

## **I PRO 312**

### **RAPID MANUFACTURING OF CASTER**

**The objective of this I PRO is to investigate techniques for rapidly and effectively manufacturing casters to satisfy “rush orders” for special casters. Conventional manufacturing is based on part-specific tooling suitable for high-volume, planned production. Attempting to insert special “rush orders” into such an operation is very inefficient and expensive.**

**The basic question is whether technology offers an alternate strategic approach. The investigation to be conducted under this I PRO will consider manufacturing techniques for the rapid manufacturing of casters using either non-part specific automated processes or alternately part specific tooling that can be rapidly and inexpensively produced.**

**During the I PRO meeting on January 31, Mr. Robert Pritzker described the general objective. Subsequently Chuck Harris and Ken Otmanowski reviewed details of the casters. The recommendation was that at least initially the I PRO focus on the metal assembly and not the wheel. It was agreed that Colson and Albion would each provide details on one series of casters by sending drawing, route sheets, assembled caster and all of the individual parts**

**By the time of the February 7 I PRO team meeting, detailed drawing of the Series 2 casters had been received from Colson. It is the teams understanding that the overall appearance and operation of the casters must remain unchanged, but that since Colson Associates control the details specifications that changes in materials and processes are acceptable. Based on the caster sample in hand, plus those drawings the I PRO team organized themselves into 5 subgroups to consider all of the components making up the caster body. These subgroups are meeting during the week to consider possible techniques for producing the individual components. At the next I PRO group meeting on February 14, the subgroups will report their finding and common concepts will be considered.**

**As the driving metric, the team decided that the target should be to have completely assemblies produced within 24 hours of receiving a rush order. Built into this are a few assumptions including that all materials and parts required would have to be on hand, that all processing must be done within the plant, and that nothing should inhibit modifications to the standard designs. The long term objective would be to evaluate the possibility of a “Rapid Manufacturing Plant” capable of producing customized casters in almost real time to satisfy special customer needs.**

**KEM**

**February 9, 2006**