

# **Hobbs** Corporation

[www.hobbs-corp.com](http://www.hobbs-corp.com)



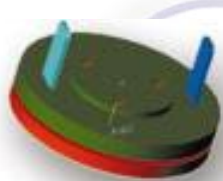
**SWITCHES  
CONTROLS  
KEY SWITCHES  
HOUR METERS  
LIGHTING  
CUSTOM  
ELECTRONIC  
ELECTRO-MECHANICAL**

 **Invensys**  
An Invensys company

 **ISO 9001  
QS9000**



# Custom Capabilities

## Custom Product Development & Rapid Prototyping Technology



Several years ago if a customer asked for a product to be conceptually designed and placed into production in less than six months, it would have been unthinkable. Today, responsive component manufacturers treat this as the "new reality". To meet the new "time-lines", Hobbs has put into place the technology required to design customer-specified parts in virtually weeks instead of months. Software packages that allow us to concept and rapid prototype custom products include Pro/Engineer and

Solidworks. Solid 3D model computer images can be transferred directly by mathematical data to a rapid prototyping machine. This allows us to produce "fit-up" prototypes within hours instead of days or weeks. This process is accomplished by the Stratasys FDM (Fused Deposition Modeling) machine.



The benefit to customers is having a prototype part for evaluation that serves as an important visual communication tool. Also a mold flow analysis can be completed on these models to indicate possible problems in the molding process before the mold is designed. This analysis is a big advantage for deciding the placement of the injection gate, rib and radii locations. The solid models, customer drawings and engineering data can be shared in real time speeding up the whole design process. Contact Hobbs if you have an application that can support the development of a custom component.

## Developing Partnerships

A crucial component to condensed product development and manufacture is "partnering" between the customer and Hobbs. This is accomplished by maintaining routine personal and electronic contact within the developmental team. The "customer/supplier" relationship must become more of an integrated team effort for the whole process to flow smoothly and on schedule. File transfers of solid models and CAD data via the internet, EDI and personal contact plus appropriate design review meetings help keep projects on schedule. With this approach, you truly achieve concurrent engineering.

It is in the early stages of 3D solid modeling where design and manufacturing engineers can quickly assemble numerous virtual prototypes for examination. Potential failure modes can be identified by Failure Mode Engineering Analysis. Both partners can actually see the final product on the computer allowing them to evaluate tolerancing and fit. Problems can be analyzed and alternatives can be determined early in the design process.

These technological advances enhance and strengthen the customer/supplier development effort saving all entities time and money so a superior product can be introduced on time and within budget.

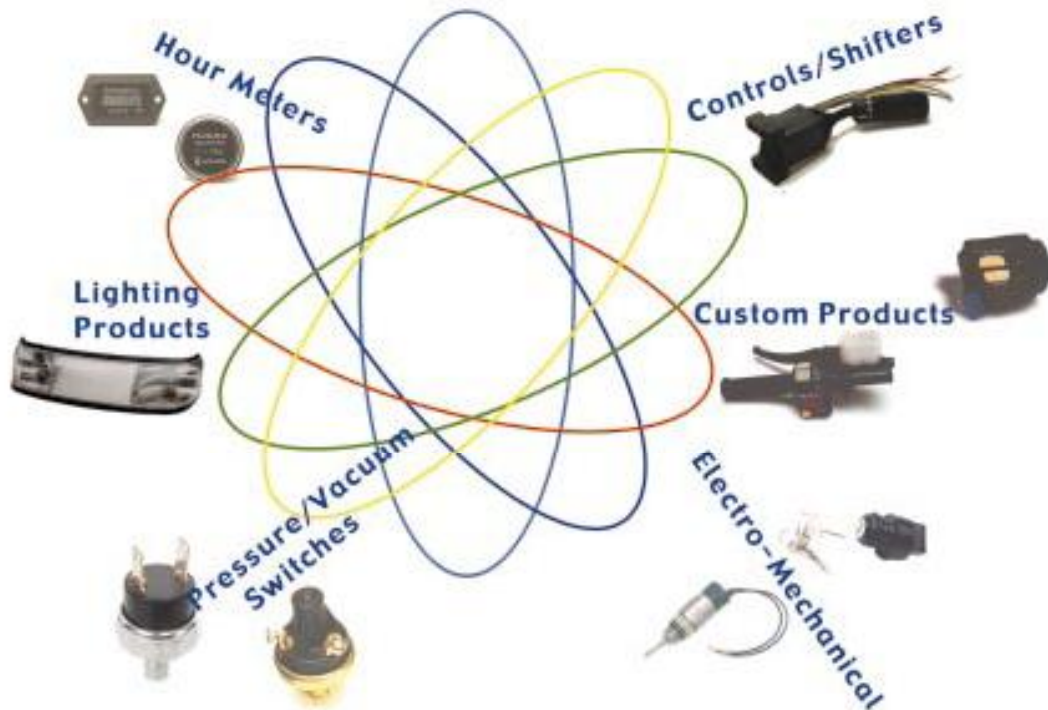
## Evolving From Lean Producer to a Lean Enterprise

Hobbs' embraced a Lean Manufacturing philosophy in the mid-1990s and is beginning to institute lean thinking in our support operations with the goal of establishing a true Lean Enterprise Business System. This includes ensuring products are designed for manufacturability with standardized processes that provide consistent quality and delivery. The organizational approach for achieving the lean concepts are to establish quality concepts and practices focused on achieving Six Sigma results, thereby promoting a company culture that is quality conscious and creating an environment that is focused on ensuring that manufacturing processes are stable and predictable.

A lean enterprise reacts faster and more efficiently. New designs in as little as 6 months, 100% delivery to JIT windows, a Six Sigma Quality level are the goals by which we plan to operate. The rewards you reap are price stability, faster responsiveness, flexibility of purchase order changes, concurrent engineering, direct links between clients' scheduling and manufacturing, and lead time (order-to-delivery) reductions.



# Product Lines



## LCD, AC, and DC Hour Meters



Hobbs is the pre-eminent manufacturer of elapsed time measurement devices for testing, leasing, maintenance and warranty programs. LCD meters are available as a meter or counter and feature a 6 digit display, resettable and non-resettable options and non-volatile memory. AC electro-mechanical versions include 120 and 240 VAC, 50 and 60 Hz and shock resistant technology. DC electro-mechanical versions are totally sealed, have quartz accuracy within  $\pm 200$  ppm over entire voltage and temperature ranges.

## Pressure and Vacuum Switches



Hobbs has produced over 50,000,000 switches in the 0.5 to 3000 psi set point range for extended duty applications. Standard switches from 0.5 to 150 psi range are available with varieties of terminations and connectors. Custom switches can be designed for applications that require set points up to 3000 psi that operate in extreme temperatures.

## Off-Highway Vehicular Lighting



Hobbs produced the first halogen sealed beams for agricultural use in the early 1980's. Product line includes halogen sealed beams, composites, custom designer lights, specialty lighting and indicator modules for vehicular and non-vehicular applications.

## Custom Controls and Shifters



Innovative designs provide economical solutions for control/shifter functions. Electro-mechanical and electronic direction and speed control shifters; turn signal control lever with multi-function capability; proportional retarder electronic interface control for braking systems; multi-function controls and throttle controllers for all-terrain vehicles.

## Electro-Mechanical Devices



Over 60 years experience in manufacturing custom switches and interior lighting for the automotive and truck markets. Electro-mechanical switches includes sealed key switches, liquid flow signal flow switches; turn and emergency signal control flashers; automotive and medium duty application interior lamps and switches.

## Custom Products

Hobbs has put into place the technology required to design customer-specified parts in virtually weeks instead of months. Solid 3D model component images can be transferred directly to a rapid prototyping machine to produce "fit-up" prototypes within hours. The customer is supplied with a prototype part for evaluation that serves as an important visual communication tool. Solid models, customer drawings and engineering data can be shared in real time speeding up the whole design process.

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