



**DLA**  
DEFENSE LOGISTICS AGENCY  
*Established 1961*



The Nation's Combat Logistics Support Agency



# Casting and Forging



**WARFIGHTER ALWAYS**



# Castings & Forgings Process & Method



## Why Castings?

**For complex geometry parts.  
Process done at a foundry,  
where metal is melted to a  
molten state and poured into a  
mold for near net shape. Usually  
require some post processing  
for finished part.**



## Why Forgings?

**For structural parts.  
Process done at a forge  
shop, where metal is heated  
to a temp to soften and then  
pounded or pressed into  
near net shape. Usually  
require some post  
processing for finished part.**

**Castings and forgings are only 3% of all NSNs, but are a disproportionate share of backorders.  
Castings and forgings are 20% of the 100 oldest DLA backorders.**



# Program Engagement

To engage resource email: [DSCC.cast.forge@dla.mil](mailto:DSCC.cast.forge@dla.mil)

- Provides assistance to DLA managed NSNs
- MetaLFACT comprised of government/industry representation
- MetaLFACT is a resource available to:
  - DLA personnel
  - Engineering Support Activities
  - Contractors/Suppliers
    - With active DLA L&M contracts
    - With Contracting Officer's approval
    - Bidding on open DSCC solicitations
    - Support SAR (Source Approval Request)





# Assistance Provided

Following is a listing includes but is not limited to the types of areas we are able to engage.

- Existing tooling (when known, tooling dbs)
- Potential Sources – foundry and forge shops that perform required work. (material and process)
- Technical analysis –
  - Tech Data issues or questions
  - Process analysis – specifically c/f processes
  - Material issues
  - Inspection issues – coordinate with contractor and ESA and/or test lab





# Support Tools

- ICON – (Integrated Casting Order Network) Contains:
  - Cast tooling database
  - Supplier database
  - Toolkit database

<https://icon.nffs.org>
- NFTD – National Forging Tooling Database (resides in Haystack Gold)
- FIA RFQ – Forging Industry Assoc. Request for Quote (posting)

<https://www.forging.org/designers-buyers/request-for-quotation>



# Program Implementation

## Information input in Section B of Solicitation: See below examples Forging/Casting/Suspected:

### SECTION B

A forging process was identified as a means to manufacture this item. Tooling is required to produce a forging. For sourcing, tooling, materials or other information, please contact the appropriate assistance team: (Aviation, C&E Supply Chains) DSCR.AFCAT@dla.mil; (Land & Maritime Supply Chains)

[DSCC.cast.forge@dla.mil](mailto:DSCC.cast.forge@dla.mil)

A metal casting process was identified as a means to manufacture this item. Tooling is required to produce a casting. For sourcing, tooling, materials or other information, please contact the appropriate assistance team: (Aviation, C&E Supply Chains) DSCR.AFCAT@dla.mil; (Land & Maritime Supply Chains)

[DSCC.cast.forge@dla.mil](mailto:DSCC.cast.forge@dla.mil)

Casting/forging may be required to manufacture this NSN. If a casting/forging is required, tooling is typically involved. The government may not have this special tooling. For sourcing, tooling, materials or other information, please contact the appropriate assistance team: (Aviation, C&E Supply Chains) DSCR.AFCAT@dla.mil; (Land & Maritime Supply Chains)

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## Example Soliocation

### SECTION B

QPL/QML COMPONENTS ONLY FROM SOURCES QUALIFIED ON THE APPLICABLE QPL(S)/QML(S).

#### SAMPLING:

THE SAMPLING METHOD SHALL BE IN ACCORDANCE WITH MIL-STD-1916 OR ASQ H1331, TABLE 1 OR A COMPARABLE ZERO BASED SAMPLING PLAN UNLESS OTHERWISE SPECIFIED BY THE CONTRACT. IF THE APPLICABLE DRAWING, SPECIFICATION, STANDARD, OR QUALITY ASSURANCE PROVISION (QAP) SPECIFIES CRITICAL, MAJOR AND/OR MINOR ATTRIBUTES, THEY SHALL BE ASSIGNED VERIFICATION LEVELS OF VII, IV AND II OR AQLS OF 0.1, 1.0 AND 4.0 RESPECTIVELY. UNSPECIFIED ATTRIBUTES SHALL BE CONSIDERED AS MAJOR UNLESS SAMPLING PLANS ARE SPECIFIED IN APPLICABLE DOCUMENTS. FOR MIL-STD-1916, THE MANUFACTURER MAY USE THE ATTRIBUTE OR VARIABLE INSPECTION METHOD AT THEIR OPTION OR PER THE CONTRACT. MIL-STD-105/ASQ Z1.4 MAY BE USED TO SET SAMPLE LOT SIZE, BUT ACCEPTANCE WOULD BE ZERO NON-CONFORMANCES IN THE SAMPLE LOT UNLESS OTHERWISE SPECIFIED IN THE CONTRACT.

CLASS I OZONE DEPLETING CHEMICALS ARE NOT TO BE USED NOR INCORPORATED IN ANY ITEMS TO BE DELIVERED UNDER THIS CONTRACT. THIS PROHIBITION SUPERSEDES ALL SPECIFICATION REQUIREMENTS BUT DOES NOT ALLEVIATE ANY PRODUCT REQUIREMENTS. SUBSTITUTE CHEMICALS MUST BE SUBMITTED FOR APPROVAL UNLESS THEY ARE AUTHORIZED BY THE SPECIFICATION REQUIREMENTS.

\*CONTRACTOR/MANUFACTURER IS REQUIRED TO ESTABLISH AND MAINTAIN A CALIBRATION SYSTEM THAT MEETS THE REQUIREMENTS OF ANSI/NCCL Z540-1-1994, AMERICAN NATIONAL STANDARD FOR CALIBRATION - CALIBRATION LABORATORIES AND MEASURING AND TEST EQUIPMENT-GENERAL REQUIREMENTS, OR ISO 10012-1, QUALITY ASSURANCE REQUIREMENTS FOR MEASURING EQUIPMENT- PART 1, METROLOGICAL CONFIRMATION SYSTEM FOR MEASURING EQUIPMENT.\*

\*FINAL INSPECTION AND ACCEPTANCE OF THE ITEM SHALL BE AT THE ACTUAL MANUFACTURING FACILITY. TECHNICAL INSPECTION IS REQUIRED. THE CONTRACTOR SHALL MAKE DRAWINGS AND TECHNICAL INFORMATION AVAILABLE TO VERIFY THAT THE ITEM MEETS ALL TECHNICAL REQUIREMENTS.

COUNT, KIND, AND CONDITION INSPECTIONS ARE NOT ACCEPTABLE. THIS NOTE TAKES PRECEDENCE OVER MASTER SOLICITATION PART ONE PROVISIONS, NOTE 6, QUOTATIONS BY NON-MANUFACTURERS (APR 1984, DCSC 52.217-9C01). FINAL INSPECTION OF PACKAGING, IF REQUIRED, MAY BE CONDUCTED ELSEWHERE.\*

FULL AND OPEN COMPETITION APPLIES.

THE CONTRACTOR SHALL RETAIN ALL FIRST ARTICLE UNITS AS PRODUCTION STANDARDS. DISPOSITION OF APPROVED FIRST ARTICLE TEST SAMPLES: THE CONTRACTOR MAY DELIVER APPROVED UNDAMAGED FIRST ARTICLE SAMPLES AS PART OF THE PRODUCTION QUANTITY.

A metal casting process was identified as a means to manufacture this item. Tooling is required to produce a casting. For sourcing, tooling, materials or other information, please contact the appropriate assistance team: (Aviation, C&E Supply Chains) DSCR.AFCAT@dla.mil; (Land & Maritime Supply Chains) [DSCC.cast.forge@dla.mil](mailto:DSCC.cast.forge@dla.mil)

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PART PIECE NUMBER:

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PART PIECE NUMBER:



# DECAF NSN Reviews

DECAF – (DLA Enterprise Cast and Forge) db  
REVIEW NUMBERS of NSN's

- LAND

- Forge – 4341 NSN's confirmed
- Cast – 9782 NSN's confirmed
- Suspect - 8888 NSN's unconfirmed
- Total - 23,011 LAND NSN's



- MARITIME

- Forge - 5517 NSN's confirmed
- Cast – 9862 NSN's confirmed
- Suspect -11452 NSN's unconfirmed
- Total – 26,831 MARITIME NSN's





# Takeaway

- Mailbox – [DSCC.cast.forge@dla.mil](mailto:DSCC.cast.forge@dla.mil)
- The MetaL FACT (Maritime & Land Forging and Casting Team) is available to provide assistance.
  - Who: To both Government and Contractor entities.
  - What: Parts manufactured via cast or forge process.
  - How: Email above address to engage our resources.