



## **Guide to a Successful Hot Box Installation:** *Helpful Recommendations and Considerations*

Having the proper equipment and knowledge for the installation of your drum or tote hot box is essential to preparing for a successful installation. While all standard LEWCO hot boxes ship fully assembled, there are still some important considerations one must think about prior to installing the equipment. This guide is provided by LEWCO, Inc. to assist customers in becoming familiar with the means necessary for successfully installing a drum or tote hot box.

### **Choosing a Location**

When choosing a location for your hot box, it is important to consider a number of factors such as employee safety, ventilation, neighboring structures or equipment, proximity to flammable or combustible materials, hazardous areas, maintenance and utility requirements, and how the materials being processed will be loaded and unloaded. Further, hot boxes should always be placed on a non-combustible surface and consideration should be given to the weight of the hot box, including the weight of the materials being processed, to ensure it is within the floors load capacity.

- Due to the inherent hazards associated with process heating equipment, careful consideration should be given to the location of the hot box. Avoid installations near exits, main aisles, or other high traffic areas to minimize employees risk to harm in the event of a fire or explosion. Further, the hot box should be installed in well-vented area to avoid asphyxiation.
- The hot box should be located so that air circulation around the unit is not restricted. Do not block fresh air inlets or exhaust outlets of the unit. If your cabinet includes a vent, take time to determine the necessary path to duct the vent outdoors.
- LEWCO recommends allowing 12” between the hot box and any wall or neighboring structure to protect against excessive temperatures. If 12” cannot be achieved, LEWCO requires a minimum airspace of at least 4”.
- Examine the proximity of the hot box to any areas where flammable or combustible materials are stored. Particles and vapors from flammable or combustible materials can be drawn into the hot box through combustion blowers or air vents, thus increasing the chance of fire or explosion.
- For installations in hazardously classified areas, LEWCO offers an optional Class I, Div. I, Group D rated hot box. Be sure to select this option before purchasing your hot box. *NEVER* install a non Class I, Div. I, Group D rated hot box in a hazardously classified area.
- For maintenance requirements, be sure there is sufficient space around the cabinet to access service panels, heater elements, controls, blowers, thermocouples, burners, and filters.
- Ensure the selected location allows for the proper utility connections (adequate power supply, fluid piping, etc.)
- Lastly, consider how the materials being processed will be loaded and unloaded from the unit. Is there plenty of room to maneuver a fork truck, and enough ceiling height to raise the forks? Do the doors fully open for easy access? Is the floor smooth enough to use a pallet jack or drum dolly?

## Receiving & Handling

It is the customer's responsibility to unload their hot box from the freight truck once it is received. Thus, a fork truck or overhead crane is needed to unload and transport the unit to the desired location. For indoor installations, it is important to consider the path the unit will need to travel to reach its final location. Consider the overall dimensions of the unit and verify there is adequate space between any permanent structures (overhead doors, mezzanines, ceiling height, etc.).

Most LEWCO hot boxes are equipped with either fork pockets or lifting lugs, also known as lifting eyes. See *Figure 1*. In this case a fork truck or crane is used to move the unit. Hot boxes not equipped with lifting lugs or fork pockets (typically low profile models), can also be moved via fork truck, however this is done slightly different than moving a hot box equipped with fork pockets. To move a hot box without fork pockets, open the doors and place forks underneath the roof of the unit, then lift. It is recommended that wood blocks or another non-marring material be inserted between the forks and the roof of the unit to prevent scratches or dents. Similarly, hot boxes equipped with fork pockets are designed to insert forks under the unit and lift from the bottom. It is important that in either case the fork truck have adequate capacity to both safely lift and transport the unit.

For hot boxes equipped with lifting lugs, LEWCO recommends using a crane to transport the unit. In this case LEWCO requires using a spreader beam, or rigging of adequate length, to avoid damaging the unit. It is important to note that rigging cables or chains must not exceed a maximum angle of 10 degrees from vertical. See *Figure 2*.

## Installation

Once the hot box has been placed in the desired location, use a level to ensure the unit sits properly. The unit should be leveled both side to side and front to back in reference to the grating or flooring inside the unit. If necessary, shim or grout the hot box. If it is obvious the desired location has a very uneven floor, consider purchasing adjustable legs from LEWCO.

After a level surface is established, the doors should align and swing freely. Finally, anchor down the hot box using expansion anchors through the holes provided. Anchors should be 1/8" smaller than the holes provided.

Model	Lifting Lugs	Fork Pockets	None
EC01L/SC01L			X
EC02L/SC02L			X
EC04L/SC04L			X
EC06L/SC06L	X		
EC08L/SC08L	X		
EC12L/SC12L	X		
EC01S/SC01S			X
EC02S/SC02S		X	
EC04S/SC04S		X	
EC06S/SC06S		X	
EC08S/SC08S		X	
EC12S/SC12S	X		
EC16S/SC16S	X		
EC08V/SC08V		X	
EC16V/SC16V	X		
EC24V/SC24V	X		
EC32V/SC32V	X		
EC1TS/SC1TS		X	
EC2TS/SC2TS		X	
EC3TS/SC3TS	X		
EC4TS/SC4TS	X		
EC2TV/SC2TV		X	
EC4TV/SC4TV	X		
EC6TV/SC6TV	X		
EC8TV/SC8TV	X		

Figure 1 - Construction

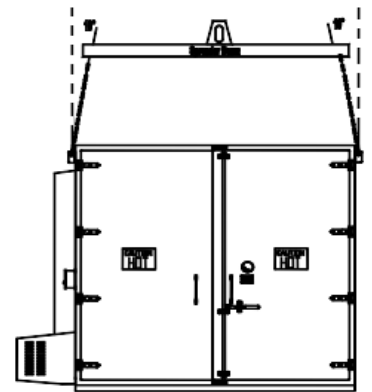


Figure 2 - Rigging

## Additional Considerations & Recommendations

- To reduce the possibility of ignition by static electricity, connect an adequate ground wire on the 1/4"-20 ground lug bolt provided at the lower left rear corner of the unit.
- Hot boxes with Class I, Div. I, Group D rated controls require a sealant or “chico” to be loaded into the conduit. If this is required, the conduit will be marked to provide proper indication.
- Please note, for hot boxes with electronic controllers there is a non-fused disconnect included in the unit’s control panel. It is the customers responsibility to connect power to this disconnect. See *Figure 3*.
- Hot boxes with electronic controllers are supplied with a 30 or 60 amp disconnect. To determine which disconnect will be supplied with your unit, round the appropriate FLA rating for your hot box up to the next higher disconnect rating.

Model	Full Load Amps (with/ without fans)				
	208/3/60	240/3/60	380/3/60	480/3/60	575/3/60
EC01L (3kW)	9/12	8/10		4/5	
EC02L (6kW)	18/20	15/18	10/11	8/9	7/8
EC04L (6kW)	18/20	15/18	10/11	8/9	7/8
EC06L (12kW)	34/37	30/32	19/20	15/16	13/14
EC08L (12kW)	34/41	30/36	19/23	15/18	13/15
EC12L (18kW)		44/47	28/30	22/24	19/20
EC01S (3kW)	9/12	8/10		4/5	
EC02S (6kW)	18/20	15/18	10/11	8/9	7/8
EC04S (6kW)	18/20	15/18	10/11	8/9	7/8
EC06S (12kW)	34/37	30/32	19/20	15/16	13/14
EC08S (12kW)	34/41	30/36	19/23	15/18	13/15
EC12S (18kW)		44/47	28/30	22/24	
EC16S (24kW)			37/44	30/36	25/30
EC08V (12kW)	34/41	30/36	19/23	15/18	13/15
EC16V (24kW)			37/44	30/36	25/30
EC24V (30kW)				37/43	31/36
EC32V (30kW)				37/43	31/36
EC1TS (6kW)	18/20	15/18	10/11	8/9	7/8
EC1TS (12kW Option)	34/37	30/32	19/20	15/16	13/14
EC2TS (12kW)	34/41	30/36	19/23	15/18	13/15
EC3TS (18kW)			28/30	22/24	19/20
EC4TS (24kW)			37/44	30/36	25/30
EC2TV (12kW)	34/37	30/32		15/16	13/14
EC4TV (24kW)			37/44	30/36	25/30
EC6TV (30kW)				37/43	31/36
EC8TV (30kW)				37/43	31/36

Figure 3

We hope you found this document informative and useful. For any additional questions, please contact LEWCO engineers directly at 419-502-2780, or by email at [ovensales@lewcoinc.com](mailto:ovensales@lewcoinc.com). We’d be happy to help. Thank you!