


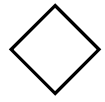







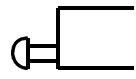

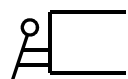
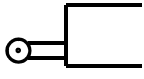

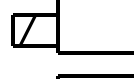
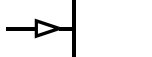
FLUID TECHNIQUE - GRAPHICAL SYMBOLS

1 GENERAL OVERVIEW OF SYMBOLS

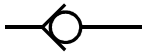
DIN ISO 1219

	Lines (pipes)
	Flow direction
	Controlled element (valves)
	Fluid treatment element
	Spring
	Viscosity dependent resistance
	Viscosity independent resistance
	Controllability

2 TYPES OF ACTUATION

	General
	Pushbutton operated
	Foot pedal operated
	Lever operated
	Roller actuated
	Spring actuated
	Solenoid actuation
	Direct pneumatic actuation

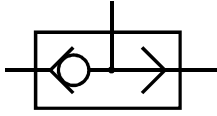
4 NON-RETURN VALVES



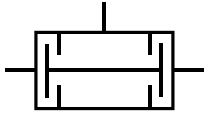
Non-return valve (check valve)



Non-return valve, spring-loaded

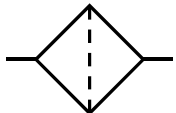
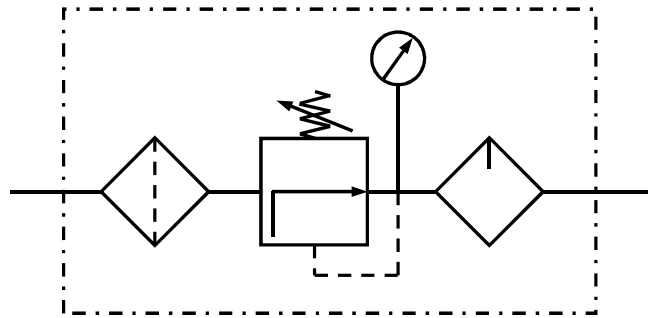
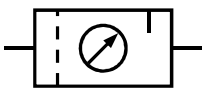


Shuttle valve (OR function)

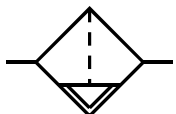


Dual pressure valve (AND function)

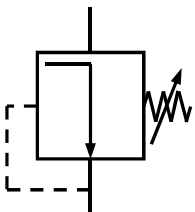
AIR SERVICE UNIT



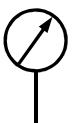
Filter



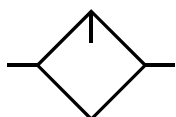
Filter with water separator with automatic condensate drain



Pressure regulating valve with relief port, adjustable

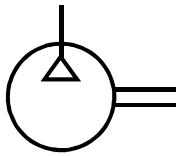


Manometer (pressure gauge)

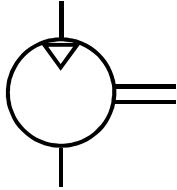


Lubricator

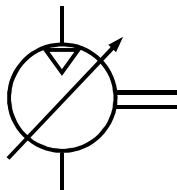
5 PRINCIPLE WORKING ELEMENTS



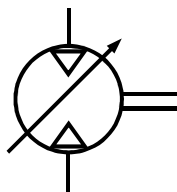
Compressor



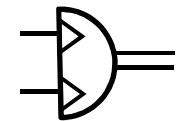
Air motor, constant displacement,
rotation in one direction



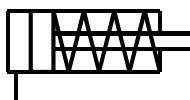
Air motor, variable displacement,
rotation in one direction



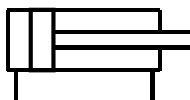
Air motor, variable displacement,
rotation in both directions



Pneumatic rotary motor



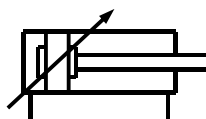
Single-acting cylinder



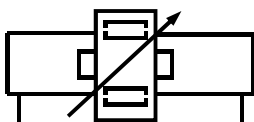
Double-acting cylinder



Double-acting cylinder with through piston rod



Double-acting cylinder with adjustable
cushioning at both ends



Rodless cylinder with magnetic coupling