# Table: Pumps

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| **Schema:** | SystemSchematicBuilder |
| **Responsible:** | Kurt A Vedros |

Table holds the information on the pump part.

Pump – a mechanical machine made of various parts, such as pipes, Pumps and vacuum, that is considered one individual part that lifts and outputs contents at a designated flow. Is upright that has one output to the left, right or top of the grid square.

Note: flow rate output and pressure output are stored in the Values Table that the part is connected to.

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| **Column Name** | **Data type** | **Description** |
| PumpID | Int | Primary Key to Pump Table. |
| Name | String | User given name to the pump (could be left blank). |
| VerticalSuctionLift | Float | The pressure on the suction side of the pump. |
| MaximumHeadLift | Float | Vertical distance that the pump will be able to pump the liquid. |

**Procedures (Database functions)**

* sprocGetPumps
  + Returns a list of Pump objects that are currently stored in the database.
* sprocGetPump
  + Returns a Pump object that is currently stored in the database that has the given Pump ID number.
* sproc\_PumpAdd
  + Stores the given Pump object into the database and returns its assigned Pump ID number.
* sproc\_PumpUpdate
  + Changes information of the Pumps Table in the database with the given primary key to the given Pump class object.
* sproc\_PumpRemove
  + Removes the Pump from the Pumps Table with the given Pump ID number.

**DAL (Software Functions)**

* PumpsGetAll()
  + Returns a list of Pump objects that are currently stored in the database.
* PumpGet(int ID)
  + Returns a Pump object that is currently stored in the database that has the given Pump ID number.
* PumpAdd(Pump Pump)
  + Stores the given Pump object into the database and returns its assigned Pump ID number. Returns -1 if error occurred, otherwise returns null.
* PumpUpdate(Pump Pump)
  + Changes a Pump object that is currently stored in the database with the given Pump’s Pump.ID with the Pump’s information.
* PumpRemove(int ID)
  + Removes the Pump object stored in the database with the given Pump ID number. Returns -1 if error occurred, otherwise returns null.