



An Interview With

Charles J. Messina

2007 AIST President

Charles J. Messina is vice president of Praxair Metals Technologies. Messina earned a B.S. degree in mechanical engineering from the Florida Institute of Technology and an M.S. degree in process metallurgy from Lehigh University, Bethlehem, Pa. Messina began his career with U. S. Steel Corp. in research and operations and, after seven years, joined Praxair in 1983. He has held positions in market development, regional sales and steel technology applications while with Praxair.

Charlie and his wife, Barb, have been married for 32 years and have been together since they met in German class in high school. Charlie describes Barb as "our rock, sacrificing her career to stay at home with our children." They are the proud parents of two daughters, Jeanine and Brienne, and a son, Steven, all three graduates of The Ohio State University. With a gift of knowing how to appreciate life, Charlie explains his zest by saying, "Every day I spend in the forest hunting, in the mountains hiking, or on the water fly-fishing, adds a day to my life. It is all so relaxing." Charlie anxiously looks forward to a new interest, his first grandchild due in June, courtesy of his daughter Jeanine and son-in-law, Mark.

Charlie Messina, the 2007 AIST president, recently took time out from his world travels to share his

background and insights with *Iron & Steel Technology* readers.

Iron & Steel Technology: How did you first become interested in the iron and steel industry?

Messina: As an undergraduate, I took the elective, "Phase Diagrams," an unusual choice for a mechanical/aerospace engineer major, but I had heard the professor was easy, so I signed up to learn more about metallurgy and materials science. (It should be noted that the information regarding the professor was incorrect.) With guidance from my advisor, I entered the masters program in process metallurgy at Lehigh University and then landed an internship with U. S. Steel Fairless Works as a metallurgical observer in the open hearth and electric furnace shops in 1974. That job in the meltshop was exciting and well-paying, which helped make my decision to begin a career in the steel industry. It was a chance to use my education in the science and technology field, and at the end of the day, there was something tangible that I helped produce. Following graduation from Lehigh, I began my career at U. S. Steel Corp.

Iron & Steel Technology: How long have you been a member of AIST, including your years of membership with the Iron & Steel Society (ISS)?

Messina: My membership card reads 04/02/1979,

but that cannot be correct, since I was still in junior high school at that time. Time flies when you're having fun!

Iron & Steel Technology: What were your first impressions and how were you introduced to the organization?

Messina: I attended my first ISS Steelmaking Conference in 1979. At U. S. Steel, we had to earn our trip to the conference. My attendance that first year was the result of a job well done the previous year. However, it was my supervisor who reminded me that it was important to the organization to bring back something from the technical presentations that would improve the performance of the operations. My first impression of the Steelmaking Conference was that it was "graduate school on steroids." The people I met at the conference were the authors of my textbooks. It was an incredible experience. The Q&A sessions after the presentations were the best. I recall some very heated debates taking place on some occasions that really stimulated audience participation.

As far as my involvement on committees, Stewart Mehlman and Mike Sullivan encouraged my participation in the Process Technology and Electric Furnace Divisions in the 1990s. Participation on these committees provided immediate access to the industry leaders, and relationships were forged that have provided benefits to me and to my company for many years. Technology changes, management changes and the state of the industry were subjects always discussed during our committee meetings. I eventually served as chairman of the Process Technology Division and was appointed to the ISS board of di-

rectors. During the years when my work at Praxair as sales director took me away from the daily contact with the steel industry, a close friend of mine at Praxair, Kermit Beckmann, encouraged me to remain active in the ISS. I'm happy I did, because the relationships have paid big dividends.

Iron & Steel Technology: Can you share some background on your career and some of the technological changes that you've witnessed in the industry?

Messina: I began my career in 1976, when ingots were teemed and some steel was still made in open hearth furnaces. BOF shops had been built in the late 1960s and early 1970s, but many companies still ran open hearth shops. Slab casting machines were being built, and I remember a magazine article describing the turning point: it was reported that more than 50 percent of the solidified steel in the United States was processed through



Charlie Messina seeing a BOF in Shaoguan, China.

continuous casting rather than teemed into an ingot mold. So the technological changes have been large and many: bottom stirring, slag splashing, dynamic control, postcombustion and sub lances in the BOF; fixed wall oxygen injection systems, EBT, spray cooling and interchangeable shells in the electric furnace; casting machines that produce sheet instead of slabs, as well as near net shapes. As important to the industry as technological advances was the change in the diversity of the workforce. An effort to hire the best and brightest, irrespective of the gender, race or culture of a person, has greatly improved the industry dynamics. During the past three decades, if you blinked, you missed something new!



I was fortunate to work on some innovative technologies in my career with U. S. Steel that included the commissioning of the Q-BOP process at two facilities, installing bottom stirring at the Gary BOP and continuing the work begun by Jack Oakey on the BOP charge control model. At Praxair, I had the opportunity to work on the AOD process and commission vessels around the world, work on the team that developed CoJet® for EAF and BOF converters, and commercialize slag splashing. Start-ups are the best form of training any engineer can have. A start-up trains, educates and tests a new engineer, while at the same time improving troubleshooting and problem-solving skills. Of course, you aren't home for months at a time and you don't sleep too much during a start-up, but in the end, the positives greatly outweigh the negatives.

Iron & Steel Technology: What do you feel has been your key to a successful career?

Messina: There isn't just one thing. It is a culmination of many things you learn from many people along the way that make the journey easier and more fun. The sooner you learn them, the easier it is. From my grandfather, the lesson was never lie, always try to do the right thing, and if you aren't 15 minutes early, you're late. John Stubbles taught me that every day I should learn something new, make someone smile and do a good deed. My good friend and college roommate, Tom Plunkert, advised me to build strong teams with smart people. My parents taught me a work ethic that is hard to match. What I bring to the table is passion, for without passion, nothing can be accomplished. Passion creates energy, and energy from a leader is required to energize an organization. Finally, to tie it together, you must have the ability to communicate up and down the organization, to let everyone know what is happening. As we move through our careers, we quickly realize that there is no shortage of good news that comes across our desk. We have to dig for the whole truth and make sound decisions on the infor-

mation at hand. By the way, I'm just as frugal as Dick Teets. I still have my First Communion money!

Iron & Steel Technology: What are some of the personal benefits that you've gained as a member of AIST?

Messina: Personally, I have developed relationships with industry leaders that I would never have developed had it not been for our time together as members on the various AIST committees. We grew up together in the industry. The ability to pick up the phone and talk about management issues, technology developments or business concerns with anyone in the industry is one of the most important benefits to being an AIST member. Networking is a huge benefit that every president has described. Had I not actively participated in the organization, and just "did my job" at U. S. Steel and Praxair, I would have missed out on a major piece of career development, and my employer would have missed out on the benefits of my active membership.



Iron & Steel Technology: As the new AIST president, what will be your main focus?

Messina: One area that needs attention is better representation for academia and students, and a step toward correcting that deficiency has been the addition of Kent Peaslee to the AIST executive committee this year. This portion of our membership is responsible for educating our future steelmaking engineers and industry leaders, and they have a strong influence on a young person's career choice. As direct beneficiaries of the AIST Foundation, why not encourage their participation?

During the past two years, we focused on membership benefits and growing the membership in the face of industry consolidation, workforce reduction and new financial controls imposed by members' companies, we have been successful in these efforts.

Going forward, we will focus on developing strong local leadership to drive the programs that





Charlie Messina thinks, "Never let the customer drive," in a lighthearted round of golf with Tom Plunkert (center) of Lertiz, Plunkert and Bruning, and Tom Castle (right), of Timken.

are critical to our growth. We need strong leadership on the technical committees to ensure that the quality of the technical presentations continues to improve. High-quality technical presentations are what create a successful conference. Strong leadership in the Member Chapters is required to increase membership and move qualified people onto the board of directors, the executive committee and the Foundation board. We have a pool of 10,000 members from which to choose our leadership. Those members serving in leadership positions must be active participants. AIST is a volunteer organization that depends on active participation.

Iron & Steel Technology: How do you view your role as AIST president?

Messina: Continuous improvement is the key. I want to help build a better AIST so that more steel industry employees see value in the benefits of our organization and want to become members. You can't find a better value in your career development than the \$2 per week it costs to be an AIST member. I want us to improve the quality of the technical presentations to increase conference attendance so that more members take improvement ideas back to their companies. This will help improve the efficiency of the industry, and, as a result, the industry will stay competitive and profitable. Increasing conference attendance will increase the number of representative

companies and allow for more debate on developing technologies and business issues at our conferences from different viewpoints.

Iron & Steel Technology: What is the greatest challenge for AIST?

Messina: We have had a healthy steel industry for the past three years, but we should not become complacent during this good time, thinking we will never see a return to the down cycle. Perhaps with the discipline in the industry that resulted from consolidation, any down cycle will be much less severe than what we saw in the past. These down cycles caused membership to decrease and members to become less active on committees or unable to make presentations at conferences because of travel restrictions. AIST must continue to improve, become more efficient and produce a better product every year so that, even in a down cycle, the technology of making steel will move forward.

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Iron & Steel Technology: What insight can you share regarding the steel industry and its future?

Messina: The steel industry is one of the most challenging industries in which to work, testing every skill that you have been taught since you entered the industry. It is an industry filled with honorable people who follow in the footsteps of our greatest industrialists, still trying to improve the business and develop new technologies to improve efficiencies. It is an industry filled with friendships that have been forged at many society meetings, dinners and perhaps during a crisis, where the relationship provided a solution to resolve the crisis. I encouraged each of my three children to consider the steel industry as a career. Each has seen a meltshop in operation, and one has chosen the steel industry to begin his career. This is our future. ♦

