



**Warning: read operators manual before attempting to operate machine**  
(Be sure the machine is connected to a suitable power source before switching power on!)

## **Programming Instructions for Models MB-42, SB-48, TB-60, TB-76 & ERD-3000**

1. Switch the power to the **(ON)** position.
2. The display will read: "Forward C.Bending Die"
3. Depress **(CURSOR)** button on touch pad. The display will read "Data Entry" Select (+) = YES Depress (+) **(PLUS)** Display will now read "P.1" or similar. This number refers to the program number. You may depress (+) **(PLUS)** button on touch pad to select the program to edit.
4. Hold (-) **(MINUS)** key down for five seconds. This erases all data within selected program.
5. Enter a new degree of bend using (+) **(PLUS)** or (-) **(MINUS)** keys to enter the desired angle. You may also use pre-set degree buttons to enter degree of bend.
6. Depress **(ENTER)** button once to store the bend angle.
7. The display will prompt you to enter another bend angle within the same program. If you desire additional bends within the same program, you may input them in the same manner. If no additional bends are required depress **(ENTER)**.
8. The display will now indicate the program number you edited. (Example P.1)
9. Depress **(ENTER)** button again and the display returns to the normal operating screen.

## **Programming Instructions for MegaBender® 030**

1. Switch the machine to the **(ON)** position.  
The display will read "Forward C. Bend Die" or similar  
Mm 000.0 P1.1 090

2. Depress the **(MENU)** button  
The display will read "MAIN MENU"  
1 -DATA ENTRY MODE

3. Depress the **(ENTER)** button  
The display will read "GRP RPM" or similar  
1 1.52

The "GRP" refers to the program number. You may depress the (+) **(PLUS)** or (-) **(MINUS)** buttons to change the "GRP" or program number.

The display will periodically flash the following message:  
"TO INPUT DATA PUSH FOR 3 SECONDS"

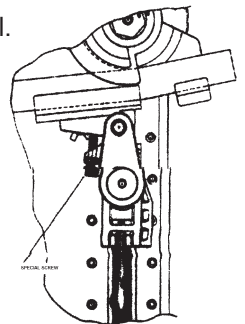
4. Press the (\*) button for 3 seconds once you have selected the desired program number. Display will read "Angle 000 Bend 1."
5. Press the (+) **(PLUS)** or (-) **(MINUS)** keys to enter the desired bend angle.
6. Press **(ENTER)** when finished entering the first bend within the program.

The machine display will prompt to enter another angle within the same program. If you desire additional bends within that "GRP" or program, you may input them in the same manner as mentioned above.

7. If no additional bends are required, press **(ENTER)**  
The display will momentarily read "END OF DATA ENTRY"  
The display will now show "GRP RPM" or similar  
1 1.52

## **Setting the springback and finishing the bend**

1. Load material into former and move counterbending die vise assembly forward until die contacts material.  
Note: counter bending die axis is equipped with an encoder. This axis must be set to zero before the machine will operate. Depress **(ENTER)** button once to zero this axis. (Note: Always place material with the weld-seam up to neutralize the seam. Also, the counterbending die needs to be lubricated using Ercolina® spray grease Part number PAR 811 prior to bending.)
2. Material springback must be set at this time. Depress **(BEND)** button on touch-pad or use the **(BEND)** pedal until material begins to deflect, refer to diagram. Release the **(BEND)** button.
3. View LCD display and record angle. The number of degrees it took to make the material deflect is shown on the display. This value is the material springback. Depress **(ENTER)** button once and the program automatically compensates for the springback value.
4. Tighten large socket set screw on the side of the vise assembly until it contacts the back of the support bracket. The springback value has been set for the first bend within the sequence only. Springback value must be programmed for each bend within the program.
5. Depress **(BEND)** button or **(BEND)** pedal and finish bending process. The machine will automatically stop at programmed bend angle.
6. Depress **(RETURN)** button or **(RETURN)** pedal to return former and material to the starting position.



**Ercolina® by CML USA Inc.**

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**Beware of Imitations!**

# Round Tube Tooling

Pipe size	Outside Diameter	Minimum CLR	Wall Thickness	Former Part#	Counter Bend Part#
1/4"	.250	1.4 / 36mm	.039	T00-153RO36T0250	T00-154T0250
3/8"	.375	1.4 / 36mm	.039	T00-153RO36T0375	T00-154T0375
1/2"	.500	1.4 / 36mm	.039	T00-153RO36T0500	T00-154T0500
5/8"	.625	1.4 / 36mm	.039	T00-153RO36T0625	T00-154T0625
5/8"	.625	1.8 / 46mm	.079	T00-153RO46T0625	T00-154T0625
3/4"	.750	1.8 / 46mm	.079	T00-153RO46T0750	T00-154T0750
3/4"	.750	2.2 / 56mm	.059	T00-153RO56T0750	T00-154T0750
3/4"	.750	2.6 / 67mm	.039	T00-153RO67T0750	T00-154T0750
7/8"	.8750	1.8 / 46mm	.079	T00-153RO46T0875	T00-154T0875
7/8"	.8750	2.2 / 56mm	.059	T00-153RO56T0875	T00-154T0875
7/8"	.8750	2.6 / 67mm	.039	T00-153RO67T0875	T00-154T0875
1"	1.000	2.2 / 56mm	.079	T00-153RO56T1000	T00-154T1000
1"	1.000	2.6 / 67mm	.059	T00-153RO67T1000	T00-154T1000
1"	1.000	3.2 / 82mm	.039	T00-153RO82T1000	T00-154T1000
1-1/8"	1.125	2.2 / 56mm	.098	T00-153RO56T1125	T00-154T1125
1-1/8"	1.125	2.6 / 67mm	.079	T00-153RO67T1125	T00-154T1125
1-1/8"	1.125	3.2 / 82mm	.039	T00-153RO82T1125	T00-154T1125
1-1/4"	1.250	2.6 / 67mm	.098	T00-153RO67T1250	T00-154T1250
1-1/4"	1.250	3.2 / 82mm	.079	T00-153RO82T1250	T00-154T1250
1-1/4"	1.250	4.4 / 112mm	.039	T00-153R112T1250	T00-154T1250
1-3/8"	1.375	3.2 / 82mm	.079	T00-153R112T1375	T00-154T1375
1-3/8"	1.375	4.4 / 112mm	.039	T00-153R112T1375	T00-154T1375
1-1/2"	1.500	3.5 / 90mm	.118	T00-153R090T1500	T00-154T1500
1-1/2"	1.500	3.9 / 100mm	.079	T00-153R100T1500	T00-154T1500
1-1/2"	1.500	4.4 / 112mm	.079	T00-156R100T1500	T00-154T1500
1-1/2"	1.500	5.1 / 130mm	.059	T00-153R130T1500	T00-154T1500
1-1/2"	1.500	5.9 / 150mm	.047	T00-153R150T1500	T00-154T1500
1-1/2"	1.500	6.7 / 170mm	.039	T00-156R170T1500	T00-154T1500
1-1/2"	1.500	7.5 / 190mm	.039	T00-153R190T1500	T00-154T1500
1-5/8"	1.625	3.5 / 90mm	.118	T00-153R090T1625	T00-154T1625
1-5/8"	1.625	3.9 / 100mm	.079	T00-153R100T1625	T00-154T1625
1-5/8"	1.625	5.1 / 130mm	.059	T00-153R130T1625	T00-154T1625
1-5/8"	1.625	5.9 / 150mm	.047	T00-153R150T1625	T00-154T1625
1-5/8"	1.625	6.7 / 170mm	.039	T00-156R170T1625	T00-154T1625
1-5/8"	1.625	7.5 / 190mm	.039	T00-153R190T1625	T00-154T1625

Pipe size	Outside Diameter	Minimum CLR	Wall Thickness	Former Part#	Counter Bend Part#
1-3/4"	1.750	3.9 / 100mm	.118	T00-153R100T1750	T00-154T1750
1-3/4"	1.750	5.1 / 130mm	.098	T00-153R130T1750	T00-154T1750
1-3/4"	1.750	5.9 / 150mm	.098	T00-156R150T1750	T00-154T1750
1-3/4"	1.750	6.7 / 170mm	.059	T00-153R170T1750	T00-154T1750
1-3/4"	1.750	7.5 / 190mm	.039	T00-153R190T1750	T00-154T1750
1-7/8"	1.875	3.9 / 100mm	.118	T00-153R100T1875	T00-154T1875
1-7/8"	1.875	5.1 / 130mm	.098	T00-153R130T1875	T00-154T1875
1-7/8"	1.875	5.9 / 150mm	.079	T00-156R150T1875	T00-154T1875
1-7/8"	1.875	6.7 / 170mm	.059	T00-153R170T1875	T00-154T1875
1-7/8"	1.875	7.5 / 190mm	.039	T00-153R190T1875	T00-154T1875
2"	2.000	4.7 / 120mm	.118	T00-153R120T2000	T00-154T2000
2"	2.000	5.1 / 130mm	.118	T00-156R130T2000	T00-154T2000
2"	2.000	5.9 / 150mm	.098	T00-153R150T2000	T00-154T2000
2"	2.000	6.7 / 170mm	.079	T00-156R170T2000	T00-154T2000
2"	2.000	7.5 / 190mm	.059	T00-153R190T2000	T00-154T2000
2-1/8"	2.125	4.7 / 120mm	.138	T00-153R120T2125	T00-154T2125
2-1/8"	2.125	5.1 / 130mm	.118	T00-153R130T2125	T00-154T2125
2-1/8"	2.125	5.9 / 150mm	.079	T00-153R150T2125	T00-154T2125
2-1/8"	2.125	6.7 / 170mm	.079	T00-156R170T2125	T00-154T2125
2-1/8"	2.125	7.5 / 190mm	.059	T00-153R190T2125	T00-154T2125
2-1/4"	2.250	5.1 / 130mm	.118	T00-153R130T2250	T00-154T2250
2-1/4"	2.250	5.9 / 150mm	.098	T00-153R150T2250	T00-154T2250
2-1/4"	2.250	6.7 / 170mm	.079	T00-156R170T2250	T00-154T2250
2-1/4"	2.250	7.5 / 190mm	.079	T00-153R190T2250	T00-154T2250
2-3/8"	2.375	5.1 / 130mm	.118	T00-153R130T2375	T00-154T2375
2-3/8"	2.375	5.9 / 150mm	.098	T00-153R150T2375	T00-154T2375
2-3/8"	2.375	6.7 / 170mm	.079	T00-156R170T2375	T00-154T2375
2-3/8"	2.375	7.5 / 190mm	.079	T00-153R190T2375	T00-154T2375
2-1/2"	2.500	8.9 / 225mm	.079	T00-157R225T2500	T00-154T2500
2-1/2"	2.500	9.8 / 250mm	.079	T00-157R250T2500	T00-154T2500
2-1/2"	2.500	10.2 / 260mm	.059	T00-157R260T2500	T00-154T2500
2-1/2"	2.500	11.8 / 300mm	.049	T00-157R300T2500	T00-154T2500
3"	3.000	9.8 / 250mm	.156	T00-157R250T3000	T00-154T3000
3"	3.000	10.2 / 260mm	.118	T00-157R260T3000	T00-154T3000
3"	3.000	11.8 / 300mm	.079	T00-157R300T3000	T00-154T3000

## Pipe Tooling

Pipe size	Outside Diameter	CLR	Schedule Wall Thickness	Former Part#	Counter Bend Part#
1/4"	.520	1.4 / 36mm	40 / .088	T00-153RO36P0250	T00-155P0250
3/8"	.680	1.4 / 36mm	40 / .091	T00-153RO36P0375	T00-155P0375
3/8"	.680	2.2 / 56mm	10 / .065	T00-153RO56P0375	T00-155P0375
1/2"	.840	1.8 / 46mm	40 / .109	T00-153RO46P0500	T00-155P0500
1/2"	.840	2.2 / 56mm	10 / .083	T00-153RO56P0500	T00-155P0500
1/2"	.840	2.6 / 67mm	5 / .065	T00-153RO67P0500	T00-155P0500
3/4"	1.050	2.2 / 56mm	40 / .113	T00-153RO56P0750	T00-155P0750
3/4"	1.050	2.6 / 67mm	10 / .083	T00-153RO67P0750	T00-155P0750
3/4"	1.050	3.2 / 82mm	5 / .065	T00-153RO82P0750	T00-155P0750
1"	1.315	2.6 / 67mm	40 / .133	T00-153RO67P1000	T00-155P1000
1"	1.315	3.2 / 82mm	10 / .109	T00-153RO82P1000	T00-155P1000
1"	1.315	4.4 / 112mm	5 / .065	T00-153R112P1000	T00-155P1000
1-1/4"	1.660	3.5 / 90mm	40 / .140	T00-153RO90P1250	T00-155P1250
1-1/4"	1.660	3.9 / 100mm	40 / .140	T00-153R100P1250	T00-155P1250
1-1/4"	1.660	5.1 / 130mm	10 / .109	T00-153R130P1250	T00-155P1250
1-1/4"	1.660	5.9 / 150mm	5 / .065	T00-153R150P1250	T00-155P1250
1-1/4"	1.660	7.5 / 190mm	5 / .065	T00-153R190P1250	T00-155P1250
1-1/2"	1.900	3.9 / 100mm	40 / .145	T00-153R100P1500	T00-155P1500
1-1/2"	1.900	5.1 / 130mm	40 / .145	T00-153R130P1500	T00-155P1500
1-1/2"	1.900	5.9 / 150mm	40 / .145	T00-153R150P1500	T00-155P1500
1-1/2"	1.900	6.7 / 170mm	10 / .109	T00-153R170P1500	T00-155P1500
1-1/2"	1.900	7.5 / 190mm	5 / .065	T00-153R190P1500	T00-155P1500
2"	2.375	5.1 / 130mm	40 / .154	T00-153R130P2000	T00-155P2000
2"	2.375	5.9 / 150mm	10 / .098	T00-153R150P2000	T00-155P2000
2"	2.375	7.5 / 190mm	5 / .079	T00-153R190P2000	T00-155P2000
2-1/2"	2.875	9.8 / 250mm	40 / .203	T00-157R250P2500	T00-155P2500
2-1/2"	2.875	10.2 / 260mm	10 / .098	T00-157R260P2500	T00-155P2500
2-1/2"	2.875	11.8 / 300mm	5 / .079	T00-157R300P2500	T00-155P2500

## Square Tube Tooling

Tube size	Outside Diameter	CLR	Minimum Wall Thickness	Former Part#	Counter Bend Part#
3/8"	.3750	1.4	.065	T00-1582AR0360375	T00-1591A0375
3/8"	.3750	1.8	.049	T00-1582AR0460375	T00-1591A0375
1/2"	.5000	1.4	.065	T00-1582AR0360500	T00-1591A0500
1/2"	.5000	1.8	.049	T00-1582AR0460500	T00-1591A0500
5/8"	.6250	1.4	.065	T00-1582AR0360625	T00-1591A0625
5/8"	.6250	1.8	.049	T00-1582AR0460625	T00-1591A0625
5/8"	.6250	2.6	.039	T00-1583AR0670625	T00-1591A0625
3/4"	.7500	1.8	.120	T00-1582AR0460750	T00-1591A0750
3/4"	.7500	2.6	.065	T00-1583AR0670750	T00-1591A0750
7/8"	.8750	2.6	.120	T00-1583AR0670875	T00-1591A0875
7/8"	.8750	3.2	.065	T00-1583AR0820875	T00-1591A0875
7/8"	.8750	4.4	.049	T00-1586AR1120875	T00-1591A0875
1"	1.000	3.0	.120	T00-1583AR0761000	T00-1591A1000
1"	1.000	3.2	.120	T00-1583AR0821000	T00-1591A1000
1"	1.000	3.9	.065	T00-1585AR1001000	T00-1591A1000
1"	1.000	4.4	.078	T00-1586AR1121000	T00-1591A1000
1"	1.000	5.1	.083	T00-1587AR1301000	T00-1591A1000
1"	1.000	5.9	.049	T00-1588AR1501000	T00-1591A1000
1-1/4"	1.250	5.1	.120	T00-1587AR1301250	T00-1591A1250
1-1/4"	1.250	5.9	.109	T00-1588AR1501250	T00-1591A1250
1-1/4"	1.250	6.6	.095	T00-1589AR1701250	T00-1591A1250
1-1/4"	1.250	7.4	.083	T00-15810AR1901250	T00-1591A1250
1-1/2"	1.500	5.9	.120	T00-1588AR1501500	T00-1591A1500
1-1/2"	1.500	6.6	.109	T00-1589AR1701500	T00-1591A1500
1-1/2"	1.500	7.4	.095	T00-15810AR1901500	T00-1591A1500
2"	2.000	5.9	.120	T00-1588AR1502000	T00-1591A2000
2"	2.000	6.6	.109	T00-1589AR1702000	T00-1591A2000
2"	2.000	7.4	.095	T00-15810AR1902000	T00-1591A2000

NOTE: Larger materials may slip slightly in former during bend cycle.