OWNER'S MANUAL

CDL MAPLE SUGARING EQUIPMENT

Air Operated Drum Pump – Instructions for use

*The air operated drum pump was designed by **CDL** as a convenient and fast tool to allow the transfer of maple syrup out of a standard drum. All stainless steel and food friendly components have been used where there is contact with the maple syrup. A source of compressed air is required to operate the pump.*

The pump is designed to be threaded into the 2" npt opening on the top of 25, 32, 34 and 45 gallon galvanized and stainless steel maple syrup drums. The pump will require an adapter piece of clear hose installed on the end of 1" stainless steel pipe to reach the bottom of some drums. This piece of hose does not need to be clamped on, merely slipped over the end of the stainless steel pipe.

Remove the bung from the drum you intend to pump from. Carefully thread the pump into the opening and rotate it as many turns as possible until it is firmly in place by hand. The number of turns into the thread must not be less than five revolutions. A wrench is not required to install the pump. Connect the heavy wall clear hose that comes with the pump to the 1" barbed fitting and place the other end of the hose into the opening of the next barrel or the vessel you intend to fill. Secure the hose into the vessel as it becomes heavy when filled with syrup and may move or fall out. With both ¼" npt valves in the off position, connect the air line to the fitting with the quick connect coupling. The supply of air to the pump should be about 5 psi only, but must not exceed 10 psi. Partially open the air valve that is closest to the quick connect fitting and in a few seconds as the drum is pressurized, the syrup will begin to flow out the clear hose.

In order for syrup to flow out of the drum pump, it must be warm or around room temperature. If the syrup is around or below freezing conditions, it will not flow. Care must be taken to not force low temperature syrup out with the pump or it will exert too much air pressure on the drum and expand it causing damage or injury. If for any reason the syrup does not flow after several seconds, turn the air off and check that the supply of air is adequate or that there is no blockage in the pipes where syrup must flow out. To check for a blockage, all air pressure inside the drum must first be released.

Carefully monitor the flow of maple syrup. You cannot rush the flow of maple syrup by increasing the air pressure as the drums will not tolerate higher pressure inside, they are not designed for this. The air pressure in the drum is manually controlled by the air valve closest to the air quick connect fitting. This valve should be immediately turned off if there is any sign of bulging in the top of the drum. The other valve next to it should be opened immediately to allow the air pressure to be released. A minor deviation in the top of the drum is normal as the drum is pressurized.

When pumping maple syrup out of a drum, the operator must always keep in mind the syrup will continue to flow for a few seconds after the air supply is turned off. The drum will still be under air pressure until the pressure forces more syrup out and the pressure goes back down to zero inside. The operator must therefore keep a close watch on the vessel they are filling to determine the level in it and learn to turn the air valve off in advance of the vessel being filled to the desired level. This will take monitoring and practice to get a better understanding of the operating characteristics. When the vessel that is being filled is about 5% below the desired level, immediately turn off the air supply valve and open the air release valve to quickly stop the flow of maple syrup.

The drum pump comes with a preset pressure relief valve that will open at a high limit of 25 psi to reduce the risk of damage to a drum and the operator. Although this limit may be adjusted down, do not adjust the limit higher or remove the relief valve.

When the drum is empty or the operator is finished pumping syrup, release all air pressure from the drum by removing the air supply line at the quick coupler and opening the air supply valve on the syrup pump. The air pressure release valve next to it must also be opened to ensure all air pressure inside the drum has been released. Once these steps are complete, the pump may be unthreaded from the bung and washed with hot water. Be sure to thoroughly flush hot water through the clear hose and the 1" stainless steel pipe to ensure all maple syrup and stickiness is removed.

Ensure the supply of air to the drum pump is clean. It is recommended to use an oil less air supply. If an oil less air compressor is

not used, install a filter in the air supply line to prevent contaminants from passing into the barrel when it is beinq pressurized.

If you have any questions on the operation of this product, please feel free to contact the friendly professionals at ***CDL.***