


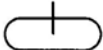


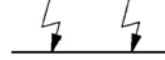


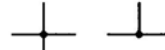








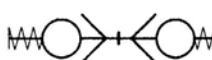
















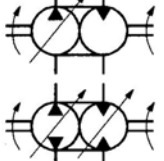
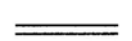
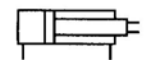
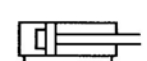



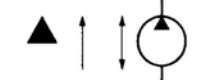




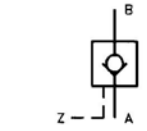
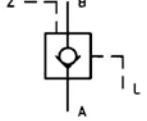

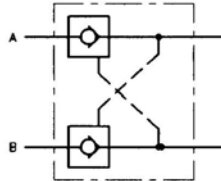
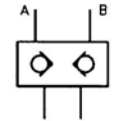
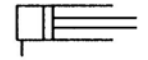
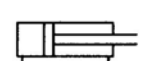


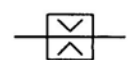
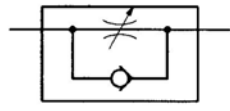

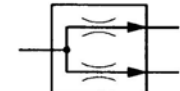


ISO / CETOP HYDRAULIC SYMBOLS

Work line		Reservoir, open	
Pilot line		Reservoir, pressurized	
Drain line		Enclosure for several components in one unit	
Electric line			
Flexible line		Manometer, Thermometer	
Line connections		Flow meter	
Crossing lines		Pressure source	
Venting			
Pressure connection w. plug		Electromotor	
With line connection		Combustion engine	
Quick koupling w. check valve		Coupling	
Accumulator		1 Flow direction	  Constant Variable
Filter		2 Flow directions	  Displacement pump
Cooler		1 Flow direction	  Constant Variable
Heater		2 Flow directions	  Displacement motor

<p>Constant Variable</p>  <p>Combined pump-motors</p>   <p>Hydrostatic transmission</p>  <p>Shaft, lever, rod, piston</p> 	<p>Differential cylinder</p>  <p>Cylinder with cushion</p> 
<p>Spring</p>  <p>Throttling, depending on viscosity</p>  <p>Restriction, not viscosity influenced</p>  <p>Flow direction</p>  <p>Direction of rotation</p>  <p>Variable setting</p> 	<p>Check valve, not spring loaded</p>  <p>Spring loaded</p>  <p>Pilot controlled check valve</p>  <p>Pilot controlled opening</p>  <p>Pilot controlled closing</p>  <p>Example</p>  <p>Simplified</p> 
<p>Cylinders</p> <p>Single acting</p>  <p>Double acting</p> 	<p>Restrictor, fixed</p>  <p>Restrictor, variable</p>  <p>Restrictor, not viscosity influenced</p>  <p>Throttle-check valve</p>  <p>3-way by-pass flow regulator</p>  <p>Flow divider</p> 

Directional valves			
<i>Basic symbol:</i>			
Two - way			
Three - way			
Two - way		with transient intermittend pos.	
Without fixed position			
2 - extreme position			
2 - extreme position and between (OSP)			
2/2 - valve		mechanical feed back	
3/2 - valve			
4/3 - valve			
<i>Examples</i>			
	Solenoid		
	Mechanical		
	Roller		
	Direct pressure		
	Pressure rise		

