

## PSI DELIVERS MESSENGER PROPULSION SYSTEM TANKS TO AEROJET

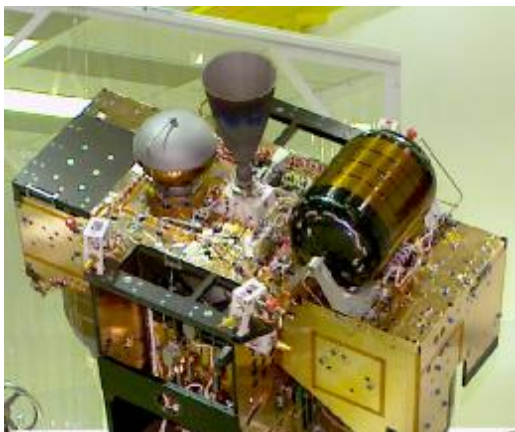
PSI recently completed delivery of a set of MESSENGER propulsion system tanks to Aerojet in Sacramento, California. The delivered shipset includes four propellant tanks, an auxiliary tank, and a pressurant tank.

The propellant tank was developed over a 2-year period, after an extensive trade study followed by design analysis, engineering, fabrication, and qualification testing. This tank has a capacity of 12,150 in<sup>3</sup>. The photograph at right shows the Qualification Tank undergoing qualification vibration test. The development and qualification of this tank was presented at the AIAA Joint Propulsion Conference in July 2002.



The auxiliary tank is an off-the-shelf positive expulsion elastomeric diaphragm tank with a capacity of 920 in<sup>3</sup>. The pressurant tank is also a derivative of an existing COPV design, with a capacity of 4,105 in<sup>3</sup> and operates at 4500 psi. Neither tank required development or qualification. Both were qualified by similarity.

These tanks are currently being integrated into the MESSENGER propulsion system at Aerojet. Photographs below show the installed tanks.



Photos courtesy of Aerojet