

# Changes to the chemplants package

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## **Version 0.7.0 – 2019/02/13**

- The chemplants package sees the light for the first time.
- First writing of the documentation.

## **Version 0.8.0 – 2019/02/19**

- Implementation of the anchor coordinates nodes in the units code.
- Rewriting of the documentation with coordinate nodes.
- New example using coordinate nodes: absorption and stripping integration.

## **Version 0.8.1 – 2019/02/20**

- Bug fixed: coordinates node are not sensible to the global scale factor.

## **Version 0.8.2 – 2019/02/20**

- New units: `lamination valve`, `inlet`, `outlet` and `block`.
- Bibliography updating: TikZ version 3.1.1.

## **Version 0.8.5 – 2019/02/21**

- New units: `cyclone`, `stirred reactor`, `packed bed reactor` and `film reactor`.
- Units order is changed and categories (documentation sections) have been inserted into the `.sty` file.

## **Version 0.9.0 – 2019/02/22**

- New definition of `centrifugal pump` and bottom node addition.
- New units: `rotary pump`, `liquid ring pump`, `reciprocating pump`, `fan`, `centrifugal compressor`, `rotary compressor`, `reciprocating compressor`, `multistage compressor` and `ejector`.

## **Version 0.9.1 – 2019/02/24**

- New units: cone tank, dome tank, floating roof tank, bell gasholder and dry gasholder.

## **Version 0.9.2 – 2019/02/25**

- Review of the film reactor symbol.
- Review of the heat exchangers node names, now defined as shell and pipes for the sake of clearance.

## **Version 0.9.3 – 2019/02/26**

- Review of the cyclone node names.
- New units: fluidized bed reactor, steam trap, scrubber, stratifier and settler.

## **Version 0.9.4 – 2019/02/26**

- New units: gas-liquid separator, kettle boiler, tube bundle evaporator, basket evaporator, climbing film evaporator, stirred crystallizer and pipe bundle crystallizer.

## **Version 0.9.5 – 2019/03/03**

- Review of the kettle boiler node names.
- Review of the code to draw packings: no more sharp knees protruding around units.
- Added a TikZ library to access to the Hobby's algorithm.
- New units: air heat exchanger, tube bundle heat exchanger, plates heat exchanger, spiral heat exchanger and pipe furnace.

## **Version 0.9.6 – 2019/03/04**

- Review of the stirred reactor and stirred crystallizer node names: now the end of the stirrer is called shaft.
- New units: associative pics for reactors, which are tank reactor, jacket, stirrer, coil, sprayer, bubbler and packing.

## **Version 0.9.7 – 2019/11/18**

- Documentation language revision: thanks to Desi Costa for the help.
- Now also the source code of the documentation is provided with the package.
- Changes are written in a more gracious format.
- Review of the plates heat exchanger: now it is called plate heat exchanger.

- Review of the `pipe furnace` node names: now the ends of the pipes are called `pipes left` and `pipes right`.
- Review of the `film reactor`: now it is called `tube bundle reactor`.
- Review of the `utility stream` style: the default thickness is now `very thin`.
- Review of the `signal` style: the default thickness is now `very thin` and the algorithm to place markings has changed.
- New stream style: `secondary stream` (provided of thickness customisation command).
- Review of `valve` and `valve triple`: these units now accept a new argument for `secondary streams thickness`.
- Review of `actuator`: dimensions of this units are now doubled.
- New units: `valve quadruple`, `safety valve`.

### **Version 0.9.8 – 2019/11/19**

- The `chemplants` package is ready to be officially published since, though not complete as I wish, it is mature enough.
- The package is now explicitly covered by the L<sup>A</sup>T<sub>E</sub>X Project Public License (LPPL), versione 1.3c.
- The bibliography database is no more supplied, since it has been embedded into the source file of the documentation.

### **Version 0.9.9 – 2021/02/25**

- Added a `TikZ` library to better manage arrows on curved and slanted paths.
- Liquid handling machines and gas handling machines have been divided into different subsections.
- The `lamination valve` has been moved among gas handling units.
- New category of units: solid materials processing units.
- Physical separators and thermal separators have been divided into different subsections.
- New units: `silos`, `spherical tank`, `drum`, `compressor`, `turbine`, `belt conveyor`, `screw conveyor`, `roller conveyor`, `bucket elevator`, `cylinder crusher`, `hammer crusher`, `mill`, `extruder`, `tube bundle heat exchanger var`, `tunnel furnace`, `rotary furnace`, `bag filter`, `filter press`, `rotary filter`, `deck screen`, `rotary screen` and `check valve`.