

Industrial Filtration Solutions for the  
**Aggregates Industry**







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## **ARENA d.o.o., Inc. and has over 30 years experience in the manufacturing and marketing of nonwoven filter bags for hot gas, dust and liquid filtration applications.**

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ARENA d.o.o.'s industrial filtration products, based on needlefelts and membranes, have been developed for demanding filtration applications such as biomass, coal and waste-fired power stations, asphalt plants in addition to cement, gypsum, aluminum and steel plants. ARENA d.o.o.'s wide range of filter bags also offers filtration solutions for chemical and pharmaceutical production facilities.

ARENA d.o.o. Industrial Filtration is the global leader in Air Pollution Control with needlefelt manufacturing, membrane lamination and finished filter bag production in Serbia.

ARENA d.o.o. provides best-in-class Technical Support to filter bag manufacturers, end-users and OEMs. Our experienced engineers can provide help from practical problem solving to reducing total cost of filtration. ARENA d.o.o. provides OEMs with a full support package including installation services.

The increasing global demand for energy shows no sign of abating and the cleaner production of electricity is a target for many economies. Whilst coal continues to be the dominant fuel being burned in the plants of utility power providers, the additional use of biomass is on the increase.

Equally, the reduction of waste being sent to landfill and the need to recover the energy from material that cannot otherwise be recycled is leading to a significant number of Energy-from-Waste (EfW) sites with a variety of materials being combusted to generate heat to produce steam to drive turbines and generate electricity.

Many stand-alone plants now process all manner of waste types; municipal, clinical, industrial, hazardous, sewage sludge, paper sludge – the list is long and increasingly varied.

The flue gases from these combustion processes require cleaning to remove the numerous gaseous and solid pollutants, the emissions of which are tightly controlled and closely monitored.

The very nature of the process ensures the flue gases are often high temperature and chemically aggressive which, coupled with the requirements for low particulate emission levels and the need to maintain good draft through the system, places great emphasis on the quality of the filter media to be employed in any fabric filter gas cleaning system.

ARENA d.o.o. Industrial Filtration has been actively engaged over many years in the development and supply of filter media which has been designed to meet and exceed the requirements of the growing energy market.





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## Case References

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### Calcium Carbonate – Mill

- Product Code: P0550P1M – Duotech™ Polyester Needlefelt with PTFE Membrane
- Gas volume: 34,000 Am<sup>3</sup>/Hr
- Operating Temperature: Up to 120°C
- 320 filter bags 3.6m long x 130mm dia
- Operating Pressure Drop: <130mmWG
- Particulate Emissions: <5mg/Nm<sup>3</sup>

### Lime – Shaft Kiln

- Product Code: JL0650L3H+DR8 – PTFE+P84™ Blended Needlefelt with DR8 PTFE Treatment
- Gas volume: 200,000 Am<sup>3</sup>/Hr
- Operating Temperature: 220°C
- 1200 filter bags 5.0m long x 160mm dia
- Operating Pressure Drop: <140mmWG
- Particulate Emissions: <15mg/Nm<sup>3</sup>

### Asphalt Drum Mixer

- Product Code: A0402A1S – Microfelt® Aramid Needlefelt
- Gas volume: 48,000 Am<sup>3</sup>/Hr
- Operating Temperature: Max 210°C
- 640 filter bags 2.8m long x 140mm dia
- Operating Pressure Drop: <130mmWG
- Particulate Emissions: <15mg/Nm<sup>3</sup>

### Gypsum – Kettle/Calciner

- Product Code: R0550R1M – Duotech™ PPS Needlefelt with PTFE Membrane
- Gas volume: 54,000 Am<sup>3</sup>/Hr
- Operating Temperature: Max 110°C
- 600 filter bags 3.1m long x 118mm dia
- Operating Pressure Drop: <130mmWG
- Particulate Emissions: <10mg/Nm<sup>3</sup>

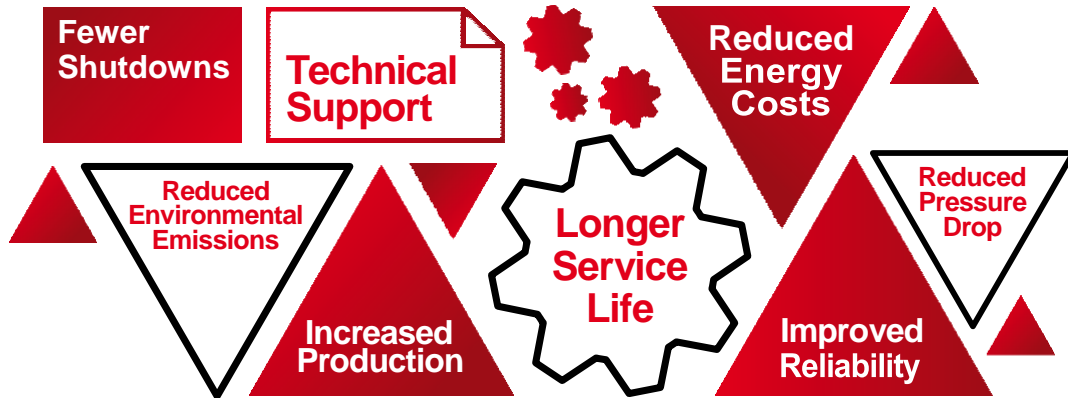


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## Benefits

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ARENA d.o.o. Industrial Filtration products have been employed in the aggregates industry for more than 30 years.



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**ARENA d.o.o. Industrial Filtration possess an enviable range of high temperature filter bag solutions whilst custom-made products can be supplied for specific application requirements.**

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## Take control of your filter and its performance by consulting with ARENA d.o.o. Industrial Filtration.

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ARENA d.o.o. Industrial Filtration understands that no two processes are the same and that optimised fabric filter performance is only achieved when full system reviews are conducted in partnership with our customers.

### Product Highlights



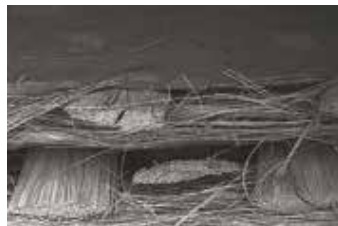
#### Microfelt®

"Kiln and mill operations typically generate very fine dusts which can prove challenging to filter effectively. Industrial Filtration has developed a range of products which have been engineered with these applications in mind – felts employing fine fibres are better able to deliver high particle collection efficiency when fine dusts are to be handled and a variety of fibre blends and finishes can be applied to enhance filter bag performance."



#### Proprietary Treatments

"Our extensive range of proprietary treatments provide a number of performance benefits from enhanced chemical resistance to hydrolysis to improved recovery from water dewpoint excursions."



#### Duotech™ Membrane / Glasstech™

"Part of our Duotech™ range of PTFE membrane laminates, Glasstech™ products can provide true high temperature operation capability up to 260°C combined with exceptionally low dust emissions and optimised filter pressure drop."



#### Meta Aramid Fibre

"Many applications in the minerals industry generate high operating temperatures in the fabric filter – Meta Aramid fibres (eg. Nomex®) can permit operation up to 200°C on a continuous basis and are commonly applied in a number of mineral thermal processes."

