# Tikz P&ID circuit extension

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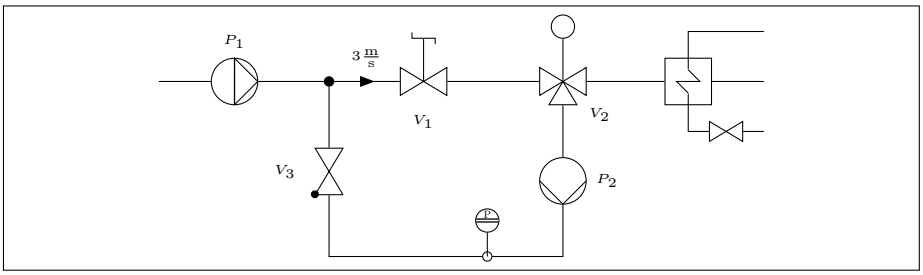
```
\usepackage{tikz}
\usetikzlibrary{circuits}
\usetikzlibrary{circuits.pid.ISO14617}
\usetikzlibrary{positioning,calc}

\begin{tikzpicture}[
  circuit pid ISO14617,
  every info/.style={font=\tiny}]

\node[tank={name=TANK1,with={heatingcoil}{0pt}{0pt}}]at(7,0){};
\draw(0,0) to [pump={displacement,name=P1,info=$P_1$}](2.5,0)
to [branch={name=T1}](2.5,0)
to [flow direction={speed=3}](3,0)
to [valve={name=V1,info'=$V_{1}$}](4,0)
to [three way valve={name=V2,info=belowright:$V_2$}](TANK1);
\draw(V2.south) to [pump={name=P2,info=$P_2$}]++(0,-2)
to [measurementpoint={name=M1}]++(-2,0)
to (\currentcoordinate -| T1)
to [valve={nonreturn,info=$V_3$}](T1);
\node[measurementdevice=localcontrol room, at=M1,measure=P]{};
\node[turning actuator, at=V1]{};
\node[automaticoperation, at=V2]{};
\draw(TANK1-heatingcoil.south)to ++(0,-0.5)
to [valve, tiny circuit symbols] ++(1,0);
\draw(TANK1-heatingcoil.north)to ++(0,0.5)
to ++(1,0);
\draw(TANK1)to++(1,0);


\end{tikzpicture}
```




Listing1: P&ID example code