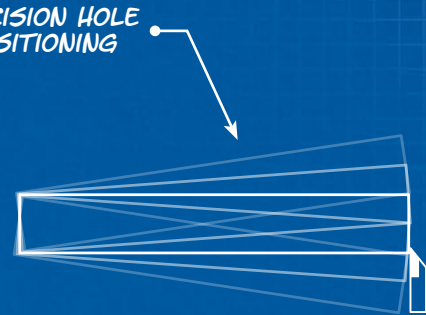


MANUFACTURING CASE STUDY

PROBLEM:

A SQUARE HANDLE USED ON ELECTRICAL BOXES REQUIRED A RADIUS EDGE TO EASE INSTALLATION, AND HAD A PRECISE EFFECTIVE LENGTH BETWEEN GROOVES TO ENSURE A TIGHT FIT. BECAUSE THE PART WAS SQUARE SHAPED, A LOT OF "CHATTER" IS CREATED DURING PRODUCTION BY THE "INTERRUPTED CUT" DURING TURNING. THE EDGES OF THE MATERIAL "BEAT" ON THE TOOL UNTIL PENETRATED AND TURNED SMOOTH. THIS "CHATTER" IMPAIRS ACCURACY AND THUS MACHINE TIME MUST BE INCREASED AS SPINDLE SPEED IS REDUCED.

PRECISION HOLE POSITIONING



OPPORTUNITY:

G.L. HUYETT'S GLOBAL SOURCING TEAM WAS ABLE TO LOCATE PROFILE MILLS TO MAKE RAW MATERIAL WITH PRE-RADIUS EDGES. THE RAW STEEL WAS SPECIFIED TO PRECISE LENGTHS TO REDUCE WASTE ON THE CHUCKED END.



CONVENTIONAL COLD-DRAW



PROFILED DRAW

SOLUTION:

THE RADIUS EDGED RAW STOCK REDUCED "CHATTER" AND ALLOWED SPINDLE SPEED TO BE INCREASED. MACHINE TIME IS REDUCED BY HIGHER THROUGHPUT, AS WELL AS THE ELIMINATION OF THE RADIUS AS A TURNED OPERATION. SCRAP WAS REDUCED BY 12% BY COORDINATING RAW MATERIAL LENGTH TO CONSUMPTION AND PRODUCTION SETUPS. IN ADDITION, A TEST ELECTRICAL BOX ASSEMBLY WAS DEPLOYED AS A "GO-NO-GO" GAUGE TO ENSURE PERFECT GROOVE WIDTH ACCURACY.

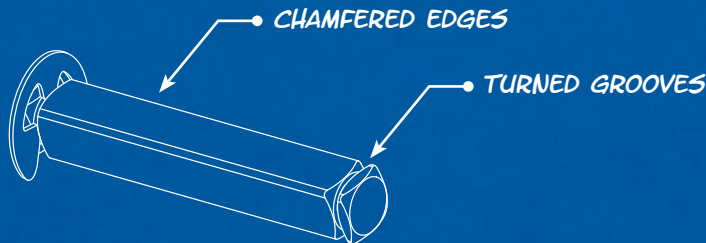
REDUCTION IN WASTE
PRECISE RAW MATERIAL LENGTH
SPECIFIED TO REDUCE COSTS



BEFORE



AFTER
12% SAVINGS



CHAMFERED EDGES

TURNED GROOVES

SPECIAL NOTE:
THE G.L. HUYETT TEAM ALSO PROPOSED TO SHIP PARTS WITH ONE E-CLIP ASSEMBLED, FURTHER REDUCING THE COST OF THE ASSEMBLED PART.

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Drawing No.:

GLH-MCS-004-R01

Case No.:

GLH-MCS-004-R01

Case Description:

ELECTRICAL BOX HANDLE

Drawn By:

BJH

Verified By:

GLH

Revision Notes:

REVISION NO. R01

NOT DRAWN TO SCALE

Company Address:

P.O. Box 232, Minneapolis, KS 67467

Company Phone:

(785) 392-3017

Company Fax:

(785) 392-2845

