

# Test and control unit

**Control of the insertion parts** 



Т	ools	
C	Control of the main nozzle on the machine	
	The air flow	
	The movable main nozzle	
	The fixed main nozzle	
	Control of the relay nozzles on the machine	
Control of main-and relay nozzle valves		
	Fast control	<b>-</b>
	Control on opening and closing times	
		1



# Test and control unit

**Control of the insertion parts** 



Working of Picavalve device
Measuring procedures of the opening and closing times
Trouble shooting
Control of the relay nozzles outside the machine
The relay nozzle control device
Calibrating the measuring device
Readjusting of non-damaged relay nozzles
Changing the relay nozzle height
Mounting of the relay nozzles on the machine





## **PART 1: THE TUNNEL REED**

# 1. Tools

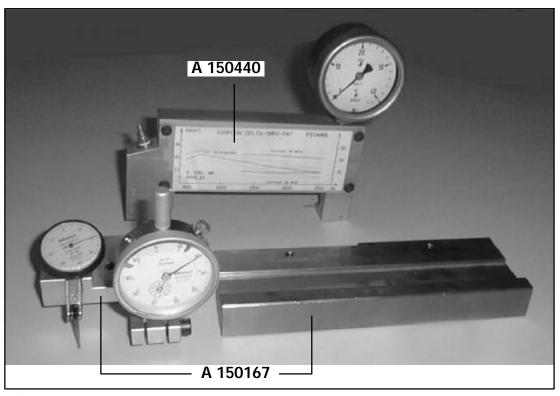


Fig. 1

### 2. Control of the tunnel reed outside the machine

The machine must be provided with a faultless tunnel reed, which must meet following conditions.

#### 2.1. The air flow

- Connect air supply "A" of the control system with tunnel reed gauge A 150440.
- . The gauge is usable for 4 different reed heights. Therefore, the upper guide (at the back of the gauge) can be fixed at 4 different positions. The corresponding reed height is indicated on the back of the gauge (see figure below).

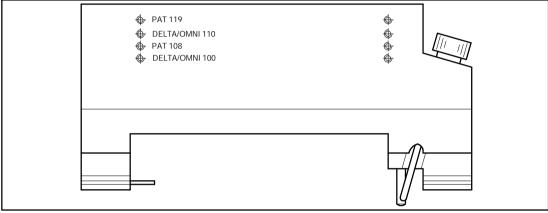


Fig. 2

- ♦ Open air valve "B" and adjust the air pressure at 5 bar.
- ♦ Move gauge A 150440 slowly on the reed. The gauge must be pressed against the back of the air channel. Check the maximum and mimimum pressure (Pmax and Pmin) on manometer "C".

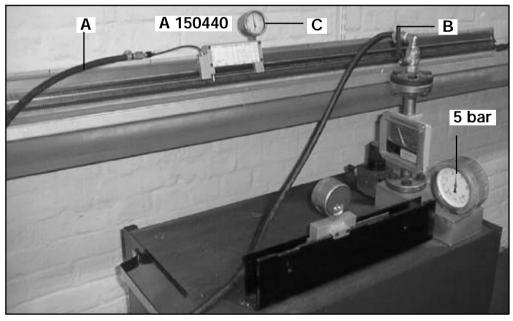


Fig. 3

For spun yarns and filament, the reed is only accepted if the air flow is  $10^{\pm 4}$  mbar. An exception is made for nylon filament yarns 44-76 dtex, which require a reed with a higher air flow: i.e.  $20^{\pm 4}$  mbar.

If the reed does not meet these 2 points, it will have to be replaced.

. The value, indicated next to Q: 6.7 Nm<sup>3</sup>/h, is the air-flow rate of the nozzle on the Rota meter. If the measured air-flow rate does not correspond with indicated value (e.g. because of an obstructed nozzle), the measuring device will have to be checked.

#### 2.2. Dimensions

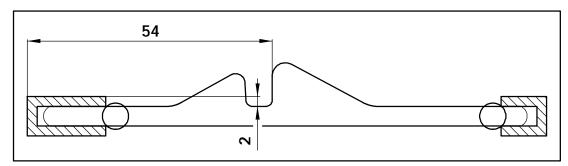


Fig. 4

▶ Place gauge "A" on bottom platte "B" and tighten it slightly. Mount dial gauges "C" and "D".

Dial gauge "C" is positioned with its pin on horizontal surface "1".

Dial gauge "D" is positioned with its pin against vertical wall "2" (see detail).

Set both dial gauges to zero.

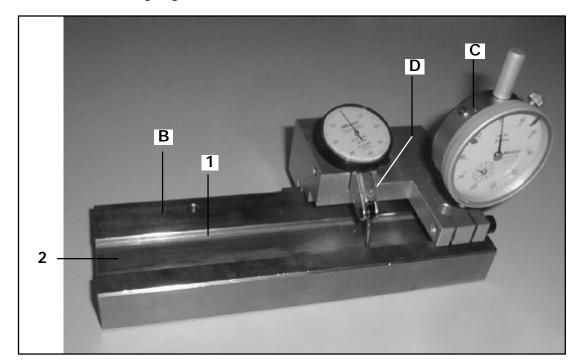


Fig. 5

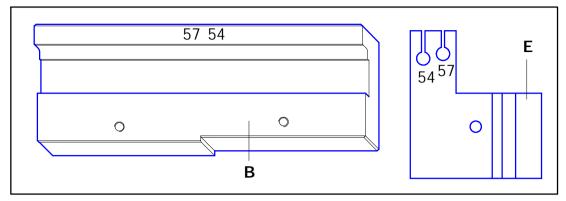


Fig. 6

. Calibration gauge "B" has 2 levels and tool "E" has 2 positions in which the dial gauge can be placed. The place on which the calibration is carried out and the position of the dial gauge depends on the distance between the top of the air channel and the bottom of the reed.

On OMNI machines, this distance is 54 mm. Place the dial gauge on position 54 and against the edge of the calibration gauge indicating 54.

On PAT machines, this distance is 57 mm. Place the dial gauge on position 57 and against the edge of the calibration gauge indicating 57.

▶ Push the gauge "A" on the reed. Press it against the base of the reed and check the graduation on both dial gauges. A deviation of more than 0.1 mm is not allowed.

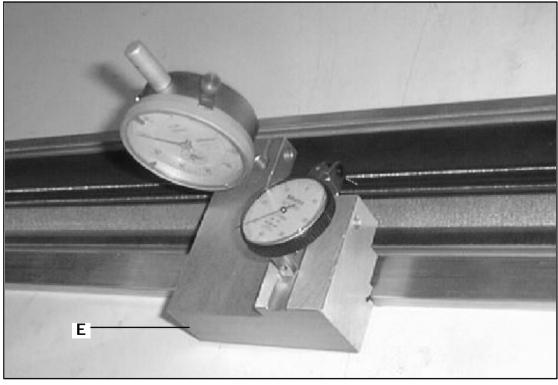


Fig. 7



### 3. Control of the tunnel reed on the machine

#### 3.1. The air flow

This control is carried out in the same way as has been explained at "CONTROL OF THE TUNNEL REED OUTSIDE THE MACHINE", except for the fact that the air supply of the device is connected to the control system. This system is connected to the LHS of the machine with a quick coupling.

- ♦ After having opened air valve "A", adjust manometer "C" at 5 bar by means of pressure regulator "B".
- ▶ Place device "D" with its relay nozzle as closely as possible to the right with regard to a relay nozzle on the machine, as the value can be influenced by the presence of the next relay nozzle.
- ▶ Measure the pressure during the movement of the device to the right up to a distance of about 2 cm from the next relay nozzle.
- In order to move the gauge further, lift it and push it on the relay nozzle. The gauge must not be in contact with the relay nozzles.

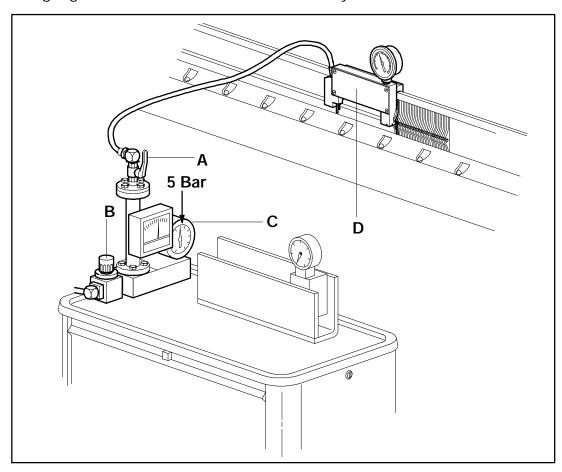
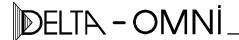


Fig. 8



### 3.2. Fingernail test

Move the fingernail on the reed in order to track sharp edges on the reed.

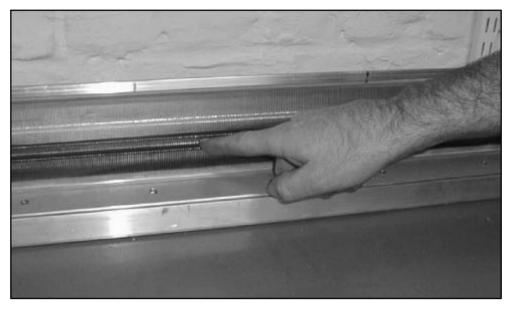


Fig. 9

Mark the sharp reed dents.

In case of coarse reeds, these sharp edges can be rubbed down with fine sandpaper (P400) as indicated in the figure below. In case of thin reeds, this action is practically impossible so that the reed must be replaced.

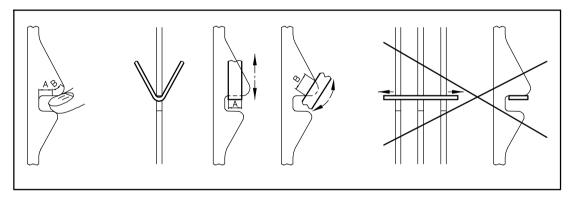


Fig. 10

Damage may occur:

at the LH side: by the filling cutter and the clamp

At the LH and RH side: by parts between reed and temples.

In the centre by a damaged weaver cutter, after repair of a warp yarn.

High torsion clamp.



# 1. Tools

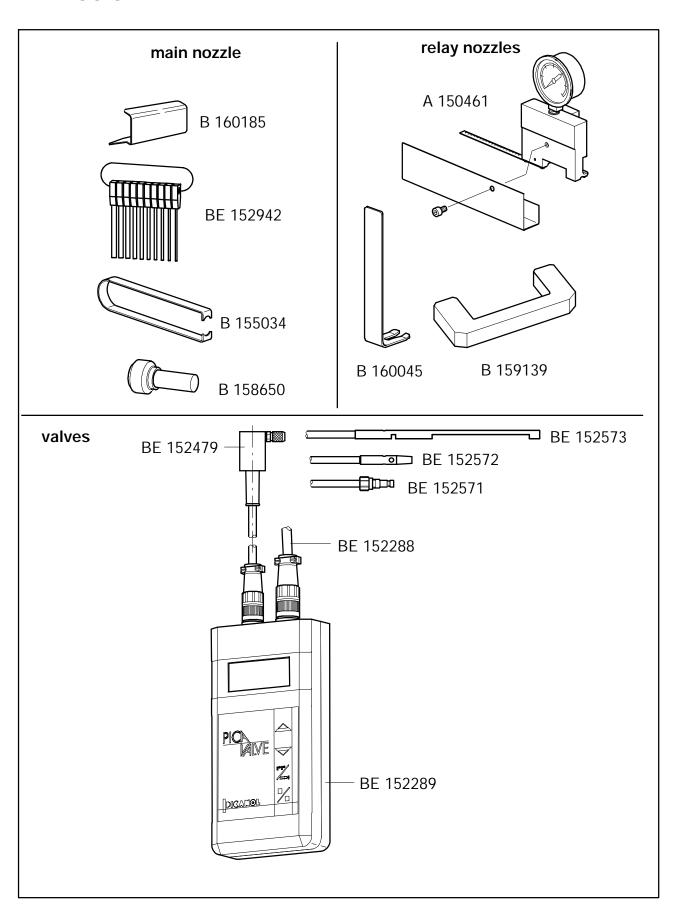


Fig. 1

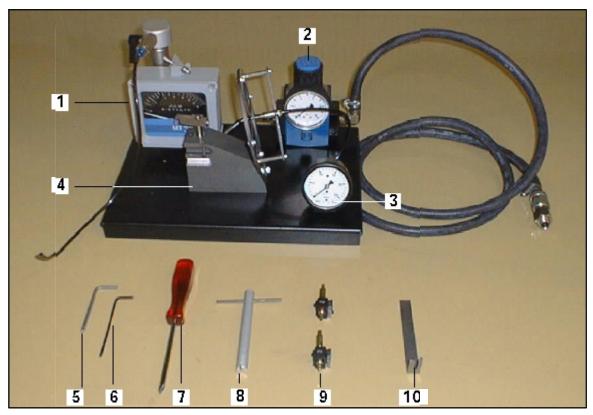


Fig. 2

- 1. Flow meter
- 2. Pressure regulator with manometer
- 3. Manometer for the Pitot pressure
- 4. Control block with leaf springs and fastening part for relay nozzle
- 5. Allen key 4 mm
- 6. Allen key 3 mm
- 7. Philips screwdriver
- 8. Bending tool BE 302576
- 9. Two calibrating relay nozzles: BE 152730 standard height

BE 154522 standard height + 1 mm

10. Air hose extractor B 160045

以上内容仅为本文档的试下载部分,为可阅读页数的一半内容。如要下载或阅读全文,请访问: <a href="https://d.book118.com/94614413510">https://d.book118.com/94614413510</a>
5010143