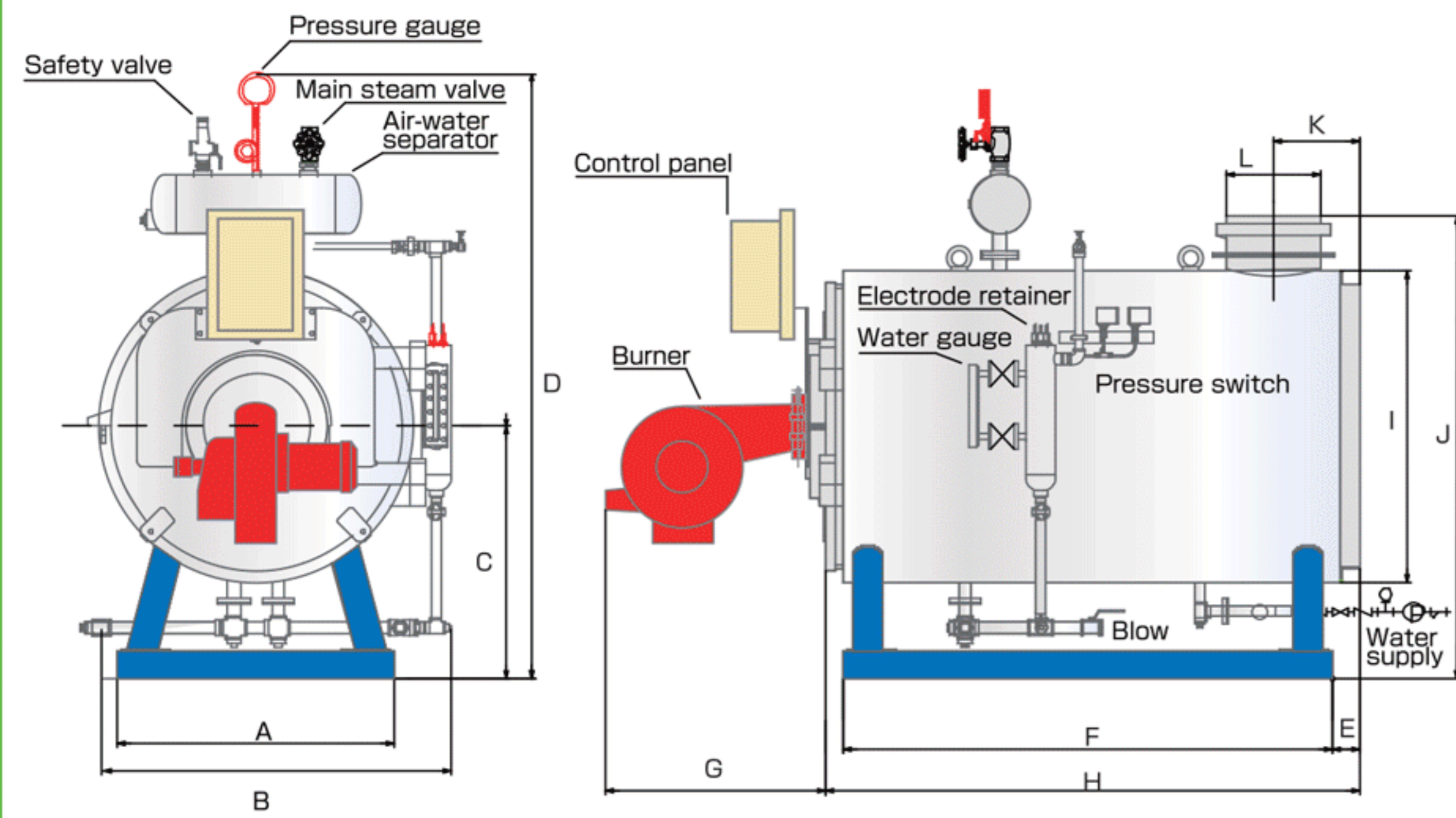


Greatest Features of NB Boilers

The front door can be opened and closed while the burner is still installed, allowing for easy maintenance of the interior, maintaining of efficiency and achievement of superior durability.

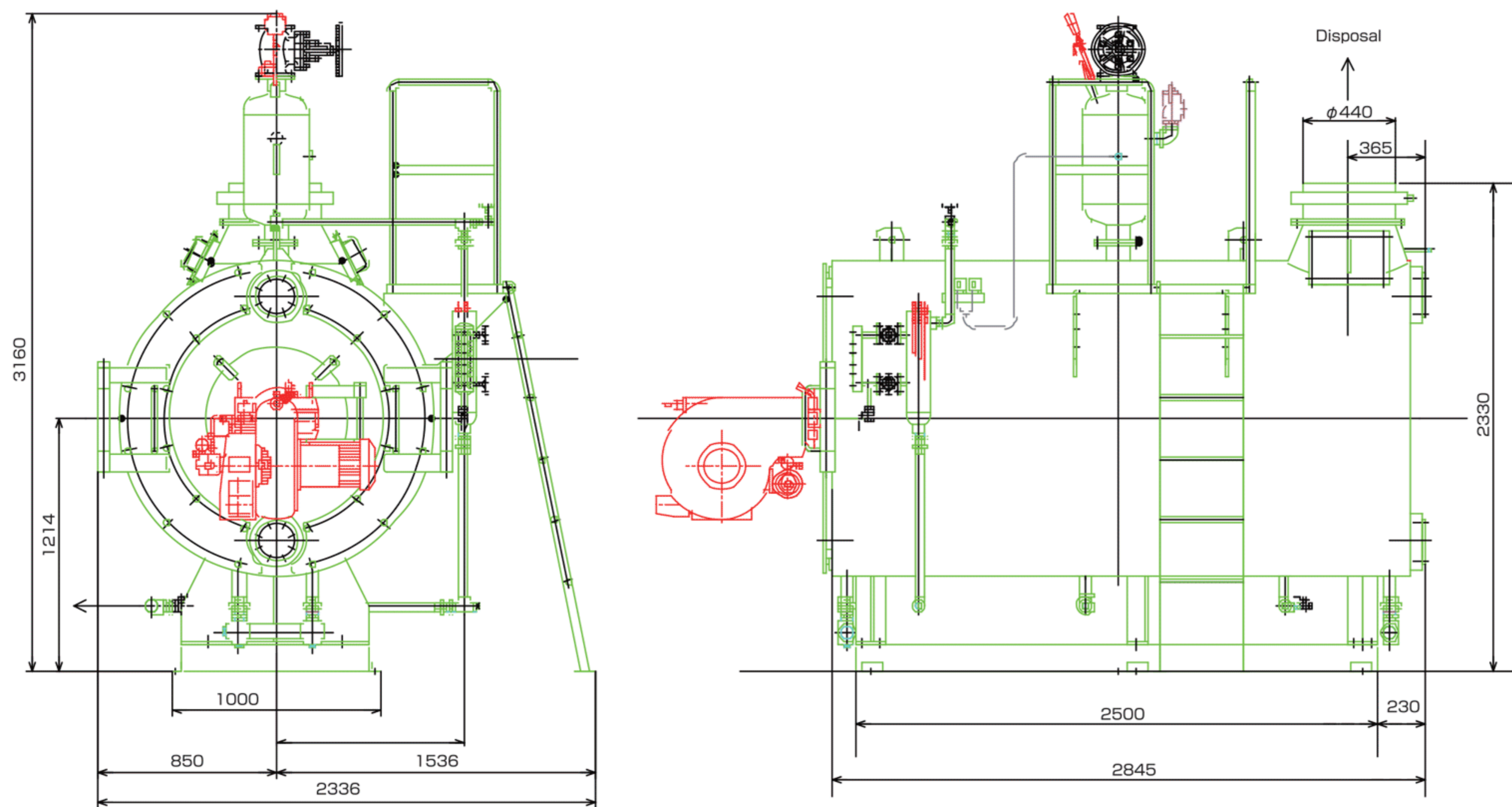
Dimensional drawings/dimensional tables for 650 -2000



Format NB		650	800	1000	1500	2000
A	Support base width	1,040	1,040	1,040	1,040	1,040
B	Total width	1,380	1,380	1,380	1,380	1,380
C	Burner height	950	950	950	950	950
D	Total height	2,280	2,280	2,280	2,280	2,280
E	Support base position	105	105	105	105	105
F	Support base length	1,450	1,450	1,840	1,840	1,840
G	Burner Length	770	770	766	853	853
H	Main unit length	1,635	1,635	2,010	2,010	2,010
I	Main unit outer diameter	1,180	1,180	1,180	1,180	1,180
J	Exhaust port height	1,750	1,750	1,750	1,750	1,750
K	Exhaust port location	255	255	325	325	325
L	Exhaust port outer diameter	φ255	φ255	φ350	φ350	φ400

※Please check the economizer dimensions separately.

Dimensional drawings and dimensional tables for 2400-5000 *PID control has different burners.



Manufacture and sales Boiler manufacturing licensed factory approved by the Ministry of Health, Labour and Welfare
Member of Japan Small-Scale Once-through Boiler Association (Public Interest Incorporated Foundation)
Member of Japan Boiler Association (General incorporated association)

NK Nihon Kikan Co., Ltd

2513-1 Ishibuchi, Oaza-Suehiro, Usuki City, Oita 875-0022
TEL : 0972-63-8848 FAX : 0972-63-8849
E-mail : info@nihon-kikan.com
URL : https://nihon-kikan.com
Tokyo sales office TEL : 048-229-0858
Sales office : Tokyo & Saitama

Agent

[Patented products]
Ministry of the Environment LD-Tech Fiscal Year 2021

NB BOILER

NB 650 800 1000 1500 2000 2400 3200 4000 5000



All nine NB boiler products were certified as LD-Tech products by the Ministry of the Environment in FY2021.
※The only certified boiler using recycled oil fuel.

NK Nihon Kikan Co., Ltd



[Patented products]

Ministry of the Environment LD-Tech Fiscal Year 2021

NB BOILER

Nihon-kikan **N**ext-solution
Nihon Kikan Co., Ltd. New solution fuel

Initiatives in recycled fuel

Considering it is a limited resource, is it not surprising how commonly it is disposed of as waste oil rather than fuel?

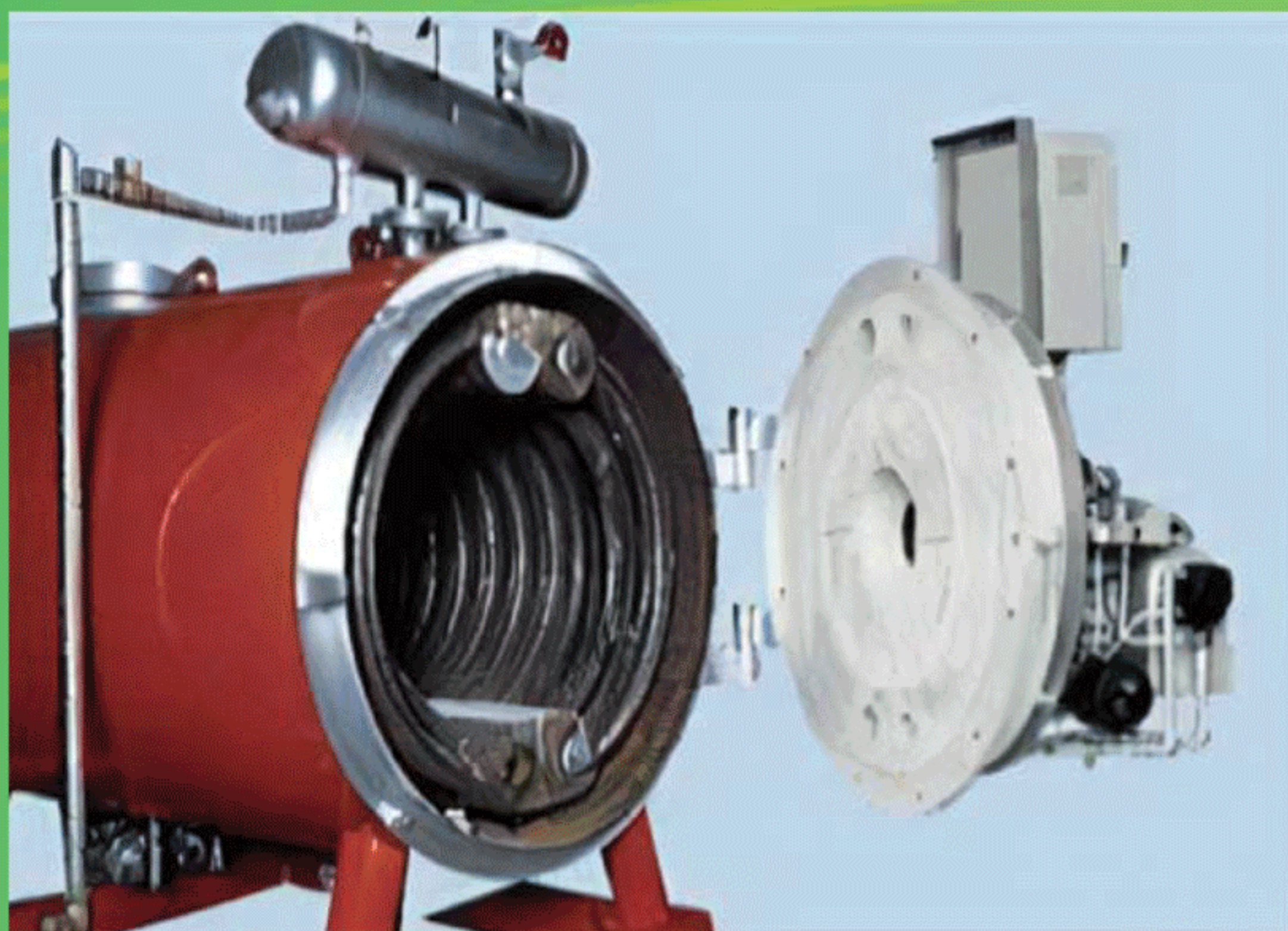
Nihon Kikan is engaged in research on recycling waste lubricating oil (engine oil, etc.), waste cooking oil, and waste scientific oil to use them for new solution fuels, as well as developing boilers that can use such recycled oils.

[Patented products]

Ministry of the Environment LD-Tech Fiscal Year 2021

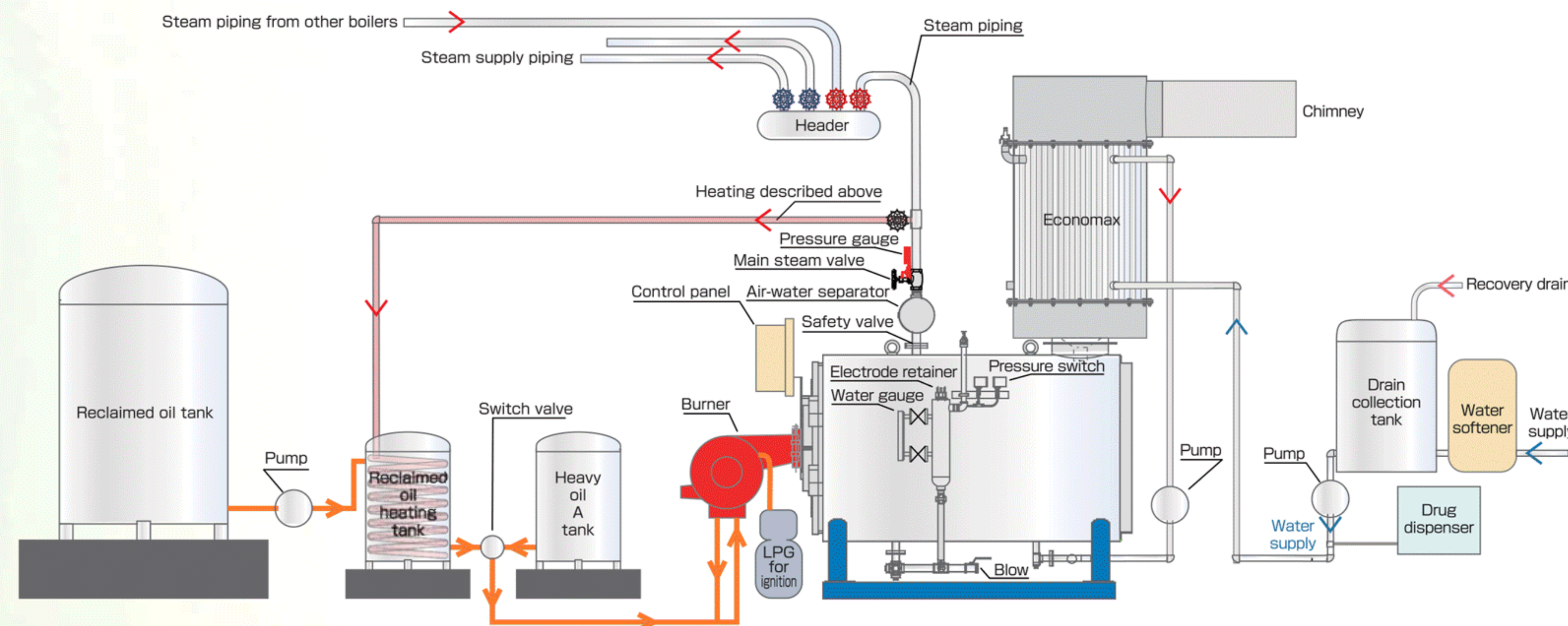
Features of NB Boilers

- Recycled oil is inexpensive so "fuel costs are greatly reduced!"
- If waste cooking oil is used, "CO2 is zero" (resource and energy calculation)
- Opening and closing horizontal boilers allow sludge and soot to be washed away, thus "maintaining efficiency!"
- Thick-walled water pipes (4mm) with the "pursuit of durability" are handmade by master craftspeople



Production environment video

Recycled oil has lower fuel costs and significantly reduced costs



NB Boiler (with economizer)

Ministry of the Environment LD-Tech FY2021 specification

Fuel		Recycled oil									
Syllabus/Format		■NB650	■NB800	■NB1000	■NB1500	■NB2000	■NB2400	■NB3200	■NB4000	■NB5000	
Laws and regulations	Structural planning	Small boiler (passed certification)									
	Acquirer qualifications	Persons who have received "special training" from the business owner or above									
	Notification of establishment	Notification of establishment (submitted to the Labor Standards Inspection Office)									
	Completion inspection	-									
	Performance test	-									
	Air Pollution Control Law	-	Note 5				Note 6				
Performance	Equivalent evaporation	kg/h	650	792	1,000	1,500	2,000	2,400	3,200	4,000	5,000
	Actual evaporation	kg/h	545	664	838	1,257	1,676	2,011	2,681	3,351	4,189
	Calorific value	kcal/h	350,400	426,900	539,000	808,500	1,078,000	1,293,600	1,724,800	2,156,000	2,695,000
	Boiler efficiency	%	98	98	98	99	99	99	99	99	99
	Max. working pressure	MPa	0.981	0.981	0.981	0.981	0.981	0.981	0.981	0.981	0.981
	Electric heating area	m ²	7.38	7.38	9.87	9.87	9.87	27.99	27.99	29.85	29.85
	Fuel consumption	ℓ/h	40.8	49.8	62.8	93.3	124.4	149.3	199.0	248.8	311.0
	Operating water consumption	ℓ	120	120	150	150	150	410	410	420	420
Product weight	kg	2,200	2,200	2,400	2,450	2,450	4,300	4,350	4,450	4,550	
	kg	2,200	2,200	2,400	2,450	2,450	4,300	4,350	4,450	4,550	
Burner	Electric motor 50Hz	kw	1.5	1.5	1.5	2.2	3.7	3.7	7.0	9.0	12.5
	Electric motor 60Hz	kw	1.5	1.5	1.5	2.2	3.7	3.7	7.0	9.0	12.5
	Pre-heater	kw	2	2	3	4	4	5	6	6	7
	Line heater	kw	5	5	5	5	6	8	8	10	10
Water supply	Water supply pump	Format	High-pressure cascade pump								
	Electric motor	kw	1.5	1.5	2.2	2.2	3.7	3.7	5.5	5.5	7.5
Total facility power 50Hz	kw	10	10	11.7	13.4	15.9	20.4	26.5	30.5	37	
Total facility power 60Hz	kw	10	10	11.7	13.4	15.9	20.4	26.5	30.5	37	
Valve diameter	Safety valve	A	25	32	32	40	40	50	50	50	65
	Main evaporation valve	A	32	40	50	65	65	80	80	100	100
	Water valve	A	25	25	25	25	32	32	40	50	50
	Blow valve	A	32	32	40	40	40	50	50	50	50
Economizer flue number	Number	45	60	93	93	129	153	204	204	294	

Remarks

1. The power supply shall be 3-phase 200 V.
2. Fuel consumption is calculated according to the lower calorific value.
3. Actual evaporation is based on a feed water temperature of 15° C and steam pressure of 0.49 MPa.
4. NB is recycled oil (by-product oil) burning.
5. These specifications are subject to change without notice in the case of revisions to the regulations or improvements. Thank you for your understanding.

1. Ministry of Health, Labor and Welfare Notification "Structural Standard for Boilers and Pressure Vessels"

2. Persons who have completed a boiler handling skills training course
3. Inspection test by the Director of the Labor Standards Inspection Office (at the time of installation)
4. Inspection test by the Director of the Labor Standards Inspection Office (once/year)
5. Submit a notification for soot and smoke generating facilities (at the time of installation)
6. Submit a notification of soot and smoke generating facility (at the time of installation) Measurement (once/year)