



High Standards. Higher Performance. Highest Temperatures.

## Huyglas<sup>®</sup> from the APC division of Filtration Specialties Inc

### Case History: **Boilers**

**INTRODUCTION:** Huyglas<sup>®</sup> has been used in boiler applications for over two decades. With excellent temperature resistance and efficiency characteristics, Huyglas<sup>®</sup> is well suited for the wide range of boilers with pulsejet collectors, from wood-fired to coal-fired.

#### **PROBLEM**

- Application 1:** A wood-fired boiler located in the Northeastern United States, operating at a gas-to-cloth ratio of 3.54 cfm/sq. ft (1.08 m/min), experienced temperature excursions which melted the Ryton bags, requiring frequent bag changes.
- Application 2:** A stoker-fired boiler located in the United States originally installed woven glass bags in two bag houses, experiencing high pressure drop of 7-8 inches (178-203 mm) w.c. Pulsing was required every 10-20 seconds at 80 psi (5.5 bar). Bag life was less than one year.
- Application 3:** A baghouse installed on a pulverized-bed boiler located in the Midwestern United States was required to meet a 0.03 lb/MMBtu emission rate. Ryton<sup>®</sup>, Tri-Loft<sup>®</sup> woven fiberglass and woven fiberglass bags had been installed on different occasions but none achieved the emission standard required. In addition, the Ryton<sup>®</sup> showed significant fabric deterioration and the Tri-Loft<sup>®</sup> blinded within a few months of installation.

#### **SOLUTION**

- Application 1:** Huyglas<sup>®</sup> was installed on the wood-fired boiler allowing for higher operating temperatures and longer bag life.
- Application 2:** Huyglas<sup>®</sup> was installed on both baghouses, reducing pressure drop to 3-4 inches (76-102 mm) w.c. and pulsing to every 80 second at 60 psi (4.1 bar). Huyglas bags also have significantly longer bag life.
- Application 3:** Huyglas<sup>®</sup> was installed on the baghouse, meeting the emission requirement and providing over three years bag life.

Huyglas<sup>®</sup> was chosen over other materials because:

- Longer bag life/good durability
- Ability to operate at temperatures of 550° F (288°C) and to handle excursions to 600° F (316°C)
- Lower pressure drop compared to other media
- Excellent filtration efficiency

For information on a specific application, please contact APC

High Temperature Filter Fabrics for Bags and Pleated Elements

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