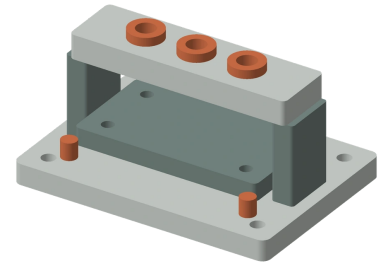


MANUFACTURING DESIGN

Mounting plate rework fixture

Keep the existing plates. Make the new mounting pattern repeatable.



CONCEPT ILLUSTRATION

Fixture concept; production dimensions pending

THE PROBLEM

A replacement component needs a different mounting pattern. The existing plates are usable, but marking and drilling each one by hand would introduce avoidable variation. This brief covers a reusable fixture for modifying three plate variants.

SCOPE

- Locate the workpiece from existing features and hold it against defined supports.
- Use interchangeable guide inserts and replaceable drill bushings.
- Leave room for the drill, clamps, chips, and the operator's hands.

PLANNED DELIVERABLES

- Parametric fixture assembly and interchangeable inserts
- STEP models, manufacturing drawings, and a purchased-parts list
- Tolerance calculation and illustrated setup instructions

CONSTRAINTS

Existing interfaces

Original plate datums and mounting features

Part family

Three plate variants

Wear components

Replaceable pins and drill bushings

Acceptance

Hole-position tolerance to be set from the mating component

VERIFICATION PLAN

Positioning error

Add the effects of locating clearance, bushing clearance, and manufacturing tolerances. Compare the total with the required hole location.

Assembly and access

Check every plate variant for interference, clamp access, drill travel, and chip clearance.

Inspection

Define how to check a modified plate and how to identify worn fixture components.

NEXT STEP

Define the replacement component's hole pattern and the three plate drawings.

The illustration establishes the arrangement only. Production dimensions, tolerances, and component selections have not been released.