

# ace COIL WINDING

Pneumatic Tension Device with Manual Traversing & Indexing

## MODEL 4822

### DESIGN

ACE Model 4822 is an assembly consisting of a pneumatic Model 48 Tension Device mounted on a stand with Linear Slides to assist in manual operator control. It is designed to reduce coil insertion time in each slot of your winding fixtures. It also can layer wind single or multiple strands of round wire, and/or multiple wires of square or rectangular wire, parallel or stacked. Set the tension by merely adjusting the pneumatic regulator on top of the housing to a max. operating pressure of 100 P.S.I.

**Speed up and simplify layer winding and field winding coils using your present winding forms and winding machine.**

### THE WAY IT WORKS

The operator can manually move the Tension Device housing to a standard maximum travel distance of 9" (up to 96" optional).

This versatile tension and wire guiding system assists the operator in producing AC and DC quality layer wound and field coils under tension at high speeds. By design, it's simple, easy to understand in a few minutes, and easy to operate.



Illustrates Model 4822 4" Wide Tension Device Mounted on 9" traversing slides

### Field Coil Winding

An optional Indexing system is supplied with 1/4" Dia. holes 1" apart (standard). Customer may easily install other indexing plates designed with holes for their winding fixtures. Merely press the **Indexing Wire Guide** button to move the device from hole to hole (slot to slot on your winding fixture).

### Layer Winding

The slightest linear movement of the wire, as it passes through the tension housing, results in an equal linear movement of the tension housing. Linear movement of the tension housing assists the operator in positioning the wire on the coil of your rotating winding fixture for layer winding to help reduce crossovers. The low coefficient of friction between the tension housing and linear slides permits the almost freely floating tension housing to precisely track the smallest linear motion of the wire for layer winding a coil.

### Complete Winding Systems

The Model 4622 or 4822 can be configured with other ACE winding components to create a complete coil winding and tension system.....

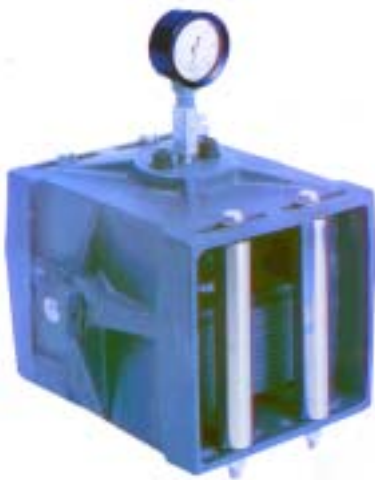


<b>MATERIAL CAPACITY</b>	Round and Formed Wire
<b>DIMENSIONS</b>	26"W x 26"D x 49"H
<b>NET WEIGHT</b>	400Lbs.
<b>GROSS WEIGHT</b>	450 Lbs.

**ace** Since 1919  
**ACE Equipment Company**  
 4725 Manufacturing Road  
 Cleveland, Ohio 44135  
 800-255-1241\*PH216-267-6366\*FAX216-267-4361  
 email: [info@armaturecoil.com](mailto:info@armaturecoil.com)  
[www.armaturecoil.com](http://www.armaturecoil.com)

# MODEL 4822

## COMPONENT FEATURES



*Illustrates Model 48 Base Unit Manual Pneumatic Tension Device*

### FUNCTION

The Model 48 Tension Device is designed particularly for handling multiple round, square, rectangular or flat wires used in group, loop or transformer winding operations. Controlled pressure is applied to the wire as it passes between pressure plates. These plates will not tear or damage the insulation on the wires.

A heavy duty housing is provided for the pressure plates. High density plastic plates are installed between two steel plates. These plastic plates resist abrasion and heat and will not damage enamel, DDG, Nomex or other insulations on the wire.

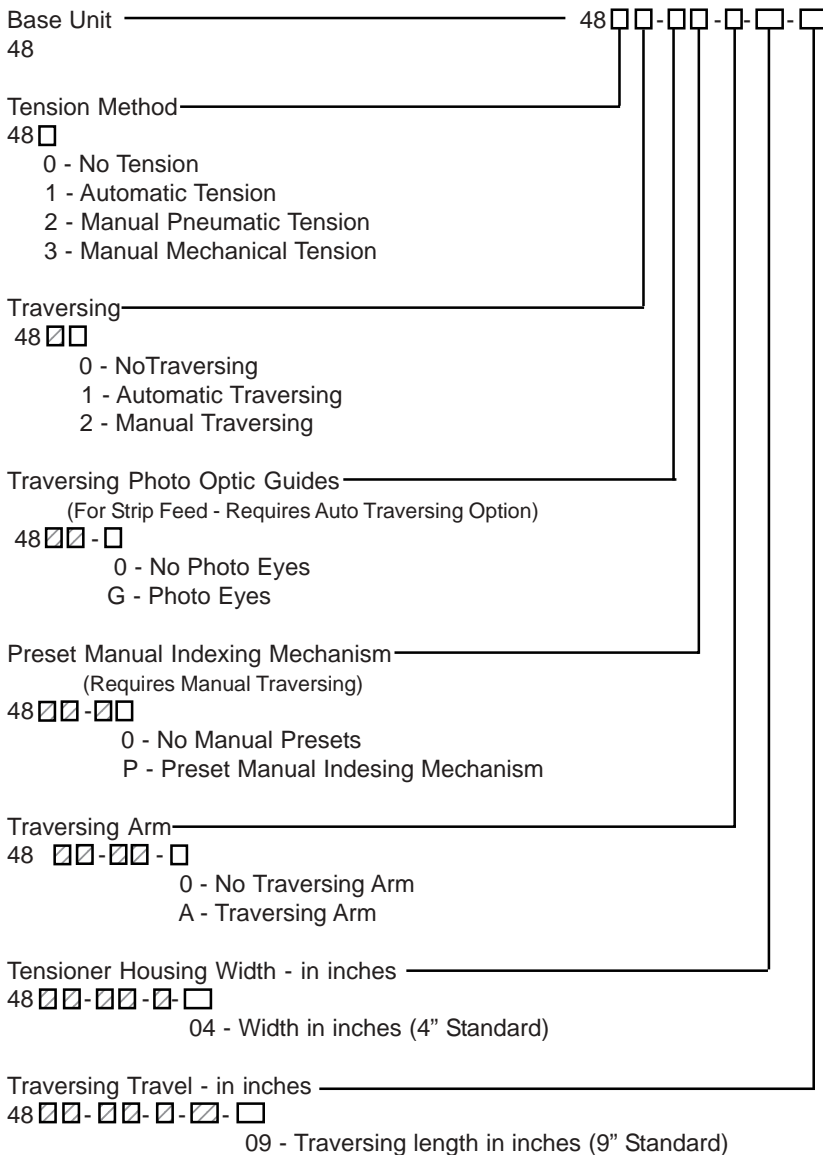
### TENSION DEVICE

**TENSION HOUSING, TENSION PLATES, PNEUMATIC ACTUATOR AND WIRE GUIDE ROLLERS**  
The Tension Housing contains the mechanical elements of the Tension Device. A Pneumatic Actuator provides the necessary downward pressure on the Tension Plates during winding. At completion of the winding operation, tension on the plates can be relieved with a manual valve making it possible to easily pull the material through the plates by hand. An opening, located in the rear of the Housing, permits easy replacement of the durable Tension Plates.

Two steel wire guide rollers fastened to the front and two more in the back of the Tension Housing, guide the wire(s) into and out of the Tension Device. The standard spacing between the rollers is infinitely adjustable from 0 to 4 inches. Additional roller can be installed by the customer.

The Tension Device is supplied with a pressure regulator, filter, gauge, on-off air valve and connecting air hoses with fittings. Longer life may be gained from work Tension Plates by turning them 90° and by flipping them over. This is easily accomplished by removing the two rear Wire Guide Rollers

### 4800 Series Part Number Codes



*Illustrates Model 4822-00-A-04-09 with optional traversing arm with variable & fixed pitch sheaves for round and formed wire*