Horrods

70 years of engineering excellence

Operating Instructions

For safe use of
Non-Agitated Hot Air Rubber Melters

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C o n t e n t s

P a g e :

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I N T R O D U C T I O N

Thank you for choosing to purchase a new W.J. Horrod Ltd Non-Agitated Hot Air Rubber Melter.
All our products are made to a very high, and recognised engineering standard, and if used correctly by a trained, certificated operative, to our operating and maintenance instructions, will increase the machines longevity.
Operatives must always read the manufacturers operating instructions before attempting to use the machine.
No attempt must be made to carry out any repairs or maintenance whilst equipment is in operation. Safe working practise is a legal requirement and must always be adhered to. Protective clothing should always be worn when operating this equipment.
Faulty equipment should be immediately shut down, and reported directly to the supervisor/person in charge, and not used again until the fault has been rectified.

PLEASE NOTE

This unit was manufactured for use with specific hot rubber material only. Using any other materials goes against its intended use.
Using this unit for any other material could nullify the manufacturer's warranty.

IMPORTANT INFORMATION

1] **NEVER attempt to operate the machine before carefully reading the following operating instructions, and having been shown how to do so by a qualified person. The machine must always be used outside. FULL protective clothing MUST be worn at ALL times.**

2] **Check the power lead for damage and wear.**

3] **The material should be placed into the machine before lighting.**

4] **Material MUST always be covering the THERMOSTAT CAPILLARY sensor tube, to avoid OVER HEATING of the material which can cause the material to FLASH and CATCH ALIGHT.**

5] **NEVER carry out any repairs or servicing whilst the machine is in use. All such repairs/service should only be undertaken with the power off, and the gas turned off at the cylinder. Always allow the machine to go cold.**

6] **When faults are discovered the machine should be shut down, and these faults should be reported to the person directly responsible. The machine should, on no account, be used again until all faults have been corrected.**

7] **NEVER operate machine with safety guards or covers removed.**

8] **Machine should NEVER under any circumstances be left unattended when in use.**

USEFUL OPEATING INFORMATION AND ADVICE

1] Never leave material in machine unless;

a] it is unavoidable due to circumstances beyond your control i.e., weather conditions, or the job is not ready to use material.

b] The material is going to be used the following day.

2] We recommend this for the following reasons;

a] When a large volume of material is allowed to go cold, care must be taken and more time allowed to re-heat that material.

B] Always ensure the material level is above the thermostat sensor probe, this will avoid the thermostat recording the air temperature which will keep the main burner(s) on, leading to the risk of taking the material over temperature.

C] Always carefully load the machine, wearing protective clothing and full-face shield to avoid the dangers of material splashing upwards.

D] Always load the machine equally using both loading hatches.

E] Always place the machine on level ground, and apply all the brakes available.

F] Never leave the gas cylinders attached to the machine upon work completion for that day. Cylinders must be stored in a suitable lockable cupboard or gas cylinder cage.

3] In the event of a fire please follow the instructions below, if safe to do so;

a] Turn off gas from the cylinder(s), if the lids are not already closed, and it is safe to do so, close the lids, disconnect the gas cylinder bottle(s), and remove to a safe place. Do not open the lids for a least 60 minutes after the fire, to allow material and temperature within the pan to cool down. Full face mask and protective clothing should always be worn when operating Melters.

L i g h t i n g

The cylinders to be used should always be checked to ensure no damage or debris is located in the inlet/outlet valve of the cylinder. Clearing dirt or debris with an air hose or similar, is the preferred clearing method. Using a clean dry cloth to ensure no particulates can obstruct a true seal between the connections. **N e v e r u s e a s h o r t b l a s t f r o m o p e n i n g t h e g a s c y l i n d e r i n a n a t t e m p t t o c l e a r t h e t h r e a d s .**

Connect 2 full 47 kg propane cylinders.
Connect the hose assembly(s) attached to the Melter, to the cylinder(s).
As above, ensure the connections are clean and free from dirt before connecting them to the bottle, the minimum distance between the cylinders and the machine should be 3 metres, and the armoured hose should be laid flat along the ground to prevent any tripping accidents. The armoured hose that we supply with the machine is 6 metres long.
Once gas connections are completed check all gas tap(s) on the Melter are in the off position.
Turn gas on at the cylinder(s), check connections at the bottle(s) and Melter for leaks using a LEAK DETECTOR SPARY, propane has a very distinctive smell.
Never use a naked flame to test for gas leaks.

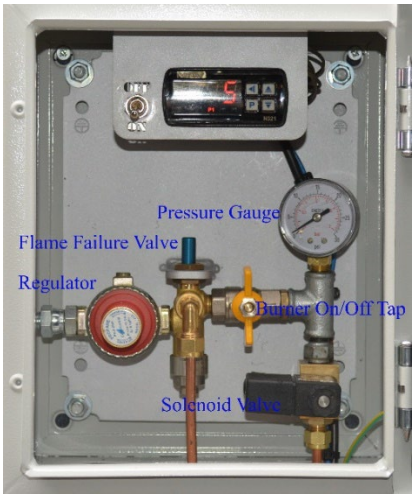
D I G I T A L T H E R M O S T A T

Thermostats are factory set at 220ºc Maximum and can be easily adjusted by the operator to suit material working temperature.
N O T E : Once burners have switched off on the set temperature material will continue to rise between 10 and 20ºc. Once material is fully melted temperature should equalize.

A d j u s t i n g T e m p e r a t u r e S e t t i n g :

1] Switch power on at the toggle switch.
2] Press ‘P’ for 1 second until ‘SP’ flashes.
3] Using up and down buttons set required temperature.
4] Press ‘P’ again to return to operation screen.

D i g i t a l T h e r m o s t a t



When temperature is below 0ºc the digital display will present 3 dash lines - - -, leave the power switch and thermostat on, and close the control box door, this will allow the heater which is fitted in the control box to raise the temperature above 0ºc in the box.

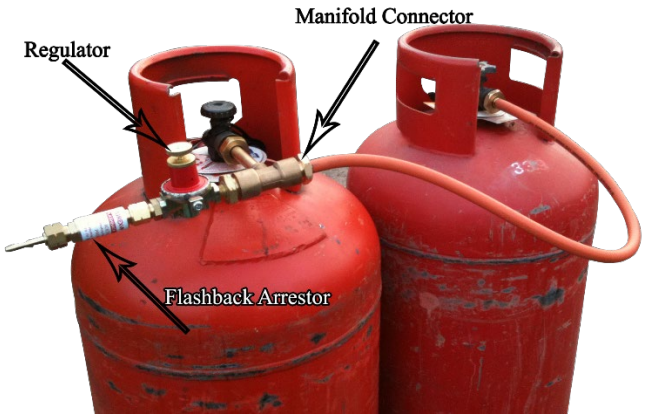
PLEASE DO NOT ADJUST ANY OTHER SETTINGS.

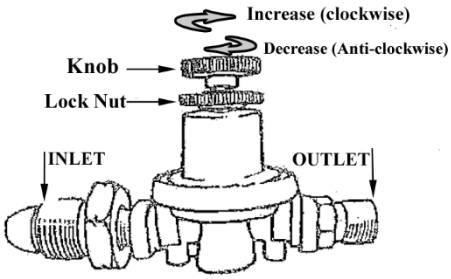
REMEMBER THAT LIGHTING THE BURNERS SHOULD ONLY TAKE PLACE ONCE THE MACHINE IS LOADED WITH THE MATERIAL.

Never place your hands anywhere near the hot materials within the pan!

The photo below illustrates how you couple 2 bottles together with a manifold connector, if required, to stop cylinders freezing in the colder weather.

Propane Bottles Correctly Coupled together





Propane Regulator
(Adjustable Version Shown)

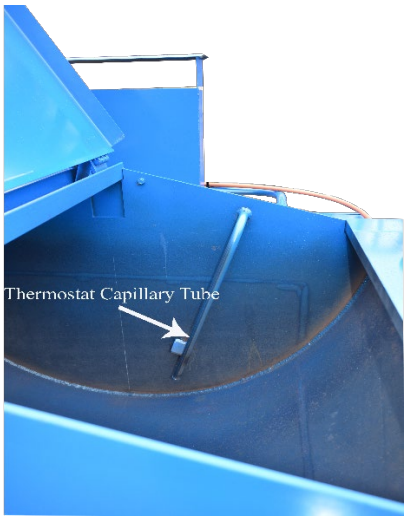
All illustrations are for information and recognition purposes only, and may not always be set up in the same manner on each machine. This is always contingent on the needs of the customer.

H e a t i n g P r o c e s s :

Hot air machines work by producing heat from an open nozzle propane burner firing down a series of stainless-steel perforated tubes, allowing hot air and radiated heat into the heat exchange chamber. This type of machine has no oil-jacket and therefore heats the material faster, care should be taken not to heat the material too quickly as this will create hotspots, especially on the first load when the machine is cold. Machines are fitted with a thermostat control, once the material reaches the temperature the unit has been set at, it will cut out the burners – the thermostat then controls the burners to maintain the heat level required to optimize the materials. (As from 2010 all new machines are fitted with Thermostat Control – it is no longer an option).

T h e r m o s t a t C a p i l l a r y T u b e :

At no time should the molten material be permitted to fall below the thermostat temperature probe located within the material pan – as shown in the diagram. The probe indicates the temperature to the thermostat unit and if this is not detected the burner will remain lit and overheat the material causing it to ignite.



IMPORTANT: – Once the material has been added, close the lids. When emptying the machine, always turn the main burner off.

W o r k i n g T e m p e r a t u r e :

170°c - 218°c – based on information available at the time of writing. However, this may vary depending on the material manufacturer. Always check the manufacturer's guidelines and instructions when using these materials.

E x p a n s i o n :

Material expansion is approximately 25% at working temperature. **Never overfill**.

M a t e r i a l P a c k a g i n g :

The material was packed in the beginning in what the manufacturers called 'drums', but this proved to be a health and safety issue due to the size and weight. The material is now packed in various ways, and differing weight/sizes depending on the manufacturer.

Shutting down the machine and leaving it safe/secure:

Procedure:

1) Turn off both gas cylinders. Once the burner and pilot are fully extinguished, turn all gas taps to the off position. (Flick the toggle switch to the off position.)
2) Dismantle hose, and regulator assembly from the cylinders and store in a lockable cage or similar.
5) Lock the material outlet.
6) Make sure lids are closed and where possible, lock the lids.

IMPORTANT:

Always ensure that you release the pressure from the regulator before you open full cylinders. This will avoid lockup pressure that will damage the flame failure valve.

HEALTH & SAFETY

1: Equipment should only be used by a trained, certified operative.
2: Lids must be closed at all times unless loading.
3: Protective clothing and full-face mask should always be worn when operating or loading the material.
4: Never leave equipment unattended when alight, or running.
5: If a fault occurs, shut down the equipment immediately, and report the fault to the person directly responsible.
6: Always turn the burners off, and where applicable allow cooling before maintenance or repairs are carried out. Remove external power sources (where applicable).
7: When the machine is being used where the general public may come into contact 'HOT SURFACE' warning signs should be posted on or around the machine and the machine enclosed with protective fencing.
8: Important (de-mountable machines only), the machine must only be lifted empty and never with the undercarriage attached.
9: All machines are fitted with tested lifting eyes at time of manufacture; this means the machine has been test lifted. All our hire machines, where applicable, will always come to site with a current examination certificate for the shackles, as the eyebolts are part of the machine, and do not need certification. It is your responsibility to ensure any machines owned by your company are examined every 6 months. (Many sites require test lift certified documentation.)
10: The machine must never be used inside – only outside.
11: Last, but not least, always remember that safety is everyone's responsibility, never do anything that is likely to put yourself or anybody else at risk.

Horrod's advise that all operatives are retrained at least once every 24 months, to ensure that the knowledge acquired on these courses are of continued benefit to the user and any advances can be incorporated.

Regulators must be marked BS:3016 or BS: EN:12864 or BS: EN:16129. Any regulator marked BS:3016 will be over 10 years old and should be replaced.

Use only certified hoses to BS:3212 or BS: EN:1763-1 or BS: EN:16436-1 which bear the year and name of manufacturer or stainless-steel convoluted hoses marked EN:10380 as LPG attacks and erodes natural rubber.

WJ Horrod Ltd reserves the right to alter or change the content herein should legislation or other recommendations from manufacturers or suppliers change.

B L A N K P A G E L E F T F O R O P E R A T I V E N O T E S :