ANALYSIS REPORT

DATASET: sample_equipment_data2.csv
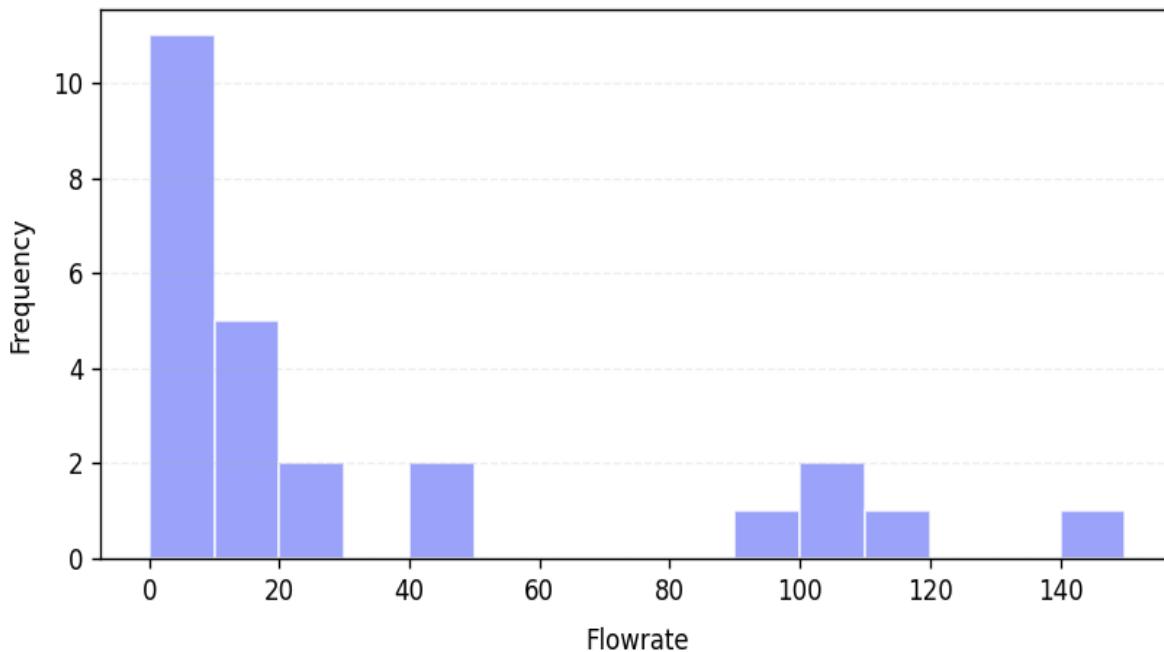
Dataset Snapshot

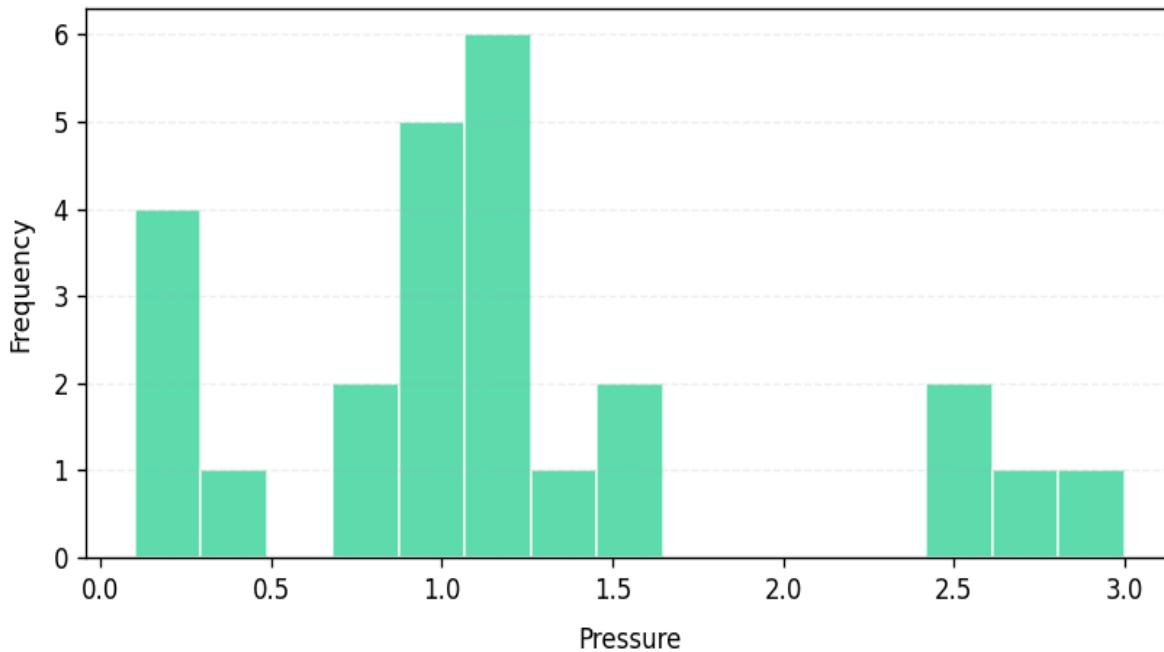|	
Sample Size	**25 Equipment Units**
Mean Flowrate	**31.97 Units/hr**
Operational Pressure	**1.18 bar (Avg)**
Mean Temperature	**55.60 °C**

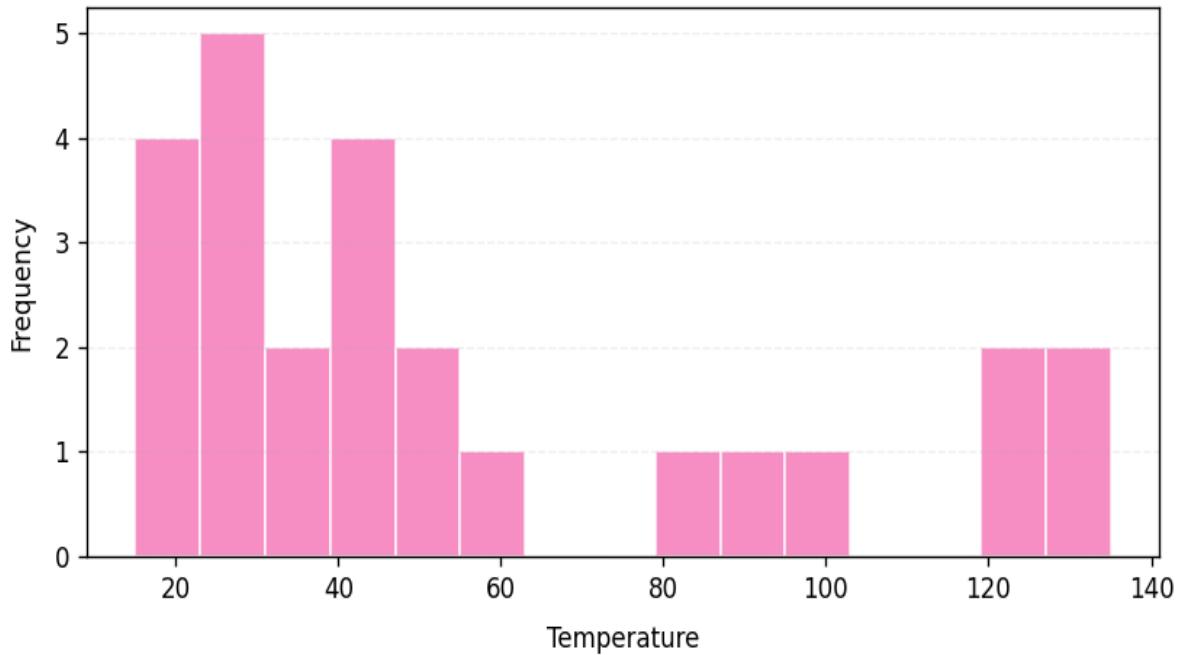## Flowrate Profile Analysis

Flowrate Frequency Distribution

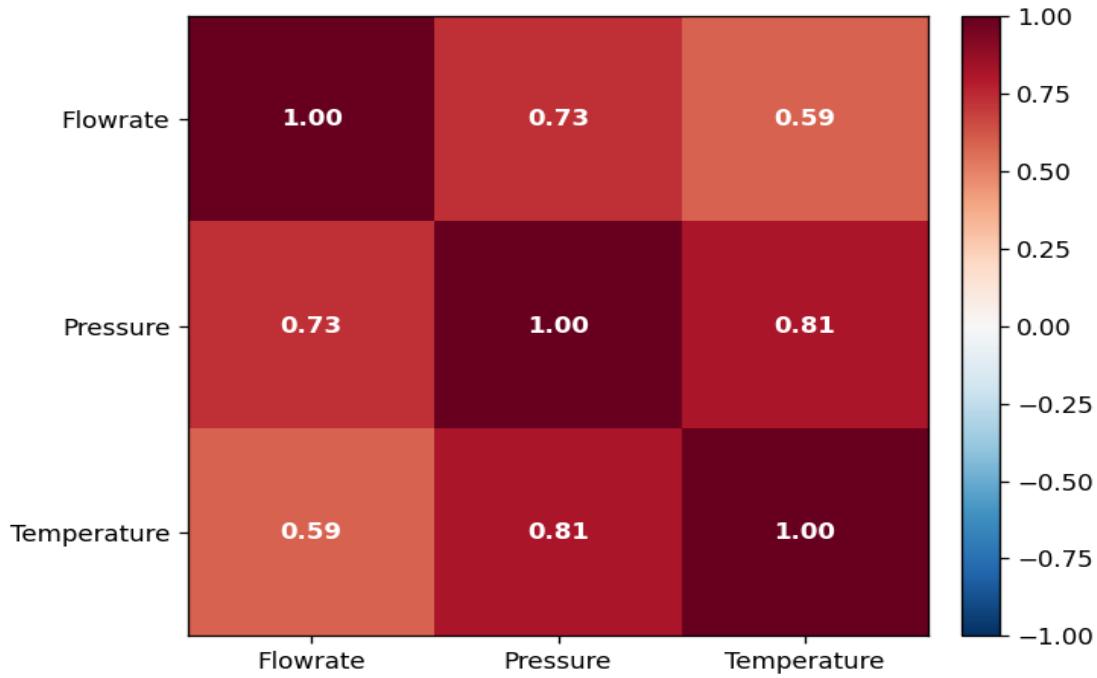## Pressure Profile Analysis

Pressure Frequency Distribution

Temperature Profile Analysis
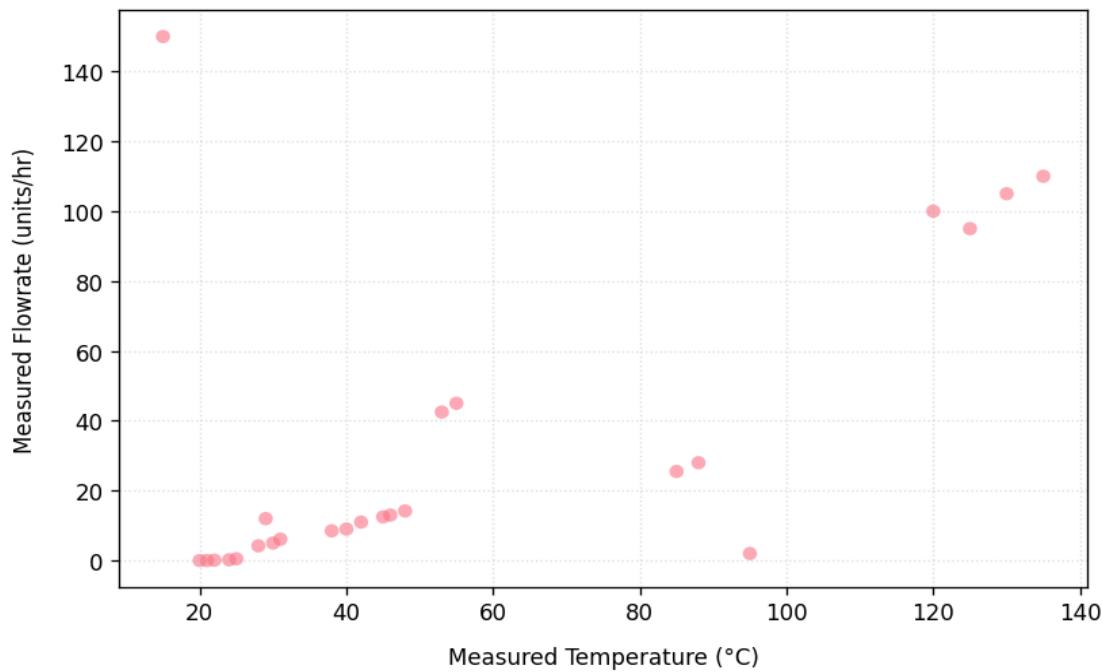

Temperature Frequency Distribution

Feature Inter-dependency Matrix

Parameter Correlation Heatmap

Operating Envelope: Flow vs Temperature

Operational Correlation: Flowrate vs. Temperature

Key Analytical Observations

- 2 equipment items have zero flowrate
- 4 rows have temperature > 100

Equipment Log Preview

Equipment Name	Type	Flowrate	Pressure	Temp
Pump A	Pump	12.5	1.2	45
Valve B	Valve	5.0	0.8	30
Reactor 1	Reactor	100.0	2.5	120
Pump C	Pump	9.0	1.1	40
Sensor X	Sensor	0.5	0.1	25
Heat Exchanger 1	Heat Exchanger	25.5	1.5	85
Pump D	Pump	14.2	1.3	48
Valve C	Valve	4.2	0.9	28
Reactor 2	Reactor	95.0	2.6	125
Sensor Y	Sensor	0.1	0.1	22
Pump E	Pump	11.0	1.15	42
Tank A	Storage Tank	0.0	1.0	20
Pump F (Faulty)	Pump	2.0	0.2	95
Reactor 3	Reactor	110.0	3.0	135
Valve D	Valve	6.1	0.85	31
Mixer 1	Mixer	45.0	1.1	55
Mixer 2	Mixer	42.5	1.05	53
Pump G	Pump	13.0	1.25	46
Sensor Z	Sensor	0.2	0.1	24
Reactor 4	Reactor	105.0	2.8	130
Valve E (Leaking)	Valve	12.0	0.3	29
Heat Exchanger 2	Heat Exchanger	28.0	1.6	88
Pump H	Pump	8.5	1.0	38
Tank B	Storage Tank	0.0	1.0	21
Cooling Tower 1	Cooling Unit	150.0	1.1	15