

MECS® HEXPRO™ FERRULES FOR WASTE HEAT BOILERS AND HEAT EXCHANGERS IN SULFURIC ACID PLANTS



PRECAST, PRECISION CERAMIC FERRULES FOR SEVERE TEMPERATURE AND HEAT-CYCLING CONDITIONS

FAST, SIMPLE INSTALLATION

MECS® HexPro™ Ferrules are pre-engineered for each installation and come properly sized, accurately molded, and completely wrapped with all required fiber insulation. Installation is as simple as taking them out of the box and slipping them into the boiler tubes. No castable refractory is used between the MECS® HexPro™ Ferrules, and only the most minimal amount is required around the periphery. Operators can save days on turnaround without the need to painstakingly install, and then cure out, large expanses of castable refractory.

CONSISTENT PROPERTIES

MECS® HexPro™ Ferrules are fired under controlled conditions in a plant environment, resulting in consistent, predictable properties; rather than one that requires the extensive use of castable refractory and field curing. MECS® HexPro™ Ferrules are not subject to the vagaries of weather, installation expertise, and time constraints.

OPERATIONAL ADVANTAGES

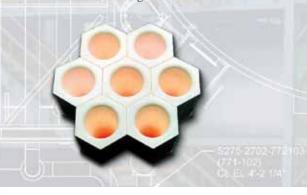
Thermal Management System (TMS) – a pre-fired tubesheet protection system that allows for the extensive use of fiber insulation in conjunction with the MECS[®] HexPro™ Ferrules. In a greatly compressed area, TMS provides much better insulating value while saving space and refractory when compared to castable alone.

Improved performance – Large expanses of castable refractory undergo tremendous thermal and mechanical stresses as they heat up and cool down and that generates cracking in the castable refractory. Tubesheet protection systems consisting of precast MECS* HexPro™ Ferrules perform as though they have built in expansion joints, which they do, limiting any damage due to these stresses to a confined area.



FEATURES AND BENEFITS:

- Wide range of high alumina compositions available – offer exceptional resistance to corrosion and erosion
- Superior thermal shock resistance
- Typical fired dimensional tolerances of +/- 0.5% for exacting field fit-up
- High reliability generous radius under the ferrule head minimizes stress concentrations
- Thermal Management System (TMS) helps protect the tube sheet from excessive heat
- Recessed groove around the ferrule head maintains space for ceramic fiber wrap allowing for a hard, tight, hot face at temp.
- Achieve more process throughput or lower energy costs
- Higher performance and lower cost over time in heat cycling conditions
- Precast MECS® HexPro™ Ferrules can be quickly removed for periodic tubesheet inspection or maintenance, some or all may be reused, lowering cost





Learn more at www.mecs.dupont.com

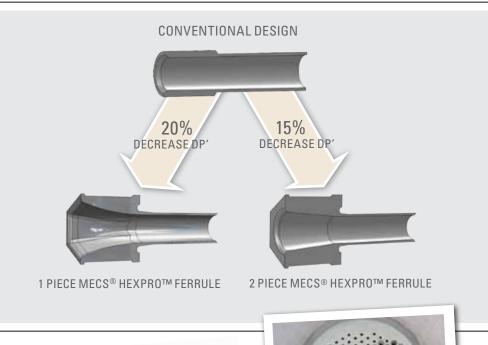
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OPERATIONAL ADVANTAGES continued...

Reduced pressure drop – MECS® HexPro™ Ferrules are available with a wide range of tapered inlet and outlet profiles and, in addition to reducing the refractory mass in the furnace, has been shown to reduce pressure drop over a conventional round ferrule and castable installation.

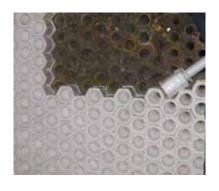
PRESSURE DROP IMPROVEMENT

USING HEXAGONAL 1 PIECE AND 2 PIECE MECS® HEXPRO™ FERRULES











www.mecs.dupont.com

North America MECS Headquarters

Chesterfield, Missouri, USA Tel: +1-314-275 5700 northamerica@mecsglobal.com

Europe/Africa

Brussels, Belgium Tel: +32-2-658 2620 europe-africa@mecsglobal.com

Milan, Italy Phone: +39-02-8969 0658 italy@mecsglobal.com

Johannesburg, South Africa Tel: +27-11-218 8618 southafrica@mecsglobal.com

Asia/Pacific

Hong Kong, China MECS Far East Limited Tel: +852-2734 5388 hongkong@mecsglobal.com

Shanghai, China MECS Chemical Plants Equipment (Shanghai) Co., Ltd Tel: +86-21-6182 1146 shanghai@mecsglobal.com

Mumbai, India MECS India Private Ltd. Tel: +91-22-6774 9500 india@mecsglobal.com

South America

Barueri, Sao Paulo, Brazil Tel: +55-11-4166 8000 brazil@mecsglobal.com