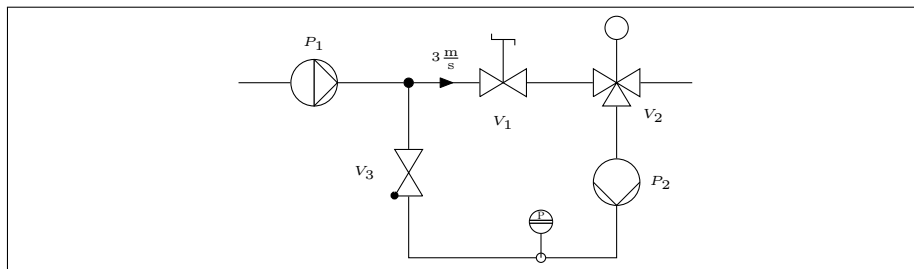# Tikz P&ID circuit extension

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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
10     \draw (0,0) to [pump={displacement,name=P1,info=$P_1$}](2,0)
11     to [branch={name=T1}](2.5,0)
12     to [flow  direction={speed=3}](3,0)
13     to [valve={name=V1,info'=$V_{1}$}](4,0)
14     to [three  way valve={name=V2,info=belowright:$V_2$}](6,0);
15     \draw (V2.south) to [pump={name=P2,info=$P_2$}]++(0,−2)
16     to [measurementpoint={name=M1}]++(−2,0)
17     to (\currentcoordinate −| T1)
18     to [valve={nonreturn,info=$V_3$}](T1);
19     \node[measurementdevice=localcontrol room, at=M1,measure=P]{};
20     \node[turning actuator,  at=V1]{};
21     \node[automaticoperation,  at=V2]{};
22
23  \end{tikzpicture}
```


Listing1: P&ID example code