Contents

1 Introduction

2 Anchors

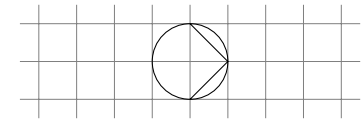
The anchors are possibly the most imporant part of these figures since they allow you to connect these figures to the rest of your drawing. Therefore, we have tried to make the anchors as consistent as possible in terms of naming. The most common abbreviations for anchors that you will find in Section 4 are the following:

Abbreviation	Anchor name	Abbreviation	Anchor name
N	north	S	south
nN	near north	nS	near south
fN	far north	fS	far south
E	east	W	west
nE	near east	nW	near west
fE	far east	fW	far west
NE	northeast	SE	southeast
nNE	near northeast	nSE	near southeast
fNE	far northeast	fSE	far southeast
NW	northwest	SW	southwest
nNW	near northwest	nSW	near southwest
fNW	far northwest	fSW	far southwest

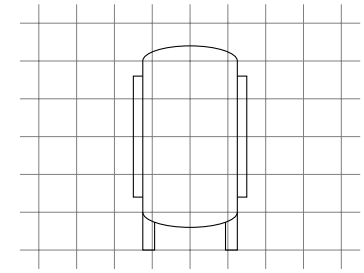
Most assets will only use (a selection of) these anchors. **Not every anchor is defined for every asset. Please check the section of the asset to see which are defined for that asset.** If it uses more than these, they are specified in the section of that asset, e.g. Tanks.

3 Accessing options

Accessing options is facilitated through pgfkeys, which makes them snappy. The keys though which to access them are the names of the assets, with the exception of the dished tank which uses the tank options. An example makes this much more clear. **Note that these commands exists within a tikzpicture environment.**



```
\node[pump, /pump = reciprocating]
```



```
\node[dished tank, /tank, legs, /tank = jacket]
```

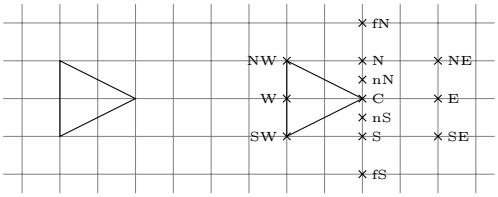
4 Assets

4.1 Valves

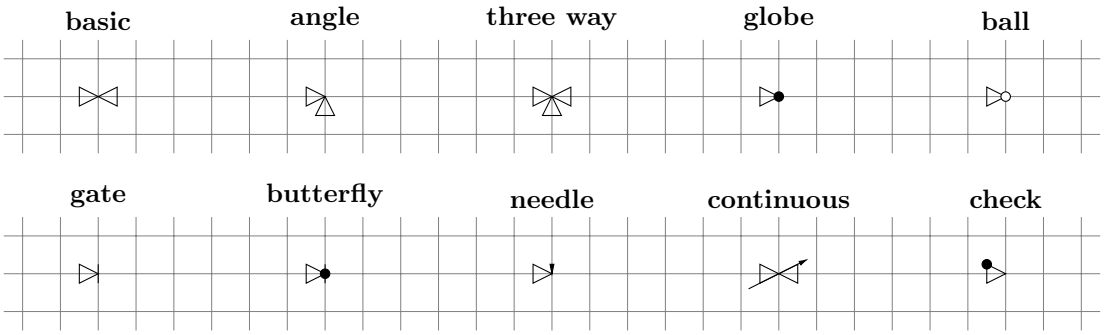
4.1.1 Anchors

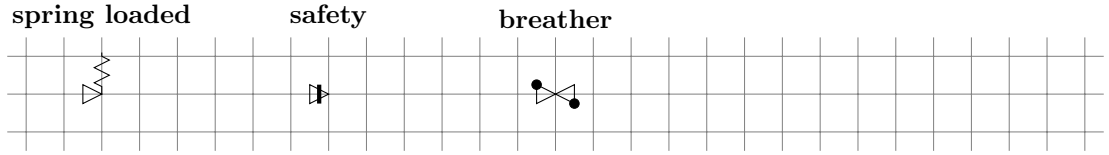
A valve is one of the cornerstones of a flowsheet or P&ID. The base asset for a valve in this package is only half of a two-way valve to allow for maximal flexibility.

\node[valve, scale = 4]



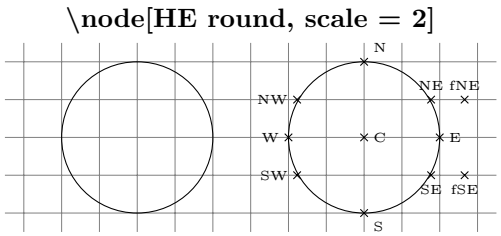
4.1.2 Options



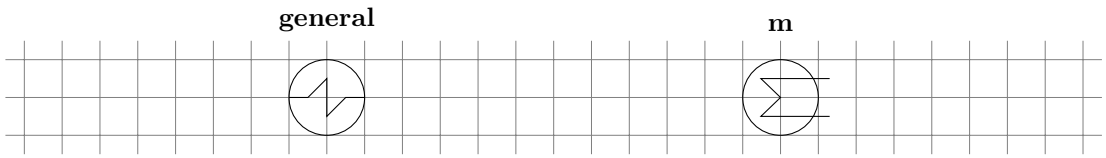


4.2 Round heat exchanger

4.2.1 Anchors

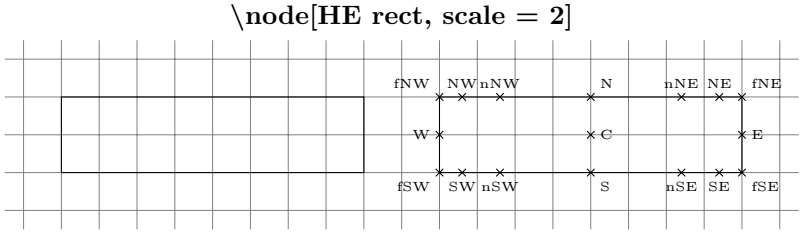


4.2.2 Options

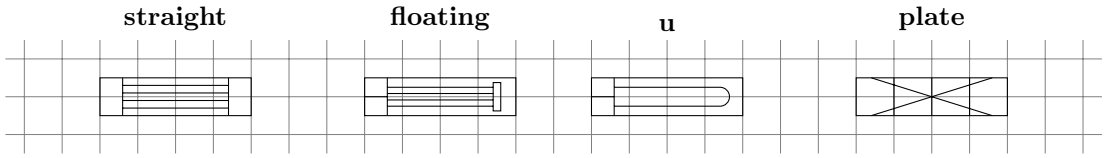


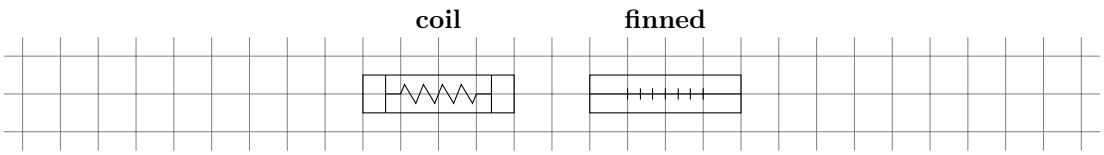
4.3 Rectangular heat exchanger

4.3.1 Anchors



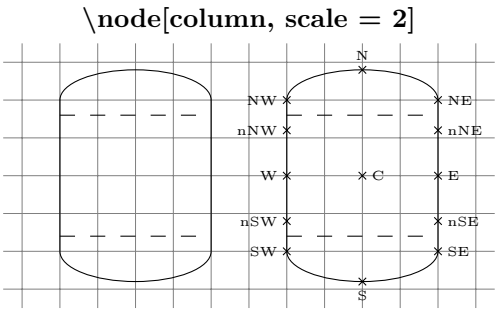
4.3.2 Options



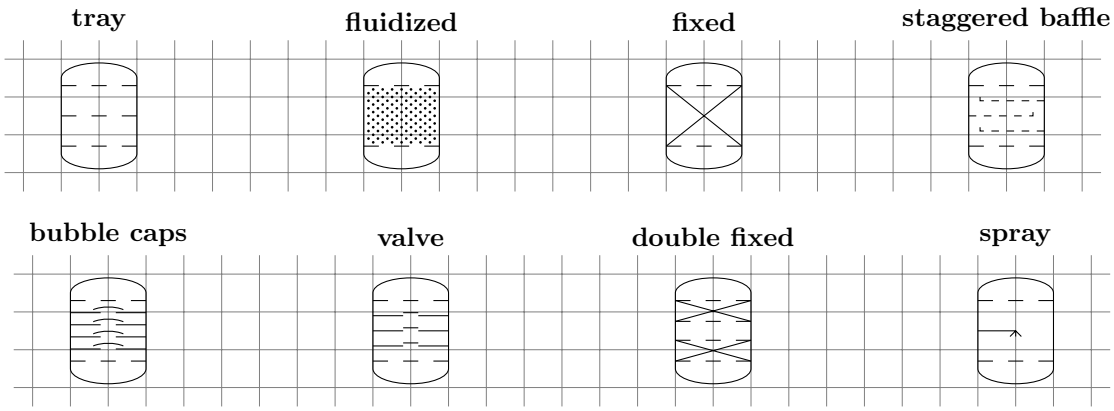


4.4 Columns

4.4.1 Anchors



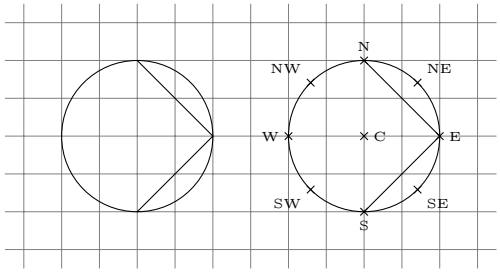
4.4.2 Options



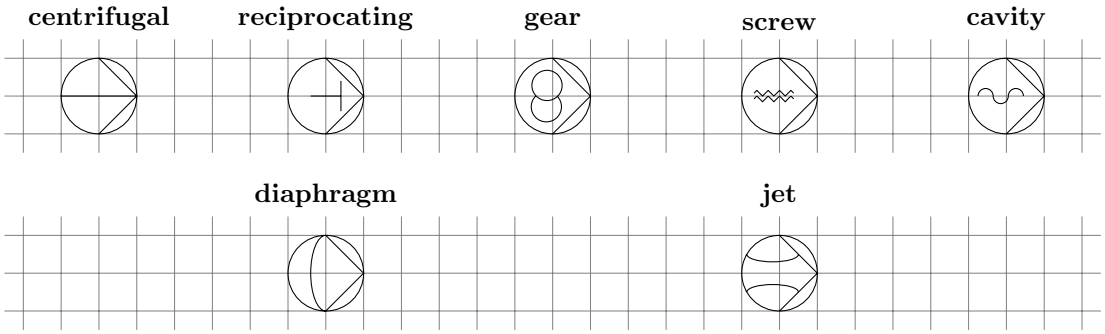
4.5 Pumps

4.5.1 Anchors

\node[pump, scale = 2]



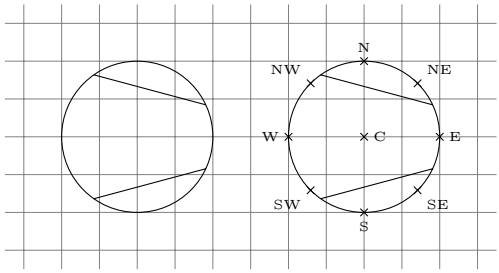
4.5.2 Options



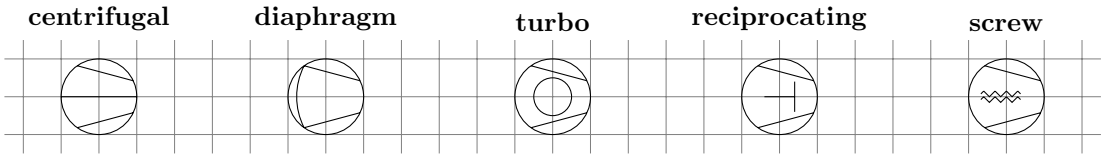
4.6 Compressors

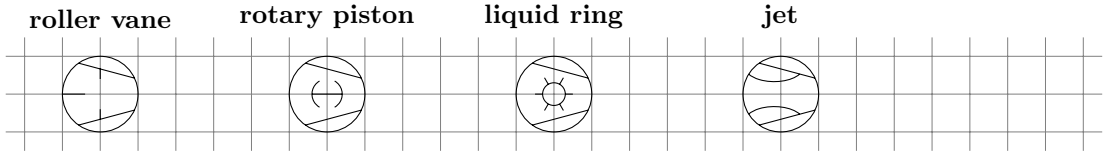
4.6.1 Anchors

\node[compressor, scale = 2]



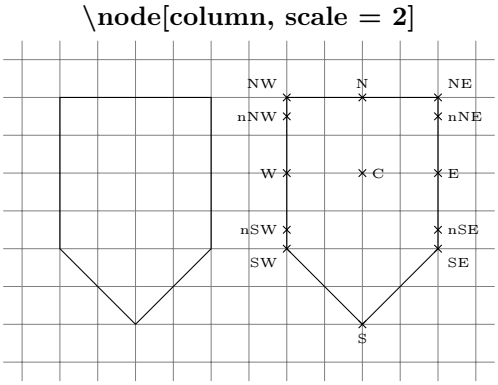
4.6.2 Options



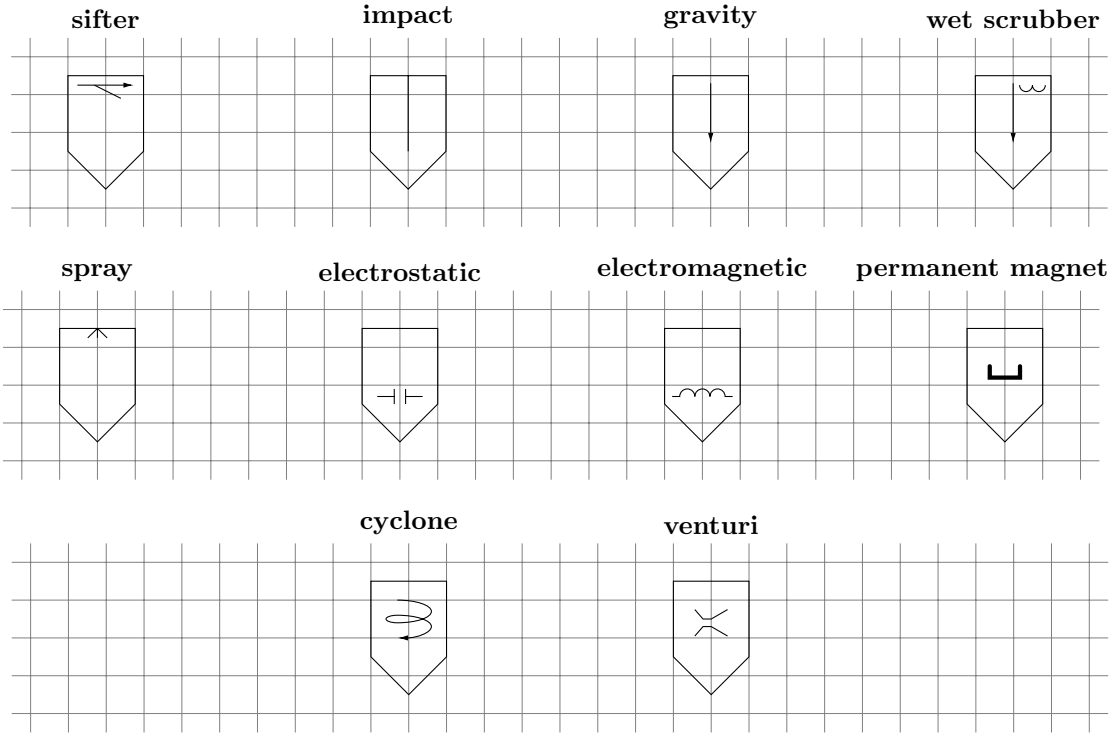


4.7 Separators

4.7.1 Anchors



4.7.2 Options



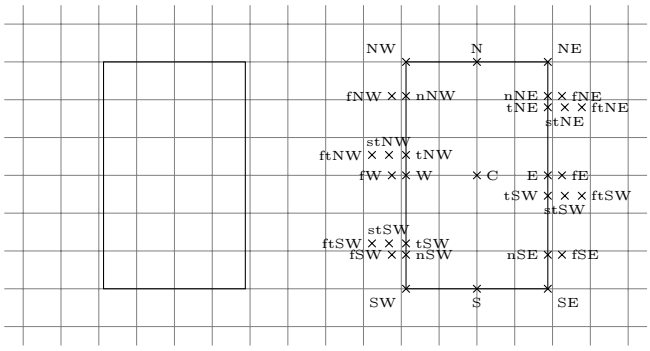
4.8 Tanks

4.8.1 Anchors

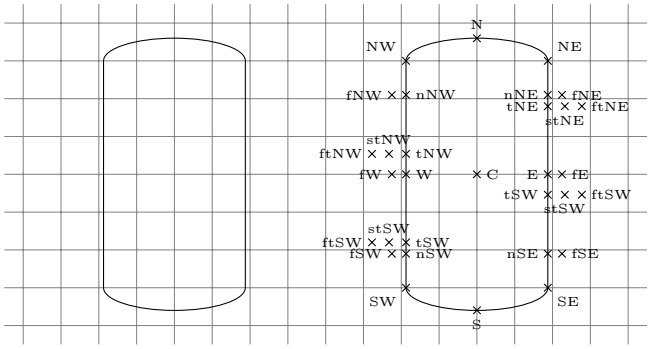
The anchors specifically defined for the tank asset are:

Abbreviation	Anchor name	Abbreviation	Anchor name
tNE	tube northeast	tSE	tube southeast
stNE	semi-tube northeast	stSE	semi-tube southeast
ftNE	full-tube northeast	ftSE	full-tube southeast
tNW	tube northwest	tSW	tube southwest
stNW	semi-tube northwest	stSW	semi-tube southwest
ftNW	full-tube northwest	ftSW	full-tube southwest

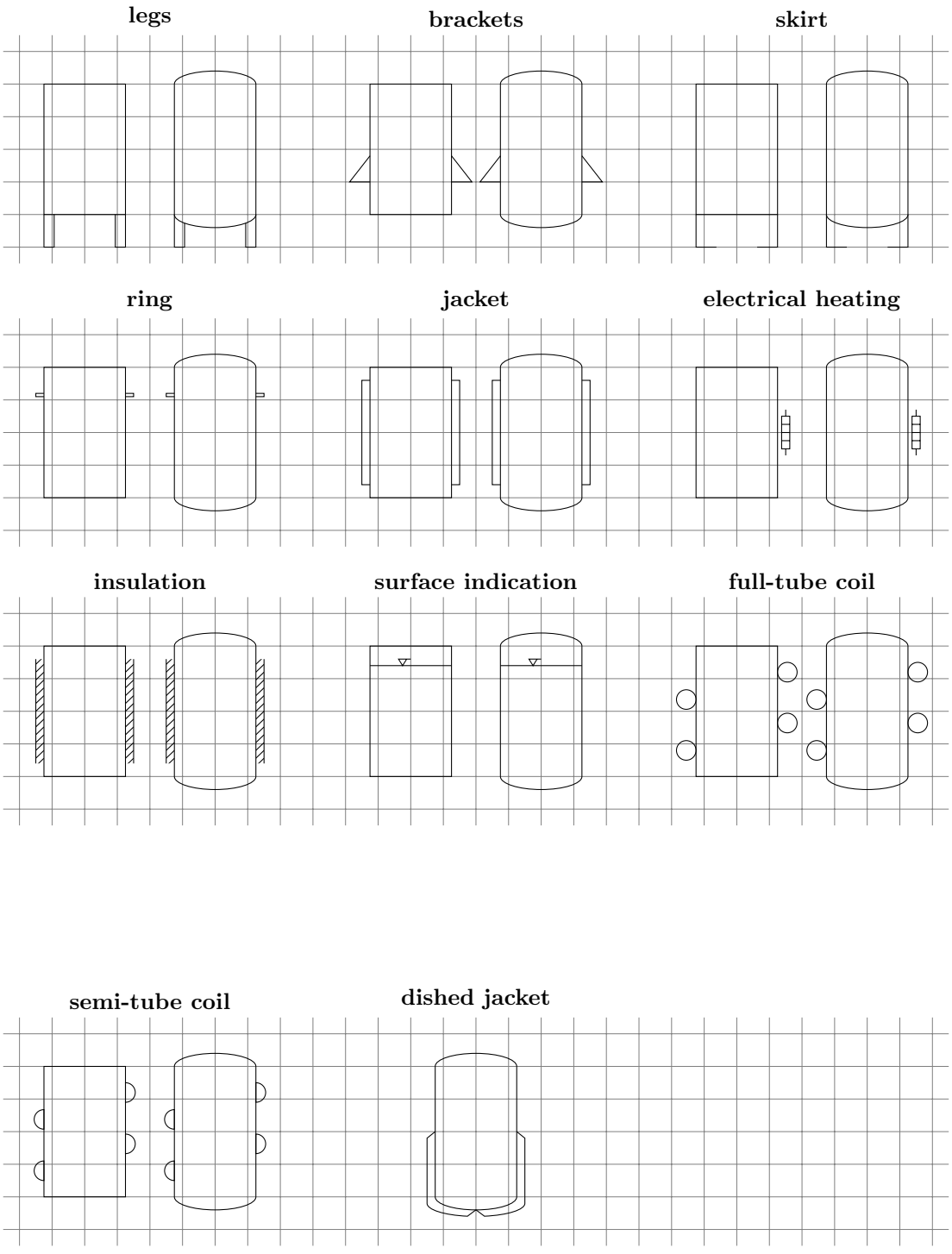
\node[tank, scale = 1.5]



\node[dished tank, scale = 1.5]



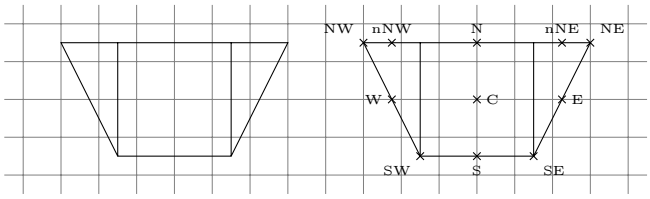
4.8.2 Options


legs
brackets
skirt
ring
jacket
electrical heating
insulation
surface indication
full-tube coil
semi-tube coil
dished jacket

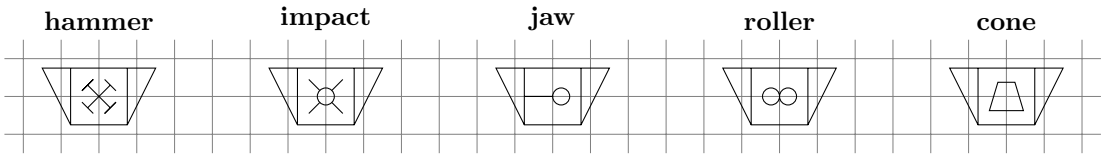
4.9 Crushers

4.9.1 Anchors

\node[crusher, scale = 2]



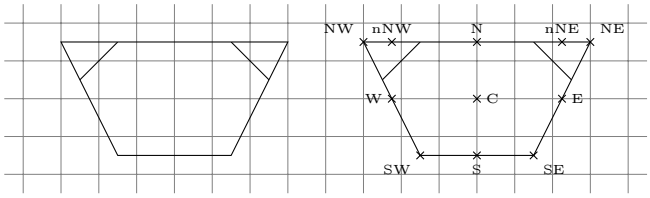
4.9.2 Options



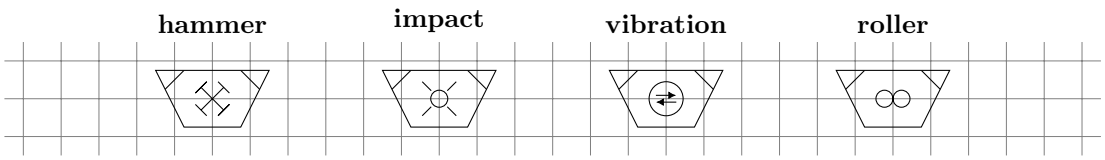
4.10 Mills

4.10.1 Anchors

\node[mill, scale = 2]



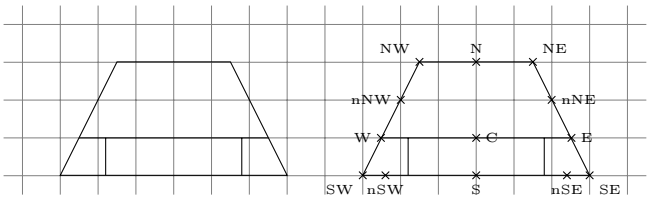
4.10.2 Options



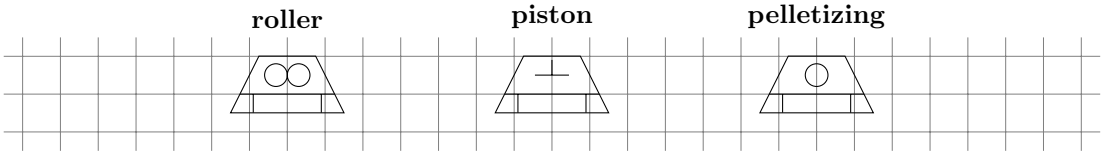
4.11 Press

4.11.1 Anchors

\node[press, scale = 2]



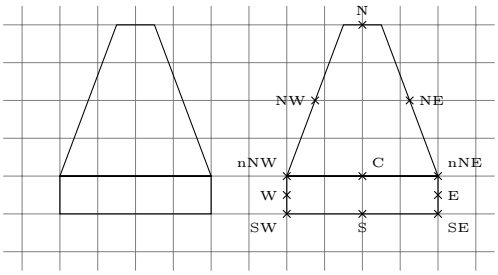
4.11.2 Options



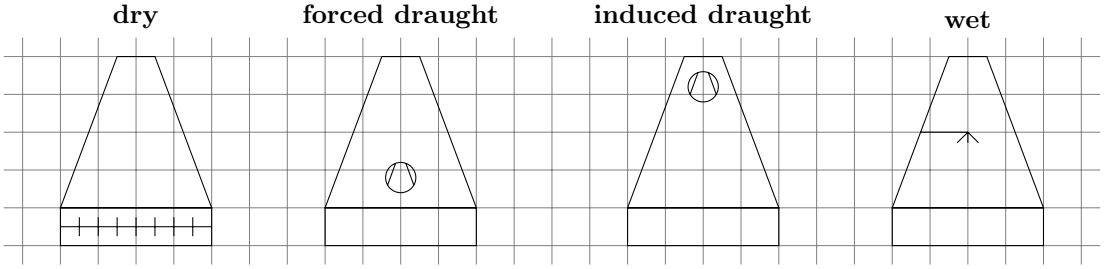
4.12 Cooling towers

4.12.1 Anchors

\node[cooling tower, scale = 1]



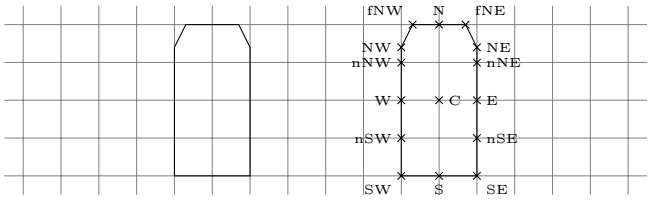
4.12.2 Options



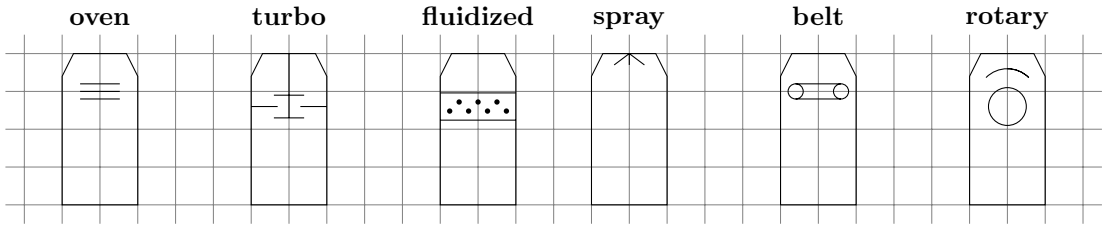
4.13 Driers

4.13.1 Anchors

\node[drier]



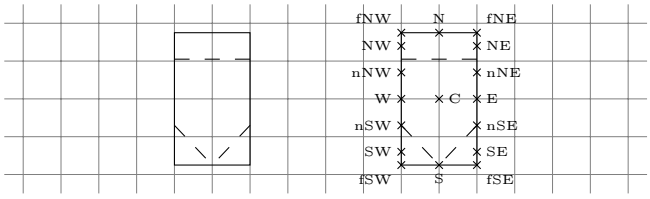
4.13.2 Options



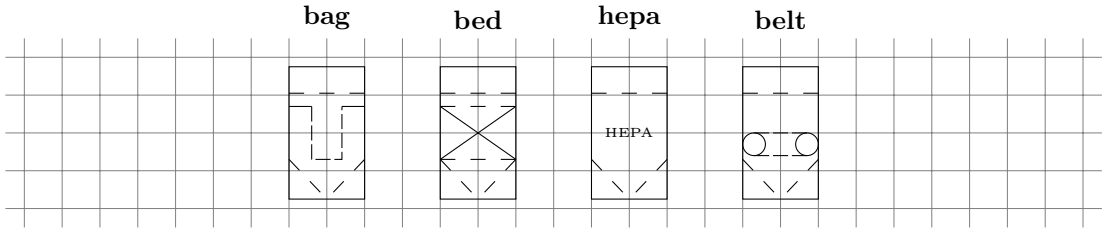
4.14 Gas filters

4.14.1 Anchors

\node[gas filter]



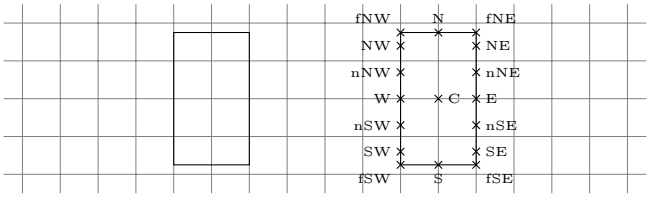
4.14.2 Options



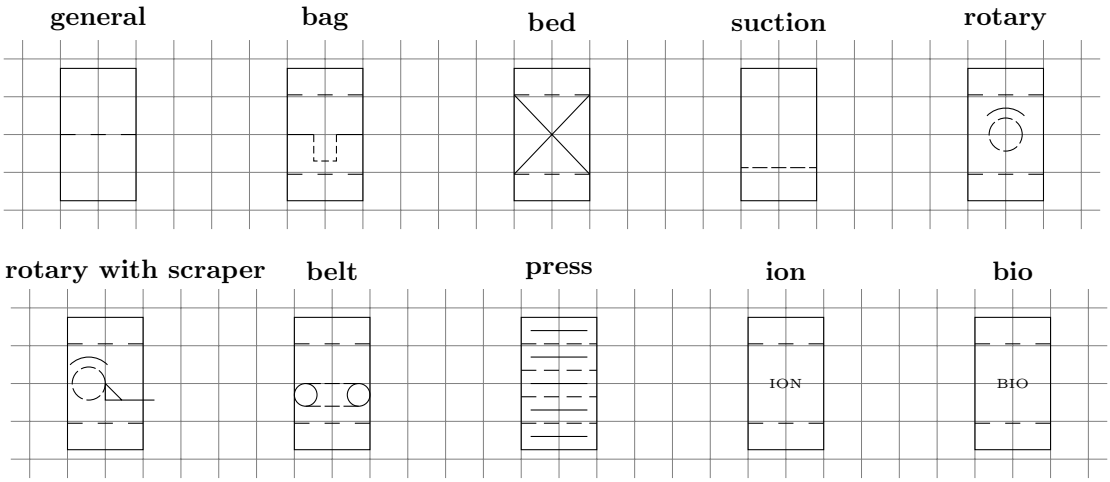
4.15 Liquid filters

4.15.1 Anchors

\node[liquid filter]



4.15.2 Options

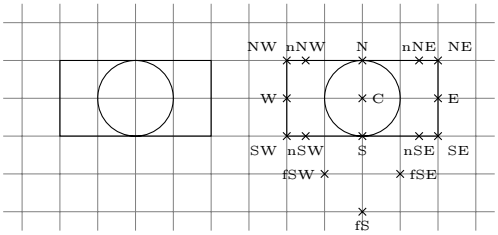


4.16 Fittings

4.16.1 Viewing glass

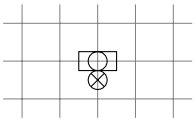
4.16.1.1 Base

\node[viewing glass, scale = 4]



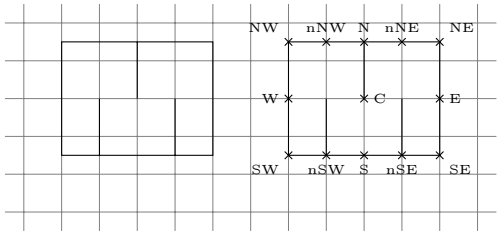
4.16.1.2 Options

lighting



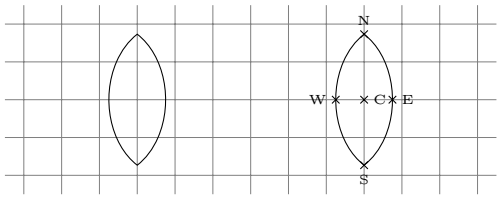
4.16.2 Silencer

\node[silencer, scale = 4]



4.16.3 Compensator

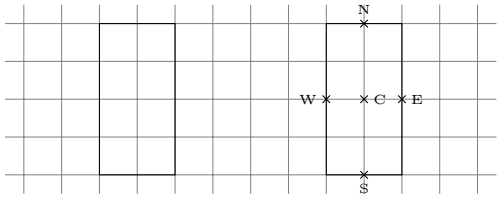
\node[compensator, scale = 4]



4.16.4 Strainer

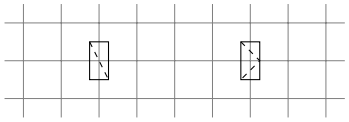
4.16.4.1 Base

\node[strainer, scale = 4]



4.16.4.2 Options

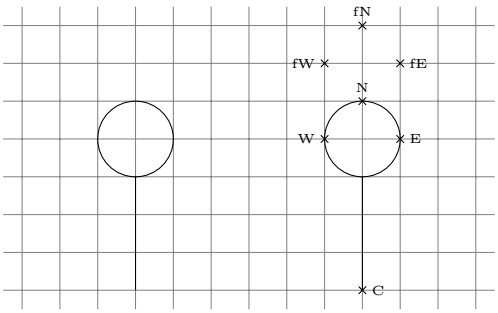
general **cone**



4.16.5 Disc

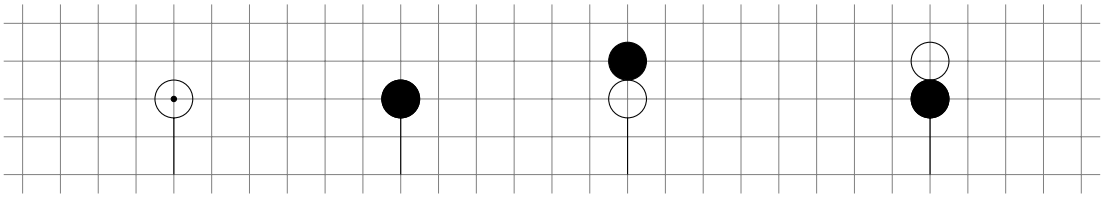
4.16.5.1 Base

\node[disc, scale = 2]



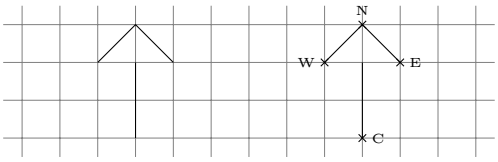
4.16.5.2 Options

orifice blind interchangeable open interchangeable blind



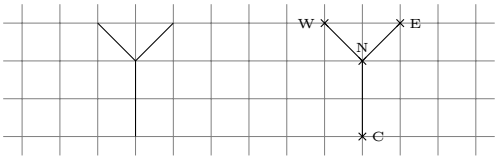
4.16.6 Vent

\node[vent, scale = 2]



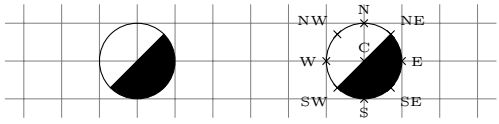
4.16.7 Funnel

\node[funnel, scale = 2]



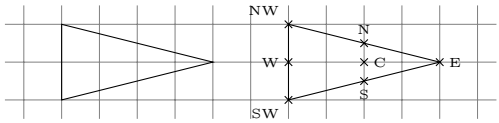
4.16.8 Steam trap

\node[steam trap, scale = 2]



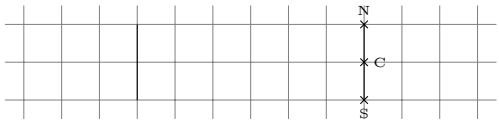
4.16.9 Reducer

\node[reducer, scale = 2]



4.16.10 Flange

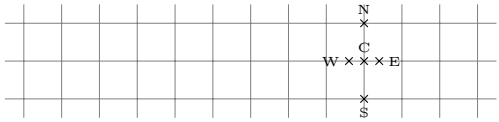
\node[flange, scale = 2]



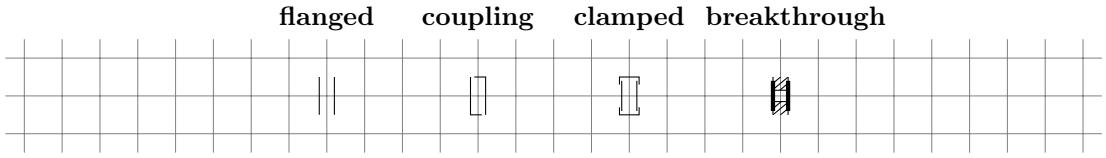
4.16.11 Connection

4.16.11.1 Base

\node[connection, scale = 2]



4.16.11.2 Options



4.16.12 Hose

\node[hose]