

American Metal Casting Consortium (AMC) Q & A

Open Questions (0)

Q1. Are all these efforts funded through DLA ManTech?

A1. All through DLA R&D. There is a cost share requirement that industry is required to pay.

Q2. How do you identify and prioritize what you do from year to year?

A2. Most of our projects are multi-year. We put out a broad area announcement (BAA) and have an evaluation team review proposals.

Q3. You mentioned that since you have been doing this, 15-20% of back-ordered parts are cast or forged parts. Is there a strategy to reduce to a certain level?

A3. We are certainly geared that way, but a difficult part of the work is to identify items that require casting or forging. There is no existing database.

Q4. How are we making the model capability availability to small business?

A4. There are a couple different models. Magnasoft and die-casters are making a number of simple products. Each industry association has meetings with members and brief members on R&D projects going on. Members represent 90% of casting and forging supplies.

Forging Defense Manufacturing Consortium (FDMC) Q & A

Open Questions (0)

Q1. Who is on the Forge-It team and do they have other jobs?

A1. All Forge-It requests need to come through us. All of the team members have other jobs and responsibilities.

Naval Foundry in Philadelphia Q & A

Open Questions (0)

Q1. What are you doing with Additive Manufacturing?

A1. Nothing. We did participate in it for a short time, but the workload never materialized.

Q2. How much work do you do for customers outside of NAVSEA?

A2. Our work is primarily the Navy shipyards to get out parts that they don't have the ability to acquire elsewhere. Our main work is propulsors. There is no demand for the "small side".

Connecting American Manufacturing (CAM) Q & A

No Questions (0)

Digital Radiography Inspection Q & A

Open Questions (0)

Q1. What are the barriers to using digital radiography?

A1. Current design specifications. We are working to add them as they are accepted.

Q2. Is there a limit to the thickness of metal which can be evaluated?

A2: I am assuming this is directly tied to the "strength" and size of the radiography equipment, but I am not familiar with the mainstream capabilities. I cannot provide an answer. I would think that the DLA folks who were involved with developing the DR ASTM standards would be able to provide this information.

Q3. What joint groups are you working with to resolve or resource this effort?

A3. AMC Only - This is an internal effort within AMRDEC to include our Sustainment, Quality and the Aviation Engineering Directorate personnel. We have had preliminary discussions but have not kicked-off a formal IPT effort. The intent is to create a process to add DR process to existing X-ray process requirements found in the STDP documentation as each part comes up for a new procurement. It is believed that this will prevent us from having to do drawing changes and incur significant cost.

Q4. Are there any aviation specifications which are under revision to enable this capability for inspection acceptance?

A4. This will be each parts Spares Technical Data Package (STDP) documentation.

Q5. Is there any specific data storage requirements? I realize this is based on the amount of data which is to be retained and size of the tool, but is there a minimum requirement?

A5. TBD, but I believe the storage requirements will be digital (and backed-up) and will need to be kept the same length of time as the film documentation is kept.

Q6. What basic infrastructure is required? This is based on the mission and capabilities your industry must achieve, yet obviously there must be DR equipment, data storage equipment, and an inspection process which is capable of meeting DoD/ATSM standard protocol. There are other obvious factors such as safety factors. I feel this is not a question which can be answered in black and white, since each system is going to have a level of customization.

A6. If a company is already making casting they would have either internal or external x-ray sources. So to do DR would require DR equipment at the internal or external x-ray source.

3D Printing of Sandcasts & Molds Q & A

Open Questions (0)

Q1. How long does it take to create the sand molds?

A1. Building the CAD models takes a minimum of a couple days. Building the full-size print takes another couple days. I would say start to finish plan on a couple weeks.

Q2. How many times can you use a mold?

A2: One time. The molds are broken apart to remove the casting.

Q3. What is the ideal maximum size part?

A3. 2 ft x 2 ft x 2ft with current equipment.

Q4. What alloys can be cast with molds from this system?

A4. The same material that you could normally cast with.

Q5. Do you do much business with other DOD activities?

A5. A little bit.