

# PROCESS SPECIFICATION

## DELPHI SAGINAW STEERING SYSTEMS

TITLE Tool Material Heat Treatment NUMBER E-2648  
ISSUED BY C. R. Martin DATE 4/30/96 APPROVED BY \_\_\_\_\_  
REVISION C REV. DATE 08JL2003 SHEET 1 OF 1

- A. Material to be heat treated: **Vascomax C-350**  
**18Ni (350) Maraging Steel**
- B. Heat treatment for air atmosphere.
- C. Heat treat as specified:  
1. Heat to 950°F, allow 1 hour per inch of thickness for parts to reach temperature.  
2. Hold at 950°F for 3 hours at heat (a 2 inch part requires 5 hours in the furnace).  
3. Remove from furnace and air cool to room temperature.
- D. Using heat treatment shown above will give a hardness range of 56 to 60 Rockwell C. Required hardness will be noted on print. Heat treat accordingly.  
1. (Hardness before heat treatment - HRC 30/35)
- E. Discoloration from heat treatment to be removed by buffing or glass bead blasting.
- F. Heat treatment certification, when requested, shall include:  
1. Heat treat shop number  
2. P.O. Number accompanying job  
3. Type of material heat treated  
4. Size and quantity of tooling batch heat treated  
5. Resulting hardness  
6. Xerox copy of material tracking chart containing furnace times and temperatures.  
7. Date when hardness tester last calibrated.
- G. Heat treatment per this specification is to be carried out only by approved sources as listed in specification E-2600.
- H. All printed copies of this specification are FOR REFERENCE ONLY. The latest revision can be viewed on-line at: [http://www.delphisuppliers.com/vendor\\_documents/delphi-s/index.html](http://www.delphisuppliers.com/vendor_documents/delphi-s/index.html)

Revision	Revision Description	By	Date
A	Distribution list updated.	CRM	5/16/96
B	Distribution list revised. Format updated.	DN	1/24/01
C	Note G revised. Note H added.	DN	08JL2003

Note: The above specifications were developed without considering whether patents may or may not be involved.  
In all cases, therefore, the supplier shall be required to assume patent liability.