

## Manual Wafer Expansion Tools



ETM-150



ETM-300

## General Information

The POWATEC **ETM** line of manual wafer expansion tools are easy-to-use and flexible products that offer a high degree of repeatability and reproducibility in the wafer expansion process. The **ETM-150** and **ETM-300** both feature a high-precision press that ensures the grip rings are perfectly clamped together, while providing uniform expansion on mounted wafers up to 300mm (12”).

As the core process of expansion is determined by the shape of the press stamp, these products provide highly consistent and reproducible results as they are independent of the operator. This easy-to-use design means an operator can achieve a production throughput of up to 200 expansions per hour, which is higher than many semi or even fully automatic solutions.

## Product Features

- Easy-to-use**      Insert the grip rings into the presses, place the diced wafer onto the base plate, lower the press using the operating wheel until the grip rings are pressed together.
  
- Flexible**        Each machine can be made to accommodate a myriad of combinations of smaller or larger grip rings, frames, and wafers in just a few quick steps.
  
- Compact**         These products are intended for use as a table-top device, so their footprint is kept to a minimum
  
- Ergonomic**      The diameter of the operating wheel is optimized to allow for increased leverage, so it is easier to apply the necessary force.
  
- Versatile**         Multiple expansions to expand wafers with many small dyes are also easily handled. The process is simply repeated the desired number of times with the determining factor being the tear strength of the tape. POWATEC also offers heated stamps to increase the stretchability of the tape, especially when using UV tape.

## Additional Options



### Heated Base Plate and Expansion Head

Designed to support temperatures up to 100°C (212°F). This option can be delivered instead of the standard base plate and expansion head along with a temperature controller and also allows for multiple expansions.

## Specification: ETM-150

Wafer size (standard size in <b>bold</b> )	2" to <b>6"</b>
Corresponding POWATEC Grip Ring	6" Grip Ring
<i>Inner Diameter/Outer Diameter</i>	170mm/186mm (6.69"/7.32")
Frame size	6" (DT 2-6-1)
<i>Inner Diameter/Outer Diameter</i>	194mm/228mm (7.63"/8.97")
Throughput	Up to 200 UPH
Height with piston at top position	560 mm (22.05")
Height with piston at bottom position	490 mm (19.29")
Depth	380 mm (14.96")
Width	290 mm (11.42")
Stroke	maximum 115 mm (4.53")
Weight	21.8 kg (48.06 lbs)

## Specification: ETM-300

Wafer size (standard size in <b>bold</b> )	4" to <b>6"</b>	6" to <b>8"</b>	8" to <b>300mm</b>
Corresponding POWATEC Grip Ring	6" Grip Ring	8" Grip Ring	300mm Grip Ring
<i>Inner Diameter/Outer Diameter</i>	170mm/186mm (6.69"/7.32")	227.7mm/248mm (8.96"/9.76")	330mm/347mm (12.99"/13.66")
Frame size	6" (DT 2-6-1)	8" (DTF2-8-1)	300mm (DTF2-12)
<i>Inner Diameter/Outer Diameter</i>	194mm/228mm (7.63"/8.97")	250mm/296mm (9.84"/11.65")	350mm/400mm (13.78"/15.74")
Throughput	Up to 200 UPH	Up to 200 UPH	Up to 200 UPH
Height with piston at top position	1060 mm (41.73")	1060 mm (41.73")	1060 mm (41.73")
Height with piston at bottom position	890 mm (35.04")	890 mm (35.04")	890 mm (35.04")
Depth	400 mm (15.75")	400 mm (15.75")	400 mm (15.75")
Width	310 mm (12.20")	330 mm (12.99")	400 mm (15.74")
Stroke	Maximum 420 mm (16.53")	Maximum 420 mm (16.53")	Maximum 420 mm (16.53")
Weight	50.1 kg (110.45 lbs)	51.1 kg (112.66 lbs)	52.6 kg (115.96 lbs)

## Conformity

Build according to IEC 204-1

CE label

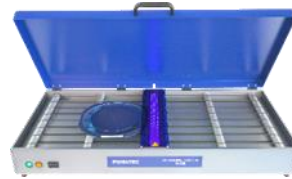
## Related Products from POWATEC

**Manual Wafer Mounter P-300**

Mounting of up to 300mm Wafer onto 300mm Film Frame

**Vacuum Wafer Mounter V-300**

Mounting of up to 300mm Wafer onto 300mm Film Frame

**UV LED Wafer Exposure System U-300**

UV Curing via LEDs for wafers mounted on frames up to 300mm

**POWATEC Grip Rings and Shippers**

Available in 6", 8", or 300mm sizes