



## ZERON® THE FUTURE OF PULSE JET FILTERS

### ZERON - A FULLY INTEGRATED FILTER BUILDING

Zeron is a large fabric filter system developed and internationally patented by Kappa Filter Systems, Steyr, Austria. The solid concrete panel structure allows all functional areas to be integrated compactly into one filter building for the first time – from the dust-separation to the clean gas stack. This leads to an optimal air flow pattern without turbulence or vortex, and the result is an extraordinary low total filter resistance. This considerably reduces the amount of energy required for operation in comparison to conventional bag filter systems. Dust emissions can be almost completely eliminated, and the noise emission level significantly reduced. The concrete panel structure increases the local value add, and substantially reduces both the logistics costs and the assembly times. The modular design facilitates future expansions, if required.

### COOPERATION WITH KAPPA

In future, Zeron will be jointly offered by Primetals Technologies and Kappa due to their cooperation agreement. Their initial focus is on dedusting systems for electric arc furnaces (EAF), minimills and secondary dedusting systems. Jointly they will expand the application of the Zeron technology to cover all metallurgical production units from sintering to ironmaking to steelmaking.

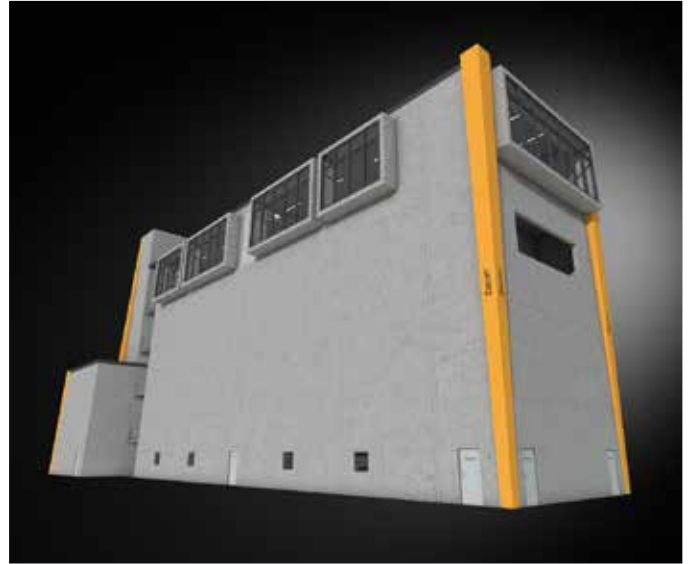


*„Zeron is a large-scale dedusting system that can be introduced in urban areas. On the outside, it looks just like a regular high-quality industrial building. On the inside, it cleans up to 1.3 million cubic meters. Its efficiency and low energy consumption speak for themselves.“*

Klaus Krüger  
Managing Director, Kappa Filter Systems



Zeron, 1.300.000 Bm<sup>3</sup>/h, Reference picture



Modern and forward thinking design

### DUST AND SOUND-PROOF

- Essentially reduced sealing lengths due to big panel sizes
- No escape of dust and no entry of moisture thanks to wear resistant special sealing material
- Maximized noise reduction due to concrete panels

### ECONOMIC

- Integration of individual filter components in one building – from raw gas inlet to clean gas stack outlet
- Minimum pressure loss due to the flow optimized filter design
- Optimized power consumption of ID fans thanks to minimum pressure loss
- Optimized raw gas distribution to the filter chambers

### ARCHITECTURAL

- Best accessibility
- Weatherproof
- Durability
- Not recognized as an industrial filter plant
- Modern and forward thinking design
- Perfect advertising surface

### MAIN BENEFITS

- Integration of all filter components in one building depending on individual requirements
- Significantly reduced dust and noise emissions
- Considerably reduced energy consumption
- Increased local value add
- Modular design facilitates future expansion
- Minimum pressure loss
- Reference plants clean volume flows from 150,000 to 1.3 million working cubic meters per hour (Bm<sup>3</sup>/h)
- Modern design that is not recognizable as an industrial filter plant

### Primetals Technologies Austria GmbH

A joint venture of Mitsubishi Heavy Industries and partners

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