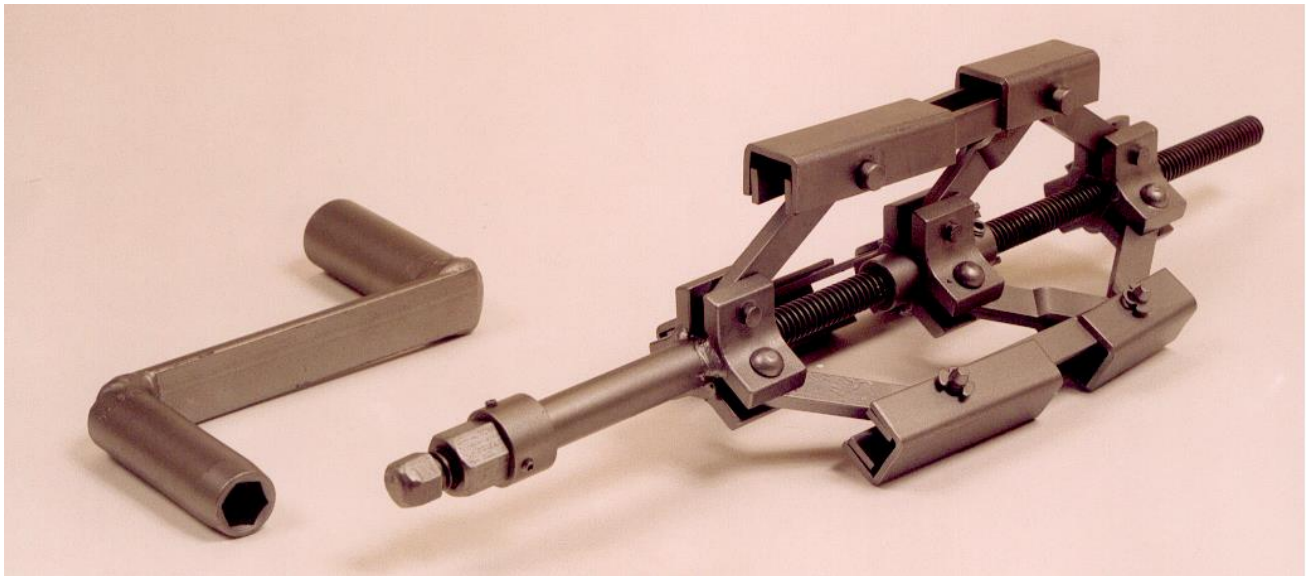




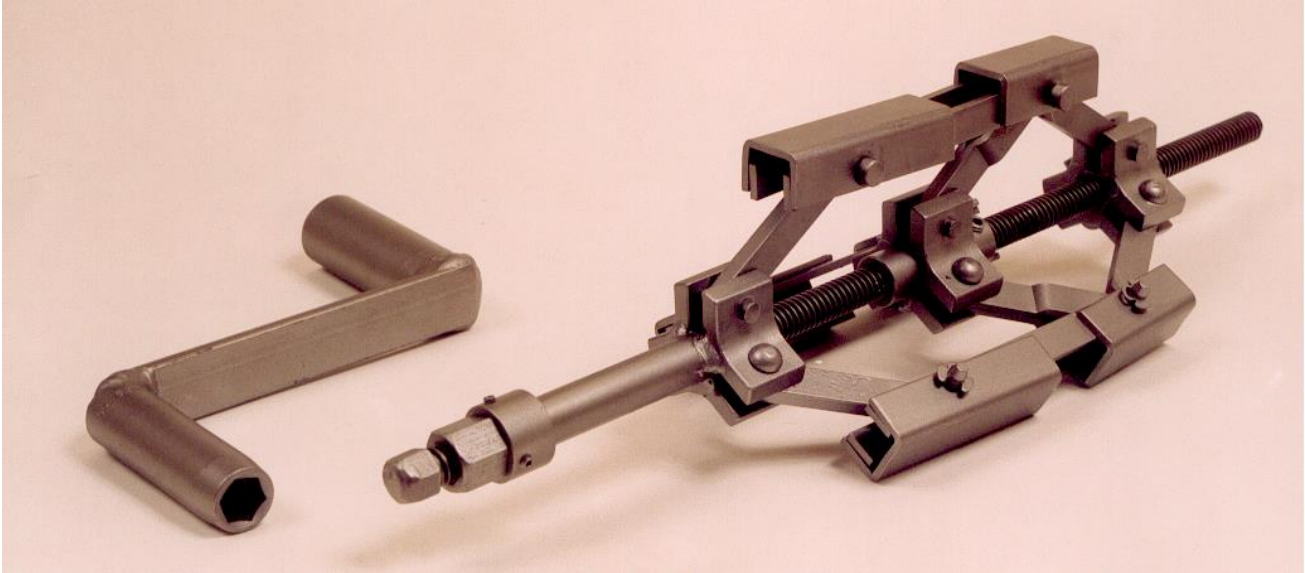
## **Mathey Dearman Inc.**

4344 South Maybelle Ave. Tulsa, OK 74107  
Phone: 800-725-7311 • 918-447-1288 • Fax: 918-447-0188

# **Internal Flange Alignment Tool Parts and Operating Manual**



# Internal Flange Alignment Tool Operating Instructions



The front jaw adjustment nut (smallest) adjusts the set of front jaws (furthest away from the adjustment nut). The rear Jaw adjustment nut (largest) adjusts the rear jaws (nearest to the adjustment nut).

By following the simple instructions below, you will be able to fit up flanges very quickly and accurately using your new Dearman Flange Alignment Tool. We have designed this tool to be very durable and easy to use. One person can obtain very accurate fit-ups on 4 to 8" flanges (Models D325 and D326). We suggest this tool for operator safety and ease of alignment on flanges larger than 10" (Models D327 and D328).

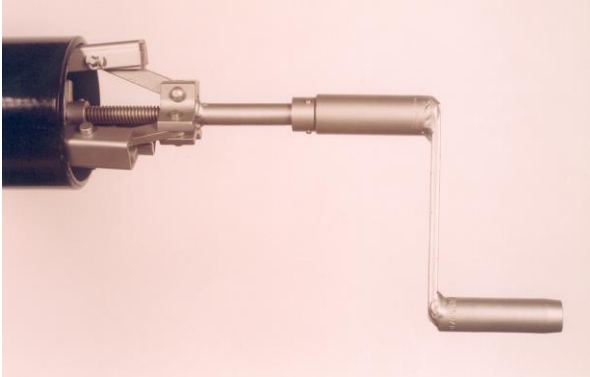
These tools are designed to provide concentric alignment of the flange to the pipe, even if the I.D.s vary slightly.

**WARNING:** For safety, always use some type of lifting device to support the flange (lift, sling, jackstand, etc.) The device should be suitable for the size and weight being supported to prevent dropping the flange. Failure to support the flange could result in serious injury.

## **Fit-up Procedure:**

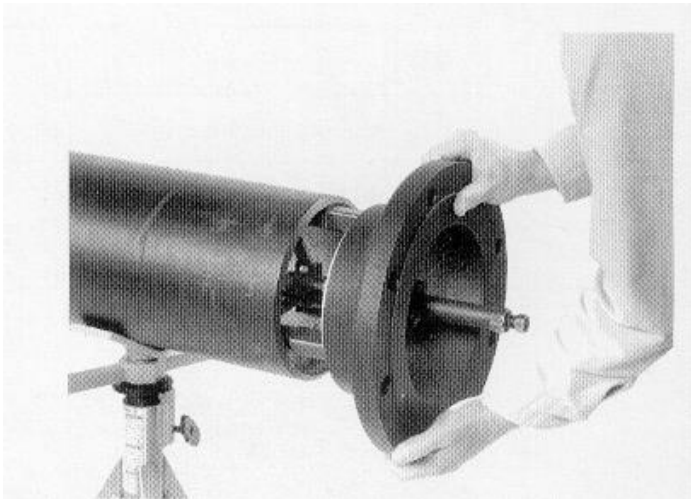
1. Locate the  $\frac{3}{4}$ " nut (Nut 'A') which actuates the Front Jaws ('A' Jaws). Also locate the 1" (Nut 'B') which actuates the Rear Jaws ('B' Jaws). Turn nuts with the included wrench to familiarize yourself with how the tool expands and contracts.
2. Prepare the tool for insertion into the pipe by turning the  $\frac{3}{4}$ " nut until the front jaws are expanded to a diameter slightly less than the pipe I.D.
3. Insert the tool into the open pipe and until the rear jaws have entered the pipe to a depth of approximately 1". Turn the  $\frac{3}{4}$ " nut clockwise until the front jaws are touching the pipe I.D. See picture in example "A".

# Internal Flange Alignment Tool Operating Instructions



**Example A**

4. Turn the 1" nut until the rear jaws have made contact with the I.D. of the pipe. You may notice the exposed portion of the swivel pads which protrude from the pipe begin to move outwardly. This is normal. This step insures that the clamp is mounted straight in the pipe.
5. Now loosen the ¾" nut by turning counterclockwise ¼ to ½ turn; then re-tighten it securely.
6. Loosen the 1" nut by turning counterclockwise until the jaws have contracted to slightly within the pipe I.D. You are now ready to install the flange. See Example B below.



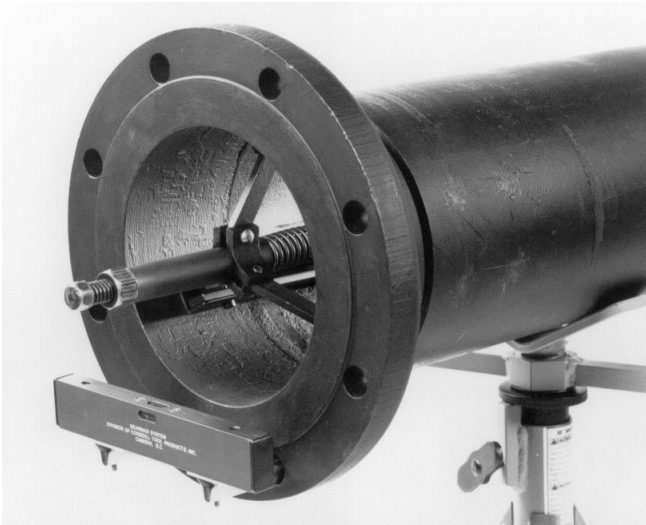
**Example B**

7. Slide the flange over the protruding portion of the tool until it makes contact with the bevel on the end of the pipe. Tighten the 1" nut until the flange I.D. is contacted by the rear jaws (not too tight). If a root gap is required, utilize spacers or wedges at this time (not included). You can now 2 hole level the flange. We recommend the Mathey Dearman Slide Lock Flange Pin (FLUP) or 2 Hole Level.

# Internal Flange Alignment Tool

## Operating Instructions

8. Once the flange has been leveled, tighten the 1" nut securely. The flange should now be aligned accurately with respect to the I.D. Proceed with tack welding in the normal manner. Remove the tool before welding the root pass by collapsing the jaws (turn both nuts counterclockwise). See Example C.



**Example C**