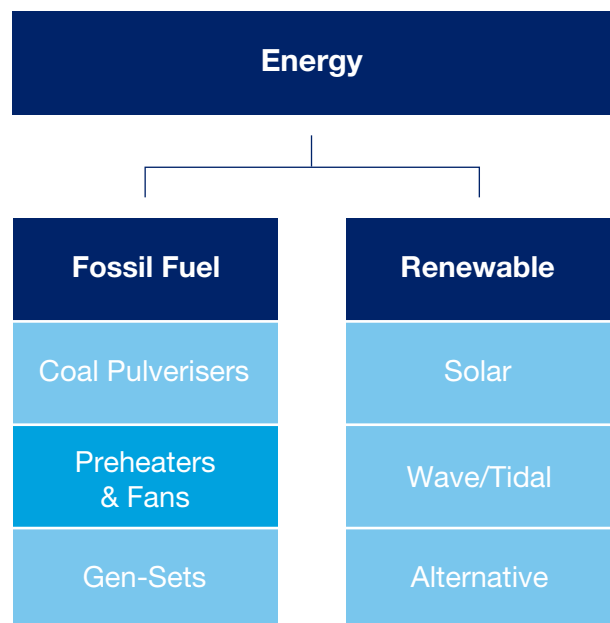
Renold is a global engineering group with over 130 years of experience in the design and manufacture of high-quality power transmission products and application-specific solutions.

Application knowledge and engineering expertise, together with global manufacturing and service, ensures that Renold is your ideal partner – whatever your industry need. It is this unique industry experience gained in demanding global environments that makes the vital difference.

Our skilled engineers work closely with customers to provide a wide range of solutions for critical, real-life applications. Solutions that are proven to stand the test of time – that is why we believe in the principle: ‘Engineering for Life’.

Renold is focused on servicing 9 key industry sectors

- Energy
- Transportation
- Mining & Quarrying
- Material Handling
- Manufactured Products
- Food & Drink
- Environmental
- Construction Machinery
- Agriculture, Forestry & Fishing



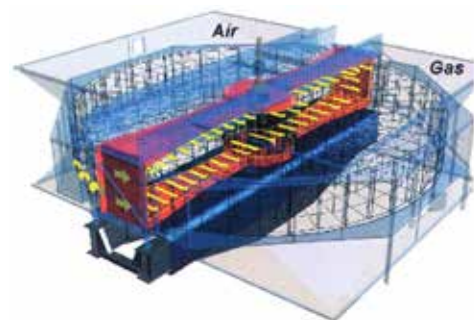
Fossil Fuel

“ Capability to supply custom-designed or drop-in replacement solutions.



→ Air Preheater

Air Preheaters (APH) are large fans used in boilers to pre-heat combustion air ahead of the furnace. This is done by recycling heat from the flue gas exiting the furnace. Pre-heating the air increases the thermal efficiency of the boiler. The fan is driven very slowly by an APH gearbox, which allows the fan elements to be heated by the flue gas. This heat is then transferred to the air entering the boiler. Renold designs and manufactures various solutions, dependent on the customer's preference, including multi-input helical worm gear and bevel helical gear.



→ Central Drives

Renold designs options for centrally driven Air preheaters, including worm and helical gearing configurations, which can be designed as drop-in replacements for originally supplied units, or designed to the OEM's specification for new applications. A central design has a solid output shaft and mounts directly on to the main rotor shaft of the APH, secured by means of a shrink disc.



→ Helical Worm Gear Drives

Renold offers a multiple input helical-worm-worm with hollow bore output for direct mount to the drive shaft or it can be supplied with an optional Renold Hi-Tec Coupling. It can be direct mounted to multiple prime movers including AC, DC or air motors. The drives can be manufactured in a range of sizes to suit power stations from 200 to 1200 MW. Different torque requirements are dependent on the size of the power station.



Engineering for Life

“ Design options include central or peripheral drives.



→ Peripheral Drives

Renold supplies options for peripherally driven air preheaters. A peripheral drive is mounted on to the extremity of the APH. It is supplied with a solid output shaft on to which a spur gear is mounted, which drives the APH via an externally mounted girth ring gear.



→ Bevel Helical Gear Drives

Renold's bevel helical solution is a multi stage design with the option of a solid output shaft, either vertically up or down, and with provision for multiple inputs and integrated holdbacks. The drives include a self-contained lubrication system. They can be either gear pump or electric motor driven and can be supplied with separately mounted gear motors for barring. The main motor is driven by a fluid coupling for soft starts. The drives can be manufactured in a range of sizes to suit power stations from 200 to 1200 MW.



→ Associated Products

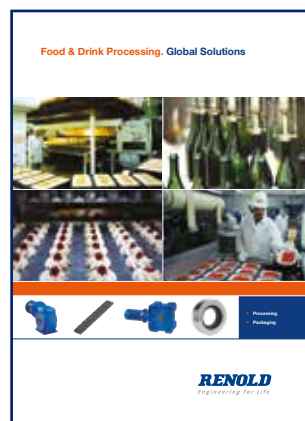
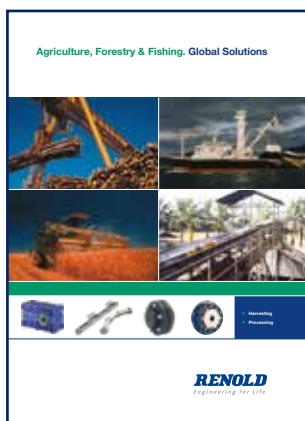
Renold designs and manufactures coal pulveriser worm gears to both the renowned Renold profile and also using its unique replication program to manufacture interchangeable replacements for existing CE/Alstom pulverisers installed worldwide. Renold also offers standard gear units and custom designs manufactured as drop-in replacements for inclined and horizontal conveyors. A wide range of Renold couplings, sprag clutch and trapped roller freewheels, for use in a wide range of coal applications, can also be supplied.



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Key Industry Sectors

Renold products and services are utilised in a wide range of applications highlighted in the key industry sector brochures, available to download from www.renold.com



RENOLD

A global power transmission group serving global markets through an international network.

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Superior Technology. Global Expertise.

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