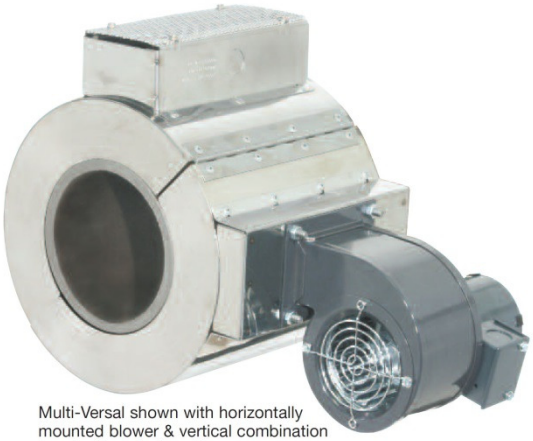
Multi-Versal Extruder

CAST-IN HEATERS

Multi-Versal extruder heat/cool systems are designed for efficient heating and cooling. The shroud systems can be used with many styles of band heaters. Due to the single layer design, the Multi-Versal shroud system has a low profile OD. The reflective interior of the shroud decreases the heat-up cycle, reducing energy consumption. The unrestricted blower port directs inlet air to the hottest part of the heater and distributes it evenly over the entire cross section of the zone.



Multi-Versal shown with horizontally mounted blower & vertical combination terminal box & air outlet

CONSTRUCTION DETAILS

SINGLE LAYER SHROUD

- Solid Stainless Steel Layer – radiation shield that directs the cooling air flow over the heater

SHROUD ASSEMBLY FEATURES

- Two Mounting Styles are available:
  - ✓ *Hinge with Barrel Clamps*
  - ✓ *Two Individual Halves with Barrel Clamps (Two-Piece) – used where installation space is tight or mounting is difficult*
- Internal Support Straps or Support U-Bolt on blower mount half of shroud permits shroud to be opened for servicing without removing unit from barrel
- Anti-Rotate Tabs – used only with Finned Cast-In Heaters to prevent shroud from radial and axial movement around the barrel
  - ✓ *Tabs are cast as part of the heater and may require a Terminal Box*
- Blower Options
  - ✓ *Single or Dual Tempco Recommended Blowers available from 148 CFM up to 1210 CFM at 115V or 230V, or 480V 3-Phase*
  - ✓ *Customer Specified blower*
  - ✓ *Blower not required for Heat-Only Shrouds*
- Blower Location
  - ✓ *Horizontal or Vertical Orientation*
  - ✓ *Extension Housings Available*
- Standard separate top Screened Air Outlet
- Optional Screened Air Outlet Features Include:
  - ✓ *Air outlet combined with Terminal Box*
  - ✓ *Alternate Radial Air Outlet locations available*
- Shroud Air-Inlet Baffle Optional
- Vent Hole(s) Optional

HEATER TYPES AND COMPONENTS

- Recommended Heater Types – Finned Cast-In Heaters with standard 1/4" gap between heater halves, Ceramic Band and Maxiband Heaters
- Power Input Terminal Box with 7/8" dia. K.O. for 1/2" conduit:
  - ✓ *Standard 10-32 stud termination with ceramic or mica insulator*
  - ✓ *With Louvered Cover – used when terminal box is separate from air-outlet*
  - ✓ *Stainless Steel Screen – used when terminal box is combined with air outlet*
- Power Input through Blower Mount – input wiring through knockouts in blower mount eliminates terminal box and facilitates ease of heater service

SENSING AND CONTROLLING

- Existing Zone Control Probe – Shroud System can be designed per customer specifications
- Thermal Solutions of Texas supplied Zone Control Probe
- Thermal Solutions of Texas customized Power Control Panel designed to complete Your Thermal Loop System

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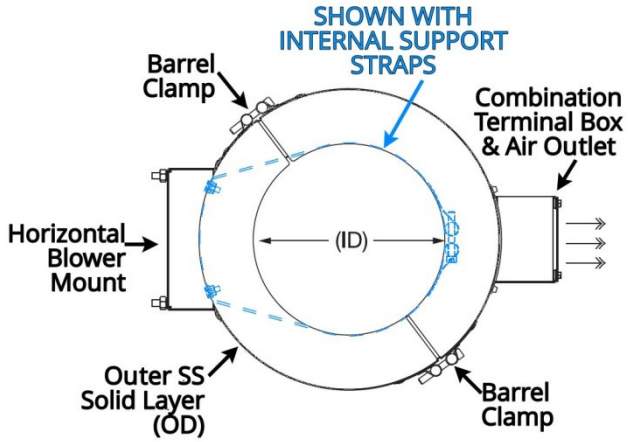
HORIZONTAL & VERTICAL MOTOR MOUNT DESIGN SPECS

The following partial listings are part numbers and specifications for shroud designs engineered and manufactured. Each item listed below can be modified to fit customer requirements. Zone Control Probes are placed per customer specifications.

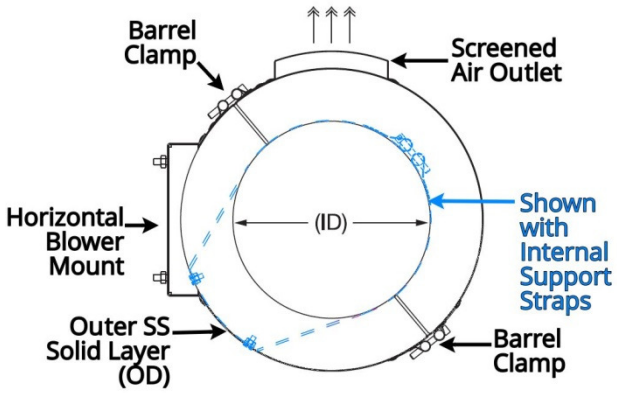
BARREL OD (SHROUD ID)	SHROUD WIDTH	SHROUD OD (INCHES)	BLOWER LOC. (INCHES)	AIR OUTLET LOC. (°)	TERMINAL BOX LOC. (°)	BLOWER CFM (°)	MAX HEATER OD (INCHES)	HEATER PART NUMBER	WATTS PER SHROUD	HEATER VOLTAGE	REF DRAWING NUMBER	SHROUD PART NUMBER
5.50	13.00	9.50	180	0	0	273	8.75	CBH07945	5600	600	3	ASJ00041
5.90	16.00	10.97	270	0	0	550	9.875	CBH14346	8000	240-3PH	5	ASJ00427
6.25	13.50	10.82	180	0	0	550	10	BCH06668	6000	240	3	ASJ00292
6.25	14.00	10.50	180	0	0	550	9.75	CBH14356	6800	240	3	ASJ00431
6.25	18.50	10.25	180	0	0	550	9.5	CBH11500	8800	460	3	ASJ00177
6.50	13.00	10.32	180	0	0	358	9.5	CBH13473	7500	240	3	ASJ00321
6.50	15.50	10.75	180	0	0	358	10	CBH11428	8000	575	3	ASJ00167
6.63	18.50	10.63	180	0	0	550	9.875	CBH07947	8800	460	3	ASJ00042
6.63	17.50	11.20	270	0	0	485	10.38	CBH14069	9250	480	5	ASJ00389
7.50	14.25	11.25	180	0	0	550	10.5	CBH13306	7000	240	3	ASJ00304
7.50	18.00	11.25	180	0	0	550	10.5	CBH13305	10600	240	3	ASJ00303
7.50	20.50	11.75	90	270	270	797	11	(2)BCH07244	6000	480	1	ASJ00380
7.50	29.00	11.25	180		0	(2) | 550	10.5	(2)CBH13307	16200	240	3	ASJ00302
8.50	10.25	12.50	270	0	0	485	11.75	BCH07114	2200	240	5	ASJ00363
8.50	15.25	13.00	90	0	NONE	1200	12.25	CBH13467	6000	230	2	ASJ00320
9.50	27.50	14.00	180	0	0	(2) | 732	13.25	(2)CBH13149	12000	230	3	ASJ00290
9.50	27.75	14.00	180	0	0	(2) | 550	13.25	CBH14088	24000	480-3PH	3	ASJ00393
9.75	11.50	13.75	180	0	0	358	13	CBH09965	9000	230	3	ASJ00078
9.75	11.50	13.75	180	0	NONE	358	13	CBH09965	9000	230	4	ASJ00131
9.75	19.50	15.00	180	0	NONE	1200	14.25	CBH12313	12600	240	4	ASJ00076
9.75	23.50	13.50	180	0	0	(2) | 485	12.75	CBH10719	16000	240	3	ASJ00112
9.88	22.00	14.13	180	0	NONE	1200	13.38	CBH13711	10500	220	4	ASJ00355
10.75	11.00	15.00	180	0	0	550	14.25	CBH14235	8800	230	3	ASJ00408
11.50	15.38	16.00	180	0	0	797	15.25	CBH13295	11000	460	3	ASJ00301
12.25	17.75	16.75	180	0	0	1200	16	CBH13347	16500	230-3PH	3	ASJ00310

MULTI-VERSAL EXTRUDER REFERENCE SHROUD DRAWINGS

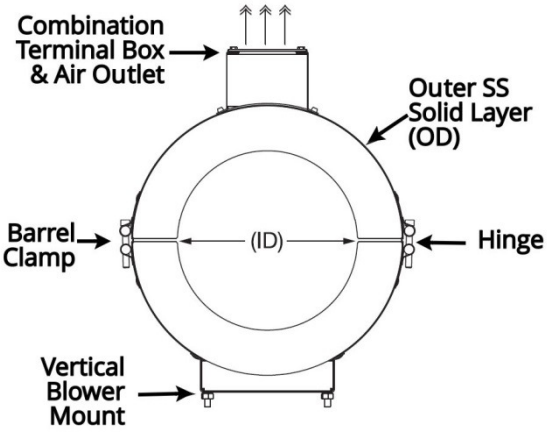
DRAWING 1



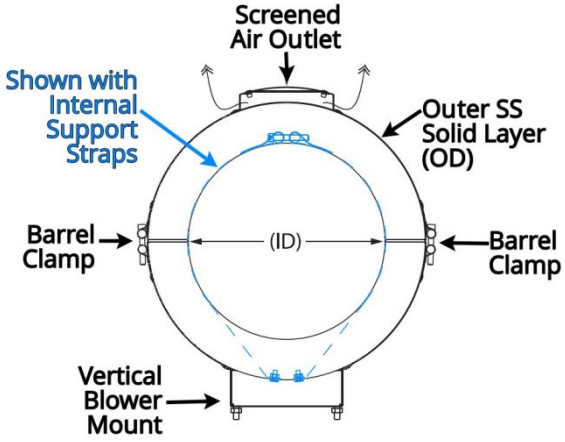
DRAWING 2



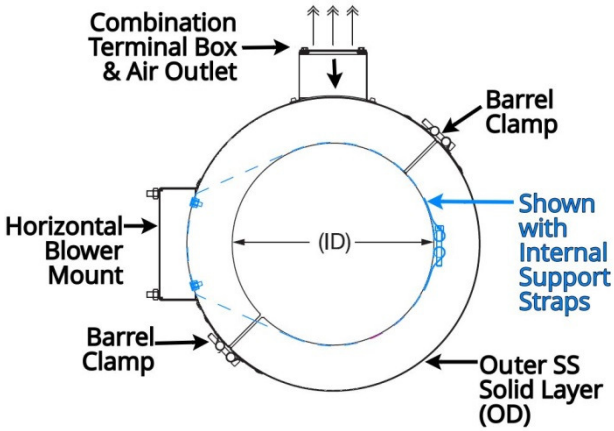
DRAWING 3



DRAWING 4



DRAWING 5



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Thermal Solutions of Texas

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CAST-IN HEATERS

MADE TO ORDER REQUEST FORM

CUSTOMER INFORMATION

NAME: _____ PHONE: _____ FAX: _____

COMPANY: _____

ADDRESS: _____

CITY: _____ STATE: _____ ZIP: _____

EMAIL:

EXTRUDER

MODEL: _____ MFG: _____ PROCESS TEMP: _____ ☐ °F ☐ °C

RESIN TYPE:

When submitting this form, please include an extruder barrel sketch or drawing that includes the following:

- Extruder Barrel Support(s)
- No. of Heating Zones
- Vent Locations
- Zone Probe Locations
- Input Feed Location
- Pressure Tap Location
- Zone Length(s)
- Additional Restrictions

PLEASE PROVIDE DIGITAL IMAGES (IN .JPG FORMAT) OF THE EXTRUDER BARREL

SHROUD SPECIFICATIONS

STYLE: ☐ Cool to the Touch ☐ Multiversal Quantity Required: _____

DIMENSIONS: Width/Zone Length _____ ☐in ☐cm Extruder Barrel ID/Shroud ID _____

Max Shroud OD _____ ☐in ☐cm (Determined by engineering unless specified by customer)

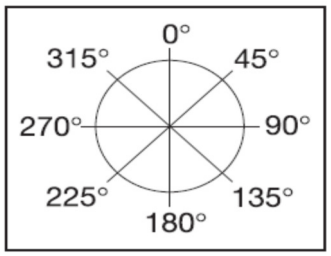
Existing Heater OD _____ ☐in ☐cm (Determined by Engineering when new heater is purchased)

SUPPORT: Internal Shroud Support Required? ☐ Yes ☐ No

SHROUD COMPONENTS AND LOCATIONS

BLOWER MOUNT	☐ Horizontal	☐ Vertical	Radial Loc: _____
AIR OUTLET	☐ Away from Terminal Box	☐ WithTerminal Box	Radial Loc: _____
TERMINAL BOX	☐ Louvered – away from outlet	☐ Screened – with outlet	Radial Loc: _____
HINGED CLAMPS	☐ Barrel Clamps	☐ Adjustable	Radial Loc: _____
CLAMPS no Hinge	☐ Barrel Clamps	☐ Adjustable	Radial Loc: _____
ZONE T/C PROBE	Qty:	Hole Dia(s):	Radial Loc:

INDICATE RADIAL LOCATIONS



BLOWER SPECIFICATIONS

CONFIGURATION: ☐ Single ☐ Dual ☐ Stock Blower: (Determined by engineering if not specified)
☐ Cust. Supplied P/N: _____ or CFM _____ Volts: _____ Hz _____

OPTIONAL BLOWER EXTENSION: ☐ Horizontal ☐ Vertical ☐ Custom (Consult Thermal Solutions)
☐ Cust. Supplied (Please attach mounting information when submitting this form)
MFG: P/N: or CFM Volts: Hz

HEATER SPECIFICATIONS

EXISTING HEATER: P/N: _____ ☐ Replace Exisiting Heater ☐ Cover Existing Heater

IF PURCHASING NEW HEATER: Type: ☐ Cast-In(s) ☐ Other: _____
ID: _____ Width: _____ ☐ in. ☐ cm Watts/shroud: _____ Votls: _____

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