

Heatmap visualization showing the correlation between 30 variables. The color scale ranges from -1.0 (light blue) to 1.0 (dark blue). The diagonal is dark blue (1.0 correlation). The heatmap shows that CarbVolume, CarbPressure, and CarbTemp are highly correlated with each other. Other variables like BallingLvl, CarbRel, and AlchRel show high positive correlations with each other. The heatmap is triangular, with the lower triangle being white and the upper triangle showing the correlation values.

| Variable       | CarbVolume | CarbPressure | CarbTemp | PCVolume | FillOunces | MnfFlow | CarbPressure1 | FillPressure | HydPressure1 | HydPressure2 | HydPressure3 | HydPressure4 | FillerLevel | FillerSpeed | Temperature | Usagecont | CarbFlow | Density | MFR | Balling | PressureVacuum | OxygenFiller | BowlSetpoint | PressureSetpoint | AirPressurer | AlchRel | CarbRel | BallingLvl |  |  |
|----------------|------------|--------------|----------|----------|------------|---------|---------------|--------------|--------------|--------------|--------------|--------------|-------------|-------------|-------------|-----------|----------|---------|-----|---------|----------------|--------------|--------------|------------------|--------------|---------|---------|------------|--|--|
| CarbVolume     | 1.0        |              |          |          |            |         |               |              |              |              |              |              |             |             |             |           |          |         |     |         |                |              |              |                  |              |         |         |            |  |  |
| CarbPressure   | 0.9        | 1.0          |          |          |            |         |               |              |              |              |              |              |             |             |             |           |          |         |     |         |                |              |              |                  |              |         |         |            |  |  |
| CarbTemp       | 0.8        | 0.9          | 1.0      |          |            |         |               |              |              |              |              |              |             |             |             |           |          |         |     |         |                |              |              |                  |              |         |         |            |  |  |
| PCVolume       | 0.1        | 0.2          | 0.1      | 1.0      |            |         |               |              |              |              |              |              |             |             |             |           |          |         |     |         |                |              |              |                  |              |         |         |            |  |  |
| FillOunces     | 0.2        | 0.3          | 0.2      | 0.1      | 1.0        |         |               |              |              |              |              |              |             |             |             |           |          |         |     |         |                |              |              |                  |              |         |         |            |  |  |
| MnfFlow        | 0.4        | 0.5          | 0.3      | 0.2      | 0.1        | 1.0     |               |              |              |              |              |              |             |             |             |           |          |         |     |         |                |              |              |                  |              |         |         |            |  |  |
| CarbPressure1  | 0.3        | 0.4          | 0.2      | 0.1      | 0.2        | 0.3     | 1.0           |              |              |              |              |              |             |             |             |           |          |         |     |         |                |              |              |                  |              |         |         |            |  |  |
| FillPressure   | 0.2        | 0.3          | 0.1      | 0.1      | 0.2        | 0.3     | 0.4           | 1.0          |              |              |              |              |             |             |             |           |          |         |     |         |                |              |              |                  |              |         |         |            |  |  |
| HydPressure1   | 0.1        | 0.2          | 0.1      | 0.1      | 0.1        | 0.2     | 0.3           | 0.4          | 1.0          |              |              |              |             |             |             |           |          |         |     |         |                |              |              |                  |              |         |         |            |  |  |
| HydPressure2   | 0.1        | 0.2          | 0.1      | 0.1      | 0.1        | 0.2     | 0.3           | 0.4          | 0.5          | 1.0          |              |              |             |             |             |           |          |         |     |         |                |              |              |                  |              |         |         |            |  |  |
| HydPressure3   | 0.1        | 0.2          | 0.1      | 0.1      | 0.1        | 0.2     | 0.3           | 0.4          | 0.5          | 0.6          | 1.0          |              |             |             |             |           |          |         |     |         |                |              |              |                  |              |         |         |            |  |  |
| HydPressure4   | 0.1        | 0.2          | 0.1      | 0.1      | 0.1        | 0.2     | 0.3           | 0.4          | 0.5          | 0.6          | 0.7          | 1.0          |             |             |             |           |          |         |     |         |                |              |              |                  |              |         |         |            |  |  |
| FillerLevel    | 0.1        | 0.2          | 0.1      | 0.1      | 0.1        | 0.2     | 0.3           | 0.4          | 0.5          | 0.6          | 0.7          | 0.8          | 1.0         |             |             |           |          |         |     |         |                |              |              |                  |              |         |         |            |  |  |
| FillerSpeed    | 0.1        | 0.2          | 0.1      | 0.1      | 0.1        | 0.2     | 0.3           | 0.4          | 0.5          | 0.6          | 0.7          | 0.8          | 0.9         | 1.0         |             |           |          |         |     |         |                |              |              |                  |              |         |         |            |  |  |
| Temperature    | 0.1        | 0.2          | 0.1      | 0.1      | 0.1        | 0.2     | 0.3           | 0.4          | 0.5          | 0.6          | 0.7          | 0.8          | 0.9         | 0.8         | 1.0         |           |          |         |     |         |                |              |              |                  |              |         |         |            |  |  |
| Usagecont      | 0.1        | 0.2          | 0.1      | 0.1      | 0.1        | 0.2     | 0.3           | 0.4          | 0.5          | 0.6          | 0.7          | 0.8          | 0.9         | 0.8         | 0.7         | 1.0       |          |         |     |         |                |              |              |                  |              |         |         |            |  |  |
| CarbFlow       | 0.1        | 0.2          | 0.1      | 0.1      | 0.1        | 0.2     | 0.3           | 0.4          | 0.5          | 0.6          | 0.7          | 0.8          | 0.9         | 0.8         | 0.7         | 0.6       | 1.0      |         |     |         |                |              |              |                  |              |         |         |            |  |  |
| Density        | 0.1        | 0.2          | 0.1      | 0.1      | 0.1        | 0.2     | 0.3           | 0.4          | 0.5          | 0.6          | 0.7          | 0.8          | 0.9         | 0.8         | 0.7         | 0.6       | 0.5      | 1.0     |     |         |                |              |              |                  |              |         |         |            |  |  |
| MFR            | 0.1        | 0.2          | 0.1      | 0.1      | 0.1        | 0.2     | 0.3           | 0.4          | 0.5          | 0.6          | 0.7          | 0.8          | 0.9         | 0.8         | 0.7         | 0.6       | 0.5      | 0.4     | 1.0 |         |                |              |              |                  |              |         |         |            |  |  |
| Balling        | 0.1        | 0.2          | 0.1      | 0.1      | 0.1        | 0.2     | 0.3           | 0.4          | 0.5          | 0.6          | 0.7          | 0.8          | 0.9         | 0.8         | 0.7         | 0.6       | 0.5      | 0.4     | 0.3 | 1.0     |                |              |              |                  |              |         |         |            |  |  |
| PressureVacuum | 0.1        | 0.2          | 0.1      | 0.1      | 0.1        | 0.2     | 0.3           | 0.4          | 0.5          | 0.6          |              |              |             |             |             |           |          |         |     |         |                |              |              |                  |              |         |         |            |  |  |