

# R.T. Patterson Company, Inc.

## Engineers and Consultants

### CLIENT

Arconic Corporation  
Bettendorf, IA

### PROJECT

No. 4 Melting Furnace Replacement

### PROJECT SCOPE

Replacement of No. 4 Melting Furnace, rebuilding of No. 4 Holding Furnace, and repair and/or replacement of No. 4 Casting Pit equipment as required.

### RTP SCOPE OF WORK

RTP accomplished the following:

There are three sets of furnaces in the Ingot Plant that are of similar design. All three have been modified substantially over the years to incorporate the latest available technologies and to reduce required maintenance. The three furnaces were retrofitted with these improvements on an as available basis, so the three are not identical. R. T. Patterson Co., Inc. redesigned and detailed No. 4 Melting Furnace working with Arconic personnel to incorporate improvements made to the various furnaces.

R. T. Patterson Co., Inc. (RTP) produced an *Autodesk Inventor* 3D model of the replacement furnace and detailed all parts of the furnace shell and refractory. RTP produced detailed drawings of ancillary equipment including burner supports, doors and door mechanisms, piping systems, etc. RTP produced technical specifications for the procurement of and also the installation of the new furnace.



### RTP SCOPE OF WORK – Continued

RTP evaluated bids and made recommendations for placing purchase orders for equipment and for contracting services. RTP produced and maintained an overall project schedule and provided 24-hour construction assistance coverage during a 45-day outage.

