

# PiSwitch™

# User Manual

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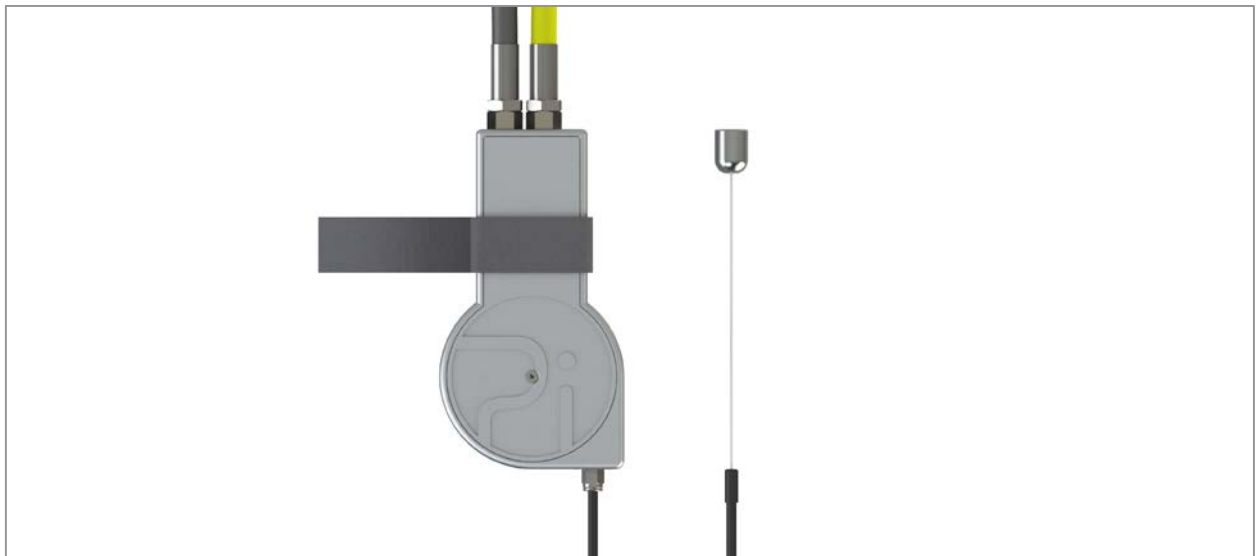
Closed Loop Grit Blasting





Any person intending to operate this equipment or any person intending to be in the vicinity during its operation must receive proper training.

Do not operate this equipment before reading and completely understanding all the warnings, cautions, operating procedures, and instructions contained in this manual. Do also read and understand the manual of the Pinovo® closed loop blasting and recycling unit PiSys™ and other relevant tools used with this equipment.



Patent Pending

## 1 INTRODUCTION

The PiSwitch™ is a pneumatic dead man's switch to be used with the Pinovo® closed loop grit blasting units PiSys™ 100 and PiSys™ 1000.

The PiSwitch™ is operated by pulling and releasing a small knob, which is connected to the switch housing by a wire. The knob is placed between the operators fingers, which allows the operator to handle both the PiSwitch™, and the grit blasting tool simultaneously. Releasing the knob will result in de-activation of the connected Pinovo® closed loop grit blasting unit.

## 2 SAFETY INSTRUCTIONS

The products described in this manual are intended for knowledgeable, experienced users of abrasive blasting equipment. It is the responsibility of the user to ensure that proper training has been completed and to have the relevant certificates from the Pinovo training program.










It is the responsibility of the users to familiarize themselves with the appropriate laws, regulations and safe practices that apply to these products and materials that may be used with these products, and that a safe work environment is provided.

Any use outside the sphere of application specified by Pinovo is not approved. Such use, any failure to comply with the instructions given herein, or any modification of the product without the written consent of Pinovo will invalidate the warranty, and Pinovo refuses to accept liability.

In addition to information on installation and operation, this instruction manual may contain **WARNINGS** and **CAUTIONS** pertaining to user safety. A **WARNING** indicates a potentially hazardous situation, which if not avoided, could result in death or serious injury. A **CAUTION** indicates a potentially hazardous situation, which, if not avoided, may result in minor or major injury.

Do not attempt to operate this tool until you have read and understood all safety precautions and instructions listed in this manual. **INCORRECT OPEARATION OF THIS UNIT CAN CAUSE SERIOUS INJURY.**

## 2.1 Warnings

 <b>WARNING</b>	Enclosed blasting equipment may cause serious injury – protect hands, feet, eyes and hearing.
 <b>WARNING</b>	Show outmost care when connecting and operating the system. <b>ALWAYS THINK SAFETY FIRST!</b>
 <b>WARNING</b>	Wear PPE at all times when operating Pinovo® closed loop grit blasting tools. The type of respiratory protection should be considered depending on material being removed, e.g. lead-based coatings.
 <b>WARNING</b>	Do not use closed loop grit blasting tools on surfaces of unknown thickness or temperatures above 70°C without proper risk assessment.
 <b>WARNING</b>	Before starting Pinovo® closed loop grit blasting tools, ensure that all fixing screws, bolts and fittings are mounted correctly and securely tensioned. Also ensure that whip-checks and safety pins are used for all hose-connections and hook-ups.
 <b>WARNING</b>	Check all hoses for damage before starting the system.
 <b>WARNING</b>	Check for wear inside the Pinovo® closed loop grit blasting tools regularly. Change adapters regularly. Clean tools from dust inside regularly.
 <b>WARNING</b>	Do not repair or replace any portion of Pinovo equipment using components that are not original Pinovo replacement parts or components that are not approved by Pinovo.
 <b>WARNING</b>	Do not cut, obstruct, restrict or pinch pneumatic control lines. Doing so could prevent the proper activation and deactivation of the remote

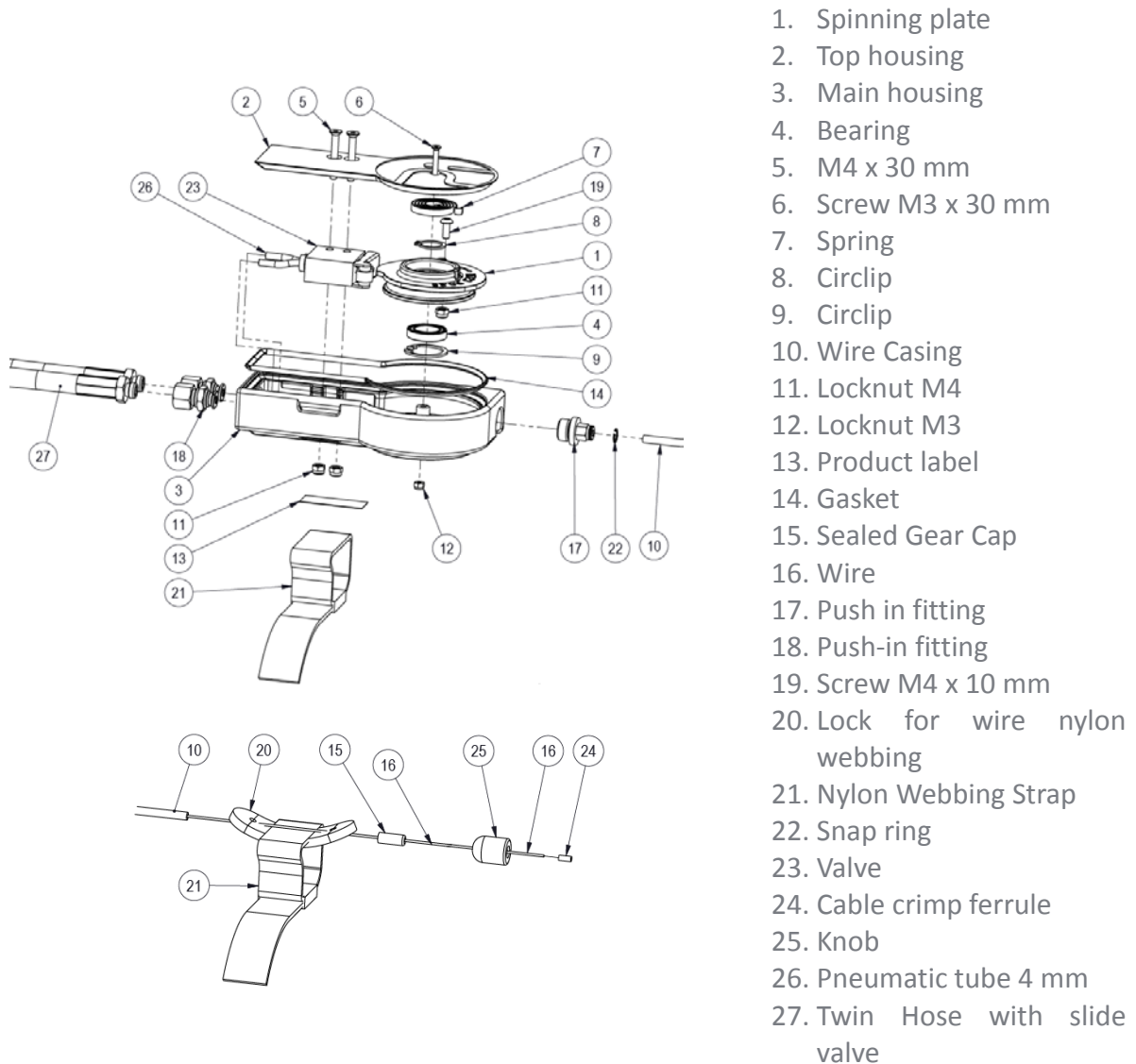
	control system, resulting in the release of high speed media and compressed air.
<b>⚠ WARNING</b>	The use of this product for any purpose other than originally intended or altered from its original design is prohibited.
<b>⚠ WARNING</b>	You must NEVER place your hand or fingers underneath the ‘Blast Head’ or point the ‘Blast Head’ of a Pinovo® closed loop grit blasting tool at yourself or anybody else while the system is pressurized.

## 2.2 Cautions

<b>⚠ CAUTION</b>	Never install, remove or perform any maintenance on Pinovo® closed loop grit blasting tools when the system is pressurized.
<b>⚠ CAUTION</b>	Always use the dead man’s switch when operating the system. The dead man’s switch must never be set deliberately in an interlocked or blocked position, which could hamper the safety release of the switch.
<b>⚠ CAUTION</b>	Only use Pinovo® Blasting Grit in the appropriate size, preferably sizes F16 to F46
<b>⚠ CAUTION</b>	Blasting of oil contaminated parts may result in contaminated surfaces, clogged abrasive, and/or malfunctioning of the equipment.
<b>⚠ CAUTION</b>	Valves must be opened slowly to allow seal to function correctly and to give a safe operation.
<b>⚠ CAUTION</b>	Never operate Pinovo® closed loop grit blasting tools while wearing loose hanging chains, hanging ID/Security badges or garments.
<b>⚠ CAUTION</b>	Never start a Pinovo® closed loop grit blasting tool before its hoses are properly secured and safely located.
<b>⚠ CAUTION</b>	The Pinovo® closed loop grit blasting tools should be properly maintained and stored when not in use to avoid damage to parts.
<b>⚠ CAUTION</b>	Always consider the workplace, access and risk factor prior to installation.
<b>⚠ CAUTION</b>	Always connect the hoses with safety line to fixed structure if working above 2 meters free fall.

### 3 OPERATING INSTRUCTIONS

The following illustration shows the different parts of the PiSwitch™:



- Before using the PiSwitch™, perform a visual inspection, ensuring that all parts are in place and in good condition.
- Ensure that all hoses and connections are properly fastened.
- Before activating PiSwitch™, the ‘Blast head’ of the Pinovo® closed loop grit blasting tool **MUST** be placed against the surface that is intended for blasting

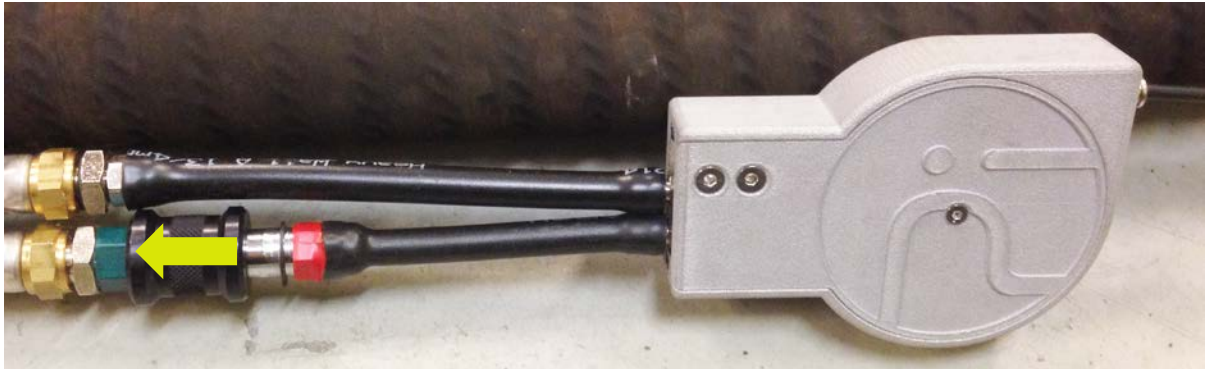
- The slide valve placed on the twin hose, is a safety valve, and should always be in closed position (towards the red ring), when the PiSwitch™ is not in use. The slide valve should only be in open position when blasting
- If a damage or fault on PiSwitch™ should prevent a de-activation when releasing the knob, set the slide valve in closed position to depressurize the system.
- You must **NEVER** place your hand or fingers underneath the ‘Blast Head’ of a Pinovo® closed loop grit blasting tool.
- You must **NEVER** point the ‘Blast Head’ of a Pinovo® closed loop grit blasting tool at yourself or anybody else.
- To start blast cleaning with a Pinovo® closed loop grit blasting tool, set the slide valve to open position and pull the knob.
- The Pinovo® closed loop grit blasting unit will be activated and remain active as long as the knob is more than 5 cm away from the sealed gear cap.
- When stopping/pausing the blast operation, release the knob. Wait until the system has come to a complete stop (no grit passing through) before lifting the blast head off the blast area.

## 4 HOW TO USE

- Strap the PiSwitch™ on to the hoses of the Pinovo® closed loop grit blasting tool.



- Set the slide valve to open position (the safety valve shall only be in open position when product is in use)



- Make sure the knob of the PiSwitch™ is positioned near the Pinovo® closed loop grit blasting tool.



- Hold the knob between your fingers (or as you prefer), and hold the Pinovo® closed loop grit blasting tool against the surface to be blasted.



- Pull the knob to activate the connected Pinovo® closed loop grit blasting unit.



- Release the knob to deactivate the connected Pinovo® closed loop grit blasting unit and stop blasting.



- Set the slide valve to open position when the work is done.





## 5 TECHNICAL DATA

Size (without wire tube and hoses):	162 mm x 83 mm x 30 mm (length of wire tube: 1000 mm)
Weight (kg):	0.5

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