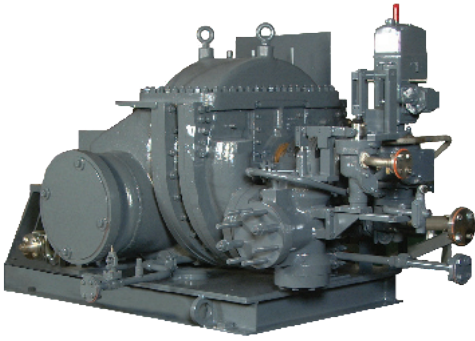


# Model U

## Multi-Stage Steam Turbine



The Dresser-Rand® Model U steam turbine was originally designed to meet the harsh environment of the sugar industry where sudden changes in steam conditions and loads are common. The time-tested Model U turbine continues to meet the most demanding mechanical drive needs for petroleum, petrochemical, sugar mills, steel mills, waste-to-energy plants and other process industries that require drivers for generators, pumps, compressors, fans, and blowers.

### Casing Design

The unique above-centerline casing split allows the cover of the Model U turbine to be removed for rotor and diaphragm inspection without disturbing the steam sealing areas, or the inlet and exhaust connections. This design also allows 270 degrees of admission from a single steam chest without a high-pressure horizontal joint.

### Inlet Valves

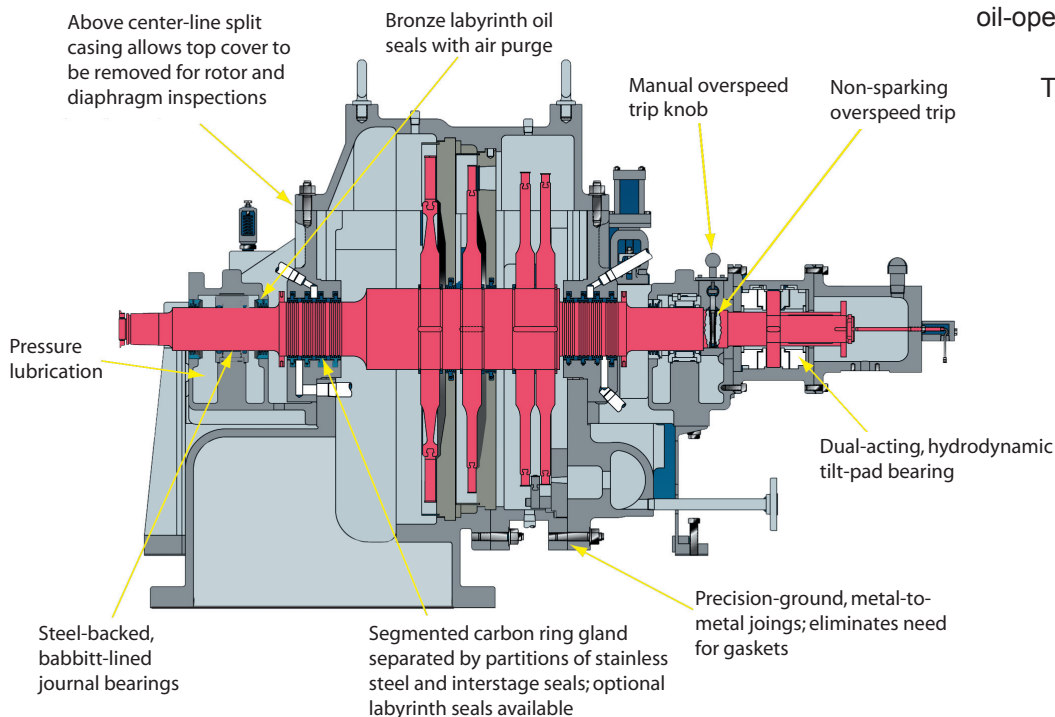
The Model U turbine is designed with a single inlet valve with optional manual hand valves for steam flow control, and a wide selection of optional governors and accessories.

### Overspeed Trip System

The overspeed trip system is a mechanical bolt action, non-sparking system operating an independent trip valve. A two-out-of-three electronic system with dual solenoid activation is available as needed.

The independent trip valve can be a high-performance butterfly valve, or a Dresser-Rand mechanical latch, or a Gimpel™ oil-operated trip and throttle valve.

These valve types provide quick-close, positive shut-off of the steam supply and comply with API 612 standards. The trip and throttle valve can function as a manually operated throttle valve for turbine start-up or shut-down.



**DRESSER-RAND®**

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Fax: 319-752-1616

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**Dresser-Rand**

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Wellsville, NY 14895  
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**Governors**

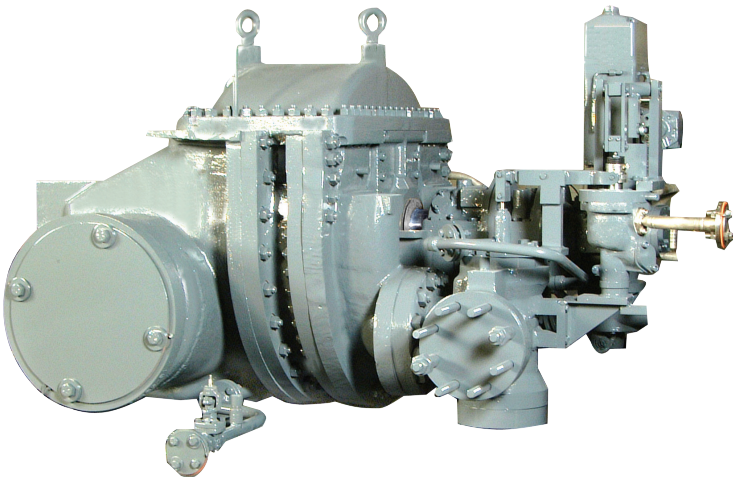
The Model U turbine is typically supplied with the Woodward Peak 150 governor control system. It provides tight control of speed (NEMA D) and includes an input for a 4-20 mA remote speed control signal that can be used for a process-generated input to control the speed setting. Other features include dual-speed control dynamics and overspeed trip test capabilities.

**Rotors, Seals, and Bearings**

Rotors are available in forged or built-up or integral design with flexible or stiff shaft for up to 10 stages. Segmented, carbon-ring gland steam seals separated with partitions of stainless steel and inter-stage seals are standard. Labyrinth gland seals are also available to accommodate operating conditions or client preference.

Bronze, labyrinth-type oil seals retain pressure-fed lubrication in the bearing housings and prevent contamination from foreign materials.

The Model U turbine incorporates dual acting, hydrodynamic tilting pad thrust bearings to position the rotor axially and absorb internal thrust. Spherically seated or tilting pad-type journal bearings are standard.



**Specifications**

Model	Power HP (kW)	Inlet Pressure psig, (bar)	Inlet Temp °F (°C)	Exhaust psig, (bar)	RPM
U	8050 (6000kW)	650 (45)	850 (454)	200 (14)	10,000
Inlet Diameter In (mm)	Exhaust Diameter In (mm)	Stages	Casing Design	Inlet Options	
10 (250)	36 (900)	10	Horizontally split	Hand valve	