

Unvented Water Heaters

The Proteus water heaters provide large quantities of stored water at balanced pressure making them suitable for supplying sports clubs, hotels, hospitals, restaurants, schools, nursing homes and leisure centres.

Unvented water heaters are connected directly onto the incoming cold water mains or pressure set, therefore they can be located virtually anywhere on site because they are not dependent on feed and expansion tanks.

Benefits of unvented system

- » Choice of location within the building(s).
- » Requires less space than a vented system, ie no header tanks.
- » Provides balanced water pressure at all outlets.
- » Easy to install – less pipework.
- » Less chance of contamination as the system is sealed.

Features of PROTEUS

- » Capacities from 450 to 3000 litres.
- » Hard wearing Plastisol outer skin.
- » Non corrosive duplex stainless steel water chamber therefore no sacrificial anodes required.
- » Low loss CFC/HCFC free foam insulation. Ozone depletion factor zero.
- » Expansion kit supplied.
- » Secondary return fitted as standard.
- » Indirect and direct units available.
- » Stainless steel primary coil on indirect units.
- » Choice of electrical loadings available.
- » Working pressures of up to 6 bar g

Direct and Indirect 450 to 900 litre systems available from stock. Larger sizes are made to order

Recovery Chart

Approximate time in minutes to heat water

Capacity Litres	Maximum Loading in kW possible									Coil Rating kW	Via Indirect Coil
	3	6	9	12	18	24	36	48	54		
Approximate time in minutes to heat water through 55°C											
576	288	192	144	96	72	48	36	54*	64		
895	448	298	224	149	112	75	56	54*	99		
1599	799	533	400	266	200	133	100	89	54*	178	
2238	1119	746	560	373	280	187	140	124	54*	249	
3198	1599	1066	799	533	400	266	200	178	54*	355	



Loose fittings

Expansion vessel + relief valve.
Pressure reducing valve + check valve.
Temp & Press relief valve.

Sizing

Typical Demand Requirements

Maximum Demand Rates(Litres/hour)

Installation	Private Hand Basin	Public Hand Basin	Public Hand Basin	Shower*	Bath	Slop Sink	Bar Sink	Kitchen Sink	Pantry Sink	Laboratory Sink	Load Factor
Hospital	10	15	70	70	50	50		80			0.7
Hotel and Residential Hall											
Day School	5	20	180	180		40		80			0.8
Sports Centre											
Restaurant	5	25				100	100	140	120		1.0
University											
Offices	5	10				40		40		40	1.0
Factory											

* Where a shower and bath are combined in a single cubicle it is only necessary to use one demand rate and the total number of cubicles

Sizing Example

45 Bedroom Hotel with restaurant attached

45 Combined Bath/Shower	50 x 45 = 2250	= 3400 Litres
45 Private Hand Basins	10 x 45 = 450	per Hour
12 Public Hand Basins	5 x 12 = 60	= 0.5
2 Kitchen Sinks	80 x 2 = 160	
1 Restaurant Slop Sink	100 x 1 = 100	
2 Restaurant Kitchen Sinks	140 x 2 = 280	= 3400 x 0.5
2 Washing Machines	50 x 2 = 100	= 1700 Litres

4 Room Student accommodation

4 Combined Baths/Showers	4 x 50 = 200	Total	= 560 Litres
4 Private Hand Basins	4 x 10 = 40		per Hour
4 Sinks	4 x 80 = 320	Load Factor	= 0.5
		Required	
		Storage	= 560 x 0.5
			= 280 Litres

Product code (Indirect Coil Fitted)	Product code (Electric Only)	Height (mm)	Diameter (mm)	Outlet (Inch Bsp)	Inlet&Return (Inch Bsp)	Volume litres	Coil rating (Indirect models)	Weight Dry (Kg)	Weight full (kg)	Heat Loss in 24hrs (Kw)
PROTEUS/IND/45/*+*	PROTEUS/45/*+*	1870	690	1	1	450	54	160	610	1.75
PROTEUS/IND/55/*+*	PROTEUS/55/*+*	2230	690	1	1	550	54	195	745	2.1
PROTEUS/IND/70/*+*	PROTEUS/70/*+*	2320	750	1	1	700	54	240	940	2.53
PROTEUS/IND/90/*+*	PROTEUS/90/*+*	1750	1080	1 ½	1 ½	900	54	278	1178	2.53
PROTEUS/IND/125/*+*	PROTEUS/125/*+*	2300	1080	1 ½	1 ½	1250	54	327	1577	3.3
PROTEUS/IND/150/*+*	PROTEUS/150/*+*	2700	1080	1 ½	1 ½	1500	54	355	1855	3.86
PROTEUS/IND/175/*+*	PROTEUS/175/*+*	2550	1180	2	2	1750	54	413	2163	4.1
PROTEUS/IND/200/*+*	PROTEUS/200/*+*	2870	1180	2	2	2000	54	466	2466	4.6
PROTEUS/IND/250/*+*	PROTEUS/250/*+*	2600	1380	2	2	2500	54	536	3036	5.1
PROTEUS/IND/300/*+*	PROTEUS/300/*+*	3040	1380	2	2	3000	54	630	3630	5.8

Example: **PROTEUS/IND/45/6+6** = 450 ltr Indirect Coil cylinder with 2 x 6kw Heaters OR **PROTEUS/45/6+6+6** = 450 ltr cylinder with 3 x 6kw Heaters
Heaters available : 3kw,6kw,9kw,12kw & 18kw

Also Available to Order

PROTEUS Solar Water Heaters

The proteus range has been enhanced by the addition of dedicated solar vessels to take advantage of renewable energy from the sun.

The cylinders are available as single coil preheat, single coil with direct electric heating, or Twin coil units for use with renewable and Traditional primary heating sources. The Proteus solar range benefits from the use of high efficiency corrugated coil technology and have "clear skies" recognition (sc2097)

Features of Proteus Solar

- Capacities from 450 to 3000 litres
- Single coil solar preheat vessels.
- Single coil plus Direct Electric heating.
- Twin coil.
- High efficiency corrugated coils.

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