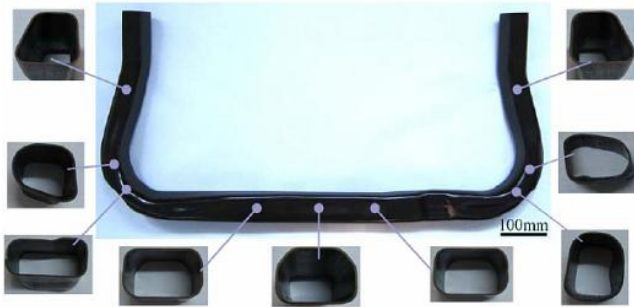


# 轻量化整体构件内高压成形技术

## Hydroforming of light-weight integrated components

内高压成形是制造空心变截面构件的先进技术，具有质量轻、整体性好，刚度和疲劳性能高等优点。建立了内高压成形理论体系；发明了提高膨胀率和低压成形等原创性工艺方法；攻克了内高压成形设备和模具核心技术。在高档轿车底盘、车身上获得大批量应用，多种重要零件用于航天航空型号研制。获得国家发明专利15项，获得黑龙江省技术发明一等奖。

Hydroforming is a high and new technology to produce light-weight hollow integral components in large volume. Internal high pressure and axial feeding are applied together to force the tube blank into die cavity to form the hollow components with different cross-sections. Lighter weight, increased stiffness and fatigue strength can be achieved. Main achievements, including the development of fundamental; new methods to improve expansion ratio of tube and control thickness distribution; key technologies for die manufacturing. hydroforming parts for mass production have been developed for automotive industry. Several kinds of important components were applied in air and space industry.



轿车副车架内高压件

An engine cradle made by IHPF for Besturn car

