

# MANUFACTURING CASE STUDY

## PROBLEM:

A FEW YEARS AGO, A MEDICAL SUPPLY COMPANY APPROACHED US WITH A CHALLENGE TO CREATE A RING PULL PIN WITH A THREADED SHAFT. OUR SALES TEAM AND ENGINEERS WORKED WITH THE COMPANY TO DEVELOP A COST-EFFECTIVE SOLUTION. RECENTLY, THEY CAME BACK TO US WITH A NEED FOR A LOCKING MECHANISM THAT WOULD ALLOW THEM TO KEEP THE PIN IN AN OPEN POSITION. THEY ONLY NEEDED A SMALL QUANTITY, AND THEY NEEDED THEM AS QUICKLY AS POSSIBLE.

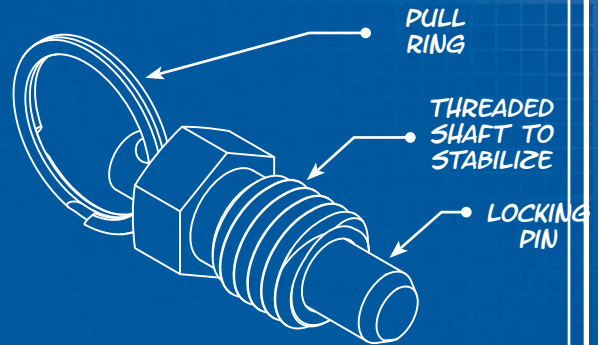
## OPPORTUNITY:

ALONG WITH OUR CUSTOMER, THE G.L. HUYETT MANUFACTURING TEAM WORKED QUICKLY TO DEVELOP SEVERAL POTENTIAL SOLUTIONS. ONE WAS A COSTLY, TIME-CONSUMING SIDE PIN THAT WOULD SERVE THEIR NEEDS, BUT WASN'T AN AFFORDABLE OPTION. ANOTHER WAS A NOTCHED PIN THAT COULD BE LOCKED, BUT WAS NOT A VIABLE SOLUTION SINCE CLEARANCE WAS TOO TIGHT TO ALLOW THE SHAFT OF THE PIN TO SLIDE INTO A LOCKED POSITION. A THIRD SOLUTION PROVIDED A COST-EFFECTIVE, CUSTOM MANUFACTURED, HEX-SHAPED LOCKING COLLAR THAT COULD BE QUICKLY ADDED TO OR REMOVED FROM THE ORIGINAL PIN.

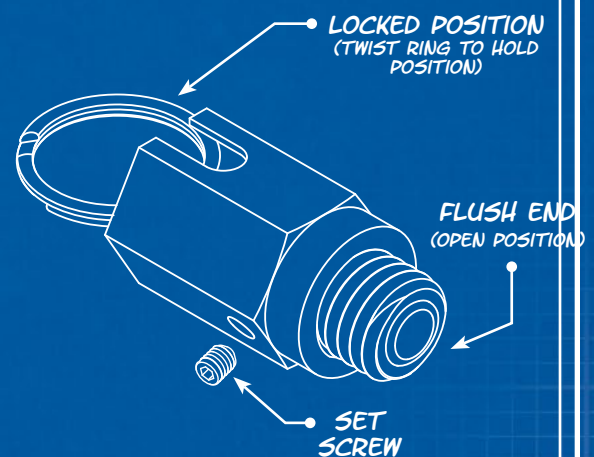
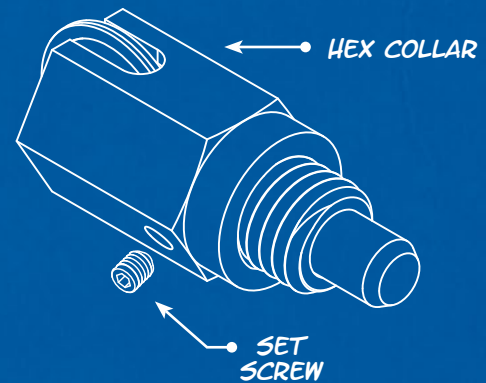
## SOLUTION:

A CORROSION RESISTANT HEX SHAFT WAS USED TO CREATE COLLARS FOR THE LOCKING PINS. AFTER THE SHAFT WAS CUT TO LENGTH, EACH COLLAR WAS TURNED, THREADED, FINISHED, AND COMBINED WITH THE EXISTING RING PULL PIN. THE FINISHED ASSEMBLY ALLOWED THE RING PIN TO BE PULLED, TWISTED, AND LOCKED IN AN OPEN POSITION. ADDITIONALLY, A HOLE WAS THREADED IN ONE SIDE OF THE COLLAR SO THAT A SET SCREW COULD BE ADDED TO THE ASSEMBLY TO SAFELY LOCK THE RING PIN IN AN OPEN OR CLOSED POSITION.

## ORIGINAL DESIGN



## REDESIGNED METHOD



Drawing No.: <b>GLH-MCS-004-R01</b>		Case No.: <b>GLH-MCS-004-R01</b>		Case Description: <b>THREADED PULL PIN WITH LOCKING HANDLE</b>			 <p><b>G.L. HUYETT</b> <b>MANUFACTURING</b> PROTOTYPES • PRODUCTION RUNS • EMERGENCIES • ASSEMBLY EST. 2000</p>
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