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# AFS 2020 ANNUAL REPORT

ADVOCATE. EDUCATE. INNOVATE.

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DELIVERING A SOUND

ROI

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# DEAR MEMBERS AND FRIENDS OF AFS,

The year 2021 marks the 125th anniversary of the American Foundry Society. Through times both prosperous and daunting dating back to 1896, AFS has partnered with metalcasters to advance their technical prowess, boost their business success, and give voice to their concerns in the nation's capital and far beyond.

Strong Board leadership, coupled with the involvement of more than 900 corporate and 6,000 individual members, and a professional staff committed to superior member service, remain the hallmarks of AFS.

During a highly challenging year for foundries and the entire metalcasting supply chain, AFS stood with its members in myriad ways. Much of our work focused on helping members navigate the unique and difficult challenges that 2020 posed. Further, AFS worked with members to prepare for the opportunities that the future will provide. We could not be prouder of the exceptional work done by foundries to design and produce highly engineered castings, while doing everything possible to keep employees safe, during the pandemic and recession.

Thank you for your investment of time and financial resources with AFS. We encourage you to take some time to review this Annual Report, focused on today's multi-faceted American Foundry Society.



**Doug Kurkul**  
CEO, American Foundry Society

## AFS OFFICERS



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CEO  
KB Foundry Services



*Vice President*

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Director of Sales &  
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**Peter C. Reich**  
Director  
Laempe Reich



*CEO*

**Doug Kurkul**  
CEO  
American Foundry  
Society



# PARTNERING WITH FOUNDRIES IN A YEAR LIKE NO OTHER

AFS provides services, information and networking opportunities that are vital to the success of individual members, as well as Corporate Member metalcasters, suppliers, and casting purchasers.

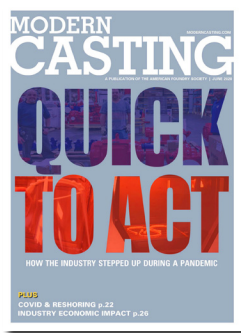




# NAVIGATING 2020'S CHALLENGES

## 'ESSENTIAL' STATUS FOR AN ESSENTIAL INDUSTRY

At the onset of the pandemic, AFS played an instrumental role in urging Vice President Pence's federal COVID-19 task force and governors to designate foundries as "essential businesses." At a time when metalcasters were working tirelessly to safely manufacture castings for clean water infrastructure, medical devices, energy delivery, transportation, and so many other vital needs, it was clear foundries were essential to our way of life. AFS partnered with state metalcasting associations, and individual AFS Corporate Members, to pursue "essential business" designations at the state level.



*Modern Casting highlighted the efforts of the metalcasting industry throughout the COVID-19 pandemic, including in this cover story from June 2020.*

## SUPPORT FOR METALCASTERS DISRUPTED BY THE PANDEMIC

AFS called on Congress and the Administration to support American metalcasters during the COVID-19 pandemic. This included advocating for the Coronavirus Aid, Relief, and Economic Security (CARES) Act. Through the act's Paycheck Protection Program (PPP), small and mid-sized U.S. manufacturers, including foundries, qualified for loans to navigate the difficult economic conditions brought on by the pandemic. Following the passage of the CARES Act, AFS and a business coalition successfully urged lawmakers to refine and improve the PPP, making the program more flexible and effective. Further AFS-backed improvements were adopted in December.

## CORONAVIRUS RESOURCES FOR METALCASTERS

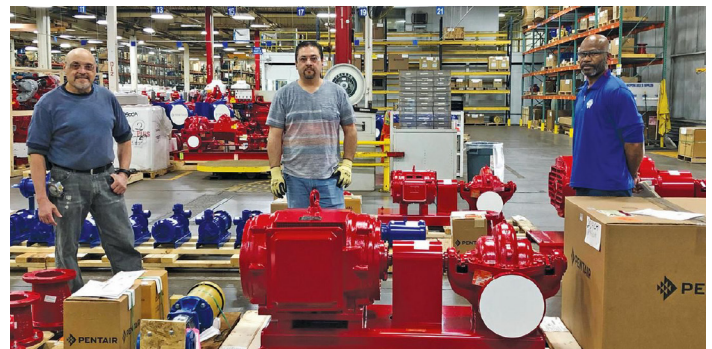
Protecting workers from COVID-19 required major changes in how metalcasters operate to prevent workplace exposures. Guidance on how manufacturers should handle COVID-19 was complex and sometimes confusing. AFS was the first out of the gate with informative COVID-19 best-practices webinars plus a continuously maintained resources page at [www.afsinc.org/afs-covid-19-coronavirus-resources](http://www.afsinc.org/afs-covid-19-coronavirus-resources). Foundries deserve enormous credit for the steps they have taken to operate safely.

## SPOTLIGHTING MEMBERS' RELIEF EFFORTS

From manufacturing parts for healthcare equipment and other essential goods to donating supplies and providing expertise, AFS Corporate Members were eager to join the fight against COVID-19. AFS highlighted these achievements on its Supporting Coronavirus Relief Page ([www.afsinc.org/afs-members-supporting-coronavirus-relief](http://www.afsinc.org/afs-members-supporting-coronavirus-relief)). AFS also worked to increase public awareness of the importance of metalcasters during the pandemic by providing coverage in AFS publications, reaching out to third-party media outlets, and giving guidance to members whose efforts were covered in the news.



*AFS Corporate Member Washburn Iron Works teamed up with a local manufacturer to produce hundreds of face shields.*



*Employees of AFS Corporate Member Pentair (left to right) Mauro Cabral, assembly operator; Gabriel Junez, warehouse technician; and John Young, production supervisor, were part of a company effort last spring to make a fire pump urgently needed to reopen a Chicago-area hospital.*

# DELIVERING CRITICAL INFORMATION VIRTUALLY

As companies restricted employee travel and governments implemented lockdowns, AFS quickly pivoted to providing metalcasters with essential information without the need to travel. Additionally, the AFS Institute adapted its curriculum of courses to a virtual format, taught live by the same industry experts who lead our classroom courses.



## AFS ONLIVE

One of the biggest advancements in AFS virtual programming was the launch of AFS OnLive, a dedicated web platform for metalcasting events that went live in summer of 2020. OnLive hosts live sessions and on-demand content, a Q&A form that allows presenters to answer viewers' questions in real time, and the AFS Solutions Center, where leading industry suppliers share their products and services. Additionally, the expertise shared in these virtual events is available to stream for a full year, so attendees can watch and re-watch content on their own schedules, and new viewers can purchase post-event access. AFS OnLive debuted with the Sand/Additive Conference and also facilitated the EHS Conference.

## 2020 VIRTUAL EVENTS

### AFS ADVOCACY SUMMIT

Featuring presentations from U.S. Labor Secretary Eugene Scalia and Indiana Senator Mike Braun, this web summit on May 19 covered the effect of coronavirus on manufacturers, OSHA regulations, the economic impact of the metalcasting industry, and other policies important to metalcasters. The AFS Advocacy Summit was free to all AFS members. It replaced the annual AFS Government Affairs Fly-In, which was canceled due to the pandemic.

### STRETCHING YOUR ALL-STAR TEAM ROUNDTABLES

This two-part series of interactive roundtables, hosted live online July 15 and July 29, featured discussions on evolving workplace policies and other HR topics.

### FUTURE LEADERS DEVELOPMENT SERIES

This two-part virtual development series on Aug. 25 and Oct. 29 featured presentations from workplace psychologist Dr. Celina Peerman. Attendees covered career topics such as managing priorities, meeting strategies, and eliminating roadblocks to success.

### SAND CASTING & ADDITIVE MANUFACTURING CONFERENCE

For the first time, AFS brought the leading voices from additive manufacturing and sand casting together for a major virtual event. The Sand/Additive Conference, which went live Aug. 31-Sept. 3, featured insights from more than two dozen experts who shared case studies, success stories, and tips to improve foundry processes.

### 32ND ENVIRONMENTAL, HEALTH AND SAFETY CONFERENCE

The popular EHS Conference, presented live online Oct. 5-9, included presentations from more than 40 EHS experts covering the latest research, regulatory updates, and industry best practices.

### 2020 STORMWATER COMPLIANCE VIRTUAL SEMINAR

Crucial stormwater issues and updates were presented to metalcasters during the Stormwater Compliance Virtual Seminar, which took place Nov. 4-5.

### WOMEN IN LEADERSHIP: STRATEGIES TO DRIVE CHANGE

Career navigation and strategies to support women's success were the focus of a virtual leadership workshop hosted by Women in Metalcasting on Nov. 10. The workshop featured a presentation from business leader Dr. Kathleen Buse.





**U.S. Labor Secretary Eugene Scalia addresses AFS members during the AFS Advocacy Summit on May 19.**

#### Method Required QA

##### Method 5

- Glass or quartz lined probes
- Stainless steel, glass, or quartz nozzles
- Reagent blank for acetone

##### Method 202

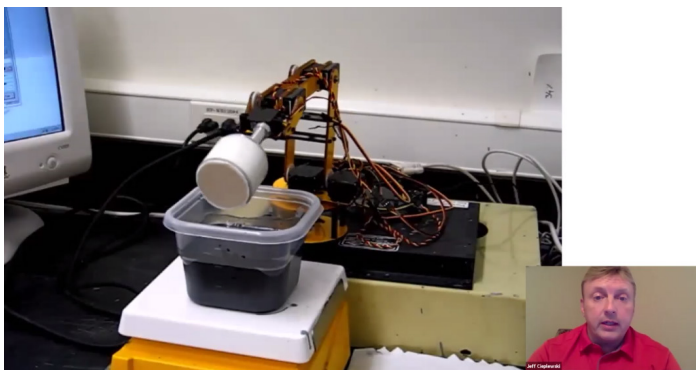
- Pre baking of all sample glassware, or
- Field proof blank on all sample glassware
- Field recovery blank
- Purging of impinger train required
- Reagent blanks for deionized water, acetone, and hexane



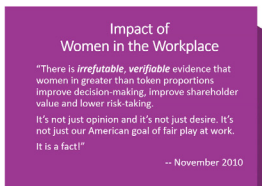
www.afsinc.org | CastingConnection.afsinc.org | @AmerFoundrySoc



**Eric Ehlers presents "Filterable and Condensable Particulate Testing – Best Practices" at the EHS Conference on Oct. 5.**



**Jeff Cieplewski of Weaver Material Services, Inc., shows a video demonstration as part of a panel presenting "Casting Trials & Analytics Using Disc-Shaped Sand Specimens to Study Mold-Metal Interface Reactions" during the Virtual Sand Casting & Additive Manufacturing Conference.**



**Forbes**



**Dr. Kathleen Buse leads a discussion during Women In Leadership: Strategies to Drive Change on Nov. 10.**

# AFS RECASTING METALCASTING CONGRESS 2020

## RECASTING METALCASTING CONGRESS

As one of the worldwide metalcasting industry's largest gatherings, Metalcasting Congress is integral to knowledge-sharing and networking. Following the pandemic-enforced cancellation of Metalcasting Congress 2020, AFS acted to ensure the sharing of knowledge and research would not be compromised.

Many technical and management presentations which had been planned for an in-person Congress were reimagined as AFS Members-Only Webinars and made available to all AFS members. Additionally, AFS issued the Recast Guide to Metalcasting Congress as a free download. This digital resource is filled with information that would have been presented at Metalcasting Congress 2020, including proceedings, abstracts and links to papers, Casting of the Year profiles, directories, and more. Finally, the longstanding and widely anticipated publication of *AFS Transactions* continued, featuring peer-reviewed papers selected for Metalcasting Congress 2020. In November, *AFS Transactions*, Vol. 128 was published.

## THANK YOU, CONTINUITY CONTRIBUTORS

Following the cancellation of Metalcasting Congress 2020, a number of exhibitors and registrants generously contributed a portion of their fees back to AFS. AFS is extremely grateful for this generosity and thanks the individuals and companies who have helped the society bridge the revenue gap between the 2019 Metalcasting Congress and 2021 Virtual Metalcasting Congress. These Continuity Contributors are recognized on the AFS website at [www.afsinc.org/continuity-contributors](http://www.afsinc.org/continuity-contributors).



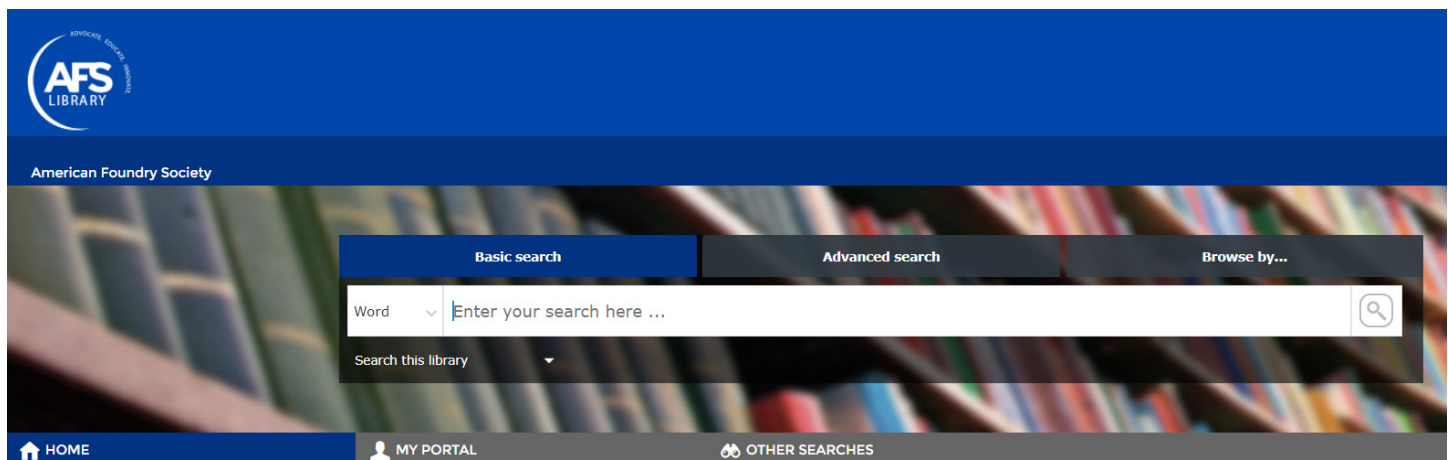
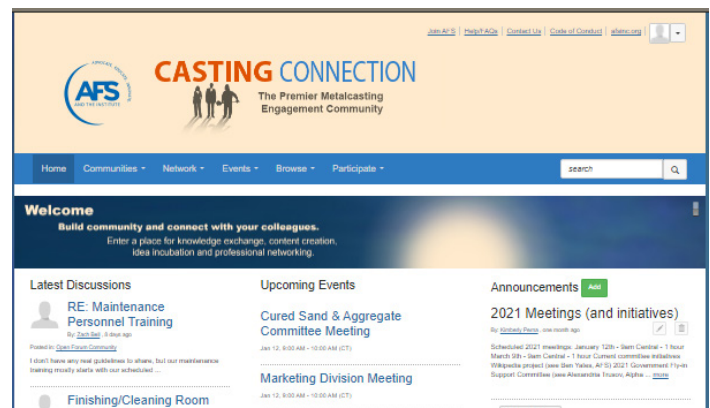
## EXPANSION OF MEMBERS-ONLY WEBINARS

AFS Members-Only Webinars cover a wide variety of metalcasting topics, ranging from alloy-specific technical information to public policy updates. In 2020, travel restrictions made AFS Members-Only Webinars an ideal way for members to exchange information and learn about issues important to metalcasters. Some of last year's webinars were adapted from presentations originally slated for presentation at Metalcasting Congress 2020.

AFS presented **34 webinars** with more than **2,400 views** in 2020, with topics related to COVID-19 attracting the largest audiences. In addition to being presented live, these webinars also are available to watch on demand at **[www.afsinc.org/members-only-webinars](http://www.afsinc.org/members-only-webinars)**.

## GROWTH OF CASTING CONNECTION

One of the best ways for members to ask and answer technical questions about metalcasting is through Casting Connection, AFS' members-only message board. In 2020, metalcasters posted **370 conversations** covering a wide variety of questions on issues ranging from casting defects to health and safety. This represents an increase in activity of more than a third over 2019. To access Casting Connection, visit **[castingconnection.afsinc.org/home](http://castingconnection.afsinc.org/home)**.



## GROWING USE OF AFS TECHNICAL LIBRARY

The AFS Technical Library provides all members with unlimited access to more than **16,000 technical papers**. The largest specialized metalcasting library in the world, this online database includes a dynamic search function and personalized user experiences. Members can create a custom catalog of papers and set alerts for new articles. In 2020, **7,628 papers** were downloaded from the AFS Library.



# ADVOCATING FOR CASTING USE

## REBRANDING OF CASTING SOURCE MAGAZINE

2020 marked the first full year for *Casting Source*, a new magazine showcasing the strengths of metal castings to OEMs, designers, and other parts buyers. Launched by AFS in late 2019, *Casting Source* replaced the former *Metal Casting Design & Purchasing*.

Published seven times per year, *Casting Source* distributes up to **11,000 printed copies** per issue and reaches a worldwide audience with digital editions and its website, **CastingSource.com**. It is North America's only magazine devoted to providing customers of foundries with detailed information on casting design and purchasing, metalcasting technology and processes, and the latest news affecting the metalcasting industry. *Casting Source* is the sister publication to *Modern Casting*, AFS' award-winning flagship magazine.

## VIDEO CENTRAL

One of the most exciting ways for foundries and suppliers to showcase their products and services is with Foundry Video Central, from *Casting Source*, and Supplier Video Central, from *Modern Casting*. These platforms feature sponsored videos from some of North America's best metalcasters and suppliers. These videos are promoted regularly by AFS and its magazines.

## CASTING SOURCE DIRECTORY

*Casting Source Directory* is the go-to resource for OEM supply chain managers, casting designers, and other decision-makers who need to find North American source for cast metal parts. Published in print and online, *Casting Source Directory* allows companies to boost their profiles and build organic SEO. Only AFS Corporate Member foundries are listed in *Casting Source Directory*.

## ENCOURAGING RESHORING

Reshoring is one of the surest ways to grow the casting market. AFS delivered several expert articles to casting buyers and designers, explaining the benefits and examples of reshoring. The AFS Marketing Committee also hosted a webinar with Harry Moser, the founder of The Reshoring Initiative, to provide practical advice for companies looking to reshore. Moser will also speak at Virtual Metalcasting Congress on April 19, 2021.



## EXPANSION OF CASTING OF THE YEAR AWARD

2020 was an excellent year for casting quality, as the AFS/*Casting Source* Casting Competition made clear. Two submissions, each exhibiting the strengths of the metalcasting industry in different ways, were named co-winners of the prestigious 2020 Casting of the Year award.

### CASTING OF THE YEAR



*BRP-US Inc.  
Spruce Pine, North Carolina*

### CASTING OF THE YEAR



*Lethbridge Iron Works Co. Ltd.  
Lethbridge, Alberta, Canada*

### NEWCOMER OF THE YEAR



*Wabi Iron and Steel Corp.  
New Liskeard, Ontario, Canada*

### BEST CASTING CONVERSION



*Waupaca Foundry Inc.  
Waupaca, Wisconsin*



## BEST PROTOTYPE OR INNOVATION



*Aristo-Cast Inc.  
Almont, Michigan*

## ACHIEVEMENT BY A SMALL FOUNDRY



*LA Aluminum Casting Co.  
Hayden, Idaho*

## OUTSTANDING ACHIEVEMENT



*Dotson Iron Casting  
Mankato, Minnesota*

## OUTSTANDING ACHIEVEMENT



*Powercast Manufacturing Inc.  
St.-Eustache, Quebec, Canada*

## OUTSTANDING ACHIEVEMENT



*O'Fallon Casting  
O'Fallon, Missouri*

## OUTSTANDING ACHIEVEMENT



*Meridian Lightweight Technologies Inc.  
Strathroy, Ontario, Canada*

# CHAPTER AND REGIONAL SUPPORT

At the heart of the AFS mission are its Regional Chapters. Run by member volunteers with support from AFS HQ, AFS Regional Chapters deliver member benefits at the local level through valuable networking, plant tours, scholarship fundraisers, technical and management presentations, and more. In 2020, many chapters adapted to travel restrictions by launching virtual meetings and educational events.

There are currently **39 chapters** operating in the U.S., Canada, and Mexico. To find your area's AFS Regional Chapter, or to view a calendar of upcoming chapter events, visit [www.afsinc.org/regional-chapters](http://www.afsinc.org/regional-chapters).



*AFS Past President Bruce Dienst was one of many speakers at the 87th AFS Southeast Regional, presented by the AFS Tennessee, Birmingham, and Piedmont Chapters, in March 2020 in Chattanooga. The Southeast and Wisconsin Regionals are among a group of long-running, chapter-hosted events drawing metalcasters and suppliers from throughout their regions for learning and business opportunities.*



*AFS CEO Doug Kurkul gives a presentation at the 82nd AFS Wisconsin Regional in February 2020 in Milwaukee. This event, which includes educational sessions, exhibits, a student casting competition, and more, is presented annually by the AFS Wisconsin, Stateline and Northeastern Wisconsin Chapters.*





# PARTNERING WITH FOUNDRIES FOR A SUCCESSFUL FUTURE

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For 125 years, AFS has been committed to serving the robust and pioneering foundry industry. Now, as metalcasters look toward a promising tomorrow, AFS remains dedicated to its mission of partnering with foundries for success through advocacy, education, and innovation.

# BUILDING A DYNAMIC WORKFORCE

## INSTITUTE INNOVATES TO MEET METALCASTERS' NEEDS

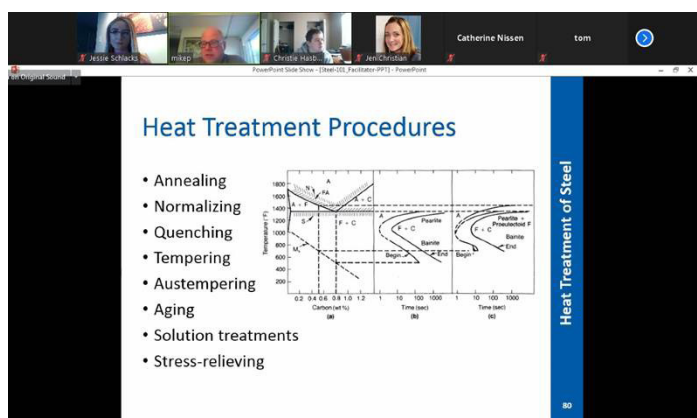
The AFS Institute recently invested **\$1 million** to develop the most current and effective foundry training curriculum. Its classroom courses are among the most popular ways for metalcasters of all experience levels to receive critical training. So, when travel bans went into effect, Institute instructors and staff transitioned the curriculum to allow students to learn from their homes or offices rather than having to travel.

The result: Live Online Courses from the Institute. These Zoom-based classes are taught by industry experts with decades of experience. Live Online Courses develop the same skills as classroom courses, from introductory concepts to specialized topics such as defect analysis or gating and riser design. Hard-copy materials are provided to students, who ask questions, take part in breakout activities, and interact with one another.

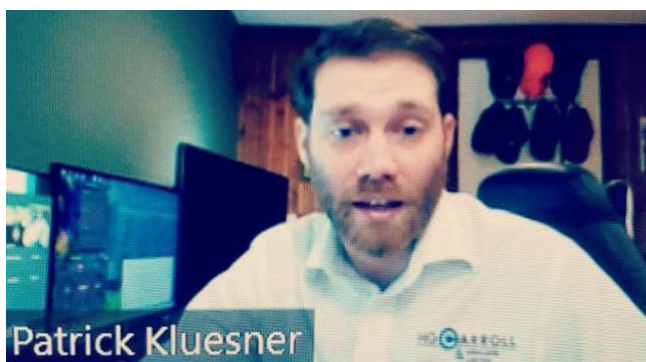
Live Online Courses have exploded in popularity since their launch in spring of 2020. Since May, the Institute has **hosted 16 classes online** and trained **more than 200 individual metalcasters** through this new program, **23% higher** than the same period in the previous year.



*Metalcasting students are pictured learning on Zoom during an AFS Institute Live Online Course.*



*Students view a slide show during a Live Online Course from the AFS Institute.*



*AFS Institute instructor Patrick Kluesner teaches a Gating and Riser Design 201 course. Students are participating via Zoom.*

***"I've benefited a lot from in-person AFS classes in the past. However, with all my responsibilities at the foundry, it's very hard to get away for a few days to take a class with AFS. Virtual classes work great for me because they give me added flexibility. I still get close to a full workday at the plant."***

Ryan Cakora, Plant Manager, Tazewell Machine Works





*Still images from AFS-produced videos and a social media campaign for the 2020 Manufacturing Day.*

## MANUFACTURING DAY 2020

Manufacturing Day looked a lot different for AFS and its Corporate Members. Held annually on the first Friday in October, this celebration of industry typically includes plant tours for school groups, open houses, career fairs, and other ways for manufacturers to reach the next generation of employees. But last year, with the pandemic limiting in-person events, many of those activities were presented in a virtual format.

At AFS HQ, this meant creating a weeklong celebration of metalcasting on social media (#MFGatAFS) and at AFSinc.org. AFS shared videos exploring the metalcasting process, demonstrating exciting metalcasting technologies, and exploring many different job paths found in foundries with AFS' own "Careers in Metalcasting" video. AFS also provided member companies – many of whom hosted virtual Manufacturing Days themselves – with templates, checklists, infographics, and videos to share with local educators and on their social media channels.

## FOUNDRY E-LEARNING UPGRADED

Foundry E-Learning is the Institute's original digital workforce learning tool, offering **more than 100 educational modules** covering every major alloy and process, from the basics of metalcasting to highly advanced topics. The curriculum offers step-by-step instruction that can be completed at any time, on any shift.

In 2020, metalcasters fueled a huge increase in AFS Foundry E-Learning usage, **completing a total of 4,399 modules**. This represents a jump of **nearly 40% over the previous year**. In May 2020, Foundry E-Learning was boosted with the launch of a new learning management system (LMS), Absorb. The Absorb LMS offers user-friendly navigation, up-to-the-minute progress tracking, and other key improvements for students and workplace supervisors. To learn more, contact [jchristian@afsinc.org](mailto:jchristian@afsinc.org).

***"The variety of courses, ranging from the Introduction to Metalcasting all the way to learning how to identify a defect, makes AFS Foundry e-Learning a great tool for even the most seasoned veteran of the metalcasting community."***

Trent Rousey, Sales Manager, Decatur Foundry

## AFS ON CAMPUS

College students in metalcasting programs and related fields come to know AFS through its work on campuses throughout North America.

In 2020, Worcester Polytechnic University (Worcester, Massachusetts) became the 41st school to establish an AFS Student Chapter on campus. Run by students under the guidance of faculty and industrial advisors and supported by AFS HQ, AFS Student Members further their metalcasting skills by networking with peers and professionals, conducting outreach, competing in casting competitions, and more. Upon entering the workforce, all Student Members receive a free year of professional membership in AFS.

AFS also works closely with the Foundry Educational Foundation (FEF) to support and encourage metalcasting excellence in institutions of higher learning. AFS was on hand to meet with many promising students during FEF's virtual College Industry Conference, held online in November 2020. The annual CIC includes a career fair, scholarship presentations, and more. AFS presented a college scholarship and the Outstanding Professor Award in 2020. **AFS has now contributed more than \$109,000 in FEF scholarships** through the years.



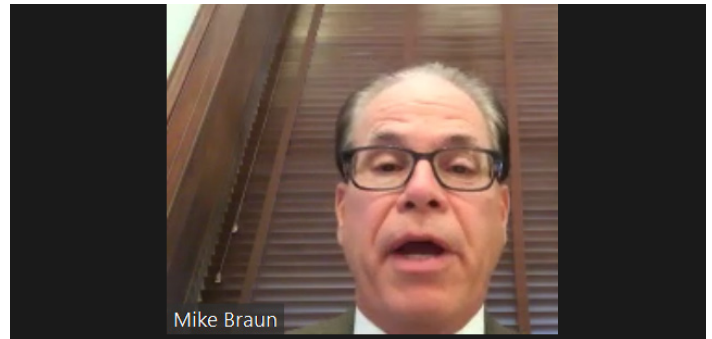
# ADVOCACY ACHIEVEMENTS WITH A LONG-TERM IMPACT

In 2020, AFS undertook advocacy initiatives that will benefit the foundry industry for years to come.

## ECONOMIC IMPACT ANALYSIS OF THE U.S. METALCASTING INDUSTRY

AFS in 2020 published the most comprehensive assessment of the foundry industry's impact in decades. The new study showed the U.S. metalcasting industry accounts for **\$44.3 billion** in direct economic benefit and a total national economic impact of **\$110.52 billion**, with direct and indirect employment of **460,000 jobs**.

The data encompasses the industry's economic footprint – by state, congressional district, and the whole U.S.—and illustrates the importance of metalcasting to local economies and the national manufacturing base. AFS thanks the many Corporate Members, regional chapters, and other organizations whose generous contributions made the study and interactive economic impact map possible. We are utilizing the detailed information on the economic contributions generated by the metalcasting industry with federal and state lawmakers, as well as federal agencies.



*Sen. Mike Braun of Indiana addresses metalcasters about issues affecting the foundry industry during the AFS Advocacy Summit on May 10.*



*U.S. Rep. Kevin Brady (TX-8), ranking Republican on the Ways and Means Committee, takes part in a Virtual Discussion for AFS members, where he discussed tax and trade issues.*

## REGULATORY VICTORIES

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AFS scored several key regulatory victories in 2020. First, a final rule from EPA imposed no new emissions limits on iron and steel foundries, a position supported by AFS. This issue had enormous implications for larger foundries, which already commit tremendous resources toward environmental protection.

Second, in December, EPA completed its five-year review of the National Ambient Air Quality Standards (NAAQS) for Particulate Matter (PM), a criteria air pollutant under the Clean Air Act, and decided to retain the current NAAQS for PM, which have been in place since 2012. AFS joined other industry trade associations in support of EPA's decision to maintain the current PM NAAQS.

Third, EPA finalized the AFS-backed rule under the Clean Air Act (CAA) providing sources of major hazardous air pollution a route to reclassify themselves as area sources subject to much less stringent requirements. AFS advocated for this change as a positive step in encouraging the industry to continue to seek further reductions of air emissions.

## A PRO-MANUFACTURING POLICY AGENDA FOR 2021

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The U.S. metalcasting industry strongly supports the implementation of the following public policy priorities to allow the U.S. economy and manufacturers to recover and thrive:

- **Passage of a robust infrastructure package** to rebuild and make long-overdue investments in our nation's transportation, water, energy, and other critical infrastructure networks.
- **Strengthening investments in domestic manufacturing and encouraging reshoring** by increasing federal purchases of U.S. manufactured goods, enhancing "buy American" rules, ensuring that tax incentives for equipment purchases and a full deduction for R&D expenses remain in place, vigorously enforcing U.S. trade laws, and reducing our reliance on foreign countries for minerals that we can mine and use here.
- **Investing in the next generation** of skilled technical workers.
- **Pursuing smart energy and environmental policies that support and maintain the competitiveness of domestic metalcasting** rather than foreign metalcasting producers that operate without similar environmental laws.

## 2020 GOVERNMENT AFFAIRS ACTIVITIES

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- In January, all lawmakers and key Administration officials were notified of the AFS 2020 Policy Agenda.
- The Virtual Advocacy Summit in May featured Labor Secretary Eugene Scalia and Sen. Mike Braun (IN).
- A Virtual Discussion for members with U.S. Rep. Kevin Brady (TX-8), ranking Republican on the Ways and Means Committee, delivered insights on tax and trade issues.
- AFS hosted a July webinar on key trade activities concerning U.S. trade policy, China tariffs, USMCA, and other critical trade matters.
- The Post-Election Outlook Webinar in November gave the outcome of the 2020 elections including an overview of the newly elected lawmakers, and what to potentially expect from a Biden Administration and new Congress.
- A Fall Government Affairs meeting included U.S. Rep. Ron Wright (TX-6), among other policy experts.
- AFS filed comments in September to the office of the U.S. Trade Representative (USTR) on its request concerning China's compliance with commitments made in connection to its accession to the World Trade Organization (WTO) in 2001.
- AFS filed comments on the Federal Acquisition Regulation Council proposed rule to implement the requirements of the Maximizing Use of American-Made Goods, Products, and Materials Executive Order. The proposed rule contains important amendments regarding domestic component thresholds and domestic pricing preferences, as well as reintroduces the domestic content test for commercially available off-the-shelf (COTS) items as it relates to certain steel and iron products.

## SECURING PRIORITIES IN YEAR-END STIMULUS PACKAGE

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The second COVID-19 recovery package, enacted Dec. 27, 2020, includes many provisions AFS has been fighting for, including a second round of funding for PPP. Additionally, it improves upon current PPP loans by protecting metalcasters from surprise tax increases, streamlining the loan forgiveness process. The bill also extends or makes permanent a number of expiring tax provisions, including tax credits that incentivize construction of new wind and solar power plants, as well as tax credits for carbon capture, biofuels and alternative fuels, fuel cells and energy efficiency.



# RESEARCH & TECHNICAL INNOVATION

## AFS-FUNDED RESEARCH

AFS research forms the backbone of the society's commitment to industry innovation. Each year, AFS sets aside a portion of member dues to fund metalcasting research. Currently, AFS is managing 17 research projects funded at **more than \$450,000**, and is managing **another \$2 million in government-sponsored, defense-related casting research**.

AFS research covers many different areas, including metallurgy, mold-making, EHS issues, additive manufacturing, and most commonly cast metals. The goal of all AFS research is to improve the efficiency, quality, and profitability of the foundry industry. To ensure that research is meeting important technical needs, all projects are monitored by industry experts from within the AFS technical division structure.

## AFS PRESENTS RESEARCH FINDINGS TO DEFENSE LOGISTICS AGENCY STAFF

AFS researchers and staff presented updates on ongoing research at the American Metalcasting Consortium's annual technology review in June.

Jiten Shah (PDA LLC) and Frank Headington of the AFS staff reported on Integrated Computational Materials Engineering (ICME) research in partnership with Dotson Iron Castings, PDA and Michigan Tech University. Neenah Foundry is also providing support to this project. Shah and AFS' Steve Robison provided updates on improvements recently made to the CADS alloy data search. On projects supervised by AFS, David Weiss (Eck Industries) reported the progress on research related to ultrasonic cavitation-based dispersion of nano-particles into molten aluminum; and Prof. Alan Drushitz of Virginia Tech addressed lattice structure castings for ammunition resistance armor.



## IJMC MARKS MILESTONE

The *International Journal of Metalcasting*, AFS' technical and research publication, released its 50th issue in January 2020. In July 2020, it was announced that IJMC's Impact Factor, an index that reflects the number of times a journal is cited by researchers, grew 33% from 2018 to 2019, making it the highest-ranked journal dedicated to the metalcasting industry.

IJMC is a peer-reviewed quarterly journal that publishes the latest advancements in metalcasting research and technology.

## DIGITAL MANUFACTURING IN THE METALCASTING INDUSTRY

How will Industry 4.0 trends affect foundries of all sizes? What do metalcasting leaders need to know now about artificial intelligence, augmented reality and other advanced-manufacturing trends? These are the questions that will be explored at the 2021 Foundry Industry 4.0 Conference, June 8-9 in Itasca, Illinois.

Featuring a keynote from Dave Vasko, Director of Advanced Technology at Rockwell Automation, metalcasters will discover how to make smart investments and gain a lasting business advantage for their foundries using Industry 4.0 technologies. To register, visit [AFSinc.org/conferences](https://www.afsinc.org/conferences).



# VIRTUAL METALCASTING CONGRESS 2021 MADE FOR TODAY, READY FOR TOMORROW



## 125 YEARS OF METALCASTING CONGRESS

2021 marks the 125th anniversary of Metalcasting Congress and the American Foundry Society. Much has changed since 1896, when the society's founders gathered in Philadelphia for the first Metalcasting Congress, but AFS and its members remain committed to the same ideals of excellence in craftsmanship and advocacy for metalcasters. Please join us in marking this major milestone, and look for more celebrations of Metalcasting Congress and AFS history throughout the year, including a commemorative anniversary publication coming out in April.

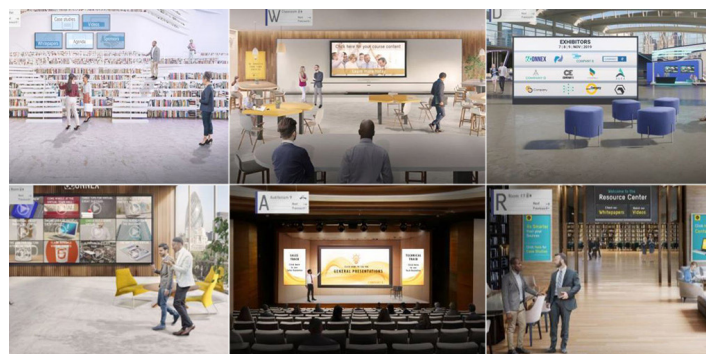
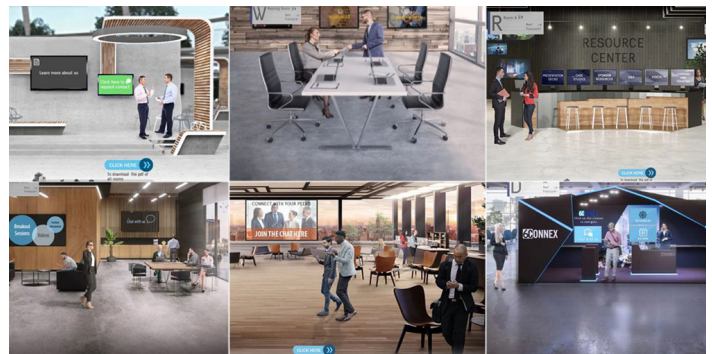
To register or to reserve your virtual exhibit space\* for **Metalcasting Congress 2021**, visit [www.metalcastingcongress.org](http://www.metalcastingcongress.org).

*\*To create maximum value for exhibitors, virtual exhibit space will be limited, so suppliers and foundries are urged to reserve their space as soon as possible.*

New technology meets industry excellence at Virtual Metalcasting Congress 2021, going live online for the first time in its storied history on April 12-22.

The premier conference and trade show for the metalcasting supply chain will bring the best in technical education, management expertise, networking, and sales to web browsers worldwide, with no travel required. Virtual Metalcasting Congress 2021 will feature **more than 60** technical and management presentations, an interactive Virtual Exhibit Hall, two Hoyt Memorial Lectures, online networking opportunities, and much more.

The AFS Board of Directors affirmed the decision to hold a virtual event after thoughtful consideration of the sharp restrictions in place on trade shows, the fact that those restrictions would make it impossible and/or illegal for AFS to hold Metalcasting Congress 2021 as planned, the six-month lead time for planning and coordinating Metalcasting Congress, and concern for the health and safety of AFS members.





# NEW MEMBER PROGRAMS

## HEALTHCARE SAVINGS

Health insurance is a major expense for employers, and a major draw for employees. In 2020, AFS launched a new benefit designed to help qualified Corporate Members with fewer than 100 employees save money on health insurance and offer better benefits to workers: the AFS-NAM Healthcare Partnership.

This new program harnesses the power of group purchasing to offer an easy and convenient, Fortune 500-type benefits buying and enrollment experience to employees and their families. Only AFS Corporate Members are eligible for this benefit. To learn more and for eligibility requirements, visit [www.afsinc.org/afs-nam-health-insurance](http://www.afsinc.org/afs-nam-health-insurance).

## AFS METALCASTERS QUARTERLY OUTLOOK SURVEY

AFS expanded its range of business intelligence in 2020 by launching the new AFS Metalcasters Quarterly Outlook Survey. First conducted in November, this quarterly survey of foundries measures key business metrics, providing valuable, forward-looking economic information to the industry. Data from the first Outlook Survey was released to AFS Corporate Members in the *AFS 2021 Metalcasting Forecast & Trends*.

## FORECAST EXPANDED TO TWICE YEARLY

As part of its commitment to superior member services, AFS now provides mid-year updates to the *Metalcasting Forecast & Trends*, which previously was published once per year. All AFS Corporate Members now receive a complimentary *Forecast* twice a year, in January and July. The *Forecast* provides detailed industry statistics about the North American and global metalcasting market and can be used to help metalcasters plan for future business.

## ENERGY SAVINGS

AFS Corporate Members have data-driven solutions designed to make their businesses more profitable by reducing their energy costs. Launched in 2020, the AFS Energy Program is a new benefit, offered in partnership with APPI Energy, that provides a streamlined way to find favorable rates on electricity and natural gas. APPI Energy consultants provide recommendations to AFS Corporate Members on pricing, market timing, and length of contract using data analytics and a proprietary database. For more information and for eligibility requirements, visit [www.afsinc.org/afs-energy-program](http://www.afsinc.org/afs-energy-program).

## NEW SOLUTIONS FOR EFFECTIVE WEB ADVERTISING

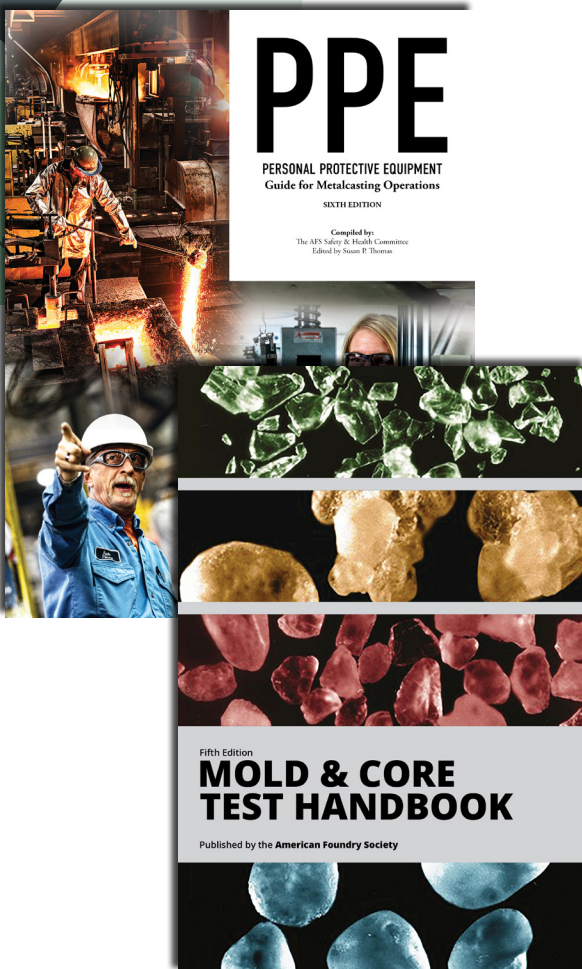
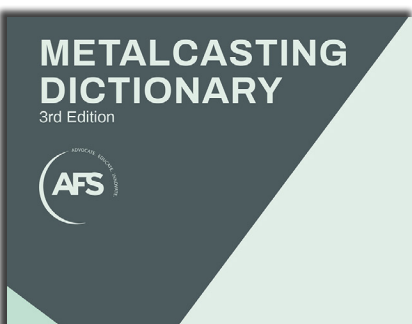
Metalcasters and industry suppliers have a simple and effective way to reach the right customers online: AFS Targeted Digital Advertising. The program, new in 2020, harnesses the power of AFS' premier industry magazines, *Casting Source* and *Modern Casting*, to focus on a qualified audience of professionals from the metalcasting supply chain. AFS Targeted Digital Advertising simplifies the process of uploading ads, choosing the right audience, and tracking a campaign's effectiveness over time.



## NEW TECHNICAL BOOKS

AFS delivers continuing technical insight with high-quality, relevant books and other resources for metalcasters. In 2020, AFS had one of its most productive years in this area. In addition to an internal reorganization that streamlines the manuscript development and book promotion processes, AFS released a number of new titles, including:

- *Metalcasting Dictionary, 3rd Edition*
- *Mold & Core Test Handbook, 5th Edition*
- *PPE Guide for Metalcasting Operations, 6th Edition*
- *The 3D Printed Precision Sand Casting Process*
- *AFS Transactions 2020, Vol. 128*



## AFS FUN FACTS

**940**  
CORPORATE  
MEMBERS

**6,018**  
INDIVIDUAL  
MEMBERS

**FIFTY EIGHT** New Corporate Members joining in 2020

4,399 e-Learning Modules  
**COMPLETED IN 2020**

    
**14,817**  
SOCIAL MEDIA  
FOLLOWERS

**THIRTY FOUR**  
Members-Only  
Webinars  
Presented  
in 2020

**16,000+**  
Articles in the  
AFS Library

**2,400+**  
Webinar  
Views

Committees, Task  
Groups, & Shared  
Interest Groups

**FIFTY THREE**

**80**  
Professional  
& Student  
Chapters

**7,628**  
Downloads from  
the AFS Technical  
Library in 2020

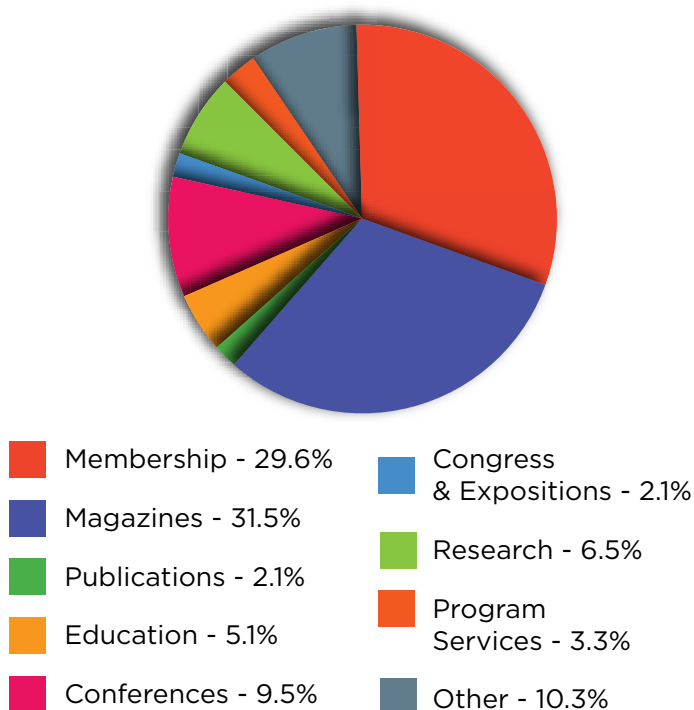
**17** Ongoing AFS-funded  
research projects

**FIVE**   
New books published  
by AFS in 2020

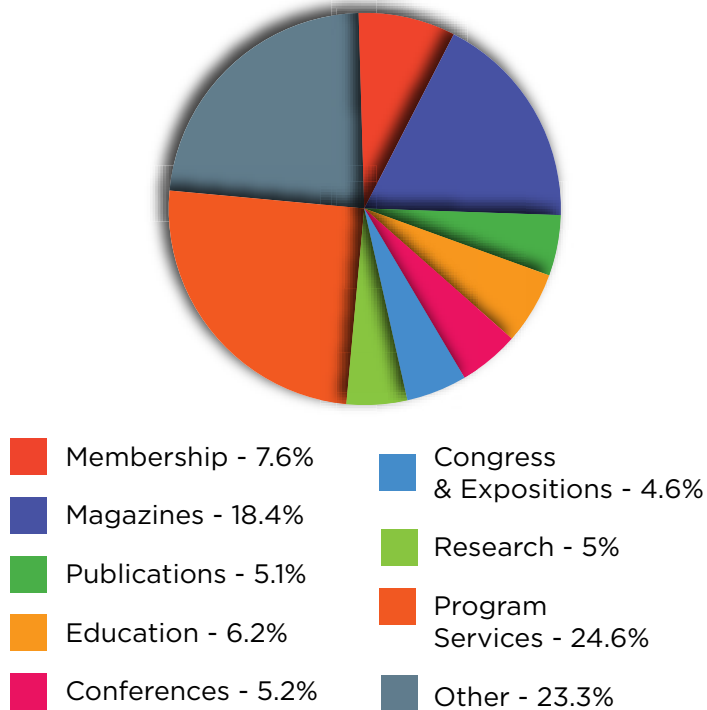
**508**  
Active Casting  
Connection  
users in 2020

## 2019-2020 AFS AND THE INSTITUTE FINANCIALS

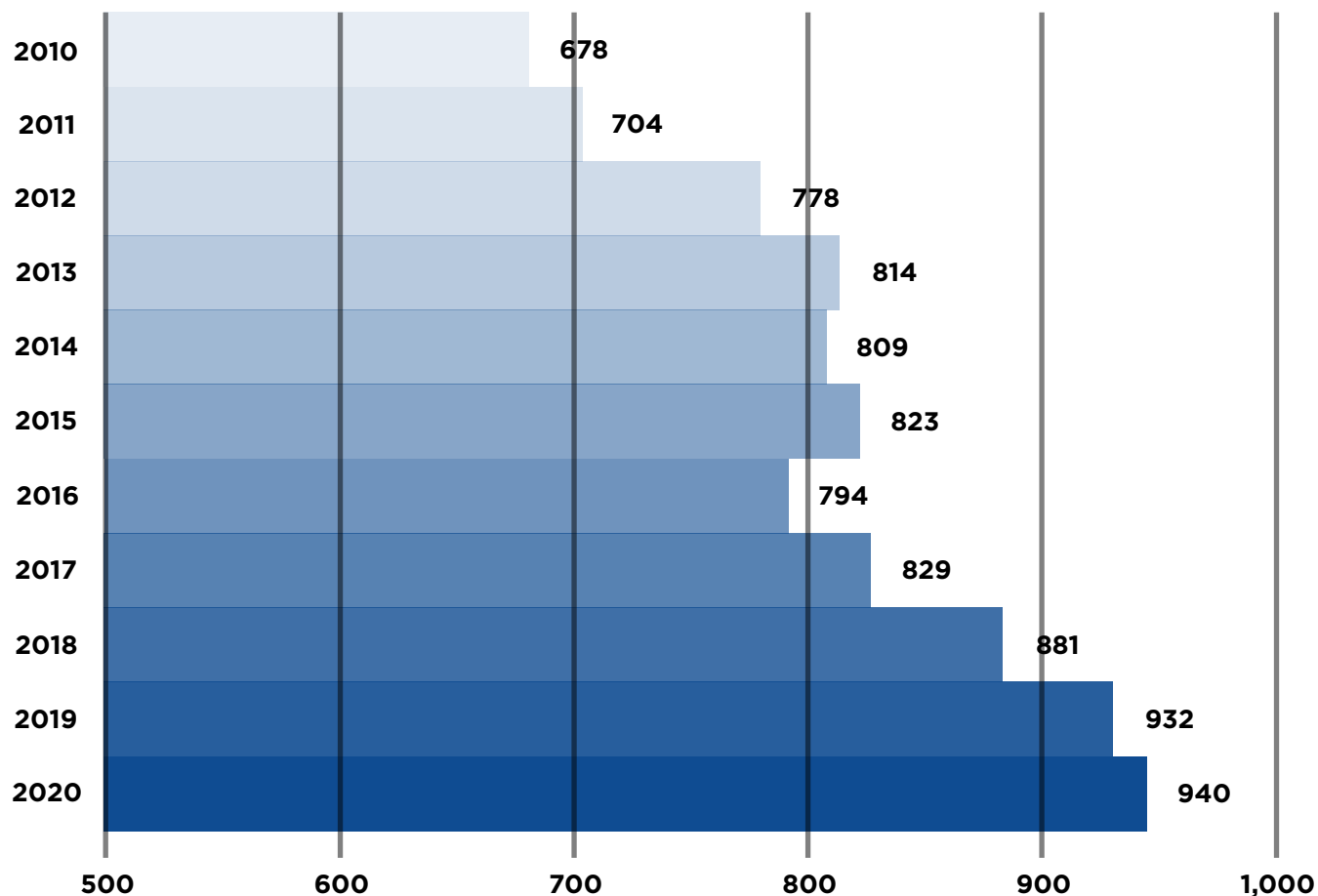
### 2019 - 2020 REVENUE



### 2019 - 2020 EXPENSES



## TEN YEARS OF AFS CORPORATE MEMBERSHIPS





## VISION STATEMENT

AFS will be recognized worldwide by industry stakeholders as the leading voice and resource on technical, management, and advocacy priorities pertaining to the metalcasting industry.

## AFS STRATEGIC PLAN GOALS

### Member Success and Sustainability

AFS will provide services, information and networking opportunities that are vital to the success of individual members, as well as Corporate Member metalcasters, suppliers, and casting purchasers.

### Industry Stewardship

AFS will lead outreach activities to enhance the image of the metalcasting industry with target audiences.

### Policy Advocacy

AFS will proactively advocate for public policies that benefit U.S. metalcasters, encourage a strong U.S. industrial base, and support national defense.

## MISSION STATEMENT

The mission of the American Foundry Society is to advance the success of its members and the metalcasting industry through advocacy, education, and innovation.

### Promotion of Castings

AFS will advocate for the increased use of castings through the development of new parts and materials, conversions, exports, and reshoring, and will offer resources helping casting purchasers to make wise purchasing decisions.

### Workforce Development

AFS and the Institute will lead workforce development initiatives and provide innovative education programs that meet customer needs and increase the skill levels of metalcasting industry workers.

### Technical Innovation

AFS will exercise technical leadership in the areas of technology transfer, scholarly publication, cutting-edge research, and technical assistance to drive innovation in the metalcasting industry.

## DIVISION CHAIRS

### TECHNICAL DIVISIONS

#### TECHNICAL COUNCIL:

Greg Miskinis (Retired)

#### RESEARCH BOARD:

David Jakstis (Retired)

#### ADDITIVE MANUFACTURING DIVISION:

Travis Frush

*Project Manager, University of Northern Iowa*

#### ALUMINUM & LIGHT METALS DIVISION:

Adam Loukus

*Senior Engineer, Loukus Technologies, Inc.*

#### CAST IRON DIVISION:

Matthew Meyer

*Engineering Manager, Cast Iron Processes, Kohler*

#### COPPER ALLOY DIVISION:

Brent Bowles

*Project Manager, Mueller*

#### ENGINEERING DIVISION:

Brandon Kruse

*General Manager, Magaldi Technologies LLC*

#### ENVIRONMENT, HEALTH & SAFETY DIVISION:

Ray Ostrowski (Unaffiliated)

#### LOST FOAM DIVISION:

Marshall Miller

*Supplier Development Manager, Flowserve Corp.*

#### MELTING METHODS & MATERIALS DIVISION:

Lenny Basaj

*Metallurgist, Ravenna Casting Center LLC*

#### MOLDING METHODS & MATERIALS DIVISION:

Mitchell Patterson

*Distributor Sales Manager, HA International LLC*

#### STEEL DIVISION:

Robert Tuttle

*Professor, Saginaw Valley State University*

### MANAGEMENT DIVISIONS

#### MANAGEMENT COUNCIL:

Teresa Weber

*HR Director, Atek Metal Technologies*

#### FUTURE LEADERS OF METALCASTING:

Tom Bye

*Supply Chain Manager, Dotson Iron Castings*

#### GOVERNMENT AFFAIRS:

Eric Meyers

*CEO, Oil City Iron Works Inc.*

#### HUMAN RESOURCES:

Phil Eatherton

*HR Manager, Waupaca Foundry, Inc.*

#### MARKETING DIVISION:

Wendy Pilcher

*Marketing Manager, MAGMA*

#### WOMEN IN METALCASTING DIVISION:

Sara Timm

*Marketing & Communications Manager, Waupaca Foundry, Inc.*

# 2020-2021 OFFICERS & BOARD MEMBERS



**President**

**Michael L. Lenahan**  
CEO  
KB Foundry Services



**Vice President**

**Adam San Solo**  
Director of Sales & Engineering  
US Foundry & Manufacturing Company



**2nd Vice President**

**Bradford Muller**  
Vice President of Marketing  
Charlotte Pipe & Foundry



**Immediate Past President**

**Peter C. Reich**  
Director  
Laempe Reich



**CEO**

**Doug Kurkul**  
CEO  
American Foundry Society

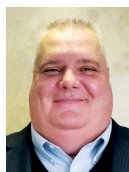
## DIRECTORS CLASS 2017 - 2021



**Mike Leib**

Past President  
Weatherly Casting and Machine Company/Hazleton Casting Company

## DIRECTORS CLASS 2018 - 2022



**Patrick Carlin**

Sales Manager  
Superior Aluminum Alloys



**David Gilson**

Sales and Marketing Director  
SinterCast



**Jeet Radia**

Senior Vice President  
McWane, Inc.



**Sara Joyce**

Vice President of Quality & Technical Assurance  
Badger Mining Corporation

## DIRECTORS CLASS 2019 - 2023



**Patrick T. Ameen**

VP Industry Relations  
Amsted Rail



**John Haas**

Plant Manager  
Grede



**Angela Schmeisser**

President & CEO  
St. Marys Foundry, Inc.



**John Lancaster**

Plant Manager  
General Motors

## DIRECTORS CLASS 2020 - 2024



**Rob Johnson**

VP Finance/CFO /Treasurer  
Waupaca Foundry



**Jim Mancuso**

Vice President  
Mancuso Chemicals, Ltd.



**Andrew C. Renkey**

President  
Harmony Castings/TPI Arcade



**Peter Satre**

Manager - Corporate Engineering  
Allied Mineral Products LLC

# AFS STAFF

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**Doug Kurkul**

*Chief Executive Officer*

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## ACCOUNTING & FINANCE

**Peggy Mennella**

*Director of Accounting and Finance*

**Valerie Stramaglia**

*Accounting Manager*

**Nicole Bagnara**

*Accounting Associate*

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## MARKETING & BUSINESS DEVELOPMENT

**Ben Yates**

*Vice President of Business Development*

**Joe Murphy**

*Magazine Advertising Sales & Marketing Consultant*

**Fabio Cavaliere**

*Magazine Advertising Sales & Marketing*

**David Kathe**

*Advertising Sales Manager*

**Katelyn Stanek**

*Director of Marketing & Communications*

**Tyler Buchenot**

*Senior Manager of Creative Services*

**Jessie Schlacks**

*Communications Specialist*

**Shannon Wetzel**

*Magazines Managing Editor*

**Mike Berrafato**

*Magazines Art Director*

**Kim Phelan**

*Contributing Editor*

---

## GOVERNMENT AFFAIRS CONSULTANTS

**Stephanie Salmon**

*Vice President Government Affairs*

**Jeff Hannapel**

*The Policy Group*

---

## INFORMATION TECHNOLOGY & OPERATIONS

**Mike Lakas**

*Vice President of IT & Operations*

**Rich Fett**

*Information Systems Manager*

**Katie Matticks**

*Senior Project Manager*

**Barbara Jackowski**

*Customer Service Manager*

**Carmen Rodriguez**

*Receptionist/Customer Service*

**Deana Barraeta**

*Customer Support and Exhibit Coordinator*

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## THE AFS INSTITUTE

**Jennifer Christian**

*Director of Training Solutions*

**Renee Berrigan**

*Education & Training Assistant*

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## TECHNICAL, RESEARCH, & LIBRARY SERVICES

**Steve Robison**

*Chief Technical Services Officer*

**Tom Doré**

*Technical Director*

**Kimberly Perna**

*Executive Technical Assistant*

**Bo Wallace**

*Senior Technical Associate*

**Sue Thomas**

*Publications Senior Technical Editor*

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## HUMAN RESOURCES & ADMINISTRATIVE SERVICES

**Cathy Potts**

*Director of HR & Administrative Services*

**Tony Perrone**

*Mailroom/Warehouse Coordinator*





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