



# Overview

- Overview
- Alerts52
- Reproduction

## Dataset statistics

Number of variables	37
Number of observations	102674
Missing cells	29359
Missing cells (%)	0.8%
Duplicate rows	1
Duplicate rows (%)	< 0.1%
Total size in memory	29.8 MiB
Average record size in memory	304.0 B

## Variable types

Numeric	37
---------	----

# Variables

## Select Columns

### Filter#1\_CTRL\_FRC

Real number (ℝ)

HIGH CORRELATIONZEROS

Distinct	50801
Distinct (%)	49.6%
Missing	196
Missing (%)	0.2%
Infinite	0
Infinite (%)	0.0%
Mean	191.36482
Minimum	0
Maximum	1350
Zeros	23614
Zeros (%)	23.0%

Negative	0
Negative (%)	0.0%
Memory size	1.6 MiB

More details

Filter#1\_CTRL\_PRC

Real number ( $\mathbb{R}$ )

HIGH CORRELATIONZEROS

Distinct	90836
Distinct (%)	88.6%
Missing	145
Missing (%)	0.1%
Infinite	0
Infinite (%)	0.0%
Mean	8.7263481
Minimum	0
Maximum	60
Zeros	8463
Zeros (%)	8.2%
Negative	0
Negative (%)	0.0%
Memory size	1.6 MiB

More details

Filter#1\_Inlet\_Flow

Real number ( $\mathbb{R}$ )

Distinct	80250
Distinct (%)	78.2%
Missing	112
Missing (%)	0.1%
Infinite	0
Infinite (%)	0.0%
Mean	190.13265
Minimum	5.292939
Maximum	1338.597
Zeros	0
Zeros (%)	0.0%

Negative	0
Negative (%)	0.0%
Memory size	1.6 MiB
<a href="#">More details</a>	

Filter#1\_Inlet\_Pressure  
Real number ( $\mathbb{R}$ )

Distinct	97632
Distinct (%)	95.2%
Missing	161
Missing (%)	0.2%
Infinite	0
Infinite (%)	0.0%
Mean	8.6555813
Minimum	-0.9338602
Maximum	44.90704
Zeros	0
Zeros (%)	0.0%
Negative	10796
Negative (%)	10.5%
Memory size	1.6 MiB
<a href="#">More details</a>	

Filter#1\_Turbidity  
Real number ( $\mathbb{R}$ )

Distinct	37701
Distinct (%)	36.8%
Missing	227
Missing (%)	0.2%
Infinite	0
Infinite (%)	0.0%
Mean	380.11972
Minimum	-124.9646
Maximum	518.1976
Zeros	0
Zeros (%)	0.0%

Negative	1847
Negative (%)	1.8%
Memory size	1.6 MiB

More details

Filter#2\_CTRL\_FRC

Real number ( $\mathbb{R}$ )

HIGH CORRELATIONZEROS

Distinct	40023
Distinct (%)	39.1%
Missing	188
Missing (%)	0.2%
Infinite	0
Infinite (%)	0.0%
Mean	207.1907
Minimum	0
Maximum	800
Zeros	40491
Zeros (%)	39.4%
Negative	0
Negative (%)	0.0%
Memory size	1.6 MiB

More details

Filter#2\_CTRL\_PRC

Real number ( $\mathbb{R}$ )

HIGH CORRELATIONZEROS

Distinct	59699
Distinct (%)	58.3%
Missing	201
Missing (%)	0.2%
Infinite	0
Infinite (%)	0.0%
Mean	9.4688055
Minimum	0
Maximum	44.90116
Zeros	42037
Zeros (%)	40.9%

Negative	0
Negative (%)	0.0%
Memory size	1.6 MiB

More details

Filter#2 \_Inlet\_Flow

Real number ( $\mathbb{R}$ )

Distinct	93137
Distinct (%)	90.8%
Missing	74
Missing (%)	0.1%
Infinite	0
Infinite (%)	0.0%
Mean	194.19917
Minimum	0.2031721
Maximum	2174.06
Zeros	0
Zeros (%)	0.0%
Negative	0
Negative (%)	0.0%
Memory size	1.6 MiB

More details

Filter#2\_Wash\_Spray\_Flow

Real number ( $\mathbb{R}$ )

HIGH CORRELATION MISSING

Distinct	78729
Distinct (%)	87.0%
Missing	12221
Missing (%)	11.9%
Infinite	0
Infinite (%)	0.0%
Mean	45.541455
Minimum	-0.3081858
Maximum	239.8229
Zeros	0
Zeros (%)	0.0%

Negative	11494
Negative (%)	11.2%
Memory size	1.6 MiB

More details

### Filter#2 \_Inlet\_Pressure

Real number (ℝ)

Distinct	94452
Distinct (%)	92.1%
Missing	89
Missing (%)	0.1%
Infinite	0
Infinite (%)	0.0%
Mean	9.5861069
Minimum	-0.9279728
Maximum	44.90116
Zeros	0
Zeros (%)	0.0%
Negative	44057
Negative (%)	42.9%
Memory size	1.6 MiB

More details

### Filter#2\_Outlet\_Pressure

Real number (ℝ)

HIGH CORRELATION MISSING

Distinct	85148
Distinct (%)	93.6%
Missing	11713
Missing (%)	11.4%
Infinite	0
Infinite (%)	0.0%
Mean	6.3259669
Minimum	-0.9309143
Maximum	22.60344
Zeros	0
Zeros (%)	0.0%

Negative	2457
Negative (%)	2.4%
Memory size	1.6 MiB

More details

### Filter#2\_Turbidity

Real number ( $\mathbb{R}$ )

Distinct	90657
Distinct (%)	88.4%
Missing	147
Missing (%)	0.1%
Infinite	0
Infinite (%)	0.0%
Mean	187.52051
Minimum	-125
Maximum	518.1976
Zeros	0
Zeros (%)	0.0%
Negative	1911
Negative (%)	1.9%
Memory size	1.6 MiB

More details

### FILTER#3\_CTRL\_FRC

Real number ( $\mathbb{R}$ )

HIGH CORRELATION   ZEROS

Distinct	56398
Distinct (%)	55.0%
Missing	116
Missing (%)	0.1%
Infinite	0
Infinite (%)	0.0%
Mean	197.15394
Minimum	0
Maximum	800
Zeros	15165
Zeros (%)	14.8%

Negative	0
Negative (%)	0.0%
Memory size	1.6 MiB

More details

**FILTER#3\_CTRL\_PRC**  
Real number ( $\mathbb{R}$ )

HIGH CORRELATION   ZEROS

Distinct	53890
Distinct (%)	52.6%
Missing	240
Missing (%)	0.2%
Infinite	0
Infinite (%)	0.0%
Mean	8.0771233
Minimum	0
Maximum	45.38992
Zeros	48052
Zeros (%)	46.8%
Negative	0
Negative (%)	0.0%
Memory size	1.6 MiB

More details

**Filter#3\_Inlet Flow**  
Real number ( $\mathbb{R}$ )

Distinct	82326
Distinct (%)	80.3%
Missing	106
Missing (%)	0.1%
Infinite	0
Infinite (%)	0.0%
Mean	193.37149
Minimum	-45.5516
Maximum	1931.024
Zeros	0
Zeros (%)	0.0%



Negative	64
Negative (%)	0.1%
Memory size	1.6 MiB

More details

### Filter#3\_Inlet\_Pressure

Real number (ℝ)

Distinct	94214
Distinct (%)	91.8%
Missing	92
Missing (%)	0.1%
Infinite	0
Infinite (%)	0.0%
Mean	8.0431952
Minimum	-0.9250268
Maximum	45.38992
Zeros	0
Zeros (%)	0.0%
Negative	50209
Negative (%)	48.9%
Memory size	1.6 MiB

More details

### Filter#3\_Turbidity

Real number (ℝ)

Distinct	70735
Distinct (%)	69.0%
Missing	217
Missing (%)	0.2%
Infinite	0
Infinite (%)	0.0%
Mean	257.78789
Minimum	-124.1265
Maximum	518.1978
Zeros	0
Zeros (%)	0.0%
Negative	31

Negative (%)	< 0.1%
Memory size	1.6 MiB

More details

FILTER#4\_CTRL\_FRC

Real number (ℝ)

HIGH CORRELATIONZEROS

Distinct	39923
Distinct (%)	39.0%
Missing	204
Missing (%)	0.2%
Infinite	0
Infinite (%)	0.0%
Mean	202.2486
Minimum	0
Maximum	1200
Zeros	44245
Zeros (%)	43.1%
Negative	0
Negative (%)	0.0%
Memory size	1.6 MiB

More details

Filter#4\_Inlet\_Flow

Real number (ℝ)

Distinct	94261
Distinct (%)	91.9%
Missing	119
Missing (%)	0.1%
Infinite	0
Infinite (%)	0.0%
Mean	199.15331
Minimum	0.4151255
Maximum	2051.676
Zeros	0
Zeros (%)	0.0%
Negative	0

Negative (%)	0.0%
Memory size	1.6 MiB

More details

Filter#4\_Inlet\_Pressure

Real number (ℝ)

Distinct	93873
Distinct (%)	91.6%
Missing	172
Missing (%)	0.2%
Infinite	0
Infinite (%)	0.0%
Mean	8.0527377
Minimum	-0.9279728
Maximum	45.3281
Zeros	0
Zeros (%)	0.0%
Negative	15861
Negative (%)	15.4%
Memory size	1.6 MiB

More details

Filter#4 \_Turbidity

Real number (ℝ)

Distinct	96793
Distinct (%)	94.4%
Missing	123
Missing (%)	0.1%
Infinite	0
Infinite (%)	0.0%
Mean	167.42746
Minimum	-123.8811
Maximum	518.1978
Zeros	0
Zeros (%)	0.0%
Negative	43
Negative (%)	< 0.1%

Memory size	1.6 MiB
-------------	---------

More details

FILTER#5\_CTRL\_FRC

Real number ( $\mathbb{R}$ )

HIGH CORRELATIONZEROS

Distinct	36922
Distinct (%)	36.0%
Missing	144
Missing (%)	0.1%
Infinite	0
Infinite (%)	0.0%
Mean	185.95224
Minimum	0
Maximum	800
Zeros	48137
Zeros (%)	46.9%
Negative	0
Negative (%)	0.0%
Memory size	1.6 MiB

More details

FILTER#5\_CTRL\_PRC

Real number ( $\mathbb{R}$ )

HIGH CORRELATIONZEROS

Distinct	85720
Distinct (%)	83.5%
Missing	67
Missing (%)	0.1%
Infinite	0
Infinite (%)	0.0%
Mean	8.7029866
Minimum	0
Maximum	43.12276
Zeros	9353
Zeros (%)	9.1%
Negative	0
Negative (%)	0.0%

Memory size1.6 MiB

More details

Filter#5\_Inlet\_Flow

Real number ( $\mathbb{R}$ )

Distinct	85019
Distinct (%)	82.9%
Missing	85
Missing (%)	0.1%
Infinite	0
Infinite (%)	0.0%
Mean	178.65983
Minimum	0.1500696
Maximum	1996.186
Zeros	0
Zeros (%)	0.0%
Negative	0
Negative (%)	0.0%
Memory size	1.6 MiB

More details

Filter#5\_Inlet\_Pressure

Real number ( $\mathbb{R}$ )

Distinct	92802
Distinct (%)	90.5%
Missing	94
Missing (%)	0.1%
Infinite	0
Infinite (%)	0.0%
Mean	8.6780534
Minimum	-0.9279728
Maximum	43.12276
Zeros	0
Zeros (%)	0.0%
Negative	12834
Negative (%)	12.5%
Memory size	1.6 MiB

More details

Filter#5 \_Turbidity

Real number ( $\mathbb{R}$ )

Distinct	80239
Distinct (%)	78.3%
Missing	188
Missing (%)	0.2%
Infinite	0
Infinite (%)	0.0%
Mean	232.68807
Minimum	0.06705523
Maximum	518.1978
Zeros	0
Zeros (%)	0.0%
Negative	0
Negative (%)	0.0%
Memory size	1.6 MiB

More details

FILTER#6\_CTRL\_FRC

Real number ( $\mathbb{R}$ )

HIGH CORRELATION ZEROS

Distinct	36697
Distinct (%)	35.8%
Missing	186
Missing (%)	0.2%
Infinite	0
Infinite (%)	0.0%
Mean	182.66753
Minimum	0
Maximum	800
Zeros	49566
Zeros (%)	48.3%
Negative	0
Negative (%)	0.0%
Memory size	1.6 MiB

More details

Filter#6\_Inlet\_Flow

Real number ( $\mathbb{R}$ )

Distinct	90316
Distinct (%)	88.1%
Missing	103
Missing (%)	0.1%
Infinite	0
Infinite (%)	0.0%
Mean	177.66959
Minimum	0.2030969
Maximum	2052.683
Zeros	0
Zeros (%)	0.0%
Negative	0
Negative (%)	0.0%
Memory size	1.6 MiB

More details

Filter#6\_Inlet\_Pressure

Real number ( $\mathbb{R}$ )

Distinct	96051
Distinct (%)	93.7%
Missing	130
Missing (%)	0.1%
Infinite	0
Infinite (%)	0.0%
Mean	8.4854182
Minimum	-0.9309143
Maximum	43.13749
Zeros	0
Zeros (%)	0.0%
Negative	48726
Negative (%)	47.5%
Memory size	1.6 MiB

More details

Filter#6\_Turbidity

Real number (ℝ)

Distinct	96273
Distinct (%)	93.9%
Missing	152
Missing (%)	0.1%
Infinite	0
Infinite (%)	0.0%
Mean	187.32368
Minimum	0.1750141
Maximum	518.1978
Zeros	0
Zeros (%)	0.0%
Negative	0
Negative (%)	0.0%
Memory size	1.6 MiB

More details

Filter#1\_Flow\_Control\_Valve

Real number (ℝ)

HIGH CORRELATIONZEROS

Distinct	52217
Distinct (%)	51.0%
Missing	221
Missing (%)	0.2%
Infinite	0
Infinite (%)	0.0%
Mean	17.694412
Minimum	0
Maximum	100
Zeros	46583
Zeros (%)	45.4%
Negative	0
Negative (%)	0.0%
Memory size	1.6 MiB

More details



Filter#2\_Flow\_Control\_Valve

Real number (ℝ)

HIGH CORRELATION ZEROS

Distinct	54664
Distinct (%)	53.3%
Missing	211
Missing (%)	0.2%
Infinite	0
Infinite (%)	0.0%
Mean	16.931924
Minimum	0
Maximum	100
Zeros	43819
Zeros (%)	42.7%
Negative	0
Negative (%)	0.0%
Memory size	1.6 MiB

More details

Filter#3\_Flow\_Control\_Valve

Real number (ℝ)

HIGH CORRELATION ZEROS

Distinct	54613
Distinct (%)	53.3%
Missing	225
Missing (%)	0.2%
Infinite	0
Infinite (%)	0.0%
Mean	19.860441
Minimum	0
Maximum	100
Zeros	44431
Zeros (%)	43.3%
Negative	0
Negative (%)	0.0%
Memory size	1.6 MiB

More details

Filter#4 \_Flow\_Control\_Valve

Real number ( $\mathbb{R}$ )

HIGH CORRELATION ZEROS

Distinct	54578
Distinct (%)	53.3%
Missing	219
Missing (%)	0.2%
Infinite	0
Infinite (%)	0.0%
Mean	17.943472
Minimum	0
Maximum	100
Zeros	43554
Zeros (%)	42.4%
Negative	0
Negative (%)	0.0%
Memory size	1.6 MiB

More details

Filter#5 \_Flow\_Control\_Valve

Real number ( $\mathbb{R}$ )

HIGH CORRELATION ZEROS

Distinct	50167
Distinct (%)	48.9%
Missing	153
Missing (%)	0.1%
Infinite	0
Infinite (%)	0.0%
Mean	18.775531
Minimum	0
Maximum	100
Zeros	47711
Zeros (%)	46.5%
Negative	0
Negative (%)	0.0%
Memory size	1.6 MiB

More details

Filter#6\_Flow\_Control\_Valve

Real number (ℝ)

HIGH CORRELATION   ZEROS

Distinct	49555
Distinct (%)	48.4%
Missing	189
Missing (%)	0.2%
Infinite	0
Infinite (%)	0.0%
Mean	17.416325
Minimum	0
Maximum	100
Zeros	48854
Zeros (%)	47.6%
Negative	0
Negative (%)	0.0%
Memory size	1.6 MiB

More details

Second\_Filters\_Supply\_Tank\_Temperature

Real number (ℝ)

Distinct	96345
Distinct (%)	94.0%
Missing	129
Missing (%)	0.1%
Infinite	0
Infinite (%)	0.0%
Mean	59.152592
Minimum	-37.5
Maximum	92.36736
Zeros	0
Zeros (%)	0.0%
Negative	7179
Negative (%)	7.0%
Memory size	1.6 MiB

More details

# Interactions

Filter#1\_CTRL\_FRC  
Filter#1\_CTRL\_PRC  
Filter#1\_Inlet\_Flow  
Filter#1\_Inlet\_Pressure  
Filter#1\_Turbidity  
Filter#2\_CTRL\_FRC  
Filter#2\_CTRL\_PRC  
Filter#2\_Inlet\_Flow  
Filter#2\_Wash\_Spray\_  
Filter#2\_Inlet\_Pressure  
Filter#2\_Outlet\_Pressure  
Filter#2\_Turbidity  
FILTER#3\_CTRL\_FRC  
FILTER#3\_CTRL\_PRC  
Filter#3\_Inlet Flow  
Filter#3\_Inlet\_Pressure  
Filter#3\_Turbidity  
FILTER#4\_CTRL\_FRC  
Filter#4\_Inlet\_Flow  
Filter#4\_Inlet\_Pressure  
Filter#4\_Turbidity  
FILTER#5\_CTRL\_FRC  
FILTER#5\_CTRL\_PRC  
Filter#5\_Inlet\_Flow  
Filter#5\_Inlet\_Pressure  
Filter#5\_Turbidity  
FILTER#6\_CTRL\_FRC  
Filter#6\_Inlet\_Flow  
Filter#6\_Inlet\_Pressure

Second\_Filters\_Suppl  
Filter#1\_CTRL\_FRC  
Filter#1\_CTRL\_PRC  
Filter#1\_Inlet\_Flow  
Filter#1\_Inlet\_Pressure  
Filter#1\_Turbidity  
Filter#2\_CTRL\_FRC  
Filter#2\_CTRL\_PRC  
Filter#2\_Inlet\_Flow  
Filter#2\_Wash\_Spray\_  
Filter#2\_Inlet\_Pressure  
Filter#2\_Outlet\_Pressure  
Filter#2\_Turbidity  
FILTER#3\_CTRL\_FRC  
FILTER#3\_CTRL\_PRC  
Filter#3\_Inlet Flow  
Filter#3\_Inlet\_Pressure  
Filter#3\_Turbidity  
FILTER#4\_CTRL\_FRC  
Filter#4\_Inlet\_Flow  
Filter#4\_Inlet\_Pressure  
Filter#4\_Turbidity  
FILTER#5\_CTRL\_FRC  
FILTER#5\_CTRL\_PRC  
Filter#5\_Inlet\_Flow  
Filter#5\_Inlet\_Pressure  
Filter#5\_Turbidity  
FILTER#6\_CTRL\_FRC  
Filter#6\_Inlet Flow

# Correlations

Auto

Heatmap

Table

# Missing values

Count

Matrix

Heatmap

A simple visualization of nullity by column.

# Sample

First rows

Last rows

	Filter#1_CTRL_FRC	Filter#1_CTRL_PRC	Filter#1_Inlet_Flow	Filter#1_Inlet_Pressure	Filter#1
DateTime					
2022-09-01 00:00:00	5.982146	0.751015	5.982146	0.751015	518.197
2022-09-01 00:00:00	5.982146	0.751378	5.982146	0.751378	518.197
2022-09-01 00:01:00	5.982146	0.751719	5.982146	0.751719	518.197
2022-09-01 00:02:00	5.982146	0.752317	5.982146	0.752317	518.197
2022-09-01 00:03:00	5.982146	0.752990	5.982146	0.752990	518.197
2022-09-01 00:03:00	5.980115	0.753118	5.980115	0.753118	518.197
2022-09-01 00:03:00	5.977746	0.753267	5.977746	0.753267	516.772
2022-09-01 00:05:00	5.960824	0.754429	5.960824	0.754429	506.592
2022-09-01 00:06:00	5.946102	0.755441	5.946102	0.755441	497.736
2022-09-01 00:08:00	5.929180	0.756603	5.929180	0.756603	487.557

# Duplicate rows

Most frequently occurring

	Filter#1_CTRL_FRC	Filter#1_CTRL_PRC	Filter#1_Inlet_Flow	Filter#1_Inlet_Pressure	Filter#1_Turbidity	Filter#2_C1
0	NaN	NaN	NaN	NaN	NaN	NaN

