With the Customers...

A new base for EVI* activities in the automotive field

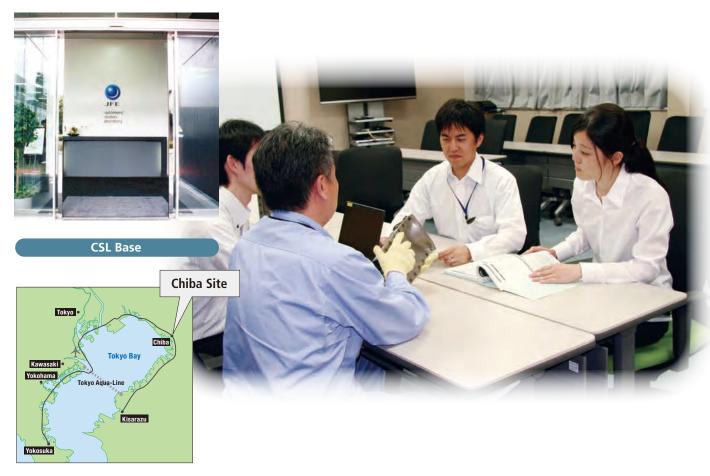
CS L Customer Solution Lab



The Customer Solution Lab (CSL) is a collaborative testing and research facility that promotes technical communication between customers and researchers.

The CSL consists of the following areas:

- 1. Exhibition Area displaying advanced materials and solution technologies for automotive manufacturing.
- Study Area for investigating automotive structure and their performances.
- 3. Experimental Area with various welding machines and test apparatus for sheet materials.
- Meeting Area for "Co-Creation" with customers which strongly supports their developments in the next generation.



*Early Vendor Involvement: Activities to propose materials, forming technologies and evaluation methods that match customer's aims by participating in their development process from the earliest stages.

Contribution to automobile development **JFE Steel's Product Line** Seat Ultra high strength steel sheets ◆SUPERHOT[™] ♦ HISTORY™ nine High strength low carbon steel wire rods Electrical steel sheets for EPS motor cores Ultra light & stamp sheet with high rigidity drive motors Chromate free coated steel Side panel outer Converter/Inverter High cleanliness bearing steel ◆ SFGHITENT JAZ[™] (JFE Advanced Zinc) hot dip with excellent rolling contact fatique life at intermediate lubrication property Muffler Connecting rod Non heat treated free-cutting Stainless steels with high formability and steel bars JFE-439L JFE-409L ◆ Clean Mix™ high performance JFE-443CT iron powder Closure nanel Catalyst substrate JAZ™ (JFE Advanced Zinc) hot dip galvanized steel Stainless steel foil JFE-20-5USR JFE-18-3USR Pb free non heat treated Suspension parts **Exhaust manifold Transmission** Member and reinforcement ◆ NANOHITEN[™] Ferritic stainless steel pipe Ultra high strength steel sheets NANOHITEN™ BHT™ Hiten Non heat treated steel bars ◆ HBR™ Hyper burring high carbon hot rolled steel sheet **Drive shaft** Non oriented high carbon cold rolled steel sheets SUPERHOT™ ► HISTORY™ pipe ERW pipe with excellent formability Constant velocity joint Seamless pipes ◆ Clean Mix™ high performance iron powde ERW pipe with excellent formability High strength Dual phase steel bars for high pitting fatigue strength steel bars Stabilize Material development High tensile strength steels **Automobile body** with superior properties functional evaluation Rigidity, crashworthiness, fatigue life Material property analysis **Automobile body structural** evaluation, body/parts proposal Improvement of automotive mileage by body weight reduction **Advanced surface** finishing technology **Corrosion analysis** Formability and part function **Advanced welding** prediction technologies Advanced forming & joining technologies technologies ◆ Reduction of CO₂ emissions and improvement of automotive mileage by weight reduction Performance improvement of automotive body (crash safety, rigidity, corrosion resistance)

Development of next generation automobile