



ExpanTek<sup>®</sup>

"UNPARALLELED PERFORMANCE AND SAFETY UNDER PRESSURE!" ®



# Model 35 Series Tube Expansion Tools

- Pressures up to 15,000 psi (1,034 bar)
- 0.24 in. to 1.00 in. OD (6.0 mm to 25.4 mm OD)
- Seals plain end-tubing
- Collet grip and seal on tube OD
- Spring actuated grip release

#### DESCRIPTION

The ExpanTek® Model 35 Series Expansion Tool offers fast, snap-on coupling and positive sealing for high-pressure expansion of tubing or pipe. When used with a high-pressure power source, this tool will quickly expands tubing for HVAC applications and tubular assemblies. The tool can be used with a variety of services including water, oil, and other fluids.

This precision-machined tool is made from heat-treated stainless steel to provide long, trouble-free service for highpressure expansion applications. Its compact, balanced design is beneficial for applications with limited space area.

The Model 35 Series Tool handles standard and metric tube, pipe, and fitting sizes from 0.24 in. to 1.00 in. (6.0 mm to 25.4 mm) in diameter. Special tube sizes and tool configurations will be considered upon request.

#### **OPERATION**

Connect the Model 35 Tool to the pressure line using the optional NuQuip<sup>®</sup> Automatic Air-Bleed Valve attached on the cap side of the tool. Push the tube into the tool until pressed against the internal stop. The collets are activated for positive grip when the service line is pressurized to approximately 50 psi (3.4 bar). Continue to pressurize the tube until desired expansion is reached, *but do not exceed maximum operating pressure*. After the tube expands and the service line pressure drops to 0 psi/bar, the collets will automatically release for quick removal of the tool from the tube.

#### APPLICATION

The ExpanTek<sup>®</sup> Model 35 Series Tube Expansion Tool is a snap-on tool suitable for high-pressure expansion of tubing or pipe with standard OD tolerances and maximum working pressure up to 15,000 psi (1,034 bar). This unique tool when used with a high-pressure system will rapidly expand tubing for refrigeration coils, boilers, tubular assemblies, and many other applications.

#### MATERIALS

Body and Collets: Heat-treated, stainless steel

#### **OPERATION**

| Collet Grip and Seal: | On tube OD                   |
|-----------------------|------------------------------|
| Gripping:             | Normally-open                |
|                       | Spring actuated grip release |

#### **OPERATING CONDITIONS**

| Maximum Pressure: | 15,000 psi (1,034 bar)          |  |  |  |  |  |
|-------------------|---------------------------------|--|--|--|--|--|
| Temperature:      | 32° F to 120° F (0° C to 49° C) |  |  |  |  |  |
| Services:         | Water, oil, and other fluids    |  |  |  |  |  |
| Tube OD Range:    | 0.24 in. to 1.00 in.            |  |  |  |  |  |
|                   | (6.0 mm to 25.4 mm)             |  |  |  |  |  |
| OD Tolerance:     | Standard tube tolerances        |  |  |  |  |  |

#### MAXIMUM PRESSURE 15,000 psi 1,034 bar

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| Tube OD Range* |      | Overall Body |                 | dy     | Minimum |        | Minimum Tube |        | Standard |        |                  |        |      |          |
|----------------|------|--------------|-----------------|--------|---------|--------|--------------|--------|----------|--------|------------------|--------|------|----------|
| Inches MM      |      | Len          | Length Diameter |        | Orifice |        | Swallow      |        | Stop     |        | Standard<br>Port |        |      |          |
| Min.           | Max. | Min.         | Max.            | Inches | ММ      | Inches | ММ           | Inches | ММ       | Inches | ММ               | Inches | MM   | TOIL     |
| 0.24           | 0.39 | 6.0          | 9.9             | 6.91   | 175.4   | 1.00   | 25.4         | 0.19   | 4.7      | 0.46   | 11.7             | 0.75   | 19.1 | 1/4″ NPT |
| 0.39           | 0.49 | 9.9          | 12.5            | 6.35   | 161.2   | 1.25   | 31.8         | 0.31   | 7.9      | 0.46   | 11.7             | 0.75   | 19.1 | 3/8″ NPT |
| 0.50           | 0.63 | 12.6         | 16.0            | 7.36   | 186.9   | 1.44   | 36.5         | 0.44   | 11.1     | 0.46   | 11.7             | 0.75   | 19.1 | 3/8″ NPT |
| 0.63           | 0.75 | 16.0         | 19.1            | n/a    | n/a     | 1.75   | 44.5         | 0.56   | 14.3     | 0.46   | 11.7             | 0.75   | 19.1 | 3/8″ NPT |
| 0.75           | 1.00 | 19.1         | 25.4            | 9.14   | 232.1   | 2.25   | 57.2         | 0.56   | 14.3     | 0.96   | 24.4             | 1.25   | 31.8 | 3/8″ NPT |

### **Model 35 Series Tool Specifications**

\* Note: Tools are designed for a dedicated tube diameter and do not cover the entire range noted at each size. A single tube OD must be specified for the collet set.

> Special Configurations Available Upon Request Automatic Air-Bleed Valve Recommended for Optimal Performance

#### FEATURES

- Seals plain end tubing
- Full-flow, high pre fill rate
- Predetermined internal tube stops requires no measuring
- Special collet design locking principle
- Automatic collet release
- Pressure-compensated design
- Built-in tube end tolerances require no square cut ends
- Compact, balance design
- Precision-machined from heat-treated stainless steel
- Designed for tube expansion applications
- Use with optional NuQuip® Automatic Air-Bleed Valve

#### BENEFITS

- Positive sealing for high-pressure expansion Decreases cycle time Ensures proper tube depth engagement Adapts to shorter length tube or pipe (0.68 in., 17.3 mm) Fast tool removal after each operation Contains all high-pressure loads for safe operation Efficient operation saves time Ease of use in limited space applications Provides long, trouble-free service
- Tools can be used with different test media
- Eliminates operator attendance during fill cycle



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