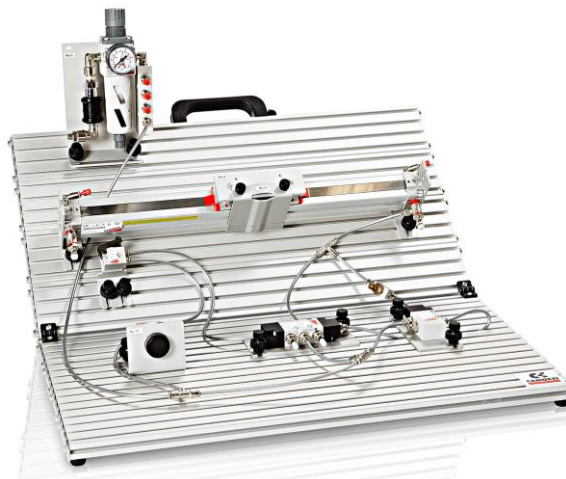


Exercises Training Kit A

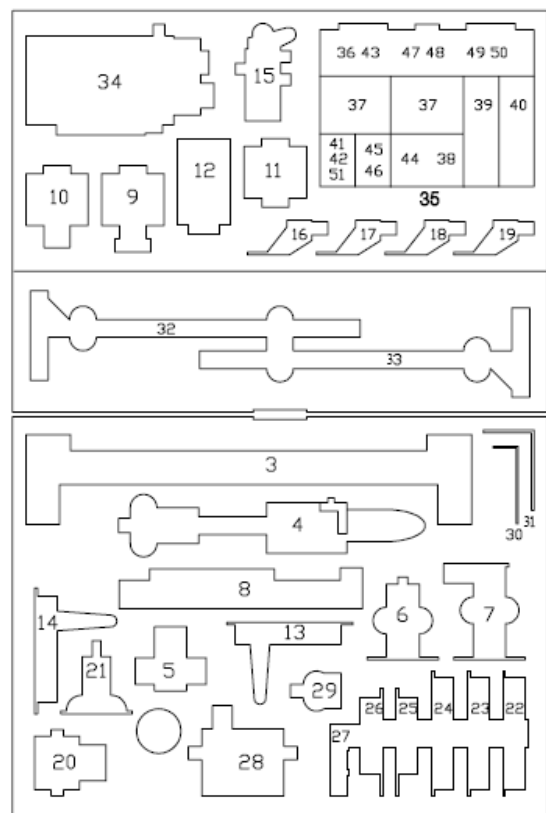
1. Air treatment
2. Single acting cylinder - pressure, force, venting
3. Double acting cylinder as single acting (different cylinder forces)
4. Double acting cylinder +,- uncontrolled movement
5. Cylinder damping (function)
6. Double acting cylinder - controlled movement (bistable 5/2 valve)
7. Double acting cylinder - speed control between cylinder and valve
8. (flow control valves)
9. Double acting cylinder - speed control through valve outlet (throttle valves)
10. Double acting cylinder - stop between end positions 5/3 valve
11. Double acting cylinder - different forces in +,- movement (energy saving)
12. Double acting cylinder - different forces in the same direction of movement
13. Double acting cylinder - different speeds in the same direction of movement
14. Double acting cylinder - stop between end positions (2/2 valves)
15. Rodless cylinder – stop between end positions
16. Rapid emptying of double acting cylinder (+ movement)
17. Low-pressure valve - "sensor"
18. Double acting cylinder as 4 position unit
19. 3/2 valve – conditional functions

20. Remote control of double acting cylinder - method 1
21. Remote control of double acting cylinder - method 2
22. Remote control of double acting cylinder with the aid of two 3/2 valves
23. Control of double acting cylinder semi-automatic sequence
24. Automatic sequence double acting cylinder (oscillator)
25. Control of double acting cylinder automatic sequence – AND function
26. Control of double acting cylinder automatic sequence – OR function
27. Control of double acting cylinder without end position sensor in + position
28. Control of double acting cylinder without end position sensor
29. Control of double acting cylinder with time delay in one direction
30. Control of double acting cylinder - turning via end position or time delay
31. Signal switch with semi-automatic sequence
32. Slow aeration of cylinder and different pressure in each direction
33. Pick and place function



Equipment list Training Kit A

- 1 Assembly plate
- 2 Case with aluminium edges
- 3 Rodless cylinder Ø25 mm stroke 300 mm
- 4 Double acting cylinder Ø20 stroke 160 mm
- 5 Single acting cylinder Ø20 stroke 25 mm
- 6 Double acting cylinder Ø20 mm stroke 50 mm
- 7 Double acting cylinder anti-rotating Ø20 mm stroke 50 mm
- 8 Double acting cylinder Ø16 stroke 160 mm
- Double acting cylinder Ø16 stroke 80 mm
- 9 Manual valve 3/2 palm-switch NO
- 10 Manual valve 3/2 switch NC
- 11 Manual valve 3/2 push-button NC
- 12 Manual valve 3/2 push-button
- 13 Manual valve 5/3 bistable closed centre
- 14 Manual valve 5/2 bistable
- 15 Mechanical valve 3/2 roller
- 16 Mechanical valve 3/2 NC roller
- 17 Mechanical valve 3/2 NC roller
- 18 Mechanical valve 3/2 NC roller
- 19 Mechanical valve 3/2 NC roller
- 20 Pressure regulator including pressure gauge
- 21 Low pressure valve pneumatically controlled 3/2 monostable
- 22 Pneumatically controlled valve 5/2 monostable
- 23 Pneumatically controlled valve 5/2 bistable
- 24 Pneumatically controlled valve 5/2 bistable
- 25 Pneumatically controlled valve 3/2 monostable
- 26 Pneumatically controlled valve 3/2 monostable
- 27 Circuit selector
- 28 Soft start valve
- 29 Pressure gauge 0–10 Bar
- 30 Bracket for cylinder
- 31 Universal bracket for cylinder
- 32 Bracket for rodless cylinder
- 33 Bracket for rodless cylinder
- 34 Air treatment unit including:
Switch off valve
Filter regulator
Pressure gauge
3/2 valve FRL – unit
- 35 Box of components
- 36 4 Angle 20 x 25 mm
- 37 16 Assembling screw for components
- 38 6 Assembling screw M5 x 10
- 39 1 Tube cutter
- 40 2 Stop valve
- 41 1 Pressure gauge
- 42 2 Flow control valve with silencer
- 43 4 Flow control valve
- 44 4 T-fitting Ø4 mm
- 45 4 Blind plug
- 46 7 Silencer
- 47 1 Solid key 8–9 mm
- 48 1 Allen key 2,5 mm
- 49 1 Allen key 3 mm
- 50 1 Screwdriver
- 51 2 Pressure indicator
- 52 1 Tube Ø4 mm 10 m



Training Kit A - Case

