Ural Turbine Works
The Ural Turbine Works (UTW) (established in 1938)

- Annual production capability 2.5 GW
- Products:
  - extraction and condensing turbines 330 MW maximum, for power engineering sector, operating in simple cycle
  - steam turbines for combined cycle power plants (CCPP) (CCPP-115, CCP-220/230, CCPP-420/450, CCPP-900)
  - bottom turbines
  - gas turbines 30 MW maximum
  - ship turbines
  - heat exchange equipment

- In-house manufacturing process for turbines and heat exchange equipment (titanium products as well)

- 1070 top skilled employees including 160 design engineers

- 50 patents for inventions from 2004 (3 patents a year)

- Each year – new steam turbine design

- Export to Kazakhstan, Belorussia, Mongolia and Serbia
<table>
<thead>
<tr>
<th>UTW in numbers</th>
<th>80</th>
<th>1070</th>
<th>2.5</th>
<th>904</th>
<th>50</th>
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<tr>
<td>80 years. Factory was established in 1938 and has a rich history</td>
<td>1070 employees</td>
<td>2.5 GW is potential annual productive capacity</td>
<td>904 steam turbines installed in Russia and abroad with total capacity 64 GW</td>
<td>50 projects implemented (2011-2016)</td>
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JSC The UTW has supplied 904 steam turbines with total capacity of more than 64,000 MW to power plants in various countries. About one half of the installed capacity of cogeneration turbines in Russia and CIS falls on turbines manufactured by UTW (TMW).
Comprehensive program for the modernization of the UTW manufacturing facilities (one billion rubles invested into technical re-equipping during the last 3 years). In the period from 2017 to 2020 it is planned to invest 1.2 billion rubles in updating of production capacities.

- **Blank production**
  - Machine complex for welding of titanium products — orbital welding Polysoude

- **Blade production**
  - 250 tons hydraulic press HIDROGARNE (Spain)

- **Turbine production**
  - Portal machining center TOS KUŘIM FRUFQ 350V
  - Horizontal boring-and-turning mill modernization ŠKODA W250

- **Rotor balancing test station**
  - New assembly stand (37x17x4 m)
  - Modernization of SCHENCK high-speed balancing and overspeed facility
**Design bureau**

- 110 people in the engineering department
- 85% have a higher education in power engineering
- 25% of engineers are under 30 years old

**Soft in use**

- Compas v. 15
- Creo Parametric 1.0; Windchill v.10
- ANSYS
- Soft of own design
- Start (pipeline calculations)
- MS Office
Quality management system and licensing

ISO 9001:2015, confirmed by British Standards Institution

Certificate of conformity of the Customs union

Licences for the right to design equipment for nuclear installation;
production of equipment for nuclear installation

License for the right to produce equipment for ships and other watercraft with nuclear reactors

Russian maritime register of shipping. Recognition certificate for manufacturer of main turbine condenser K-2950.
Steam turbines production line

Steam turbines for simple cycle
- Extraction turbines
- Condensing turbines

Steam turbines for combined cycle
- CCPP-115
- CCPP-220/230
- CCPP-420/450
- CCPP-900

Bottom turbines
Opportunity to use stand-by turbines of “R” type
Steam turbines renovation

Steam Turbines Renovation

- Lifetime extension
- Power increase
- Improved performance indicators

Spare Parts Delivery

- Reliable operation
- Manufacturer warranty

Services, including Long-Term Service

- Shop repairs
- Service teams training and certification
- Planned maintenance supervision
- Technical consultancy
Our Key Customers

- Siberian Generating Company
- TATNEFT
- NLMK
- Gazprom Energoholding
- Fortum
- INTER RAOUES
- CIBÉKO
- CAEPCO
- SEVKAZENERGO
- GTEK Mosenergo
- ArcelorMittal
- Lukoil Oil Company
- PAVLODA RE NERGO
- Rao ES of East
- Belorussia
- Kirovenergomash
Thank you for your attention