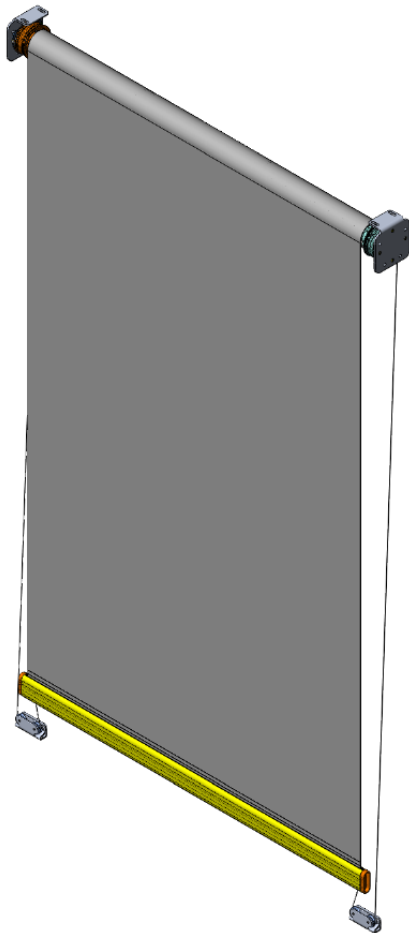


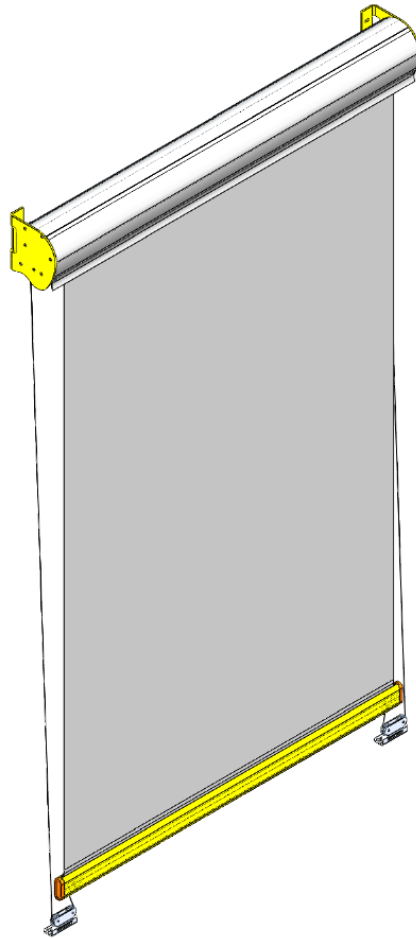
TESS™ 100/400

Installation Manual

T100



T400



Please read these instructions in full prior to starting your installation.

Important information about TESS Systems

Guthrie Douglas TESS Systems are technical products that require installation, servicing and maintenance by professionals with the appropriate skills. If in doubt, please contact us for further advice and training.

All products are designed, tested, and manufactured in line with relevant EU regulations. General certificates of conformity and declarations of performance are available on our website www.guthriedouglas.com.

Alternatively please contact us for any special local testing requirements.

As the product installer, you are responsible for ensuring that the installed product conforms with relevant standards and legislation.

TESS Systems are designed to operate at temperatures between 0 and 55°C, and in winds of less than 40Km/h.

If operating conditions are likely to exceed these limits, do not commission the systems. Please contact us for advice.

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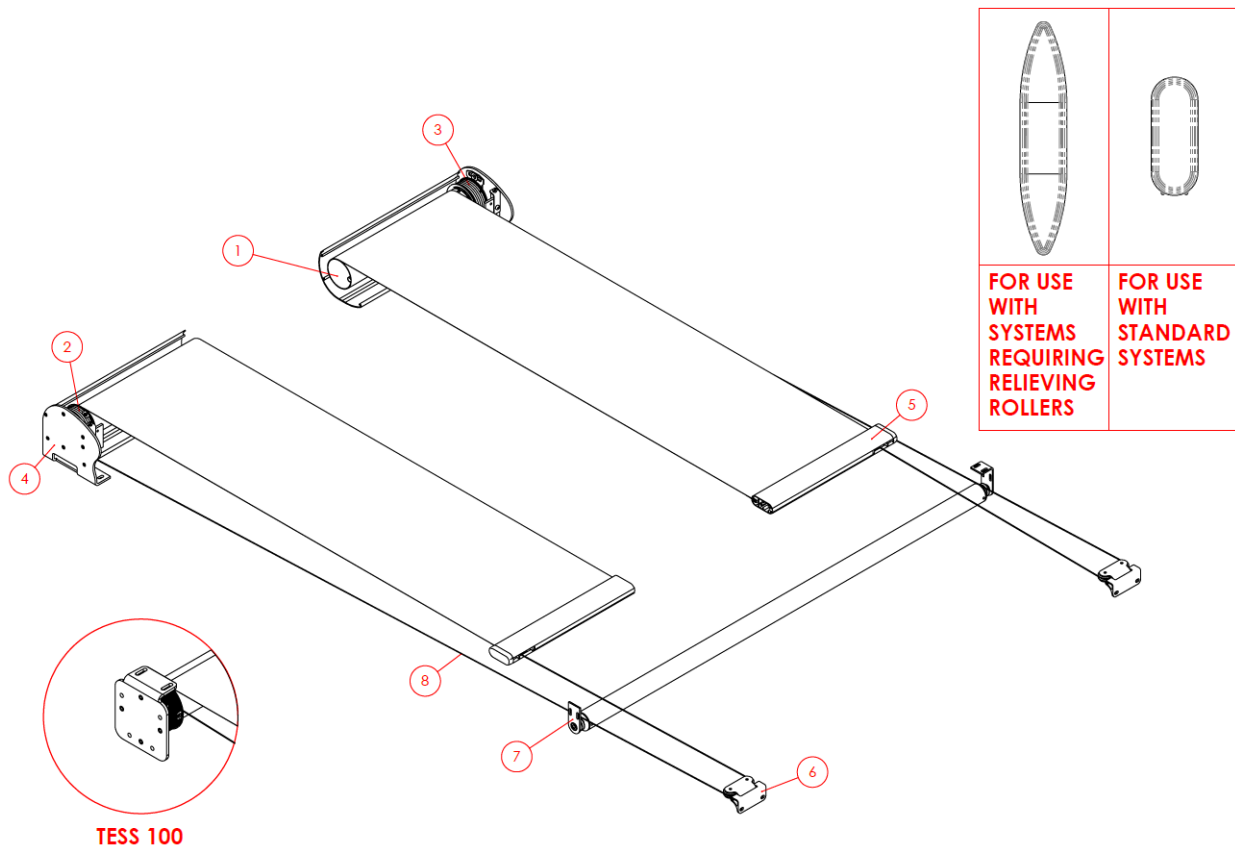
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1. TESS 100/400 System

Standard components and assemblies supplied
For alternative options please refer to installation drawing



Description

- 1) Barrel Assembly 85mm Diameter
(including fabric if supplied)
- 2) Motor Assembly
- 3) Spring Cassette Assembly
- 4) Barrel Assembly Mounting Brackets
T100 - Universal End Plate and Side Fix available
T400 - Back Fix, Top Fix available
- 5) Hem Bar Assembly
- 6) Return Pulley
- 7) Relieving roller (if applicable)
- 8) Tension Cable

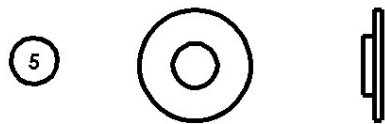
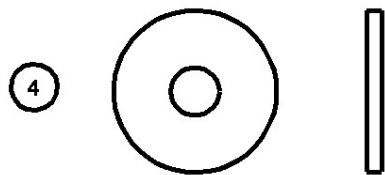
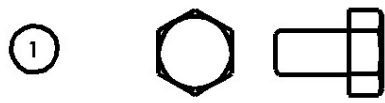
Qty

1
1
1
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Fitting Kit
Tensioning Tool
Limit Adjuster
Installation Manual

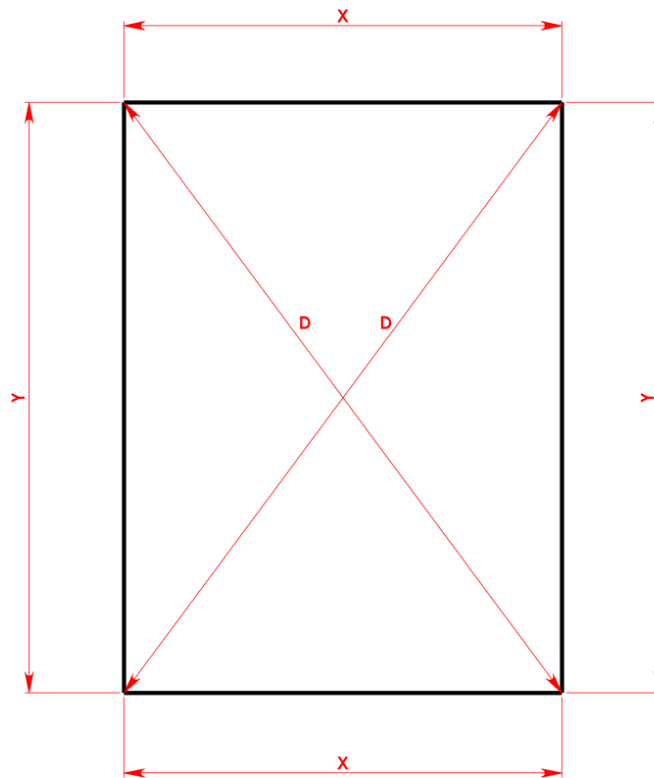
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2. Fitting Kit



REF NO.	FIXING	WHERE USED
1	M6 x 10 BOLT	MOUNTING PLATE
2	M6 x 8 PAN HEAD	MOUNTING BRACKET
3	M6 SHAKE PROOF	MOUNTING PLATE
4	M6 WASHER	MOUNTING PLATE
5	M6 PLASTIC TOP HAT WASHER	MOUNTING BRACKET

3. Site Installation



3.1.

- Check the order, order reference and the delivered system sizes match.
- At the position the system is to be installed, check / mark out the system width (X), the system draw (Y) and the diagonals (D).
- It is important that the diagonals are equal. Measure and adjust the marking out so the diagonals are equal.
- System width (X) and system draw (Y) must be parallel.
- Refer to the installation drawing supplied with the system and mark out the fixing positions.
- All wall fixings are to be supplied by the installer and are to be suitable for the material being fixed to. Fixings should be M8 size.

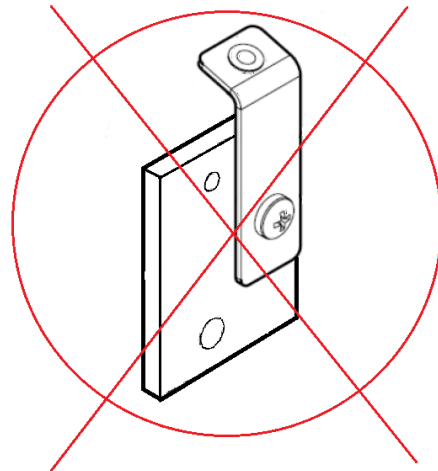
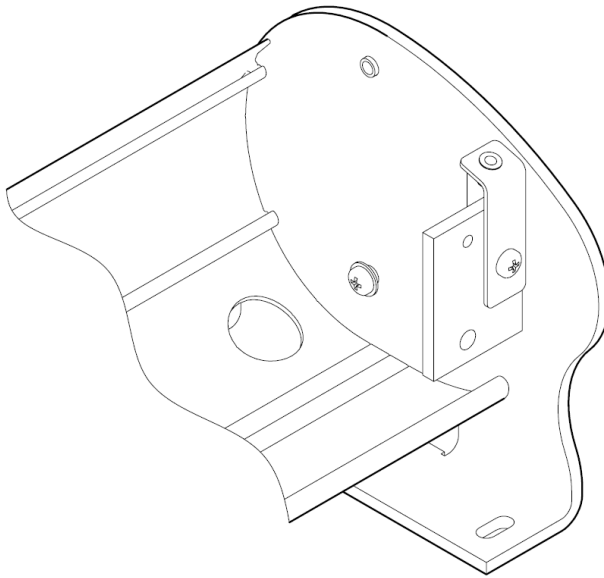
VERY IMPORTANT – DO NOT ATTEMPT TO INSTALL THE SYSTEM UNTIL SYSTEM AND FIXING POINT DIMENSIONS HAVE BEEN CHECKED AND FIXING POSITIONS ARE SQUARE.

3.2.

Electric power supply

- Each system should be on a switched single spur, so as to isolate each system.
- Check with the site manager to ensure that electricians are set up correctly.

4. Headbox/Guide Cable Installation

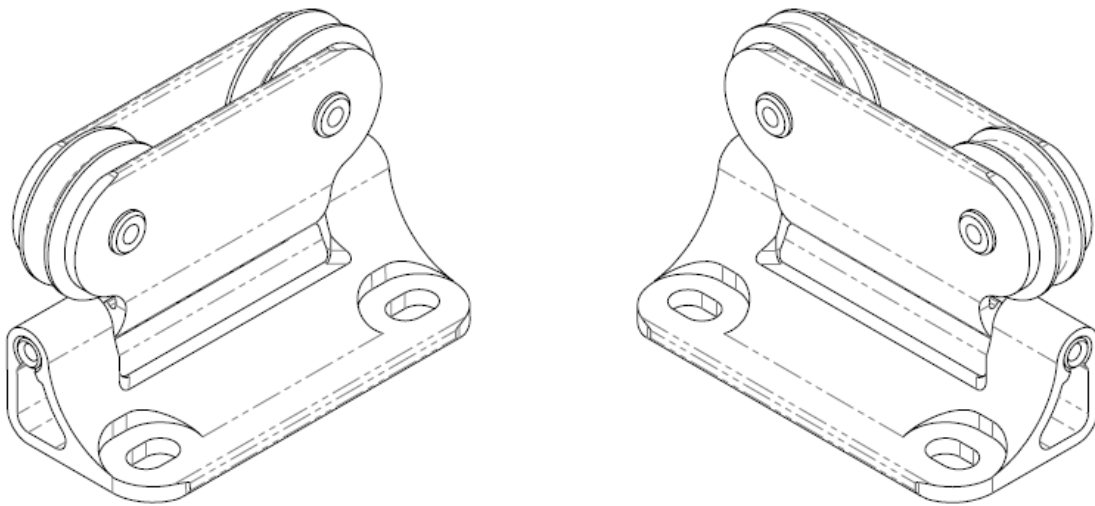


T100 - BRACKET NOT REQUIRED

4.1.

- Fix head box in position using suitable fixings for the material being fixed to. Fixings should be M8 (fixings to be supplied by installer).
- Fit the guide cable through the Cable Retaining Bracket.

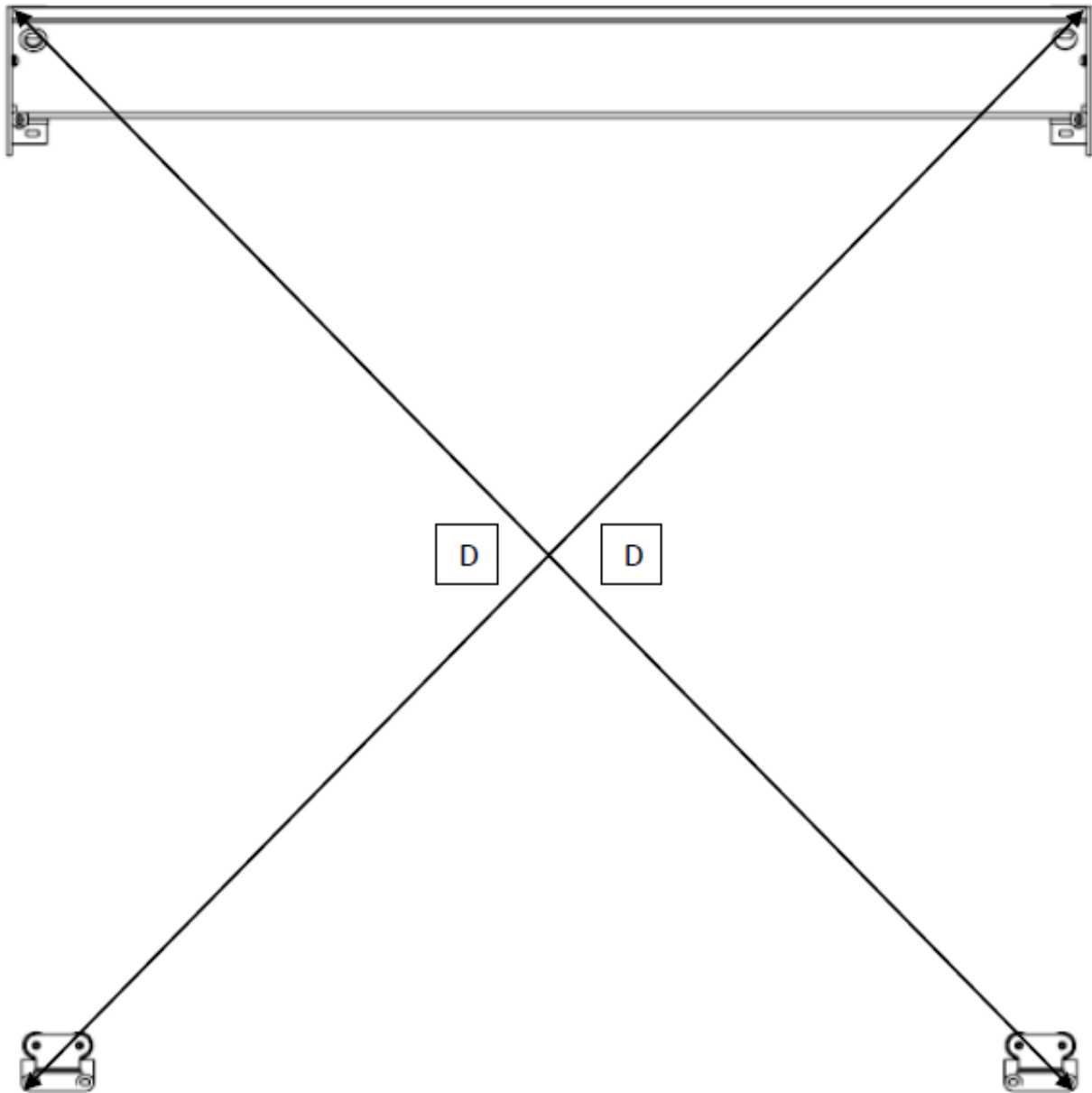
5. Return Pulley



6.1.

Double Pivoting Return Pulleys

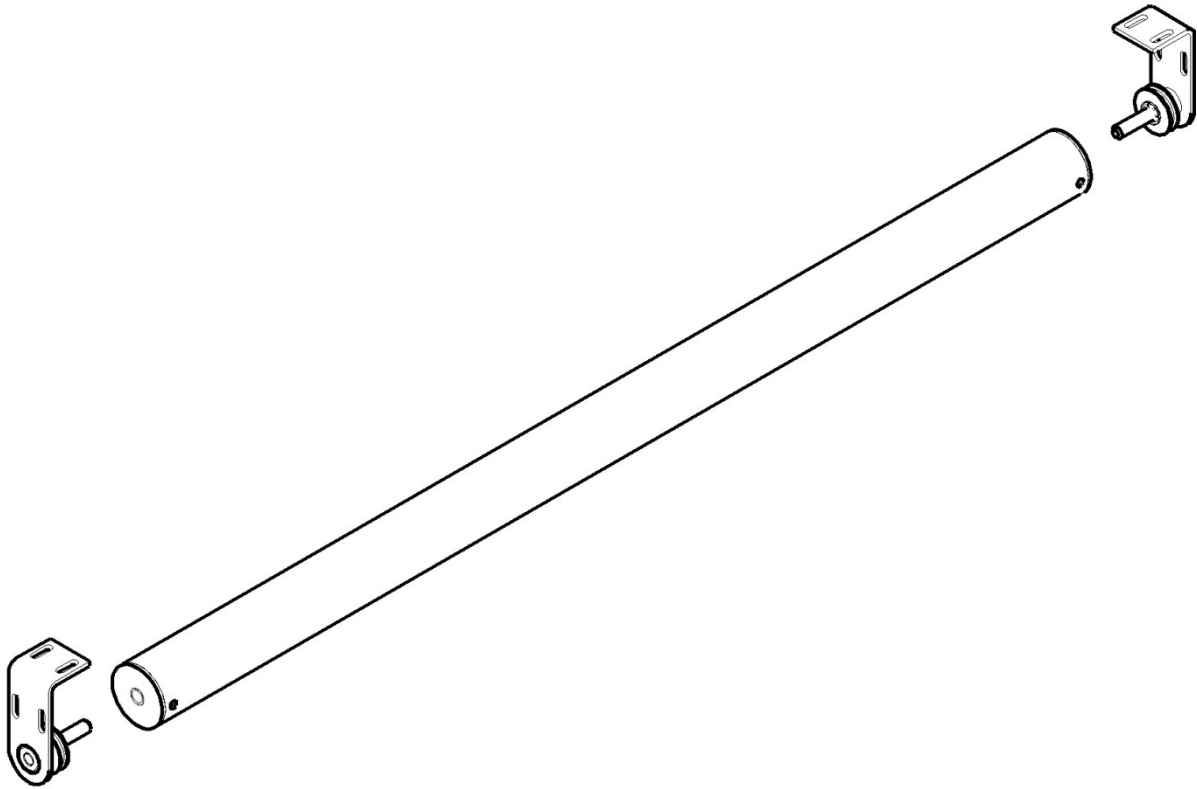
6. Squareness Checking



7.1.

- Inspect system diagonal measurements (D).
- If diagonal measurements are not found to be equal, adjust the system squareness.

7. Relieving Roller

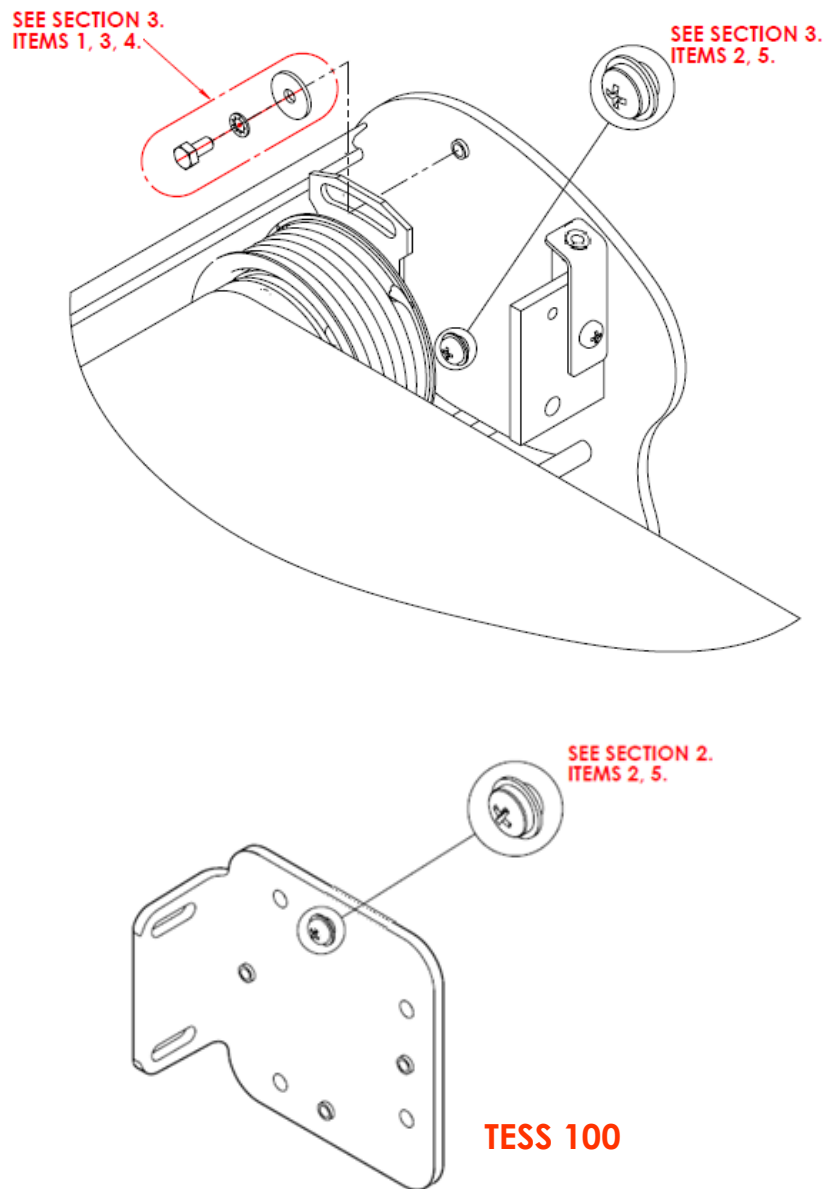


8.1.

Fit relieving rollers (If supplied).

- Ensure relieving rollers are fitted square to the system.
- Ensure relieving rollers rotate freely.

8. Barrel Installation

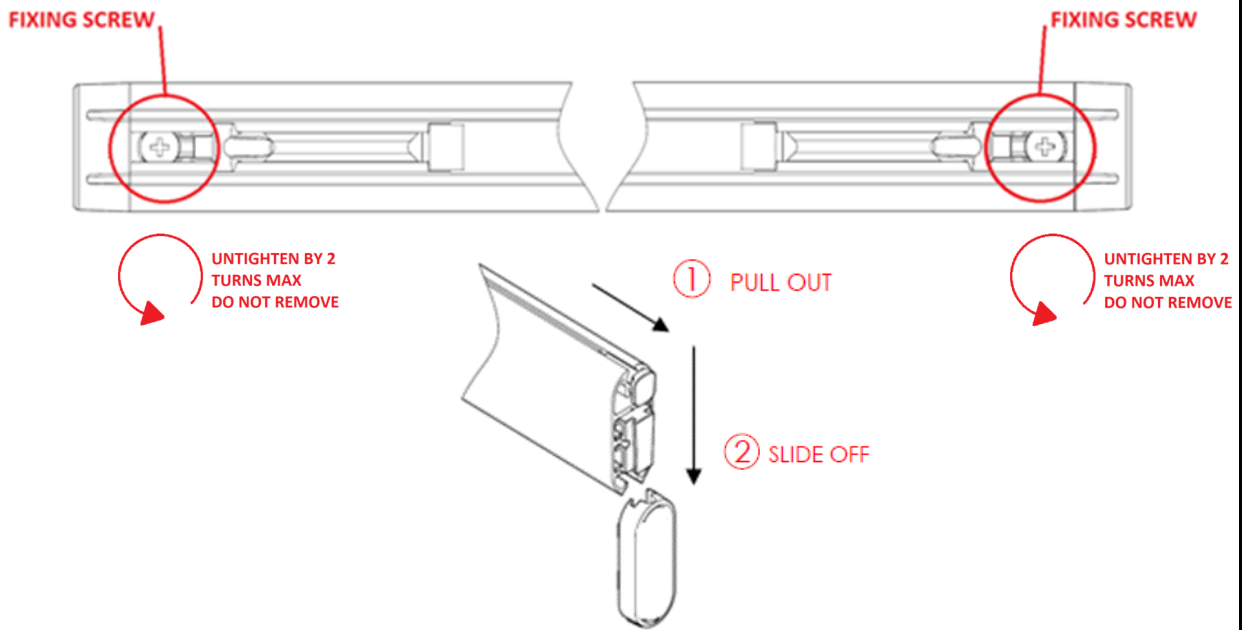


9.1.

- Fit the barrel assembly between the mounting brackets.
- Fix into place using fittings identified in Section 2 of this manual.

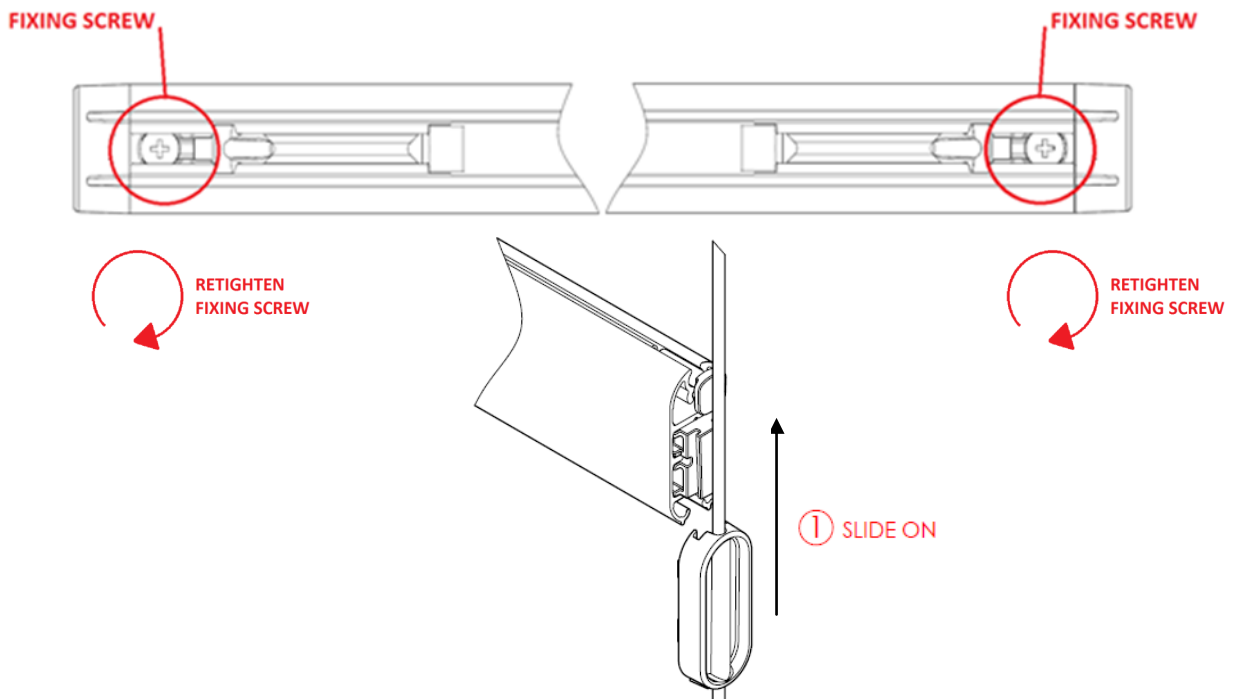
Mounting plate must be fitted to the mounting bracket so that it is perpendicular to the fabric direction.

9. Hem Bar Fitting



10.1

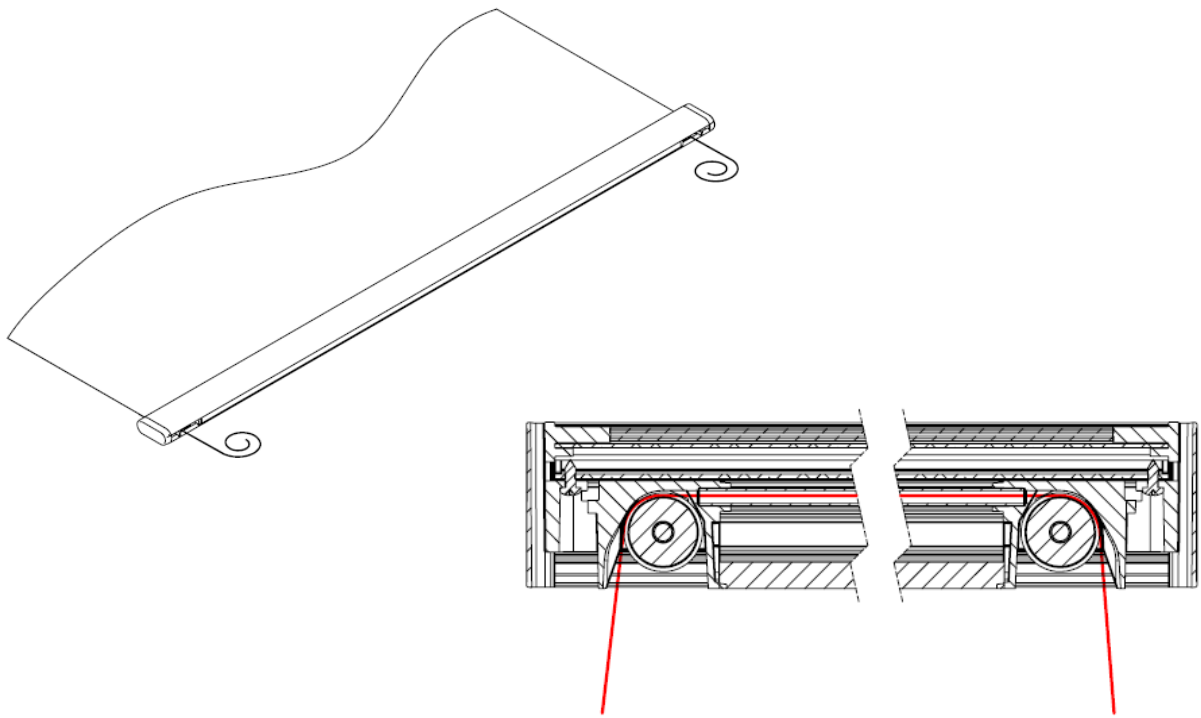
- Loosen fixing screws by max 2 turns (**DO NOT REMOVE**).
- Pull end cap out to by approx 3mm (1).
- Slide end cap away from pulley housing (2).



10.2

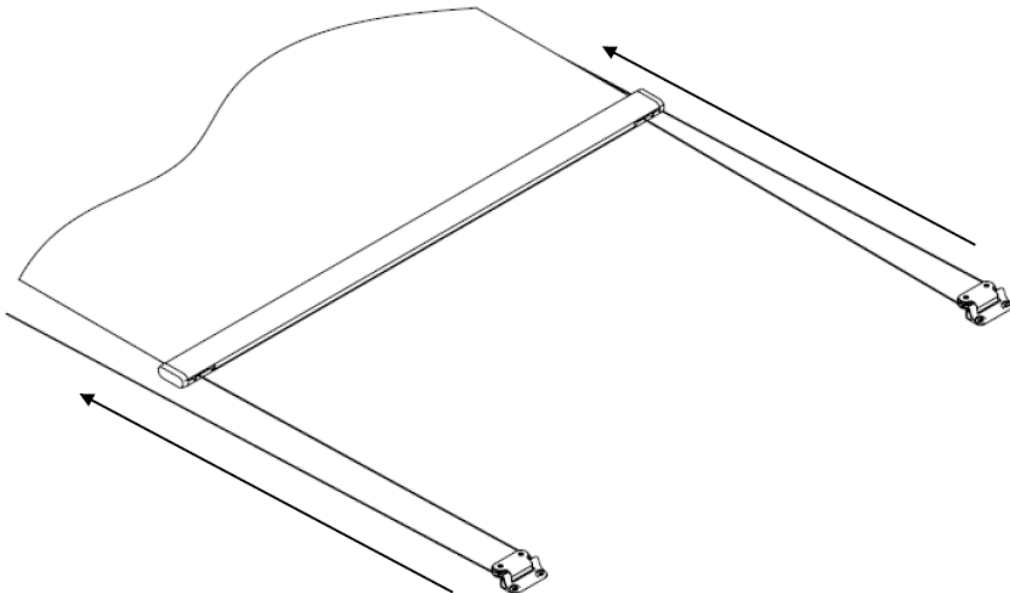
- Centre guide cable to hem bar.
- Slide end cap onto hem bar pulley housing (ensure fabric spacer is fitted correctly) (1).
- Push assembly into hem bar.
- **Retighten fixing screws.**

10. Tension Cable Fitting



11.1.

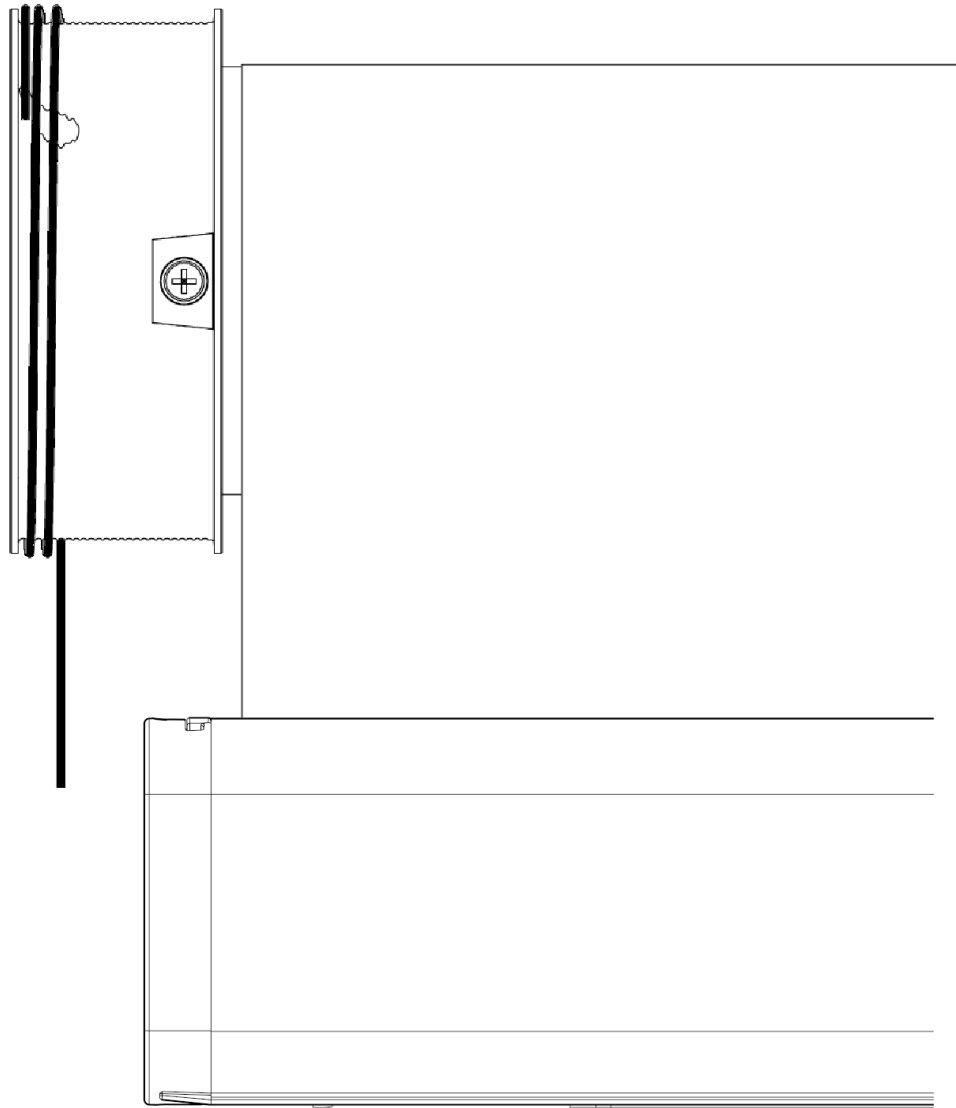
- Feed the tension cable through the hem bar. Do not cut the cable at this point.



11.2.

- Pull the tension cable through both return pulleys.

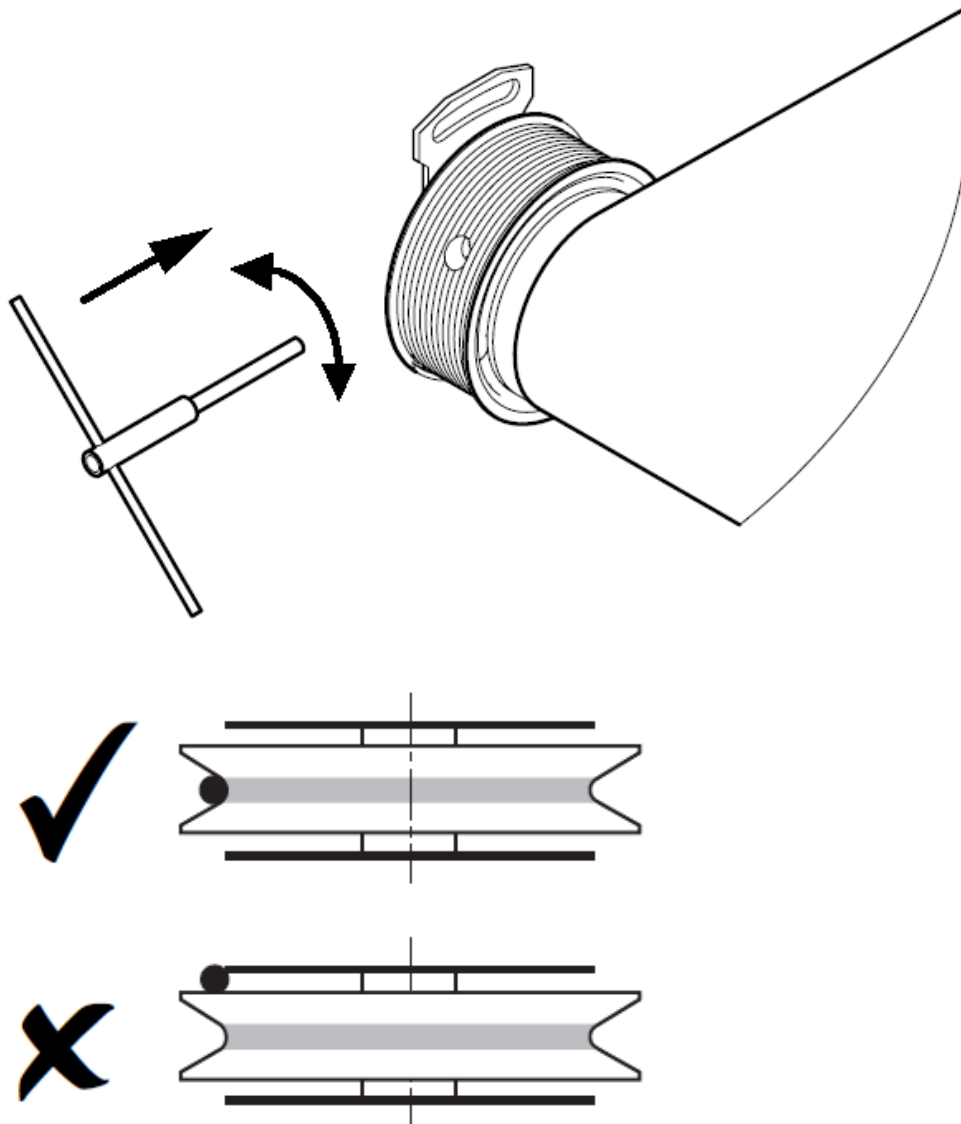
10. Tension Cable Fitting Cont...



11.3.

- With the system fully retracted, wrap 2 turns of cable onto the cable spool (tension cable must lay flat and not be crossing itself).
- Insert the cable into the cable spool locking device (Motor side).
- Push the cable through and ensure it will not pull out. Cut excess cable from the rear of the spool, if required.
- Repeat process for spring cassette end.
- Apply very light tension to the system, and trim any excess tension cable.

11. System Pre-tensioning



12.1.

Tensioning Tool – Supplied in fitting kit.

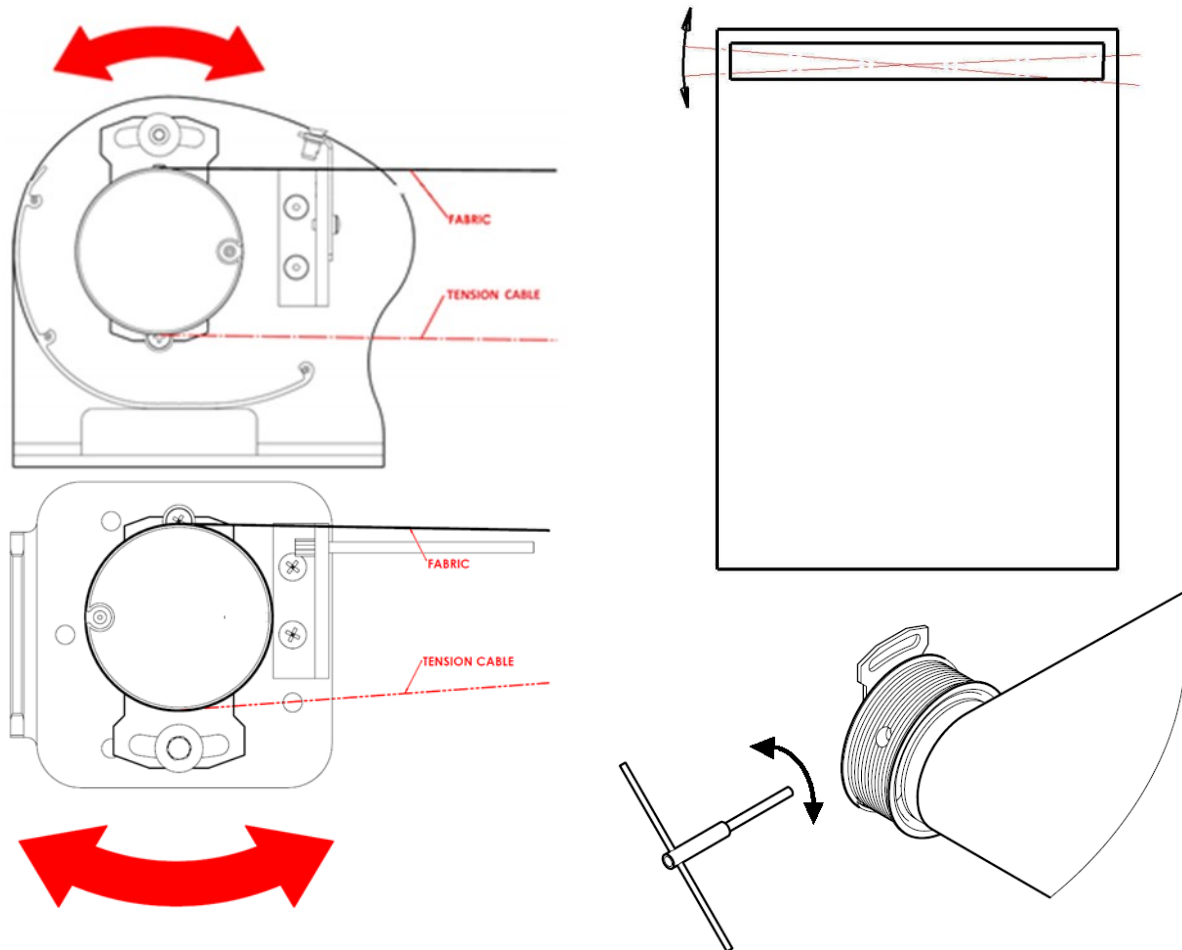
- Insert tensioning tool as shown.
- Apply light tension – approx 5 full turns using the tensioning tool.

Operate the system to ensure correct system function.

Check:

- The tension cable is seated correctly on the return pulleys.
- The cable is wrapping onto the cable drums neatly.
- The fabric is tracking correctly.

12. Fabric Tracking And Final Tension



13.1.

The TESS systems can be fine tuned to ensure good fabric tracking and long life. Tracking may need to be adjusted during product life.

The fabric when being retracted back towards the barrel should remain in position on the barrel. The fabric should not move towards one side. Long fabrics might move towards one side and then back towards the other.

- Taking care that the fabric does not crease — Deploy and retract system several times to give accurate indication of tracking.
- Adjust the fabric tracking as required by loosening the mounting screw and repositioning the tracking plate (this can be carried out at both sides).

13.2

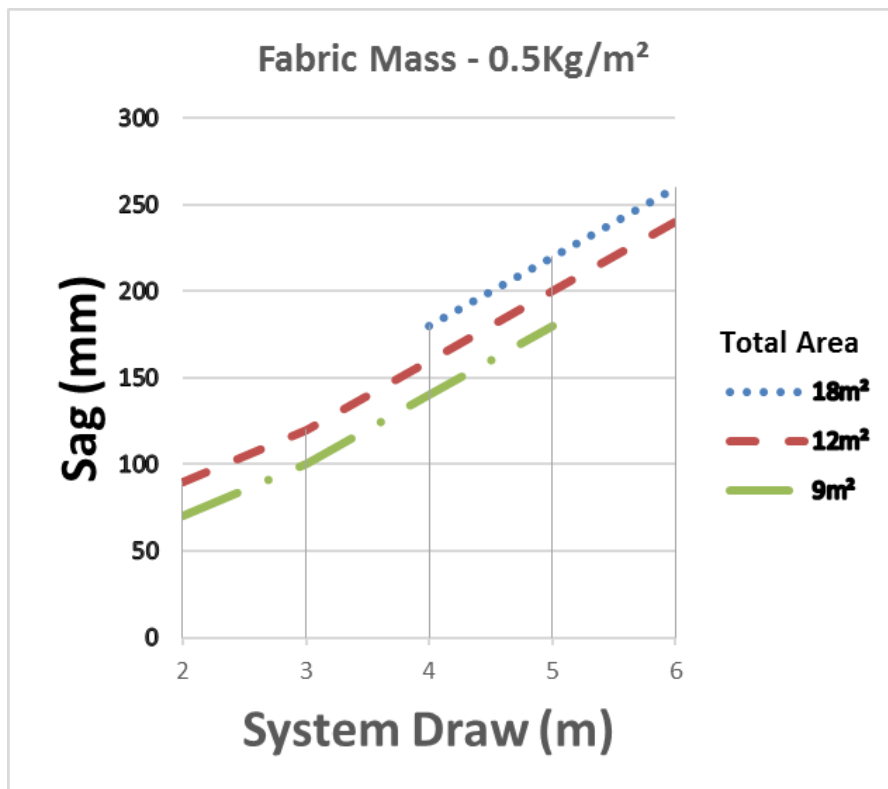
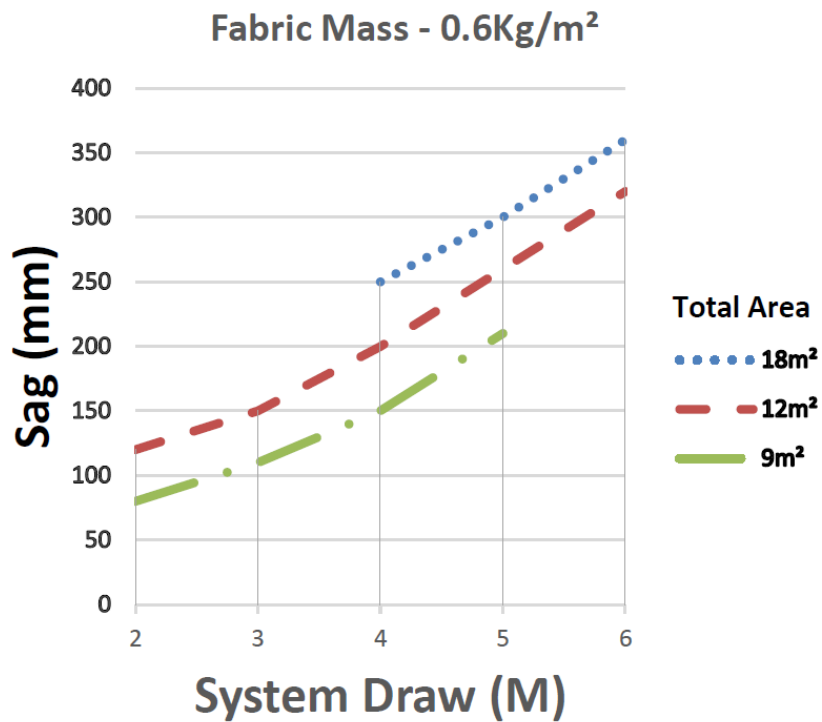
Tensioning Tool – Supplied in fitting kit

- Apply 10-20 FULL turns to the gear box by using the tensioning tool (provided)
- Recheck fabric tracking.

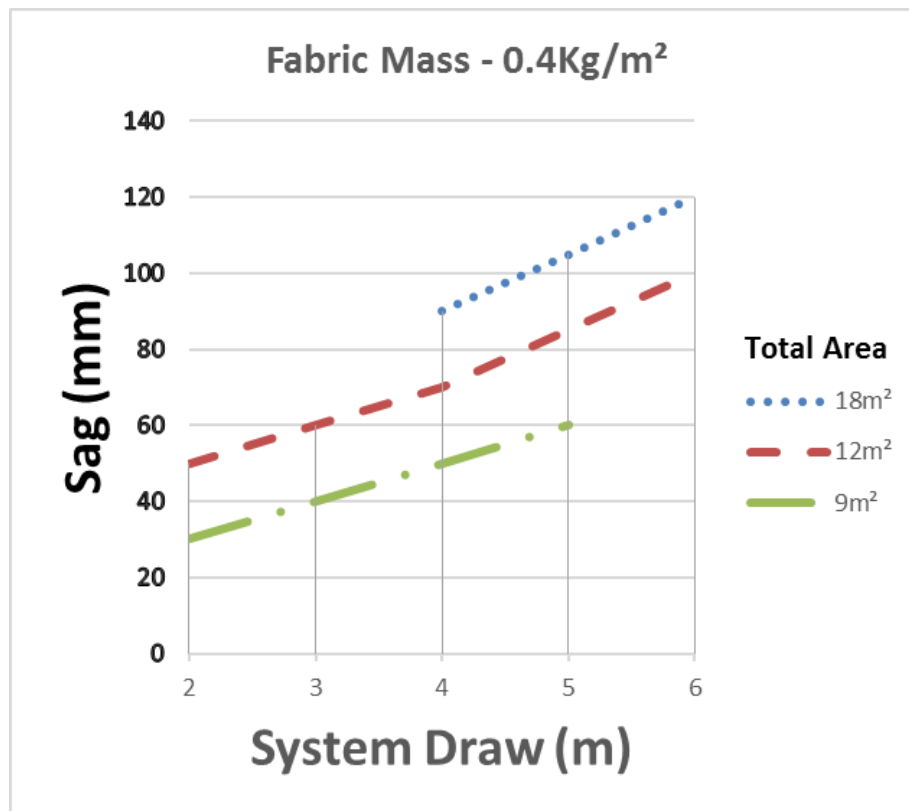
INFORMATION

- Do not over tension system.
- The system is over tensioned if the spring cassette is locked. Simply check this by pulling onto the tension cable to check for free movement of the spring cassette cable spool.

13. Estimated Fabric Sag Guidelines



13. Estimated Fabric Sag Guidelines Cont...



13.1.

Use tables to estimate fabric sag when the system is fully deployed.

Ensure the correct fabric mass table is used.

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