

Gas Scrubber

- Hybrid Type PFC Scrubber -
(Model : ST-HPFC-150)



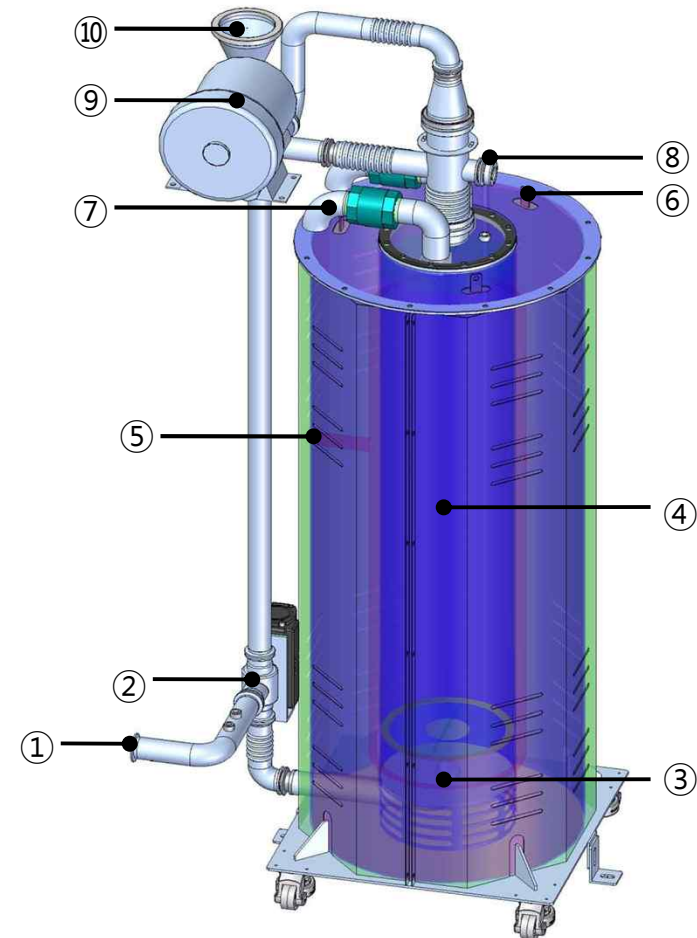
Global leader in air pollution solution



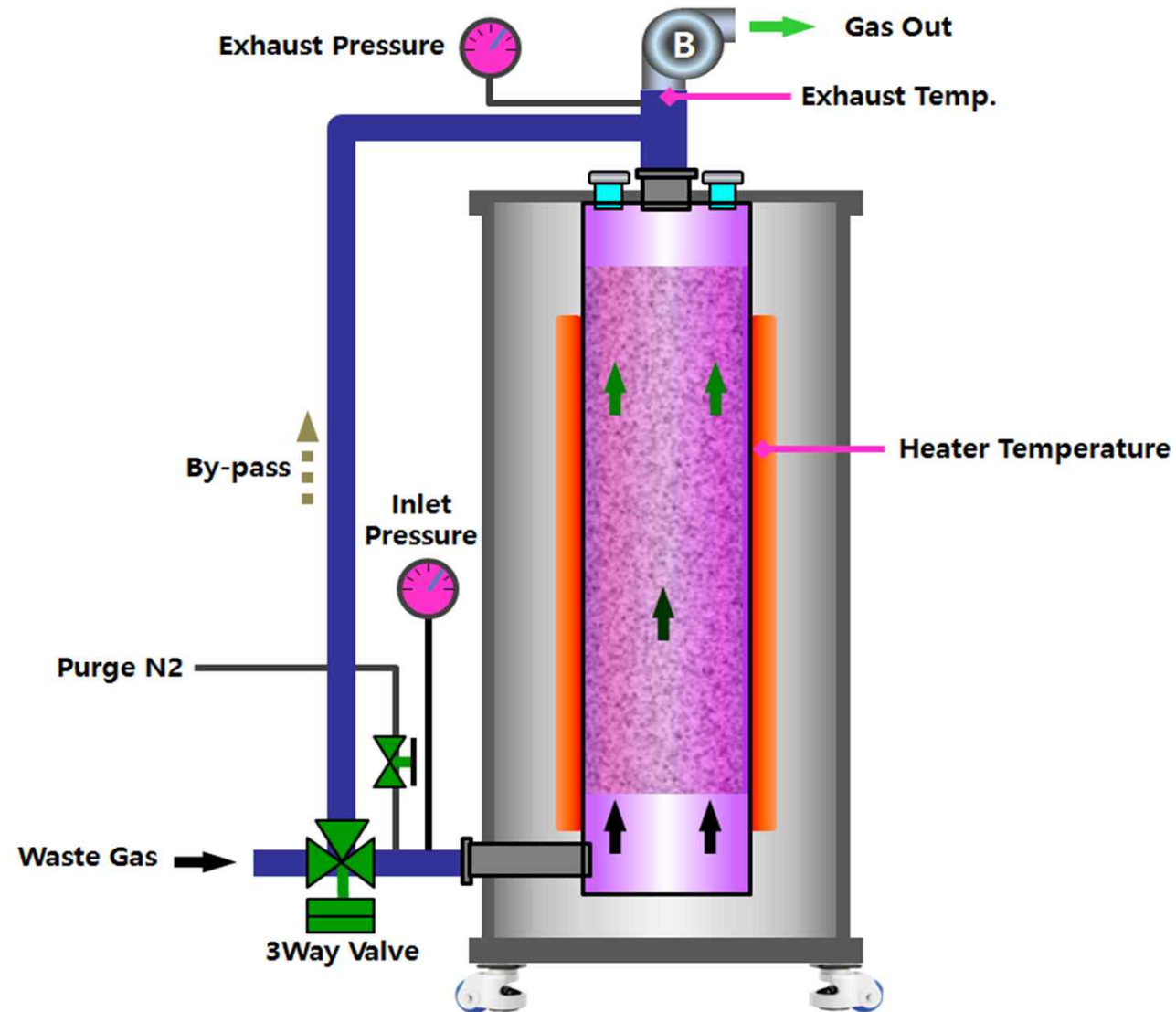
1. Specification

일반 사양		
Type		Hybrid Hot Dry
Capacity	Adsorbent Volume	50ℓ
	Max. Gas Flow	100slm(Include N2)
Dimension(mm)		750×970×1750
Weight		400kg

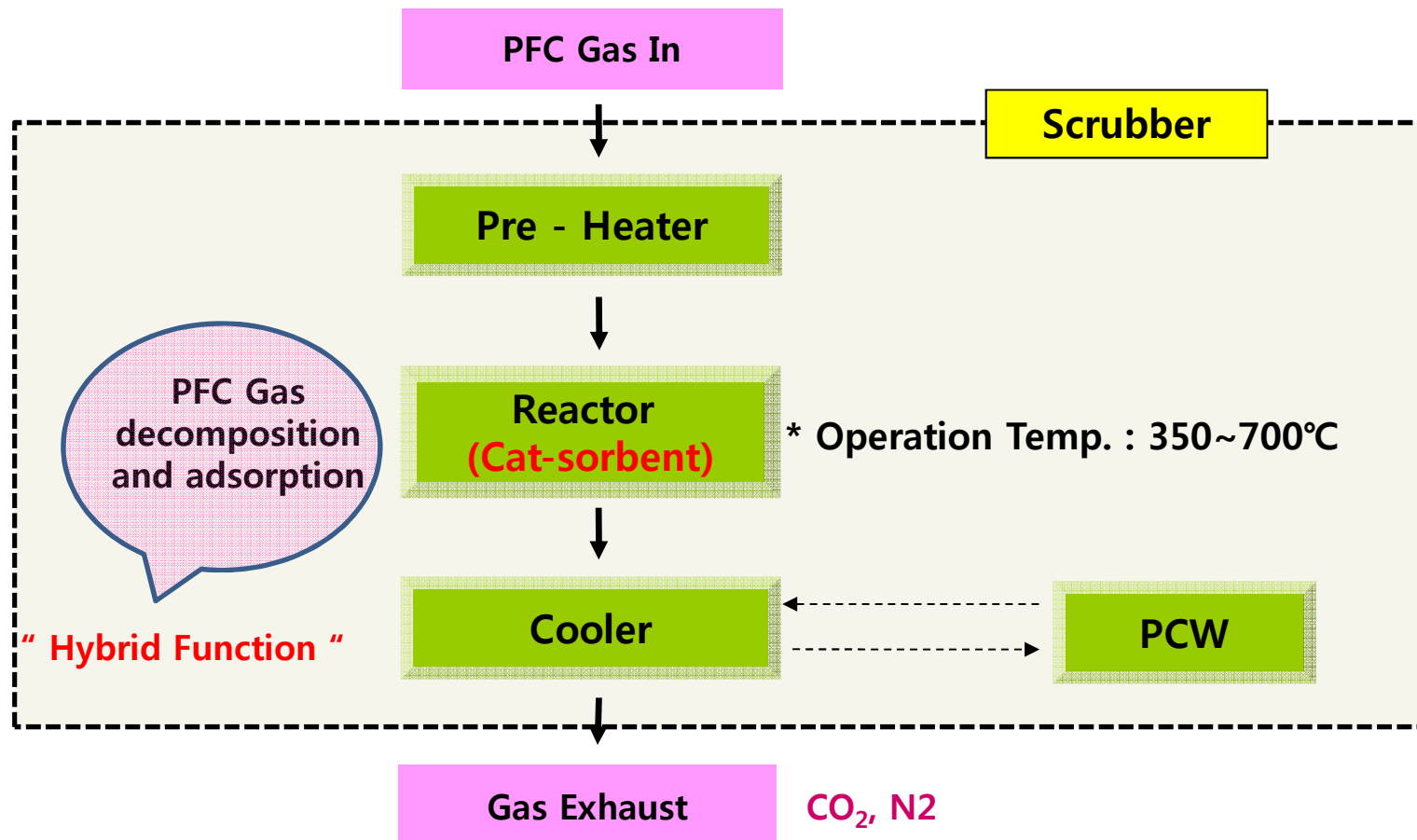
Component		Function
1	Waste Gas Inlet	Waste gas inflow
2	3-Way Valve	By-pass
3	Preheating Zone	Gas Preheating
4	Cat-sorbent	Treat PFC gases
5	Heater TC	Control heater temperature
6	Heater Connector	Chamber heater connection
7	Cooling Air Intake	Gas cooling
8	Detection Window	Detection Adsorbent Color Monitoring
9	Ring Blower	Gas Exhaust Suction
10	Exhaust	Gas exhaust



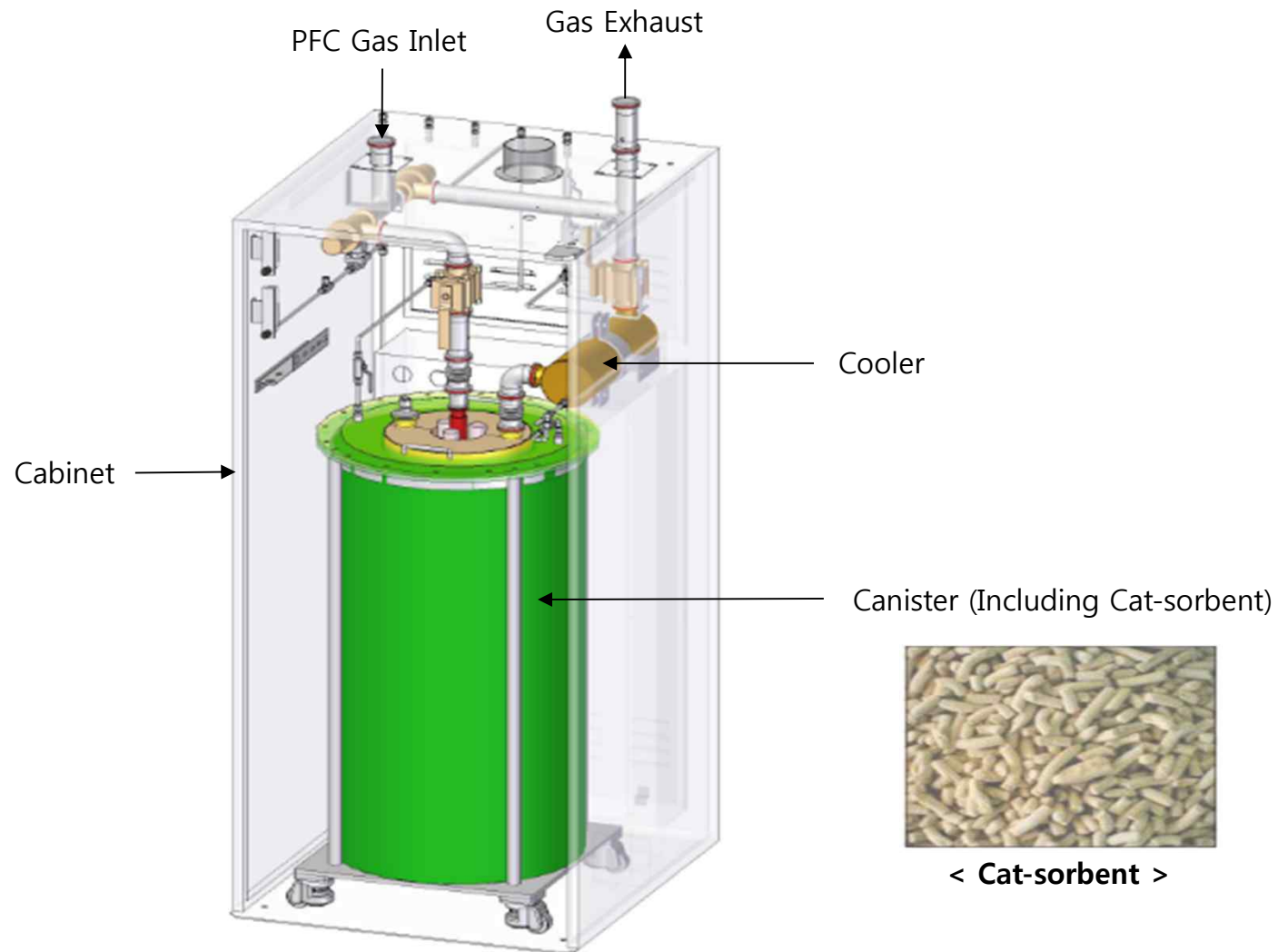
2. Process Flow Diagram



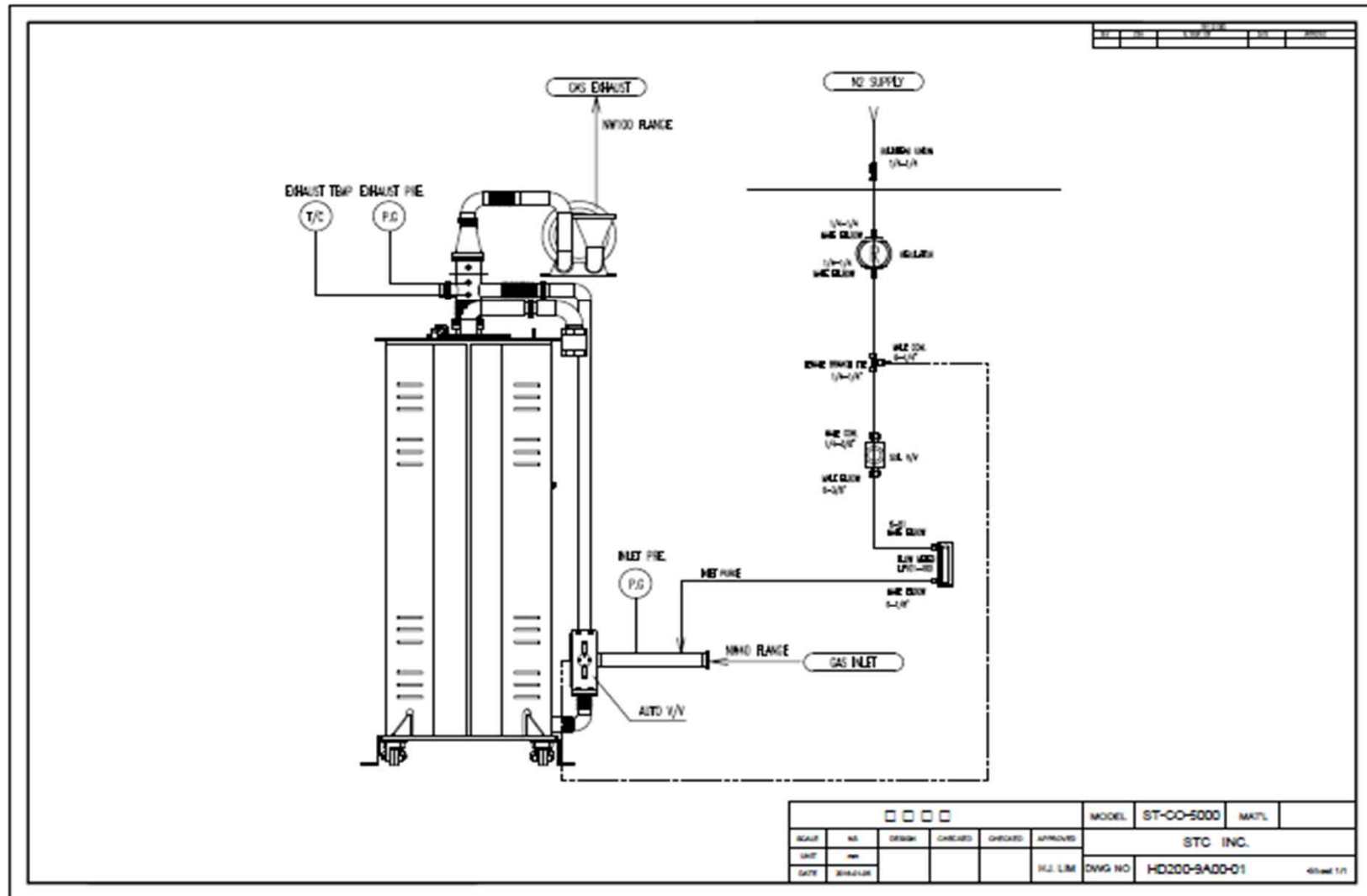
3. Process Scheme



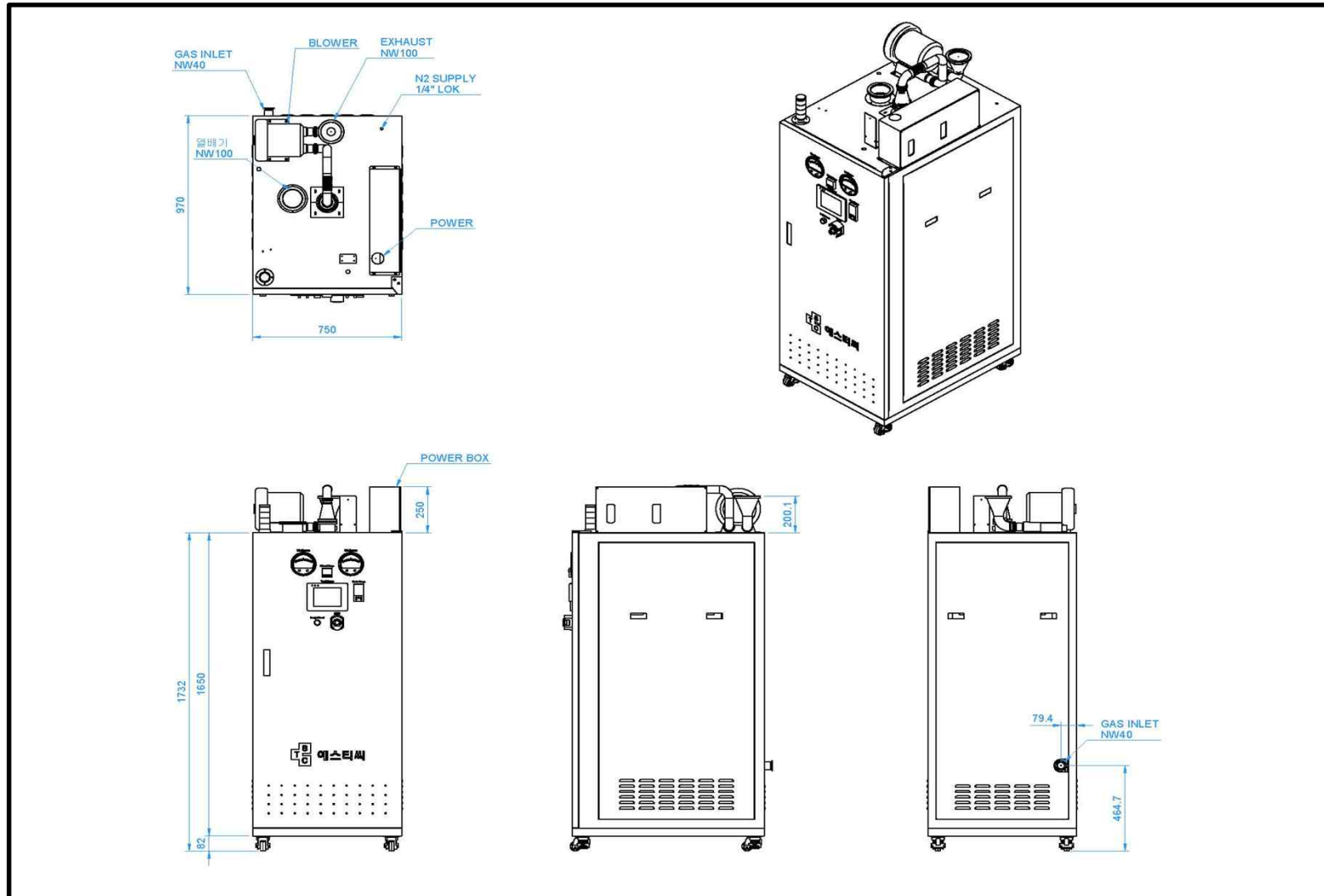
4. Mechanical construction



5. Scrubber drawing - 1 (P&ID)



6. Scrubber drawing -2 (Cabinet)



7. Introduction of Cat-sorbent

▷ Physical data of cat-sorbent

Items		Units	Analytical Methods	QC Standard	Value
Type		-	-	pellet	
Moisture Content		wt.%	Moisture analyzer	Below 5	2.8
Diameter (Mean)		mm	-	Below 3	2.9
Bulk Density		g/ml	-	Below 0.8	0.8
PFCs Removal Performance	CF ₄	%	FT-IR Analyzer	Above 95	≥95
	SF ₆	%		Above 95	≥95

▷ Gas 제거율

Gases	Reaction	Removal Efficiency	Operating temp
CF ₄	CF ₄ + (PFC 촉매) → MF ₃ + CO ₂	≥98%	650~700℃
C ₄ F ₆	C ₂ F ₆ + (PFC 촉매) → MF ₃ + CO ₂	≥ 98%	550~650℃
SF ₆	SF ₆ + (PFC 촉매) → MF ₃ + MS	≥ 98%	650~700℃
NF ₃	NF ₃ + (PFC 촉매) → MF ₃ + NO _x	≥ 98%	350~450℃

8. Utility Specification

Utility	Specification	Maximum Requirement	Average Consumption	Connection	etc
Power	A/C 380V, 50/60Hz, 3Phase Breaker: 40A	18KW	3~4KW	16mm ² -3Wires	Include neutral wire
N2	4 ~ 7kg/cm ²	100 SLM	0 SLM	1/4" Tube	Purge
Gas Exhaust	-50mmH2O ~ -100mmH2O	2m ³ /min	1m ³ /min	NW100 Flange	
Cabinet Exhaust	-20mmH2O ~ -50mmH2O	1m ³ /min	1m ³ /min	NW100 Flange	

감사합니다