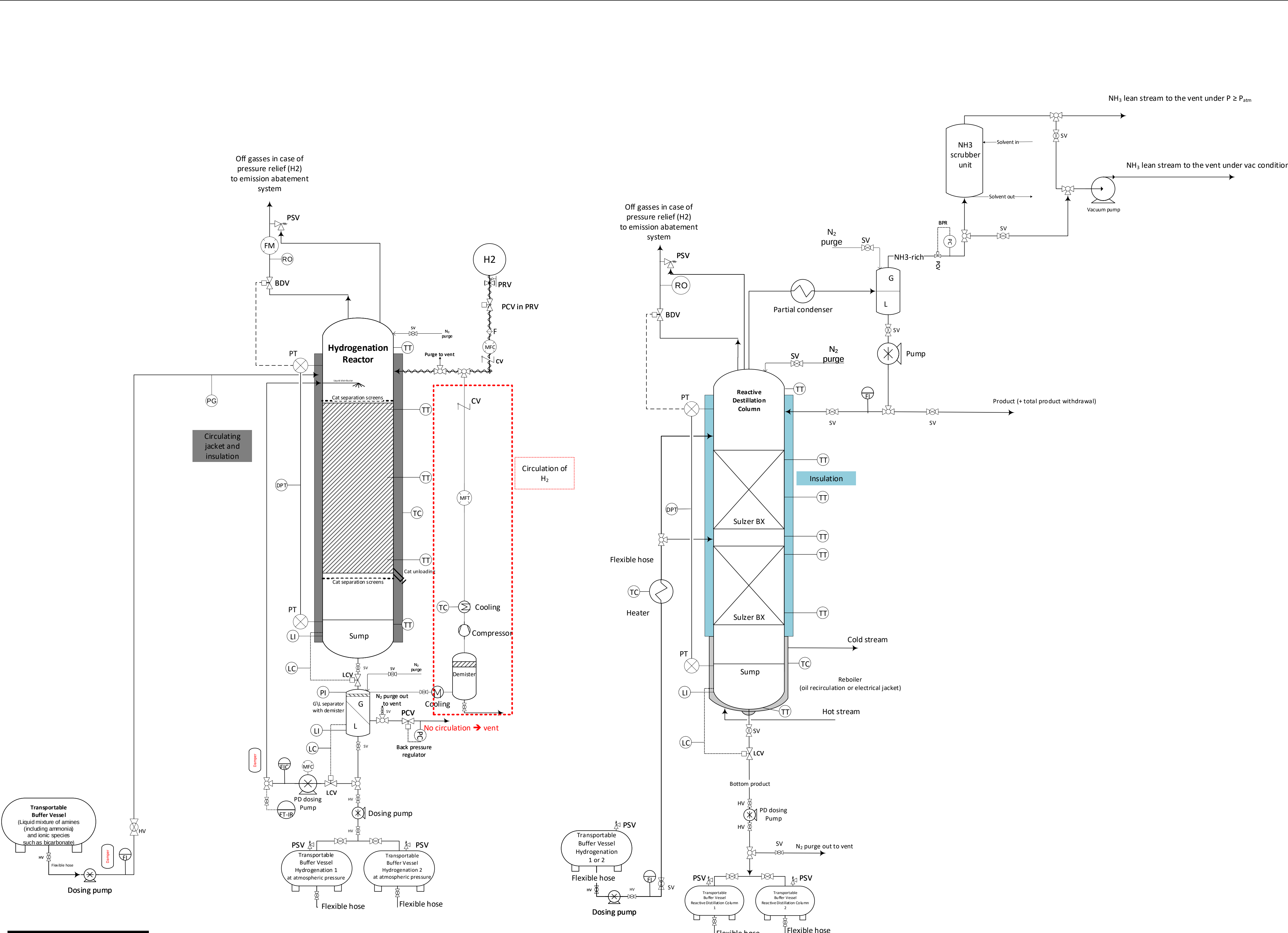




Symbol	Description
V	normally closed valve
CV	check valve
SV	solenoid valve
PCV	pressure control valve
MFC	mass flow controller
MFM	mass flow meter
BPV	back pressure valve
PRV	pressure reducing valve
P	pressure gauge
PSV	pressure safety/relief valve
PI	pressure indicator
DPT	Differential pressure transmitter
TI	temperature indicator
TC	temperature controller
TT	temperature transmitter
BDV	Blow down valve
F	filter
HV	Comment: H=0,5m/D=0,05m will h

Hydrogenation Reactor
Material: PVC/Glass lined
Catalyst: Pd/C 5wt%, pellets
Length: 50 cm
Diameter: 5 cm
Operational P: 1 - 100 bara
Operational T: 20 - 80 °C

Reactive distillation column
Material: PVC/Glass lined
Packing material: BX Sulzer
Length: 150 cm
Diameter: 2 cm
Operational P: vacuum - 8 bara
Operational T: 50 - 180 °C

CONFIDENTIAL INFORMATION

Drawn by / date

Checked by / date

Project Number

Drawing number / Revision

Project

NET-lab CHARLIE technology set-up

TNO innovation for life

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