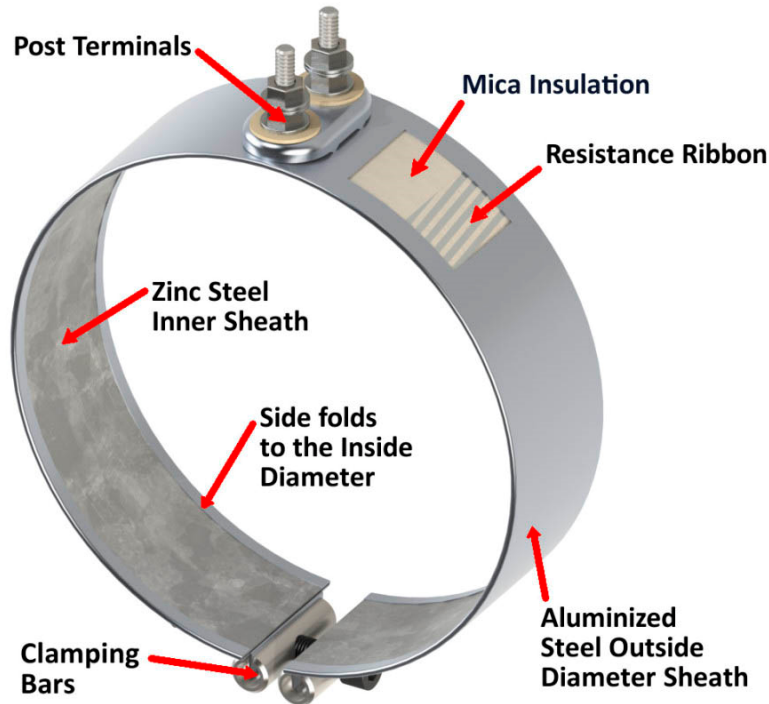


The Thinband heater is the redesign of the mica band heater. Thinbands offer significant flexibility because they can be opened to the full length of the band without causing damage to the internal design of the band heater.



Thinband Benefits

- 50,000 variations can be created for Thinbands lead attachments with our exclusive Lead Adapter — or LA — manufacturing method, that significantly reduces costly downtime.
- Flexible one-piece design equals faster installation on plastic processing equipment.
- All Thinband heaters can be installed on a barrel without removing pre-existing heaters.
- The terminals have a more finished and polished appearance.
- They are built with a thinner core and smaller fold-over.
- They operate at temperature up to 1400°F
- They have higher watt densities than other bands
- They have high thermal conductivity of MI (mineral insulation)
- They have a stainless steel cover
- They are contamination resistant, and they have no folds on the outside.
- The clamp variations have permanent attachment
- They need just one set of leads or terminals

Performance Capabilities:

- Sheath temperatures to 480°C (900°F)
- Watt densities to 8.5 W/cm² (55 W/in²)

THINBAND NOZZLE & BARREL HEATER BANDS

Manufacturing Capabilities

Review the table below to be certain the variations and lead arrangements are available in the band heater size you require. Note some combinations of maximums and minimums cannot occur on the same heater. Standard gap is 9.53 mm (0.375 in.) between clamp bars.

Heater Type	Diameter				Width			
	Min. in.	(mm)	Max. in.	(mm)	Min. in.	(mm)	Max. in.	(mm)
1 pc. const.	1	(25)	14.50	(368)	1.50	(38)	7	(178)
2 pc. const.	5	(127)	29	(737)	1.50	(38)	7	(178)
Nozzle								
Type A	1	(25)	4	(102)	1	(25)	6	(152)
Type L	1	(25)	4	(102)	1	(25)	6	(152)
Barrel								
Type T	2.50	(64)			1.50	(38)	7	(178)
Type H	2.50	(64)			1.50	(38)	7	(178)
Type F, FR	2.50	(64)			1.50	(38)	7	(178)
Type E	2.50	(64)			1.50	(38)	7	(178)
Type C, BR	2.50	(64)			1.50	(38)	7	(178)
Type K, KR	2.50	(64)			1.50	(38)	7	(178)
Terminal Box	3.50	(89)			1.50	(38)	7	(178)
European Plug								
1 pc. vertical	2.50	(64)	14.50	(368)	1.50	(38)	7	(178)
Welded Barrel Nuts 1 pc.								
	2.50	(64)	14.50	(368)	1.50	(38)	7	(178)

Note: Some combinations of maximums and minimums cannot occur on the same heater. Check the table to be certain the variations and lead arrangements you order are available on the heater size you require. If you need to exceed any limitations, please contact your SWHC representative.

Standard gap is $\frac{3}{8}$ in. (9.5 mm) between clamp bars.

THINBAND NOZZLE & BARREL HEATER BANDS

Thinband Maximum allowable Watt Density Graph

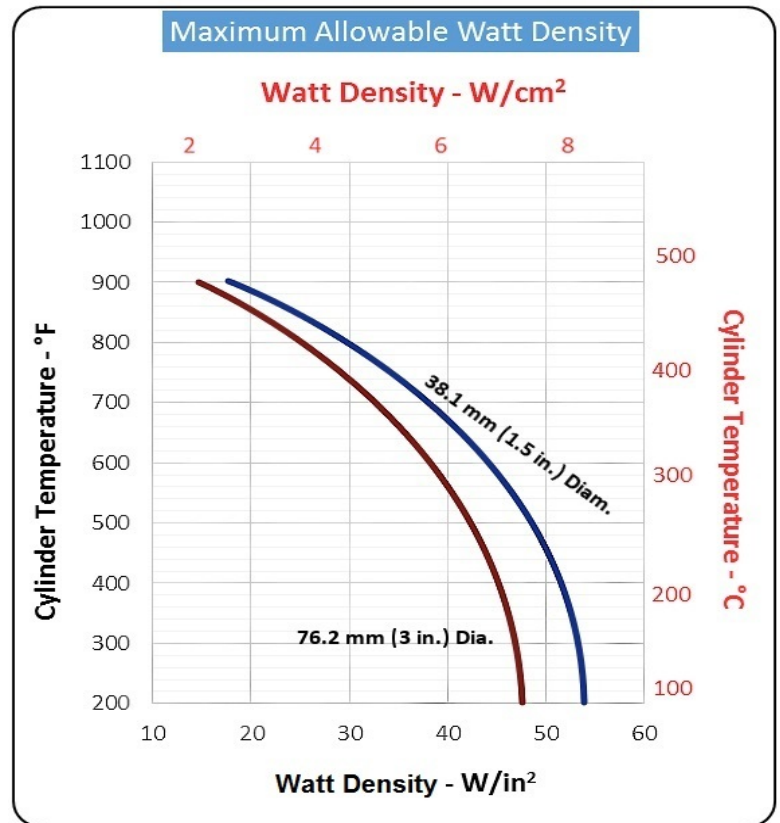
Use as low a watt density rating – as your application will permit. A close match of the heat supplied (to the actual requirements) will reduce temperature overshoot and cycling, and will increase the life of your band heater.

Calculate Safe Maximum Wattage for Your Heater

HEATED AREA X MAXIMUM WATT DENSITY:

Determine the maximum watt density of your heater from graph on this page. (Note: The curves are based on narrow heaters mounted on a smooth, steel cylinder.)

Calculate the heated area of your barrel heater: Subtract the no-heat area from the total area in contact with the cylinder (3.14 x I.D. x width). Subtract the no-heat area at the terminals and any additional no-heat areas caused by holes, slots and over-sized gaps.



Apply the necessary correction factors

- For heaters 57 mm (2.25 in.) to 127 mm (5 in.) wide, multiply watt density by 0.8.
- For high expansion cylinders (aluminum or brass), reduce the watt density by 0.46 W/cm² (3 W/in²).
- For heaters 57 mm to 127 mm wide (2.25 in. to 5 in.) installed on a high expansion cylinder, reduce watt density by a total of 0.46 W/cm² (3 W/in²) only.
- For regular cylinder surfaces other than smooth, machined finish, reduce watt density by 0.46 W/cm² (3 W/in²).
- For heaters that will be insulated or enclosed, contact us for specific watt densities.
- For units greater than 355 mm (14 in.) diameter, consult recommended clamping graph.
- For units used in vertical applications, consult us for application assistance.

THINBAND NOZZLE HEATER BANDS

STYLE A - SS BRAID LEADS



STYLE L - FIBERGLAS LEADS



Part Number:	ID		Width		Volts	Watts	Watt Density		Terminal Options	Approx Wt.	
	inch	mm	inch	mm			W/in ²	W/cm ²		Lbs.	Kg.
STB1A1A1-S	1	25.4	1	25.4	120	100	44	6.8	A & L	0.2	0.09
STB1A1A2-S	1	25.4	1	25.4	240	100	44	6.8	A & L	0.2	0.09
STB1A1A3-S	1	25.4	1	25.4	120	125	55 ^①	8.5	A & L	0.2	0.09
STB1A1A4-S	1	25.4	1	25.4	240	125	55 ^①	8.5	A & L	0.2	0.09
STB1A1J3-S	1	25.4	1½	38.1	120	200	59 ^①	9.1	A & L	0.2	0.09
STB1A1J4-S	1	25.4	1½	38.1	240	200	59 ^①	9.1	A & L	0.2	0.09
STB1E1E1-S	1¼	38.1	1¼	38.1	240	125	33	5.1	A & L	0.2	0.09
STB1E1E2-S	1¼	38.1	1¼	38.1	240	125	33	5.1	A & L	0.2	0.09
STB1G1A1-S	1⅜	34.9	1	25.4	120	140	41	6.1	A & L	0.2	0.09
STB1G2A1-S	1⅜	34.9	2	50.8	240	300	51 ^①	7.9	A & L	0.3	0.14
STB1J1A1-S	1½	38.1	1	25.4	120	100	26	4	A & L	0.2	0.09
STB1J1A2-S	1½	38.1	1	25.4	240	100	26	4	A & L	0.2	0.09
STB1J1A3-S	1½	38.1	1	25.4	120	150	39	6	A & L	0.2	0.09
STB1J1A5-S	1½	38.1	1	25.4	120	200	52 ^①	8	A & L	0.2	0.09
STB1J1A6-S	1½	38.1	1	25.4	240	200	52 ^①	8	A & L	0.2	0.09
STB1J1J5-S	1½	38.1	1½	38.1	120	275	48 ^①	7.4	A & L	0.3	0.14
STB1J1J6-S	1½	38.1	1½	38.1	240	275	48 ^①	7.4	A & L	0.3	0.14
STB1J1J7-S	½	38.1	1½	38.1	240	300	52 ^①	8	A & L	0.3	0.14
STB1J2A1-S	1½	38.1	2	50.8	240	300	39	6	A & L	0.3	0.14
STB1J2J1-S	1½	38.1	2½	63	240	400	42	6.5	A & L	0.5	0.23
STB1J3A2-S	1½	38.1	3	76.2	240	500	43	6.7	A & L	0.6	0.27
STB1J3A3-S	1½	38.1	3	76.2	240	800	69 ^①	10.7	A & L	0.6	0.27
STB1J4A1-S	1½	38.1	4	101.6	240	600	39	6	A & L	0.6	0.27
STB1N1J1-S	1¾	44.5	½	38.1	240	150	22	3.4	A & L	0.3	0.14
STB1N1J7-S	1¾	44.5	1½	38.1	120	300	43	6.7	A & L	0.3	0.14
STB1N1J8-S	1¾	44.5	1½	38.1	240	300	43	6.7	A & L	0.3	0.14
STB2N1J1-S	2¾	69.9	1½	38.1	240	400	34	5.3	A & L	0.4	0.18
STB3A1A2-S	3	76.2	1	25.4	240	200	23	3.6	A & L	0.4	0.18
STB3A1A4-S	3	76.2	1	25.4	240	300	35	5.4	A & L	0.4	0.18
STB3A1J6-S	3	76.2	1½	38.1	120	600	47 ^①	7.3	A & L	0.5	0.23

At time of order - specify STYLE and LEAD LENGTH

THINBAND BARREL HEATER BANDS

2 1/2" to 6" ID Sizes

Part Number:	ID		Width		Volts	Watts	Watt Density		Terminal Options	Approx Wt.	
	inch	mm	inch	mm			W/in ²	W/cm ²		Lbs.	Kg.
STB2J1J8-S	2½	63.5	1½	38.1	120	300	31	4.8	All except A& L	0.3	0.14
STB2J1J11-S	2½	63.5	1½	38.1	240	350	37	5.7	All except A& L	0.3	0.14
STB2J2R1-S	2½	63.5	2¾	73	240	650	38	5.9	All except A& L	0.3	0.14
STB3A1J1-S	3	76.2	1½	38.1	240	400	32	5	All except A& L	0.5	0.23
STB3A1J3-S	3	76.2	1½	38.1	120	500	40	6.2	All except A& L	0.5	0.23
STB3A1J4-S	3	76.2	1½	38.1	240	500	40	6.2	All except A& L	0.5	0.23
STB3A2A1-S	3	76.2	2	50.8	240	500	30	4.6	All except A& L	0.8	0.36
STB3A2A2-S	3	76.2	2	50.8	240	600	36	5.6	All except A& L	0.8	0.36
STB3A2J7-S	3	76.2	2½	63.5	240	650	33	5.1	All except A& L	0.8	0.36
STB3A3A18-S	3	76.2	3	76.2	240	750	30	4.7	All except A& L	1	0.46
STB3E1J1-S	3¼	82.6	1½	38.1	240	400	29	4.5	All except A& L	0.5	0.23
STB3E2A41-S	3¼	82.6	2	50.8	240	500	27	4.2	All except A& L	0.33	0.7
STB3J1J2-S	3½	88.9	1½	38.1	240	500	33	5.1	All except A& L	0.5	0.23
STB3J2A1-S	3½	88.9	2	50.8	240	650	33	5.1	All except A& L	0.7	0.32
STB3J2J1-S	3½	88.9	2½	63.5	240	750	30	4.6	All except A& L	0.8	0.36
STB3J3A31-S	3½	89.9	3	76.2	240	750	25	3.9	All except A& L	1.1	0.5
STB3N1J1-S	3¾	95.3	1½	38.1	240	700	43 ^①	6.7	All except A& L	0.6	0.27
STB4A1J1-S	4	101.6	1½	38.1	240	550	32	5	All except A& L	0.6	0.27
STB4A1J2-S	4	101.6	1½	38.1	240	750	43	6.5	All except A& L	0.6	0.27
STB4A1J3-S	4	101.6	1½	38.1	240	650	37	5.7	All except A& L	0.6	0.27
STB4A2A1-S	4	101.6	2	50.8	240	550	24	3.7	All except A& L	0.8	0.36
STB4A2A2-S	4	101.6	2	50.8	240	800	35	5	All except A& L	0.8	0.36
STB4A3A31-S	4	101.6	3	76.2	240	1000	29	4.5	All except A& L	1.2	0.58
STB4E1J13-S	4¼	107.9	1½	38.1	240	550	30	4.7	All except A& L	0.7	0.32
STB4J1J1-S	4¼	114.3	1½	38.1	240	650	33	5.1	All except A& L	0.7	0.32
STB4J1J2-S	4¼	114.3	1½	39.1	240	400	20	3.1	All except A& L	0.7	0.32
STB4J2J1-S	4¼	114.3	2½	63.5	240	1000	35	5.4	All except A& L	1	0.45
STB4J3JA26	4¼	114.3	3	76.2	240	1200	30	4.7	All except A& L	1.2	0.58
STB4N1J3-S	4¾	120.7	1½	38.1	240	650	31	4.8	All except A& L	0.7	0.32
STB4N2A12-S	4¾	120.7	2	50.8	480	800	29	4.5	All except A& L	0.9	0.1
STB4R2A3-S	4¾	123.8	2	50.8	480	760	27	4.2	All except A& L	0.9	0.1
STB5A1J1-S	5	127	1½	38.1	240	700	32	5	All except A& L	0.7	3.22
STB5A1J2-S	5	127	1½	38.1	240	900	41	6.4	All except A& L	0.7	3.22
STB5A2A27-S	5	127	2	50.8	240	900	30	4.65	All except A& L	0.09	0.41
STB5A3E1-S	5	127	3¼	82.6	240	1250	26	4	All except A& L	1.5	0.68
STB5E1J1-S	5¼	133.4	1½	38.1	240	600	26	4	All except A& L	0.8	0.36
STB5E1J5-S	5¼	133.4	1½	38.1	480	600	43 ^①	6.7	All except A& L	0.8	0.36
STB5E1J2-S	5¼	133.4	1½	38.1	240	1000	43 ^①	6.7	All except A& L	0.8	0.36
STB5E2A1-S	5¼	133.4	2	50.8	240	1000	33 ^①	5.1	All except A& L	0.9	0.41
STB5J1J1-S	5½	139.7	1½	38.1	240	800	33	5.1	All except A& L	0.8	0.36
STB5J1J2-S	5½	139.7	1½	38.1	240	900	37	5.7	All except A& L	0.8	0.36
STB5J2A23-S	5½	139.7	2	50.8	240	1000	30	4.65	All except A& L	0.9	0.41
STB5J3A19-S	5½	139.7	3	76.2	240	1500	30	4.65	All except A& L	1.6	0.72
STB6A1J1-S	6	152.4	1½	38.1	240	600	22	3.4	All except A& L	0.9	0.41
STB6A1J2-S	6	152.4	1½	38.1	240	850	32	5	All except A& L	0.9	0.41

THINBAND BARREL HEATER BAND OPTIONS

6" to 11" ID Sizes

Part Number:	ID		Width		Volts	Watts	Watt Density		Terminal Options	Approx Wt.	
	inch	mm	inch	mm			W/in ²	W/cm ²		Lbs.	Kg.
STB6A1J3-S	6	152.4	1½	38.1	240	1000	37	5.7	All except A& L	0.9	0.41
STB6A2J3-S	6	152.4	2½	38.1	240	1450	34	5.3	All except A& L	1.5	0.68
STB6A3A1-S	6	152.4	3	46.2	240	1400	26	4	All except A& L	1.6	0.73
STB6E2A5-S	6¾	158.8	2	50.8	240	1000	27	4.2	All except A& L	1	0.46
STB6E3A1-S	6¾	158.8	3	76.2	240	1500	27	4.2	All except A& L	1.8	0.82
STB6J1J1-S	6½	165.1	1½	38.1	240	900	31	4.8	All except A& L	0.9	0.41
STB6J1J2-S	6½	165.1	1½	38.1	240	950	33	5.1	All except A& L	0.9	0.41
STB6J2A1-S	6½	165.1	2	50.8	240	1000	26	3.9	All except A& L	1.2	0.54
STB6J3A13-S	6½	165.1	3	76.2	240	1400	24	3.7	All except A& L	1.8	0.82
STB6J3A14-S	6½	165.1	3	76.2	480	1400	24	3.7	All except A& L	1.8	0.82
STB6L4J1-S	6¾	168.3	4½	114.3	240	2300	26	4	All except A& L	2.8	1.27
STB6N1J1-S	6¾	171.5	1½	38.1	240	1000	33	5.1	All except A& L	1	0.45
STB6N1J2-S	6¾	171.5	1½	38.1	240	750	25	3.9	All except A& L	1	0.45
STB6N2A1-S	6¾	171.5	2	50.8	240	1300	32	5	All except A& L	1.3	0.59
STB7A1J1-S	7	177.8	1½	38.1	240	950	30	4.6	All except A& L	1	0.45
STB7A1J2-S	7	177.8	1½	38.1	240	1100	35	5.4	All except A& L	1	0.45
STB7A2A16-S	7	177.8	2	50.8	240	1100	26	4.1	All except A& L	1.3	0.59
STB7A3A2-S	7	177.8	3	76.2	460	1650	26	4	All except A& L	2	0.91
STB7E1J9-S	7¾	196.8	1½	38.1	240	1000	30	4.2	All except A& L	1.1	0.5
STB7J1J1-S	7½	190.5	1½	38.1	240	1000	30	4.6	All except A& L	1.1	0.5
STB7J1J2-S	7½	190.5	1½	38.1	240	1200	35	5.4	All except A& L	1.1	0.5
STB7J3A2-S	7½	190.5	3	76.2	480	1800	27	4.2	All except A& L	2.4	1.08
STB7N1J11-S	7¾	196.8	1½	38.1	480	1000	29	4.5	All except A& L	0.58	1.2
STB8A1J1-S	8	203.2	1½	38.1	240	950	26	4	All except A& L	1.1	0.5
STB8A1J2-S	8	203.2	1½	38.1	240	1200	33	5.1	All except A& L	1.1	0.5
STB8A2A20-S	8	203.2	2	50.8	240	1500	30	4.7	All except A& L	1.5	0.65
STB8A3A1-S	8	203.2	3	76.2	240	2250	31	4.8	All except A& L	2.6	1.18
STB8J1J1-S	8½	215.9	1½	38.1	240	1200	31	4.8	All except A& L	1.2	0.55
STB8J1J21-S	8½	215.9	1½	38.1	480	1200	30	4.7	All except A& L	1.2	0.55
STB8J2A1-S	8½	215.9	2	50.8	240	1600	31	4.8	All except A& L	1.6	0.73
STB8N1J11-S	8¾	222.3	1½	38.1	480	1200	30	4.7	All except A& L	1.3	0.61
STB8N2A10-S	8¾	222.3	2	50.8	240	1600	30	4.7	All except A& L	1.5	0.68
STB9A1J1-S	9	228.6	1½	38.1	240	1300	32	5	All except A& L	1.3	0.59
STB9J2A1-S	9½	244.3	2	50.8	240	1800	32	5	All except A& L	1.7	0.77
STB9J3A1-S	9½	244.3	3	76.2	240	2000	23	3.6	All except A& L	2.8	1.27
STB10A1J1-S	10	254	1½	38.1	240	1400	31	4.8	All except A& L	1.5	0.68
STB11A1J1-S	11	279.4	1½	38.1	240	1600	32	5	All except A& L	1.7	0.77
STB11A2A1-S	11	279.4	2	50.8	240	2000	30	4.6	All except A& L	2.1	0.95

SEE THE NEXT 3 PAGES FOR BARREL HEATER TERMINALS and CLAMPING OPTIONS

THINBAND BARREL HEATERS STOCK OPTIONS

Style BR – Right Angle Leads With Braid



This Thinband Style BR includes two fiberglass lead wires that exit at a right angle through a single tightly woven metal braid. The braided metal covering ensures abrasion protection, lead flexibility, and wiring convenience. Leads are 51 mm (2 in.) longer than the braid. When placing and order for this design, specify **Type BR** band heater, and include required length

Style C – Leads With Braid



This Thinband Style C includes two fiberglass lead wires that exit through a single tightly woven metal braid. The braided metal covering ensures abrasion protection, lead flexibility, and wiring convenience. Leads are 51 mm (2 in.) longer than the braid. When placing and order for this design, specify **Type C** band heater, and include required length.

Style F – Leads With Fiberglass Sleevings



This Thinband Style F includes a loose fiberglass sleeving enclosing two fiberglass leads, providing additional insulated protection where high temperature or minor abrasion is present. Leads are 51 mm (2 in.) longer than the sleeving. When placing and order for this design, specify **Type F** band heater, and include required length.

Style FR – Right Angle Leads With Fiberglass Sleevings



This Thinband Style FR includes a loose fiberglass sleeving placed at a right angle. The Sleeving encloses two fiberglass leads that provide additional insulated protection where high temperature or minor abrasion is present. Leads are 51 mm (2 in.) longer than the sleeving. When placing and order for this design, specify **Type FR** band heater, and include required length.

Style H – Leads With Armor



This Thinband Style H design features a stainless steel flexible conduit (aka Armor) that encloses leads for superior mechanical protection that minimizes lead abrasions. The leads are 51 mm (2 in.) longer than the conduit length. When placing and order for this design, specify **Type H** band heater, and include required length.

THINBAND BARREL HEATER STOCK OPTIONS



Style K – Fiberglass Leads

This Thinband Style K design offers flexible lead wires that exit vertically from the heater band. The flexible leads can be bent for along-side positioning next to the heater allowing for quick and easy connection. When placing and order for this design, specify **Type K** band heater, and include required length



Style KR – Right Angle Fiberglass Leads

This Thinband Style KR design offers flexible lead wires exiting at a right angle from the heater band. The flexible leads can be bent for alongside positioning next to the heater allowing for quick and easy connection. When placing and order for this design, specify **Type KR** band heater, and include required length



Style T – Post Terminals

This Thinband Style T design includes post terminals that provide a quick connection with ring or fork connectors, or buss bars (for dual circuits). It is threaded with 6 mm x 1 mm studs or optional metric (M5X.8) including provided double nuts and washers. Post terminals have a threaded length of 14 mm (0.5625 in.) and require 32 mm (1.25 in.) clearance from the cylinder. Maximum amperage for post terminals is 15 amps (they can withstand up to (61.0 Newton- Meter) 45 in-lbs of torque.)

This style band makes increased torque possible – due to the unique add-on lead cap design that houses the cap separately from the heater. This separation means the torque carrying capability is maintained within the cap design, allowing the terminal hardware to be torqued to a specific setting and allow for testing prior to heater connection. This style's welded electrical connection to the heater is superior to crimped or staked connections, which can loosen and oxidize over time. When placing and order for this design, specify **Type T**



Style TE – Euro Plug

When placing and order for this design, specify **Type TE**

THINBAND BARREL HEATER STOCK OPTIONS

QuickClamp



The QUICK CLAMP has a spring-loaded design that ensures the Thinband heater is quickly and tightly secured in place in a matter of seconds. Thinbands with a QUICK CLAMP fit over barrels and snap in place with an easy flip of its latching lever.

- Hot change-outs are completed in seconds.
- Spring tensioned clamp keeps the THINBAND heater tight against barrel, meaning it won't loosen over time.
- Ideal for vertical applications.
- The QUICK CLAMP simplifies your install, eliminating tools, loose parts
- THINBAND opens up to fit over barrel. There is no need to remove other heaters.
- This band heater is available in selected stock, and made-to-order needs. Thinband barrel heaters are available at a minimum of 100 mm (4 in.) diameter, 8 mm (1.5 in.) width.

Clamp Bars



Clamp Bars are the standard clamping application for most Thinband Barrel Heaters. For installation: Tighten the screw to make your heater secure.

Clamping Pads



Clamping pads are used when an obstruction would prevent a standard full circumferential heater from fitting completely around a machine barrel. The clamping pads have a hole designed to allow easy fastening to the machine barrel.

Tig Welded Barrel Nuts



An ideal way to provide access for instrumentation is to specify an over sized gap between the heater ends. If the Thinband clamp bar screw interferes with the positioning of the instrumentation device, then tig welded barrel nuts are recommended, and stainless steel top metal is required. Maximum gap is 25 mm (1 in.).

Tig Welded Barrel Nuts With Spring Loaded Clamp



Tig welded barrel nuts with spring loaded clamp – is used during start-up to ensure the heater fits securely on large barrels. Stainless steel top metal is required. Refer to the Thinband Recommended Clamping Graph. This band heater option is mandatory on vertical applications.

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Ground Wire Or Terminal Stud

For Ground Wire requirements: 18 gauge uninsulated ground wire is available on all lead types (except post terminals and Type C leads).

For Terminal Stud requirements: Studs are welded to the sheath and are provided with a green nut and washer; a 5 mm ground terminal stud will have a threaded length of 17mm (1.0625 in.).

Note: For orders requiring Ground Wire or Terminal Stud: Specify Uninsulated Ground wire, or Terminal Stud.

Holes

An economical way to provide access for instrumentation is to specify an over-sized gap between the heater ends. A hole in the sheath should be specified only when the entire cylinder surface (adjacent to the hole) must be heated.

When required, one hole may be provided in almost any location – as long as there is at least a 25 mm (1 in.) distance between the hole and one side of the heater. Standard hole sizes up to 51 mm (2 in.) diameter. Consult original factory manufacturer for limitations.

Note: For proper hole designation, a dimensional drawing is required with your band heater order.

Two-Piece Construction

This Two piece barrel heater can be modified as a Non-Stock Option when required features need to be positioned differently from Stock specifications.

Two-Piece Barrel Heaters are available on heaters 127 mm (5 in.) or greater in diameter. Heaters 38 mm (1.5 in.) wide and greater with post terminals, have the two terminals side-by-side. Two-Piece Barrel Heaters are available from stock by combining two one-piece heaters to create a larger diameter. Terminations will be 90 degrees from each gap. Our Quick Clamp closure method must be supplied at one gap when ordering. Click to read more about the: Quick Clamp design.

Note: When ordering two-piece barrel heaters, specify the volts and watts per half. On two-piece units with leads, you must also specify the power supply voltage. Example: a two-piece barrel that is 240V~(ac) per half may be wired in series to a 480V~(ac) power supply. In this case, the barrel heater lead wire insulation must be rated for 480V~(ac).

