

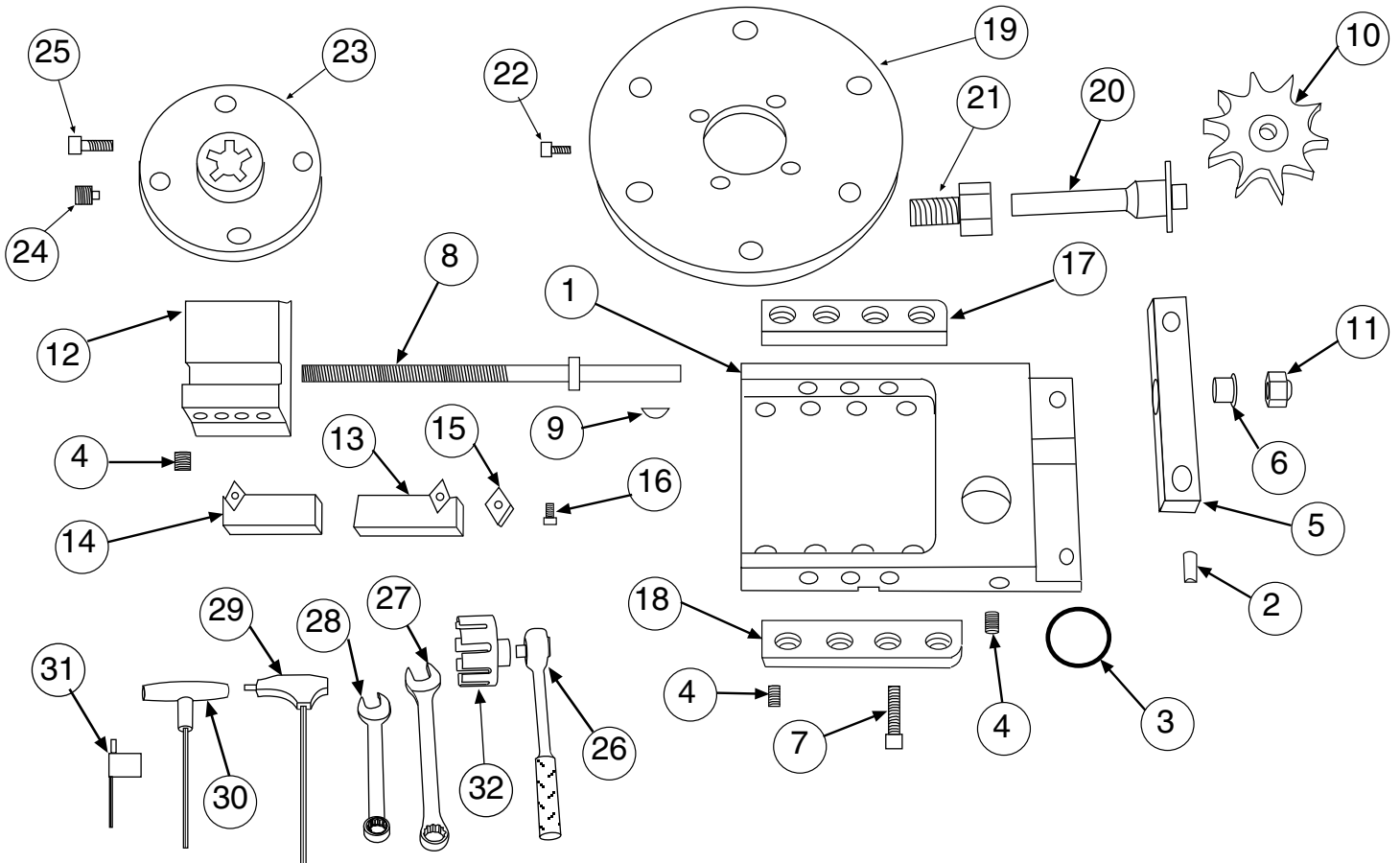
1. Mount the model MSF Machine using the centershaft collet system or the elbow mandrel (see elbow mandrel setup procedure).
2. Install cutting insert (15) into holder (13, 14).
3. Install the low range or high range holder (13,14), depending upon the flange size, into the tool slide (12) .
4. Rotation of the flange facer body is clockwise when looking at it from the rear of the machine.
5. Set the tool slide (12) by rotating the trip wheel (10) with ratchet and socket (26) until the holder extends past the area to be machined.
6. Once the holder is in position, the trip wheel (10) backlash must be cleared and the timing set. Rotate the trip wheel one full turn clockwise to remove the backlash and position it to point directly at the trip ring (19). **NOTE: Failure to perform this procedure will damage the trip screws.**
7. Engage the correct number of trip pins (20) to achieve the required surface finish (see specifications).

Note: It is Important that the gibs (17, 18) are properly adjusted. Correct adjustment maintains proper timing between the trip wheel and the trip screws. The gibs are properly adjusted when the set screws (4) are tightened evenly to apply enough force to the toolslide (12) that it is difficult to turn the trip wheel by hand.

8. The depth of cut is controlled by rotating the machine crank handle in a clockwise direction. Note: One complete turn is equal to .028" travel.
9. Once the depth of cut is set, tighten set screw (24) in the end plate to lock the machine in place.
10. Activate the machine by operating the air motor and allow the insert to face across the raised flange area.

Specifications

Working Range: 1-1/4" (31.8 mm) I.D. to 10" (254 mm) O.D.
 Radial Tool Clearance — 6" (152.4 mm)
 Radial Feed Rate: .005" (0.13 mm) per pin: All 6 pins .030" (0.76 mm) Per Revolution Note: Pins must be engaged at opposing positions for even resurfacing.
 Approximate surface finishes are:
 1 pin — 63 RMS 3 pins — 125 RMS 6 pins — 500 RMS
 Axial Feed Rate: .062" (1.6 mm) Per Full Feed Nut Turn
 Approximate Feed Depth Adjustments are:
 1/4 turn — .015" (0.38 mm) 1/2 turn — .031" (0.79 mm)
 3/4 turn — .046" (1.2 mm)



Reference No.	Part No.	Description	Reference No.	Part No.	Description
1	MSF-004528	Body	16	MSF-00TS43	Torx Screw
2	MSF-004529	Keystock	17	MSF-004538	Left Gib
3	MSF-004530	O-Ring	18	MSF-004539	Right Gib
4	MSF-561856	(12) Socket Head Set Screw	19	MSF-004540	Trip Ring
5	MSF-004531	Feed Screw Bracket	20	MSF-004541	(6) Trip Pin
6	MSF-060806	(2) Bushing	21	MSF-004542	(6) Trip Receptacle
7	MSF-142010	(10) Socket Head Cap Screw	22	MSF-102438	(4) Socket Head Cap Screw
8	MSF-004532	Feed Screw	23	MSF-004543	End Plate
9	MSF-001812	Woodruff Key	24	MSF-561838	(2) Socket Head Set Screw
10	MSF-004533	Trip Wheel	25	MSF-102458	(5) Socket Head Cap Screw
11	MSF-003824	Hex Nut	26	MSF-004544	3/8" Ratchet
12	MSF-004534	Tool Slide	27	MSF-004545	5/8" Combination Wrench
13	MSF-004535	Low Range Holder	28	MSF-004546	9/16" Combination Wrench
14	MSF-004536	High Range Holder	29	MSF-004547	5/32" T-Handle Hex Key
15	MSF-004537	Insert	30	MSF-004548	3/16" Hex Key
			31	MSF-004549	T15 Torx Driver
			32	MSF-004550	Trip Wheel Socket

The performance and reliability of H & S products is the result of a combination of quality parts, accurate machining, and careful assembly. Call H & S with your parts requirement to ensure that your repaired tool retains the quality that you originally purchased.

Complete rebuilding service is also available. Contact the factory for details.

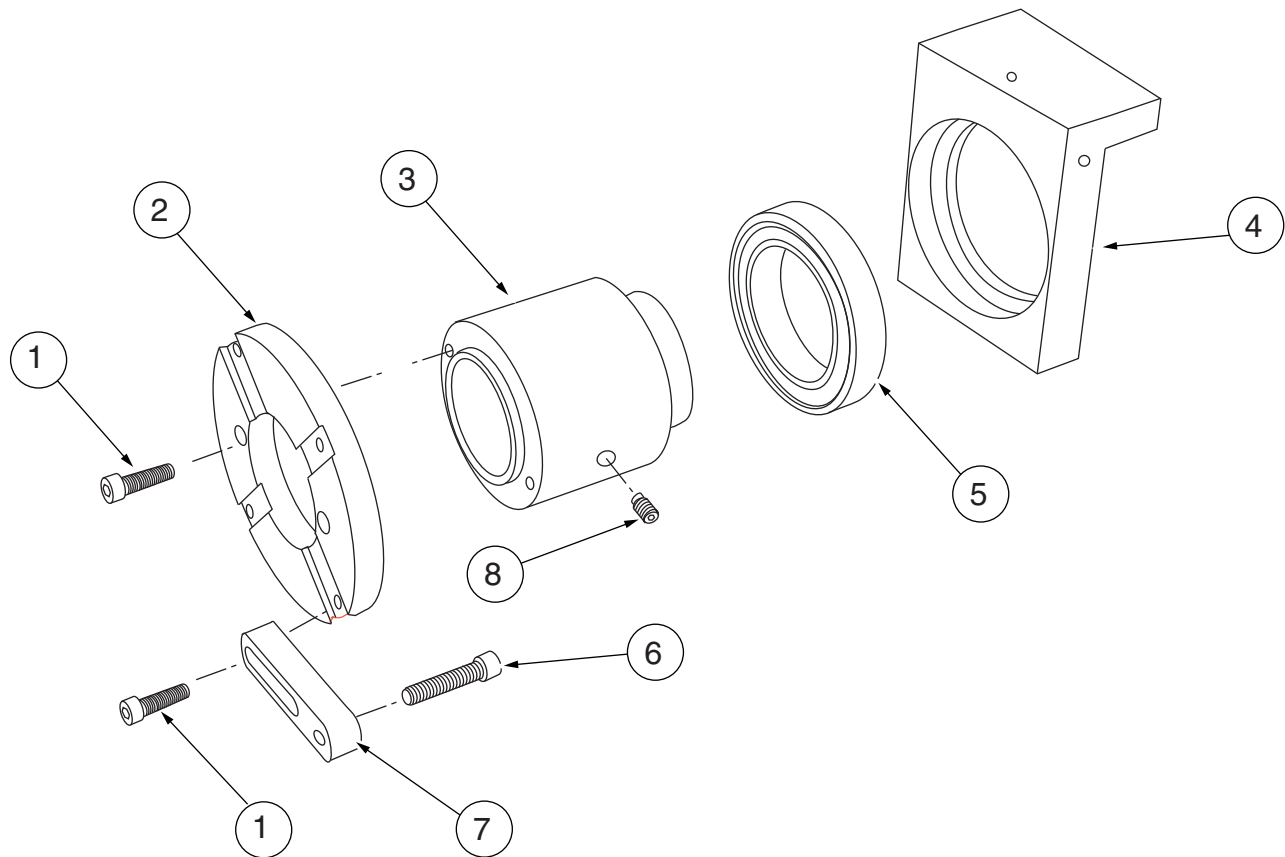


P.O. Box 393
Wadsworth, OH 44282 U.S.A.
Tel: +1 330-336-4550
Fax: +1 330-336-9159
e-mail: info@hstool.com
www.hstool.com

PARTS LIST

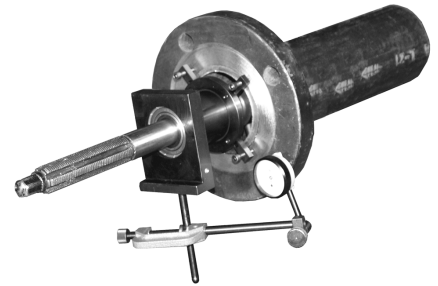
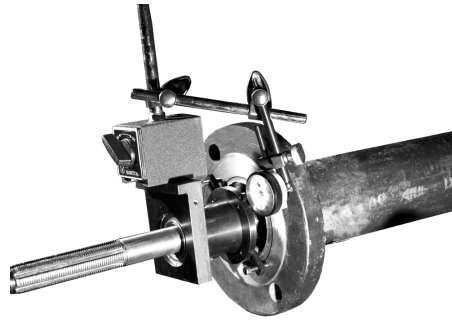
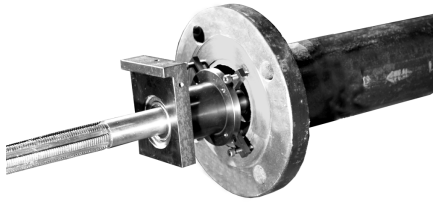
MS Fine Adjustment

Assembly No. MSA 004569



Reference No.	Part No.	Description
1	MSA-004570	10-32 x 1/2 Socket Head Cap Screw (6)
2	MSA-004571	Adjustment Plate
3	MSA-004572	Hub
4	MSA-004573	Indicator Bracket
5	MSA-004574	R20FF Bearing
6	MSA-004575	10-32 x 1 Socket Head Cap Screw (4)
7	MSA-004576	Extension Arms (4)
8	MSA-004577	5/16-18 x 3/8 Brass Tipped Socket Head Set Screw

Flange Fine Adjustment Alignment Kit

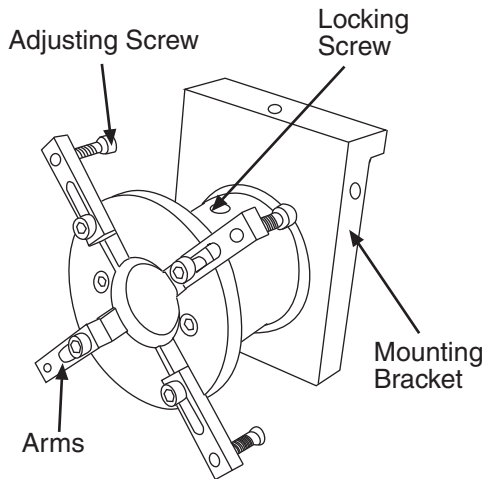


H&S offers this fine adjustment flange facing alignment kit to provide the most accurate setup possible. Insert the center shaft/locking mechanism into the pipe. Tighten the draw rod just enough to stabilize the position. The alignment fixture slides onto the shaft until the four adjusting screws contact the flange surface. The fixture is locked in place with the locking set screw.

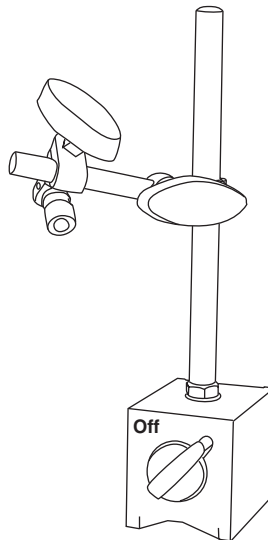
There is a choice of dial indicator mounts. The magnetic base mounts by setting the unit on the bracket and turning the switch to "on". The arms are adjusted to a position where the dial indicator can be swung a full 360 degrees without interference.

The kit also includes threaded extension rods and clamps for mounting the dial indicator. Tapped holes are provided on the flat and side of the mounting bracket into which a rod can be located. The C-clamp can be locked on that rod and another rod affixed to the clamp to hold the indicator. There are various combinations to give you a setup that will clear surrounding obstructions.

Once the dial indicator is secured in position with the indicator sensor in contact with the flange face, the fixture is rotated to swing the indicator around the surface. The adjusting screws are then used to square the centershaft with the flange. The mandrel is then locked in place, the fixture/dial indicator is removed and the flange facer is

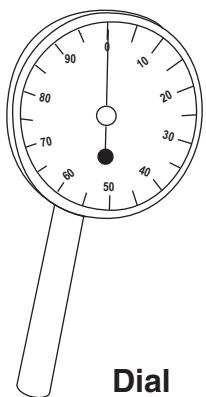


Fine Adjustment Alignment Fixture

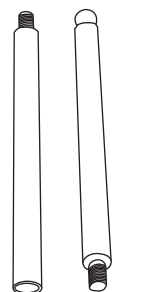


Needle Extension

Magnetic Base



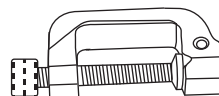
Dial Indicator



Extension Rods



Swivel Clamp



C-Clamp



Tool Post Holder

**H&S
TOOL, INC.**

P.O. Box 393
Wadsworth, OH 44282 U.S.,A.
Tel: +1 330 336 4550
Fax: +1 330 336 9159
e-mail: info@hstool.com
www.hstool.com



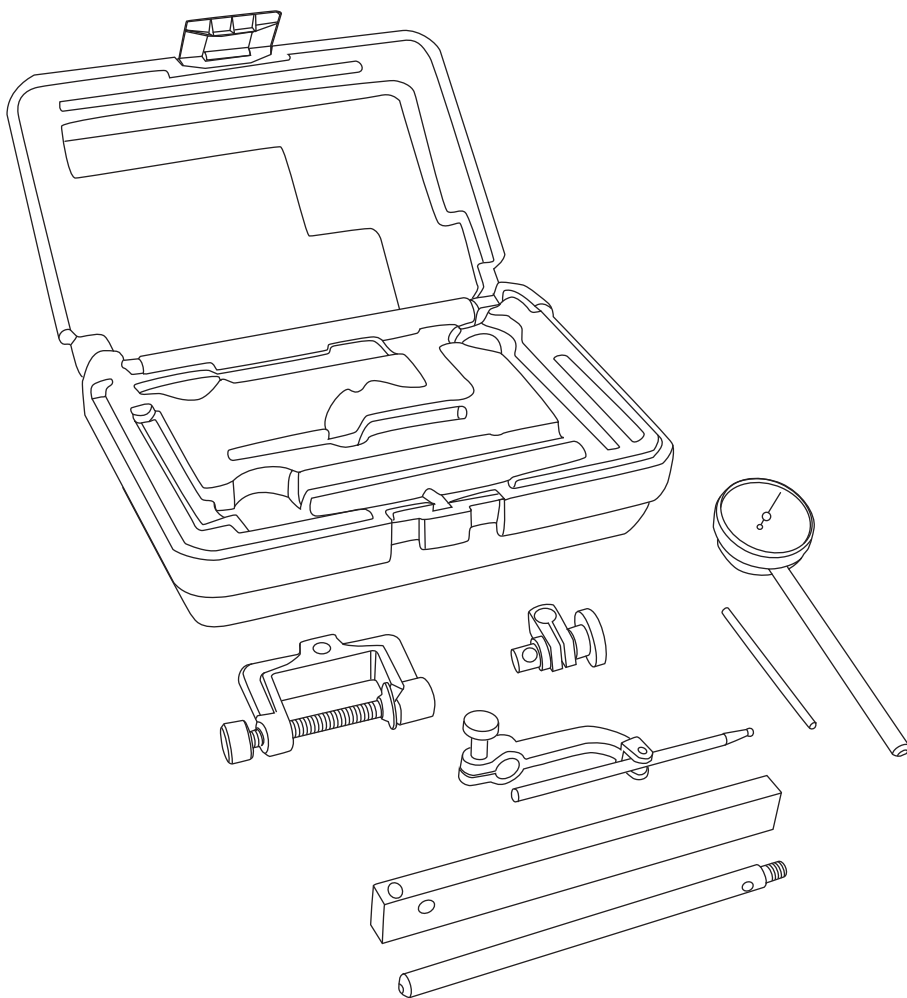
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Wadsworth, OH 44282 U.S.A.
Tel: +1 330-336-4550
Fax: +1 330-336-9159
e-mail: info@hstool.com
www.hstool.com

PARTS LIST

Dial Indicator Kit

Dial Indicator Kit Part No. FA 004580
Magnetic Base/Arms Part No. FA 004581

Dial Indicator Kit



Magnetic Base/Arms

