

MTB

Mighty-Tuff® Band Heaters

- **Stainless Steel Sheath** resists oxidation
- Capable of up to 1200°F (650°C) Sheath Temperatures
- Highest possible application temperatures
- Capable of long life at High Watt Densities
- Thin profile (3/16") for fast response



Description

Rugged construction along with high temperature and high watt density capabilities allow the Mighty-Tuff Band Heater to surpass all other band heaters in providing the ever increasing temperatures required for processing today's high tech materials. The advanced design and thin profile allow the quick transfer of heat from the element to the sheath for efficient operation to 1200°F sheath temperature. Watt densities as high as 100 wp/in² on small diameters are possible. A stainless steel sheath encases a compressed mineral refractory material which surrounds a helical or sinuated resistance element. The Mighty-Tuff can stand up to shock,

vibration and many contaminants long after standard band heaters have failed. In normal use, or in the most difficult application, the Mighty-Tuff will improve machine productivity by improving band heater performance.

Options

- Full length fiberglass sleeving
- Ground Wir
- Ceramic Terminal Covers
- Standard NEMA Plug
- Built-in Thermocoupl

Terminations

Type F

High Temperature Leads

12" long 850°F/450°C insulated lead wires are standard. Specify longer length. Also available with full length fiberglass sleeving.

Type C

Armor Cable Leads

Armor cable is the best protection for abrasion. 12" cable and 14" overall leads are standard.



MTB MIGHTY TUFF® TERMINATION OPTIONS

Metal Braided Leads

Double conductor metal braid provides excellent abrasion protection and flexibility. Standard Length is 12" braid with 14" overall lead wires. Specify additional length if required. Type P and Type R are available without metal braid.

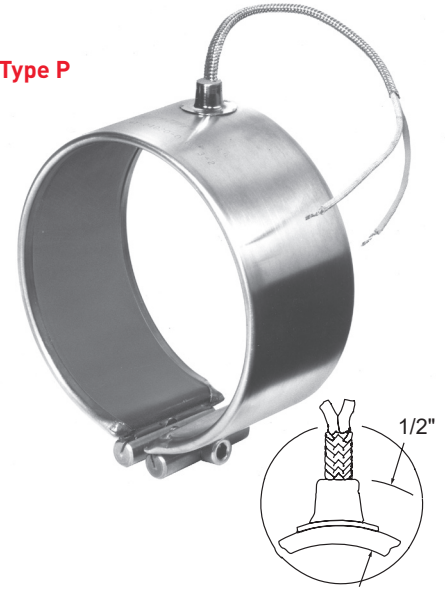
Type A



Type R



Type P



Post Terminals

Type SH

Terminals 180° from gap.



Type SG

Terminals at gap. Minimum width - 2"



Type B

Terminal Box. 2-1/16" H x 2-1/2" W x 2-1/8" D



MTB MIGHTY TUFF® TERMINATION OPTIONS

European Style High Temperature Plugs

Maximum Voltage = 250V, Maximum Amperage = 25 Amps. Other plugs attached to leads are available.

Type 110

3-5/8" H x 1-5/16" L x 2-15/16" W



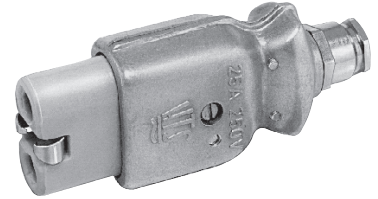
Type 115

1-3/8" H x 3-7/16" L x 1-7/8" W



Fig GQ8

Receptacle PC4396-3



One Piece Expandable

Type E

(Shown with Type SG terminals) Specify termination, terminal location and other options.



Two Piece Construction

Type T

(Shown with Type A leads and optional spring loaded screws) Specify termination, terminal location and other options.



MTB MIGHTY TUFF® OPTIONS

Holes and Mounting Clamps

MTB bands come with a variety of options for holes and mounting options that include integral barrel nut, low profile, strap, spring loaded and other options.

Hole or Cut-Out

Mighty-Tuff Band Heaters can be manufactured with thermocouple holes. Contact Chromalox.

Type H



Maximum and Minimum Physical Limitations

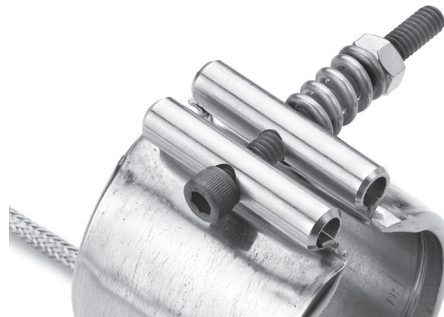
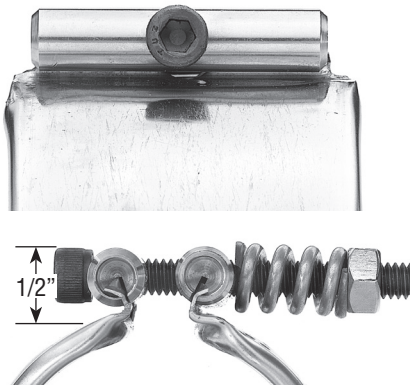
	Diameter		Minimum Width
	Minimum	Maximum	
Full Band	1"	14"	1"
1"	8"	275	240
One Piece Expandable (Type E)	3"	14"	1"
Type SG Terminals	1-1/2"	—	2"
Type SH Terminals	1-1/2"	—	1-1/2"
Type F Leads	1"	—	1"
Type A Leads	1"	—	1"
Type P Leads	1"	—	1"
Type R Leads	1"	—	1"
Type C Leads	1"	—	1"
Terminal Box	3-1/2"	—	1-1/2"
Type 110	3-1/2"	—	1-1/8"
Type 115	3-1/2"	—	1-1/8"

Minimum width: 1", maximum width: 6".
Standard gap: 1/4" - 1" depending upon I.D.

Type MC

Hole or Cut-Out

Mounting Clamp – Standard on all Mighty Tuff® Band Heaters up to 3" wide. Supplied with 1/4" socket head screw.

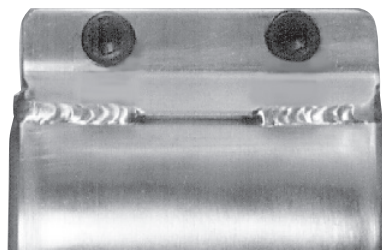
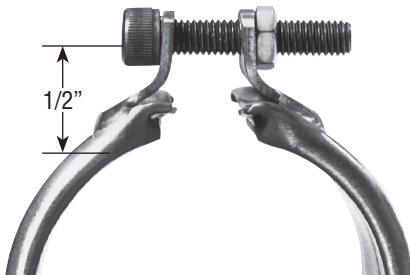


No. of Screws	Mtg. Clamp Length Per Unit	No. of Mtg. Clamps per Htr.	Actual Heater Width
1	1"	1	1" to 1-1/4"
1	1 1/4"	1	1-3/8" to 1 3/4"
1	1 3/4"	1	1-7/8" to 2-1/4"
1	2 1/4"	1	2-3/8" to 3"
2	2 3/4"	1	3-1/8" to 3 1/2"

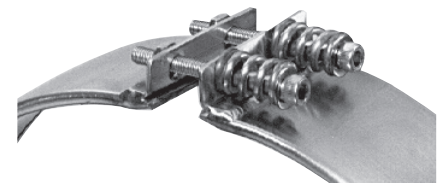
Note: Values identical for styles MC and MCS

Type L

Type L Mounting Flange – Standard on Mighty-Tuff Band Heaters. Supplied with 5/16 Socket Head Cap Screw.



Type LS Mounting Flange – with Spring – Recommended over 18" I.D." or as application requires.



MTB MIGHTY TUFF® OPTIONS

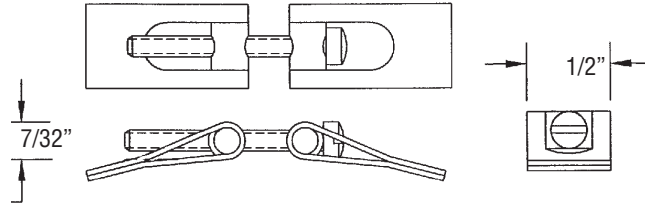
Type S

Mighty-Tuff Band Heaters are available with 5/8" wide straps. Some dimensional restrictions may apply based on lead type, position and width.



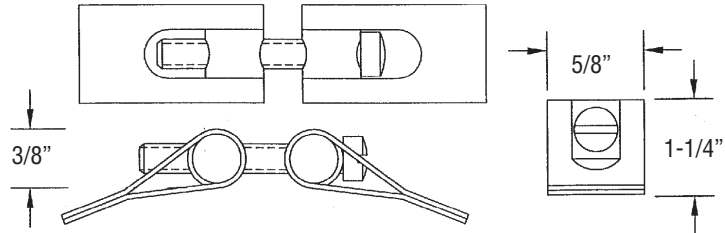
Type BL

Low Profile Barrel Nut Assembly Welded to Sheath with 6-32 Screw.



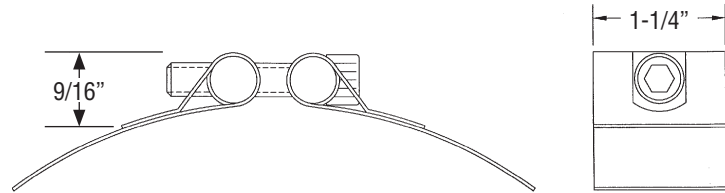
Type BN

Standard Profile Barrel Nut Assembly Welded to Sheath with 10-32 Screw.



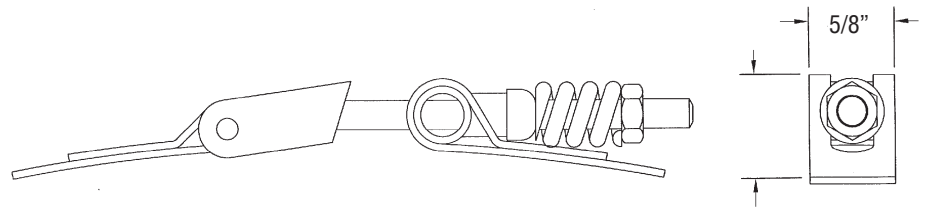
Type BW

1-1/4" Wide Barrel Nut Assembly Welded to Sheath with 5/16-18 Socket Head Screw.



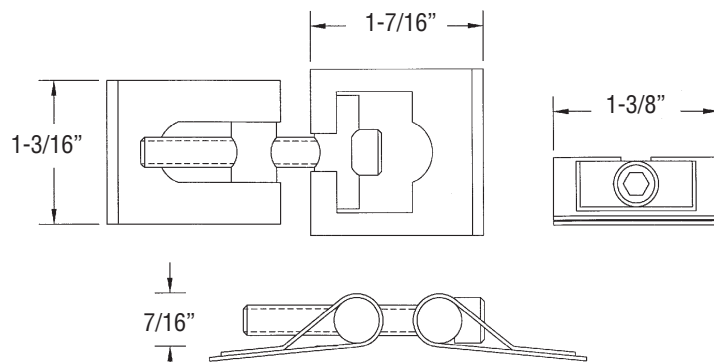
Type BR

Quick Release Assembly with Spring Loaded Screw Welded to Sheath with 1/4-20 Screw.

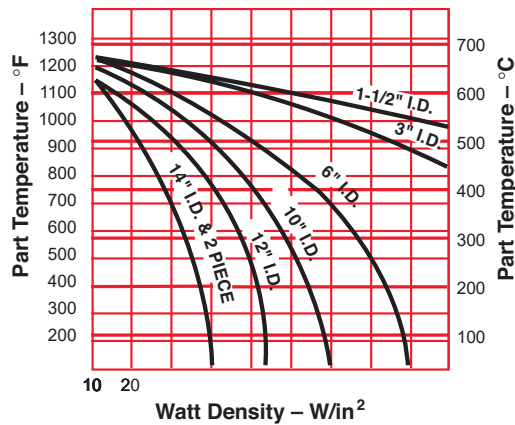


Type BT

Quick Release Barrel Nut Assembly Welded to Sheath with 1/4-20 Bolt.



Ordering Information



Recommended Maximum Watt Density for 1-1/2" Wide Mighty-Tuff Band Heaters:

- Cycled moderately.
- Tightly clamped on a smooth surface.
- For units over 2" in width, multiply watt density by 0.8.
- See the technical section for estimating watt density.

Ordering Information

Common Sizes and Ratings. See the Chromalox Stock List. For items not shown, refer to the ordering information below.

I.D.	Width	Watts	Volts	Watts/Sq.In.	Fig. #s	Model Number	
1	1"	100	120	47	F	MT-01010-0833	
	1"	150	120	70	F	MT-01010-0834	
	1-1/2"	200	120	57	F	MT-01015-0835	
	1-1/2"	200	240	57	F	MT-01015-0836	
	1-1/2"	250	240	64	F	MT-01015-0421	
	1-1/2"	300	120	87	F	MT-01015-0837	
1-1/4"	1"	250	120	86	F	MT-01210-0839	
	1"	250	240	86	F	MT-01210-0840	
	1"	275	240	93	F	MT-01210-0431	
	1-1/2"	350	120	75	F	MT-01215-0841	
	1-1/2"	350	240	75	F	MT-01215-0842	
	1-1/2"	1"	200	120	54	F	MT-01510-0843
1"		200	240	54	F	MT-01510-0844	
1"		300	120	81	F	MT-01510-0845	
1"		300	240	81	F	MT-01510-0434	
1-1/2"		300	120	52	F	MT-01515-0846	
1-1/2"		300	240	52	F	MT-01515-0419	
1-1/2"		300	240	52	A	MT-01515-0010	
1-1/2"		450	240	76	F	MT-01515-0427	
1-3/4"		2"	300	240	37	F	MT-01520-0847
		2"	450	240	55	F	MT-01520-0329
	3"	350	240	29	F	MT-01530-0525	
	3"	500	240	39	F	MT-01530-0425	
	1-3/8"	450	240	73	F	MT-01713-0174	
	2"	1-1/2"	300	120	44	F	MT-01715-0848
1-1/2"		300	240	44	F	MT-01715-0397	
1-3/4"		750	240	91	F	MT-01717-0181	
2"		750	240	78	F	MT-01720-0177	
2-1/2"		550	240	44	F	MT-01725-0173	
3"		1000	240	66	F	MT-01730-0179	
2-1/4"	1"	350	120	74	F	MT-02010-0849	
	1"	350	240	74	F	MT-02010-0422	
	1-1/2"	400	240	51	F	MT-02015-0428	
	2"	750	120	68	F	MT-02020-0176	
	2"	750	240	68	F	MT-02020-0175	
	1"	350	240	66	120"A	MT-02210-0055	
2-3/4"	2"	750	240	61	120"F	MT-02220-0054	
	2-1/2"	1000	240	72	F	MT-02225-0850	
	3"	1200	240	62	72"F	MT-02230-0168	
	3"	1200	240	62	120"A	MT-02230-0056	

Ordering Information Continued

I.D.	Width	Watts	Volts	Watts/ Sq.In.	Fig. #s	Model Number
2-1/2"	1"	400	240	58	F	MT-02510-0851
	1-1/2"	500	240	51	F	MT-02515-0430
	3"	750	120	35	F	MT-02530-0180
3"	1"	400	240	50	F	MT-03010-0852
	1-1/2"	500	240	42	F	MT-03015-0424
	1-1/2"	525	230/460	52	SH,E	MT-03015-0853
3-1/4"	2-1/2"	1100	120	53	SH	MT-03225-0028
	2-1/2"	1400	240	68	SH	MT-03225-0029
3-1/2"	2"	800	240	44	SH	MT-03520-0030
3-5/8"	1-1/2"	650	230/460	52	SH,E	MT-03615-0854
4"	1"	700	240	62	SH	MT-04010-0855
	1-1/2"	625	230/460	43	SH,E	MT-04015-0856
	1-1/2"	725	230/460	50	SH,E	MT-04015-0857
	1-1/2"	800	240	55	SH	MT-04015-0031
4-1/2"	2-1/2"	1250	240	41	SH	MT-04525-0032
5"	1-1/2"	1000	240/480	50	SH,E	MT-05015-0423
5-1/4"	1-1/2"	600	240/480	40	SH,E	MT-05215-0858
	1-1/2"	1000	240/480	48	SH,E	MT-05215-0859
	3"	1700	230/460	38	SH,E	MT-05230-0860
	4-1/2"	2400	230/460	44	SH,E	MT-05245-0861
5-1/2"	1-1/2"	1000	240/480	30	SH,E	MT-05515-0862
	1-1/2"	1300	240/480	58	SH,E	MT-05515-0433
6"	1-1/2"	1000	240/480	40	SH,E	MT-06015-0863
	1-1/2"	1400	240/480	57	SH,E	MT-06015-0435
6-1/2"	1-1/2"	1250	240/480	47	SH,E	MT-06515-0864
6-3/4"	1-1/2"	815	230/460	28	SH,E	MT-06715-0865
	1-1/2"	1000	230/460	36	SH,E	MT-06715-0866
	4"	2600	230/460	35	SH,E	MT-06740-0867
	5"	3700	230/460	40	SH,E	MT-06750-0868
	6"	3750	230/460	32	SH,E	MT-06760-0869
7"	1-1/2"	1500	240/480	51	SH,E	MT-07015-0429
7-1/2"	1-1/2"	1500	240/480	48	SH,E	MT-07515-0870
7-5/8"	3"	1800	230/460	28	SH,E	MT-07630-0871
8"	1-1/2"	1250	240/480	37	SH,E	MT-08015-0872
	1-1/2"	1600	240/480	47	SH,E	MT-08015-0432
9"	1-1/2"	1500	240/480	38	SH,E	MT-09015-0873
	1-1/2"	1750	240/480	45	SH,E	MT-09015-0426
9-1/2"	3"	3000	230/460	38	SH,E	MT-09530-0874
11-1/4"	3"	2400	230/460	25	SH,E	MT-11230-0875

Ordering Information:

- Model number if available
- Inside diameter and width
- Wattage and voltage (resistance tolerance +10%, -5%). Cold resistance 6% lower than hot resistance
- If one piece expandable (Type E) or two piece construction (Type T), specify total wattage and operating voltage
- Type of termination, location and length of leads, if applicable
- Type of mounting
- Submit sketch or drawing if necessary
- Request Product Data Sheet