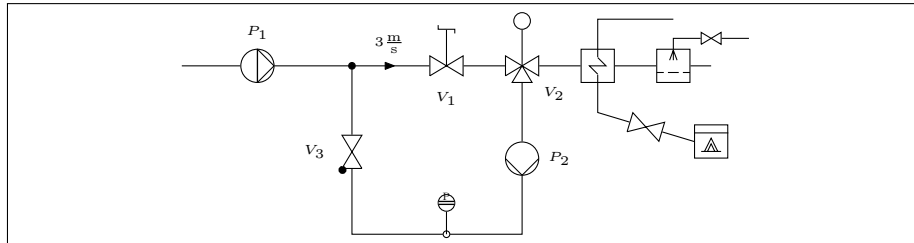


Tikz P&ID circuit extension

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```
1 \usepackage{tikz}
2 \usetikzlibrary{circuits}
3 \usetikzlibrary{circuits.pid.ISO14617}
4 \usetikzlibrary{positioning,calc}
5
6 \begin{tikzpicture}[
7   circuit pid ISO14617,
8   every info/.style={font=\tiny},
9   tiny circuit symbols]
10
11 \draw (0,0) to [pump={displacement,name=P1,info=$P_1$}](2,0)
12 to [branch={name=T1}](2.5,0)
13 to [flow direction={speed=3}](3,0)
14 to [valve={name=V1,info'=$V_{1}$}](4,0)
15 to [three way valve={name=V2,info=belowright:$V_2$}][++(1,0)
16 to [tank={name=B1,with={heatingcoil}{0pt}{0pt}}][++(1,0)
17 to [tank={name=F1,with={filterelement}{0}{-0.5},with={spraynozzle}{0}{0.8}}][++
(1,0);
18 \draw(V2.south) to [pump={name=P2,info=$P_2$}][++(0,-2)
19 to [measurementpoint={name=M1}][++(-2,0)
20 to (\currentcoordinate -| T1)
21 to [valve={nonreturn,info=$V_3$}](T1);
22 \node[measurementdevice=localcontrol room,at=M1,measure=P]{};
23 \node[turning actuator, at=V1]{};
24 \node[automaticoperation, at=V2]{};
25 \node[boiler={name=B2,with={firedtype}{0}{-0.25}}]at(7,-1){};
26 \draw(B1-heatingcoil.south) to ++(0,-0.5)
27 to [valve, tiny circuit symbols](B2.input);
28 \draw(B1-heatingcoil.north) to ++(0,0.5)
29 to ++(1,0);
30 \draw(F1-spraynozzle.north) to ++(0,0.15)
31 to [valve, circuit symbolunit=3pt][++(1,0);
32
33
34 \end{tikzpicture}
```



Listing1: P&ID example code