

# Transonic Wind Tunnel



The customer operates a transonic windtunnel that provides a design verification service to the aero industry. Prosig data acquisition equipment is used for test measurement and post processing. Each test campaign is controlled by Tunnel Control Computer which also controls the Prosig data acquisition software and provides parameters defining the set point conditions that are stored with the data. Post processing is therefore always performed on fully qualified data.

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Tests performed in the wind tunnel typically require analogue data capture from 16 up to 128 channels depending on the complexity of test. The Prosig P8048 system provides the capability to capture 128 channels at up to 50Ks/s simultaneously. As the volume of data can be considerable at these rate the P8048 offers split sampling, allowing some channels to be recorded at submultiples of the main rate.



The system may be configured as multiple independent systems or as one large system depending on the customers requirements. A key feature of the system is the software's ability to operate remotely and be controlled and accept metadata from the tunnel control computer. When operated in this mode the tunnel control software decides when to take data, for how long, the name of the datafile in which the data is stored and the metadata which qualifies the data captured. This may include parameters such as the set point number, tunnel temperature, pressure, etc.



The customer can effectively add any metadata that qualifies the conditions at the time of capture.

This information is then fully accessible in the post processing stage where data sets

may be selected based on this metadata and mathematical operations may be made on the data that include this metadata. This arrangement provides high integrity for the data in that the metadata is stored with the raw data at source and then is fully accessible for post processing and reporting through standard production software.

### System consists of

#### P8048

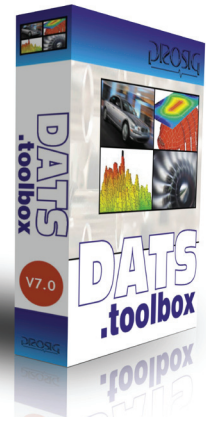
24-bit data acquisition system



P8048 Chassis

#### DATS

Analysis software



DATS Toolbox software

### Contact Prosig

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