

**24/7
Operation**
No air/energy required
Once set & forget

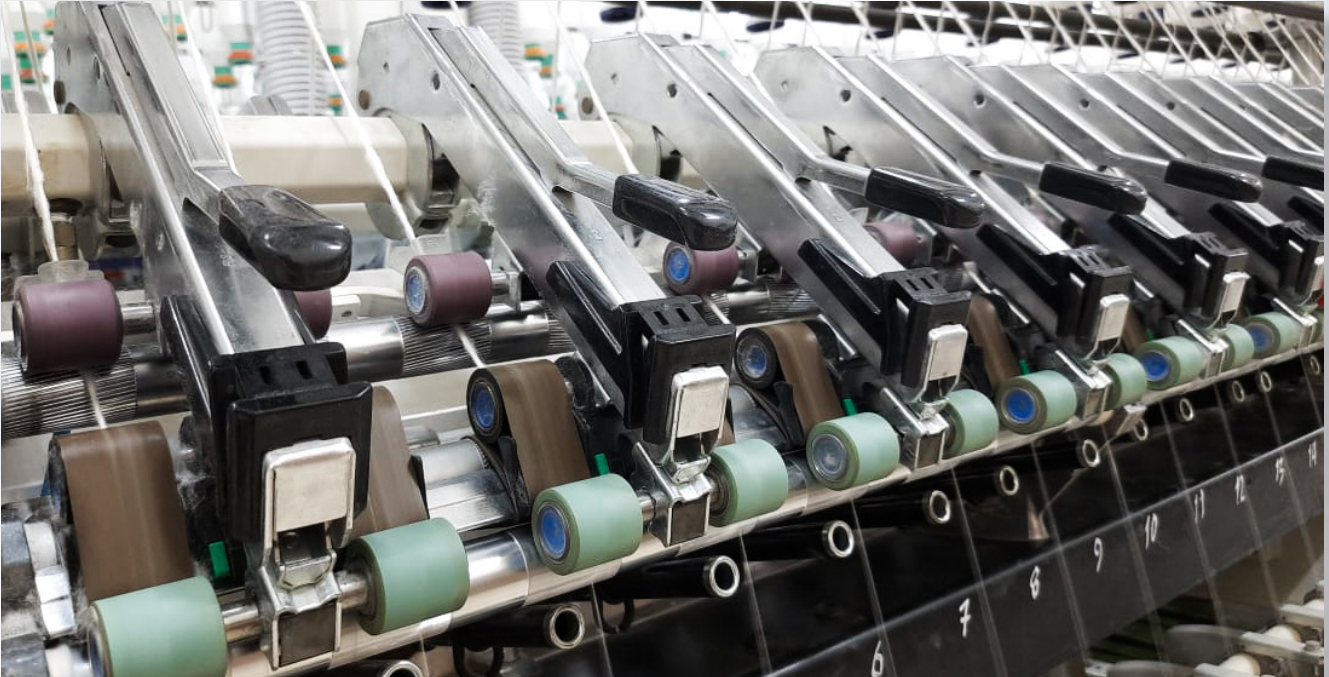
SpringUnit[®] for SWISS MADE P3-1 Toparm

Replacement solution for pneumatic P3-1 Tube System



100%
Swiss made.

Designed for P3-1 Toparm



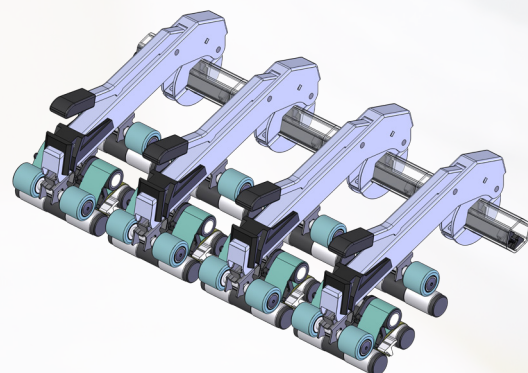
© Swinsol Media

History & Function

Many decades ago, spinners used to turn off the pneumatic spinning machines over the weekends. After the machines were stopped for a longer period of time without lifting the top arms, the cots took damage at the pressure spot. To prevent the deformation on the cots, the spinners had to lift the spring loaded top arms after turning off the machines. The requirement was to keep the top arm on low pressure over the weekends to ensure a pressure for drafting is given, to keep the machine in operation until the speed is increased again during the working week. The P3-1 top arm was born. During the week, the tube in the hexagon chamber was constantly filled with air, to apply the pressure to the top arms. On the weekends, spinners could centrally reduce the pressure volume. No more cot-deformation or yarn breakage after the weekends. However this concept is now outdated. The spinning world has changed and the machines are running 24/7. The constant draw of air and energy is no longer required. Instead we have invented a once set & forget mechanical insert for the hexagon chamber, that makes the air tube no longer necessary. We achieve more equal pressure results with our mechanical SpringUnit® without the use of energy or air.

Up-to-date

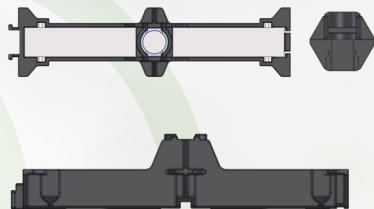
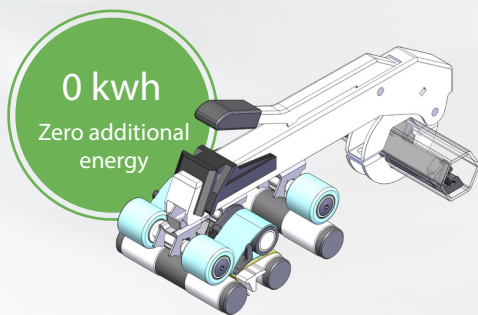
Today, machines operate 24/7. This makes the tube redundant. There is no stop on the weekends. The additional waste of air and energy is no longer required anymore. That is why we invented the Swinsol SpringUnit®- a mechanical alternative. No Co2-emissions, no additional energy, carbon neutral and highly durable.



Our Invention

The Swinsol SpringUnit® makes the outdated tube redundant. The invention is purely mechanical and focuses on durability. There is no more waste of energy or air. The pressure on the top roller is individually adjustable with the SpringUnit®. The pressure can be adjusted in discrete increments from 16kg up to 21kg. Increases can be made by 1kg at a time. The Swinsol SpringUnit® is therefore the perfect replacement for the tube system to save resources and increase profits. No Co2-emissions, no additional energy, carbon neutral and highly durable.

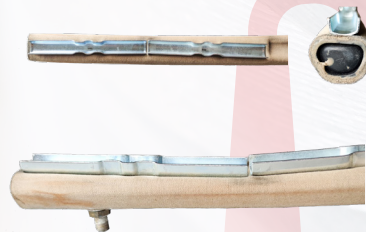
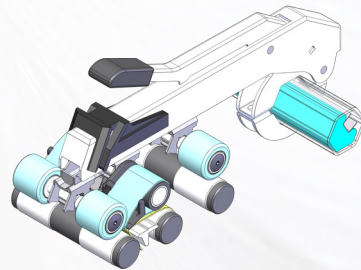
Swinsol SpringUnit®



Advantages:

- Fast & Easy Installation
- No air / energy
- High durability
- One-time-installation
- Once set & forget
- Zero emissions
- Green technology
- No additional energy

Tube System



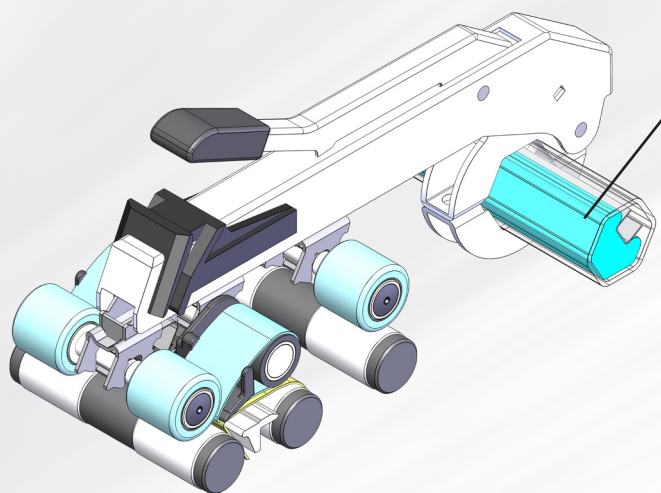
Disadvantages:

- Many Components
- Needs constant air and energy
- Limited lifespan
- Change of the tube
- Maintenance of the tube
- High emissions
- Outdated technology
- Waste of energy

Our Solution

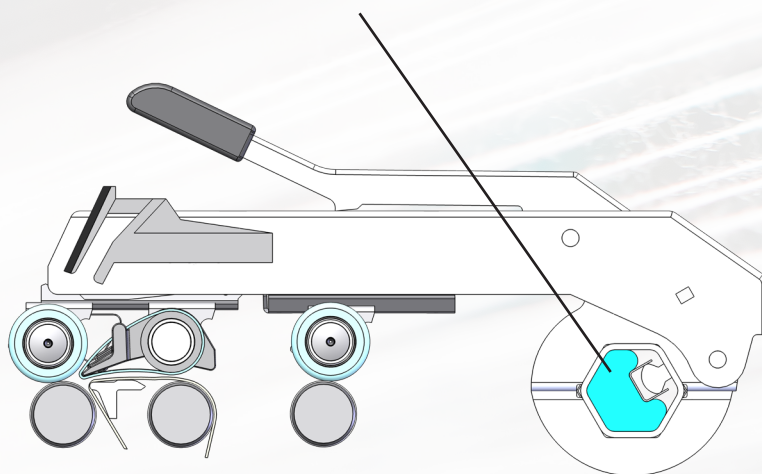
Removing the tube

First, the old tube has to be removed from the hexagon rod. **Important:** The P3-1 top arms and the hexagon rod have to be removed from the machine, before following these steps.



Step 1: Locate and deflate the installed tube.

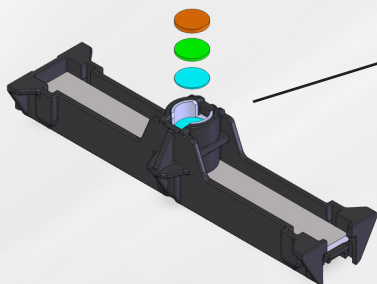
Step 2: Pull the tube out, so the hexagon rod is now empty. This is where the SpringUnit® will be placed in the next step. Continue on the next page.



Our Solution

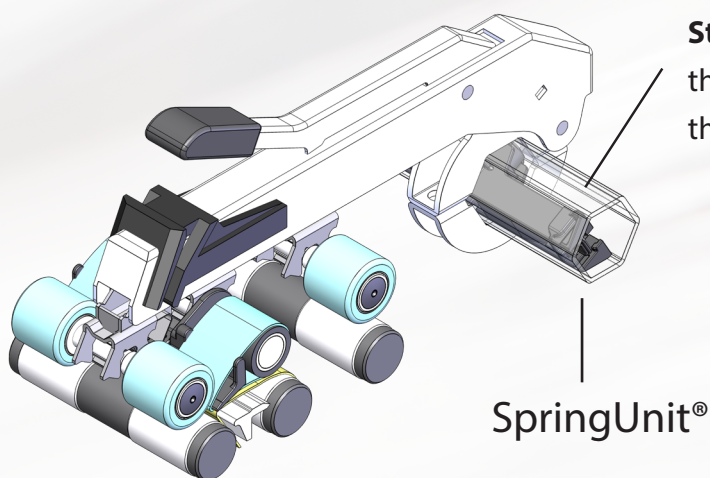
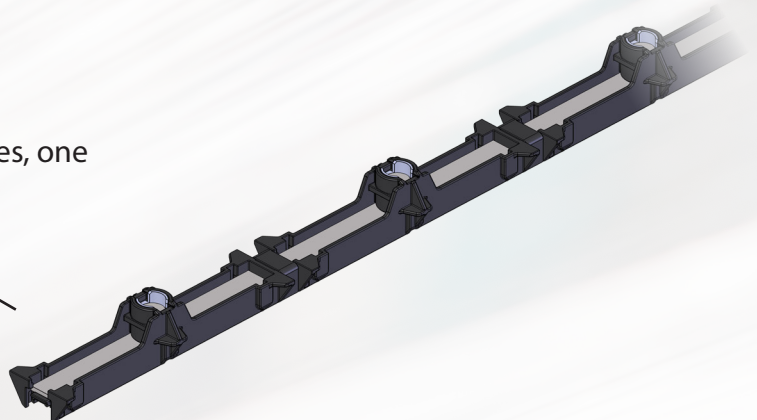
Mounting the SpringUnit®

The main component for the SpringUnit® is a flat spring. This element is mechanically loaded with the lever in the front top arm. We can change the distance between the lever and the flat spring with different disk spacers. This puts more pressure on the flat spring. The result is more pressure loads on the rollers. Let's install the SpringUnit®:



Step 3: Select the correct disks according to the pressure you need (depends on processed materials and cot shortens) and put the disks in the SpringUnit® (see table page 7).

Step 4: Connect 12 pieces (24 spindles, one section) of the SpringUnit® together.

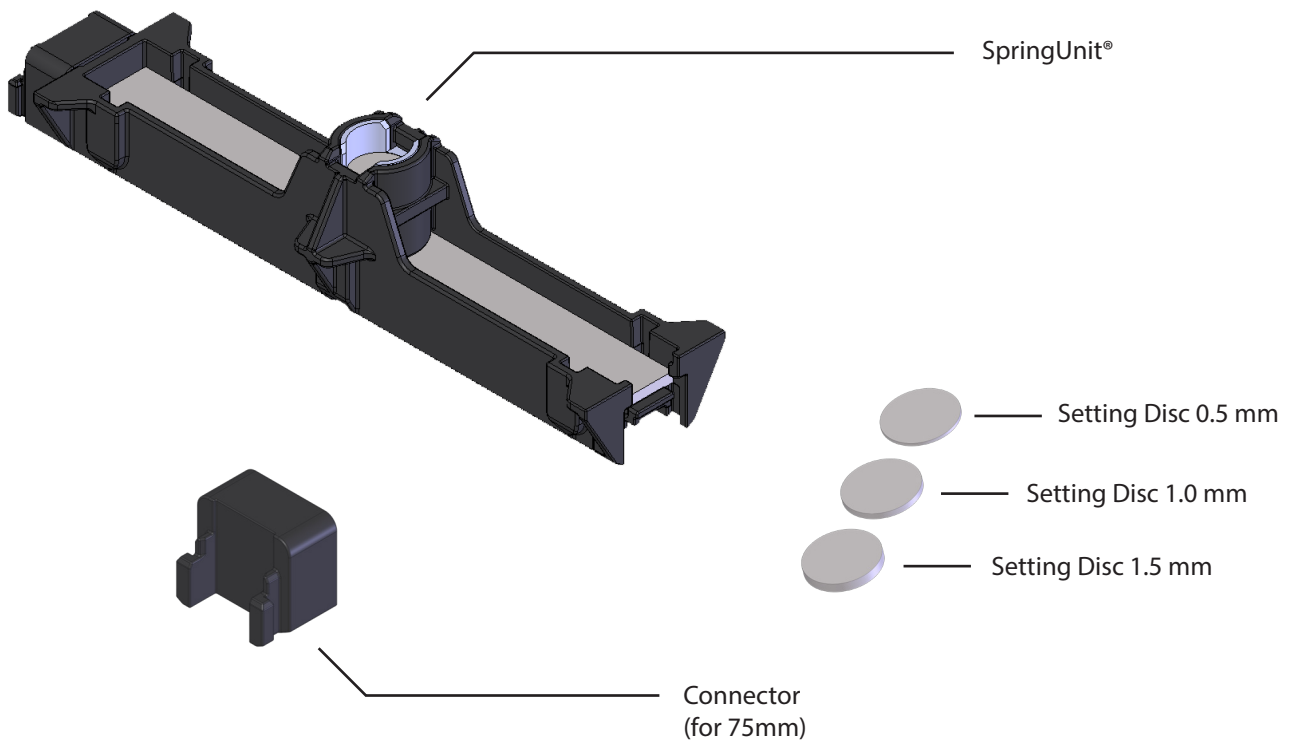


Step 5: Insert the assembled SpringUnit® into the support rod. Remount rod and top arms to the machine.

SpringUnit®

Machine is ready to run.

Components Scope of supply



ADVANTAGES

ECONOMIC

- Easy & Fast installation
- No worn out rubber
- Highest durability materials
- Adjustable pressure

SUSTAINABLE

- No additional energy
- No air required
- Green technology
- No waste of rubber

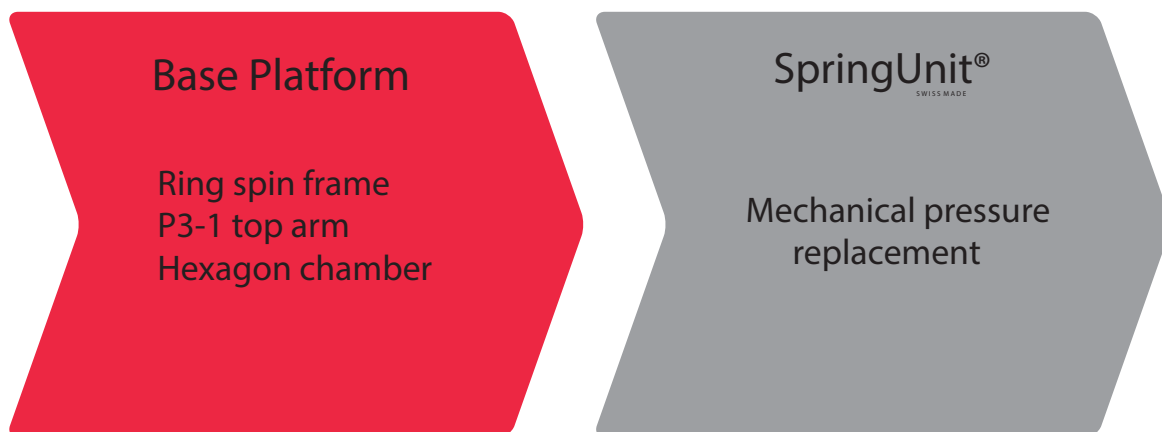
OPERATOR FRIENDLY

- Very fast installation and quick pressure adjustment
- Made for 24/7 operations and keeping the machine running

Equipment Options

Mechanical pressure solution for spinning frames with P3-1 top arm




The Swinsol SpringUnit® can be installed on P3-1 top arm pneumatic machines and enables spinners to replace the rubber tube in the chamber.

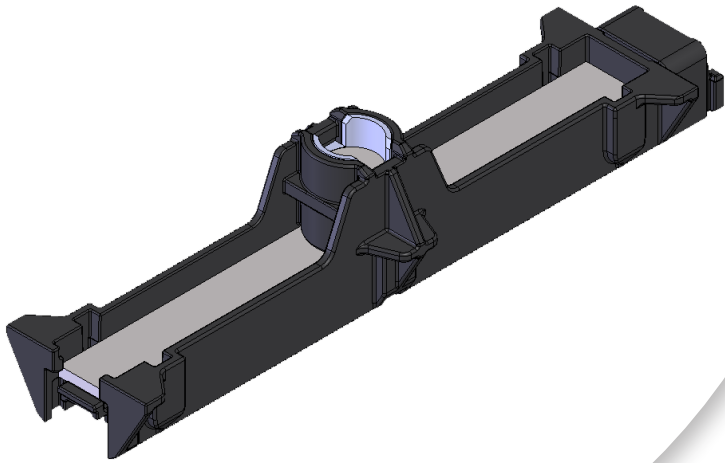


BIG CUSTOMER BENEFITS

- One-Time-Installation
- No air pressure needed
- Set & Forget technology
- No additional energy required
- Adjustable pressure/tension
- Significantly less costs and no change of parts like with the rubber tube, once it's worn out or it has some deformations or holes
- No wear and tear
- Long lasting

PRESSURE SETTINGS

Disc thickness	Load in front top roller (pin settings for short staple)	Number of disc
0.5mm	16 kg	One 
1.0mm	17 kg	
1.5mm	18 kg	
0.5mm + 1.5mm = 2mm	19 kg	Two 
1.0mm + 1.5mm = 2.5mm	20 kg	
0.5mm + 1.0mm + 1.5mm = 3.0mm	21 kg	Three 



For free trials &
more information,
please contact us!



Swiss Industrial Solutions

Swinsol AG
Bahnhofstrasse 6-8
CH-9434 Au
Switzerland

T +41 71 510 92 51
F +41 71 510 92 59
www.swinsol.com
info@swinsol.com

Download
Brochure PDF

