

# KENTMASTER

## Kentmaster .22 calibre Handle Grip Humane Slaughter Tool HG1



User Manual/ Original Instructions



Do not use this tool until you have read and fully understood the instructions detailed in this manual.

## Essential Safety Instructions

Carefully Read the entire User Guide before using the Tool and retain for future reference.



### WARNING

**Never Allow untrained personnel to use this tool.**

- Do not use this tool without safety glasses and hearing protection.
- Never point the tool at anything other than the intended target.
- Never place hands or any other part of the body in front of the muzzle/ bolt end of the tool.
- Never indulge in horseplay.
- Never leave loaded tool unattended.
- Unload the tool if it is not to be used.
- Always ensure the tool is cleaned and maintained properly.
- Never Air Shoot the tool.
- Clean and Inspect the tool daily.
- Replace worn or broken components.
- Always use components that are recommended and supplied by Kentmaster only.
- Never modify or customise the tool.
- Never allow the tool to be tampered with.
- Only use cartridges that are recommended by Kentmaster.
- The stunner and cartridges must be locked away separately from each other when not in use.
- Cartridges must be stored in cool, dry conditions. Exposure to excessive amounts of moisture may affect their performance.
- Max Noise Value when using the most powerful cartridge permitted (.22 Red for the HG1) is 86.3Db+/- . NB This figure may vary depending on customer environment.
- The maximum velocity generated with .22 Red is 48m/sec.
- Do not use the stunner more than four times in a one minute cycle in order to avoid excessive heat build-up.

# KENTMASTER

## Cartridge Selection

Kentmaster Model HG1 captive bolt stunner, model HG1 .22 calibre Handle Grip Humane Slaughter Tool

The Kentmaster HG1 Captive Bolt Stunner is a conventional handle grip, trigger activated tool.

CALIBRE	.22	
USE ON	Cattle, Pigs and Sheep	
CARTRIDGES	<u>.22 KENTMASTER <b>PINK</b></u>	<u>For small animals</u>
	<u>.22 KENTMASTER <b>PURPLE</b></u>	<u>For average size cattle and pigs over 100KGs</u>
	<u>.22 KENTMASTER <b>GREEN</b></u>	<u>For heavy animals and bulls</u>
	<u>.22 KENTMASTER <b>RED</b></u>	<u>For very heavy cattle and bulls</u>

Kentmaster stunners are used worldwide in many abattoirs/slaughterhouses for all species including cattle and buffalo, sheep and goat, pig, camel, and many others including turkey.

The stunners are also used for euthanising animals in emergency situations in and near to feedlots and by pastoral companies, breeders, transport companies, veterinarians and live export shipping companies. Kentmaster's primary requirement is to ensure good animal welfare practices can be carried out no matter the situation and or location.



# KENTMASTER

## Safe Operating Instructions for the Kentmaster model HG1 .22 calibre Handle Grip Humane Slaughter Tool

### 1. Opening the Breech

Pull back the Hammer and Firing Block and load the cartridge. Should there be a spent case already present, push onto the Extractor blade to eject the spent case (Reference 5, Extraction).

#### WARNING

In case of uncertainty as to whether the cartridge has detonated or not, always treat it as a Live cartridge (Reference Safe Removal of Live Cartridge).



### 2. Inserting the Cartridge

Before inserting the cartridge into the breech chamber, ensure the Bolt has fully returned.

If not, the tool should be removed from operation and returned for corrective maintenance.



# KENTMASTER

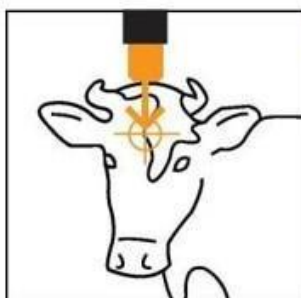


### 3. Safe Preparation prior to Firing

The Firing Block should only be closed at the point of operation immediately prior to stunning.

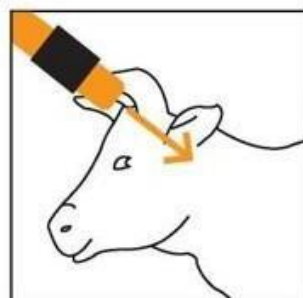
### 4. Firing

Position squarely and securely on animal's head in the recommended position shown (Ref diagrams shown below). Pull trigger to fire. In the event that the stun cannot be effected, the cartridge should be removed (Ref Safe Removal of Live cartridges)



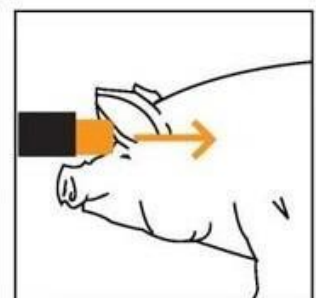
CATTLE, CALVES

Place muzzle as indicated, in the middle of the forehead at the intersection of two imaginary lines drawn between the eyes and the centre of the base of the opposite horns.



SHEEP

For hornless sheep, place muzzle in the centre of the top of the head. For horned sheep and goats, the muzzle should be placed behind the ridge between the horns, centrally aimed towards the base of the tongue.



PIGS

Place muzzle approx. 20mm width above the eyes, halfway across the forehead, aiming up slightly.

# KENTMASTER

## 5. Extraction

Pull back the Hammer and Firing Block. Push onto the extractor blade and the empty cartridge case will lift away from the chamber. Simply remove with fingers. The stunner is now ready to reload.



## Safe Removal of the Cartridge

It may be necessary to remove a Live cartridge from the breech chamber.

Extract the Live cartridge carefully as advised from the breech chamber and return to its box. If the cartridge becomes stuck in the breech chamber or the Extractor fails to operate, the stunner should be returned to maintenance for safe removal. Maintenance operatives should be warned that a Live cartridge is in the breech chamber.

The Hammer and Firing Block should be pulled back so that the tool cannot fire and will be safe in transit to the maintenance department. If a misfire has occurred, it is advisable to wait for 30 seconds before the removal procedure is implemented in case a delayed firing should occur. During this time the tool should not be pointed at oneself or any other person. After 30 seconds the live cartridge can be removed. It should be placed in a container filled with water. Do not attempt to reuse the misfired cartridge. Regular misfires indicate that the stunner is unsuitable for operation and should be returned to the Maintenance dept for investigation.

# KENTMASTER

## Cleaning and Maintenance for the Kentmaster Model HG1 .22 calibre Handle Grip Humane Slaughter Tool

Guidance on daily Cleaning and Maintenance

Do not attempt to use this stunning tool until you have read and understood these instructions. Only use spare parts recommended by Kentmaster, which are available from your local Kentmaster supplier.

### Cleaning - Daily

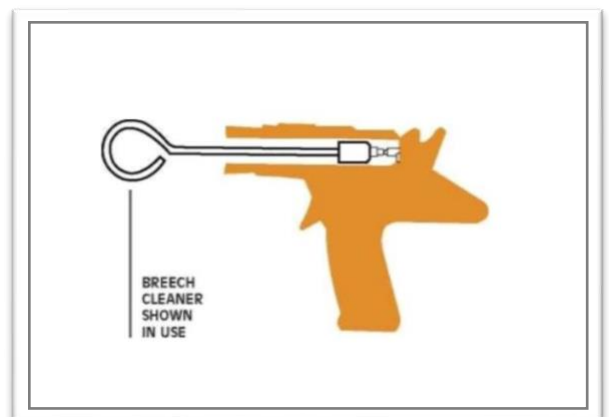
- (1) Pull back Hammer and Firing Block and check there is not a live cartridge in the breech chamber.
- (2) Unscrew the Muzzle from the Barrel. If the Muzzle cannot be removed by hand, then grip the Muzzle by the two flats in a vice fitted with soft jaws and unscrew by using the hand grip to revolve the barrel in an anti-clockwise direction.
- (3) Remove the bolt assembly from the Barrel. It should be easily removable by hand. If not, grip the Barrel across its flat surfaces in a vice fitted with soft jaws. Pull back the Hammer and Firing Block and insert the Push Rod through the cartridge chamber to gently tap out the Bolt.

- (4) Clean inside of Barrel with Barrel Brush Cleaner to remove the day's soft debris.

Insert Breech Cleaner into the breech piston bore to clean out the soft debris.

A suitable light machine oil (eg Bel-Ray Non Toxic Air Line Oil) should be used and it must have a high flashpoint. This can be used to soften the debris and provide lubrication.

- (5) Remove Washers and Bolt Return Collars from the Bolt and remove carbon from the Bolt with a brush or wire wheel. Wipe the Bolt clean with an oily cloth. Wipe away any soft debris from the Collars and Washers and examine for wear.



# KENTMASTER

## **Examine Bolt Return Collars and washers**

- (1) Thick Washer (Front). (Part no. AB3/ key no. 3).

This is the washer situated at the front poleaxe end of the bolt.

This prevents the adjacent Bolt Return Collar next to it from extruding through the muzzle bore. Once this washer displays any wear in the bore or around the outside then it should be replaced.

- (2) Thin Washer (Rear). (Part no. AB5/ key no. 5).

This Washer is situated behind the rearmost Bolt Return Collar in front of the bolt flange. Once this washer displays any wear in the bore or around the outside then it should be replaced.

- (3) Bolt Return Collar. (Part no. AB4/ key no. 4).

There are 8 collars on the bolt. The front two collars and the rear most collar will wear more quickly than the other collars. These should be moved to a central position so that they all wear at an even rate.

This will provide greater longevity. By maintaining the Thick and Thin Washer and cycling the Bolt Return Collars, this should give the collars a life of approximately 5000 shots. Always maintain collars and washers in good condition to maximise bolt performance and to prevent the bolt from sticking in the animal's head.

- (4) Locking Collar. (Part no. AB2/ key no. 2).

Replace if broken, worn or torn. If this collar is in poor condition or not present, then extreme wear to Bolt Return Collars will occur.



# KENTMASTER

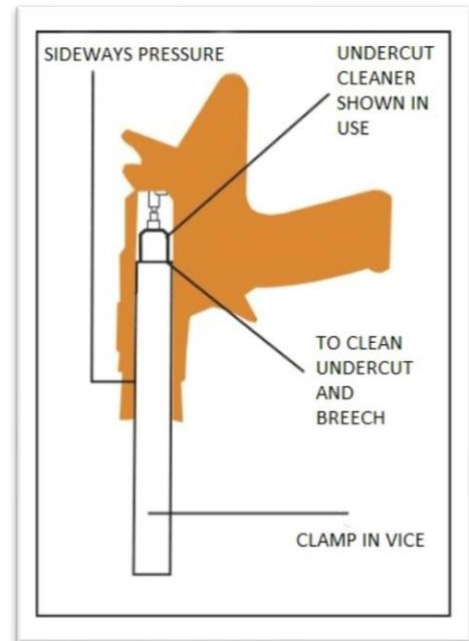
Cleaning the barrel bore undercut.

The barrel bore has an enlarged diameter at the bottom just in front of the breech piston. This undercut feature enables smooth bolt return after firing. To prevent this feature from filling with debris it should be cleaned out with the Undercut Cleaner.

To use the Undercut Cleaner-

- (1) Grip the Undercut Cleaner in an upright position with the widest end uppermost in a vice.
- (2) Lower the barrel down the cleaner until it rests on the breech face.
- (3) Apply sideways pressure against the barrel so that the cleaner blade enters the undercut. Maintain this pressure whilst rotating the barrel until the undercut has been cleared of debris.

Clear out the vent hole at the top rear of the barrel by hand with a suitable drill.



Reassemble Bolt Assembly and Muzzle

Wipe down all metal parts with a lightly oiled cloth. Do not oil the cartridge chamber.

Insert the Bolt Assembly into the barrel.

Insert the Locking Collar into the Muzzle against the face of the bore. Locate the Bolt into the bolt bore in the Muzzle by pushing down on the Thick Washer (Front) and compressing the Bolt Return Collars until the Muzzle thread can be engaged. Screw the Muzzle clockwise by hand until it is fully secured.

Troubleshooting

Misfires.

Misfires may be caused by;

- (1) Broken or worn Firing Pin (Part no. A16/ key no.16).
- (2) Broken or worn Sear Rod Spring (Part no. A26/ key no. 26).
- (3) Damaged or worn Firing Block or Hammer (Part no. A15/ key no.15 and Part No. A17/ key no.17 respectively).

# KENTMASTER

- (4) Worn cartridge chamber.
- (5) Damp or contaminated cartridges.
- (6) Excessive oil in cartridge chamber.

Loss of power.

Loss of power or low power may be caused by;

- (1) Incorrect cartridge selection.
- (2) Poor or lack of cleaning and maintenance.
- (3) Bolt Return Collars and washers require replacement.
- (4) Bolt bent or damaged. NB; Do not grind Bolt outside diameter to sharpen.

Not only will any of the above factors result in a poor stun but they can also result in the bolt sticking in the head of the animal.

IF ANY FURTHER INFORMATION, ADVICE OR ASSISTANCE IS REQUIRED PLEASE CONTACT YOUR LOCAL KENTMASTER DISTRIBUTOR.

YOU MAY NEED TO QUOTE THE SERIAL NUMBER, WHICH IS LOCATED ON THE UNDERSIDE OF THE TOOL, ADJACENT TO THE HANDLE.

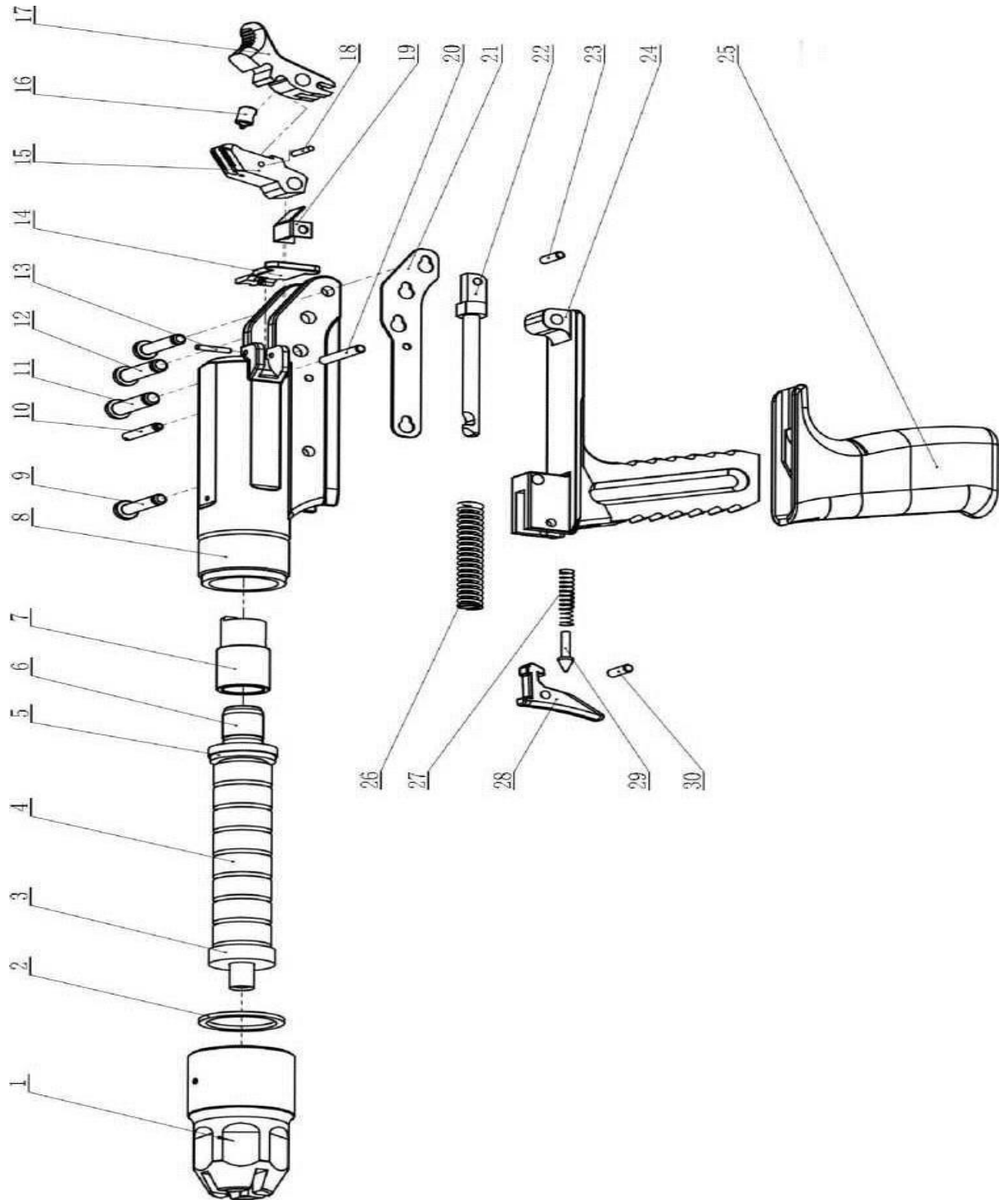
This will typically be a 7 digit reference, whereby the first two numbers denote the year of manufacture. The second two; the month of manufacture and the 5th, 6<sup>th</sup> and 7th numbers represent the sequential manufacturing number. For example the reference 1903024 refers to the 24th tool made in March 2019.

All Kentmaster stunners are proof tested at the Birmingham Proof House in England before general sale and carry the Proof House mark.



Proof House mark.

# KENTMASTER



# KENTMASTER

Key No.	Part No.	Qty	Part Description
16	A16	1	Firing Pin
17	A17	2	Hammer
18	A18	1	Firing Pin Rivet
19	A19	1	Firing Block Spring
20	A20	1	Breech Retaining Pivot
21	A21	1	Locking Plate
22	A22	1	Sear Rod
23	A23	1	Sear Rod End Pin
24	A24	1	Handle
25	A25	1	Handle Grip
26	A26	1	Sear Rod Spring
27	A27	1	Trigger Plunger Spring
28	A28	1	Trigger
29	A29	1	Trigger Plunger
30	A30	1	Trigger Pivot

	D4	1	Piston Bore Cleaner
	D5	1	Push Rod
	D6	1	Screwdriver

Key No.	Part No.	Qty	Part Description
1	AB1	1	Muzzle
2	AB2	1	Locking Collar
3	AB3	1	Thick Washer (Front)
4	AB4	8	Bolt Return Collar
5	AB5	1	Thin Washer (Rear)
6	AB6	1	Captive Bolt
7	A7	1	Breech Block
8	A8	1	Barrel
9	A9	1	Handle to Barrel Pin
10	A10	1	Spring Screw
11	A11	1	Firing Block Pivot
12	A12	1	Hammer Pivot
13	A13	1	Extractor Pivot
14	A14	1	Extractor
15	A15	1	Firing Block

	E1	1	Barrel Undercut Cleaner
	D2	1	Barrel Brush
	D3	1	Small Brush



## Safenet Limited

Denford Garage, Denford, Kettering, Northants., NN14 4EQ, U.K.

Tel: +44 1832 732174 e-mail: office@safenet.co.uk Website: www.safenet.co.uk

European Notified Body 1674

### EC Type Examination Certificate

This is to certify that

#### **Kentmaster Mfg. Co., Inc.**

1801 South Mountain Avenue, Monrovia, CA, 91016, USA

Has had a range of Humane Slaughter Tools examined with regard to the Directive 2006/42/EC, as amended.

In respect of the **HG1-22 and CY1-22**

Manufactured by:

#### **Sichuan Nanshan Powder Actuated Fastening System Co., Ltd.**

Nanxi, Yibin, Sichuan, China, Zip Code: 644100

1. The technical file contains all the relevant documents and information.
2. Having verified that the appropriate tests have been conducted we confirm that:
  - 2.1. The standards and harmonised standards, including EN 15895:2011, have been applied correctly.
  - 2.2. The following models are included within the certification HG1-22, HG1-25, CY1-22 and CY1-25.

Certificate Number: 8041100519a

Date: 18/11/2019

Signed for Safenet Limited

Peter McNicol  
Technical Manager



Machinery  
Directive  
Number  
1674

This document remains the property of Safenet Ltd and will be returned to them if so requested.  
The client is required to request a review to ensure continued compliance of the machinery on a 5 yearly basis to check for changes in the state of the art and validity of the certificate.

# KENTMASTER

## EC Declaration of Conformity

We Kentmaster Mfg. Co., Inc.  
Of  
1801 South Mountain Avenue, Monrovia, CA, 91016, USA

Declare that the Humane Slaughter Tools

Models: HG1-22, HG1-25, CY1-22 and CY1-25

Manufactured by:

Sichuan Nanshan Powder Actuated Fastening System Co., Ltd.

Nanxi, Yibin, Sichuan, China, Zip Code: 644100

Meet all the relevant requirements of the following European Directives:

2006/42/EC Machinery Directive

Using the following transposed standard:

EN 15895:2011

Having been type examined to the requirements of the Machinery Directives 2006/42/EC by:

Safenet Limited  
c/o Denford Garage  
Denford  
Kettering  
Northamptonshire  
NN14 4EQ, UK

Notification Number: 1674

Certificate Number: 8041100519a

Safenet is authorised to compile the technical file in the European community.

Signed W R Lau Date 18/11/2019  
SENIOR VICE PRESIDENT MONROVIA, USA  
Position Place



# KENTMASTER

## Kentmaster Worldwide Locations:

AUSTRALIA | BRAZIL | IRELAND | NEW ZEALAND | SOUTH AFRICA | UNITED KINGDOM | UNITED STATES  
| ARGENTINA | CHINA

Kentmaster has international locations available to serve you. Please contact us for a list of our partners in your specific geographical area. We work with our partners to serve you expeditiously and look forward to serving your needs.

### United States

Kentmaster Headquarters: Kentmaster Mfg. Co., Inc 1801 South Mountain Ave.  
Monrovia, CA, 91016 Phone: 1 (626) 359-8888 Fax: 1 (626) 303-5151 Email: [Info@kentmaster.com](mailto:Info@kentmaster.com)  
Kentmaster - Omaha, Nebraska 4417 South 139th Street Omaha, NE, 68137 Phone: 1 (402) 896-3355 Fax: 1 (402) 896-3311 Email: [Omaha@kentmaster.com](mailto:Omaha@kentmaster.com)

### Australia

Kentmaster Equipment (Aust) PTY.LTD.  
Unit 2 24 Central Court  
Hillcrest Qld. 4118  
Phone:(07) 3806-8400  
Fax:(07) 3806-7933  
Email: [australia@kentmaster.com.au](mailto:australia@kentmaster.com.au)

### Brazil

Kentmaster do Brasil, Ltda.  
Av. Dr. Joao Teodoro No. 805 Bairro De Vila Rezende 13405-240 Piracicaba, SP Phone: (019) 3 413 3113 Phone (Alt): (019) 3 983 4973 Fax: (019) 3 413 3113 Email: [Brazil@kentmaster.com](mailto:Brazil@kentmaster.com)

### Ireland

Kentmaster (IRL) LTD.  
Benamore, Dublin Road.  
Roscrea,  
CO, Tipperary Phone: (353) 0505-23292 Fax: (353) 0505-23299 Email: [Ireland@kentmaster.com](mailto:Ireland@kentmaster.com)

### New Zealand

Kentmaster Equipment (NZ) LTD.  
1/88 Ford Road Onekawa Napier 4110  
Mailing address:  
PO. Box 3466  
Taradale Road  
Napier 4142  
Phone:(06) 835-2471  
Fax:(06) 835-6904  
Email :[NewZealand@kentmaster.com](mailto:NewZealand@kentmaster.com)

### South Africa

Kentmaster South Africa (PTY) LTD. Johannesburg - S. Africa Unit 54 Sunnyrock Park Sunrock Close, Germiston  
Mailing address:  
Johannesburg - S. Africa  
PO. Box 7030  
Primerose Hill, 1417 Phone: (27) 11-455-3748 Fax: (27) 11-455-3749  
Email: [SouthAfrica@kentmaster.com](mailto:SouthAfrica@kentmaster.com)

# KENTMASTER

United Kingdom  
Kentmaster (UK) LTD.  
Unit 301  
Hartlebury Trading Estate Hartlebury  
Worcestershire DY10 4JB Phone: (44) 129-925-3394 Fax: (44) 129-925-1271 Email:  
UK@kentmaster.com

Argentina  
Kentmaster Argentina S.A.  
Luis Maria Drago 190  
(1607) Villa Adelina  
Buenos Aires - Argentina  
Tel: +(54) 11 4763 0473  
Email: Argentina@kentmaster.com

China  
Kentmaster Mfg.Inc. China  
No.28, Linhe avenue, Linhe industrial development zone  
Shunyi district, Beijing, China  
Tel: +86 188 888 23139  
Email: China@kentmaster.com