# DIGI BENDER

## OVERVIEW

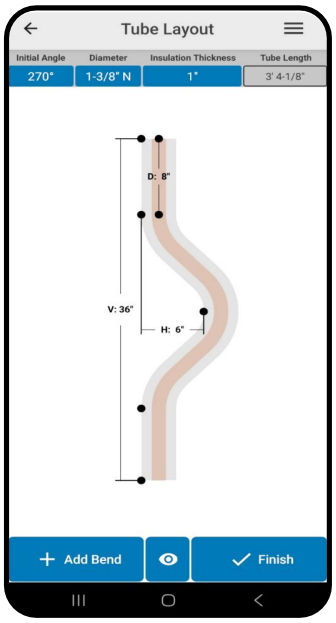
### PRODUCT

The Reftekk Digi-Bender can be used to field-bend Soft (O60) and Half-Hard (H55) ACR-L copper tubing. Using a tubing bender provides several advantages, including fewer brazes, reduced leak potential, lower pressure drop, greater installation flexibility, and no need for expensive elbow fittings. The Reftekk bending app for Android and iOS is an invaluable tool that simplifies the bending process.
The Reftekk Digi-Bender has formers available to bend 1/4"-1-3/8".


### FEATURES

**Bending Consistency**: Springback is a standard aspect of bending that must be taken into account for precision bending, and the amount of springback is sensitive to a number of factors (wall-thickness, eccentricity, temper). Reftekk improves springback consistency by maintaining strict manufacturing tolerances on these critical factors.

**Mobile Bending App:** Reftekk's bending app for Android and iOS quickly and easily allows the user to design and dimension their desired piping configuration with multiple in-plane bends. The app then provides the needed information to accurately bend what was just designed.




**CAD Assisted & Pre-Calibrated Bending:** Precision bending is easy with Reftekk's Bend Designer, a free-to-use mobile app for both Android and iOS. The app acts as a CAD software that allows users to design and dimension bent tubing layouts. When ready to bend, the app accounts for springback of Reftekk tubing with built-in bending calibrations for specific combinations of benders and tube sizes.

**Easily Make Accurate Bends:** Using the digital LED screen and scroll wheel, the Digi-Bender features the ability to pre-set the desired bend angle, resulting in a precise and repeatable bend with each use.


**No Need for Expensive Elbow Fittings:** With the capability of field-bending tubing on the fly, store-bought elbows are no longer needed.

**Fewer Brazes = Fewer Leaks:** By taking full advantage of field-bending, multiple bends can be made in a single stick of copper tubing. Each field-bent elbow eliminates (2) brazes associated with traditional elbow fittings. Fewer brazed joints reduces the potential for leaks.

**Proper Bend Radius:** The bend radii of the back-formers have been designed to keep the resulting elongation of the tubing well under the minimum manufactured elongation specification of 25% for Half-Hard (H55) copper tubing.

**Lower Pressure Drop:** The longer bend radii result in significantly and noticeably lower pressure drops when compared to the tight bend radii of "long-radius elbow" fittings.

**Scan the QR code to see training and product videos, view the manual, and download the Bending App.**

### ⚠ CAUTION

- Only use with soft (annealed, O60 or R220 temper) or bendable quality (H55 or R250 temper) copper tubing. **DO NOT USE with hard (H58 Temper)copper tubing.**
- Store at room temperature in dry location.

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## Additional Information

### ORDERING INFORMATION

| Category | Part Number | Digi-Bender v1 | Digi-Bender v2 | Case (old) | Case (new) | Tripod | Pin | Formers and Counterbend Dies *Tube Size (Theoretical CLR)* | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | 1/4" (3.5) | 3/8" (3.5) | 1/2" (3.5) | 5/8" (2.5) | 5/8" (3.5) | 3/4" (3) | 3/4" (3.5) | 7/8" (3.5) | 1-1/8" (4.5) | 1-3/8" (4.81) | 1-3/8" (4.95) |
| Bender Kits | TBR-DBKIT0511-1A | | ✓ | | ✓ | ✓ | ✓ | | | | ✓ | | ✓ | | ✓ | ✓ | | ✓ |
| | TBR-DBKIT0511-1B | | ✓ | | ✓ | ✓ | ✓ | | | | | ✓ | | ✓ | ✓ | ✓ | | ✓ |
| | TBR-DBKIT0211-2A | | ✓ | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | ✓ | | ✓ | ✓ | | ✓ |
| | TBR-DBKIT0211-2B | | ✓ | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | ✓ | | ✓ | ✓ | ✓ | | ✓ |
| Former Kits | TBR-FMKIT0204-1B | | | | | | | ✓ | ✓ | ✓ | | | | | | | | |
| | TBR-FMKIT0206-2B | | | | | | | ✓ | ✓ | ✓ | | ✓ | | ✓ | | | | |
| | TBR-FMKIT11D36 | | | | | | | | | | | | | | | | | ✓ |
| Case | TBR-KITCASE | | | | ✓ | | | | | | | | | | | | | |
| Old Kit[1] | TBR-DIGIBNDR | ?[1] | | ?[1] | | ✓ | ✓ | | | | ✓ | | ✓ | | ✓ | ✓ | ?[1] | |

1) The old kit is no longer available. These kits shipped in a variety of configurations which included either of the possible options indicated by each of the "?" symbols.

### New DIGI-BENDER Case

New case has eight slots for formers and dies, one slot per tube size 1/4"-1-3/8" and can accommodate either of the 5/8" and 3/4" CLR options.

### Old DIGI-BENDER Case

Old case has five slots for formers and dies, one slot per tube size 5/8"-1-3/8" and only accommodate the 4D CLR options for 5/8" and 3/4".

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## SPECIFICATIONS

### GENERAL

| Aspect | Details |
|---|---|
| Voltage | A.C. 110-120 V ~ 50-60 Hz |
| Power Input | 1700W |
| Materials Approved for Bending | Soft (annealed, O60 or R220 Temper) or bendable quality (H55 or R250 Temper) copper tubing |
| Bendable Angle Range | 1° to 190° |

### FORMER DETAILS

| Tube OD | Identifying Marker | Centerline Bend Radius (CLR) | | | Part Number | | Status |
|---|---|---|---|---|---|---|---|
| | | Theoretical[1] | | As Measured[3] (inches) | Backformer w/ Hook | Counterbend Die | |
| | | OD Ratio[2] | (inches) | | | | |
| 1/4" | R=3.5" | 14 | 3.5 | 3.78 | TBR-BF02R88 | TBR-SH02R88 | |
| 3/8" | R=3.5" | 9.33 | 3.5 | 3.66 | TBR-BF03R88 | TBR-SH03R88 | |
| 1/2" | R=3.5" | 7 | 3.5 | 3.66 | TBR-BF04R88 | TBR-SH04R88 | |
| 5/8" | 4D | 4 | 2.5 | 2.58 | TBR-BF05R64 | TBR-SH05R64 | |
| 5/8" | R=3.5" | 5.6 | 3.5 | 3.56 | TBR-BF05R88 | TBR-SH05R88 | |
| 3/4" | 4D | 4 | 3 | 3.06 | TBR-BF06R77 | TBR-SH06R77 | |
| 3/4" | R=3.5" | 4.67 | 3.5 | 3.63 | TBR-BF06R88 | TBR-SH06R88 | |
| 7/8" | 4D | 4 | 3.5 | 3.53 | TBR-BF07R88 | TBR-SH07R88 | |
| 1-1/8" | 4D | 4 | 4.5 | 4.56 | TBR-BF09R115 | TBR-SH09R115 | |
| 1-3/8" | 3.5D | 3.5 | 4.81 | 4.88 | TBR-BF11R123 | TBR-SH11R123 | L, U |
| 1-3/8" | 3.6D | 3.6 | 4.95 | 5.08 | TBR-BF11R126 | TBR-SH11R126 | |

1) The theoritcal CLR is based solely on the geometry of the bending formers and ignores tubing spring back.
2) The OD Ratio is the theoretical CLR divided by the Tube OD, often expressed as number of diameters [OD Ratio]D or #D.
3) The measured CLR is approximate and represents the resulting CLR with spring back accounted for.
L = Legacy
U = Unavailable

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