

TOOLING

&

FIXTURES

FOR

STUD WELDING

INDUSTRIAL COMPONENTS-AR, LLC

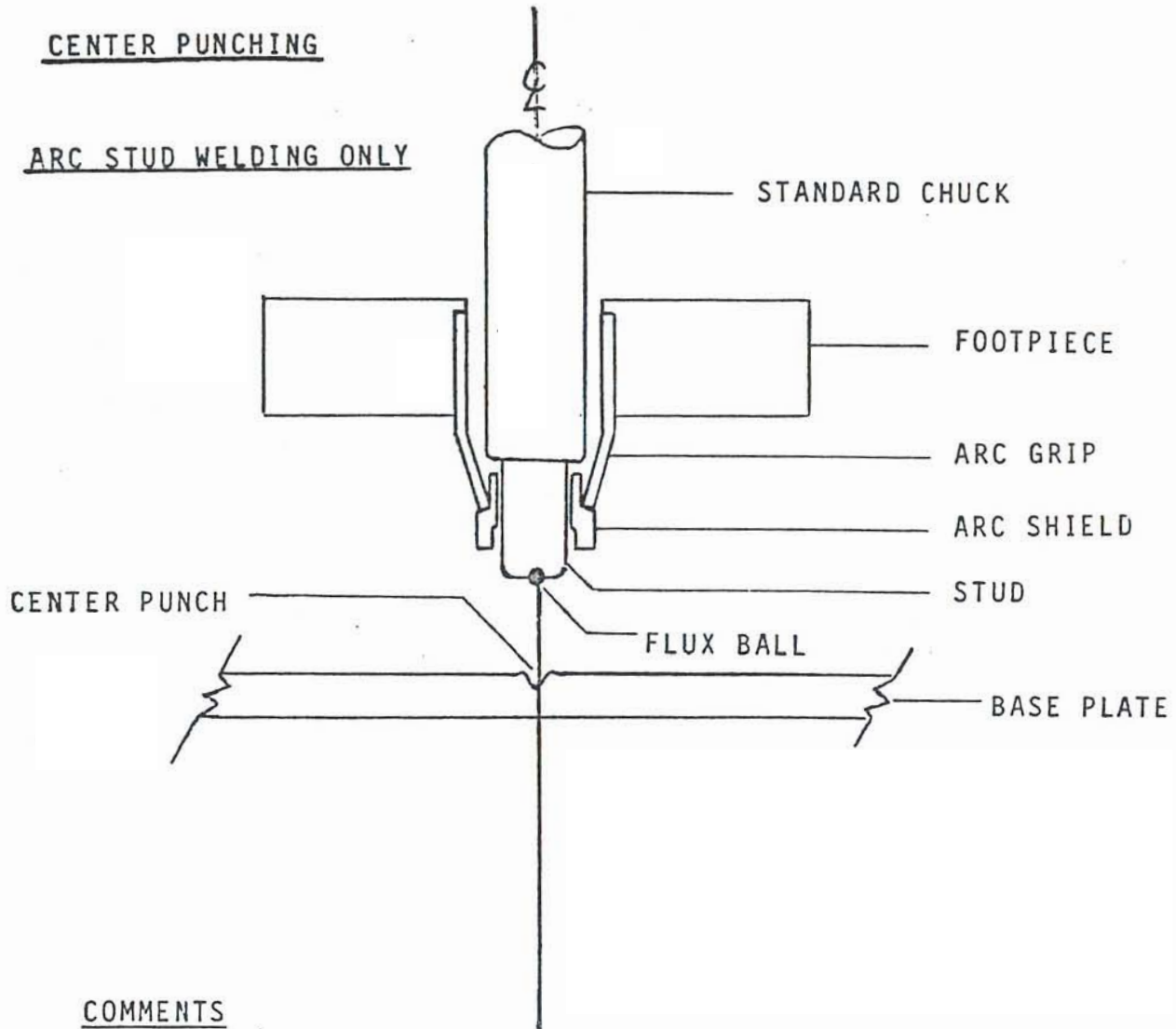
Distributors of Stud Welded Fasteners, Equipment & Accessories, & Plastic Protection Products

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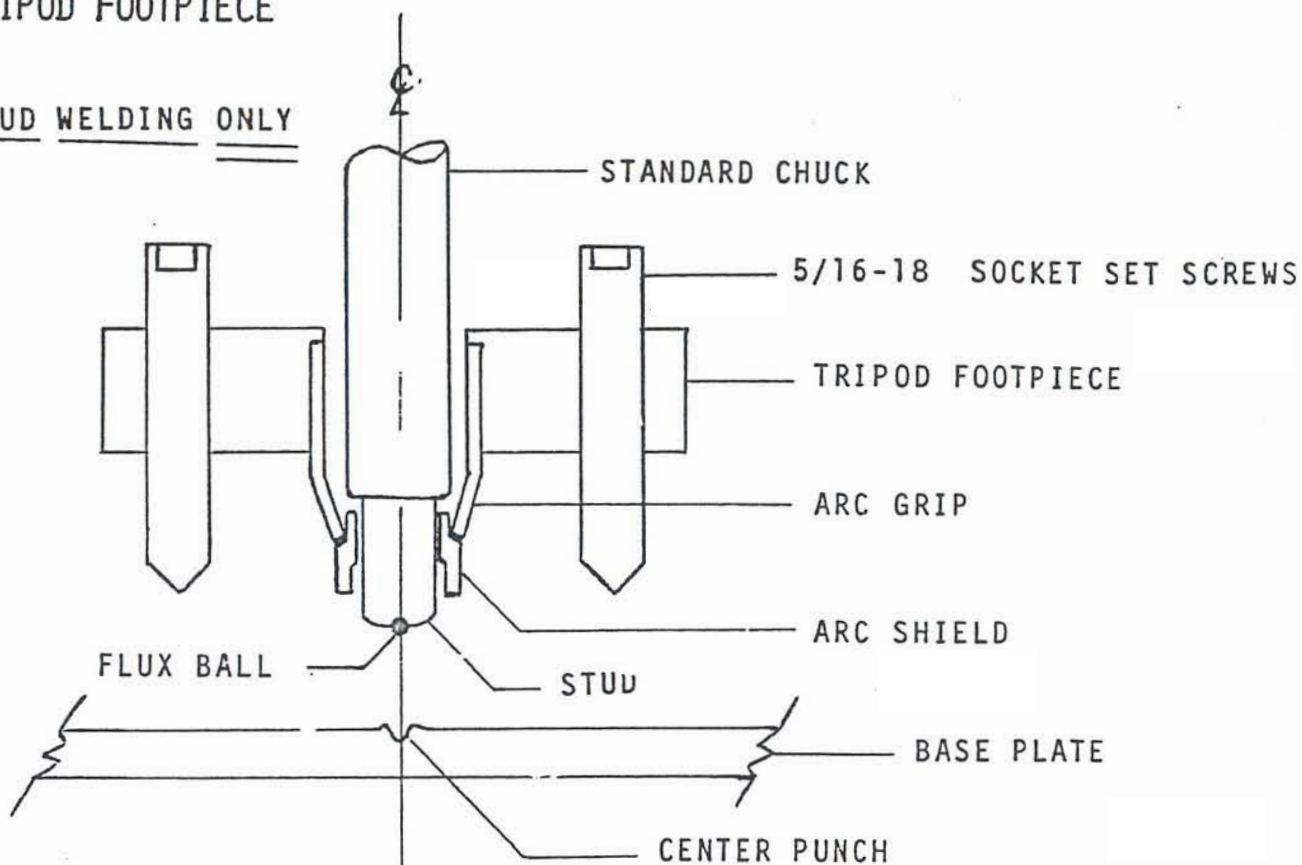


COMMENTS

1. FLUX BALL IN STUD ACTS AS CENTERING DEVICE.
2. OPERATOR JUDGEMENT AND ARC SHIELD BASE PROPERLY SEATED FLAT PROVIDE BASIC PERPENDICULARITY.
3. NOT TO BE USED ON CRITICAL DIMENSIONAL LOCATIONS.

CENTER PUNCHING AND TRIPOD FOOTPIECE

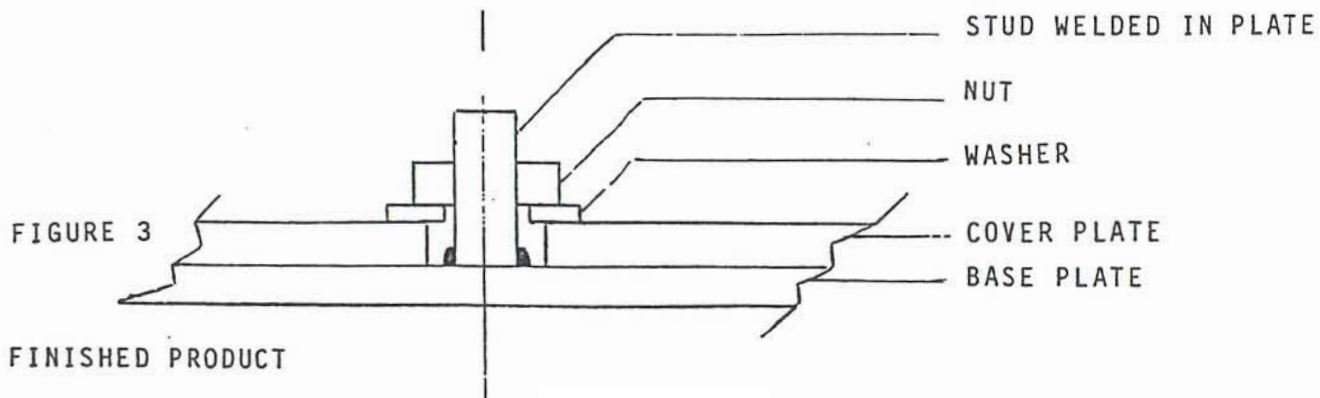
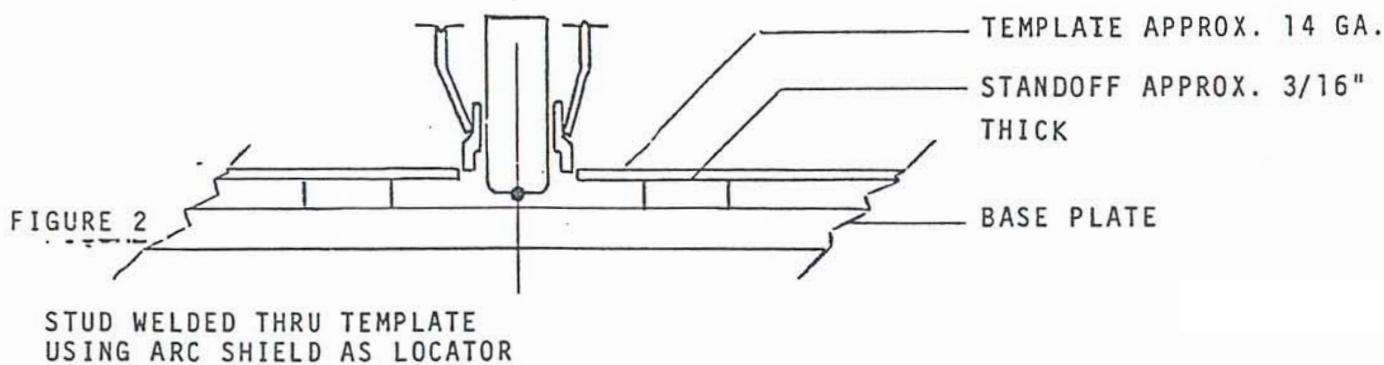
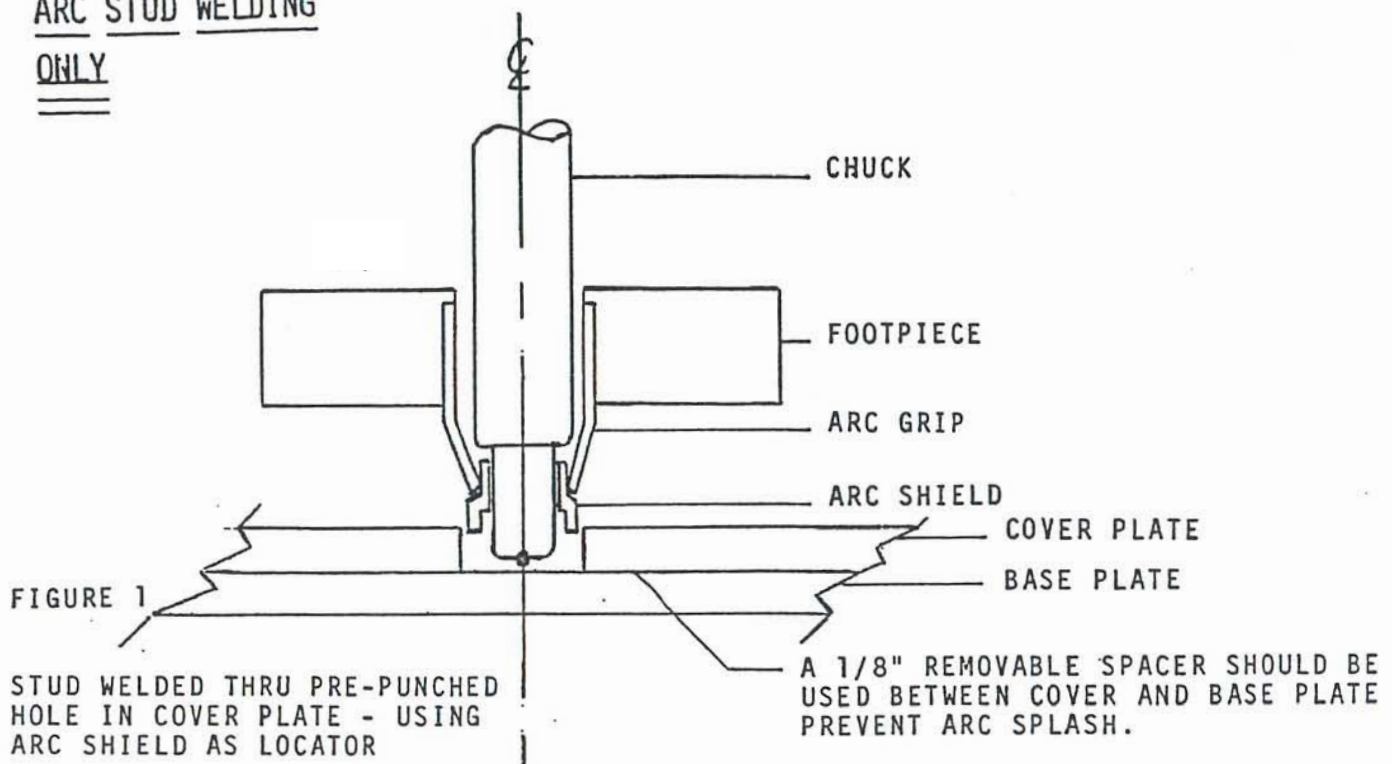
ARC STUD WELDING ONLY



COMMENTS

1. FLUX BALL ACTS AS CENTERING DEVICE.
2. TWO POINTED SCREWS AND ARC SHIELD BASE PROVIDE MORE POSITIVE PERPENDICULARITY.
3. WILL PROVIDE BETTER CENTER TO CENTER LOCATION.
4. SHOULD NOT BE USED TO HOLD DIMENSIONS LESS THAN .015 CENTER TO CENTER AND/OR 2 DEGREES PERPENDICULARITY.

ARC STUD WELDING ONLY

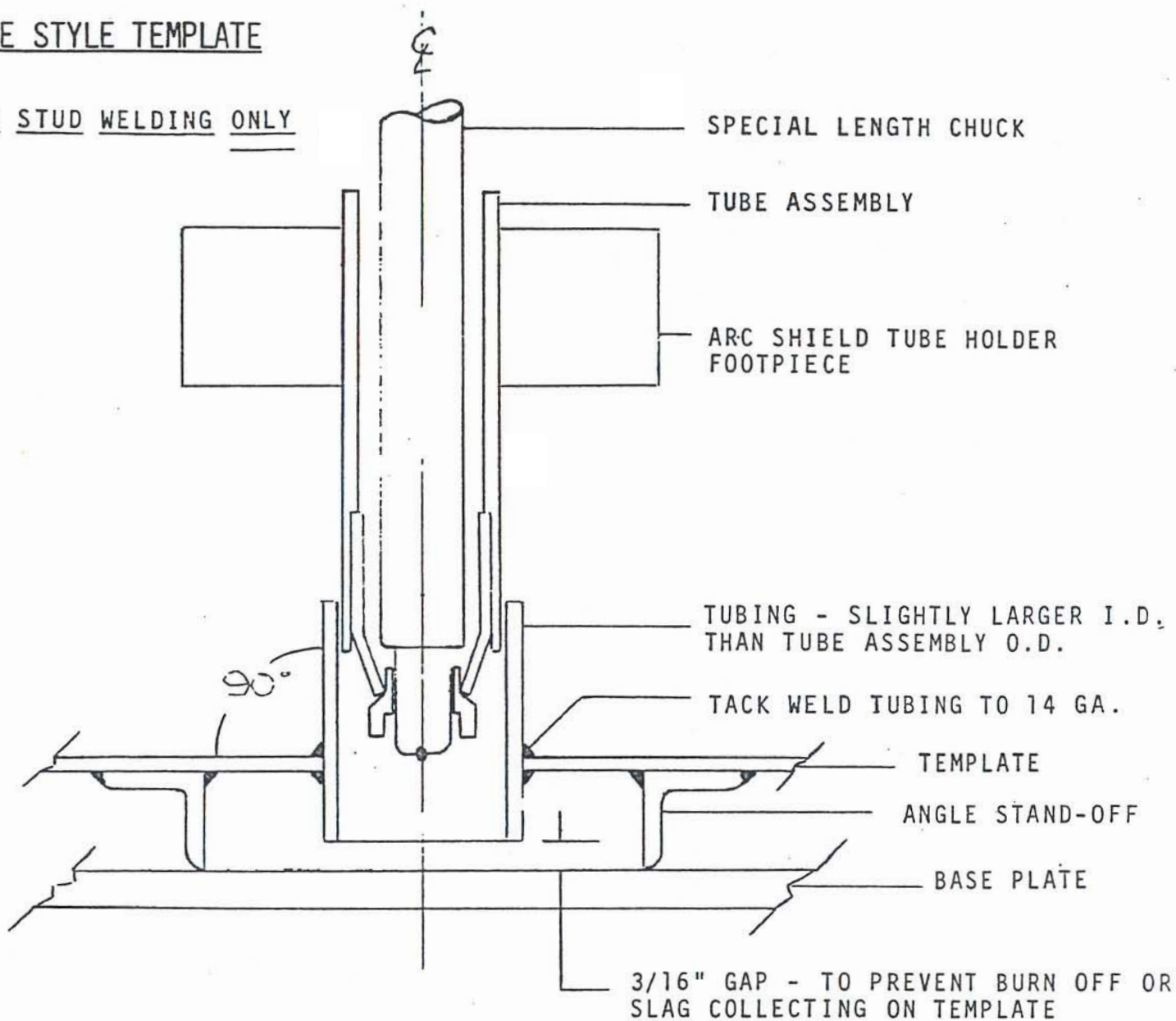


NOTE -
TRIPOD FOOTPIECE
PERPENDICULARITY.

NOTE -
TRIPOD FOOTPIECE SHOULD BE USED
WITH THE METHOD TO PROMOTE
CONSISTENT PREPENDICULARITY.

UBE STYLE TEMPLATE

ARC STUD WELDING ONLY



NOTE -

WILL PROVIDE REASONABLE PERPENDICULARITY AND CENTER TO CENTER LOCATION TOLERANCES.

ELIMINATES LAYOUT AND CENTER PUNCHING.

FIXTURES OR TEMPLATES CAN BE USED AGAIN ON REPETITIVE RUNS.

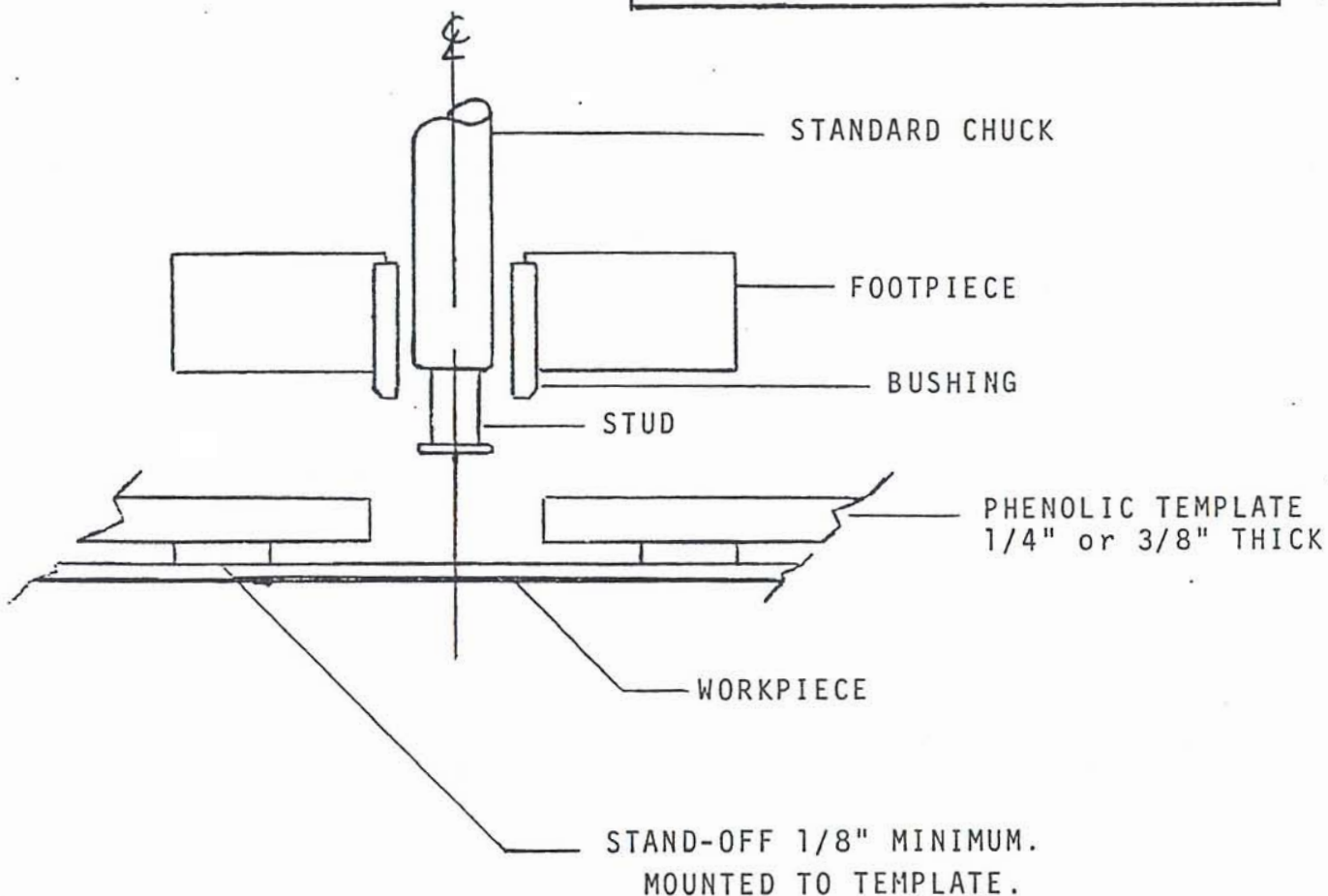
TUBING ASSEMBLY IS ADJUSTABLE THROUGH FOOTPIECE TO ALLOW FOR VARIOUS STUD LENGTHS - MAY ALSO BE CUT DOWN TO FIT STANDARD LENGTH CHUCKS.

BUSHING AND TEMPLATE
CD STUD WELDING ONLY

DO NOT CENTERPUNCH!



IT WILL PREVENT TIP FROM MAKING
PROPER CONTACT.



NOTE -

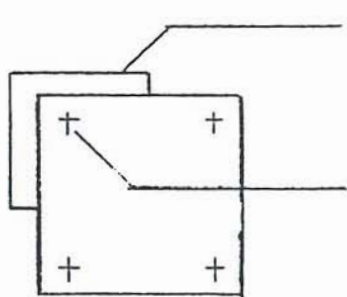
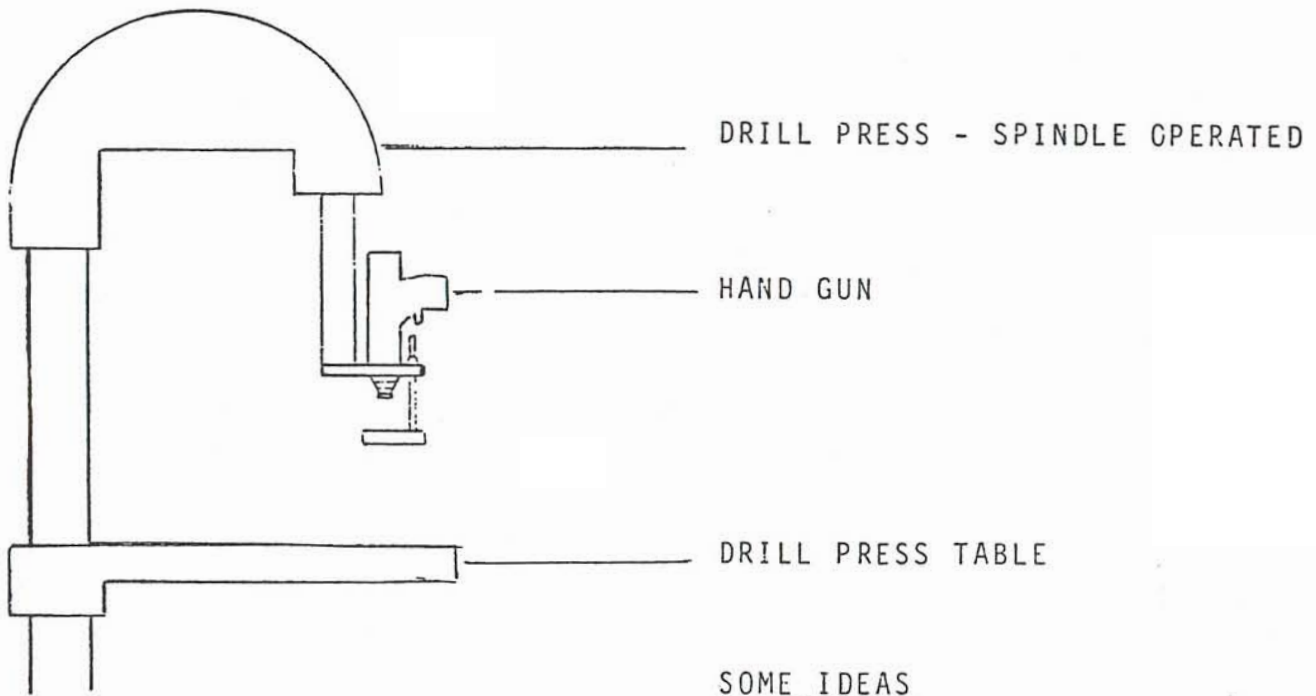
HOLE IN TEMPLATE SLIGHTLY LARGER THAN BUSHING O.D.

SUGGEST TWO LEG STYLE FOOTPIECE TO PREVENT MISALIGNMENT.

STAND-OFFS ALLOW SPARKS TO ESCAPE AND SUPPORT AREA AROUND HOLE IN TEMPLATE.

TEMPLATES THAT WILL BE USED AGAIN SHOULD BE STORED ON EDGE TO PREVENT WARPING.

POST MOUNTED HAND GUN
CD AND ARC STUD WELDING



SIMPLE RIGHT ANGLE FIXTURE MOUNTED TO DRILL PRESS TOP OR CLAMPED TEMPLATE

STUDS WELDED ON FOUR CORNERS OF SQUARE OR RECTANGULAR SHAPED WORKPIECE.

FIGURE 1



FIGURE 2

NOTE -

PROPER POST MOUNTING WILL PROVIDE GREATER ACCURACY THAN MOST HAND HELD APPLICATIONS.

MORE TOOLING IDEAS USING POST MOUNTED CD OR ARC STUD WELDING HAND GUNS

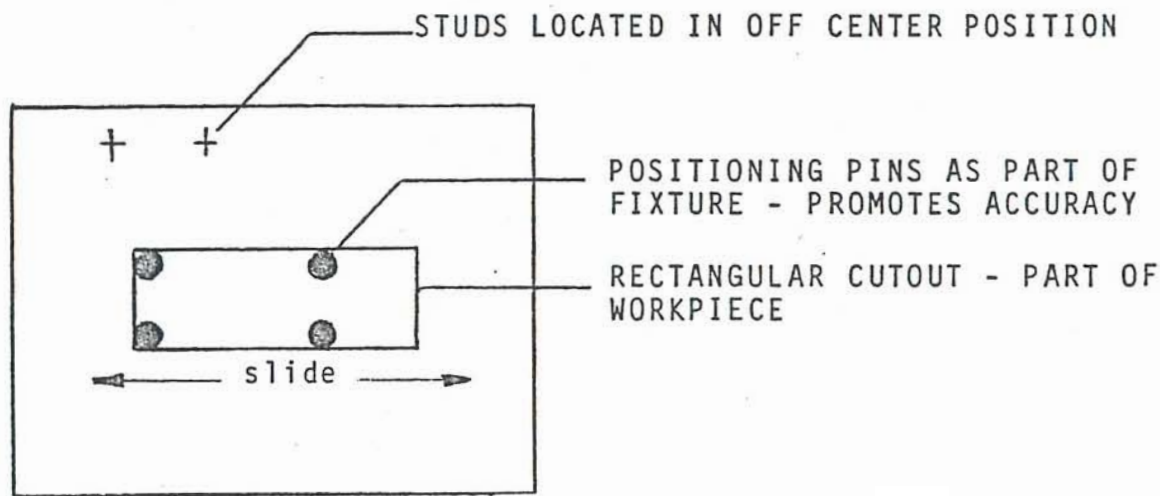


FIGURE 3

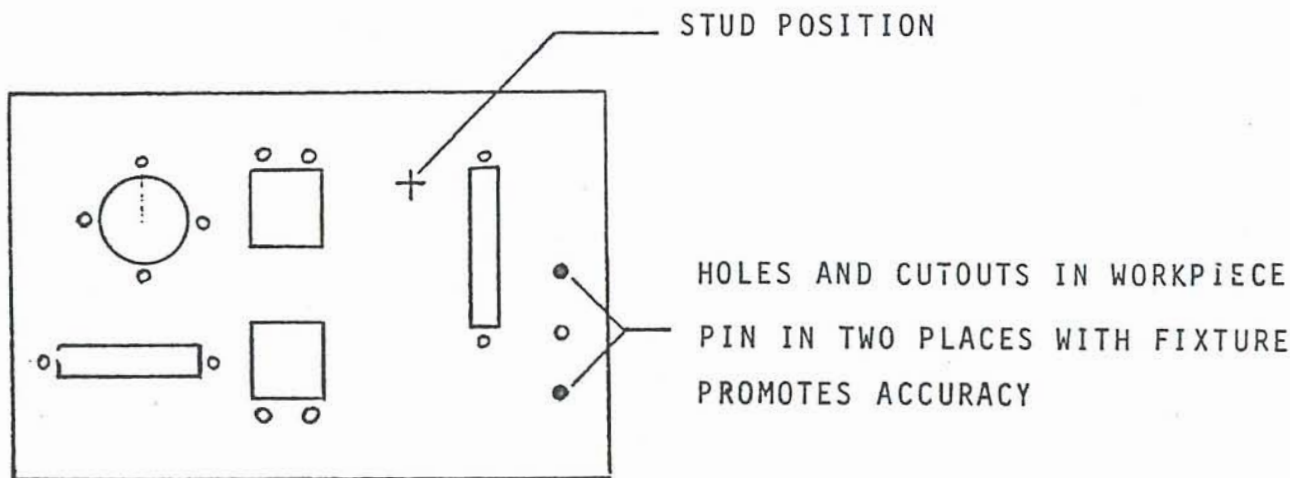
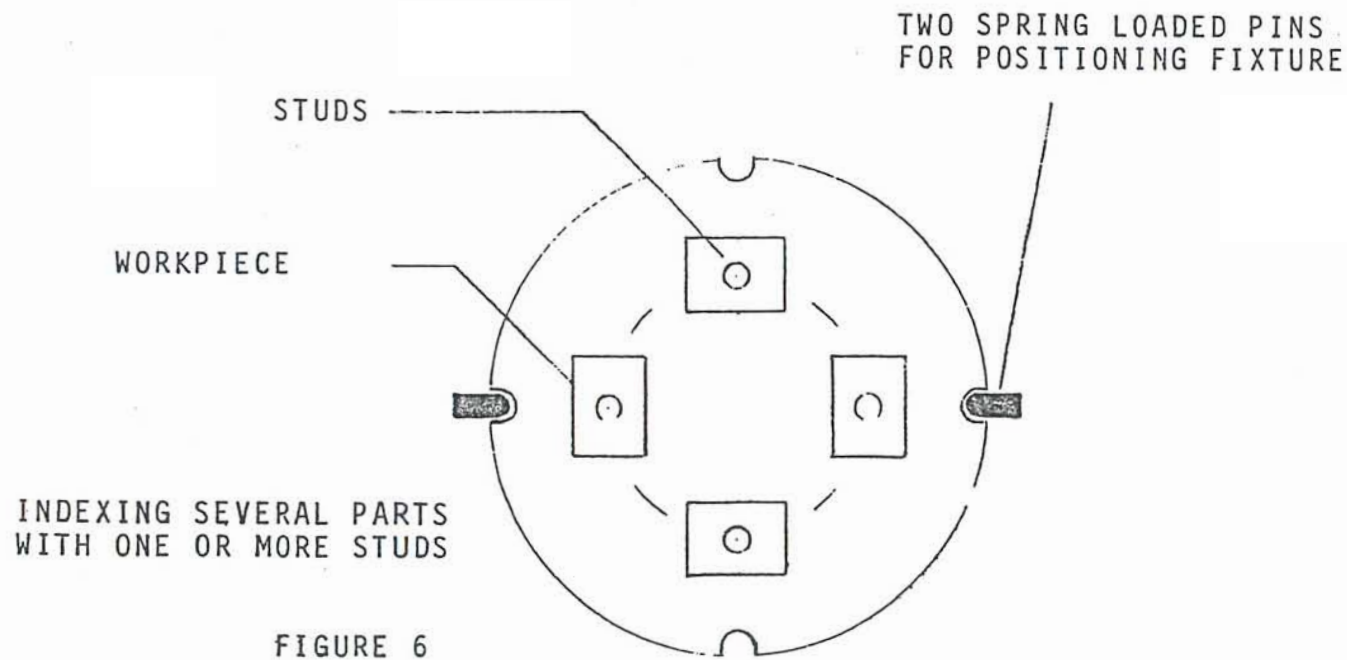
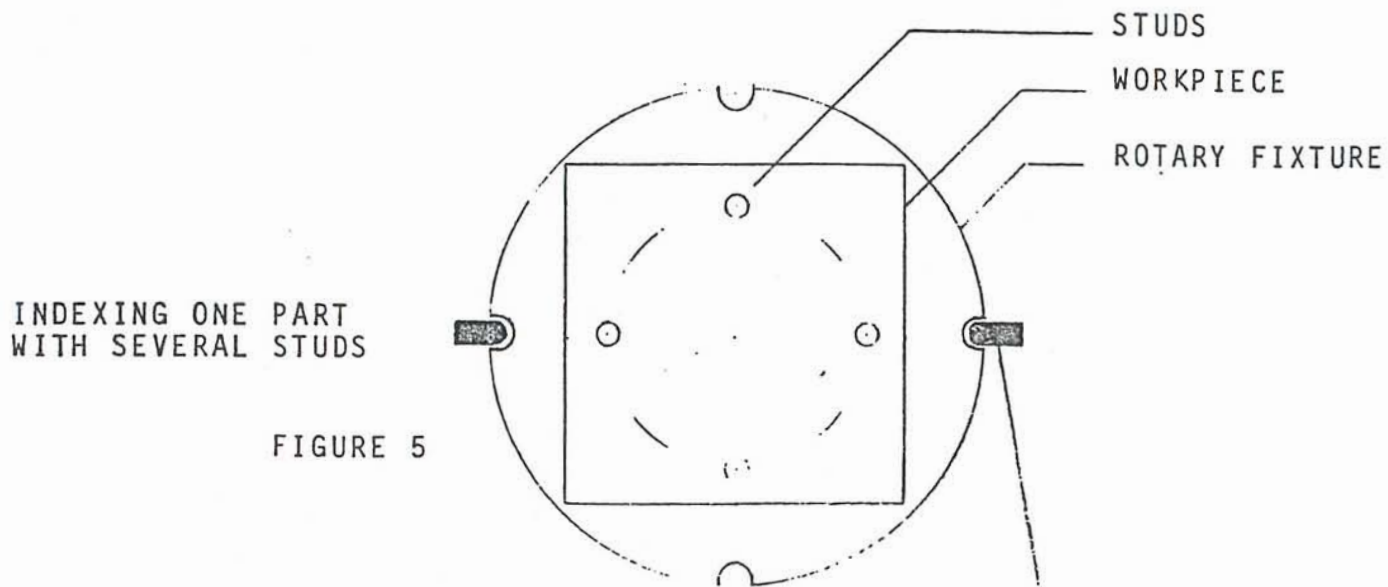


FIGURE 4

ROTARY FIXTURES

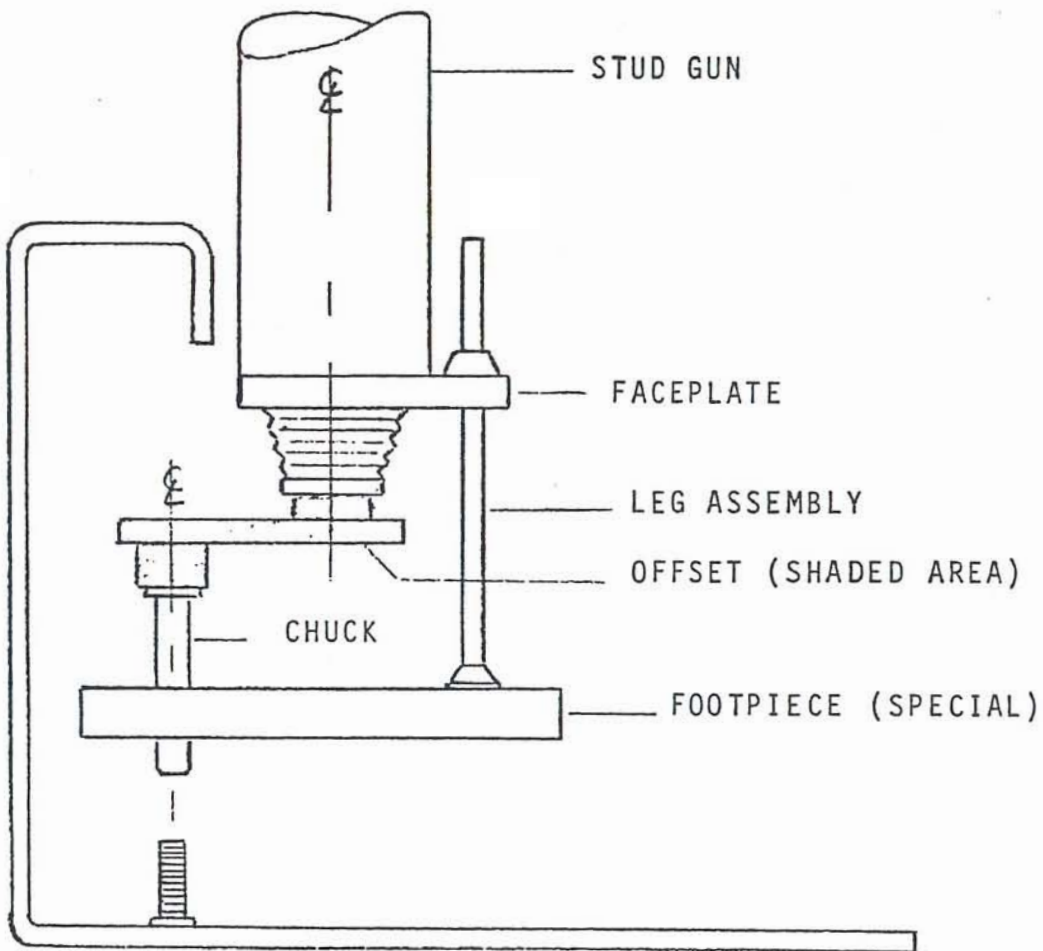
CD AND ARC STUD WELDING



NOTE -

WHEN STUDS CAN BE WELDED ALONG THE CIRCUMFERENCE OF A CIRCLE A SIMPLE ROTARY FIXTURE IS IDEAL AND INEXPENSIVE.

OFFSETS

CD AND ARC STUD WELDING

NOTE -

ALLOWS STUDS TO BE WELDED UNDER FLANGES AND OTHER INTERFERENCES WHILE MAINTAINING PERPENDICULARITY.

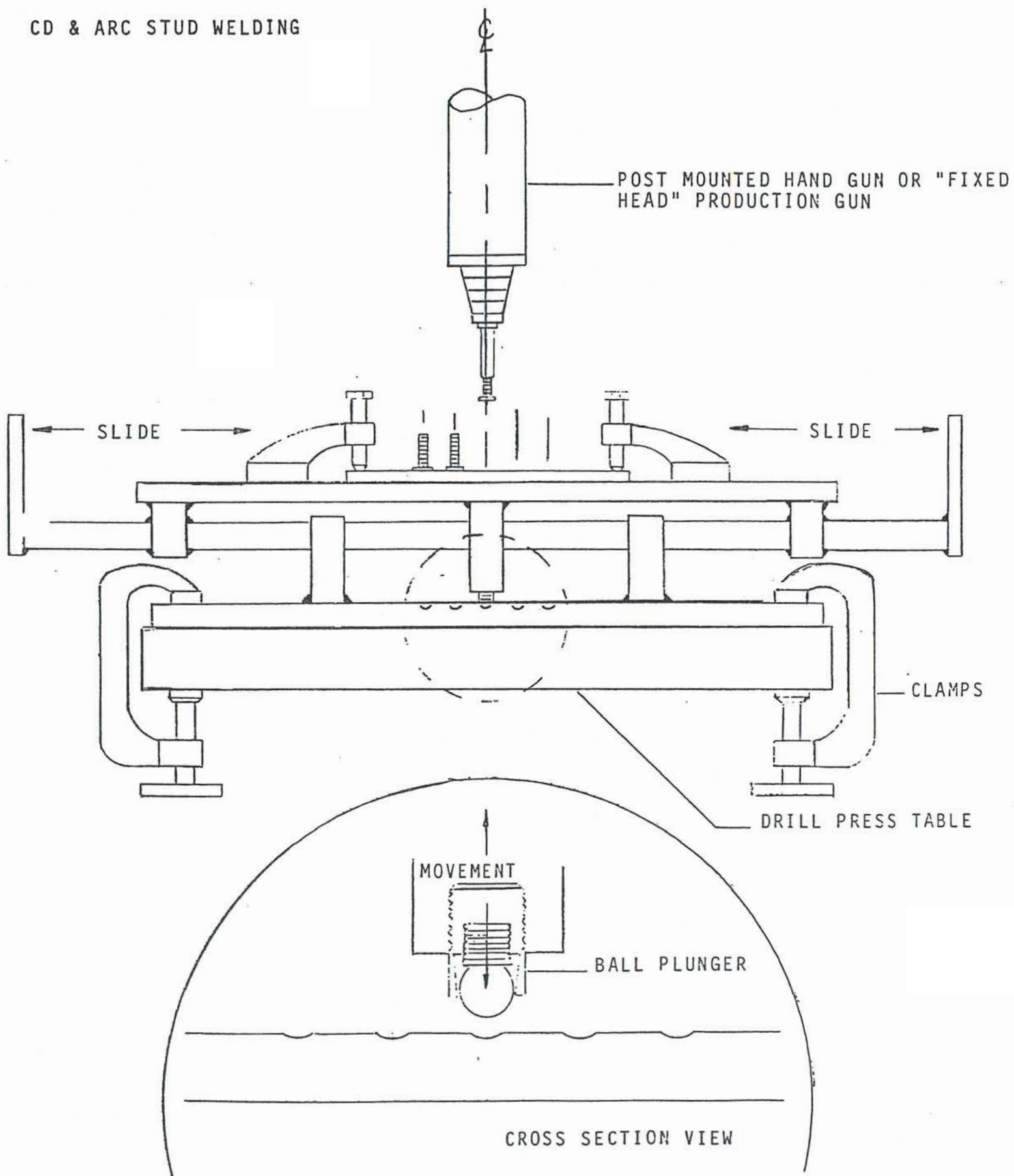
TEMPLATES CAN BE USED WITH OFFSETS TO PROMOTE ACCURACY.

CAUTION:

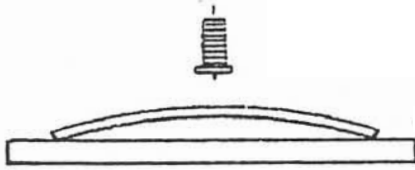
AS IN ALL STUD WELDING, CARE MUST BE TAKEN TO ASSURE PARALLEL MOVEMENT WITH GUN BODY.

SLIDE FIXTURE

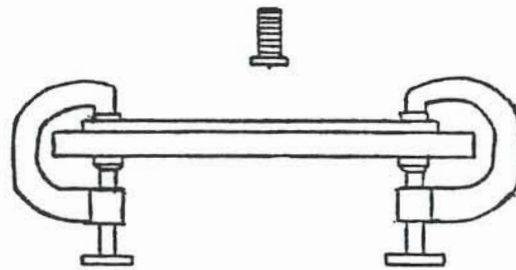
CD & ARC STUD WELDING



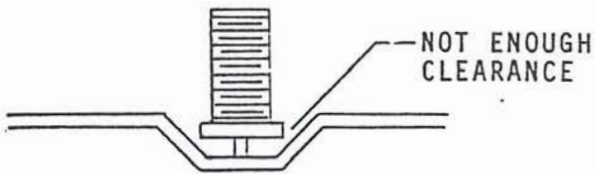
SOME DON'TS OF STUD WELDING -



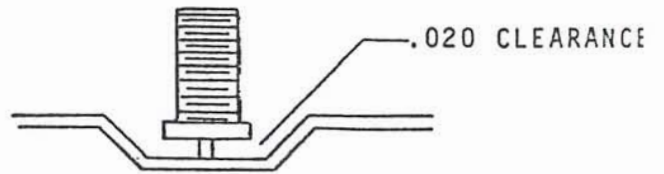
DON'T LEAVE UNSUPPORTED SPACE UNDER WORKPIECE. CAN JEOPARDIZE WELD QUALITY.



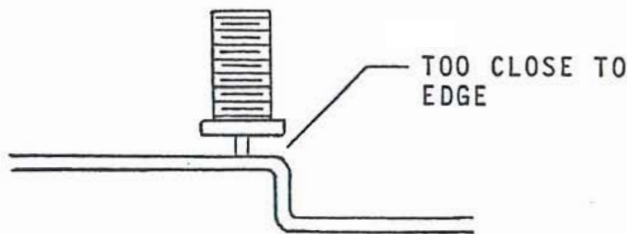
SOLUTION - CLAMP IT!



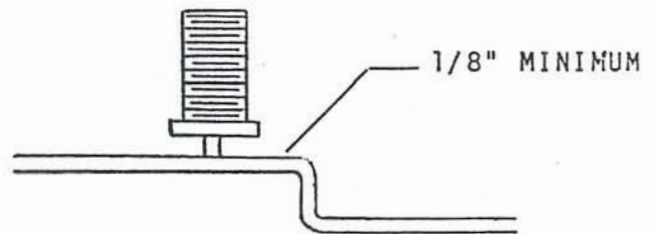
NOT ENOUGH CLEARANCE



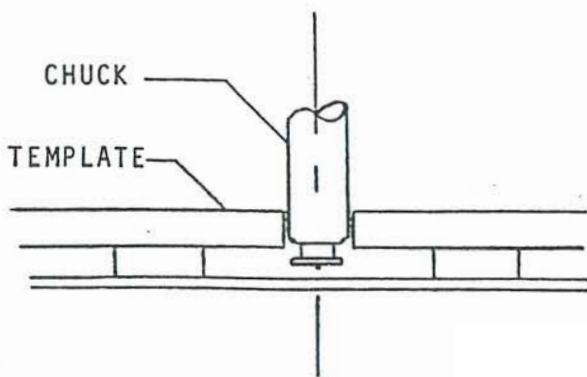
.020 CLEARANCE



TOO CLOSE TO EDGE

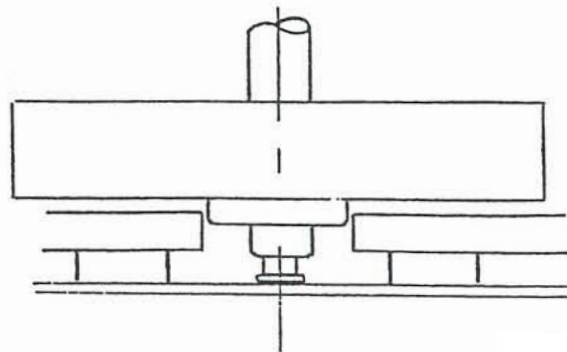


1/8" MINIMUM



CHUCK
TEMPLATE

NEVER USE CHUCK AS PILOT. BINDING WILL CAUSE POOR WELD.



USE FOOTPIECE AND BUSHING TO ALLOW FREE MOVEMENT OF CHUCK AND STUD.