

Special edition: Wind Power



WIND POWER

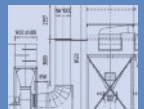
Towers

Wet paint overspray



Large components

Zinc spraying processes



Power head

Fabrication processes



Keller Information

Keller Lufttechnik is a worldwide technology company specializing in the capture and separation of a variety of air pollutants, as well as the reduction of emissions in industrial applications. The family-owned company was founded in 1903 and is now run by the fourth generation, combining both tradition and innovation. Keller USA, Inc. is a subsidiary of Keller Lufttechnik.

All industrial manufacturing processes produce air polluting substances. These substances are released during mechanical machining processes, thermal processes, in treatment technology, during the handling of cleaning agents and solvents, or during painting and refinishing processes.

Surface treatment is required for almost all manufactured products. This affects the physical and functional characteristics such as hardness, corrosion and wear-resistance, as well as color or brightness. To meet those different requirements, surface engineering processes and coating technology are necessary for many applications. Keller is able to offer innovative solutions such as energy-efficient filtration systems for coating processes, or the latest extraction systems for the blasting of components

Foreign substances in the air have an adverse effect on the manufacturing process and the final product. They must, therefore, be captured, separated and exhausted effectively and reliably. Keller develops, plans and manufactures exhaust systems that present an appropriate solution for air quality control. To this end, we rely on an extended and proven product range to solve problems in the fields of dry and wet separation, as well as in oil/ emulsion mist separation. By utilizing innovative filtration technologies and systematic planning, we achieve optimum separation results. This way, Keller provides custom-tailored systems of the highest quality that include solutions to individual problems.

In addition, Keller offers complete service packages covering the entire service life of all aspects of our exhaust systems: from the first draft, the approval and permit processes, the installation and commissioning, to after-sales and service.

Additional information: www.kellerusa.com



Surface filters, VARIO and ModuLine CR



Surface filters, L-CUT



Wet scrubbers, VDN



Oil mist separator, OENA



Emulsion mist separator, ENA



ModuLine CLB



Moduline CL



Work booths

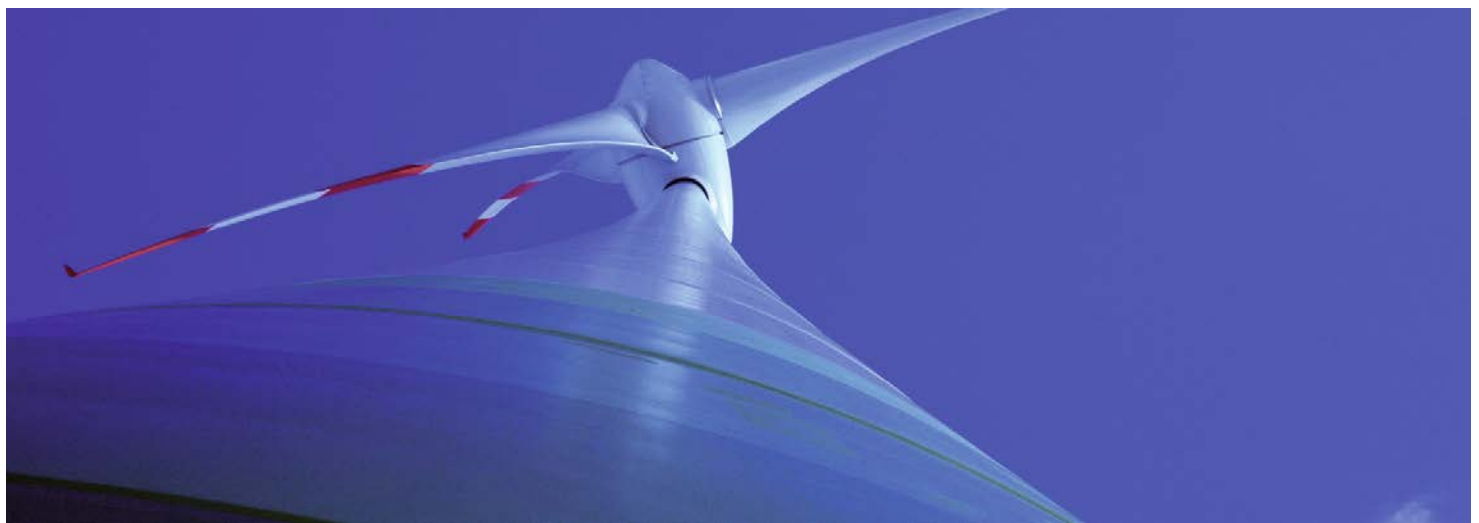


Cyclone filters



KL-WETVAC

Expert filtration technology with long-standing experience in large components



The fabrication processes of large components for the wind power and aircraft manufacturing industries, as well as the automobile and marine construction industries, can be challenging for both the personnel and technology involved. Keller's focus for a number of years has been on the extraction and separation

of the resultant dust or coolants. Applying innovative filtration technology and efficient processes ensures optimal collection and separation of waste matter. Keller's engineering provides numerous solutions for air quality maintenance.

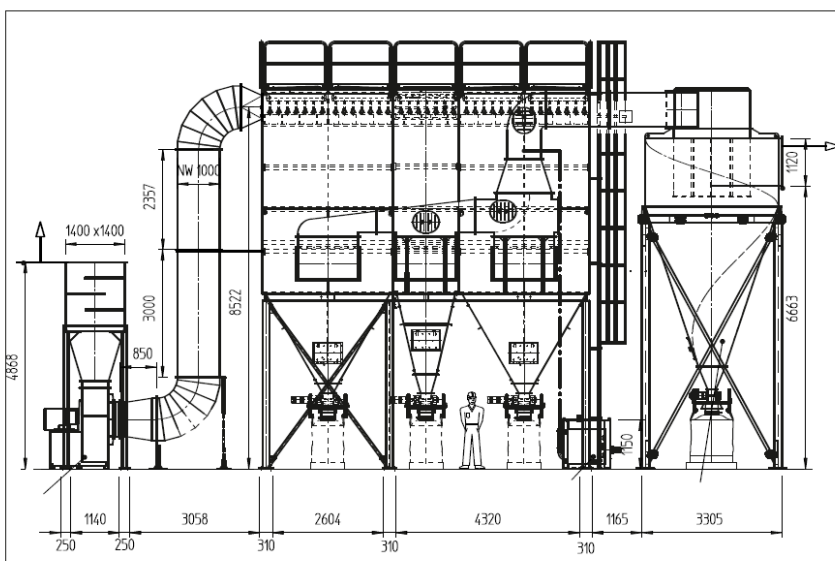
Industrial sector	Components	Range of Applications	Air Flows
Wind power	Bearings	Coolant mist, vertical turning	10 systems à 10,000 m ³ /h
Wind power	Power head	Turning, milling	20 systems à 1,500 bis 3.000 m ³ /h
Wind power	Tower	Overspray for wet painting	3 systems à 55,000 m ³ /h
Wind power	Tower	Overspray for zinc spraying	1 system à 55,000 m ³ /h
Wind power	Gears	Induction hardening	1 system à 5,000 m ³ /h
Wind power	Rotor hubs	Cleaning booths	8 systems à 24,000 m ³ /h
Wind power	Rotor blades	Grinding	1 system à 12,000 m ³ /h

Wet painting - Tower



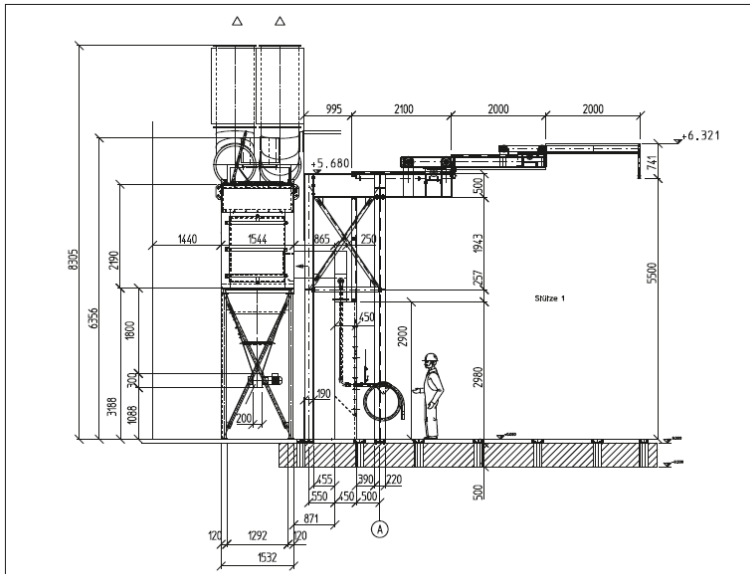
Dust condition	slightly humid
Collection	booth
Air flow	50.000m ³ /h
Dirty air concentration	10 mg/m ³
Weight	80 kg/week
Humidity level	ca. 60%
Process temperature	23° C
Airflow	exhaust air following VOC separation
Shift operation	2-shift operation
Filter type	four PT121 – "paint design"
Material discharge	fully automatic with round filter and BIG-BAG
Pre-coat supply	fully automatic BIG-BAG station with DOS K 500, squeeze valve and DIP pump

Zinc spraying - Tower



Dust condition	dry
Collection	booth
Air flow	50.000m ³ /h
Dirty air concentration	10 mg/m ³
Weight	40 kg/week
Humidity level	ambient humidity
Process temperature	30° C
Airflow	exhaust air duct
Shift operation	2-shift operation
Filter type	pre-separator MVA 180, JET-SET 537/77
Material discharge	below BIG BAG
Pre-coat supply	DOS K 125 with weighing device

Cleaning booths - Rotor hubs



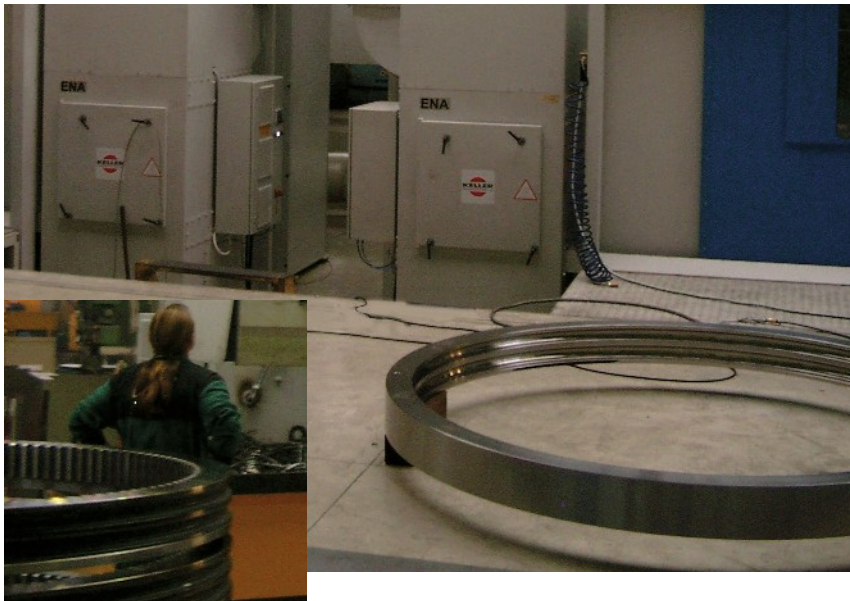
Dust condition	dry
Collection	work booths
Air flow	8 x 20.000m ³ /h
Dirty air concentration	50 mg/m ³
Weight	900 kg/week
Humidity level	ambient humidity
Process temperature	ambient temperature
Airflow	recirculating air duct
Shift operation	3-shift operation
Filter type	8 VARIO 6; 32 extraction cells AZ 29
Material discharge	screw-conveyor into container provided by the customer
Pre-coat supply	-----

Turning, milling - Power head



Dust condition	dry
Collection	collection elements
Air flow	1.500 - 3.000 m ³ /h
Dirty air concentration	no indication
Weight	no indication
Humidity level	ambient humidity
Process temperature	ambient temperature
Airflow	return air
Shift operation	3-shift operation including weekend
Filter type	VARIO 1.3 and 2.1
Material discharge	2 x 30 L container
Pre-coat supply	-----

Vertical turning - Bearings



Dust type	coolant mist
Collection	room extraction
Air flow	10.000 m ³ /h
Dirty air concentration	no indication
Weight	no indication
Humidity level	ambient humidity
Process temperature	ambient temperature
Airflow	return air
Shift operation	2-shift operation
Filter type	ENA D-10 V
Material discharge	siphon
Pre-coat supply	-----

Grinding - Rotor blade fabrication



Dust condition	dry - fiberglass
Collection	work booths
Air flow	12.000 m ³ /h
Dirty air concentration	no indication
Weight	no indication
Humidity level	ambient humidity
Process temperature	ambient temperature
Airflow	exhaust air
Shift operation	2 - 3 shift operation
Filter type	VARIO 4.3
Material discharge	2 x 50 L container
Pre-coat supply	-----

Induction hardening - gears



Dust type	coolant mist
Collection	mobile
Air flow	15.000 m ³ /h
Dirty air concentration	10 mg/m ³
Weight	no indication
Humidity level	80 %
Process temperature	25° C
Airflow	exhaust air
Shift operation	2-shift operation
Filter type	ENA-D 15
Material discharge	-----
Pre-coat supply	-----



SOLUTIONS FOR YOUR APPLICATIONS

Iron and steel/Non-ferrous metal			
Brushing machines	•		
Lathes	•		•
Pressure die casting	•		•
Spring grinding	•		
Hot-dip galvanizing	•	•	
Milling machines	•		•
Shot-blasting	•		
Hardening shops	•		
Sand casting	•		
Cooling sections	•		
Laser machining	•		
Polishing machines	•	•	
Fettling shop	•	•	
Sand treatment	•	•	
Grinding machines	•	•	•
Melting furnaces (cupola, induction)	•	•	
Welding processes	•		
Abrasive-blasting machines	•	•	
Thermal spraying	•		
Thermal cutting	•		
Transfer machines	•		•
Machine tools (cooling lubricants)			•
Machine tools (minimum quantity lubrication)	•		•
De-scaling	•	•	
Chemical, pharmaceutical and food industries			
Bio filtration	•		
Genetic engineering	•	•	
Laboratory technology	•	•	
Painting	•		
Surface technology	•	•	
Pharmaceutical production	•	•	
Pneumatic transport systems	•		
Drying plants	•		
Finishing		•	
Recycling	•		
Material sorting	•		
Plastics and rubber			
Rubber cylinder machining	•		
Plastics extruder		•	
Tire buffing machines	•		

Electrical and electronic industries			
Electrical and electronic industry	•		
Electronic parts production	•		
Semi-conductor industry	•		
Pulp, paper, printing			
Baling presses	•	•	
Book binding shops	•		
Printing shops	•	•	
Guillotine-type cutters	•		
Roll cutter	•		
Winders	•		
Pulp and paper products	•	•	
Wood processing			
Building component processing	•		
Fiberboard processing	•		
Natural textile processing	•		
Wood panel processing	•		
Insulation material processing	•	•	
MDF processing	•	•	
Pneumatic transport systems	•		
Chipboard processing	•	•	
Waste disposal - Recycling			
Waste recycling	•		
Asbestos disposal	•		
Waste and hazardous waste recycling	•		
Building material, nonmetallic mineral processing			
Mining and tunneling	•		
Drilling engineering	•		
Glass production	•		
Glass processing	•		
Ceramics production	•		
Kilns	•		
Mineral fiber processing	•	•	
Grinding	•		
Miscellaneous			
Air conditioning and ventilation	•		
Coal treatment	•		
Coke plants	•		
Exhaust systems for large-scale catering establishments	•		
Leather processing	•	•	
Textile processing	•	•	

The separating technologies:

- dry separation
- wet separation
- oil/emulsion mist separation

The information given in the leaflet does not have the function to convey a defined idea. Due to the application range variety, an individual consultation with our engineers is absolutely necessary. We remain at your service for any additional questions you may have.



Keller USA, Inc.
 2168 Carolina Place Drive
 Fort Mill, SC 29708 USA
 Phone (803) 396-2000 Fax (803) 396-2905
 E-mail info@kellerusa.com
www.kellerusa.com