# INSTALLATION / OPERATION MANUAL

# E85HLD PROVER / HOLDING CABINET

#### MANUFACTURED BY

Moffat Limited PO Box 10001 Christchurch New Zealand (03) 389 1007 Ph<sup>.</sup> (03) 389 1276 Fax:

#### WORLD-WIDE BRANCHES

#### UNITED KINGDOM

Blue Seal Units 6-7, Mount Street Business Park Mount Street, Nechells Birmingham B7 5QU (121) 327 5575 Ph: Fax: (121) 327 9711

#### UNITED STATES

Moffat Inc 3765 Champion Blvd Winston-Salem North Carolina 27115 (336) 661 0257 Ph: Fax: (336) 661 9546

#### CANADA

Serve Canada 22 Ashwarren Road Downview Ontario M3J1Z5 Toll Free:800 263 1455 Ph: (416) 631 0601 (416) 631 0315 Fax: info@servecanada.com www.servecanada.com www.moffat.com

#### NEW ZEALAND

Christchurch Moffat Limited PO Box 10-001 16 Osborne Street Christchurch (03) 389 1007 Ph: (03) 389 1276 Fax:

#### AUSTRALIA

Victoria Moffat Pty Limited 740 Springvale Road Mulgrave, Melbourne Victoria 3171 (03) 9518 3888 Ph: (03) 9518 3838 Fax:

#### Western Australia

Moffat Pty Limited 67 Howe Street Osbourne Park WA 6017 Ph: (08) 9202 6820 Fax: (08) 9202 6836

# New South Wales Moffat Pty Limited

Auckland Moffat Limited

Mt Wellington

Auckland

Ph:

Fax:

4 Waipuna Road

3/142 James Ruse Drive, Rose Hill PO Box 913, Smithfield Sydney, N.S.W. 2142 Ph: (02) 8833 4111 (02) 8833 4133 Fax:

(09) 574 3150

(09) 574 3159

# Queensland Moffat Pty Limited

30 Prosperity Place Geebung, Brisbane Queensland 4034 Ph: (07) 3630 8600 Fax (07) 3630 8623

The reproduction or copying of any part of this manual by any means whatsoever is strictly forbidden unless authorized previously in writing by the manufacturer.

In line with policy to continually develop and improve its products, Moffat Ltd. reserves the right to change the specifications and design without prior notice.

© Copyright Moffat Ltd. November 2006.

Introduction
Installation
Before Connection Location
Electrical Connection
Water Connection (Auto Fill Models Only) Rack Width
Stacking with Convection Oven
Specifications
Operation9
Description of Controls Condensation Channel
Operating in PROVE Mode
Bake-Off Problem Solving
Hints
Operating in HOLD Mode
Cleaning and Maintenance13
Trouble Shooting14
Trouble Shooting
Spare Parts15
Circuit Schematics16
E85-HLD Prover / Holding Cabinet (Manual Fill) E85A-HLD Prover / Holding Cabinet (Auto Fill)

Date Purchased Serial No
Dealer
Service Agent

.

\_

We are confident that you will be delighted with your E85HLD PROVER / HOLDING CABINET, and it will become a most valued appliance in your commercial kitchen.

A new oven can seem very complex and confusing at first glance. To ensure you receive the utmost benefit from your new Prover, there are two important things you can do.

## Firstly

Please read the instruction book carefully and follow the directions given. The time taken will be well spent.

#### Secondly

If you are unsure of any aspect of the installation, instructions or performance of your prover, contact your E85HLD dealer promptly. In many cases a phone call could answer your question.

#### **Installation Requirements**

It is most important that this prover / holding cabinet is installed correctly and that operation is correct before use.

Installation shall comply with local electrical, health and safety requirements.

#### Before Connection to Power Supply

- Remove all packing.
- Check equipment and parts for damage. Report any damage immediately to the carrier and distributor.
- Remove protective plastic coating from the side panels.
- Check that the available power supply is correct to that shown on the rating plate located on the right-hand side panel.

E85HLD 110-120 Volts A.C, 60 Hz, 1P+N+E, 1.65 kW, 14.5 A E85HLD 220-240 Volts A.C, 50 Hz, 1P+N+E, 1.65 kW, 7.2 A

#### Location

• To ensure correct ventilation for the motor and controls the following minimum installation clearances are to be adhered to:

Left-hand side	0 mm / 0 " 0 mm / 0 "
Right-hand side 2	5 mm / 1

#### **Electrical Connection**

- E85HLD provers are supplied fitted with cords. Ensure unit is fitted with correct cord and plug.
- To access the electrical connection terminal block, grounding lug and strain relief, remove the right hand side panel.

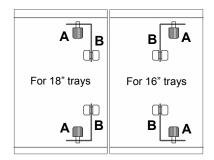
#### WARNING - THIS APPLIANCE MUST BE EARTHED / GROUNDED

#### Water Connection (Auto Fill Models Only)

- A cold water supply should be fitted to the water inlet (¾" BSP connection) which is located near the rear of the right hand side of the unit.
- Alternately, a connection elbow and sealing washer is supplied with this unit for direct connection of a <sup>1</sup>/<sub>2</sub>" ID hose, and is recommended for easy installation and service.
- Connect water supply Max inlet pressure 80psi / 550kPa.
- Turn on water supply to check for leaks.

#### Rack Width

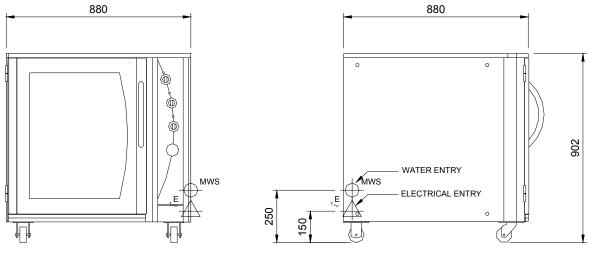
- The E85HLD prover has been designed to accept either 18" or 16" wide trays.
- The prover comes factory set for 18" trays, to change to 16" trays:
  - Remove the RH side rack (lift and extract).
  - Undo the thumb screws (A) holding the RH rack supports (B) and turn RH rack supports around, then re-secure with thumbscrew.



#### **Stacking with Convection Oven**

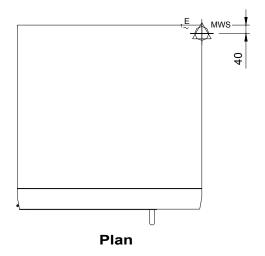
- The E85HLD prover is supplied standard with a top lid for stand alone use.
- Optionally, the E85HLD prover can be combined underneath a MOFFAT E35 convection oven as a complete unit. For this a stacking kit is required (part number 022299).
- For installation of the stacking kit, refer to the instructions provided with the kit. These instructions also include the procedure for mounting the E35 convection oven on top of the E85HLD prover and stacking kit.

#### E85-8HLD Prover



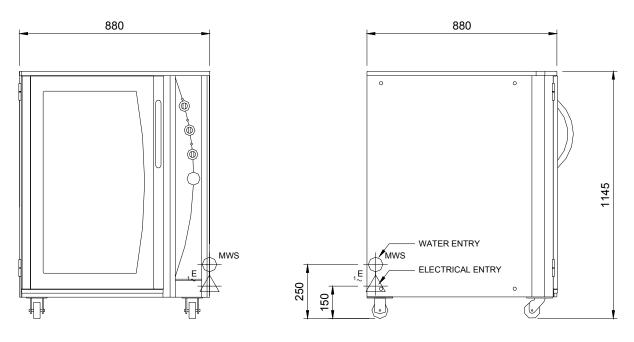
Front

Side



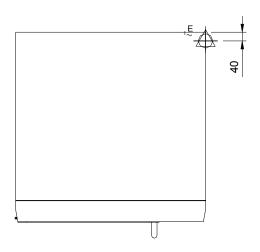
Electrical Connection	110-120 Volts A.C, 60 Hz, 1P+N+E, 1.65 kW, 14.5 A 220-240 Volts A.C, 60Hz, 1P+N+E, 1.65kW, 7.2A
Cold Water Connection (Auto Fill Models Only)	$\frac{3}{4}$ " B.S.P. or $\frac{1}{2}$ ID hose (550kPa / 80psi maximum pressure)

## E85-12HLD Prover



Front

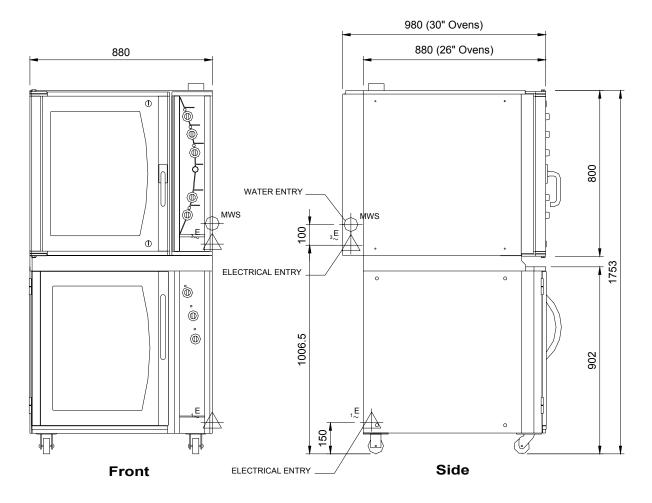
Side

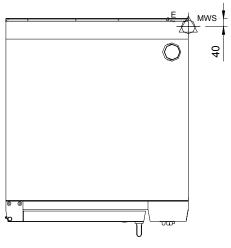


Plan

Electrical Connection	110-120 Volts A.C, 60 Hz, 1P+N+E, 1.65 kW, 14.5 A
Cold Water Connection (Auto Fill Models Only)	$^{3}\!$

## E85-8HLD Prover / E35 Oven

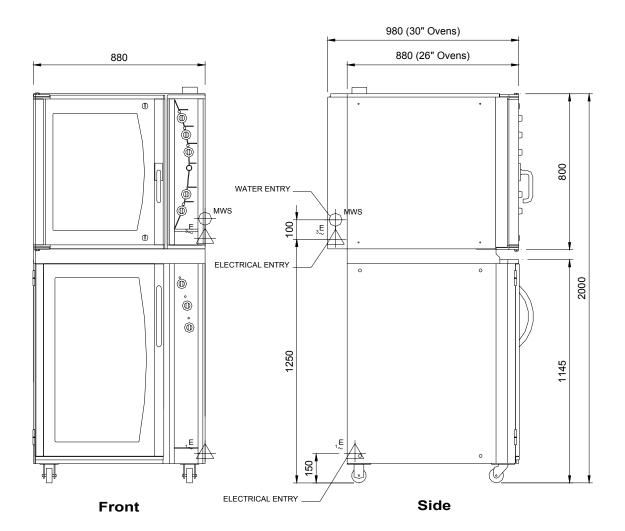


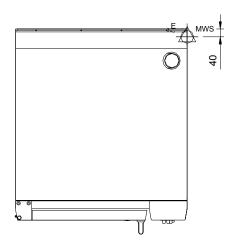




7

#### E85-12HLD Prover / E35 Oven





Plan

8

## **Operation Guide** Sturbofan 85 FUNCTION **Description of Controls** OFF PROOF Function \_\_\_\_ 0 Unit is off HOLD PROOF Unit is in proving mode (indicator illuminates) HOLD Unit is in holding mode (indicator illuminates) THERMOSTAT Thermostat \_ Temperature range 0 - 80°C. Indicator illuminates when the elements are cycling ON to maintain set temperature. (Controls the cabinet air temperature) HUMIDITY Humidity Control LO - Setting for butter based pastries (croissants, Danish pastries etc.) MED/HI - Setting for yeast based breads and doughs. Indicator illuminates when elements are cycling ON to maintain set temperature. (Controls the cabinet humidity in PROOF mode only) Thermometer Dual Centigrade and Fahrenheit scale. Indicates cabinet temperature. **Condensation channel** There is a condensation channel below the proofer door for the purpose of collecting door condensation run-off. A diameter 12.7mm (1/2") drain outlet is provided in the centre of this channel and is factory fitted with a drain bung. The drain facility can be used in three ways: Remove the bung when emptying is required and drain into collection vessel. Refit bung until next drainage. Place a suitable collection vessel or pan on the floor below the drain outlet and remove bung permanently for continual draining. Empty collection vessel or pan as required. Remove the bung and connect a 12.7mm $(\frac{1}{2})$ I.D. hose or similar to drain outlet and route hose to permanent drainage.

#### **Operating in PROOF Mode**

Ensure that power is supplied to the unit and the water trough is filled

#### It is recommended that the prover operates empty before loading with product

- Warm days up to 10 minutes - Cool days up to 30 minutes

#### 1. Ensure water tank is filled with water

Standard models: Open the prover door and fill the water tank located at the front of the right hand side rack. The tank should be filled to  $20 \text{ mm} (\frac{3}{4}^{\circ})$  from the top of the tank. Remember to top up the water tank when the water level is below the halfway level in the tank (before the heating element is exposed).

Auto fill models: Check the water tank is full and that the heating element is well covered.



#### 2. Set function to PROOF

Indicator light will illuminate when the switch is in the "PROOF" position.

#### 3. Set thermostat to desired proving temperature

Indicator light will illuminate when the elements are cycling on to maintain set temperature.

25-30°CButter based pastries35-40°CYeast based breads and doughs



#### . Set humidity to desired level

Indicator light will illuminate whenever elements are cycling on to maintain set humidity.

As a guide;

Set humidity to between 'LO' and MED' marks on control panel as a general rule. Increase or decrease as found necessary for specific product types.

Humidity is required only to avoid product dry skinning on surface. Do not set humidity such that product becomes sticky and wet on surface. A silky to touch surface on the product is a general recommendation for correct humidity levels.

Avoid excess humidity levels as this will also create excess condensation in the cabinet interior.

**Note:** Butter based product require much less humidity than breads.

#### Bake-Off

This prover has been designed for use together with a refrigerator and oven to take frozen uncooked yeast or butter based products to finished cooked products.

1. Prepare product

Arrange frozen products onto baking trays.

2. Thaw

Refrigerate at 4°C overnight. Do not leave standing at room temperature or product may dry out.

3. Prove

Place thawed products directly from the refrigerator into the pre-heated prover. Prove for 30-60 minutes dependant on product and food proving recommendations.

4. Bake

Place proved product directly from the prover into the pre-heated oven. We recommend the Moffat E35 Turbofan Oven.

#### **Problem Solving**

#### **Product collapses**

When using frozen dough which collapses or shrinks in the oven after proving, this is caused by too much proving. Reduce the proving time for the next batch.

#### **Dry product**

The dough piece in the prover should never be dry to the touch. A moist, firm and silky membrane should cover the dough piece during proving.

#### Wet product

The dough piece in the prover should not be wet to touch whilst proving and should not adhere to fingers. Water should not condense on the trays. If it does there is either too much moisture or too little heat in the prover.

If there are any problems with your dough the most likely causes are as follows:

- Too much heat and too little moisture.
- Not enough heat and too much moisture.
- Proving time too long or too short.
- Incorrect oven temperature.
- Incorrect maturity adjustment in the formulation of the dough for the flour.
- Incorrect thawing procedure, or handling of the dough after thawing.

#### Hints

#### Heat

It is better to operate the prover at a lower temperature with adequate moisture rather than at a hotter temperature with too little moisture.

#### Yeast

Yeast activity starts very slowly at about 5°C and increase in speed or gas production as the temperature rises. When a temperature of approximately 60°C is reached, the yeast is killed and baking of the aerated product starts. Thus different rates of proving occur as the temperature changes.

#### Flour

The amount of proving required is determined by the quality of the GLUTEN in the flour. Gluten is a rubber like product and can perish if stretched too far by too much proving. Collapsing of the product or shrinkage will occur.

#### Proof

You must recognise the proof of the product by the *appearance* of the dough rather than the *size*.

#### **Operating in HOLD Mode**

Ensure that power is supplied to the unit and the water trough is filled

- It is recommended that the cabinet operates empty before loading with product
  - Warm days up to 10 minutes Cool days up to 30 minutes



## 1. Set function to HOLD

Indicator light will illuminate when the switch is in the "HOLD" position.



#### 2. Set thermostat to desired holding temperature

Indicator light will illuminate when the elements are cycling on to maintain set temperature.



#### 3. Humidity

The humidity is not used in HOLD mode. The setting on this dial will have no effect as the wet element is disabled.

#### 4. Thermometer

The thermometer gives an accurate reading of the cabinet temperature to ensure that the product being held is at the correct temperature.

#### **Cleaning Guidelines**

#### Caution:

## ALWAYS TURN OFF THE POWER SUPPLY BEFORE CLEANING.

#### THIS UNIT IS NOT WATER PROOF.

#### DO NOT USE WATER JET SPRAY TO CLEAN INTERIOR OR EXTERIOR OF THIS UNIT.

#### Cabinet

Clean with a good quality stainless steel cleaning compound. Harsh abrasive cleaners may damage the surface.

#### Side racks

To remove, take hold of the centre rung and lift upwards to disengage the rack key-holes from the hanger studs. To replace, hold horizontally, engage keyholes onto studs and push down.

#### Door

Wash with warm water and detergent solution using a soft sponge in straight lines up and down the door. Rinse with clean, warm water and dry off.

#### Water tank

Remove the RH side rack and remove tank by lifting off its hanger studs. Clean with warm soapy water. Rinse thoroughly and refit.

#### Water tank element

When the element becomes limed/scaled remove the water trough and clean. Replace water trough and half fill with white vinegar or acetic acid, then fill to the normal level with water. Switch the unit on, turn the humidity to HI and operate for approximately 30 minutes. Remove trough and clean the element with a damp cloth when cooled. Rinse out the through and refit to unit.

This procedure is recommended to be carried out once a week. Frequency of cleaning the element may be increased or decreased depending on the lime depositing on the element.

Fault	Possible Cause	Remedy
The prover does not operate / start.	The mains isolating switch on the wall, circuit breaker or fuses are "off" at the power board.	Turn on.
	The power switch on the cabinet is off.	Rotate switch. Indicator will illuminate.
No humidity.	Unit is in HOLD mode	Switch unit to PROOF mode. (Humidity is only generated in PROOF mode).
	No water in trough.	Fill with water.
Slow recovery.	Overloading of cabinet.	Reduce batch size.
	Door opened unnecessarily.	Do not open unnecessarily.
Door does not close.	Tray in way of door.	Correctly position tray in rack.

## **Replacement Part List**

#### Controls

022789	Switch - Function
020823	Knob - Power
022787	Thermostat (Temperature)
015485	Thermostat (Humidity)
020823	Knob - Temperature Thermostat
021472	Knob - Humidity Thermostat
020849	Neon Indicator
022788	Thermometer

#### **Auto Fill Option**

020851	Solenoid Valve
021534	Relay
022250	Float Switch

#### **Motor & Elements**

022042	Fan
025387	Motor
021694	Dry Element
021696	Wet Element

## Door

021434	Door Assembly - 8 Tray Unit
021436	Door Assembly - 12 Tray Unit
021468	Handle
021663	Hinge
018947	Magnetic Catch

## Racks

021416	Side Rack - 8 Tray Unit
021417	Side Rack - 12 Tray Unit

## E85 Prover / Holding Cabinet - Manual Fill

