

# Tudor NHREC

**100%**  
**LIKE FOR LIKE**  
**REPLACEMENT**  
(water & gas  
intake & outlet)  
with NHREV



- Condensing unit ideal for new build
- Extremely low emissions and low noise

- Energy efficiency class: A
- Gross thermal efficiency up to 96%

- Output 18 to 61 kW
- Up to 350 litres storage capacity
- Continuous DHW delivery of 1196 litres/hour

# Tudor NHREC – Perfect for medium to large commercial applications

## High efficiency appliance

Utilising the condensing feature of the appliance provides a highly efficient unit.

## Low NOx emissions

Due to the design of the burner and coil, the unit has a low NOx rating.

## Unique serpentine heat exchanger

Designed to provide condensation for the flue gas products and to maximise the efficiency of the heat transfer.

## Secondary re-circulation

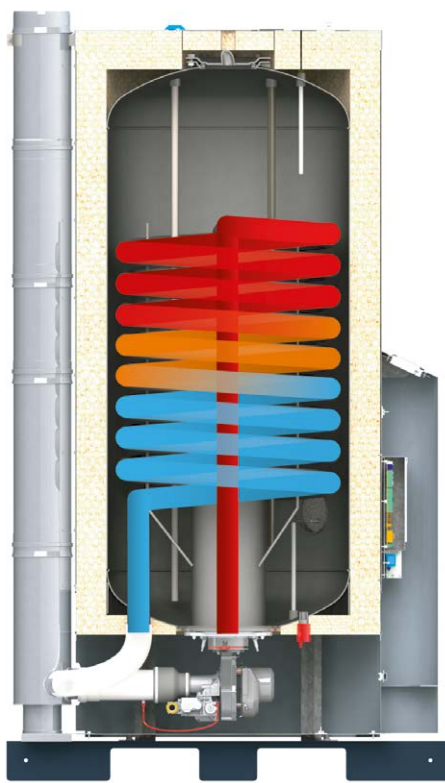
The unit has been designed to allow for secondary DHW re-circulation to reduce losses and improve efficiency

## Inspection hatch

Easy access to the base of the cylinder through the inspection hatch for yearly maintenance.

## Compact clearances

Only 500mm clearance required on top of the unit due to the construction of the magnesium anodes comprising 3 segments.



## Excellent DHW delivery

Due to the fast heating burner design the unit is able to provide a fast recovery period.

## Dual cylinder protection

Protection of the cylinder via the electrical PRO Tech Anode System and the Magnesium Anodes factory fitted as standard.

## Extensive integral controls

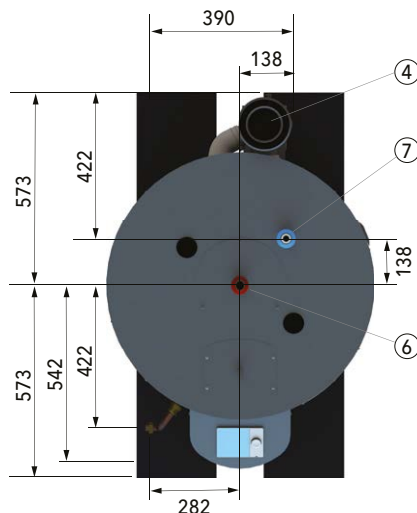
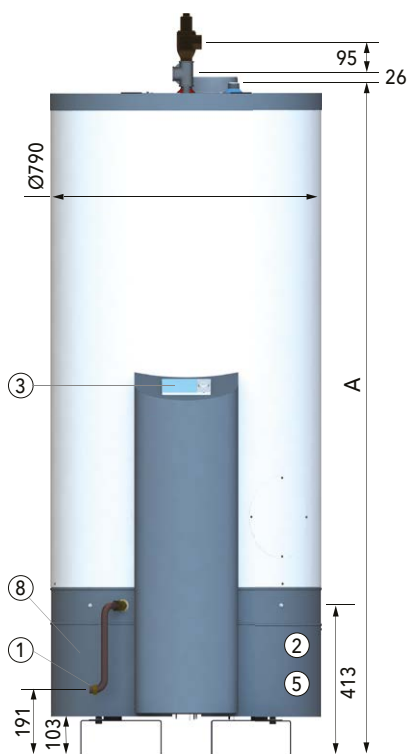
Control interface provides simple access to programming functions such as integral time control, frost protection and Anti-Legionella sterilization process.

## Easy to maintain

Designed with the contractor in mind, the burner is easily removable for yearly inspection and maintenance.

## Easy to transport

Specialist designed metal base made with the contractor in mind for ease of transport throughout site. Easily removable with just a few bolts.



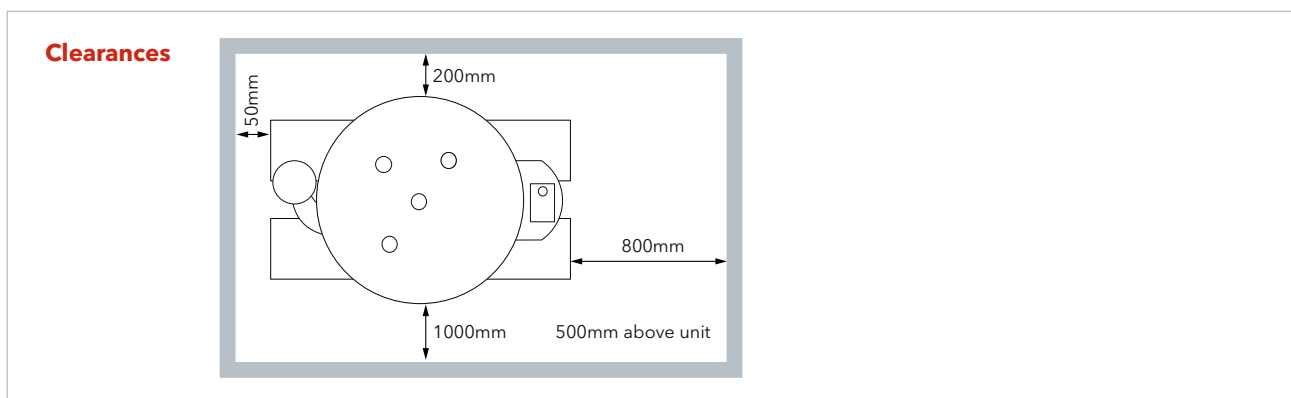
Item No.	Description
1	Gas Inlet 3/4"
2	Pre-mix combustion system
3	LCD control interface
4	Stainless steel concentric flue 100/150
5	2 magnesium anodes 3/4"
6	Hot water outlet 1"
7	Cold water outlet 1"
8	Drain 3/4"

Tudor NHREC	20	40	65
A (mm)	1396	1711	1968

# Technical data – Tudor NHREC

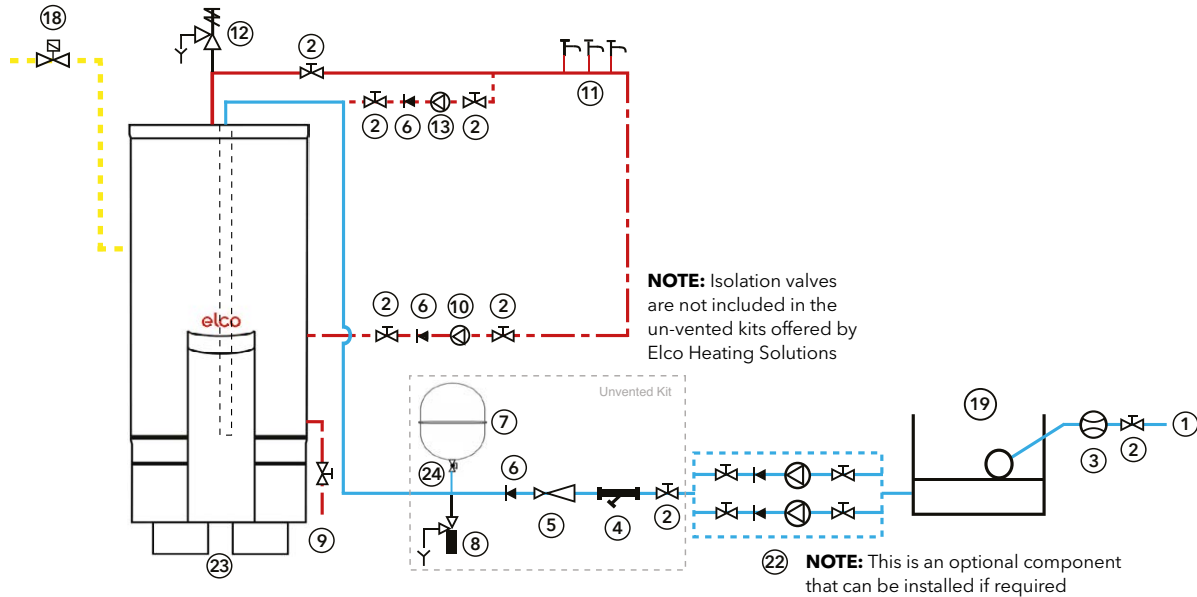
Tudor NHREC		20	40	65	
<b>Performance</b>	Storage capacity	litres	213	269	350
	Continuous delivery @ 44°C ΔT	litres/hour	362	733	1196
	First hour delivery @ 44°C ΔT	litres	575	1002	1546
	Continuous delivery @ 50°C ΔT	litres/hour	319	645	1052
	First hour delivery @ 50°C ΔT	litres	532	914	1402
	Continuous delivery @ 56°C ΔT	litres/hour	284	576	939
	First hour delivery @ 56°C ΔT	litres	497	845	1289
	Operating pressure secondary (min/max)	bar	1/7	1/7	1/7
	Erp load profile		XXL	XXL	XXL
<b>Energy</b>	Gross thermal efficiency	%	91.6	92.5	96
	Erp efficiency class		A	A	A
	Storage recovery time ΔT 44°C	minutes	36	22	18
	Storage recovery time ΔT 50°C	minutes	40	25	20
	Storage recovery time ΔT 56°C	minutes	45	28	23
	Standby losses	kW/24hr	4	4	4
<b>Natural Gas</b>	Gross input - maximum	kW	20.2	40.5	63.7
	Net input - maximum	kW	18.2	36.5	57.4
	Output to water - maximum	kW	18.55	37.51	61.2
	Gas inlet pressure - nominal	mbar	20	20	20
	Gas flow rate @ 1013mbar & 15°C	m³/h	1.9	3.72	6.2
<b>LPG</b>	LPG inlet pressure - nominal (mjin/max)	mbar	31/37	31/37	31/37
	LPG flow rate @ 1013mbar & 15°C	kg/h	1.5	2.8	4.6
<b>Flue</b>	Approximate flue gas volume (maximum output)	m³/h	32.4	64.8	104.4
	Flue gas temperature (maximum output)	°C	52	53	60
	NOx emissions (BS EN 15502)	mg/kWh	21.2	54.1	49
<b>Electrical</b>	Recommended electrical protection	Amps	5	5	5
	Full load run current	Amps	0.5	0.6	1.1
	Electrical supply	V/Hz	230/50	230/50	230/50
	Voltage tolerance Volts/Hz	%V/%Hz		+10-6/+-1	
	PROtech anode included	yes/no	yes	yes	yes
<b>Misc</b>	Sound power (Lwa) indoors	dB(A)	57	57	57
	Number of anodes		2	2	2
	Weight empty/full	kg	169/371	244/513	280/660
	Approximate shipping weight	kg	184	259	295

**Note:** Tudor NHREC can be either Natural Gas or LPG



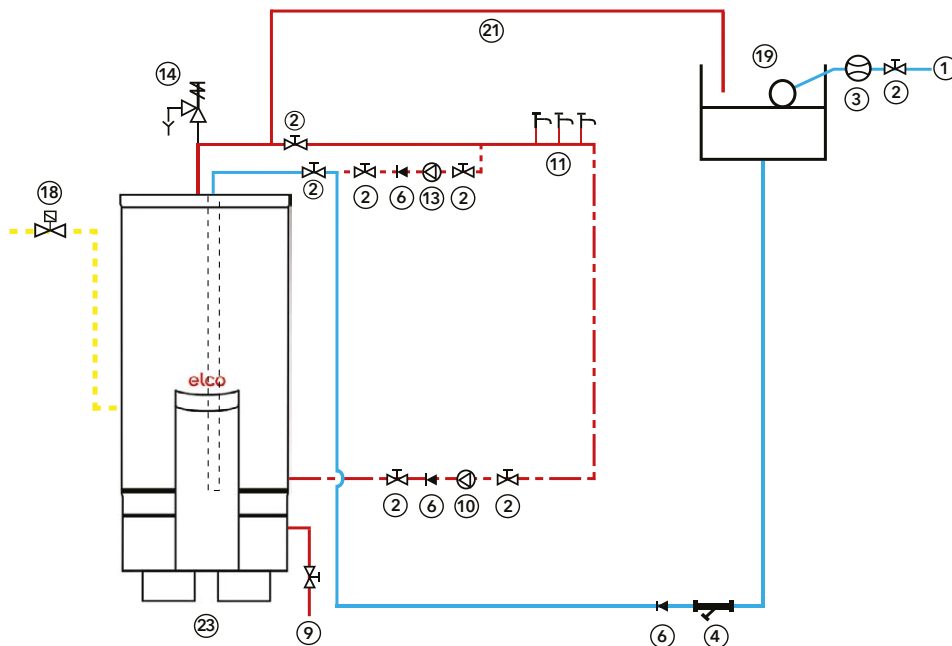
# Examples of hydraulic schemes - Tudor NHREC

## Typical NHREC unvented installation schematic



- |                            |   |  |
|----------------------------|---|--|
| 1. Cold water supply       | 9. Drain                                  | 21. Open vent pipe   |
| 2. Isolation valve         | 10. DHW secondary re-circulation pump     | 22. Cold water booster pump set<br>This is an optional component that can be installed if required |
| 3. Water meter             | 11. Hot water outlets                     | 23. NHREC water heater   |
| 4. Strainer                | 12. Temperature and pressure relief valve | 24. Lockshield valve   |
| 5. Pressure limiting valve | 13. De-stratification pump                |  |
| 6. Non-return valve        | 14. Pressure relief valve                 |  |
| 7. Expansion vessel        | 15. Pressure relief valve                 |  |
| 8. Expansion relief valve  | 16. Gas shut-off valve                    |  |
|                            | 17. Cold water storage tank               |  |

## Typical NHREC open vented installation schematic



These illustrations are designed to provide general guidance on the hydraulic scheme and should not be considered as an installation drawing.