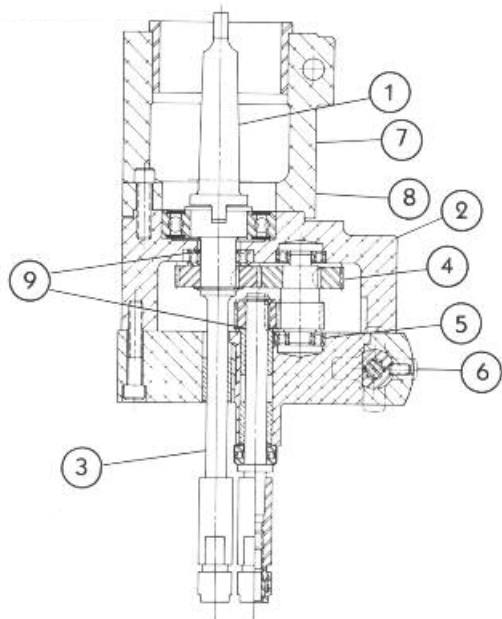


*Designers & Manufacturers of Drilling & Tapping Solutions*

## 102 SERIES Single Eccentric Adjustable Drill and Tap Heads With Two and Five Spindles



Ettco 102 Series of single eccentric adjustable drill and tap heads includes three models of drilling heads and three models of tapping heads. They have one, two, or four eccentric spindles.

The heads can be used in any position and at any angle on standard drill presses. Adjusting knobs utilize wedging action to positively lock the adjustable spindle(s) into position and eliminate creep or walk. Vertically adjusting chucks facilitate spot facing, counterboring and countersinking.

### Features

1. 1:1 speed ratios.
2. Enclosed, lightweight aluminum housings.
3. Short, compact overall length.
4. Heat treated gears and spindles for long life and smooth operation. Gears are precision hobbed.
5. Maximum permissible use of ball thrust and radial bearings.
6. Simple, positive hand knob spindle lock.
7. Standard Ettco Style 1 quill clamp adaptor for simple installation or adaptation to ATU-4 machines and 300/A Tapper.
8. Operational flange mounting.
9. Extremely precise tolerances on all rotating parts.

## Drilling Head with One Fixed and One Adjustable Spindle



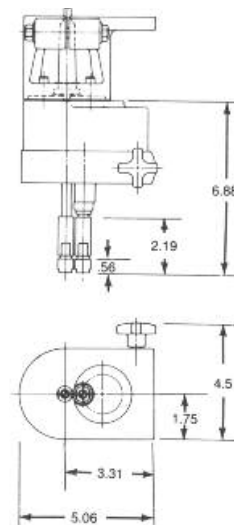
### Model 102-ID

Model 102-ID has a 1/4" slotted thru driver with an integral spindle that adjusts from a center distance of 11/16 minimum to 2 3/16 maximum. Drill capacity per spindle is to 5/16 diameter maximum. Speed should not exceed 3000 RPM.

Stock units are supplied with 1 Jacobs taper spindles and 4700 series chucks.

| Model No. | Description               | Center Distance Min. Max. | Type Spindle | Chuck Series | Capac. Spindle Mild Stl. | Vert. Adj. | Wt. Less Mtg. | Max. R.P.M. |
|-----------|---------------------------|---------------------------|--------------|--------------|--------------------------|------------|---------------|-------------|
| 102-ID    | (2) Spindle Drilling Head | 1 1/16" 2 3/16"           | 1 Jacobs     | 4702         | 9/16                     | .6         | 5 Lbs.-10 Oz. | 3000        |

Note: Maximum chuck capacity is 1/4"—reduced tool shanks required for larger diameter tools.



Includes adaptation to drill press advise complete specification.

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## Tapping Head With One Fixed and One Adjustable Spindle



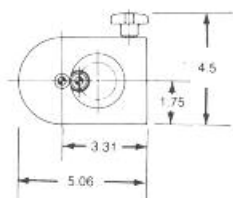
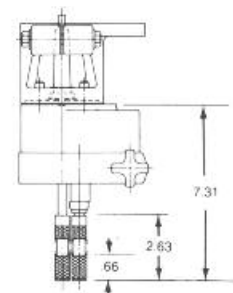
### Model 102-IT

Model 102-IT is equipped with 3/8" serrated spindles. The tapping capacity per spindle is 1/4 - 20 cutting taps in mild steel.

Model 102 IT has a 1/4" slotted thru driver with an integral spindle and one eccentric spindle that adjusts from a center distance of 11/16 minimum to 2 3/16 maximum.

Stock units are supplied with 6600 series chucks. It will mount directly to our 22H tapping attachment.

| Model No. | Description              | Center Distance |         | Type Spindle | Chuck Series | Capac. Spindle Mild Stl. | Vert. Adj. | Wt. Less Mtg.  | Max. R.P.M. |
|-----------|--------------------------|-----------------|---------|--------------|--------------|--------------------------|------------|----------------|-------------|
|           |                          | Min.            | Max.    |              |              |                          |            |                |             |
| 102-IT    | (2) Spindle Tapping Head | 1 1/16"         | 2 3/16" | 3/8 Ser.     | 6600         | 1/4-20                   | .25        | 5 Lbs. - 10 Oz | 3000        |



## Drilling Head With Two Adjustable Spindles

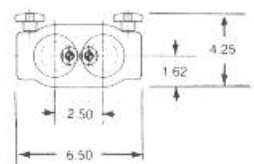
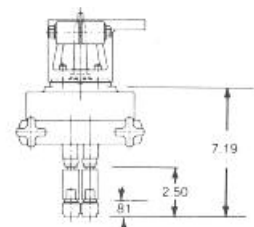


### Model 102-2D

The 102-2D incorporates two (2) eccentric spindles and can be adjusted as close as 1" minimum centers to 4" maximum centers. Drill capacity per spindle is to 5/16 diameter maximum.

Stock units are supplied with 1 Jacobs taper spindles and 4700 series chucks.

| Model No. | Description               | Center Distance |      | Type Spindle | Chuck Series | Capac. Spindle Mild Stl. | Vert. Adj. | Wt. Less Mtg.   | Max. R.P.M. |
|-----------|---------------------------|-----------------|------|--------------|--------------|--------------------------|------------|-----------------|-------------|
|           |                           | Min.            | Max. |              |              |                          |            |                 |             |
| 102-2D    | (2) Spindle Drilling Head | 1"              | 4"   | 1 Jacobs     | 4703         | 5/16                     | .44        | 6 Lbs. - 10 Oz. | 3000        |



## Tapping Head With Two Adjustable Spindles

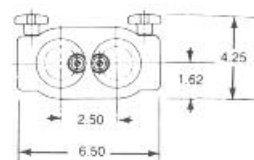
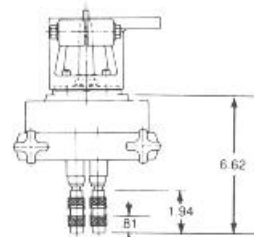


### Model 102-2T

Model 102-2T has two (2) eccentric spindles. The 3/8" serrated spindles can be adjusted to centers from 1" minimum to 4" maximum. Tapping capacity per spindle is 1/4 - 20 cutting taps in mild steel.

Stock units are supplied with 4000 series chucks for other available floating and pitch compensating chuck. It can mount directly to our 22H tapping attachment.

| Model No. | Description              | Center Distance |      | Type Spindle | Chuck Series | Capac. Spindle Mild Stl. | Vert. Adj. | Wt. Less Mtg.   | Max. R.P.M. |
|-----------|--------------------------|-----------------|------|--------------|--------------|--------------------------|------------|-----------------|-------------|
|           |                          | Min.            | Max. |              |              |                          |            |                 |             |
| 102-2T    | (2) Spindle Tapping Head | 1"              | 4"   | 3/8 Ser.     | 4000         | 1/4-20                   | .25        | 6 Lbs. - 10 Oz. | 3000        |



Includes adaptation to drill press advise complete specification.

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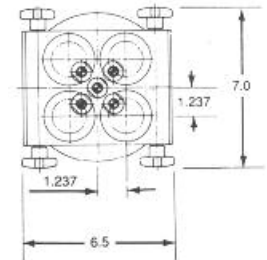
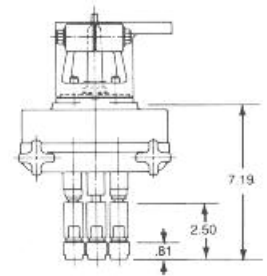
## Drilling Head With One Fixed and Four Adjustable Spindles



Model 102-5D utilizes the existing thru drive with center spindle and four (4) eccentric spindles. With this unique design spindle coverage can provide: (a) two separate 2 spindle patterns from 31/32 minimum to 3 31/32 maximum, (b) three equally spaced holes from 1" minimum to 2.5 maximum, (c) four equally spaced holes on a 2" minimum bolt circle to 5" maximum bolt circle.

Stock units are supplied with 1 Jacobs taper spindles, 4700 series chucks 5/16" diameter maximum drill capacity and 3000 RPM maximum speed.

| Model No. | Description               | Center Distance         |                    | Type Spindle | Chuck Series | Capac. Spindle Mild Stl. | Vert. Adj. | Wt. Less Mtg.  | Max. R.P.M. |
|-----------|---------------------------|-------------------------|--------------------|--------------|--------------|--------------------------|------------|----------------|-------------|
|           |                           | Min.                    | Max.               |              |              |                          |            |                |             |
| 102-5D    | (5) Spindle Drilling Head | * 2"<br>** 1"<br>*** 1" | 5"<br>2 1/2"<br>5" | 1 Jacobs     | 4703         | 5/16                     | .44        | 11 Lbs.-10 Oz. | 3000        |



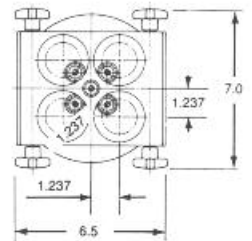
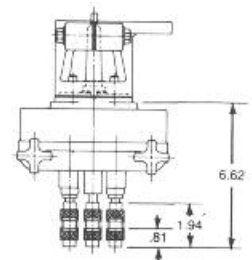
## Tapping Head With One Fixed and Four Adjustable Spindles



Model 102-5T also utilizes the existing thru drive with center spindle and four (4) eccentric spindles. Spindle coverage options are the same as for 102-5D. The 3/8" serrated spindles each have tapping capacity of 1/4 - 20 cutting taps in mild steel.

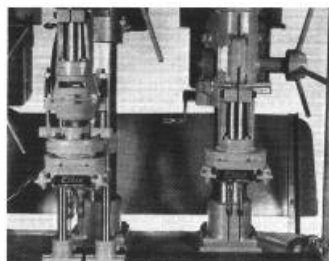
They are supplied with 4000 series chucks, and mount to Ettco 22H tapping attachments.

| Model No. | Description              | Center Distance         |                    | Type Spindle | Chuck Series | Capac. Spindle Mild Stl. | Vert. Adj. | Wt. Less Mtg.  | Max. R.P.M. |
|-----------|--------------------------|-------------------------|--------------------|--------------|--------------|--------------------------|------------|----------------|-------------|
|           |                          | Min.                    | Max.               |              |              |                          |            |                |             |
| 102-5T    | (5) Spindle Tapping Head | * 2"<br>** 1"<br>*** 1" | 5"<br>2 1/2"<br>5" | 3/8 Ser.     | 4000         | 1/4-20                   | 25         | 11 Lbs.-10 Oz. | 3000        |



- \* Bolt Circle With (4) Holes Equally Spaced
- \*\* Triangular Pattern With (3) Holes Equally Spaced
- \*\*\* Inline Pattern With (3) Holes Equally Spaced

### Application



#### Old Machine

Right: Model 102-2D quill mounted to a common drill press  
 Left: Model 102-2T with Ettco 22H tapping face plate, quill mounted to a common drill press.  
 Guide rods and foot type mounting brackets provide rigidity.

Includes adaptation to drill press advise complete specification.