OUTDOOR / INDOOR RATED
QUARTZ TUBE INFRARED HEATERS

- UL/C-UL listed for suspended, totally exposed (outdoor) and indoor spot heating applications.
- Frosted Quartz Tube heating element (included).
- 60° Symmetric heat pattern.
- Finish: High-temp brown powder coated finish or corrosion resistant stainless steel 24-gauge housing.
- Gold anodized aluminum reflector and end caps.
- Painted Brown models are direct wire and include (3) 24" long lead wires for field connections in a remote enclosure (not supplied). Optional electrical box enclosure is available for this series to allow for direct wire connection to the end of the heater housing.
- Stainless steel models include an electrical enclosure assembled to the end of the heater housing and (2) 6" long lead wires for direct field connection.
- Two 2' ft. long mounting chains and four S-Hooks included.
- The OCH-Series can be surfaced mounted using the supplied mounting brackets which allow up to a 45º horizontal tilt adjustment.

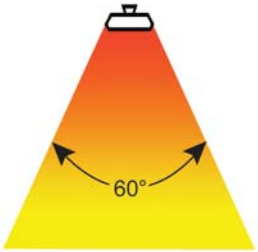
- Three different mounting options available:
  Chain Mount (supplied, as shown)
  Wall Mount
  Ceiling Mount

FINISH - BROWN			FINISH - STAINLESS STEEL*			WATTS	BTU'S	VOLTS	AMPS	Qtz. Tube Repl. Element	WT. (Lbs.)
Enclosure Sold Separately			Includes Electrical Enclosure								
UPC 686334	MODEL	LIST	UPC 686334	MODEL	LIST						
480444	OCH-46-120V	276	480529	OCH-46-120V-SS	325	1500	5120	120	12.5	671-3784	10
480451	OCH-46-208V		480536	OCH-46-208V-SS		2000	6826	208	9.6	671-5061	
480468	OCH-46-240V		480543	OCH-46-240V-SS		2000	6826	240	8.3	671-3785	
480475	OCH-46-277V		480550	OCH-46-277V-SS		2000	6826	277	7.2	671-5018	
480499	OCH-57-208V	318	480574	OCH-57-208V-SS	361	3000	10239	208	14.4	671-5060	12
480482	OCH-57-240V		480567	OCH-57-240V-SS		3000	10239	240	12.5	671-3786	
480505	OCH-57-277V		480581	OCH-57-277V-SS		3000	10239	277	10.8	671-5059	
480512	OCH-57-480V		480598	OCH-57-480V-SS		2250	7679	480	4.7	671-5058	

OPTIONAL ACCESSORIES:

UPC 686334	MODEL	DESCRIPTION	FOR USE WITH	WT. (Lbs.)	LIST
480888	OCHWG-46	Stainless Steel Wire Guards	OCH-46 Series Models	2	45
480895	OCHWG-57		OCH-57 Series Models	2	47
881128	VMB-41-SS	Wall Mtg. Brackets (2)	ALL OCH Models	12	180
485357	VHC-32	Variable Heat Controller	ALL OCH Models	3	390
871556	OCH-EBK-120	Enclosure w / cord & plug	OCH 120V Models	3	59
871563	OCH-EBK-208	Enclosure w / cord	OCH 208V Models	3	59
871570	OCH-EBK-240	Enclosure w / cord & plug	OCH 240V Models	3	59
871587	OCH-EBK-480	Enclosure Only	OCH 277/480V Models	2	44

Reflector Pattern



OUTDOOR / INDOOR RATED
QUARTZ TUBE INFRARED HEATERS

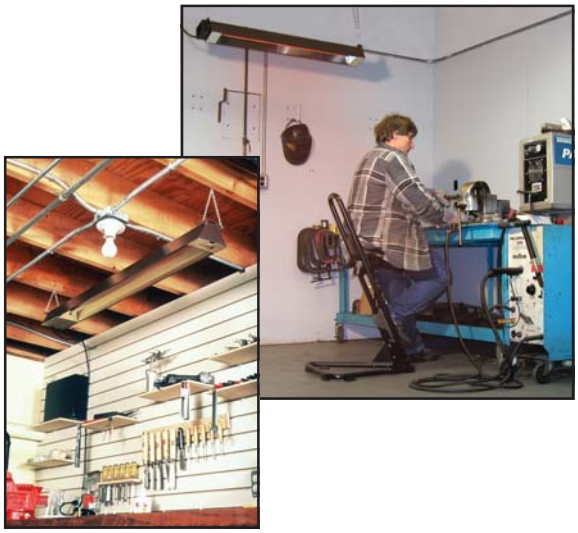
Application Solutions:

- Outdoor spot heating for patio areas, bus shelters, smoking areas, etc.
- Indoor spot heating for over workstations, lobby entrance ways, and vestible areas; including process applications for parts.
- To achieve optimum infrared heating results, do not exceed mount heights of 12' and tilt heaters 15-20° inward towards target.

Stainless Steel Models for additional corrosion resistance in outdoor applications

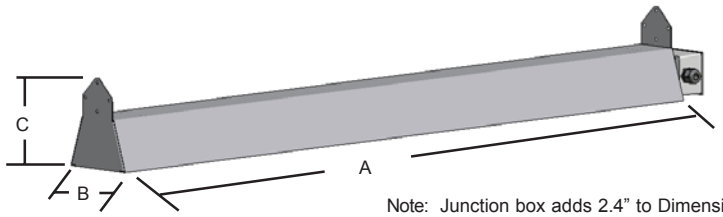
SIZING CHART - OCH SERIES						
Mounting Height	Heater Model	Watts	Heat Pattern Coverage (@ floor level)			Total Watts / Sq. Ft.
			Length	Width	Sq. Ft.	
7'	OCH-46	1500	11	9	99	15.2
	OCH-46	2000	11	9	99	20.2
8'	OCH-46	1500	12	10	120	12.5
	OCH-46	2000	12	10	120	16.7
	OCH-57	3000	13	10	130	23.1
	OCH-57	2250	13	10	130	17.3
9'	OCH-46	1500	13	11	143	10.5
	OCH-46	2000	13	11	143	14.0
	OCH-57	3000	14	11	154	19.5
	OCH-57	2250	14	11	154	14.6
10'	OCH-57	3000	15	12	180	16.7
	OCH-57	2250	15	12	180	12.5
12'	OCH-57	3000	17	14	238	12.6
	OCH-57	2250	17	14	238	9.5

Place over workstations or cold spots for instant spot heating



DIMENSIONS:

Dimensions - OCH Series			
Heater Series	Length (A)	Width (B)	Height (C)
OCH-46	42.0"	5.4"	6.5"
OCH-57	53.0"	5.4"	6.5"

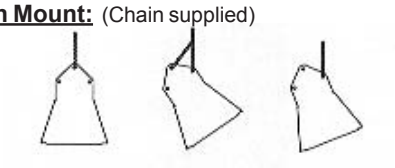


Note: Junction box adds 2.4" to Dimension "A"

MOUNTING: (As shown below, the heater may be suspended at any horizontal angle desired.)

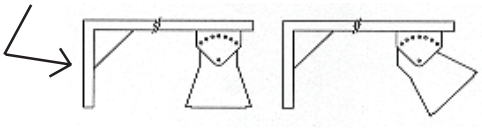
- Chain mount the heater in a variety of positions on both ends of the housing.
- Built-in adjustable surface mounting brackets allow the heater adjustment up to a 45° horizontal tilt.
- Optional Vertical Mounting Bracket positions heater the required distance from a vertical surface.

Chain Mount: (Chain supplied)

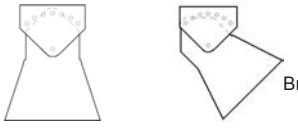


Optional Vertical Mounting Bracket:

Model # VMB-41-SS



Adjustable Mounting Bracket Mount: (2-Brackets supplied)



Bracket allows adjustment up to a 45° horizontal tilt.

Mounting Clearance Requirements	
3"	from ceiling
12"	from vertical surface
36"	from side of another heater
72"	from face of heater to combustible surface

Note: All OCH Heaters must be mounted horizontally.

Recommended Mounting Heights

OCH-46 (7' to 9')
OCH-57 (8' to 10')

ELECTRIC INFRARED SIZING INFORMATION

TYPES OF ELECTRIC INFRARED APPLICATIONS

1. Total Area / Building Heating

Average: **8-20 Watts per Square Foot**

Calculation: **Sq. Ft. of Area x .5 x Desired Temp Rise* = Total Watts Required.**

* - Desired Temperature Rise = Desired Comfort Level - Outside Design Temp

Note: Above calculation is an **AVERAGE ONLY**. Always Reference Fostoria's Heating Manual to determine ALL heat loss calculations.

Principles of Total Area / Building Heating:

~Always complete a "Heat Loss Calculation"
~Concentrate heat on perimeter areas
~Avoid mounting below 8' ft.
~Avoid mounting unit directly over an individual's head

2. Indoor Spot Heating

Average: **25-60 Watts per Square Foot**

Calculation: **Sq. Ft. of Area x 1 x Desired Temp Rise = Total Watts Required.**

Principles of Indoor Spot Heating:

~Always cross beam patterns
~Always try to heat from both sides of object
~Avoid mounting below 8' ft.
~Avoid mounting unit directly over an individual's head

3. Outdoor Spot Heating

Average: **2 Watts per Square Foot per Desired Temp. Rise**

Calculation: **Sq. Ft. of Area x 2 x Desired Temp Rise = Total Watts Required.**

Principles of Outdoor Spot Heating:

~Use Quartz Lamps or Quartz Tubes
~Always use the MTM, OCH & RPH Heaters
~Never use 90-Degree Patterns
~Strive for Blanket Coverage of Area

4. Snow and Ice Control Heating System

Average: **85-110 Watts per Square Foot**

Calculation: **Sq. Ft. of Area x Required Watts / Sq.Ft.* = Total Watts Required.**

* - Required Watts = Table B Result (Table A: Factor I + Factor II)

Principles of IR Snow & Ice Control Systems:

~Always use Quartz Lamps
~Always use the Mul-T-Mount Heater
~Strive for Blanket Coverage of Area
~Never use 90-Degree Patterns
~Never Mount Above 16' ft.

Table A

Factor I		*Factor II*	
Outside Design Temp. Deg.F	Value	Annual Snowfall (In.)	Value
-20 to -60 Deg.F	4	80" to 115"	4
-10 to -19 Deg.F	3	50" to 79"	3
0 to -9 Deg.F	2	20" to 49"	2
+19 to 1 Deg.F	1	10" to 19"	1
+40 to 18 Deg.F	0	0" to 9"	0

Note: Must Reference Table 4 of Fostoria's Heating Manual to determine the outside design temp. and the annual snowfall for the designated area.

Table B

Total Value (From TABLE A)	*Watt Densities per Square Foot (*)*		
	Exposed	Semi-Protected	Protected
8	200	185	160
7	175	160	145
6	125	110	100
5	110	100	90
4	100	90	85
3	95	80	75
2	90	70	65

(*) - Exposed = Totally Open Area; Semi-Protected = One side closed plus roof or overhang; Protected = Three sides plus roof or overhang.

NOTE: Always refer to the Fostoria Electric Infrared Heating Manual to verify all calculations. The above formulas are for average heating requirements in average locations.