Investment Casting Institute Casting Contest Entry Form

CASTING CONTEST

Entry in the casting contest is open to only Institute regular members and universities. Return this form, along with supplementary information, photos and the original part to the address the bottom of the page.

1. Name of part: STRUCTURE HOUSING
2. Size of part: 20" DIA x 14" TALL
3. Part is used in (product): MILITARY AEROSPACE APPLICATION
4. Function(s) of the part: Housing for an advanced guidance system
5. Material used (composition of metal or alloy): A356-T6
6. Is the part currently in production?
   ☑ Yes ☐ No
7. Was the part ever made by another metalworking method?
   ☑ Yes ☐ No
   If so, what method? FABRICATION (SEE ATTACHED)
8. Are any secondary operations performed?
   ☑ Yes ☐ No
   If yes, what kind? 5-AXIS MACHINING NON-DESTRUCTIVE TESTING (SEE ATTACHED)

Name: BRUCE BARRON
Signature:
Company: BARRON INDUSTRIES
Address: 215 PLEXUS DRIVE
City: OXFORD
State/Country: MICHIGAN
Zip: 48371
Phone: 248-628-4300
Fax:
E-mail: bbarron@barron-industries.com

Entry gives permission for information and photos to be published in INCAST or other publications. Photos or castings sent remain the property of the Institute.

NOTE: Casting contest participants are responsible for all shipping and associated tariffs and fees.

On a separate sheet of paper, please include the following information if applicable.

9. How does your customer benefit from using this part i.e. replace an assembly of several parts, reduced cost by x%, improved product reliability, performance?
10. What makes this part unique?
11. State any special design requirements and/or process requirements.
12. For universities: Principles demonstrated by the entry.
13. For universities: Challenges faced by the students.
14. Please feel free to furnish additional information not covered in the above questions.

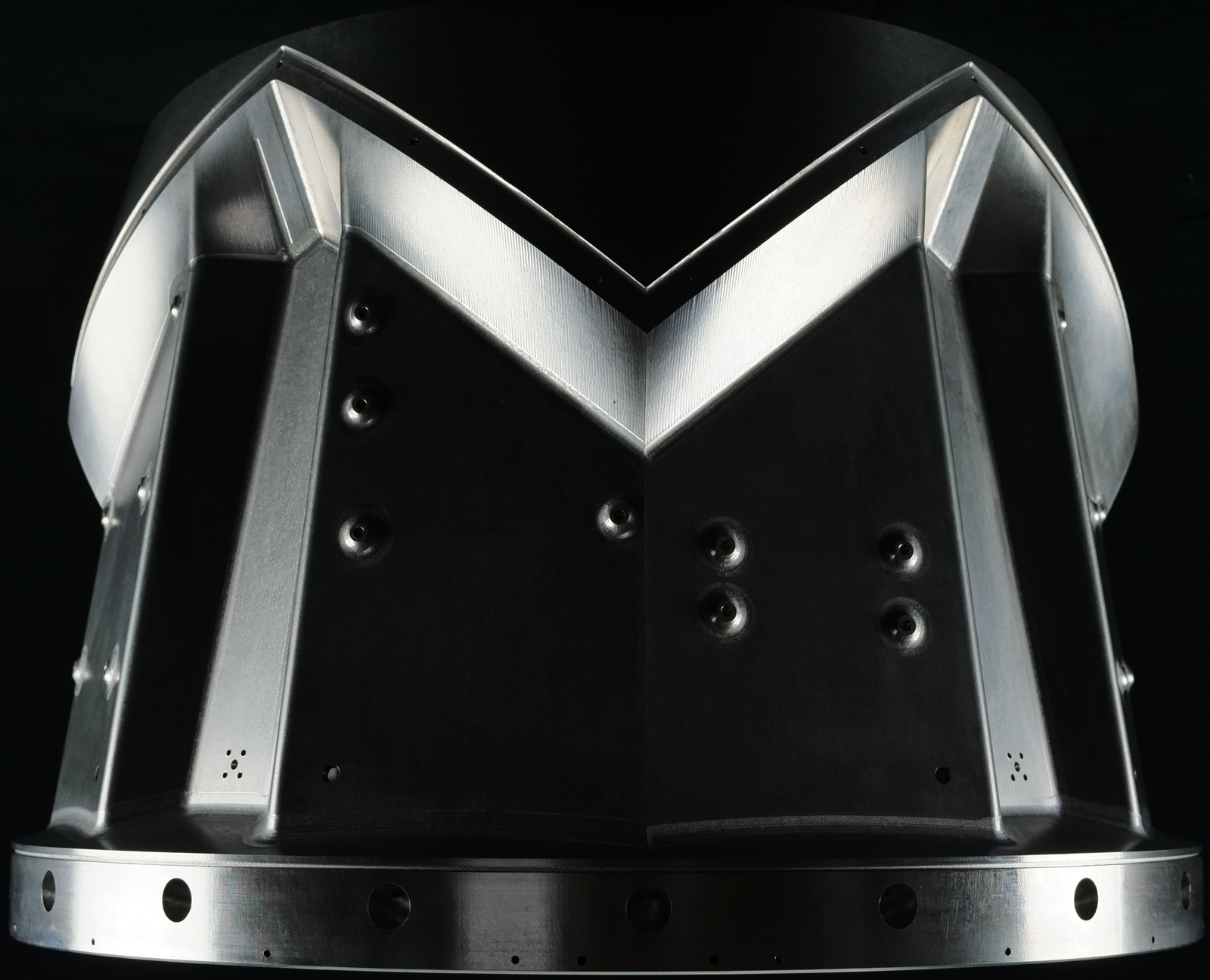
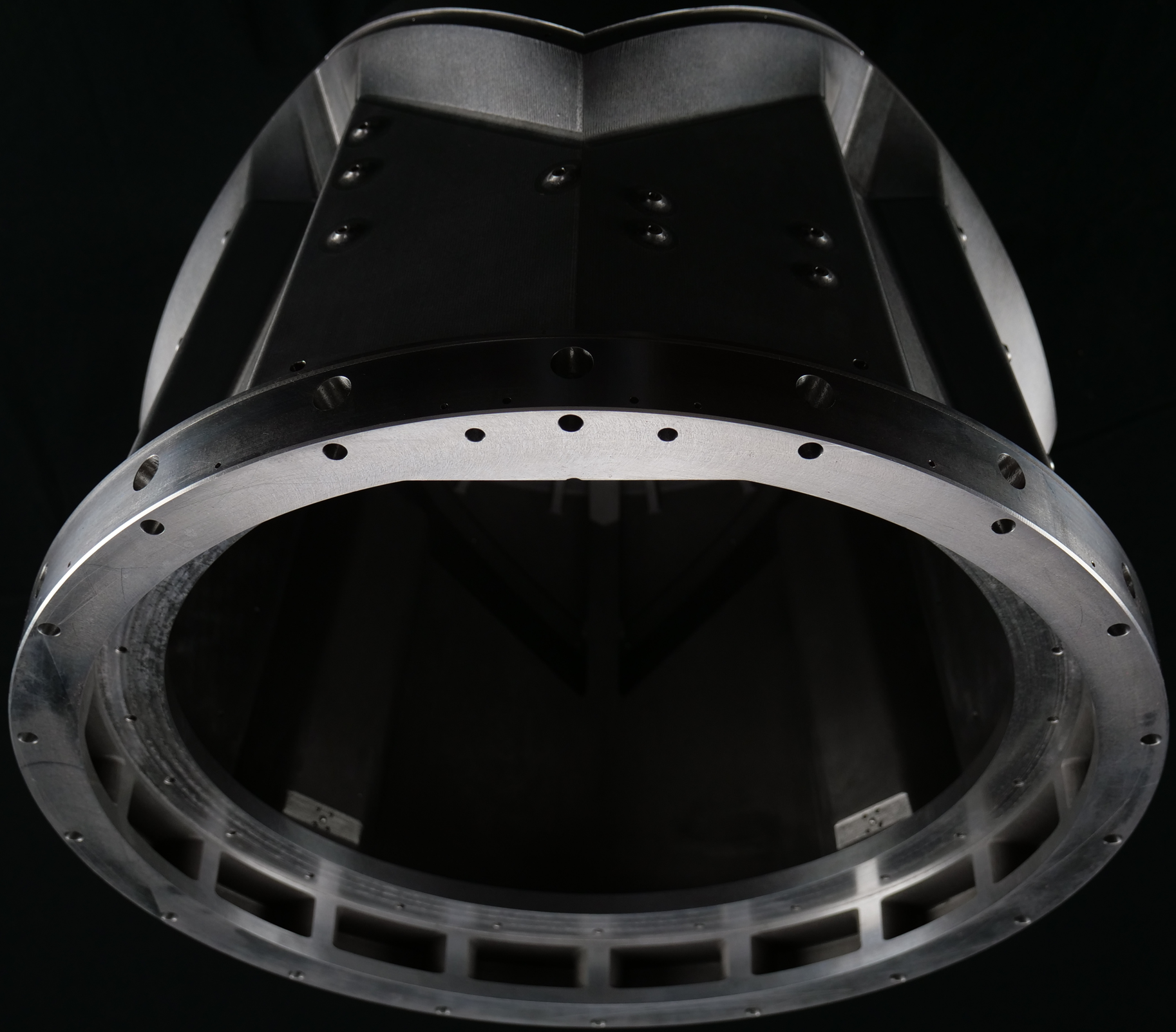
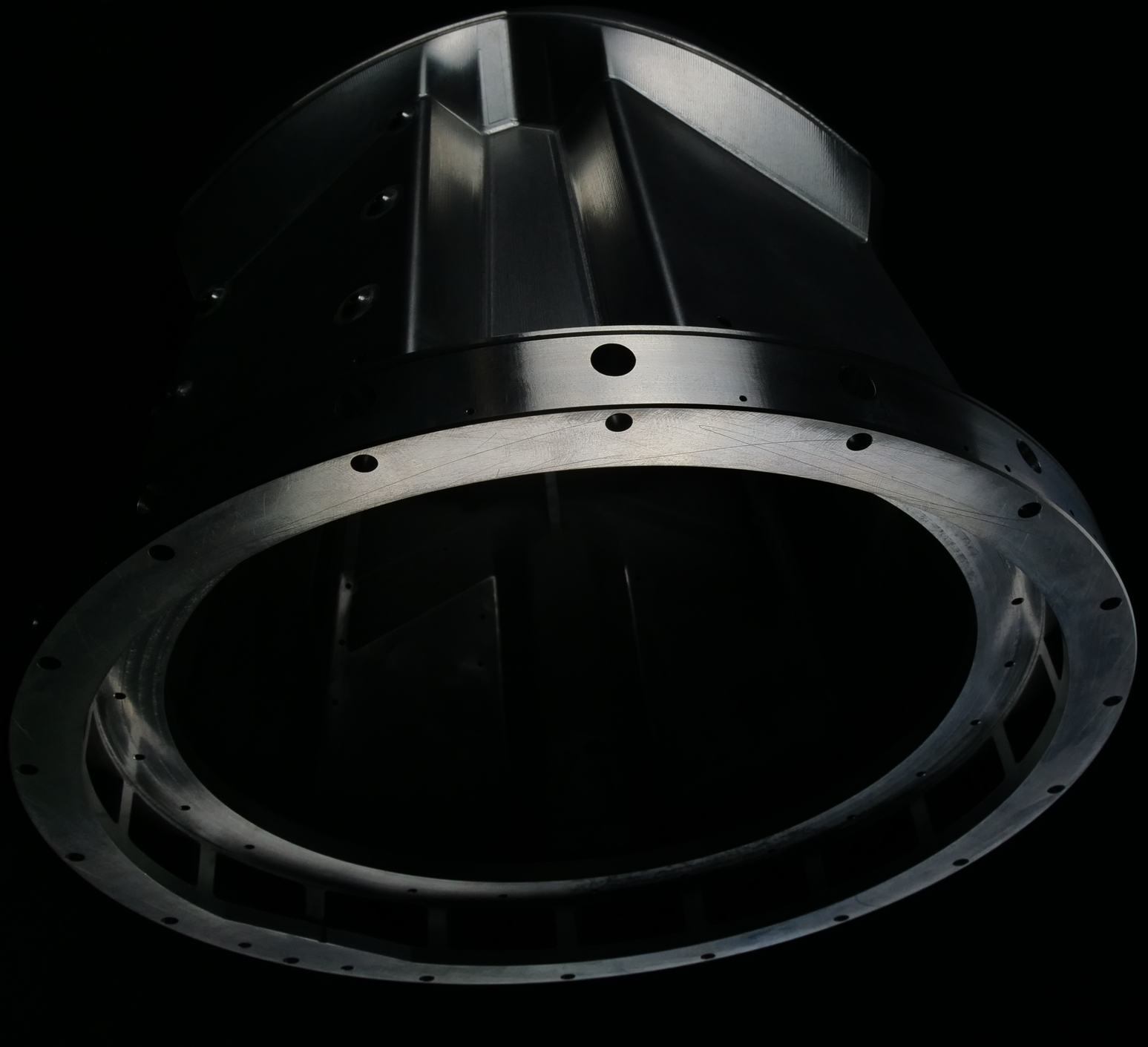
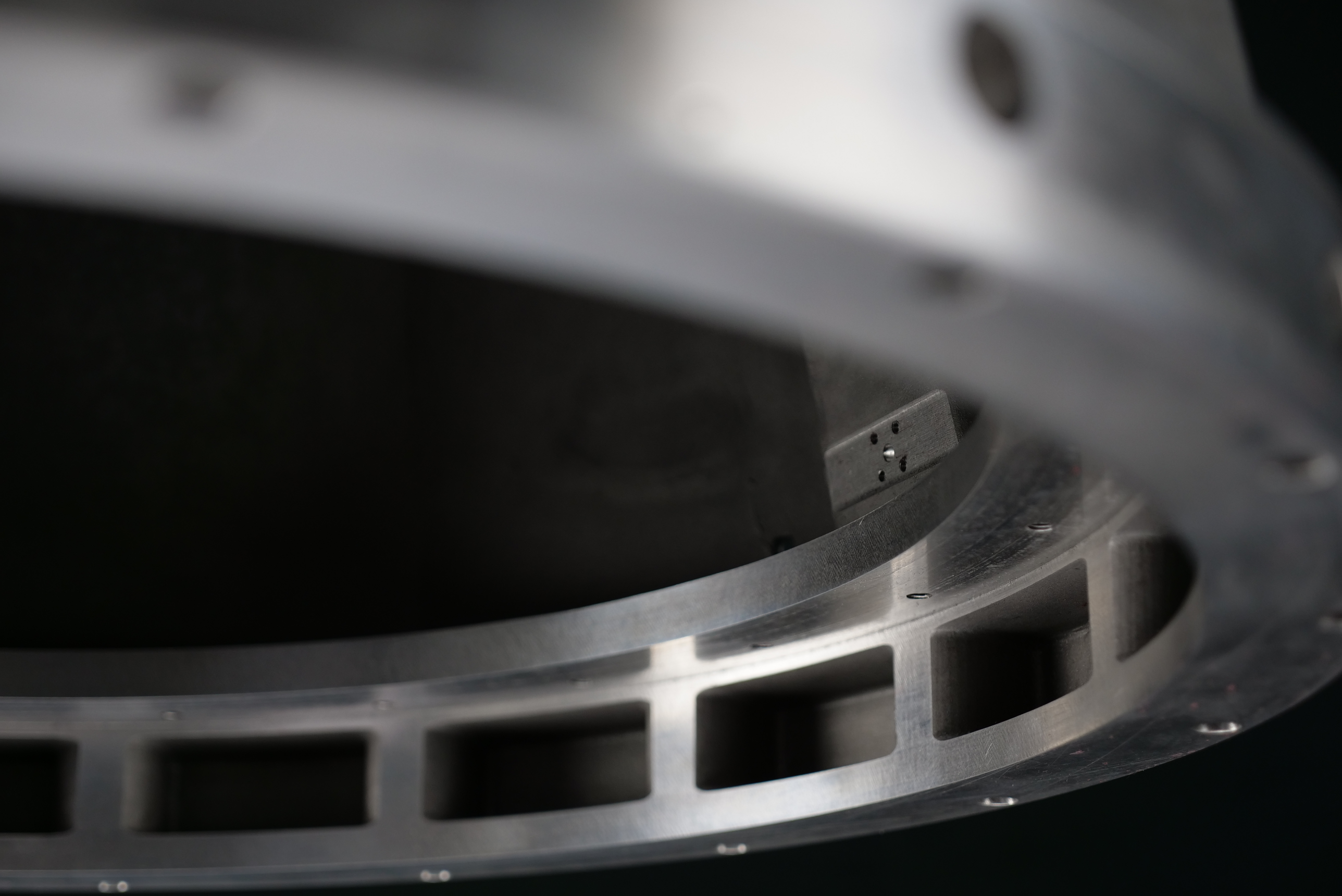
Return this cover sheet, supplemental information, photos and/or casting to:

Investment Casting Institute
1 Paragon Drive, Suite 110 Montvale, NJ 07645
Phone: 201-573-9770 Fax: 201-573-9771
E-mail: ici@investmentcasting.org

www.investmentcasting.org

BARRON INDUSTRIES

CASTING CONTEST ENTRY

Description: Structure Housing
Manufacturing process: Investment casting from SLA quickcast prototype patterns
Alloy: A356-T6
Testing: Radiographic and penetrant inspected to AMS 2175 Grade B and pressure leak tested
Post processing: Casting is 5-axis machined
Application: US military aerospace- proprietary

Benefits to customer:
This part was previously manufactured with 4 machined segments that were bolted together. It was time consuming and costly.
Barron Industries is producing this as a single piece casting at 25% of the original cost of production enabling significant cost savings. Additionally, the investment casting process has provided our customer with a great deal of design flexibility not available with the previous method of manufacture.
Barron's investment casting solution has been embraced by our customer as an outstanding solution to meet their cost targets and functionality requirements.