

PO Requirements - AMS 2759

The following information shall be provided to the heat treating processor by the purchaser.

Purchase order and/or purchaser supplied documents shall specify not less than the following:

AMS 2759 G

Quantity of parts

Part number or part identification

Material alloy designation of parts

Heat treating operations required

Final heat treatment condition required

Processing variables, if not defined or different from the applicable slash specifications.

Examples of such requirements include but are not limited to:

Processing temperatures, times, and other parameters

Class of atmosphere required

Part type

Allowance for straightening, post-straightening thermal operations requirements

Pre-cleaning and post-cleaning requirements

Post heat treatment corrosion protection requirements

Additional ordering information as required by the appropriate slash specification.

Examples of such requirements include but are not limited to:

Present condition of parts

Pre heat treatment surface protection (e.g. Cu plating)

Any restriction from the applicable slash specification (e.g. Vacuum only or Salt bath only)

PO Requirements - AMS 2759/1

In addition to that listed in AMS 2759, the purchaser shall supply the following information to the heat treating processor:

AMS 2759/1 J

Whether the parts are "damage tolerant," "maintenance critical," or "fracture critical". These designations have been previously used to designate parts requiring additional inspection.

Tensile strength or hardness if other than that stated in Tables 3 and 4

Cognizant engineering organization approval if dimensions at heat treatment exceed Table 6 size limits

PO Requirements - AMS 2759/2

In addition to that listed in AMS 2759, the purchaser shall supply the following information to the heat treating processor:

AMS 2759/2 K

Tensile strength or hardness if other than that stated in Table 3

Cognizant engineering organization approval if dimensions at heat treatment exceed Table 5 size limits

PO Requirements - AMS 2759/3

In addition to that listed in AMS 2759, the purchaser shall supply the following information to the heat treating processor:

AMS 2759/3 J

PO Requirements - AMS 2759/4

In addition to that listed in AMS 2759, the purchaser shall supply the following information to the heat treating processor:

AMS 2759/4 D

PO Requirements - AMS 2759/5

In addition to that listed in AMS 2759, the purchaser shall supply the following information to the heat treating processor:

AMS 2759/5 F

Hardness or tensile strength if other than that listed in Table 3

When required for qualification of gas quenching, tensile properties and number of specimens

PO Requirements - AMS 2759/6

In addition to that listed in AMS 2759, the purchaser shall supply the following information to the heat treating processor:

AMS 2759/6 D

Engineering drawing or detailed operation information

Critical dimensions information as applicable

Class of white layer depth (thickness)

Areas to be nitrided, areas to be masked, areas to be optional

Areas to be ground after nitride, if applicable

Prior heat treatment information, including actual tempering/aging temperature and hardness

Any prior stress relieving performed, including specifics and if stress relief is to be performed by the nitride processor

Total case depth

Effective case depth, if applicable

Case (surface) hardness, if different than in Table 2

White layer removal requirements, if applicable

Post-nitriding core hardness, if specified

If parts are to be used for testing

Grind stock allowances to be removed in subsequent polishing/grinding

PO Requirements - AMS 2759/7

In addition to that listed in AMS 2759, the purchaser shall supply the following information to the heat treating processor:

AMS 2759/7 E
Class of carburizing
Type of carburizing
Effective case depth of the finished part
Amount of material that will be removed during subsequent machining and/or grinding
Method of case depth determination when alloy has a core hardness greater than HRC 48
Case hardness
Core hardness
Purchaser to supply test part(s), test specimen(s), or specify otherwise

PO Requirements - AMS 2759/11

In addition to that listed in AMS 2759, the purchaser shall supply the following information to the heat treating processor:

AMS 2759/11 B
Cycle 1 or Cycle 2 when stress relieving austenitic corrosion-resistant steels
Current condition of the parts and if parts are made from strain-hardened material and parts that have been intentionally cold worked, strain hardened, or peened
Tempering or aging temperature as applicable to what was last performed
Minimum hardness or strength to which parts have been heat treated
Whether the stress-relief process to be performed is pre-plate, pre-chemical processing, or before other processing