



DiTwin – Digital Twin for VET school

DiTwin Modules

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Project website: <https://www.ditwin.eu/>

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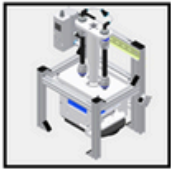



Module - Automation technician for Industry 4.0

Lesson 3 - Fundamentals of pneumatics and hydraulics

Setup 4

Muscle Press Pressure Regulation






Work Plan Number: 1210 Name: complete custom Type: custom

Description: complete custom

Time [s]: 40 22765,4 0,436 Electric Energy [Wh] Compressed Air [SL]

10	read front cover from magazine	0
200		0
205		0
25		0
25		0
310	start a robot program	0
30		0
310	start a robot program	0
30		0
40		0
111	pressing with force regulation	0
50		0
114	print label	0
10		0
112	heating Part	0
10		0
205	deliver part	0
0		0



Step

Basic: [] Next Step: 100

Step: [] First Step: [] Error Step: []

Operation: 111 (pressing [mg]) Transport Time [s]: 0

Resource: 4.1 Phase Working Time [s]: 0

Description: pressing with force regulation Electric Energy [Wh]: 1237

Free Text (Other Page): Compressed Air [SL]: 0,191

Next Part Number: 0 (nothing)

1. pressure [N]: 75

[changeable] [SQL]

2. pressing time [s]: 1

[changeable] [SQL]

OK Cancel

Figure 3.4 Muscle Press

Requirements

Basic knowledge of pneumatics and hydraulics

Learning Outcomes acquired

K4.5 To understand the fundamentals of pneumatics and hydraulics

Duration of the lesson

4 hours

Activities and steps to be implemented

The students will be asked to observe and interact with a simulated automated system for industry 4.0, managing some simple operations with pneumatic and *hydraulic actuators (* only as a software simulation).

In this activity participants will interact through the Factory's Digital Twin by varying the operating pressure parameter of the pneumatic press device and will be able to observe it in action

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