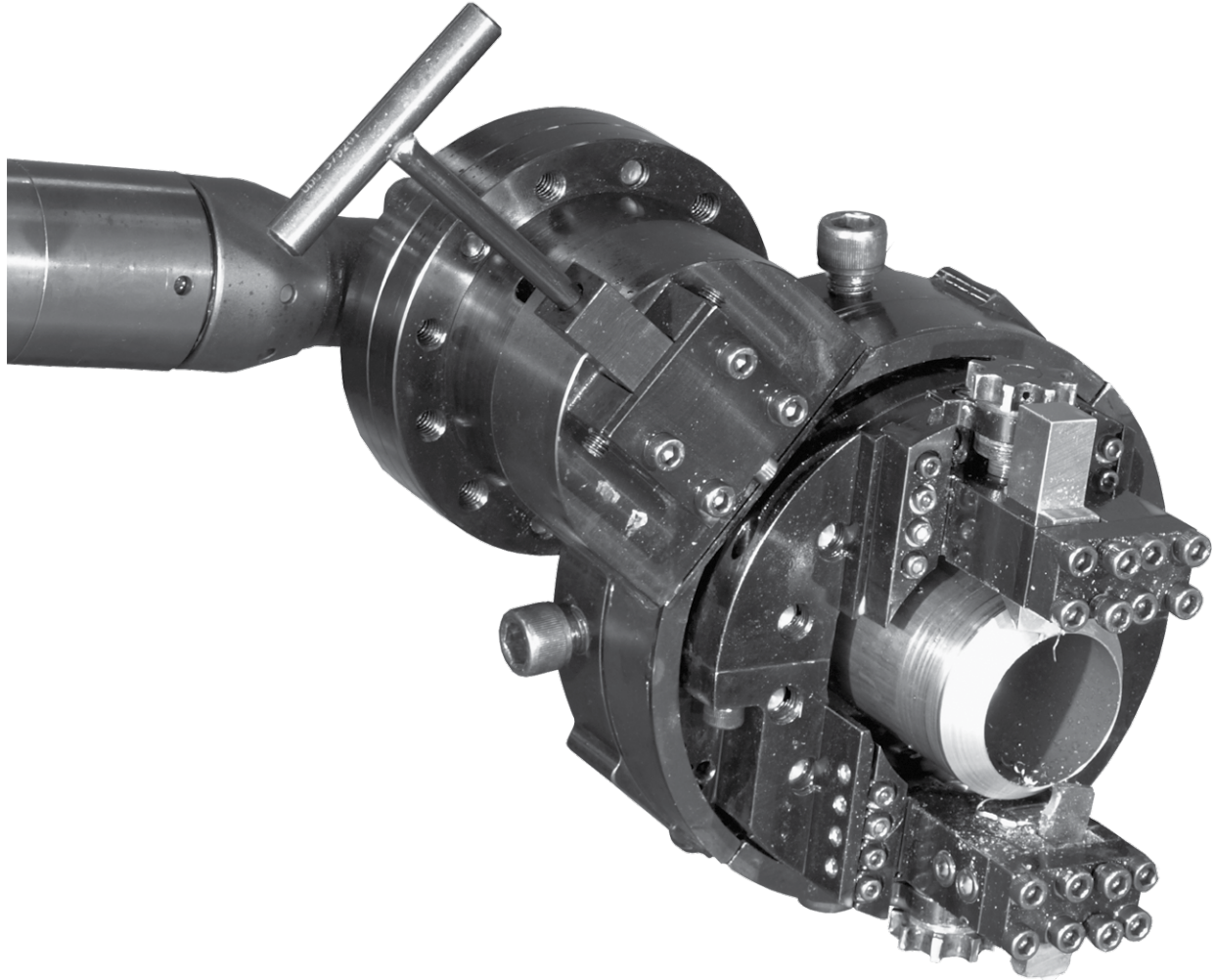


Model MFC-2 Split Frame Clamshell Operation and Parts Manual



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**MFC-2 SPLIT FRAME CLAMSHELL
OPERATION AND PARTS MANUAL
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Pneumatic Operating Safety Instructions

When using a pneumatic motor, make sure the throttle lever (Dead Man Handle - DMH) is locked in the "OFF" position when not in use to avoid unexpected movement or injury. Make sure the DMH throttle lever operates properly before running the machine. Disengage the safety lock and depress the DMH throttle lever to actuate the motor.

Operation & Safety Instructions

- 1) Wear appropriate protective safety equipment including: Safety glasses, gloves, hard hat, steel toe shoes, ear plugs, hair restraints, and coveralls.
- 2) Keep loose clothing, long hair, or any unsecured parts away from operating machines and moving parts.
- 3) Keep the work site clean. Use a brush to remove chips from cutting area and equipment DO NOT use your hands or an air hose to remove chips and swarf.
- 4) Ensure adequate work space around the work piece before mounting the clamshell assembly.
- 5) When severing pipe, support both sides of the cut to avoid the bit becoming trapped or breaking.
- 6) Before connecting the power source to the clamshell, make sure the following pieces are tightly secured:
 - a) Clamshell split Line at the body swing bolts
 - b) Ring gear swing bolts – front of clamshell
 - c) Tool block – tool holder – tool bit inserts
 - d) Locator pads – locator pad extensions
 - e) Tripper Assembly Components
 - f) Motor and motor mounts

- 7) KEEP HANDS AWAY FROM CLAMSHELL WHEN ROTATING!

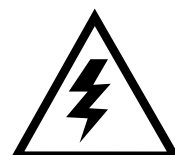
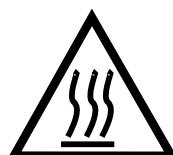
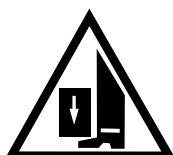
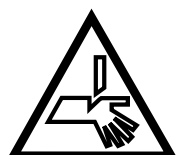
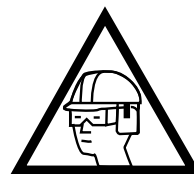
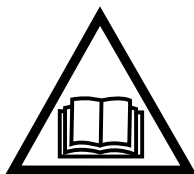
Adjustments should only be made when the clamshell is stopped and the power source is disconnected.

- 8) Never move or work on the clamshell without checking that all air or electric has been removed and that there is no chance of any power being supplied to the assembly.
- 9) In the event of a power failure – close all valves and remove hoses and/or electric lines to reduce the risk of operator injury when power returns.



CAUTION!

Read the Operation & Safety instructions thoroughly before attempting to operate this machine. Call the factory or your H&S Tool representative if you have any questions.



Working Safely is Working Smartly!

Introduction

General Description:

The split frame machines are portable pipe lathes designed to simultaneously sever and bevel in-line pipe, plus form an angle bevel as they cut. The frame is split for easy installation on in-line pipe. The tool bits automatically feed into the work piece with each rotation of the clamshell to assure a smooth, precise finish.

MACHINING FUNCTION & CAPACITIES:

- Sever In-Line Pipe
- Sever and Bevel In-Line Pipe
- Sever and J-Bevel In-Line Pipe
- Sever and Double Bevel In-Line Pipe
- Counter bore
- Flange Resurfacing

Drive Assembly:

There are two drive arrangements available. Drive options can be changed to suite your particular needs or type of environment that the work is being performed in. You have a choice between Electric or Pneumatic.

Tooling:

High speed steel tool bits are standard. Your local distributor stocks all standard configurations for right and left hand severing and beveling. Specialty and indexable tool bits can be designed as required.

Components

Main Body:

A steel ring that is capable of being disassembled for installation on in-line piping and holds the motor assembly and adjustable locator clamping pads & tripper assembly.

Track Ring:

A precision machined ring, attached to the main body that provides a tough, wear resistant bearing surface for the roller bearings to ride in providing the means for the assembly to rotate.

Bearing Assemblies:

The cutting head assembly runs on precision bearings mounted on the ring gear. The bearings are encapsulated in the track ring and are designed to provide for axial and radial forces created during cutting operations.

Ring Gear:

The ring gear provides the front surface that the tool slides and accessories attach to. It also provides the mechanical interface with the drive motor through gear teeth.

Drive Assembly:

The drive assembly is a metal housing that contains a pinion gear on a shaft that is supported by a bearing arrangement. The motor assembly is designed to be removed easily and provide the appropriate gear mesh for smooth operation. Solidly mounted, the assembly is consistently located flush with the back of the body ring.

Tool Slide Assembly:

The slide assembly tool block holds the different types of cutting tools. The slide assembly has an adjustable gib and a feed screw that provides the ability to feed the tooling into the work piece. The slide assembly is bolted to the ring gear face of the clamshell.

Tripper Assembly:

The tripper assembly is bolted to the outside of the of the body ring and holds the tripper pin. The tripper pin is used to turn the star wheel on the feed screw slide assembly. This "feeds" the tool bit into the work piece.

Locator Pad:

The MFC-2 clamshell uses adjustable locator pad assemblies with 9/16" (14.3 mm) of travel. Turning set screws located on the outside of the body ring actuates the adjustable locators. To mount the clamshell on smaller diameters, extended-reach locators are provided.

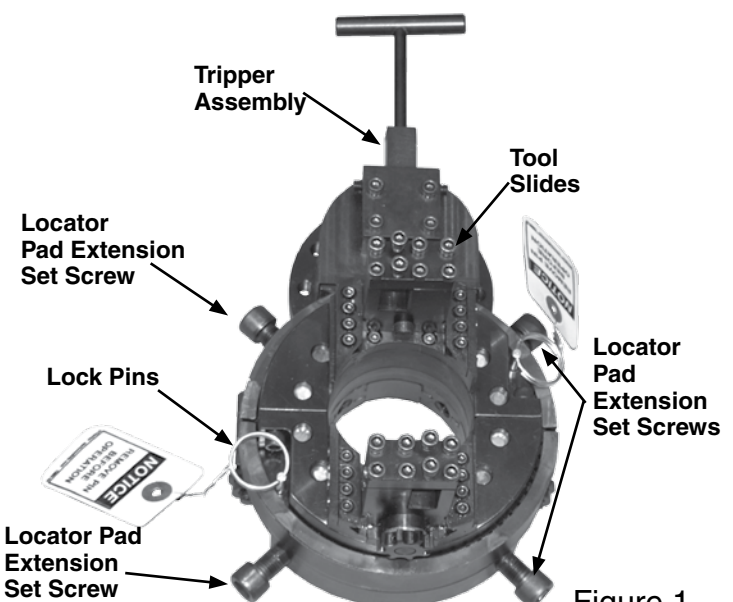


Figure 1

Machine Set Up

Separating Clamshell Halves:

1. The tool should always be stored with the lock pins in position (see Figure 1). Remove the lock pins if they are installed. If they are not, rotate the ring gear by hand until both the gear and main body housing split lines are aligned.
2. Loosen the two main body swing bolt flange nuts and swing them out of the pockets. Remove the two ring gear cap screws.
3. Separate the clamshell halves by pulling them apart at the split line.

Caution: Do not force the halves apart. The soft dead-blow hammer (supplied in your tool kit) can be used to tap the assembly at the split line. The halves must separate evenly.

4. Determine pipe O.D. If required, use the extended-reach locator pads (see Figure 3). The locator pads are adjusted by turning the set screws that are accessed from the outside of the housing with a 3/8" hex key (see Figure 1). Back-up the locator pads as needed for the proper clearance of the pipe diameter. The optimum position is to have as much of the foot in the pocket of the body ring as possible. This adds rigidity to the entire machine. Ensure the motor mount area will be accessible when the clamshell is tightened into position.

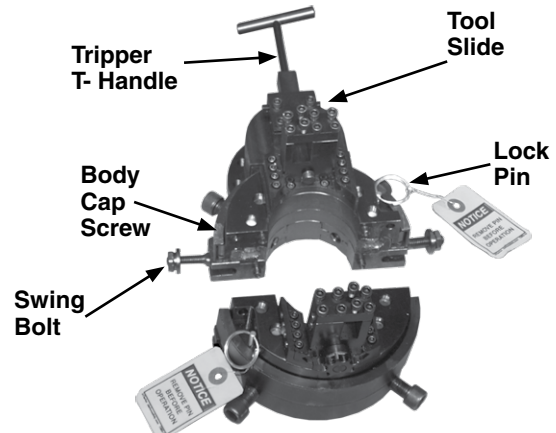
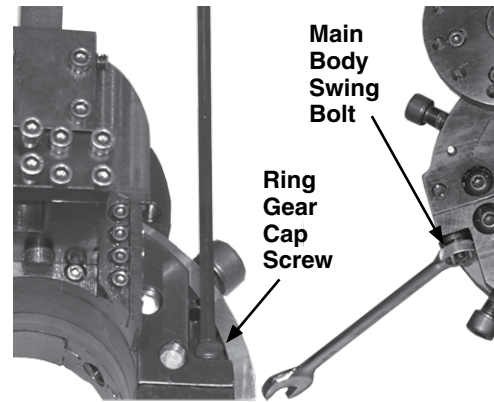


Figure 2

Locator Extension

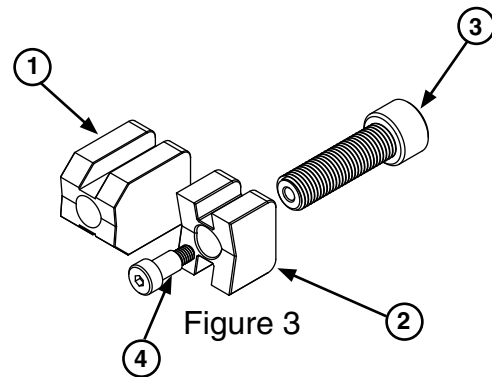


Figure 3

Locator Extension Coverage		
	Standard Range	1/2" Extended Reach
Inches	2.625" - 1.450"	1.550" - 0.625"
mm	66.7 - 36.8	39.3 - 15.9

- | Item | Description |
|------|--|
| 1 | Locator Pad — 1-1/4" Extension |
| 2 | Locator Pad — 3/4" |
| 3 | 7/16-20 x 1-1/2" Socket Head Cap Screw |
| 4 | 1/4 x 3/8" Shoulder Bolt |

Installation On In-line Pipe

Joining Clamshell Halves:

1. Install the two halves of the clamshell around the pipe. Tighten the two main body swing bolts and the two ring gear cap screws. Insert the lock pins.

Note: If clamshell will not close, check the locator pads for proper size and clearance. Adjust the locators if necessary.

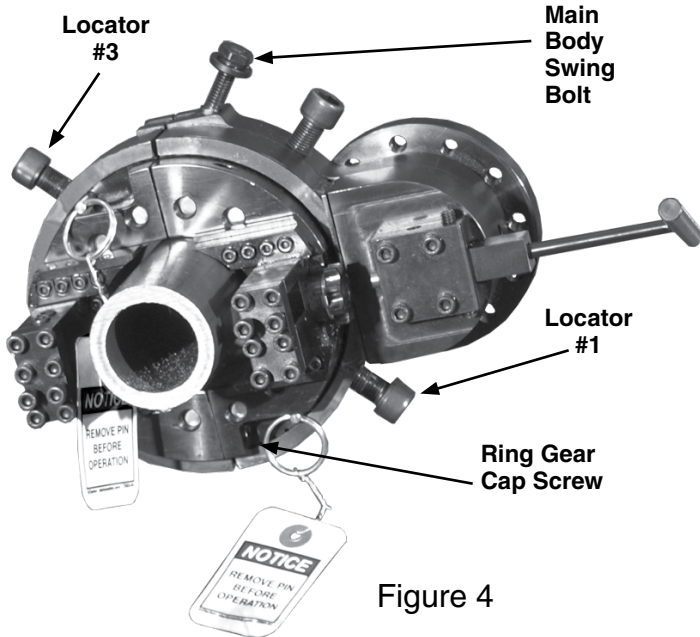


Figure 4

2. Lightly tighten any two adjustable locator pads directly across from each other (Figure 4, Locators 1 & 3) to secure the clamshell while keeping it roughly centered on the work piece. Lightly tighten the other two locators. **DO NOT TIGHTEN** the locators completely until the machine has been centered and squared.

SQUARING & CENTERING

1. Squaring: Square is checked at the locator positions. Hold the square against the back of the machine housing and the pipe. Move the machine to square and tighten the locator a little more at each location.

2. Centering: Using a scale, measure the distance from the pipe OD to the clamshell ID at opposing locator positions (#1 and #3, #2 and #4 in Figure 5). Adjust the locator pads until they are as close to the same dimension as possible. Tighten the locators securely to lock the machine in position on the pipe. Remove lock pins so the ring gear can rotate.

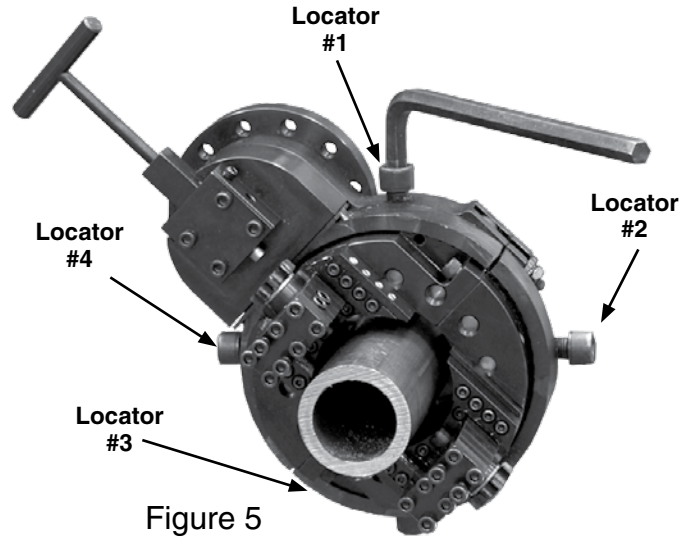


Figure 5

3. Fine Centering: Mount a dial indicator on the gear face with the tip resting on the work piece OD. Turn the gear so the indicator is positioned over one of the locators then tighten (Locator 1) and set the dial to zero. Slowly rotate the gear 180 degrees to another locator (Locator 3) and take an indicator reading. If the reading is not zero, adjust the locators until the indicator reads one-half of the original reading. Reset the indicator dial to zero and repeat. If the machine cannot be centered and properly locked, different locators are required.
4. Rotate the ring gear so the indicator is positioned over another locator (Locator 2) and tighten, set the dial to zero. Slowly rotate the gear 180° to another locator (Locator 4) and take an indicator reading. If the reading is not zero, adjust the locators until the indicator reads one-half of the original reading. Reset the indicator dial to zero and repeat. The first two locators may need to be slightly loosened in order to zero the clamshell to work piece.

SETTING TOOL BITS:

1. Prior to installation of tool bits, determine which tool bits must be used for your specific machining application. This example will perform a simultaneous sever and bevel operation.
2. The tool bits must have sufficient travel to pass completely through the pipe without the tool block making contact. Use the feed screw star wheel wrench to fully retract the tool slide as far away from the tube O.D. as possible.

Note: The Clamshell cuts in a CLOCKWISE direction, when viewed at its face. There are right hand and left hand sever and bevel bits. Right hand bits bevel on the side which the clamshell is mounted. Left hand bits bevel on the opposite side.

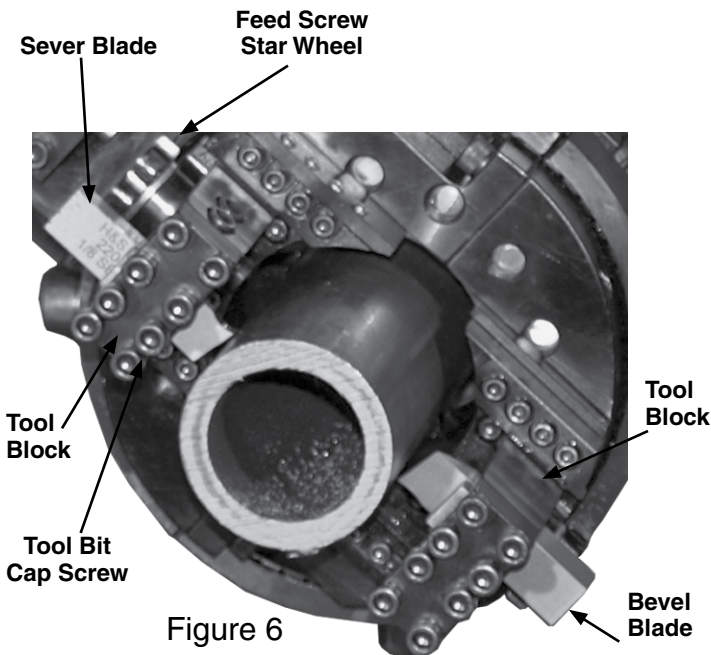


Figure 6

3. Insert the proper beveling and severing tool bits so that the tip of the bit touches the pipe O.D. Hold each tool bit with one cap screw, snug but not tight.

4. Manually rotate the cutting head counter-clockwise one revolution. This reverse action will draw the tool bits away from any high spots in the pipe that could damage the machine. After one complete revolution has been made, tighten the two cap screws on both tool blocks. Draw the bevel bit 1/32" (.725 mm) away from the work piece to ensure that the sever bit makes contact first.

Important: The sever bit must always cut ahead to avoid damage and increase accuracy (see Figures 7 and 8).

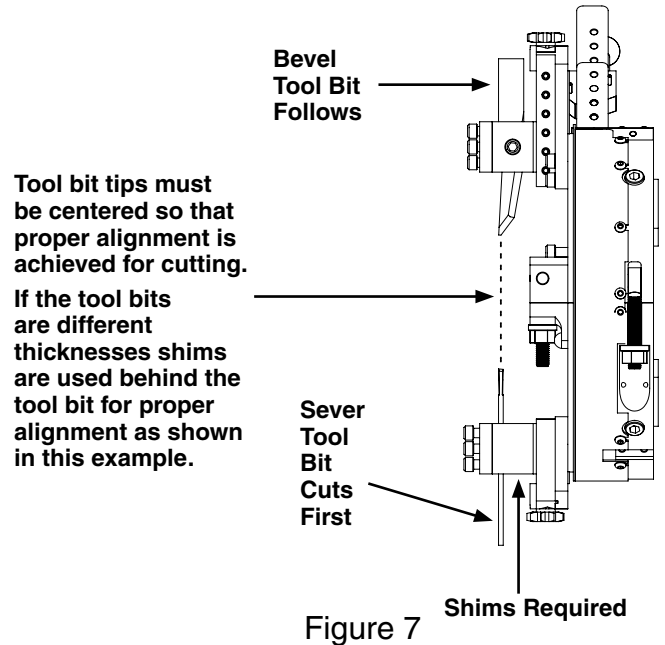


Figure 7

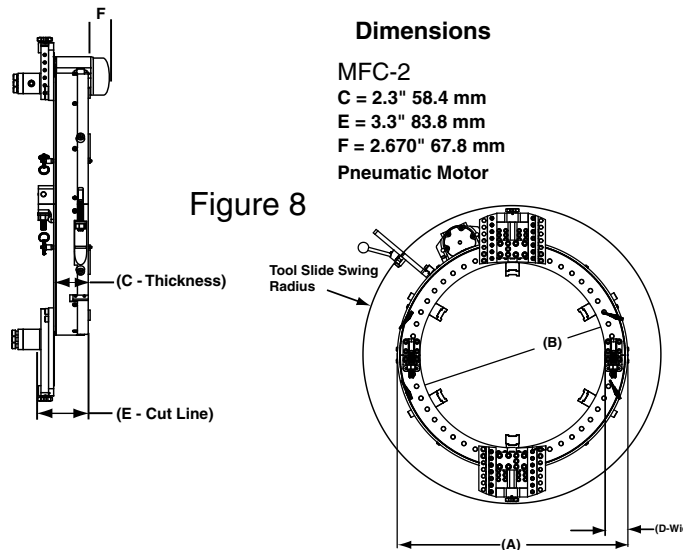


Figure 8

Working Range	1" Slide		
	A	B	Swing Pads
.625" - 2.625"	5.773"	2.625"	5.634"
mm 15.9 - 66.7	146.6	66.7	143.1

The MFC's design is unique and has substantially different parts and accessories. The drawings above do not reflect the actual appearance of the MFC and are intended solely for transmitting dimensional data.

Motor Installation



CAUTION: ALL Locking pins must be removed from the gear face before installing the motor, and all power must be turned off.

1. There are two motor options available for powering the clamshell – electric and pneumatic. Determine the optimum position for the motor in the work space. The motor flange (Figure 9) has bolt holes that permit the cap screw head to pass through one side (Figure 10). Thread two cap screws at opposite positions in the pattern on the gear drive flange. Rotate the ring gear to align the motor square drive with the gear box drive. Place the motor flange over the cap screws and rotate it clockwise until the cap screws contact the end of the slots. Hand-tighten the cap screws and install the remaining three cap screws. Tighten all cap screws securely.

Note: If the motor does not engage, make sure the two drives are properly aligned. Rotate the ring gear by hand if necessary to align them.



Figure 9

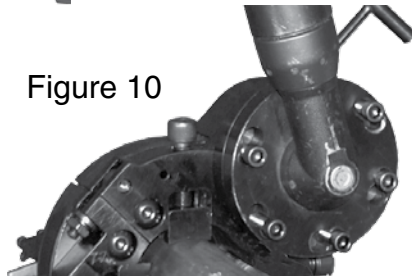


Figure 10

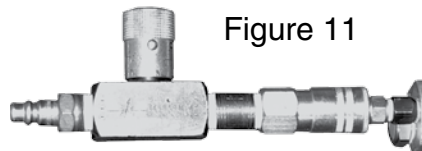


Figure 11

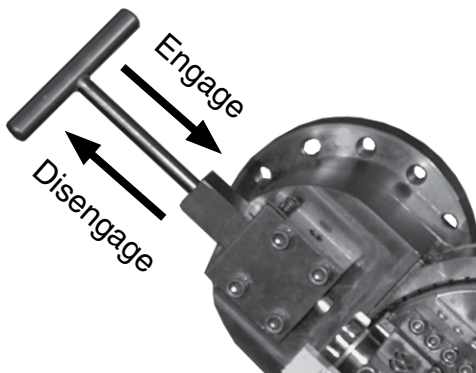


Figure 12

Machine Operation:

Severing In-Line Pipe:

1. Double check that all mounts are secure, lock pins are removed, the area is free from obstructions and the flow control valve is fully closed (adjusting knob is rotated fully clockwise (Figure 11)).
2. Depress the DMH throttle lever and slowly open the flow control valve. Check function and speed. Engage the tripper (Figure 12). Each rotation will advance the tool bit approximately .0039" (.099 mm). The cutting operation should generally be smooth and constant. If chatter or vibration occurs, reduce the cutting RPM by rotating the flow control knob clockwise. If the tool bits chip or become dull, replace them immediately. NEVER TRY TO RE-SHARPEN THE TOOL BITS. They must be returned to the factory for regrinding to maintain proper relief angles. **(DAMAGE TO THE MACHINE COULD OCCUR.)** Use coolant during the cutting operation to reduce friction and extend bit life.



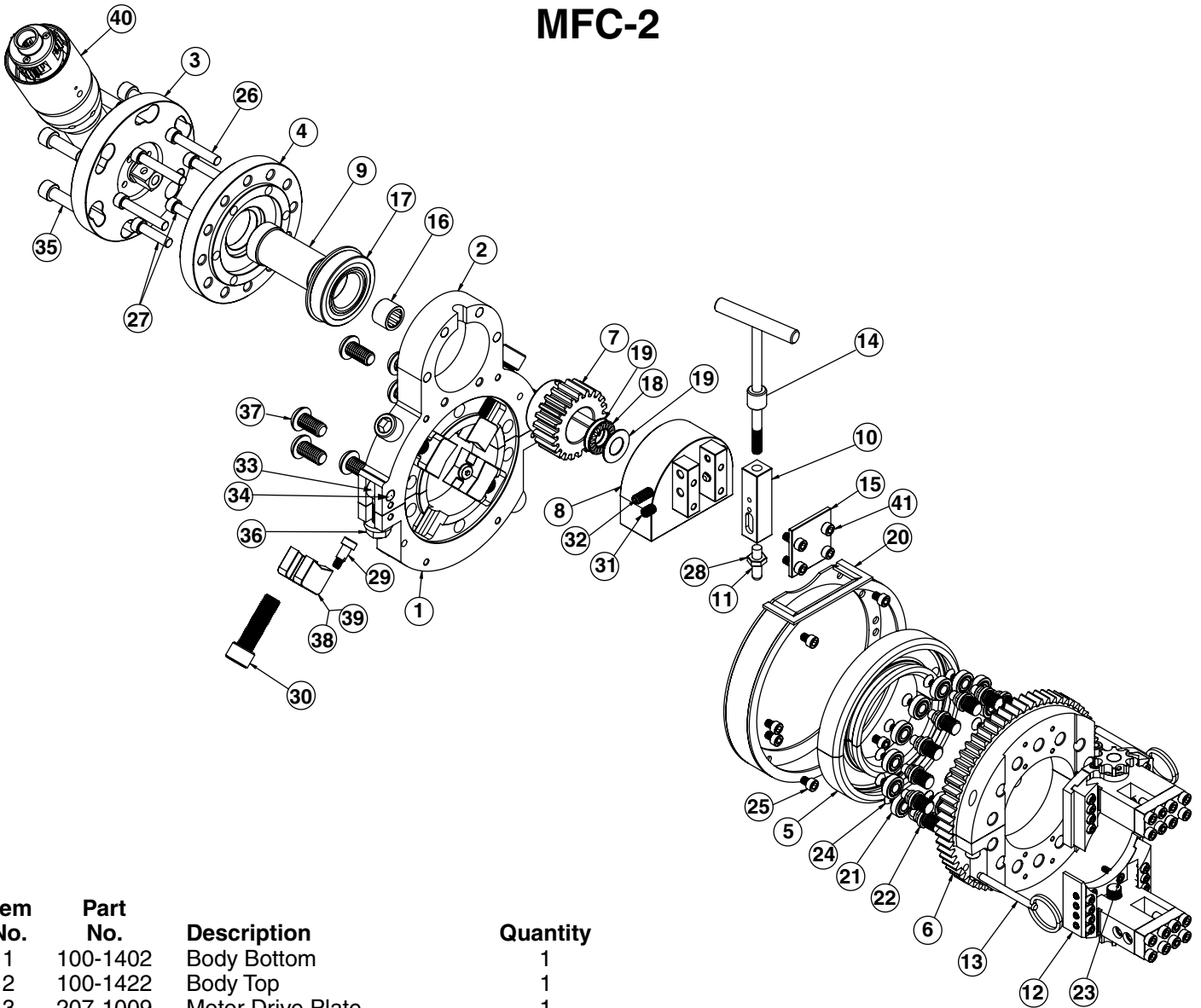
CAUTION: The cutting operation is continuous until terminated by the operator. To stop the cutting feed, PULL THE TRIPPER HANDLE OUT TO DISENGAGE and let the machine rotate a few times to clear the tool bit. Letting the tool bit clear will prevent tool damage and gouging. Release the DMH handle to stop the clamshell rotation.

3. Stop the machine when the machining is complete. Retract the tool blocks with the star wheel wrench to the start position.



CAUTION: To prevent damage to the tool bit, the work piece to be cut must be rigged properly to keep the tool from binding when the pipe is severed. Improperly rigged piping may result in personal injury.

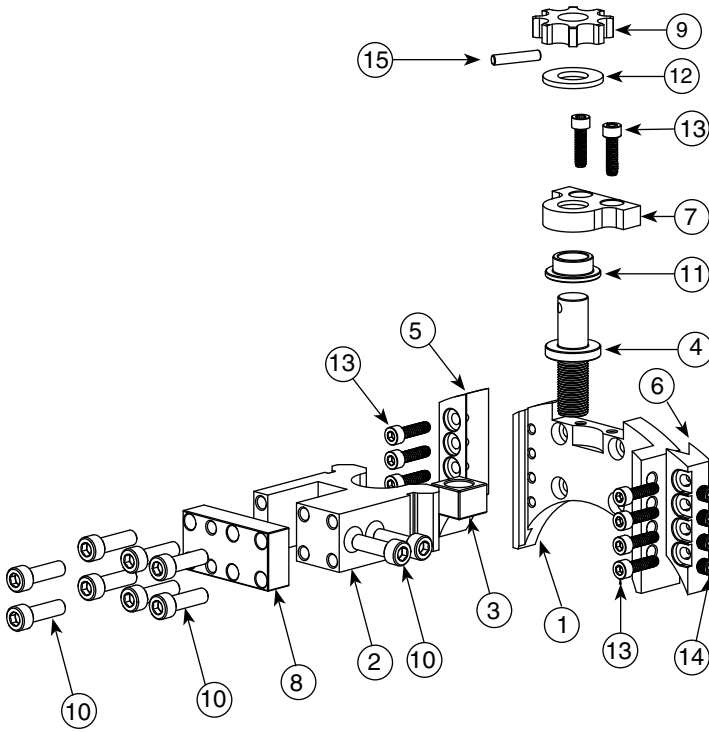
MFC-2



Item No.	Part No.	Description	Quantity
1	100-1402	Body Bottom	1
2	100-1422	Body Top	1
3	207-1009	Motor Drive Plate	1
4	207-1012	Motor Adapter Plate	1
5	200-2402	Track Ring Assembly	1
6	300-3402	Gear Ring Assembly	1
7	207-1006	Spur Gear	1
8	207-1007	Gear Cap	1
9	207-1008	Drive Shaft	1
10	207-1002	Tripper Plunger	1
11	207-1001	Tripper Pin	1
12	210-2222	Tool Slide Assembly	2
13	207-1029	Lock Pin	2
14	207-1003	T-Handle	1
15	207-1004	Front Slide Plate	1
16	500-0003	1/2" x 5/8" Needle Bearing	1
17	500-0004	1" x 2" Flange Bearing	1
18	500-0005	1/2" x 15/16" Thrust Bearing	1
19	500-0006	1/2" x 15/16" Thrust Washer	2
20	400-4402	Guard	1
21	207-1013	Bronze Roller	14
22	207-1014	Roller Post	14
23	220-1310	6-32 x 1/2" Socket Head Cap Screw	8
24	500-0001	8-32 x 3/8" Button Head Cap Screw	15
25	500-0002	10-32 x 1/4" Socket Head Cap Screw	8

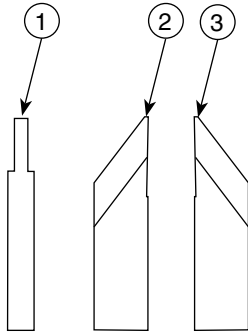
Item No.	Part No.	Description	Quantity
26	500-1412	1/4"-20 x 1-1/2" Socket Head Cap Screw	4
27	500-1089	1/4"-20 x 1" Socket Head Cap Screw	2
28	500-1002	1/4"-20 Jam Nut	1
29	207-1061	1/4" x 3/8" Shoulder Bolt	4
30	207-1171	7/16"-20 x 1-1/2" Socket Head Cap Screw	4
31	207-1072	1/4"-20 x 3/8" Set Screw	2
32	207-1073	Spring Ball Plunger	2
33	207-1074	5/16"-18 Swing Bolt	2
34	207-1075	5/16" x 7/8" Dowel	2
35	215-2019	5/16"-18" x 1" Socket Head Cap Screw	6
36	207-0014	5/16"-18 Flange Nut	2
37	207-1076	3/8"-16 x 3/4" Button Head Cap Screw	6
38	207-0011	Locator Pad, 3/4"	4
39	207-0022	Locator Pad, 1-1/4"	4
40	211-2222	Pneumatic Motor	1
41	207-1005	10-32 x 1/2" Socket Head Cap Screw	4

Tool Slide Assembly Part No. 210-2222



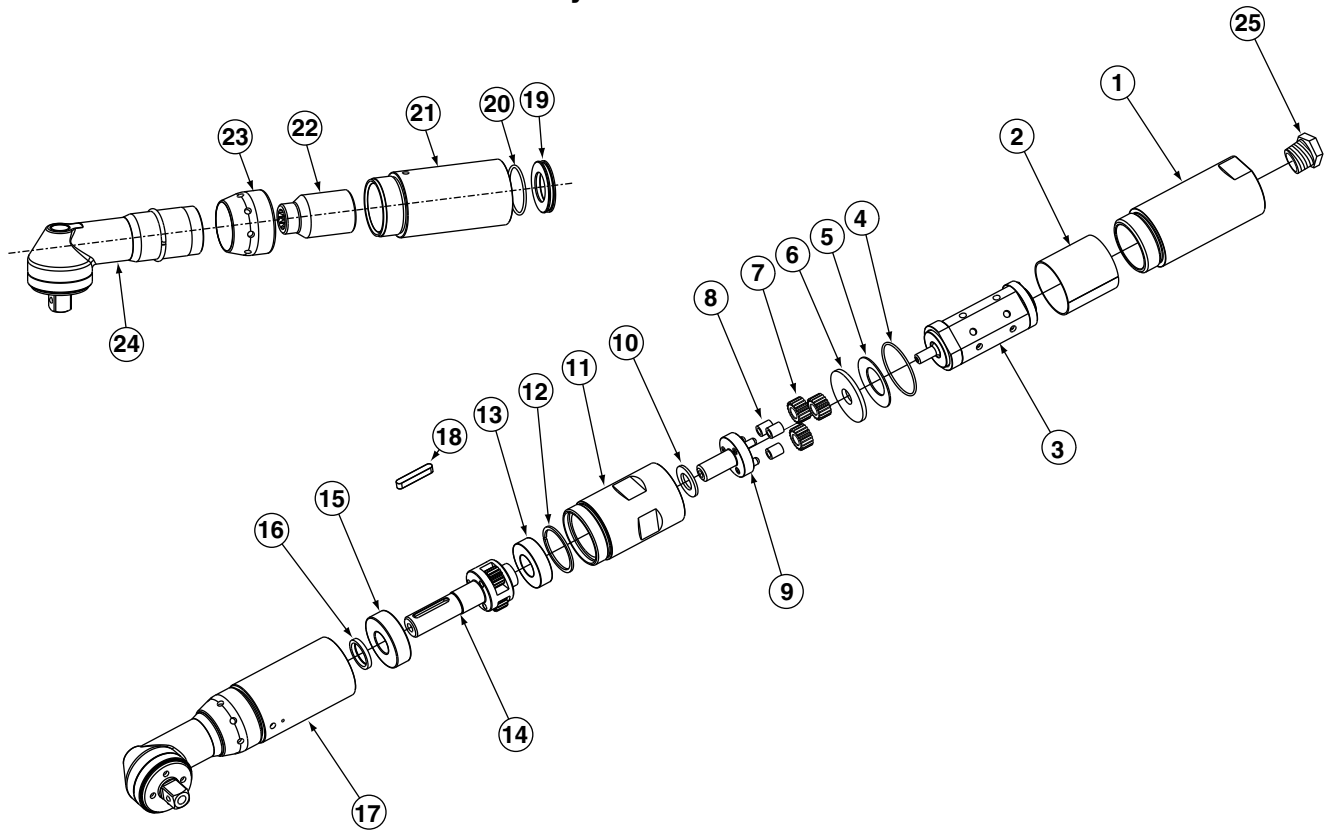
Item No.	Part No.	Description	Quantity
1	207-0001	Tool Slide Base	1
2	207-1010	Tool Block	1
3	207-0114	Feed Screw Nut	1
4	207-0101	Feed Screw	1
5	207-0002	L.H. Fixed Gib	1
6	207-0003	R.H. Adjustable Gib	1
7	207-0111	Feed Screw Mount	1
8	207-1011	Tool Block Cap	1
9	207-1200	Feed Screw Star Wheel	1
10	207-1071	10-32 x 5/8" Socket Head Cap Screw	10
11	500-1045	Flange Bearing	1
12	207-1015	Thrust Bearing	1
13	220-1310	6-32 x 1/2" Socket Head Cap Screw	10
14	207-1032	10-32 x 3/16" Socket Head Set Screw	4
15	207-1858	1/8" x 5/8" Roll Pin	1

Tool Bits



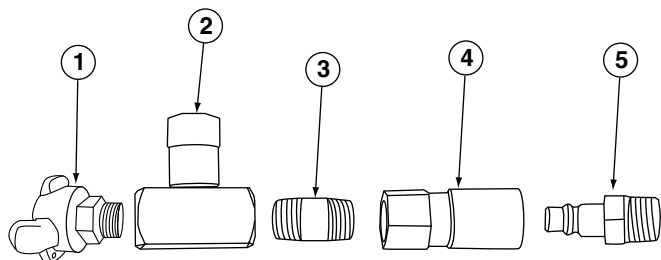
Item No.	Part No.	Description	Quantity
1	220-2001	1/8" Sever	1
2	220-2003	37° Right Hand Bevel	1
3	220-2002	37° Left Hand Bevel	1

Air Motor Parts Assembly Part No. 211-0202



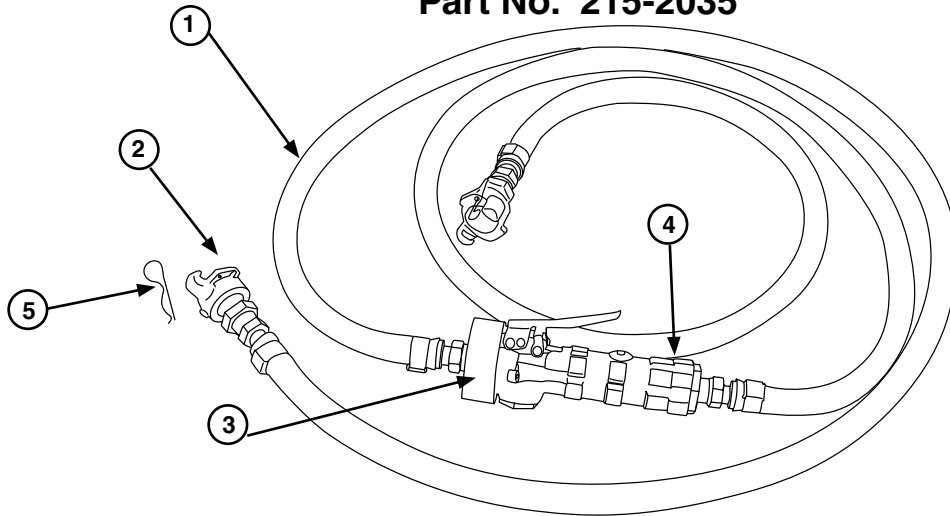
Item No.	Part No.	Description	Quantity	Item No.	Part No.	Description	Quantity
1	4430-0528-00	Casing	1	13	0502-1216-00	Ball Bearing	1
2	4430-0571-00	Silencer	1	14	4430-0487-80	Planetary Gear, Complete	1
3	4430-0526-80	Rotor Assembly, Complete	1	15	0502-1091-09	Ball Bearing	1
4	0663-9026-00	O-Ring	1	16	0666-8100-29	Seal Ring	1
5	4170-0505-00	Cup Spring	1	17	4430-2042-80	Angle Gear Assembly	1
6	4430-0554-00	Washer	1	18	0337-2589-00	Key	1
7	4430-0478-00	Gear Wheel	3	19	4430-2044-00	Plate	1
8	0515-1103-01	Needle Carrier	3	20	0663-2106-29	O-Ring	1
9	4430-0486-80	Planet Shaft, Complete	1	21	4430-2402-00	Front Part	1
10	4430-0556-00	Washer	1	22	4430-2041-00	Sleeve	1
11	4430-0479-00	Gear Rim	1	23	4220-0848-00	Cap Nut	1
12	4090-0588-00	Snap Ring	1	24	4224-2519--01	Angle Gear	1
				25	09155037	Muffler	1

Flow Control Assembly Part No. 211-1212



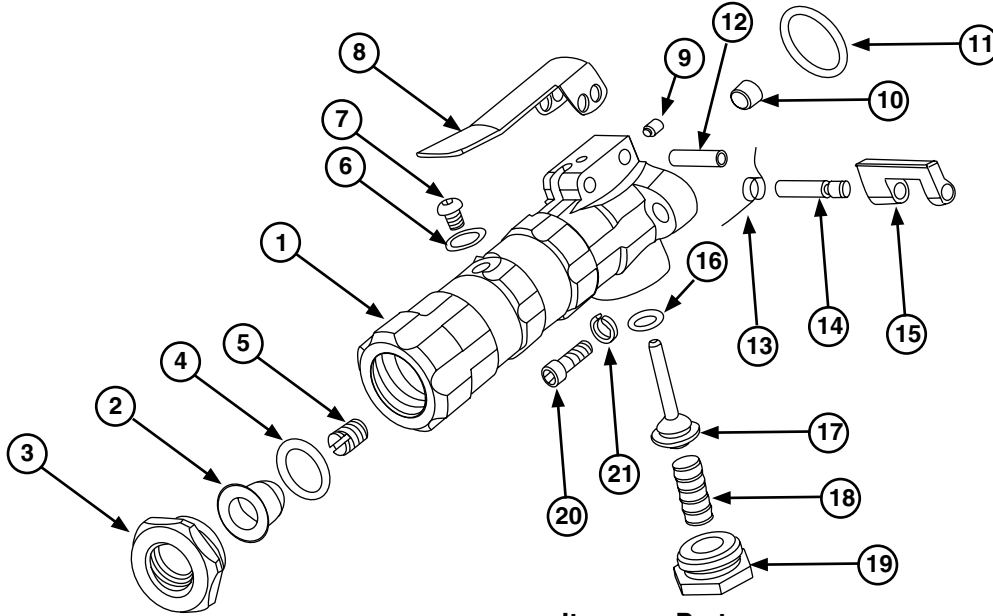
Item No.	Part No.	Description	Quantity
1	215-1012	Claw Fitting	1
2	N800S	Control Valve	1
3	215-2013	Pipe Nipple	1
4	HS50-511	Quick Disconnect Coupler	1
5	79802955	Male Plug, 1/4" NPT	1

Air Hose/Throttle Handle Part No. 215-2035



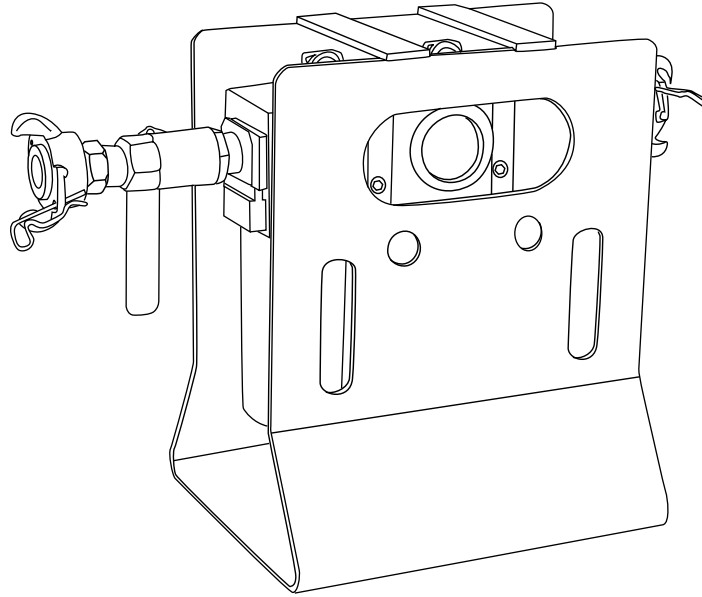
Item No.	Part No.	Description	Quantity
1	215-2030	Hose Section w/Fittings	2
2	215-1011	Claw Fitting, Female	2
3	215-2031	Adapter	1
4	215-2032	Throttle Assembly	1
5	215-2012	Safety Clip	2

Air Hose Throttle Handle Part No. 215-2032

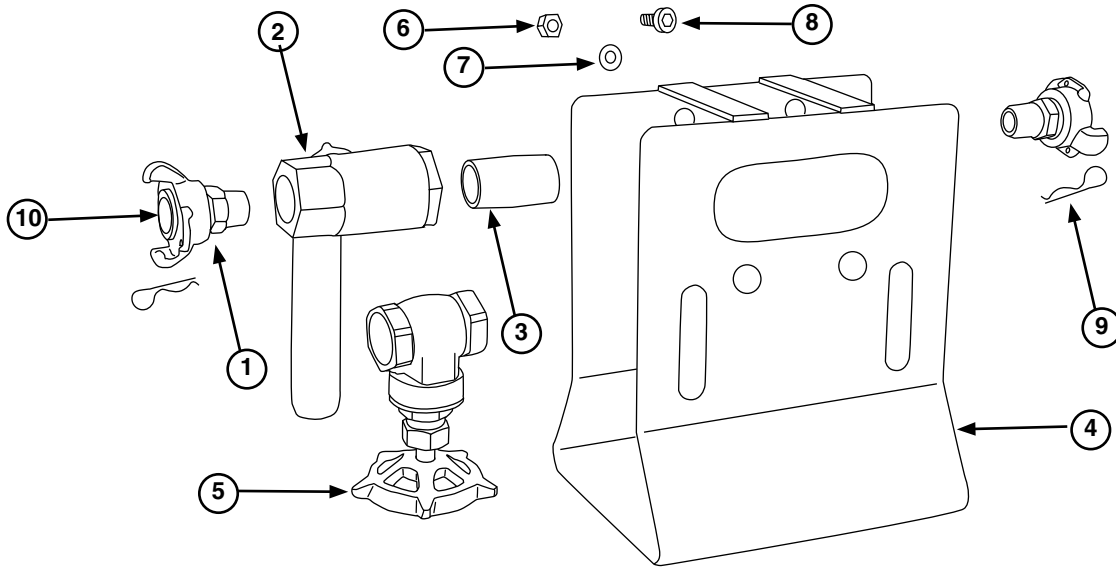


Item No.	Part No.	Description	Quantity
1	215-2040	Throttle Body	1
2	215-2041	Screen	1
3	215-2042	Adapter Cap	1
4	215-2043	O-Ring	1
5	215-2044	Oiler Valve	1
6	215-2045	Gasket	1
7	215-2046	Screw	1
8	215-2047	Lever	1
9	215-2048	Set Screw	1
10	215-2049	Pipe Plug	1
11	215-2050	O-Ring	1
12	215-2051	Pin	1
13	215-2052	Safety Lockout Spring	1
14	215-2053	Lockout Pin	1
15	215-2054	Lockout	1
16	215-2055	O-Ring	1
17	215-2056	Throttle Valve Assembly	1
18	215-2057	Spring	1
19	215-2058	Throttle Valve Plug	1
20	215-2019	5/16"-18 x 1" Socket Head Cap Screw	2
21	215-2060	5/16" Split Lock Washer	2

Air Caddy Assembly Part No. 215-2025

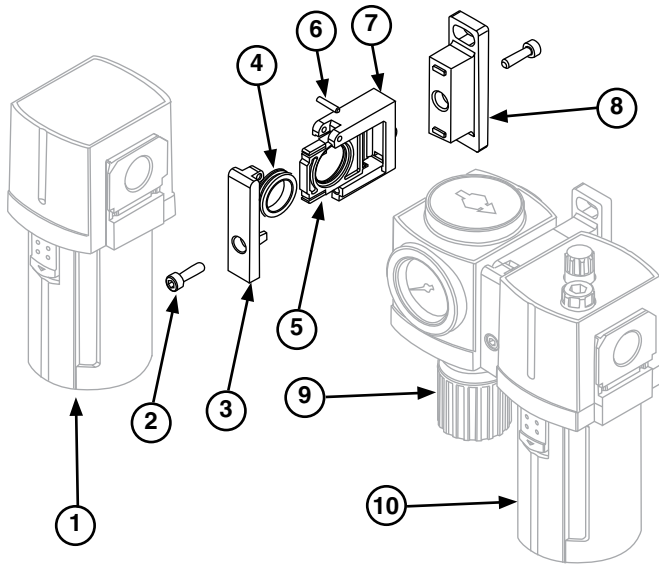


Air Caddy Frame/Valves/Fittings



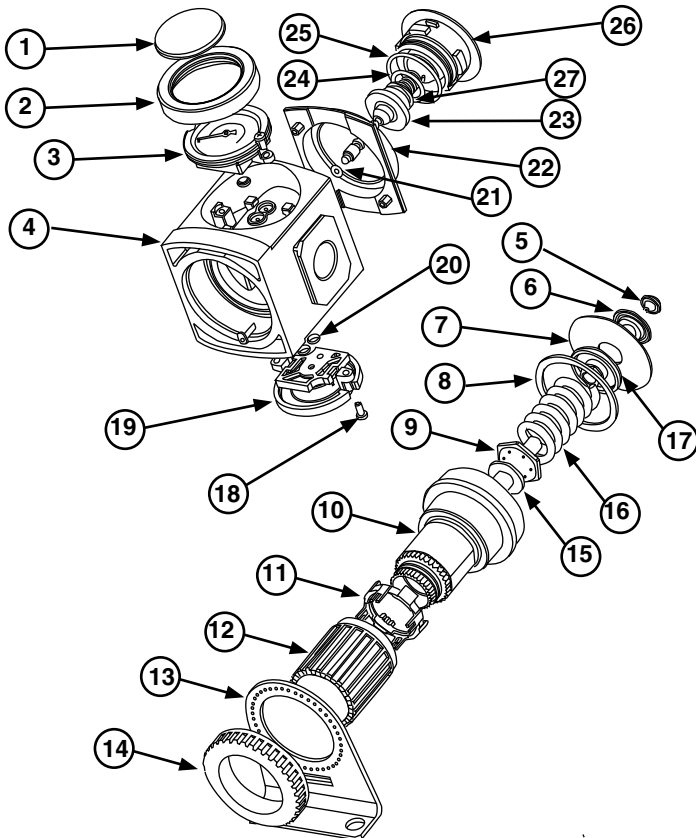
Item No.	Part No.	Description	Quantity	Item No.	Part No.	Description	Quantity
1	215-1012	Claw Fitting, Male	2	6	215-2017	5/16"-18 Self-Locking Nut	4
2	215-2014	Ball Valve	1	7	215-2018	5/16" Washer	8
3	215-2013	Pipe Nipple	1	8	215-2019	5/16"-18 x 1" Socket	4
4	215-2016	Frame	1	9	215-2012	Head Cap Screw	2
5	215-2015	Gate Valve, Optional	1	10	215-2020	Safety Clip	2
						Claw Fitting Rubber Seal	2

Air Caddy Mounting Bracket Assembly Part No. 215-2080



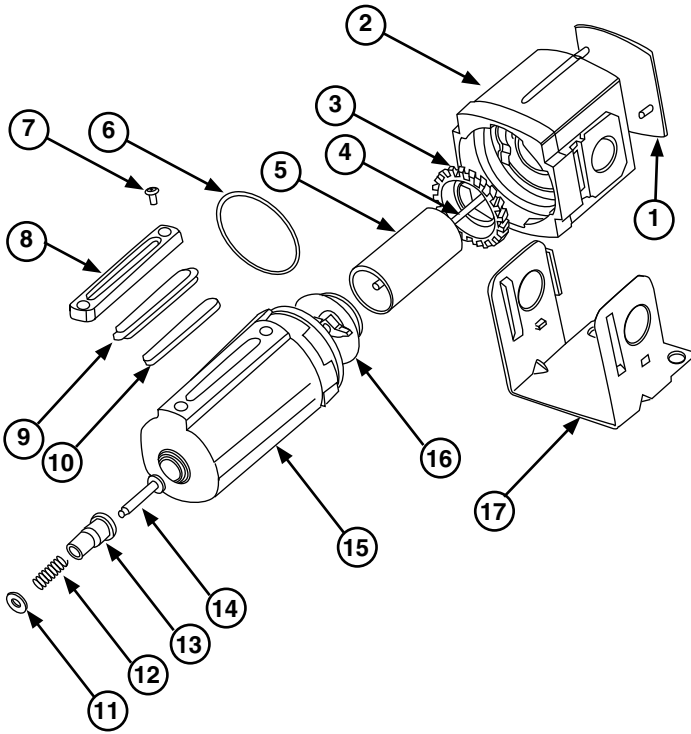
Item No.	Part No.	Description	Quantity
1	215-2070	Filter	1
2	215-2071	Socket Head Cap Screw	4
3	215-2072	Spacer Cover	2
4	215-2073	Spacer O-Ring	2
5	215-2074	Spacer	2
6	215-2075	Pin	2
7	215-2076	Spacer Housing	2
8	215-2077	T-Bracket	2
9	215-2078	Regulator	1
10	215-2079	Lubricator	1

Air Caddy Regulator Assembly Part No. 215-2100



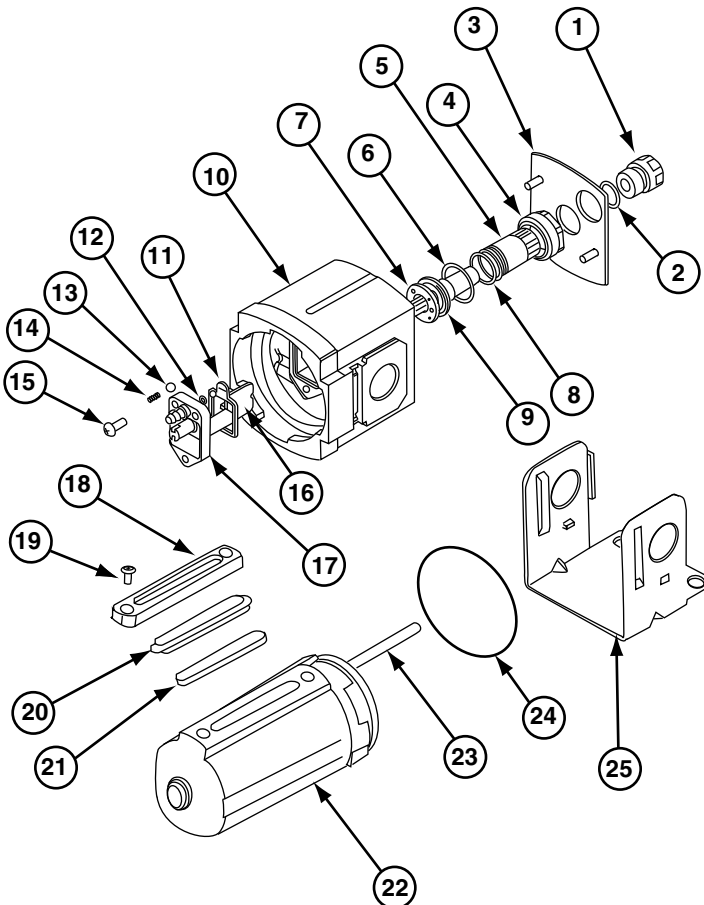
Item No.	Part No.	Description	Quantity
1	215-2101	Gauge Cover	1
2	215-2102	Cover Ring	1
3	215-2103	Gauge	1
4	215-2104	Regulator Body	1
5	215-2105	Relief Valve Sheet	1
6	215-2106	Relief Valve	1
7	215-2107	Diaphragm	1
8	215-2108	Diaphragm Ring	1
9	215-2109	Adjusting Nut	1
10	215-2110	Bonnet	1
11	215-2111	Tamper Kit	1
12	215-2112	Handle	1
13	215-2113	L-Bracket	1
14	215-2114	Panel Mount Nut	1
15	215-2115	Adjusting Bolt	1
16	215-2116	Adjusting Spring	1
17	215-2117	Diaphragm Shell	1
18	215-2118	Bolt	2
19	215-2119	Built in check Valve/Block Cover	1
20	215-2120	Gauge O-Ring	1
21	215-2121	Stem O-Ring	1
22	215-2122	Upper Cover	1
23	215-2123	Valve	1
24	215-2124	Valve O-Ring	1
25	215-2125	Valve Guide O-Ring	1
26	215-2126	Valve Guide	1
27	215-2127	Valve Spring	1

Air Caddy Filter Assembly Part No. 215-2130



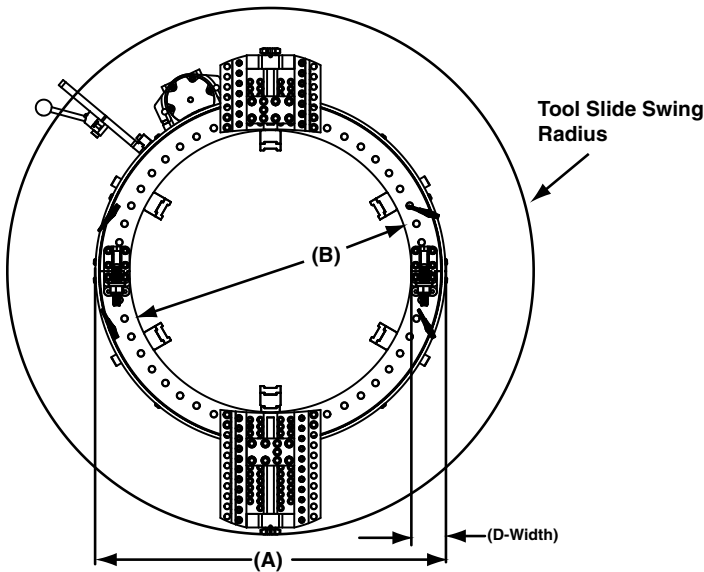
Item No.	Part No.	Description	Quantity
1	215-2131	Upper Cover	1
2	215-2132	Filter Body	1
3	215-2133	Deflector	1
4	215-2134	Baffle Shaft	1
5	215-2135	Filter Element	1
6	215-2136	Bowl O-Ring	1
7	215-2137	Bolt	2
8	215-2138	Sight Cover	1
9	215-2139	Sight Plate	1
10	215-2140	Sight Plate Gasket	1
11-14	215-2141	Manual Drain Assembly	1
15	215-2142	Filter Bowl	1
16	215-2143	Baffle	1
17	215-2144	C-Bracket	1

Air Caddy Lubricator Assembly Part No. 215-2150



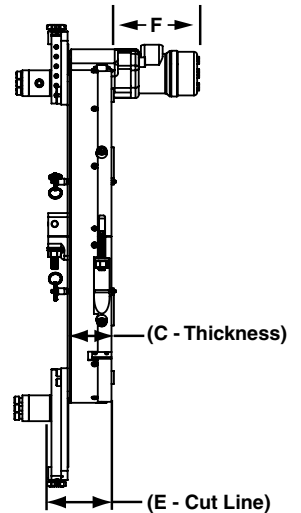
Item No.	Part No.	Description	Quantity
1	215-2151	Fill Cap	1
2	215-2152	Fill Cap O-Ring	1
3	215-2153	Upper Cover	1
4	215-2154	Sight Dome Housing	1
5	215-2155	Outer Sight Dome	1
6	215-2156	Inner Sight Dome O-Ring	1
7	215-2157	Nozzle Sheet	1
8	215-2158	Outer Sight Dome O-Ring	1
9	215-2159	Inner Sight Dome	1
10	215-2160	Lubricator Body	1
11	215-2161	Damper Guide Gasket	1
12	215-2162	Check Ball O-Ring	1
13	215-2163	Steel Ball, Large	1
14	215-2164	Spring	1
15	215-2165	Bolt	3
16	215-2166	Damper	1
17	215-2167	Damper Guide	1
18	215-2168	Sight Cover	1
19	215-2169	Bolt	2
20	215-2170	Sight Plate	1
21	215-2171	Sight Plate Gasket	1
22	215-2172	Lubricator Bowl	1
23	215-2173	Siphon Tube	1
24	215-2174	Bowl O-Ring	1
25	215-2175	C-Bracket	1

Dimensional Specifications



C = 2.3" 58.4 mm
 D = 1.5" 38.1 mm
 E = 3.3" 83.8 mm

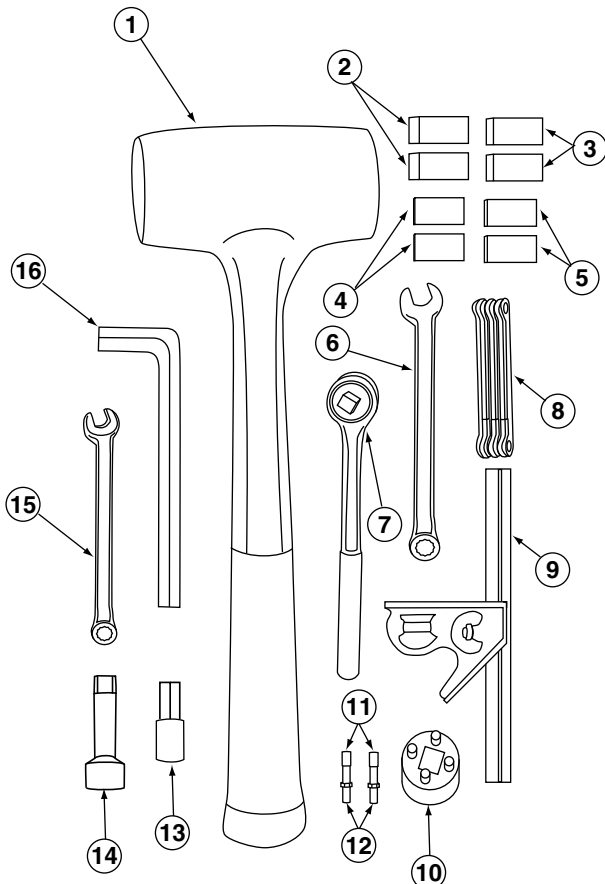
F =
 Pneumatic = 2.670" 67.8 mm
 Electric = 5.5" 139.7 mm



Model	Working Range	A	B	1" Slide Swing	Pads
MFC-2	.625" - 2.625"	5.773"	2.625"	5.634"	4
	mm 15.9 - 66.7	146.6	66.7	143.1	

*The MFC's design is unique and has substantially different parts and accessories than the AFC and BFC. The drawings above do not reflect the actual appearance of the MFC and are intended solely for transmitting dimensional data.

Tool Kit Assembly Part No. 400-2000



Item No.	Part No.	Description	Quantity
1	400-1010	Hammer, 3 lb. (1.4 kgs.)	1
2	400-2004	Blade Shim, 1/16"	2
3	400-2005	Blade Shim, 1/8"	2
4	400-2006	Blade Shim, 1/4"	2
5	400-2007	Blade Shim, 3/8"	2
6	400-2009	Combination Wrench, 9/16"	1
7	400-1012	Ratchet, 3/8"	1
8	400-1023	Hex Key Fold Up Set	1
9	400-2008	Square, 6"	1
10	400-2010	Trip Wheel Socket	1
11	500-1001	Tripper Pin	2
12	500-1002	1/4"-20 Hex Nut	2
13	400-1016	Hex Bit, 3/8"	1
14	400-1015	Ratchet Extension, 3/8"	1
15	400-1014	Combination Wrench, 7/16"	1
16	400-1022	Hex Key Long Arm, 3/8"	1