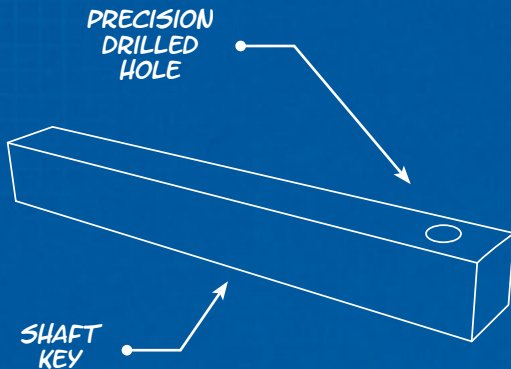


MANUFACTURING CASE STUDY

LEGACY METHOD

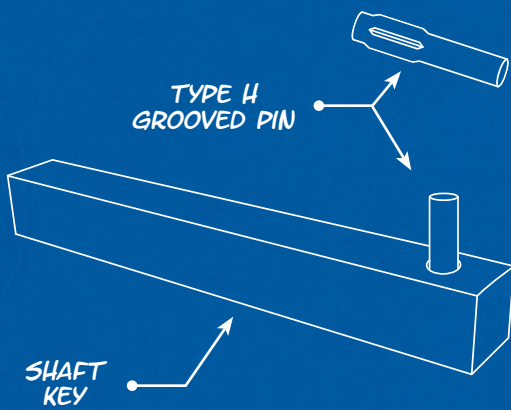


PROBLEM:

ENGINEERS WERE LOOKING TO IDENTIFY COST SAVINGS IN AN "END-STOP KEY." THE KEY SLID BACK AND FORTH IN A CHANNEL, WITH A PIN SERVING AS A "STOP." THE LEGACY PART CONSISTED OF A STAINLESS STEEL KEY, PARTIALLY DRILLED, WITH A GROOVED PIN ON ONE END.

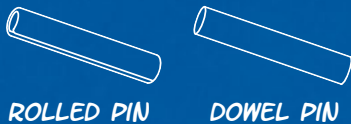
OPPORTUNITY:

DOWEL PINS ARE MORE EXPENSIVE TO PRODUCE THAN ALTERNATE DESIGNS SUCH AS A ROLLED PIN. ROLLED PINS HAVE A LESS PRECISE OUTSIDE DIAMETER THAN MANY DOWEL PINS. ORIENTATION MAY BE REQUIRED OF THE ROLLED PIN, WHICH CAN COMPLICATE INSTALLATION. A "TYPE H" GROOVED PIN WAS THE BEST SOLID PIN APPLICATION BECAUSE IT REQUIRED A LESS PRECISE HOLE THAN A DOWEL PIN, AND THE GROOVED END PROVIDED A MORE STURDY GRIP.



AN ALTERNATE DESIGN AND BUILD STRATEGY WAS CONSIDERED. DIE-CASTING PROVIDED SUFFICIENTLY PRECISE DIMENSIONS, WITH A SOLID STOPPING MECHANISM. WITH DIE-CASTING, THERE WAS NO PIN INSTALLATION COST, AND OVERALL DESIGN WAS MORE CONSISTENT. IN ADDITION, THERE WAS NO NEED FOR OPERATOR INTERVENTION IN PIN DEPTH AND PLACEMENT.

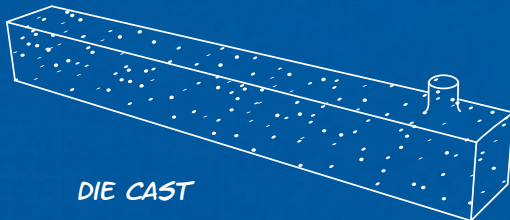
ALTERNATE DESIGNS



SOLUTION:

USING G.L. HUYETT ENGINEERING AND GLOBAL SOURCING, A DIE-CASTING CONTRACTOR WAS LOCATED. LOW TOOLING AND SETUP COSTS, COUPLED WITH THE INSTALLATION AND PRODUCTION COST ADVANTAGES OVER MULTIPLE-PIECE DESIGNS YIELDED AN ACCEPTABLE PART AT A FRACTION OF THE LEGACY COST. OVERALL, THE CUSTOMER'S GOAL OF COST REDUCTION WAS EXCEEDED BY A WIDE MARGIN.

REDESIGNED METHOD



Drawing No.:

GLH-MCS-001-R01

Case No.:

GLH-MCS-001-R01

Case Description:

END-STOP KEY

Drawn By:

BJH

Verified By:

GLH

Revision Notes:

REVISION NO. R01

NOT DRAWN TO SCALE

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