

P&ID Symbols Reference Guide

416 Symbols in 15 Categories

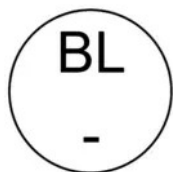
<https://projectmaterials.com>

The Encyclopedia of Encyclopedias

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Fittings & Accessories (28 symbols)



Blind No



Bursting Disc



Closed Drain



Closed Spacer



Closed Spectacle Blind



Diaphragm



Expansion Flange



Flange Blind



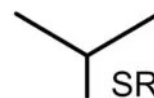
Flange General



Hose Connection



Manual Handwheel



Open Drain



Open Spacer



Open Spectacle Blind



Orifice Plate



Orifice Union



Piston Operator



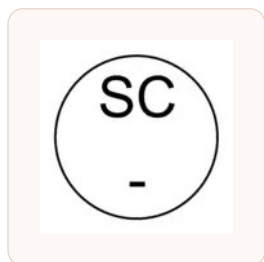
Plug



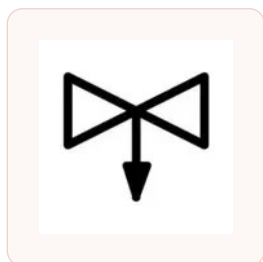
Reducer



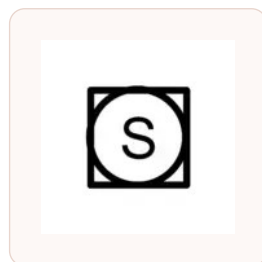
Reducer Flange



Sample Connection Point



Self Draining Valve



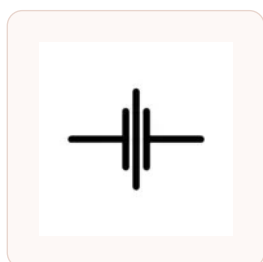
Sight Flow Glass



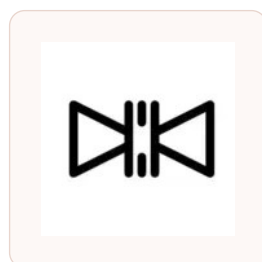
Spring



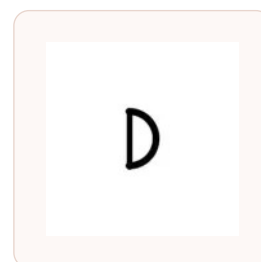
Threaded Cap



Union



Valve With Orifice



Welded Cap

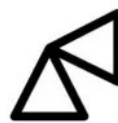
Valves - Manual (19 symbols)



Angle Blowdown Valve



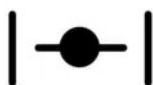
Angle Globe Valve



Angle Valve



Ball Valve



Butterfly Valve



Conduit Gate Valve



Diaphragm Valve



Float Valve



Gate Valve



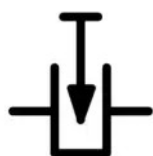
Globe Valve



Integral Block And Ble...



Integral Double Block ...



Knife Valve



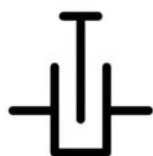
Needle Valve



Pinch Valve



Plug Valve



Slide Gate Valve

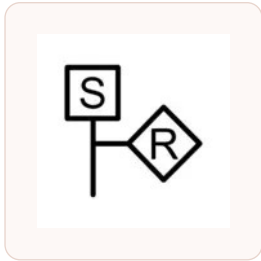


Y Blowdown Valve

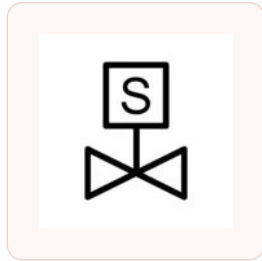


Y Globe Valve

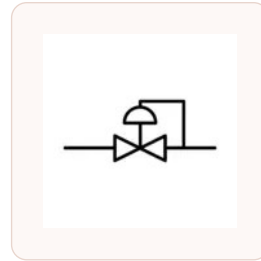
Valves - Control & Actuated (8 symbols)



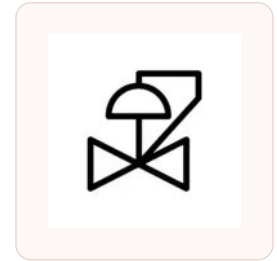
1 Solenoid Wmanual Reset



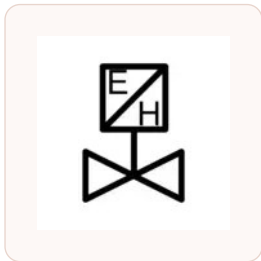
Control Valve



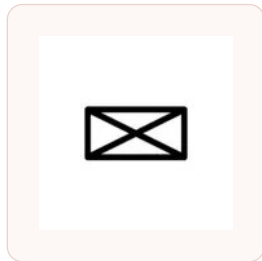
Control Valve External...



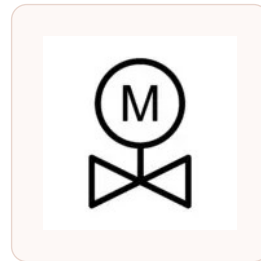
Control Valve Internal...



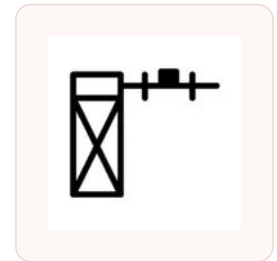
Electro Hydraulic Valve



Hydraulic Valve

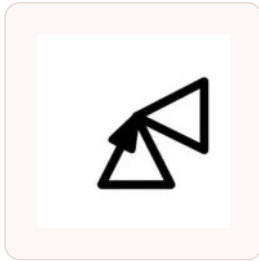


Motor Activated Valve

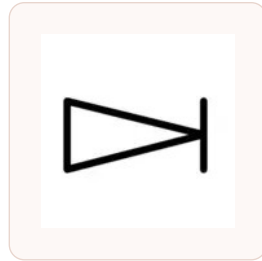


Thermal Release Hydrau...

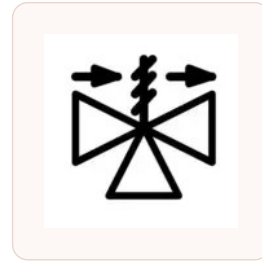
Valves - Check & Safety (5 symbols)



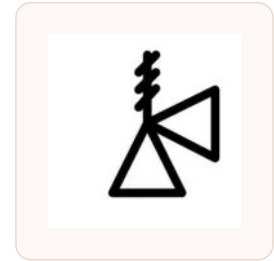
Angle Check Valve



Check Valve



Pressure Vacuum Valve



Safety Relief Valve



Vacuum Breaker

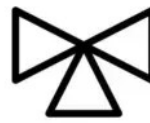
Valves - Multi-way (9 symbols)



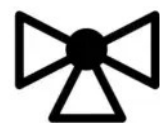
3 Way Ball Valve



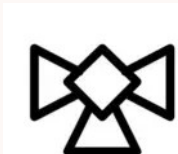
3 Way Control Valve



3 Way Gate Valve



3 Way Globe Valve



3 Way Plug Valve



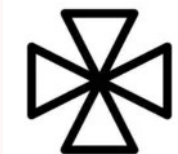
3 Way Valve Normal Pos...



4 Way Plug Valve

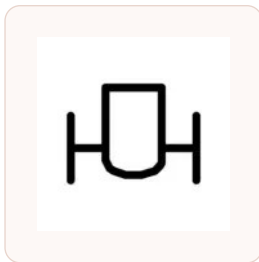


4 Way Solenoid Valve

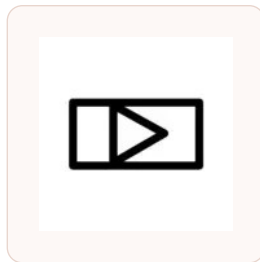


4 Way Valve

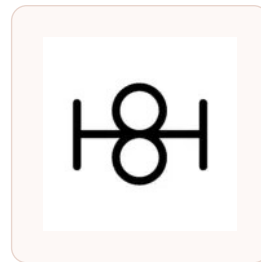
Strainers & Filters (9 symbols)



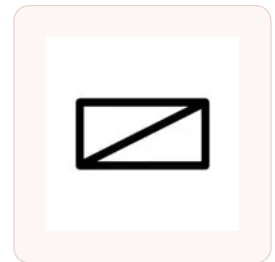
Basket Strainer



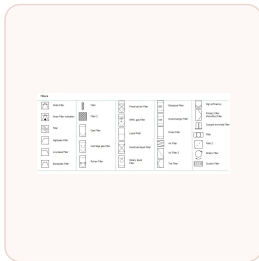
Cone Strainer



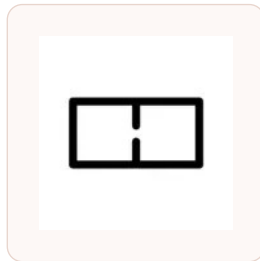
Duplex Strainer



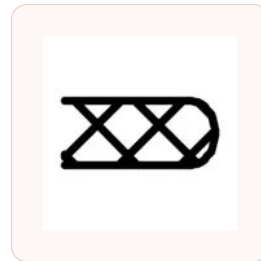
Filter



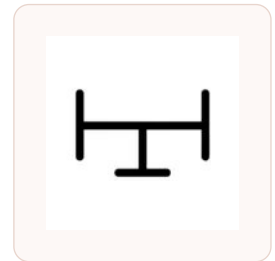
Filters 1



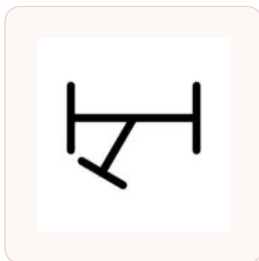
Flat Plate Strainer



Sump Strainer



T Strainer

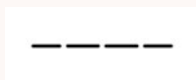


Y Strainer

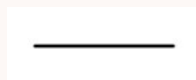
Lines & Signals (15 symbols)



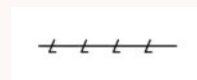
Control Panel Enclosure



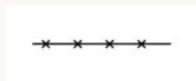
Electrical Supply



Equipment Outline

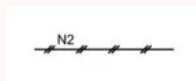


Hydraulic Signal

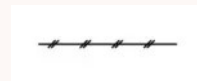


Instrument Capillary T...

Instrumentation Lines



Pneumatic Signal N



Pneumatic Signalair



Process Lines



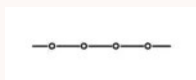
Redundant



S For Lines



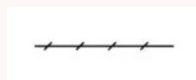
Slope



System Link Digital An...



Ultrasonic Signal

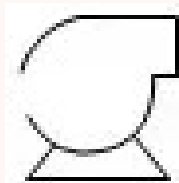


Undefined Instrument S...

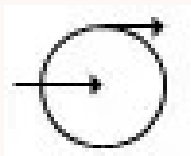
Pumps (35 symbols)



Cavity Pump



Centrifugal Pumps 01



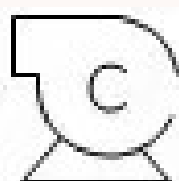
Centrifugal Pumps 02



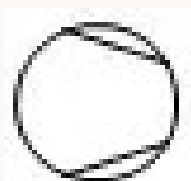
Centrifugal Pumps 03



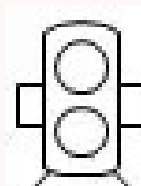
Centrifugal Pumps 04



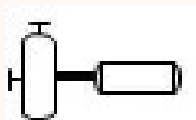
Centrifugal Pumps 05



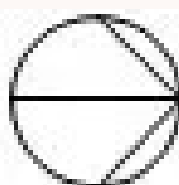
Compressor Vacuum Pump



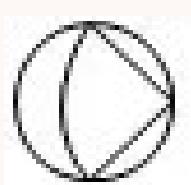
Gear Pump



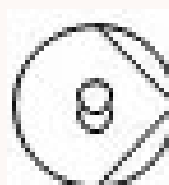
Horizontal Pump



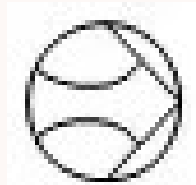
Iso Centrifugal Pump



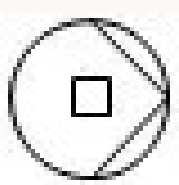
Iso Diaphragm Pump



Iso Gear Pump



Iso Liquid Pump



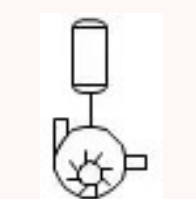
Iso Positive Displacement...



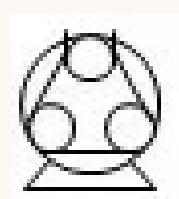
Iso Progressive Pump



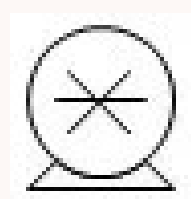
Iso Screw Pump



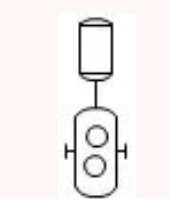
Liquid Ring Vacuum Pump



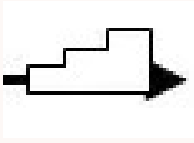
Peristaltic Pump



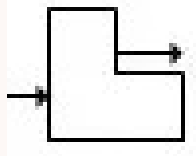
Positive Displacement ...



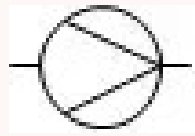
Positive Displacement ...



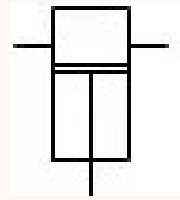
Positive Displacement ...



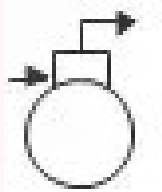
Proportionating Pump



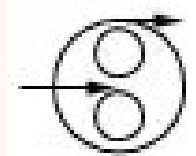
Pump 01



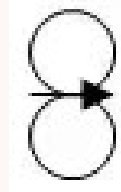
Reciprocating Pump 01



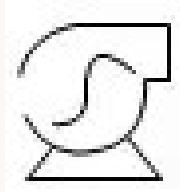
Reciprocating Pump 02



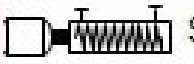
Rotary Gear Pump



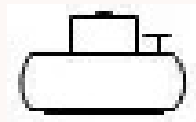
Rotary Pump



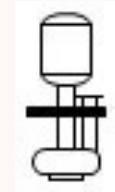
Screw Pump 01



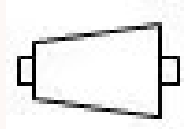
Screw Pump 02



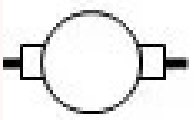
Submersible Pump



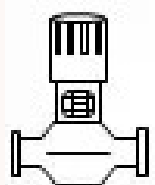
Sump Pump



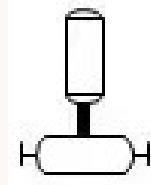
Turbine Pump



Vacuum Pump

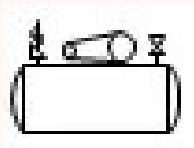


Vertical Pump 01

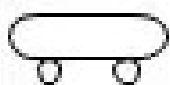


Vertical Pump 02

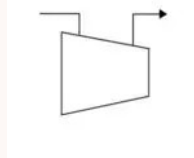
Compressors & Blowers (35 symbols)



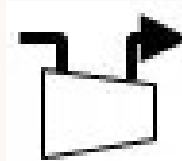
Ac Air Compressor



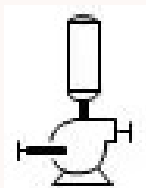
Air Compressor



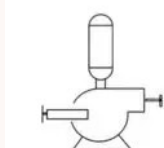
Axial Compressor



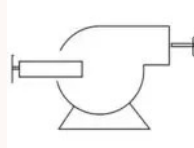
Axial Compressor



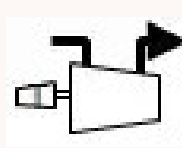
Centrifugal Blower



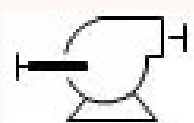
Centrifugal Blower



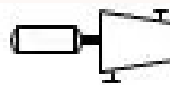
Centrifugal Compressor



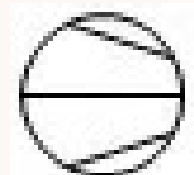
Centrifugal Compressor 01



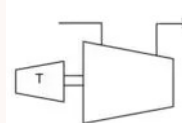
Centrifugal Compressor 02



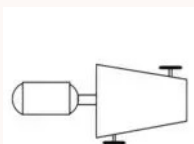
Centrifugal Compressor 03



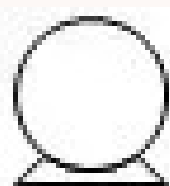
Centrifugal Compressor 04



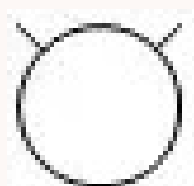
Centrifugal Compressor 2



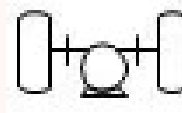
Centrifugal Compressor 3



Compressor 01



Compressor 02



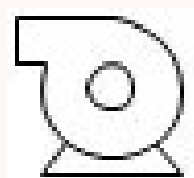
Compressor Silencers



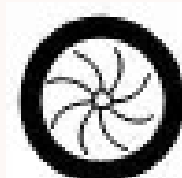
Diaphragm Compressor



Ejector Compressor



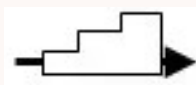
Gas Blower



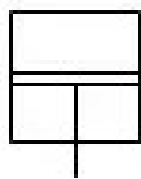
Liquid Ring Compressor



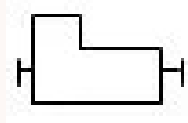
Piston Compressor



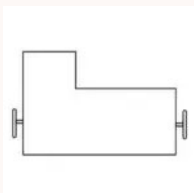
Reciprocating Compress...



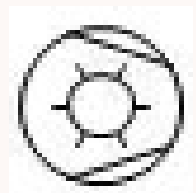
Reciprocating Compress...



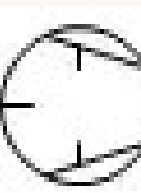
Reciprocating Compress...



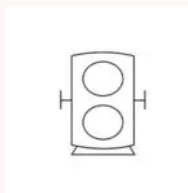
Reciprocation Compressor



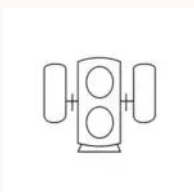
Ring Compressor



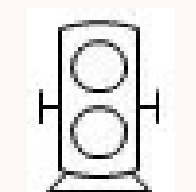
Roller Vane Compressor



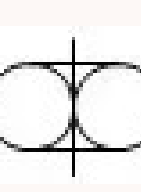
Rotary Compressor



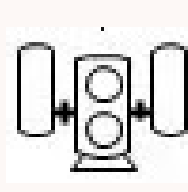
Rotary Compressor 2



Rotary Compressors 01



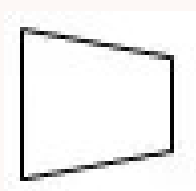
Rotary Compressors 02



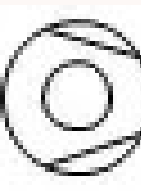
Rotary Compressors And...



Screw Compressor



Selectable Compressor



Turbo Compressor

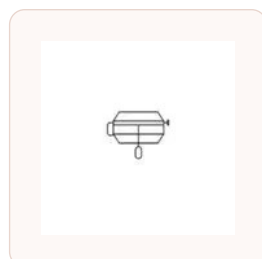
Heat Exchangers (57 symbols)



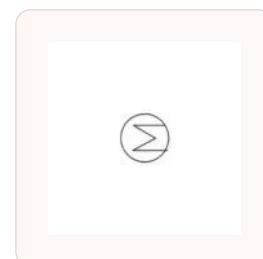
05 Coil Tubes Heat Exc...



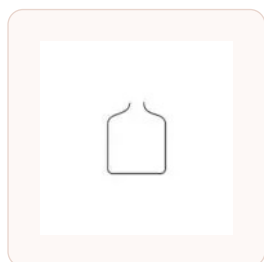
06 Cooling Tower2809303



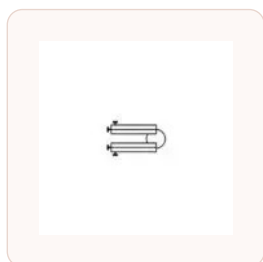
07 Air Cooled Exchange...



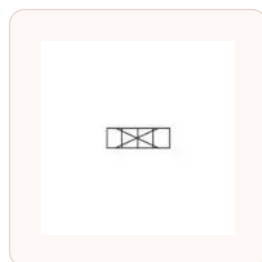
08 Heat Exchanger 2220...



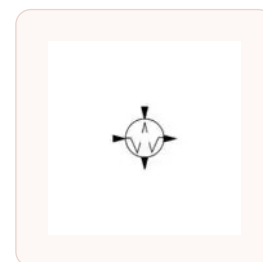
09 Boiler1257203



11 Double Pipe Heat Ex...



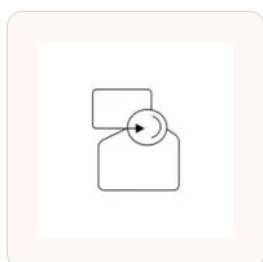
12 Plate Heat Exchange...



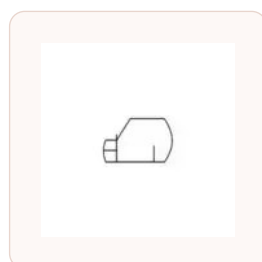
13 Heat Exchanger 3220...



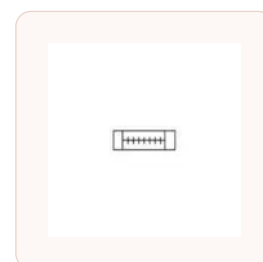
14 Evaporative Condens...



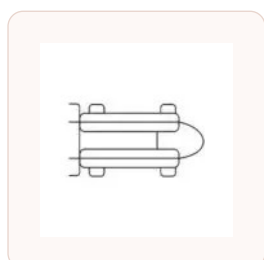
15 Boiler 20657503



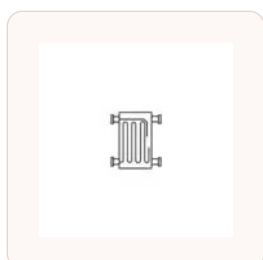
16 Reboiler22031014140...



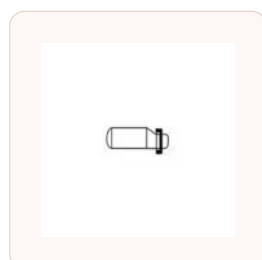
17 Finned Tubes Heat E...



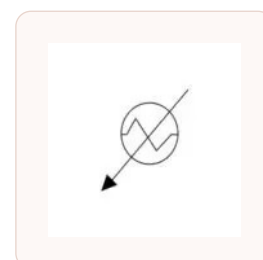
18 Hairpin Exchanger22...



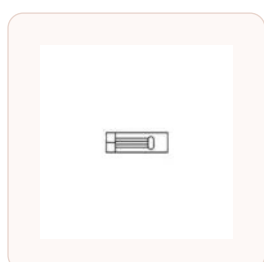
19 Plate Exchanger2203...



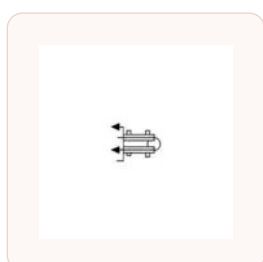
22 Kettle Heat Exchang...



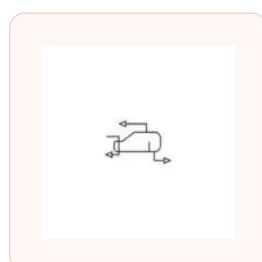
23 Heater2203101413360...



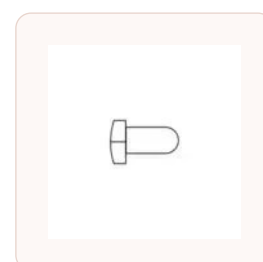
25 Floating Head Heat ...



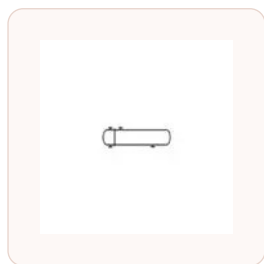
26 Hairpin Exchanger 2...



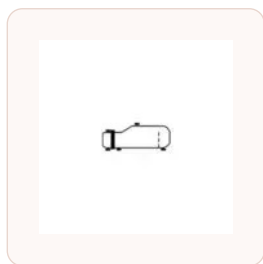
27 Reboiler Heat Excha...



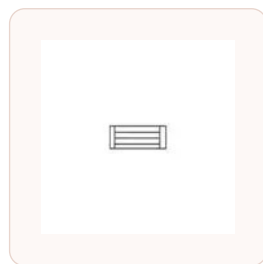
29 Utube Heat Exchange...



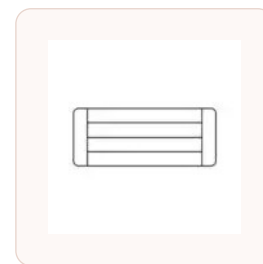
30 Tema Type Beu220310...



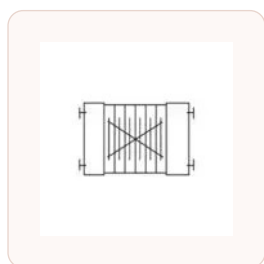
32 Tema Type Bku220310...



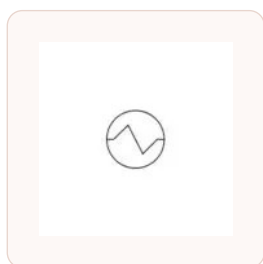
33 Straight Tubes And ...



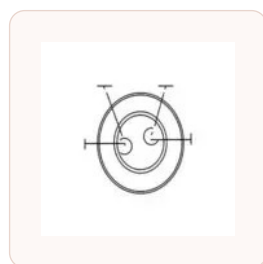
34 Condenser2387103



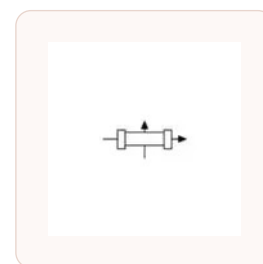
35 Plate And Frame Hea...



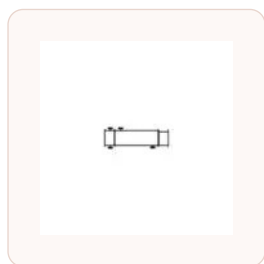
36 Heat Exchanger



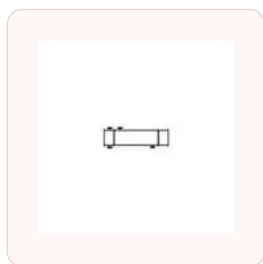
38 Spiral Heat Exchanger



40 Single Pass Heat Ex...



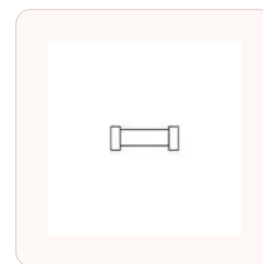
43 Tema Type Ael



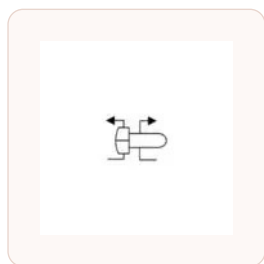
45 Tema Type Nen



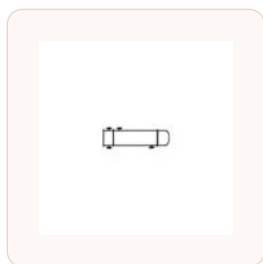
46 Spiral Heat Exchang...



47 Single Pass Heat Ex...



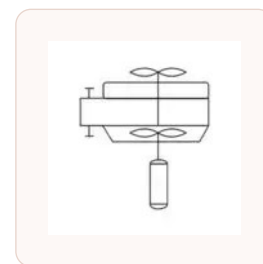
49 Utube Heat Exchanger 2



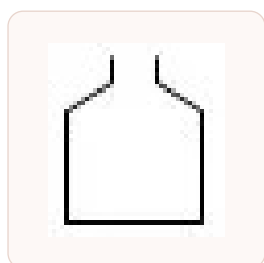
51 Tema Type Aem



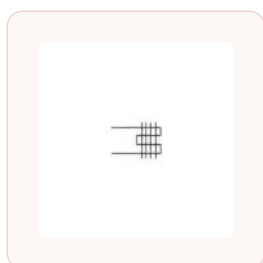
Air Blown Cooler



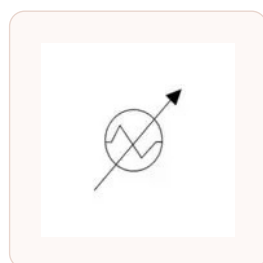
Air Cooled Exchanger



Boiler



Condenser



Condenser 2



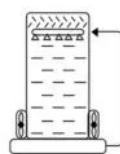
Cooler



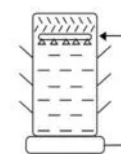
Cooling 2



Cooling Tower



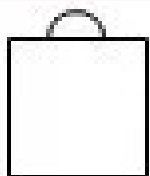
Counterflow Forced Draft



Counterflow Natural Draft



Crossflow Inducted



Dome Boiler



Electric Heater



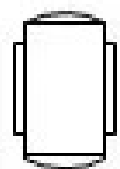
Exchanger



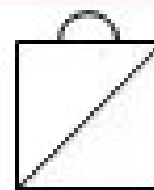
Fired Heater



Heat Exchangers 3



Heating Cooling Jacket...



Hot Liquid Boiler



Induced Draft Cooling ...



Induced Flow Air Cooler



Spray Cooler

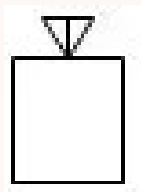


Tema Type Bem

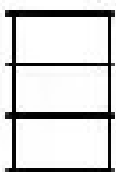


Thin Film Evaporator

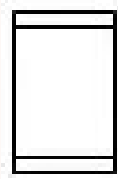
Vessels & Tanks (50 symbols)



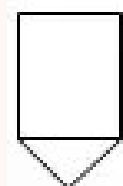
Bag Iso



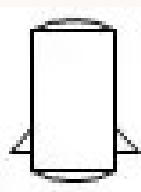
Barrel



Barrel Iso



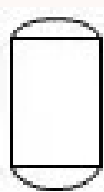
Bin



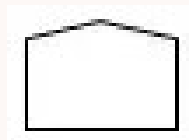
Brackets Vessel



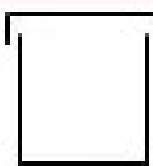
Chimney Tower



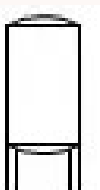
Column



Cone Roof Tank



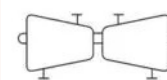
Covered Tank



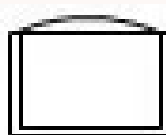
Dished Ends Vessel



Dome Roof Tank



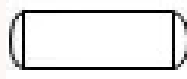
Double Flow Turbine



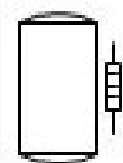
Double Wall Tank



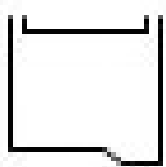
Drum



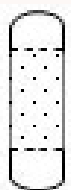
Drum



Electrical Heating Vessel



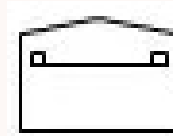
Floating Roof Tank



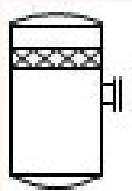
Fluidized Bed Column



Fluidized Reactor



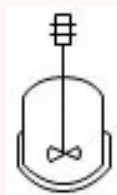
Internal Floating Roof...



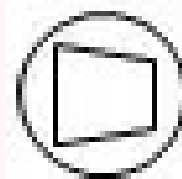
Knockout Drum



Mixing Reactor



Mixing Vessel



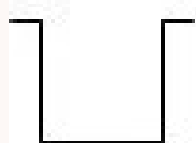
Motor Driven Turbine



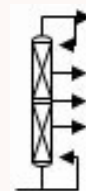
Onion Tank



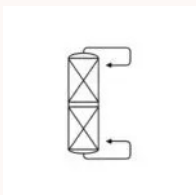
Open Bulk Storage



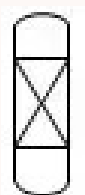
Open Tank



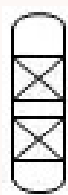
Packed Tower



Packer Tower



Packing Column 01



Packing Column 02



Pit Vessel

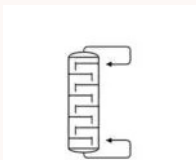


Plate Tower

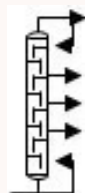
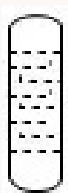


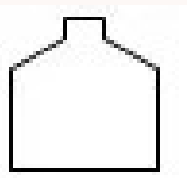
Plate Tower



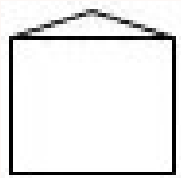
Staggered Baffle Tray ...



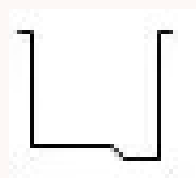
Tank



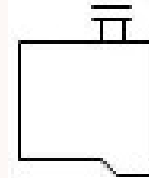
Tank 01



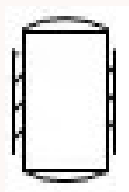
Tank 02



Tank 03



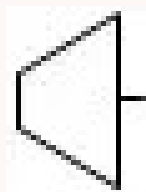
Tank 04



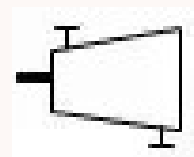
Thermal Insulation Vessel



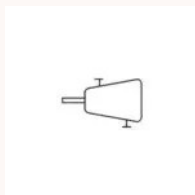
Tray Column



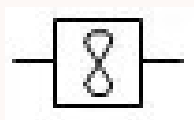
Turbine



Turbine Driver



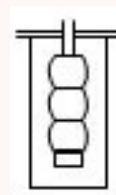
Turbine Driver



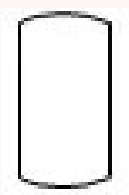
Turbine Meter



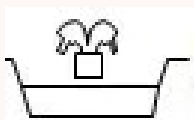
Vertical Turbine



Vertical Turbines



Vertical Vessel



Wastewater Treatment

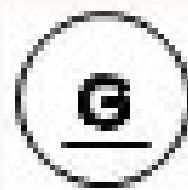
Motors & Drivers (15 symbols)



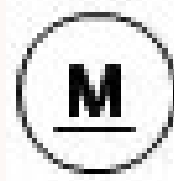
Ac Generator



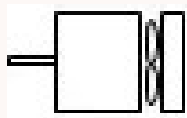
Ac Motor



Dc Generator



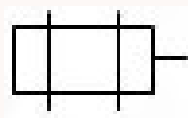
Dc Motor



Diesel Motor



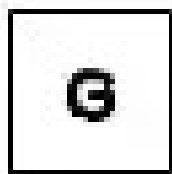
Diesel Motor



Electric Motor



Electric Motor



Gear



Generator



Motor



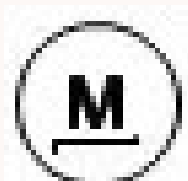
Motor 01



Motor 02



Motor Generator

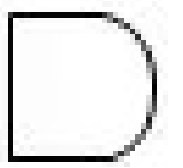


Step Motor

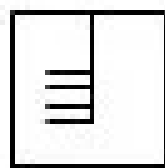
Instrumentation (81 symbols)



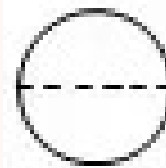
Analyser Transmitter



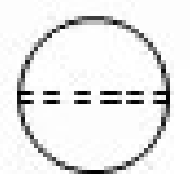
And Gate



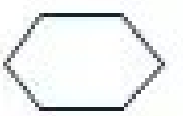
Averaging Pitot Tube



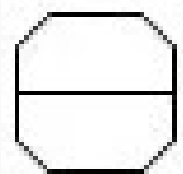
Behind Control



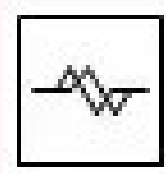
Behind Local Control



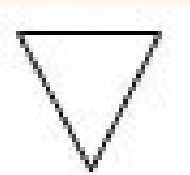
Computer



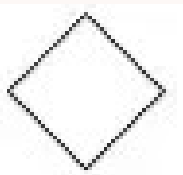
Computer Indicator



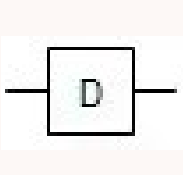
Coriolis Flow Sensor



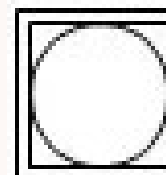
Correcting Element



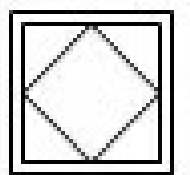
Diamond



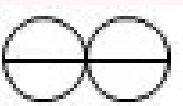
Diaphragm Meter



Displayed Configurable



Displayed Programmable...



Double



Flow Controller



Flow Element



Flow Indicator



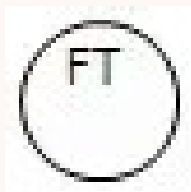
Flow Meter



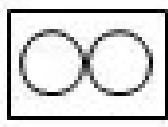
Flow Nozzle Meter



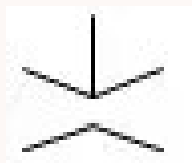
Flow Recorder



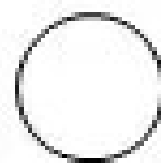
Flow Transmitter



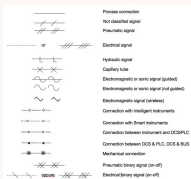
Flowmeter



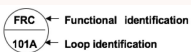
Flume Meter



Indicator 01



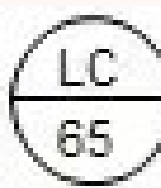
Instrumentation Symbol...



Instrumentation Symbol...



Level Alarm



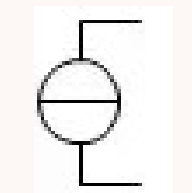
Level Controller



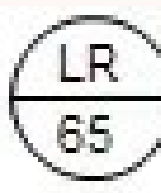
Level Gauge



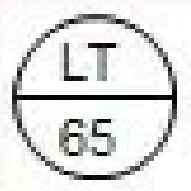
Level Indicator



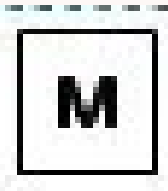
Level Meter



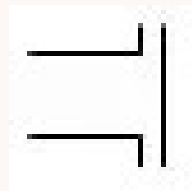
Level Recorder



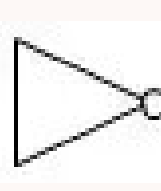
Level Transmitter



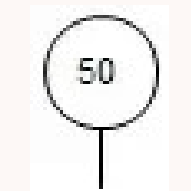
Magnetic Flow Meter



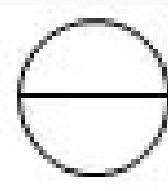
Manhole



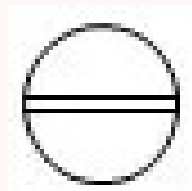
Not Gate



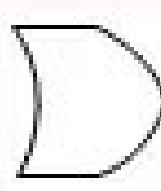
Odometer



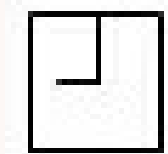
On Central Control Panel



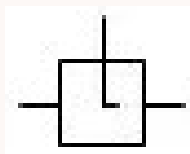
On Local Control Panel



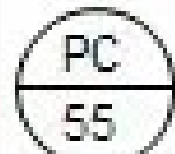
Or Gate



Pitot Tube



Pitot Tube Type Flow M...



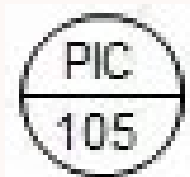
Pressure Controller



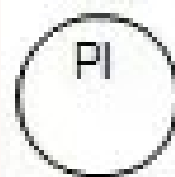
Pressure Gauge



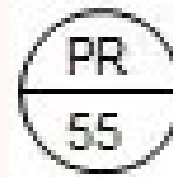
Pressure Gauges



Pressure Indicating Co...



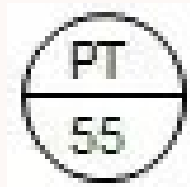
Pressure Indicator



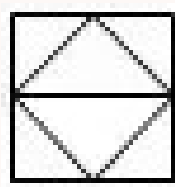
Pressure Recorder



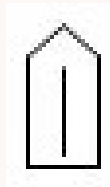
Pressure Recording Con...



Pressure Transmitter



Programmable Indicator



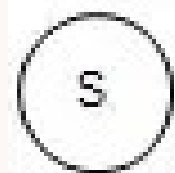
Quick Change Meter



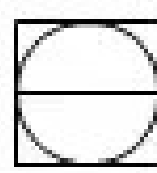
Rotary Meter



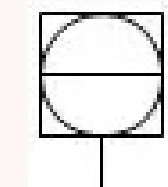
Rotometer



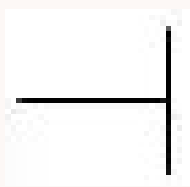
Sampler



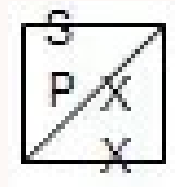
Shared Indicator 01



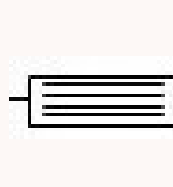
Shared Indicator 02



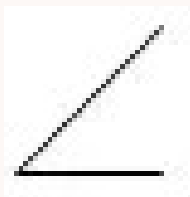
Socket Connection



Speciality Item



Straightening Vane



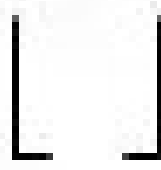
Support Bracket



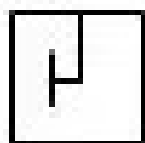
Support Leg



Support Ring



Support Skirt



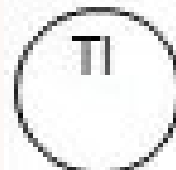
Target Meter



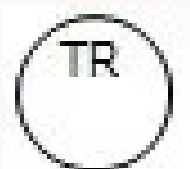
Temperature Controller



Temperature Element



Temperature Indicator



Temperature Recorder



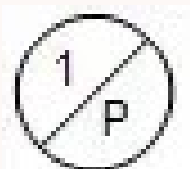
Temperature Transmitter



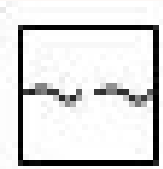
Thermometer



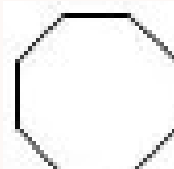
Thermometers



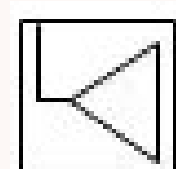
Transducer



Ultrasonic Meter



Unit Control Panel



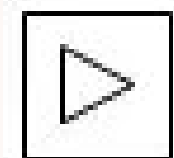
V Cone Meter



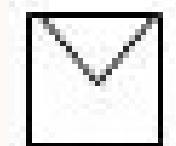
Venturi



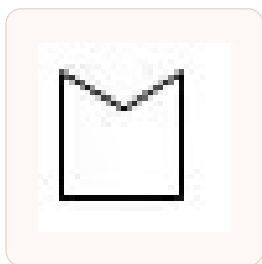
Venturi Meter



Vortex Sensor



Wedge Meter

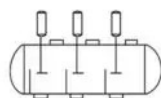


Weir Meter

Equipment - General (28 symbols)



Agitator Or Mixer



Alkylation



Automatic Stoker



Boom Loader



Briquetting Machine



Combustion Chamber



Conveyor



Dryer



Elevator



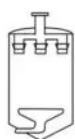
Elevator 2



Extractor Hood



Fin Fan



Fluid Catalytic Cracking



Fluid Cooking Symbol



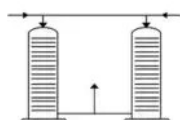
Furnace



Hoist



Hose Reel



Hydrocracking



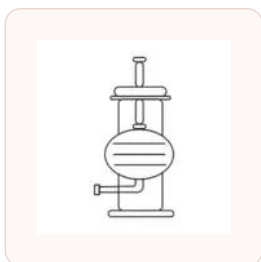
Hydrodesulfurization



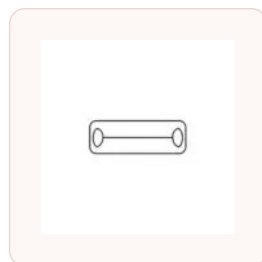
Oil Burner



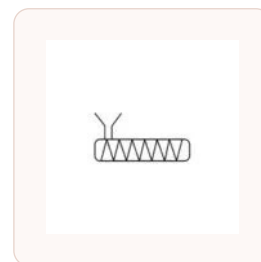
Overhead Conveyor



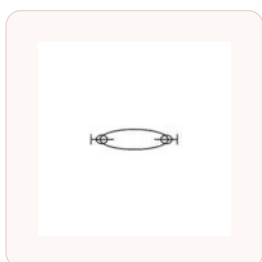
Reformer



Scraper Conveyor



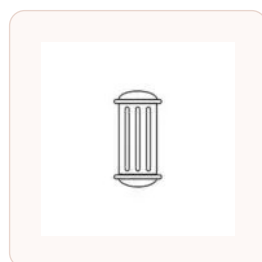
Screw Conveyor



Silencer



Skip Hoist

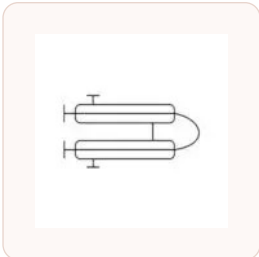


Tubular

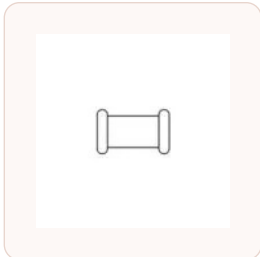


Vent

Other (22 symbols)



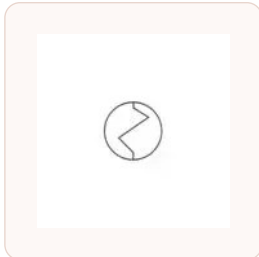
10 Double Pipe Heat376...



20 Single Pass Heat220...



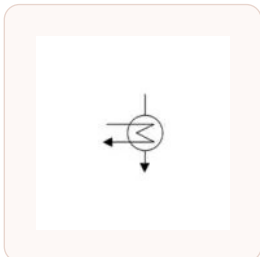
21 Shell And Tube Heat...



24 Shell And Tube Heat...



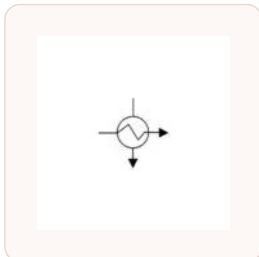
28 Shell And Tube Heat...



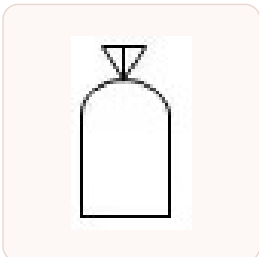
31 Shell And Tube Heat...



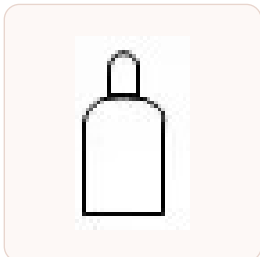
37 Shell And Tube Heat 2



44 Shell And Tube Heat 4



Bag



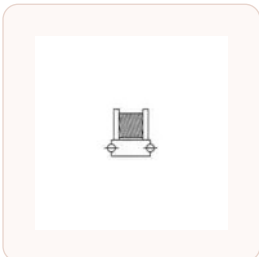
Gas Bottle



Imgi 418 Logo



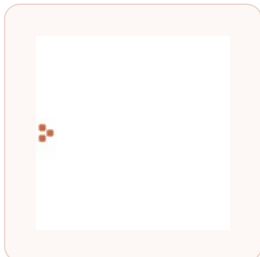
Instrument Electrical ...



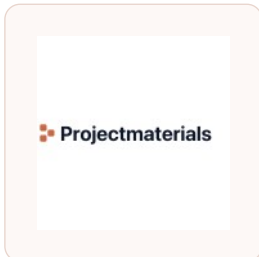
Light Water Station



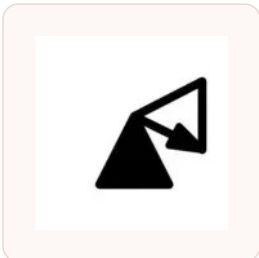
Liquid Ring Vacuum



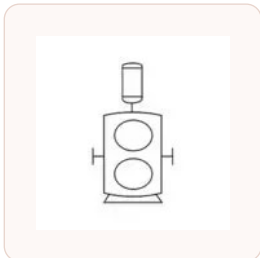
Logo



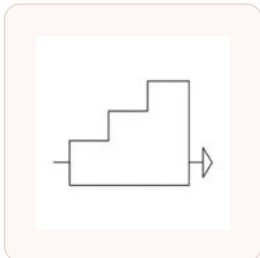
Logo Light



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Positive Displacement



Positive Displacement 2

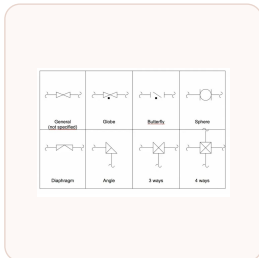


Table2

 Manual	 Diaphragm	 Piston	 Overhaul The overhaul symbol is used to indicate that a piece of equipment is being overhauled.
 Overhaul symbol (B)	 Overhaul symbol with horizontal line	 Overhaul (S)	 Overhaul (S) with horizontal line

Table3

 Full Open	 Full Close	 Full Intermediate	 Full Locked
 Full Open (B)	 Full Close (B)	 Full Intermediate (B)	 Full Locked (B)

Table4