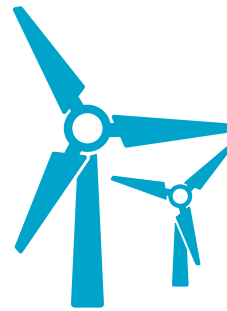


WIND TURBINE

Solutions for production
and maintenance in the
Wind Turbine industry.



Atlas Copco





RENEWABLE AND CLEAN

Ever since we first set sail, man has tried to control the pure power of wind. Today, wind power is the world's fastest growing energy source. Producing it and consuming it both include identifying potential energy savings. In order to increase the efficiency of the wind turbines, high demands are put on the design and the individual components. Fast delivery is a must, regardless if you need electricity or the tools to maintain a power plant. Innovation and productivity move things forward, no matter which way the wind will blow.

We are global – never far away. We believe in individual solutions. Atlas Copco – safe, high quality products that will increase your productivity.

BOLTING

➔ *Atlas Copco can offer the right high quality solution for any possible torque or tension application. We believe in the right product and the right offer.*



TENSOR NUTRUNNERS

Flexible, powerful and torque control for any bolt tightening application.



RAPID TORC WRENCH-ES

Bring power, accuracy and safety to bolting applications.



RTP NUTRUNNERS

Slim, light and powerful for heavy duty bolting.



TENTEC TENSIONERS

Complete range of hydraulic bolt-tightening solutions.



MOUNTING OF THE GEAR BOX in the nacelle. Tensor Revo tighten 32 thread rods, M33, to 1500 Nm in controlled manner. This electric tool solution reduce noise and vibrations, and it gives a fast and accurate assembly of the gear box.

WIND TURBINE FOUNDATION. 20 sets of the versatile Tentec Aero WTF tensioners were used together with high pressure hoses and hydraulic tensioner pumps to have a productive rise of this wind turbine tower. In this case the wind tower base was held by two sets of bolts – M42 and M160.

APPLICATION GUIDE – BOLTING

Application	Torque / Load Range			Accessories
	Up to 1000 Nm / Up to 500 KN load	1000 - 3000 Nm / Up to 1000 KN	3000 - 5000 Nm / 1000 - 1500 KN	
Foundation bolts	WTF Tensioners			Electrical pump, hoses, connectors, couplers
Tower Section Bolts	WTB Tensioners RT / RTX Wrenches RTP 1300 / RTP4100			Electrical pump, hoses, connectors, couplers, sockets, Filters, reaction arms
Nacelle mounting	LMS Impact wrenches RTP 1300/RTP 4100 Tensor Nutrunners	RT / RTX Wrenches		Pneumatic Pumps, Tinline Hoses, Sockets, Reaction arms, F/RD, Hex reducers, inserts,
Hub mounting	RTP 1300 / RTP 4100 RT / RTX Wrenches			Pneumatic Pumps, Tinline Hoses, Sockets, Reaction arms, back up wrenches,
Bearing to Hub	WTB Tensioners RT / RTX Wrenches RTP 1300 / RTP4100			Electrical pump, hoses, connectors, couplers, sockets, Filters, reaction arms, Hydraulic hoses, inserts, hex reducers, support handles, safety nuts, back up wrenches
Blade bearings	WTB Tensioners RTP 1300 / RTP 4100			
Generator bed	RTP 1300 / RTP 4100	RT / RTX Wrenches		
Gearbox bed	LMS Impact wrenches Tensor Nutrunners			
Main bearing Bolts	WTB Tensioners RT/ RTX Wrenches			Electrical pump, hoses, connectors, couplers
Nacelle yaw bearing	RTP 1300 / RTP 4100	RT / RTX Wrenches		Pneumatic Pumps, Tinline Hoses, Sockets, Reaction arms,
Axle shaft bolts	RTP 1300 / RTP 4100		RT / RTX Wrenches	
Maintenance	LMS Impact wrenches RT / RTX Wrenches, RTP Nutrunners WTB / WTF Tensioners	LMS Impact wrenches RT / RTX Wrenches, RTP Nutrunners WTF / WTB Tensioners	RT / RTX Wrenches WTF / WTB Tensioners	Electrical pump, hoses, connectors, couplers, sockets, Filters, reaction arms, Hydraulic hoses, inserts, hex reducers, support handles, safety nuts, back up wrenches

MATERIAL REMOVAL

➔ Long process cycles place high demands on tools and operators. Use ergonomic tools with high power-to-weight ratio that are built to last.



GTG SANDERS

Productive, unique and compact sander with an oil-free turbine motor generating 2,5kW.



CIRCULAR CUTTERS

LCS38 for GRP cutting applications or regular LSV38 with a diamond cutting kit.



DIE GRINDER

LSF 19 is comes with a powerful 500 W air motor and speed governor, silencer and scatter dampening. Can also be equipped with dust extraction and diamond burr.



LSV SANDERS

Light weight sander with outstanding power-to-weight ratio and a lubrication free vane motor.



GRP CUTTING APPLICATION. In this case the two shells have been glued together, and the feeder system outside the actual blade needs to be removed. We recommend the LSV48/38 with a special diamond cutting kit or the LCS38 that allows you to use diamond discs and also incorporates a dust extraction. All the power you need to cut through the material with ease and increase the productivity.

SURFACE PREPARATION OF THE BLADES is a time consuming task. Cleaning them from excessive glue and preparing them for their final coat of paint. Meaning long trigger time in uncomfortable positions for the operator. Our high productivity sanders GTG25, LSV38 and our orbital sanders LST/LSO shorten the process time and minimize the vibrations and dust.

APPLICATION GUIDE – MATERIAL REMOVAL

Application	Product recommendation	Accessories
Surface preparation of rotor blades and canopy before painting	GTG25 Angle Turbine grinder LSV48/38 Angle grinders LST/LSO Orbital sanders	Dust extraction kit, multiflex, hoses
Polishing of turbine blades	LSV28 Angle polisher	
Triming of rotor blades	LSV48/38 Angled grinders for GRP cutting LCS38 Circular cutter LCS10 Circular cutter	Diamond cutting kit, multiflex, hoses
Remove internal defects in rotor blades	LSV48/38 Angled grinders for GRP cutting LCS38 Circular cutter LSF28 Die grinder LCS10 Circular cutter LSF19, LSV19 Die grinder / Angled Die grinder LSF12, LSV12 Die grinder / Angled Die grinder	Diamond cutting kit, diamond burr/drum kit, multiflex. Hoses
Remove small surface defects on rotor blades	LSV19 Angle sander LSV12 Angle sander	Dust extraction kit, multiflex, hoses
Cleaning of large castings for the hub or nacelle bed plate	GTG40/25 Turbine Angle grinders GTR40 Turbine Straight Grinder LSS84/64 Vertical grinders LSR64 Straight grinder LSV48/38 Angle grinder LSF38 Die grinder LSS53 Vertical grinder LSR48/43/38 Straight grinders	MultiFlex, hoses and coupling
Tower construction	GTG40/25 Turbine Angle grinders LSV48/38 Angle grinder LSV28 Angle grinder LSF28 Die grinder	MultiFlex, hoses and coupling
Shape grinding and light deburring	LSF19, LSV19 Die grinder / Angle grinder LSF12, LSV12 Die grinder / Angle Die grinder LSF07 High speed Pencil grinder	MultiFlex, hoses and coupling

COMMITTED TO SUSTAINABLE PRODUCTIVITY

We stand by our responsibilities towards our customers,
towards the environment and the people around us.
We make performance stand a test of time.
This is what we call – Sustainable Productivity.

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