



## Tesla Model Y Thermal Systems / Octovalve Benchmark Report

Purchasers of this report will receive

### Thermal System Description

**\$15,000**

- Coolant diagram/flow diagram for all positions of the Model Y Octovalve
- AC diagram/ flow paths for all control valves
- Electrical diagram including the following components: heat pump (solenoids/sensors/pumps), cabin sensors, component temp sensors (ADAS, Motors, Batteries etc.) CAN bus architecture
- Coolant tube diagram

### Thermal System Cost Analysis

**\$ 3,500**

- Cost and description of associated thermal system components. Heat Exchangers, Coolant and AC Tubing, Cold Plates, Heat Pump, AC Compressor etc.

### Thermal System Manifolds and Octovalve CT Scans

**\$ 3,000**

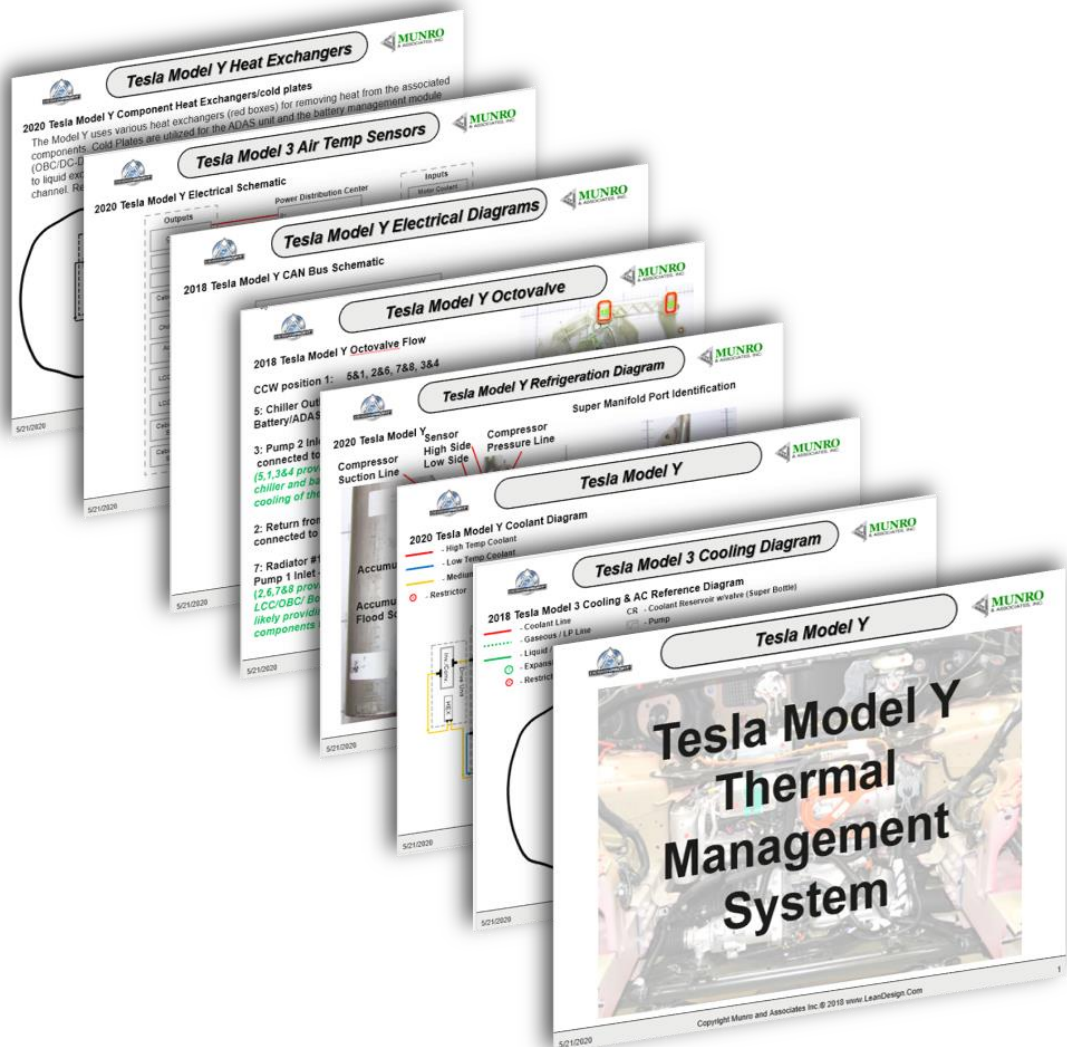
- CT Scan of the two thermal system manifolds supplied by the Octovalve
  - CT Scan of the Octovalve in each of its four functional positions
- ❖ All reports and accompanying deliverables will be made available for easy access through a secure File Transfer Protocol (FTP) site.
- ❖ The report(s) will utilize hyperlinks within a table of contents to facilitate the ability to easily navigate throughout the contents and quickly find specific data and information to meet user needs.



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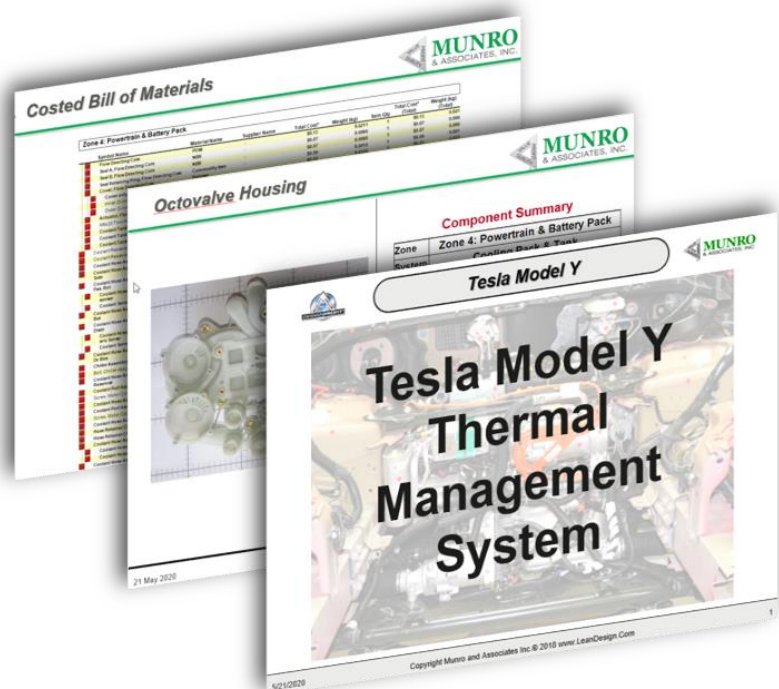




## Thermal System Cost Analysis

**\$ 3,500**

- Cost and description of associated thermal system components. Heat Exchangers, Coolant and AC Tubing, Cold Plates, Heat Pump, AC Compressor etc.
- The thermal system is broken down to systems and components for Quick Cost Estimating (QCE). Quick Cost estimates provide the customer with approximate versus detailed costs which are more expensive and time consuming to generate. This level of accuracy provides OEM's and Suppliers the ability to make sound comparisons and directional decisions.
- The bill of material is in an indented format and includes:
  - Part name
  - Material
  - Total Cost
  - Weight
  - Quantity
  - Total Weight





## Thermal System CT Scans

**\$ 3,000**

- CT Scans of the two thermal system manifolds which are supplied by the Octovalve.
- CT Scan of the Octovalve in each of its four functional positions.
- A Computerized Tomography (CT) scan combines a series of X-ray images taken from different angles around the manifolds to reveal inner structures. The computer processing will create cross-sectional images (slices) of the manifold and housing.
- Scans will be complemented by a report providing multiple sections with select dimensions and thicknesses.





## FAQ (Frequently Asked Questions)

- ❖ Was Tesla involved in the study?  
***No. Neither Tesla proprietary costs nor any Tesla Model Y supplier's quoted costs were used in this study.***
- ❖ Is there any Tesla Model Y proprietary (stolen) IP in this report?  
***No. All data was developed through Munro's proven methodologies, analyzing Munro's purchased production Tesla Model Y vehicles***
- ❖ Are the components costed using USMCA costing centers?  
***Yes, Munro includes labor, factory floor cost, taxes and SG&A for OEM or Tier Suppliers.***
- ❖ Is this a Costing or Pricing report?  
***This is a Costing Report. Pricing has too many variables.***

## Legal Disclaimers & Sales Condition

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***Munro will visit if the customer pays for the travel and a daily fee.***
- ❖ If there are limited specific questions on the content of report, is it possible for a Munro representative to support phone or e-mail communication?  
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