







Model 720



700 Series Finishers Operation Manual

700 Series Finisher Machinery Manual

Index	Page
EC Declaration of Conformity	3
Power Supply and warning information	4
Machinery handling and commissioning	5
Electrical information	6
Machine Data (Layout of the Finisher)	7
Safety Features	8
Safety Features continued / Noise and Dust Information	9
Use of the Machine 1 - Manual Controls	10
Use of the Machine 2 - Manual Controls	11
Use of the Machine 2 - Dust Tray / Scouring Bands	12
Use of the Machine 3 - Electrical Controls	13
Use of the Machine 3 - Measures to be aware of when operating	14
Adjustment and Maintenance	15
Scouring Options	16
Scouring Sections - Breaster and Scouring Bands	17
Scouring Sections - Naumkeag	18
Machinery Maintenance - Dust and Noise	19
Machinery Maintenance - Fire Prevention	20
Machinery Maintenance - Cutter guard / Cleaning / Efficiency	21
Common Consumable Parts	22

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EC DECLARATION OF CONFORMITY OF MACHINERY / ELECTRICAL APPARATUS TO THE SUPPLY OF MACHINERY (SAFETY) REGULATIONS 2008 AND THE ELECTROMAGNETIC COMPATIBILITY (EMC) REGULATIONS 2006

- 1 Standard Engineering Ltd. of 10 Garrard Way, Telford Way Industrial Estate South, Kettering, NN16 8TD is the manufacturer of the following machine: -
- 2 Model Serial No.
- This machine complies with the requirements of "The Supply of Machinery (Safety) Regulations 2008" and the Machinery Directive 2006/42/EC.
- This apparatus conforms with the requirements of EN 50081-2 in respect of Electromagnetic Emission.
- 5 This machine complies with the relevant essential Health & Safety requirements
- The person authorised to sign the declaration on behalf of the Company is the Managing Director

Date of Issue: 6.4.18

Keith Malyon Managing Director

Machine Model 700 / 710 / 720 / 730 Finishing Machine

<u>Markings</u>

The machine is narked with the following: -

Name and address of manufacturer, machine series, serial number and year of manufacture.

Standard Engineering Ltd.

10 Garrard Way, Telford Way Industrial Estate South Kettering, Northamptonshire, England, NN16 8TD

C.E.	Mark: -	
C.E.		

Markings on the front flap: -

"Switch off and allow tools to stop turning before lifting the flap."

Markings at the scourer dust entrances: -

"SPARK GUARD - PLACE OVER RELEVANT VENT IF THERE IS ANY DANGER OF METAL SPARKS ENTERING THIS M/C! NO KEYS!"

Marking at the Emergency Stop button: -

"Emergency Stop"

Electrical Marking at rear of machine: -

"This machine MUST be earthed"

Electrical data: -

Phase	1	Phase	3
Volts	230	Volts	400
Amps	25	Amps	9
Load	3.88kw	Load	3.88kw
Hz	50	Hz	50

Machine Model 700 / 710 / 720 / 730 Finishing Machine

Markings - continued

Marking for the bag shaker activator: -

"Bag shaker operating knob."

Electrical safety marking under front flap: -

"Tested for electrical safety"

Mass of machine - 390kilos

<u>Dimensions: -</u>

700 / 710 / 720 Finishers

1232mm W (plus additional 150mm for manual tumble on brush section) x 780mm D x 1720mm H

730 Finisher

1232mm W (plus additional 150mm for manual tumble on brush section) x 780mm D x 1480mm H

Handling

Push back the front of the machine at a point above the centre of gravity (approx. 900mm high and 600mm in from the left of the machine) to lift the front base, and insert a lifting device under one end of the machine.

Use lifting device to raise one end of the machine and insert roller.

For short distance movement push at end of machine on roller (s). For longer distance movement insert wheeled trolley or set of corner wheels, and remove roller (s)

When in position required, reverse the above procedure.

Commission

The machine shall stand firm and level. Use suitable packing material as necessary to level, balance and secure the machine.

Position machine at least 100mm - 150mm from a rear wall to enable the filter bag to remain clear of the wall when inflated.

The machine shall be connected by a competent person to the electrical power supply and earthed through a suitable, lockable isolator conforming to IEC 204/EN 60204. The electrical data are given on a plate attached to the machine, and are as follows: -

Model 700 / 710 / 720 / 730 with Manual Brush & Pad Turret

1-phase	3-phase
---------	---------

 Volts
 230V
 400V

 Amps
 25 amps
 9 amps

 Hz
 50Hz
 50Hz

Model 700 / 710 / 720 / 730 with Electrical Brush & Pad Turret

1-phase	3-phase
1-011a5C	J-DI

 Volts
 230V
 400V

 Amps
 25 amps
 9 amps

 Hz
 50Hz
 50Hz

External Electrical Conductors are colour-coded as follows: -

1-phase 3-phase

Green/Yellow Earth Green/Yellow Earth Neutral Light Blue Neutral Light Blue Brown Live Live Brown Live Black Live Grey

(Pre - 2008) External Electrical Conductors are colour-coded as follows: -

1-phase 3-phase

Earth Green/Yellow Earth Green/Yellow Light Blue Neutral Neutral Light Blue Brown Red Live Live Live Yellow Live Blue

Internal Electrical Conductors are colour-coded as follows: -

Earth Green/Yellow
Neutral Light Blue
Live Power Circuit Black
Live Control Circuit Red

For 3-phase machines only, check for correct mains phase connection by testing the Naumkeag. This should run clockwise when viewed from below.

Machine Data

The machine is designed for use in the manufacture and repair of footwear, orthopaedic footwear and leather and imitation leather goods. The machine is generally as per the following photograph: -



- Heel Roll (if fitted) 1
- 2 Toppiece Trimmer
- Forepart Trimmer
- 4 Breaster
- 5 **Scouring Bands**
- 6 Filter Bag Shaker

- 7 Naumkeag (not Model 730)
- Emergency Stop 8
- 9 **Starter Buttons**
- 10 Access to Dust Collection Trays
- 11 Brush & Polishing
- Spark Guard (Models 710/730) 12

Safety Features

The machine must only be used with all safety devices and guards in place and adjusted correctly to reduce any risk.



Trimmer V-belt Guards

Trimmer Tool Guards

Trimmer Ventilation Inlet



Breaster Guard (inner and outer)

Ventilation inlets to enable dust to be Extracted from scouring operation



Naumkeag Guard on shaft (a protective sleeve prevents accidental gripping of the naumkeag shaft)

Naumkeag Ventilation Inlet



The Emergency Stop will stop all electronically controlled equipment on the finisher. To reset, the red knob must be twisted and released.

Thereafter all electrical controls must be restarted as required.

Electrical Controls of 710

Safety Features - continued



Brush / Pad Drive Belt Guard
Brush and Pad Ventilation Inlet

<u>Noise</u>

With all tools operating and the dust extraction system operating the noise emission at a point 1.6 metres high and 1 metre from the centre line of the machine will be in the region of 80-82dB(A)

<u>Dust</u>

The dust extraction system provides an air flow velocity at the face of each dust capturing duct when all ducts are open and all tools are operating as follows: -

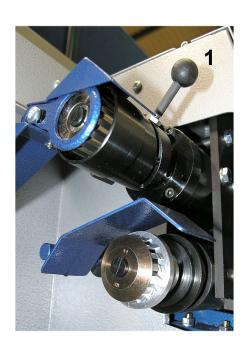
Naumkeag	1.5 mps
Trimmer Section	7.0 mps
LH Scouring Band	6.5 mps
RH Scouring Band	4.5 mps
Polishing Section	2.6 mps

Use of the Machine Part 1

Manual Controls - mechanical which can be operated when mechanism running or stationary.



- 1 Toppiece Cutter Guide Screw
- 2 Band Alignment Screw x 2
- 3 Brush & Pad Turret Positioning handle
- 4 Dust Extraction Cover (710/730)
- 5 Optional Toppiece Scouring Roll Guide (fitted as standard on Model 720)
- 6 Old-style Adjustable Forepart Trimmer Adjustment Lever







Use of the Machine Part 2

Manual Controls - mechanical must only be operated when the machine is switched off and isolated.



- 1 Tommy bar locating hole for Breaster Cone / Forepart Trimmer removal
- 2 Naumkeag motor mounting adjustment (spanner or tommy bar)
- 3 Front door release catch
- 4 Filter bag shaker knob
- 5 Moveable cover locking device (must be in locked position when machine is switched on)





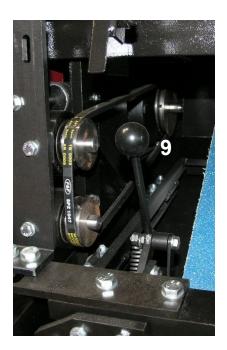


Use of the Machine Part 2 - continued

Manual Controls - mechanical must only be operated when the machine is switched off and isolated.



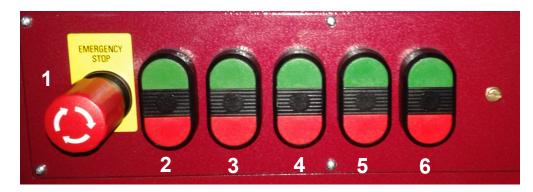
- 6 Upper Waste Tray
- 7 Main Waste Tray
- 8 Dust draw sealing levers (in sealed position) This may vary for older models
- 9 Band tension release lever x 2 (ensure front flap is lifted and secured with gravity restraint)



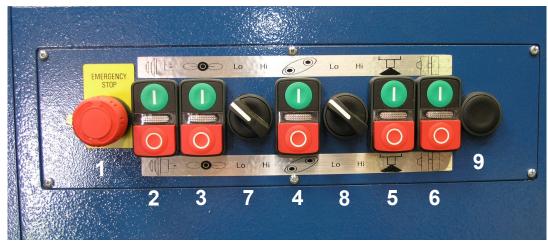
Use of the Machine Part 3

Manual Controls - Electrical

Model 710

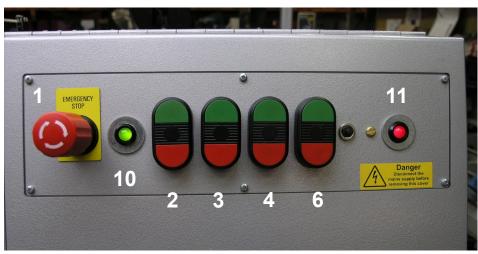


Model 720



Model 730

Green button activates the tool, whilst the lower red button stops the electrical power



- 1 Emergency Stop Button
- 2 Cutters Control
- 3 Extraction fan control
- 4 Scourer / Breaster control
- 5 Naumkeag control
- 6 Brush Pad control

- 7 Extraction Hi / Lo (Model 720)
- 8 Scourer Hi / Lo (Model 720)
- 9 Button for Electric Tumble (option)
- 10 E/Stop deployment indicator (730)
- 11 Power to M/C indicator (730)

In case of emergency, push the Emergency Stop button which immediately cuts off the electrical power from all the rotating tools. To be able to use the machine again the E/Stop needs to be rotated, until it "clicks" out.

Use of the Machine Part 3

Important measures to be aware of: -

Danger areas which MUST be switched off when not in use: -

- Abrasive Bands
- Trimming Tools
- Breasting Cone
- Naumkeag
- Brushes
- Pads

Note that the wearing of loose clothing including sleeves and ties should be avoided. Long hair should be controlled.

Wear safety eye protectors to pr3event eye injury from particle ejection from abrasive tools, etc.

Do not grind metal objects on the scouring band / cone / pad areas

Fire due to incandescent particles or molten material igniting dust within the dust extraction system. Note that this risk can be reduced by covering the extraction holes under the scouring rolls when incandescent particles and / or molten materials are being produced.

When the machine is not in use it is recommended that it is completely switched off and isolated.

Adjustment and Maintenance

Always ensure the machine is completely switched off and isolated before carrying out any adjustment and maintenance work, i.e. band changing, breaster, naumkeag, trimmer cutters, dust removal, filter bag changing, brush, pad and edge iron replacement.

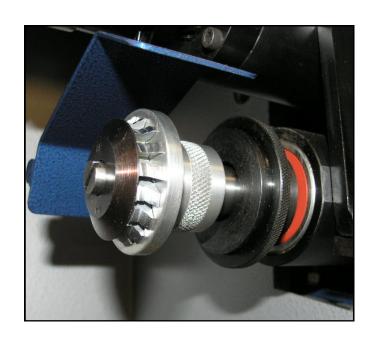
Trimming Section

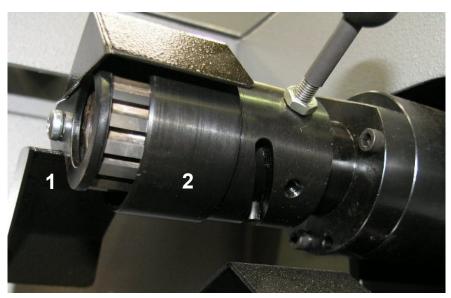
Forepart Trimmer

The Forepart Trimmer is fitted on a bayonet and can be removed by turning in a clockwise direction.

Replace cutter by removing the lefthand binding screw, and withdrawing from expanding thimble. Reassemble new cutter using reverse procedure.

Assemble on the machine in anti-clockwise direction.





Toppiece Trimmer

The Toppiece trimmer has an edge guard (1) which is adjustable. It also has a sliding guard (2) which is adjustable to heel widths whilst the machine is running. To remove cutter take off the edge guard (1). Loosen and remove the left-hand threaded binding screw and washer.

Insert new cutter and reassemble using reverse procedure.

Additional and Optional Trimmer Section Items

Always ensure the machine is completely switched off and isolated before carrying out any adjustment and maintenance work.

The Toppiece Scouring Band

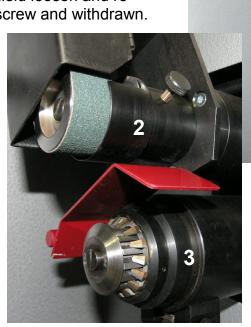
AKA "The Mini Band"

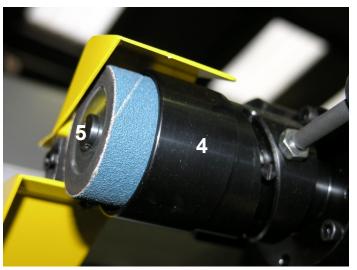
The Mini Band has a guard over the band (1). It also has a sliding guide (2), which is adjustable to heel widths whilst the machine is running.

The Adjustable Forepart Trimmer (3)

To remove the cutter and shield loosen and remove the left-hand binding screw and withdrawn.

Replace with new cutter.





The Toppiece Scouring Roll

AKA "The Mini Roll"

The Mini Roll has a sliding guide (4), which is adjustable to heel widths whilst the machine is running.

To remove the mini-roll loosen and remove the left-hand binding screw (5) Replace band by same procedure.

Always ensure the machine is completely switched off and isolated before carrying out any adjustment and maintenance work.

The Scouring Section

The Heel Breaster

The Heel Breaster is mounted on a bayonet fitting. To remove hold the breaster shaft with the tommy bar (in kit), loosen and remove the left-hand binding screw and withdraw breaster. Replace the breaster by the same method.

Hole for tommy bar as shown (1)

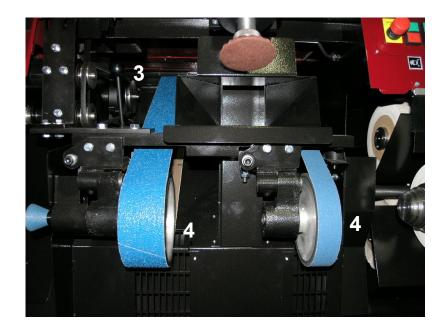




Scouring bands

Firstly, on models which have a front mounted Naumkeag motor, make sure this motor is lowered before opening the front machine flap.

To change the bands unlock and lift the front cover and secure by means if the flap prop (2). Pull tension levers (3) forward. Slip the old band off the rear driving pulley and front contact wheels (4). Replace bands ensuring it will run in the same direction as arrow printed on the inside of the band. Re-tension the bands by releasing the tension levers.



Lower the front cover and re-lock. Spin bands by hand to ensure that there is approximate band alignment. Switch on the machine and adjust band alignment by means of the adjusting screws with the large tommy bar provided.

The Naumkeag Motor

On Models which feature a front mounted Naumkeag Motor, it can be adjusted for optimum working position by means of a pivot nut and either a bar or spanner.

A replacement naumkeag paper can be fitted by unscrewing the top nut (2) and plate away from the pad.

Replace a new paper by the same procedure. Only replace the paper when the machine is switched off and isolated.



Simple Machinery Maintenance & Tips

The 700 Series of finishers will give many years of effective service provided the operator employs a few simple maintenance regiments: -

Dust and Extraction

The 700 series extraction system relies on the extraction of duct from the working area through the fan impeller into the lower of two waste trays (1) via the filter bag fitted to the rear of the machine. If this filter bag becomes clogged up with dust the suction will greatly diminish.

To help move as much of the dust through the system and into the waste collection tray we strongly recommend pulling on the bag shaker cable (2) several times during the working day (whilst the extraction motor is OFF). This action encourages most of the dust and fine particles to fall into the waste tray. This tray should be emptied at the end of the working day. The machine must be switched off and isolated before releasing the tray.

The metre per second (m.p.s.) extraction rates given at the front of this manual are standard rates across the range of machines and during the machine operation when all dust ports are open. To increase extraction rates at the required machine section deploy the included shield (s) at vents not in use.





Noise

It is worth noting that the noise of any finishing machine does not occur separate from its environment. For example, a room with tall ceilings can echo the noise produced. Similarly, a wooden floor may reverberate the sound produced. A sloping floor may effect the operational quality.

Poorly maintained machinery may become noisier over time. Not replacing blunt cutters or worn bands can increase the effort being expended by the finisher and thus create more noise.

The noisiest part of the finisher is the wide scouring band. To ensure this part of the machine is running at optimum efficiency please ensure that there is no build-up of particles on the rear pullies and front contact wheels. These particles can greatly increase the running noise of the and section.

Simple Machinery Maintenance & Tips

Noise - continued

Other methods of noise reduction on the 700 range of finishers can be such things as: -

- Fitting the 75mm wide scouring band with a 40grit band rather than a 24grit band.
 This reduces the harshness of the tooth of the band cutting through the air, and consequently the noise generated
- Fitting anti-vibration matting under the machinery (available from Standard)
- Do not leave the finisher running unnecessarily

Standard recommend a service visit every 1-2 years to ensure the machine is running as best it can, and the replacing of the filter bag approximately 24 months (or less if the machine is in a particularly busy environment) to give optimum performance.

Fire Prevention - Methods of reducing fire risk includes: -

- Clear all scraps of leather and rubber from both machine waste trays every evening.
- Machine not to be used to scour metal! The only exception being heels with metal pins.
 Show caution and deploy spark guards provided to scour these as the sparks from this action can ignite leather debris inside the body of the finisher. In this instance the particles can smoulder for hours before catching on fire.

Nomex Filter Bags

All of our machinery is now fitted, as standard, with the Nomex version of our traditional filter bags. This material will resist burning for many hours, and even, then is likely to "scorch" or melt rather than catch fire. This will give the operator far more time to remove himself and his customers from the shop, and advise the relevant authorities.



Fire Knock Out Canister

If your machine is fitted with this message it indicates that the finisher is fitted with "Fire Knock Out". This is a canister fitted within the filter bag, which, should it be introduced to naked flames will explode, releasing fire extinguishing agents to prevent the fire from spreading. This canister will only detonate when introduced to burning material and is otherwise inert and safe.

Simple Machinery Maintenance & Tips

Checking of the setting of the Heel Cutter

Before commencing use of the heel cutter ensure the heel cutter guide is set to your operational requirements. The guard should be as close to the cutter as possible, and lined flush to the area of the cutter at between "3 and 6 O'clock". To move the guard loosen the bolt to the rear, adjust to suit and tighten.



Cleaning the Machine

Household proprietary cleaners are ok to use provided they are not bleach based. Multi-purpose cleaning products should be acceptable and safe to use.

Bearings running hot?

Hot running of bearings can sometimes be an issue for the first week or two of regular use before they settle down. If in doubt after this period please contact our Service Desk on 01536 517 070.

Brush Section

A monthly oil or WD40 between the tumble brush boss and the machine body will aid the continued smooth performance of the tumble section.

Standard recommend a service visit every 1-2 years to ensure the machine is running as best it can, and the replacing of the filter bag approximately 24 months (or less if the machine is in a particularly busy environment) to give optimum performance. During the service our engineer will check the noise and dust emissions. He will ensure all motors are running well and that the cutters, bands and brushes are all fine. He will also check the condition of the filter bag.



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700 series - Common Consumables and Parts

Scouring

WA14758 1500mm x 75mm x 24Grit Scouring Band WA14749 1500mm x 40mm x 80Grit Scouring Band

POW183330323 Naumkeag Cap 90.G60

POW144705338 Naumkeag Rubber 510150140 for the above Cap

WA14767 Breaster Cone 50x20x40 60G

WBAZ432 Breaster Centre
WBAZ433 Breaster locking ring
WBAZ434 Breaster Adaptor

WBSD551 Left Hand Round Head Screw for tool attachment

Optional Scouring Items

WBAZ445 Mini Roll COMPLETE
WA14772 Mini Roll 80G scouring roll

WA14732 Mini Band 25 x 600 x 80 Grit (if mini-band fitted)

Cutters

WBFM1719A+ Forepart cutter adaptor (needs the cutter)
WA06033 3mm C374-1C-45 CZA-366E Cutter (6 Iron)
WA06036 5mm C374-1C-45 CZA-266E Cutter (10 Iron)
WA06040 8mm C374-1C-45 CZA-278E Cutter (16 Iron)
WA06042 10mm C374-1C-45 CZA-284E Cutter (20 Iron)

(Other sizes available - up to 14mm)

POW202001806 18mm Steel Heel Cutter

POW202090183 18mm Heel Trimmer Tungsten Widia Cutter

WBFM4411 AFT Cutter complete

WBFM4417CPTE New Style TCT Groover on bayonet

WBFM4418CPTE New Style TCT Groover on short bayonet (TSR) WA06137ASS WBAZ 451 TCT Groover Cutter Blade (new spec)

Brushes / Pads / Contact Wheels etc

GOT89999026 WBAZ 385 Machine Brush WA06139 WBAZ 414 Linen Waist Pad WA06104 WBAZ 238 Cotton Mop

WA06153 WBAZ 419 Contact Wheel 75mm WA06152 WBAZ 420 Contact Wheel 40mm

Filter Bags

WA09112 Dustbag – Fire Retardant