



PNEUMAX



PNEUMAX ACADEMY

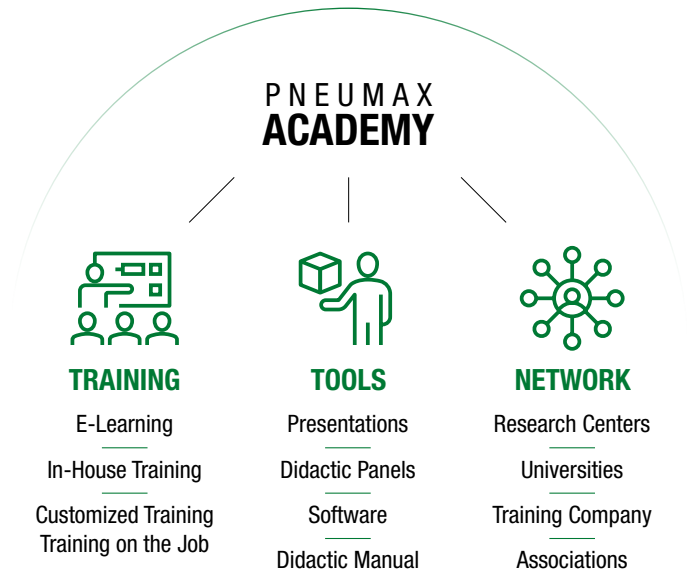
TRAINING TOOLS AND SOLUTIONS

Pneumax Academy

A structure dedicated to the constant development of knowledge

Technological development cannot be separated from the implementation of a consistent organisational and skills system. Market transactions are no longer limited to simple supply relationships in which the aim is merely to sell a product, but are now true partnerships in which the true aim is to provide advice on the basis of specific know-how and jointly develop the best possible solution. The skill of understanding a customer's needs and being capable of developing ad hoc application solutions is therefore what makes the difference.

Pneumax has a training programme that aims to enhance



the skills of all operators across the board in concepts relating to new technologies and market trends.

The aim is to increase levels of culture both among those already working in the automation sector and also those who will in future have to make a choice about which sector to work in, i.e. students.

To do this, Pneumax has set up a real structure dedicated to training: the Pneumax Academy. The Academy brings together all existing collaborative projects with companies, technical institutes, universities and research bodies, whether in Italy or abroad.

It is a major project which also includes the development of structured alternating school-work training schemes and possible research projects and dissertations carried out jointly with partner university departments.



Pneumax Technologies

- Pneumatic Technology
- Electric actuation & motion control
- Fluid Control
- Safety Automation
- Industrial IoT & Industry 4.0

Innovation drivers

- Integrated electronics
- Energy saving
- Interconnectivity of components
- Sensors and diagnostic
- Real time control
- Ergonomic and compact design

TRAINING COURSES

Constant, structured and effective training

The Pneumax training programme combines theory fundamentals with practical activities. “Learning by doing” is the philosophy with which Pneumax trainers set up courses and activities



Basics of Pneumatics

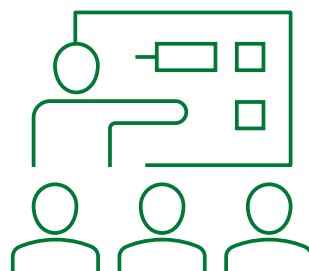
The aim of the course is to illustrate the fundamental concepts of physics related to compressed air by introducing the main quantities, units of measurement, functions and main characteristics of the components that can make up a pneumatic circuit.

Advanced pneumatics and electro-pneumatics

The aim of the course is to provide knowledge of the various components that can make up a pneumatic circuit, even a complex one, by understanding its operation, analysing in detail the parts that comprise it as well as any faults. The course combines a theoretical and practical session to provide skills on component dimensioning, reading pneumatic diagrams and their layout. The end of the course will focus on the potential risks of pressurised systems.

Customised courses

Pneumax offers courses with customised programmes structured according to the needs of the identified target group. Courses can be held in-house or at the customer's facilities, combining theoretical and practical sessions. Pneumax trainers are available to offer a consultancy service and schedule training sessions to make sure that they are as effective as possible.



TOOLS

Training tools and materials

Texts, presentations, software and didactic panels designed to facilitate practical practice and user learning.



Textbooks

"Modern Pneumatics" is the reference textbook for Pneumax training as it provides the basics of Pneumatics and Electro-pneumatics, from the physical laws to the construction and function of different types of components.

Website

The Pneumax website is full of information on both products and application areas, as well as the activities of the Pneumax Academy.

www.pneumaxspa.com

Pneuf Fluid

The new tool for designing pneumatic diagrams PNEUFLUID is a free web-based.

<https://pneuf fluid.com>



Cadenas - 3D models

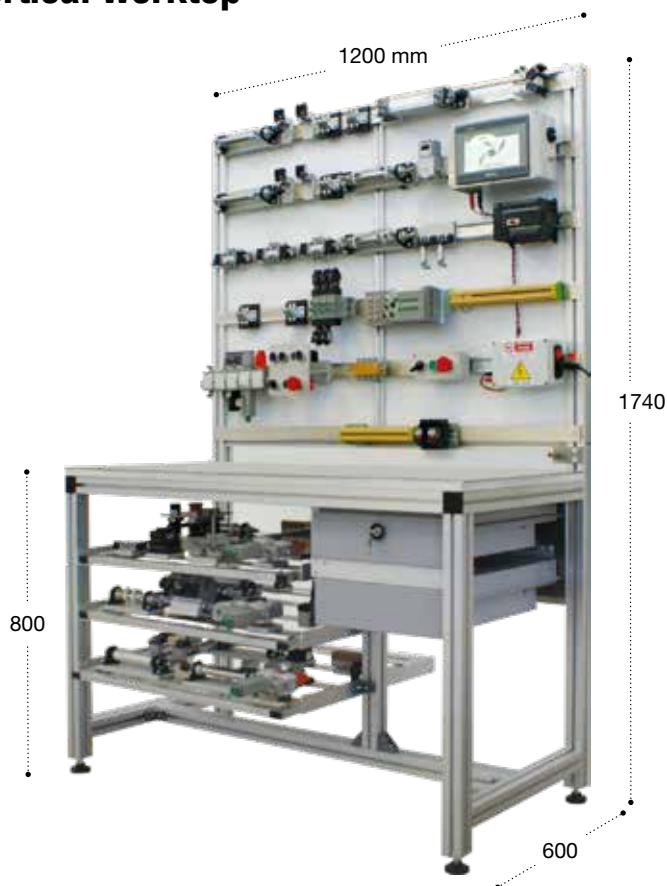
The Cadenas platform can be used to configure all 3D models of Pneumax products.

pneumax.partcommunity.com



THE DIDACTIC BENCH

Didactic bench with vertical worktop



Vertical worktop consisting of a set of flat steel bars onto which the magnetically fixed modules can be hooked easily and quickly, practical for any type of circuit. The kit panels can be hooked to the vertical table and stored in the space provided under the bench. It is equipped with drawer box and 24 VDC/4A power supply.

Code

DCTT-001

Didactic bench with vertical worktop, drawer box and power supply



Code

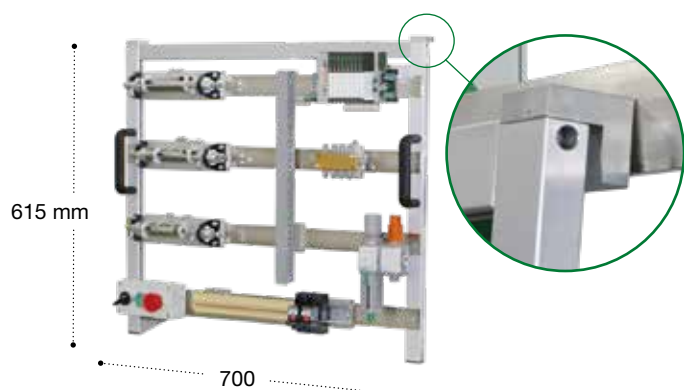
DCTT-002

Didactic bench with vertical worktop without drawer box and power supply



THE PANEL

Panel with hooks

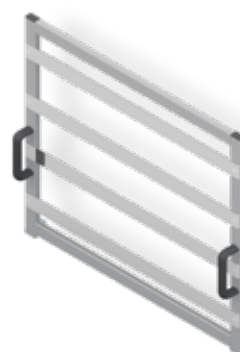


The panel can be hooked to the vertical worktop and stored in the dedicated space under the bench without the need to disassemble components. Useful for making several applications in subsequent sessions.

Code

DCTM-001

Mobile and hookable vertical worktop



KIT PANELS

Pneumatic kit



Code

DCTK-002

Created for the realisation of complex pneumatic circuits for sequential movements of at least three cylinders. It is equipped with 5/2 valve manifolds with single and dual pneumatic command, push-button panel, pneumatic end stroke sensors, OR and AND functions and air service unit at inlet.

- **1pc DCTM-005**
Air service unit
Size 1
- **1pc DCTM-008**
Compressed air distributor
- **4pcs DCTM-009**
Double acting cylinder ø20 stroke 100 with flow regulator
- **4pcs DCTM-011**
End-of-stroke roller lever valve for ø20 cylinders
- **2pcs DCTM-012**
2 x 5/2 bistable valves manifold
- **2pcs DCTM-013**
4 x 5/2 monostable valves manifold
- **1pc DCTM-014**
Pneumatic buttons module
- **1pc DCTM-015**
2 quick exhaust valve module
- **1pc DCTM-016**
Flow regulator module
unidirectional - 1Pc
- **1pc DCTM-017**
2 circuit selector OR valves modules
- **1pc DCTM-018**
2 circuit selector AND valves modules
- **4pcs DCTM-036**
Start-of-stroke roller lever valve for ø20 cylinders
- **1pc POLYURETHANE TUBE ø6x4**
1 Metre

Electro-pneumatic control kit



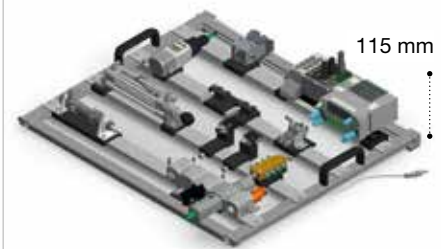
Code

DCTK-001

For electro-pneumatic relay circuits for sequential movements of at least three cylinders with magnetic sensors. Single and dual solenoid valve manifold with multi-pole connection, push-button panel, terminal board and relay assembled on DIN rail and air service unit at inlet.

- **3pcs DCTM-002**
Double acting cylinder ø25 with flow regulators and magnetic sensors
- **1pc DCTM-069**
Series 3000 solenoid valve manifold with 25 poles multipoint module
- **1pc DCTM-004**
DIN rail with terminal board and relay
- **1pc DCTM-005**
Air service unit
Size 1
- **1pc DCTM-006**
Electric buttons box
- **2pcs DCTM-007**
Raceway
- **1pc DCTM-008**
Compressed air distributor
- **1pc POLYURETHANE TUBE ø6x4**
1 Metre

Electric control kit



Code

DCTK-003

For PLC-controlled circuits for movements in sequence of three cylinders, two linear and one gripping device. Possibility of transforming pneumatic signals from end stroke into electrical signals via pressure switches. Single and dual solenoid valve manifold controlled by a serial system. Includes an electronic proportional controller that can be programmed via a keypad on request. A complete air service unit is provided at the inlet.

- **1pc DCTM-008**
Compressed air distributor
- **1pc DCTM-010**
Start-of-stroke roller lever valve for ø32 cylinders
- **1pc DCTM-021**
Complete air service unit
size 1
- **1pc DCTM-022**
180° angular gripper
- **1pc DCTM-023**
Double acting cylinder ø32 stroke 100
Ecolight series
- **1pc DCTM-024**
2 bidirectional blocking valves module
- **1pc DCTM-025**
Pressure switch unit
- **1pc DCTM-026**
Single acting ø25 cylinder stroke 50 with flow regulator and magnetic sensor
- **1pc DCTM-034**
Electronic proportional regulator
size 1
- **1pc DCTM-035**
End-of-stroke roller lever valve for ø32 cylinders
- **1pc DCTM-067**
Optima-S EVO series solenoid valve manifold with Profinet M8 IN/OUT
- **1pc POLYURETHANE TUBE ø6x4**
1 Metre

THE SINGLE MODULES

**Easy to install,
practical and safe**



Download the pneumatic symbols
catalogue associate for each modules

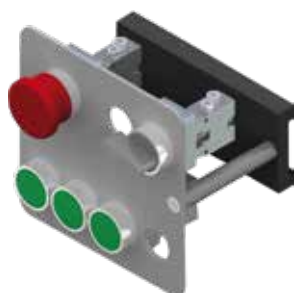
The modules, which can be easily, quickly and safely attached to the bench, simulate the main functions in use in pneumatic circuits. Each module is equipped with its own Ø4 pipe fittings. They can be connected according to any type of diagram, and relay modules with changeover contacts and the button module with NC and NO contacts are also provided for the realisation of sequences with electro-pneumatic technology.

Air distribution

Code

DCTM-014

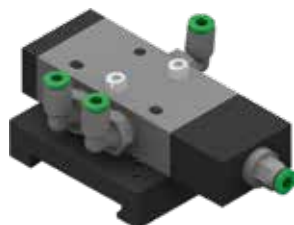
Control console unit



Code

DCTM-031

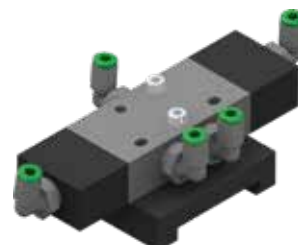
Valve unit - monostable
T228.52.11.1



Code

DCTM-032

Valve unit bi-stable
T228.52.11.11



Code

DCTM-012

2100 series, 5/2 bi-stable valves



Code

DCTM-013

2100 series, 5/2 monostable valves



Code

DCTM-015

Quick exhaust valve unit



Code

DCTM-016

Flow control valve unit



Code

DCTM-017

Circuit selector "OR" valve unit



Code

DCTM-018

Valve unit for "AND" function



Code

DCTM-024

2 bidirectional
blocking valves module

2x 551132F1F1XX
1/8 Pipe connections



Code

DCTM-056

Circuit selector
"OR" and "AND" valve unit



Code

DCTM-038

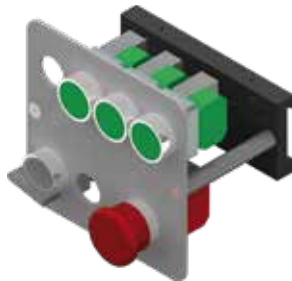
Two-hand safety device



Code

DCTM-030

Electro-pneumatic buttons module



Code

DCTM-068

Series 3000 Solenoid valve manifold



Code

DCTM-008

Manifold unit



Code

DCTM-069

Series 3000 solenoid valve manifold with
25 poles multipoint module



Code

DCTM-029

Optyma-S manifold with multipoint
connection and I/O module



Code

DCTM-067

Optyma-S EVO solenoid valve unit with
Profinet serial connection and M8 IN/OUT
modules



Air treatment

Code

DCTM-005

Air service unit which includes,
Filter regulator and manual
shut-off valve



Code

DCTM-021

Complete air service unit
size 1



Code

DCTM-034

Electronic proportional
regulator size 1



Code

DCTM-057

Pressure regulator with built-in
pressure gauge
T171BRMD



Pneumatic actuation

Code

DCTM-023

Ecolight Unit



Code

DCTM-010

Ecolight 104 unit
for start of stroke



Code

DCTM-035

Ecolight 104 unit
for end of stroke



Code

DCTM-009

Microcylinder unit $\varnothing 20$ Stroke=100 XPP



Code

DCTM-026

Microcylinder unit $\varnothing 25$ Stroke=50



Code

DCTM-011

Unit 104 for microcylinders $\varnothing 20/25$
for end of stroke



Code

DCTM-036

Unit 104 for microcylinders $\varnothing 20/25$
for start of stroke



Code

DCTM-002

Microcylinder unit $\varnothing 25$ Stroke=100 XPE



Code

DCTM-022

Manipulation gripper unit



Electrical - electronic components

Code

DCTM-058

PLC profinet kit
Training package S7 1200 including: no.1
Cpu S7-1214C, no.1 Digital simulator, no.1
Software TIA portal vers. basic,
No.1 Signal board 1AO, no.1 ethernet cable



Code

DCTM-061

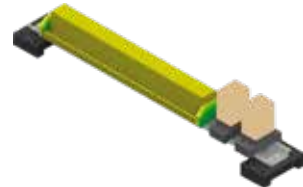
7" KTP700 panel complete with scalance
5 ports and connection cable (no software,
we use the one from the S7 1200 PLC)
complete with customisation to be assem-
bled on a didactic panel



Code

DCTM-004

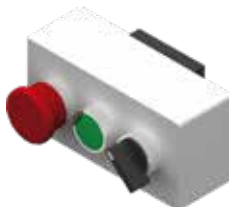
Terminal board unit



Code

DCTM-006

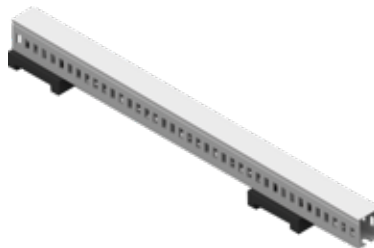
Electric keypad unit
1x 2-position NC push button
1x NO contact button
1x 2-position selector switch NO contact



Code

DCTM-007

Raceway unit



Code

DCTM-025

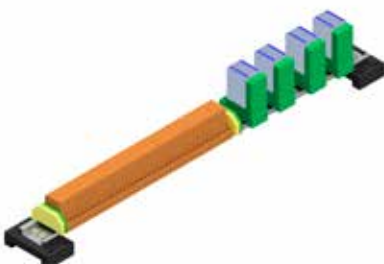
Pressure switch unit



Code

DCTM-060

Terminal board unit with 4 relays





PNEUMAX

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