The Triple-S Mainspring Winder

A revolutionary new clock mainspring winder by Mervyn Passmore.

Based on the tool Mervyn Passmore designed and built to wind springs manufactured by Meadows & Passmore, it brings commercial spring winding into the workshop.

Safety
User safety is paramount. Unlike more traditional designs, this winder operates vertically and the spring is enclosed within an open safety cage formed by carefully located pillars. All mainsprings, whether new or old, can fracture when wound. By enclosing the spring in a safety zone, risk of personal injury is significantly reduced. Most traditional winders operate with the spring coiled in front of the operator’s face, and human error, component failure or spring fracture can result in serious injuries.

Strength
Constructed from heavy gauge steel on a thick plywood base, very powerful clock and gramophone springs can be wound with ease. No plastic handles, knobs or levers. No flimsy click springs.

Simple design
Deliberately designed to avoid expensive and delicate components wherever possible, this winder is so simply constructed it can be purchased in kit form or even as plans. The kit version now means that a mainspring winder is within reach of almost every repairer and enthusiast.

Specification
Winds and unwinds left and right handed hole end and loop end springs as well as gramophone springs with hub centres.
Fits and removes springs from barrels up to 70mm in diameter, 55mm wide and up to 0.70mm thick.
Over 20 sizes of optional retaining barrels are available. Unlike most retaining barrels, the winder uses ‘open’ retainer rings that can be fitted and removed while the spring is still in the winder.

Models
Professional: 1618 000115
Fully assembled winder with standard and large adjustable arbors, Large barrel clamps, Gramophone hub arbor, 6 popular retaining barrels and leather gloves. Full instructions included.

Trade: 1618 000215
Easily assembled using a screwdriver and two spanners, everything included in the Professional model is provided with the exception of the large arbor, gloves, hub arbor and largest retaining barrel. Full instructions included.

Hobby: 1618 000315
To keep this model more affordable no baseboard is supplied. The purchaser must obtain an 18mm plywood base 290mm square and drill the holes needed using the template provided. Self assembly is required but all parts are supplied ready to use. Only four retaining barrels, standard barrel clamps and standard arbor are included. Full instructions included.

Kit: 1618 000415
For those wishing to keep the cost to an absolute minimum but purchase everything needed, the kit is ideal. Blank components are provided, and construction will require numerous twist drills, taps, dies and other conventional workshop tools. Baseboard not supplied. The spring hook and standard arbor are beyond the scope of many constructors and are supplied ready to use.

Plans: 1618 000515
Full plans are available for those wishing to build their own winder. The winder design is protected and the plans are sold as a license to build one single tool for personal use only. Full instructions included.

Parts
All the components of the winder are for sale individually and anyone who has purchased a winder, kit or plans can buy any part they need.

Over 80% of the parts have already been manufactured. Some optional extras will take a little longer.

Meadows & Passmore Ltd. 1 Ellen Street Portslade Brighton BN41 1EU 01273 421321 www.m-p.co.uk
Understanding the winder.
(These are not the full instructions which give more detailed information.)

Basic description.
The winder operates vertically, with the spring positioned horizontally on a baseplate. The handle has no conventional ratchet wheel and click. It uses a simple but secure inverted steel ‘U’ shaped locking device.

A series of stainless steel pillars surround the working environment. Should a spring slip or fracture, the initial force will be absorbed and uncontrolled expansion limited.

Springs can escape by uncoiling spirally as well as by slipping or fracture, and the ‘Third Hand’ arm restricts this. Simply lower it so that the gap between the spring and the arm is less than half the spring width and the spring cannot spiral out of control.

Always wear strong leather gloves, face and eye protection and suitable clothing when handling mainsprings.

To remove a spring from a barrel
- Measure the width of the mainspring and set the adjustable arbor hook to hook align with the hole.
- Select a spring retainer that fits barrel.
- Clamp the barrel in the barrel clamps and locate it within the main pillars.
- Lower the handle.
- Engage the arbor hook and wind the spring until it no longer touches the barrel.
- Fit the locking device
- Slip a retaining ring over the spring.
- Take up the tension, remove the locking device and allow the spring to expand into the ring.
- Raise the handle
- Remove the spring & ring.

To replace the spring, reverse the sequence.

To coil a spring in a wire loop
- Prepare a wire ring of the diameter required. Pass it over the arbor and hang it on the wire holders.
- Adjust the arbor hook to match the centre hole in the spring.
- Locate the tail hook to match the wire ring.
- Adjust the tail hook height to align with the tail hole.
- Engage the centre hole of the spring on the arbor.
- Lower the horizontal arm. The gap between the spring and arm must be less than 1/2 the spring width.
- Fit the ‘auto engage’ hook on the tail hook.
- Loosely wind the spring. As the tail end approaches the hook, guide the hole in the end hooks over the tail hook.
- When engaged, fully wind the spring. When almost fully wound, fit the wire loop over the spring and release the spring slowly into the wire.

The winder can also be used with loop end springs and gramophone hub springs.

Proposed prices
Please note that at the time of printing the winder has not yet been launched and although over 80% of the parts have been manufactured, a few items have yet to be sourced. The prices below are thought to be correct, but the winder is not being contractually offered at these prices and may change.

<table>
<thead>
<tr>
<th>Part number</th>
<th>Model</th>
<th>Price ex. VAT</th>
</tr>
</thead>
<tbody>
<tr>
<td>1618 000115</td>
<td>Professional</td>
<td>£249</td>
</tr>
<tr>
<td>1618 000215</td>
<td>Trade</td>
<td>£165</td>
</tr>
<tr>
<td>1618 000315</td>
<td>Hobby</td>
<td>£139</td>
</tr>
<tr>
<td>1618 000415</td>
<td>Kit</td>
<td>£65</td>
</tr>
<tr>
<td>1618 000515</td>
<td>Plans license</td>
<td>£20</td>
</tr>
</tbody>
</table>

For more information visit www.mainspring-winder.com

Meadows & Passmore Ltd. 1 Ellen Street Portslade Brighton BN41 1EU 01273 421321 www.m-p.co.uk