

Gregory Dressel

36-YEAR AIST LIFE MEMBER



"I started my professional career as a slab caster and RH degasser foreman at Weirton Steel in 1978. The plant at that time had some of the most modern and high-tech production equipment known in the steel industry. But what I remember most were the men working at the plant. We still had steelworkers who had fought across the Rhine in World War II and were Navy tail gunners in the Pacific. We even worked with guys who fought and flew for the Germans. Those guys had no problem doing the hard work involved in steelmaking.

"My first steelmaking manager, Donald Ralston, introduced me to the Iron & Steel Society (ISS). I had heard about the social aspects of the Open Hearth Conference, but quickly realized there were very valuable technical aspects to ISS as well. My career at this time involved some very interesting investigations in tundish water modeling and direct strip casting, and my company encouraged us to publish our work.

"My first involvement in ISS was doing an 'off the record' presentation. Then, with co-authors, a few technical papers followed. My biggest involvement was writing and editing a Q&A column titled "Skull Session" in *Iron & Steelmaker*, for a number of years. This helped to put me in contact with the best minds in the steel industry. I was very happy that ISS gave me the opportunity to share information with others in the business.



“I have found AIST to be a very valuable source of technical information.”



“This experience has led to a firm belief in the importance of knowing the fundamentals of steelmaking and casting. In fact, to this day when traveling, I take along copies of *The Making, Shaping and Treating of Steel*[®] and the old Seeley W. Mudd Series book, *Basic Open Hearth Steelmaking*. The equipment has changed drastically in the last 30 years, but the fundamentals as espoused by Darken, Chipman, Elliott, Fruehan, Turkdogan and a great many others are still very useful for finding the ‘sweet spot’ for engineering and operating an EAF, LMF, VD or CCM.

“The ability to measure and control processes has greatly improved since I started in the industry. Thirty years ago, slag chemistry results would take a couple of days. We had paper charts to record temperatures. Now results may be available in 10 minutes. Weights and other physical dimensions are accurately and instantaneously measured and reported.

“The number of people in the business has declined by an order of magnitude. At Weirton in 1978, there were about 12,000 people employed making 2 million tons of steel per year. The same type of integrated plant today may have as little as 1,500 people. An EAF-based shop will produce the same amount with under 500 employees.

“I’ve seen the ability to communicate information improve greatly. I can be located anywhere and see in real time

the progress of a heat melting in an EAF 5,000 miles away. Sometimes just by looking at the melting data even without any names or initials visible, I can tell who is operating the EAF, LMF or CCM.

“Membership in AIST is far more valuable to me than the dues I pay each year. I have met people and done business with companies through contacts made by being a member of AIST. AIST is good at providing a forum for detailed looks at technology and fundamentals that are normally passed over in a sales pitch. Steelmaking is all in the details.

“I have found AIST to be a very valuable source of technical information. With the AIST Digital Library, now it is possible to find an article, download it and use it the same day in Saudi Arabia, even though AIST is located in Warrendale, Pa., USA.

“You have to know the fundamentals of steelmaking inside and out. AIST is a great source to learn the fundamentals through books, papers, meetings and training seminars. If you know the fundamentals, they will always work — whether you’re in Asia, Europe, Africa or the Americas. Once you know the fundamentals, use them to benefit the steelmaking process. Get out and meet as many people with a like mind as you. AIST can put you in touch with people with similar professional interests.”

Gregory Dressel received his B.S. degree in metallurgy from The Pennsylvania State University. Later he obtained an M.S. degree in engineering management from the University of Massachusetts. He maintains professional engineering licenses in West Virginia and Pennsylvania. His career started in 1978 as a caster foreman at Weirton Steel. Later he moved to the National Steel Research Lab as a senior engineer. From 1987 through 1993, Dressel worked at Georgetown Steel. In 1994, Dressel Technologies LLC was founded to provide metallurgical process engineering and EAF-based meltshop management and commissioning services worldwide.

Since going independent, Dressel has worked in locations such as northern China, India, Saudi Arabia, Turkey, Egypt, Thailand and Peru. But he always likes coming back home and working with folks in Illinois, Canada, Mexico and other North American locations. In 2014, he was awarded his first patent, and he continues to work in the field.

Are you an AIST Life Member? Iron & Steel Technology wants to hear your story! Contact Amanda Blyth (ablyth@aist.org or +1.724.814.3080) for more details.