

# CERAMIC HEATER BANDS

- Longer life
- Lower energy costs
- High temperature capability
- Less downtime for replacement
- Fewer bands per installation
- Easy installation and removal

The ceramic band is the preferred choice for plastic molding, extrusion and molding presses and other cylindrical surfaces. This is because efficient heat transfer to the barrel is not affected by surface irregularities or loose fit. Other types of heaters (mica, etc.) require an intimate fit with the part being heated.

## OMEGA QUALITY CONSTRUCTION

### Stainless steel sheath

Resists rust and high temperatures, and provides firm mechanical support. Easily wraps around barrel due to fluted construction.

### Thermal insulation

$\frac{1}{4}$  inch of ceramic fiber prevents heat loss, thereby lowering energy costs.

### Nickel-chrome heating coil

Precision wound, helical construction gives extended service. A heavier weight than found in mica or other conventional heaters.

### Ceramic coil supports

Designed for their dielectric and thermoconductive characteristics, the interlocking feature provides flexibility so band wraps easily around barrel.



*Manufacturers of Quality Heaters Since 1970*

# Omega Ceramic Bands developed especially for plastics processing

Plastics processing requires high operating temperatures and fast production rates. Omega has designed its ceramic band heaters to meet these demands. These heaters are, in effect, high temperature electric furnaces capable of very efficient heat transfer by conduction, convection and radiation. Built-in insulation minimizes un-

wanted temperature changes along the barrel.

Other types of band heaters are primarily conductive, requiring an intimate fit with components being heated. Grooves or other surface irregularities form voids under the bands, resulting in hot spots and premature heater failure. Ceramic bands

are recommended here because efficient heat transfer is not affected by irregular surfaces or loose fit. At higher watt densities they can be used in wider increments than other heaters. This means you can reduce the number of bands used and simplify wiring.

## SPECIFICATIONS

<b>Temperatures</b>	Up to 1400°F.
<b>Watt Density</b>	Up to 45 W/Sq In
<b>Voltage</b>	Up to 480 V (single or three phase)
<b>Resistance-Tolerance</b>	NEMA Standard plus 10%, Minus 5%
<b>Wattage Tolerance</b>	NEMA Standard plus 5%, Minus 10%
<b>Maximum Amperage</b>	25/Circuit
<b>Insulation</b>	Available in both standard ¼" and Insulation Plus ½" construction

<b>Sizes</b>	2" dia. and up; 1½" width and up (in ½" increments)
<b>Terminals</b>	¼-20 post terminals standard
<b>Sheath</b>	Stainless steel
<b>Lock-up</b>	Flange type standard
<b>Maximum I.D.</b>	Consult factory
<b>Standard width increments</b>	½"
<b>Standard gap when tightened</b>	¼"
<b>Thickness w/¼" insulation</b>	⅝"
<b>Thickness w/½" insulation</b>	⅞"

## OPTIONS

Where flexible leads in armor or braid are specified, Omega recommends the use of post terminals in box with leads off box.

IP Add if you want the "Insulation Plus"	H Thermocouple hole in gap area, notched
A Armored Cable (BX)	I Inner Liner
B Braided Wire	J Twist Lock Plug on leads
C Lead Wire, No Braid or Armor	K Wider than normal gap, specify
D Leads exiting out of edge of heater, through porcelain insulator	L Ground stud
E Terminal Connectors on studs - Ring lugs	M Dual Voltage - for bands 2½" or more in width
F Partial Coverage	N Four wire construction
G Thermocouple hole in element area	O Overlapping shell on gap area

NOTE: A) Latch and trunion has quick release spring loading, suggested for ceramic band with a 12" diameter or greater.  
B) Terminal boxes and stud terminals are normally located 180 degrees opposite the gap.

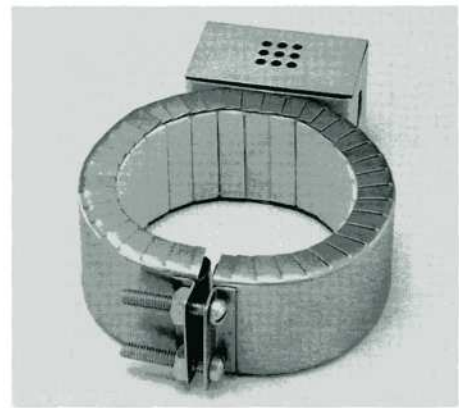
## WHEN ORDERING, PLEASE SPECIFY:

- Quantity
- Inside diameter & width
- Voltage - on 2 piece bands we suggest each piece be rated at half the operating voltage; please specify total voltage
- Wattage - on 2 piece bands please specify total wattage
- Basic construction and options
- Serial no. (if known or previously ordered)
- Gap (if other than factory minimum)
- Lead length (if other than std. 12")



## SERIES 100 (Flange lock-up)

TYPE	LEADS OR TERMINALS	OTHER DESCRIPTION
100	STUDS	NO TERMINAL BOX
101	STUDS	WITH TERMINAL BOX 1¾" HIGH
102	STUDS	WITH LOW PROFILE BOX 1" HIGH
103	ARMOR	STRAIN RELIEF BRACKET STRAIGHT
104	ARMOR	STRAIN RELIEF BRACKET 90 DEG. BEND
105	BRAID	STRAIN RELIEF BRACKET STRAIGHT
106	BRAID	STRAIN RELIEF BRACKET 90 DEG. BEND



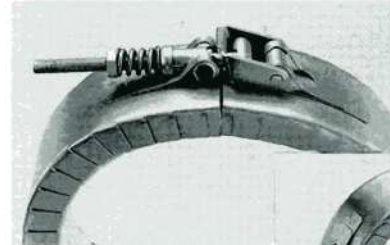
## SERIES 200 (Barrel nut clamping)

200	STUDS	NO TERMINAL BOX
201	STUDS	WITH TERMINAL BOX 1¾" HIGH
202	STUDS	WITH LOW PROFILE BOX 1" HIGH
203	ARMOR	STRAIN RELIEF BRACKET STRAIGHT
204	ARMOR	STRAIN RELIEF BRACKET 90 DEG. BEND
205	BRAID	STRAIN RELIEF BRACKET STRAIGHT
206	BRAID	STRAIN RELIEF BRACKET 90 DEG. BEND



## SERIES 300 (Latch and trunnion)

300	STUDS	NO TERMINAL BOX
301	STUDS	WITH TERMINAL BOX 1¾" HIGH
302	STUDS	WITH LOW PROFILE BOX 1" HIGH
303	ARMOR	STRAIN RELIEF BRACKET STRAIGHT
304	ARMOR	STRAIN RELIEF BRACKET 90 DEG. BEND
305	BRAID	STRAIN RELIEF BRACKET STRAIGHT
306	BRAID	STRAIN RELIEF BRACKET 90 DEG. BEND



## Maintenance and trouble shooting for prolonging heater life

1. Regulate Voltage. A 10% variation in voltage results in a 20% variation in power.
2. When attaching the lead wires to the terminals, excessive turning pressure can cause breakage of the terminal resistance wire.
3. A ¼" gap should be maintained at the opening when operating. Retightening is not normally required, however, if the operating temperature is changed the clamp bolt should be checked.
4. Any material which can be carbonized such as dirt, oil, plastic, etc., should not be allowed to collect on the heaters.
5. Select a heater to match the diameter of the cylinder. In no case should heaters be used that are too large.
6. Match the heaters as closely as possible to the actual load requirement to reduce cycling.

The following is a list of common sizes & ratings available. Not all items are stocked. For items not shown, state inside diameter, width, wattage,

voltage & special feature required. See current stock list.

DIAMETER	WIDTH	TOTAL VOLTS	TOTAL WATTS	ONE OR TWO PIECE	SERIES	CODE NUMBER	DIAMETER	WIDTH	TOTAL VOLTS	TOTAL WATTS	ONE OR TWO PIECE	SERIES	CODE NUMBER
2½	1	240	375	1	105	C-1009	6⅝	3½	480	1800	1	101-IP	C-3532
3	3	240	700	1	100-IP	C-3495	7	5½	240	2000	1	101	C-1665
3	6	240/480	2000	1	101-M	C-1767	7	2	480	1700	1	100-IP	C-3511
3	1	240	500	1	105	C-1185	7	3	480	2500	1	100-IP	C-3510
3½	1	240	500	1	105	C-1186	7	4	480	2600	1	101-IP	C-4058
3½	3	240	800	1	100-IP	C-3496	7½	2	240	1000	1	101	C-1133
3½	4½	240	1000	1	101-HO	C-219	7½	3	240	1800	1	100-IP	C-3494
4	2	240	800	1	102-IP	C-4018	7	3	480	2600	1	101-IP	C-3686
4	4	240	960	1	100-IP	C-3541	7½	4½	240/480	2000	1	101-MOH	C-239
4½	4	240	1000	1	101-HO	C-168	7½	5	240	2500	1	101	C-1539
4½	4	240	960	1	100-IP	C-3478	7½	5½	240/480	2500	1	101-MOH	C-2230
4⅞	3	240	900	1	101	C-3420	7½	8	240	4500	1	101	C-494
5	3	240	850	1	102-IP	C-4016	8	2	240	1000	1	100-IP	C-3500
5	3	240	850	1	100-IP	C-3594	8	3	480	3000	1	100	C-3589
5	3	240	1250	1	100-IP	C-3595	8⅜	6	480	2400	1	100	C-3542
5	3	240	1250	1	102-IP	C-4017	8½	2½	480	3000	1	100	C-3588
5	3½	240	1250	1	100-IP	C-3396	8½	3	480	3200	1	100	C-3547
5½	2	240	600	1	100-IP	C-3621	9	2	240	1750	1	101	C-3411
5½	2	240	1000	1	100-IP	C-3622	9	2½	240	2000	1	101	C-2084
5½	3	240	700	1	100-IP	C-3499	9	5	240/480	2500	1	101-MOH	C-743
5½	4	240/480	1500	1	101-MOH	C-143	9	5½	240	2500	1	101	C-2935
5½	4	240	1500	1	101-HO	C-14	9	5½	240/480	3000	1	101-MOH	C-780
5½	4½	480	2050	1	201-IP	C-3403	9⅞	4	240	3000	1	101	C-498
5½	4½	480	2700	1	101-IP	C-3401	10	2⅜	240	1750	1	101	C-2085
5½	4½	240/480	1750	1	101-MOH	C-617	10	5½	240	2500	1	101	C-1538
5½	4½	240/480	1500	1	101-MOH	C-15	10	1½	240	1250	1	101	C-3427
5½	5	240/480	2000	1	101-MOH	C-960	10⅞	2	240	1750	1	101	C-497
5¾	3	480	1200	1	101-IP	C-4054	10⅞	1½	240	1750	1	101	C-3421
5¾	3	480	1800	1	101-IP	C-3684	11	5	240/480	4000	1	101-M	C-1035
5¾	4	480	1200	1	101-IP	C-4052	11	5	240/480	4000	1	101-MOH	C-237
5¾	4	480	1800	1	101-IP	C-4053	12	6	240/480	4000	1	101-MOH	C-796
6	2	480	1000	1	101-IP	C-3543	12	6	240/480	5000	1	101-MOH	C-3477
6	2	480	1500	1	100-IP	C-3512	12½	7	240	5700	1	101	C-3408
6	2½	480	1900	1	100-IP	C-3509	12¾	6	240	5000	1	101	C-3409
6	3½	480	1800	1	101-IP	C-3533	13	4	480	5000	2	301	C-1248
6	3	480	1700	1	101-IP	C-4057	13⅞	3	240	3750	1	101	C-3422
6	4	480	1700	1	101-IP	C-4055	13⅞	2½	240	3250	1	101	C-3423
6	4	480	2600	1	101-IP	C-4056	15	6	240/480	8000	1	101-MOH	C-1974
6	5½	240/480	2000	1	101-M	C-1984	16	2	480	3750	2	301	C-3551
6	5½	240/480	2000	1	101-MOH	C-378	16	4	480	5000	2	301	C-946
6	6	240	1500	1	101-HO	C-1374	20	3	480	5600	2	301	C-941
6	6	240/480	2000	1	101-MOH	C-60	20	4	480	7500	2	301	C-944
6¼	3	480	2600	1	101-IP	C-3685	22	4	480	6600	2	301	C-2760
6½	2	240	1000	1	100-IP	C-3498	25½	3	480	7300	2	301	C-942
6½	5	240	2500	1	101	C-3410	25½	4	480	9800	2	301	C-945
6½	6½	240	3500	1	101	C-1664							



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