## Vessel Sizing Guide

The expansion vessel kit required should be sized to the system's capacity or the rating of boiler used. The following guide can be used to size vessels up to 35 litres:

Vessel Kit	Static Head (Metres)	System Volume (Litres)	BTU	кW
5 Litre	5	87	30,366	8.9
	10	69	22,559	7.18
8 Litre	5	139	45,024	14.33
	10	111	36,133	11.50
12 Litre	5	208	67,804	21.58
	10	167	54,199	17.25
18 Litre	5	313	102,115	32.50
	10	250	81,157	25.83
	15	188	,60,483	19.25
24 Litre	5	435	135,321	43.07
	10	348	105,331	34.48
	15	261	81,356	25.90
35 Litre	5	696	197,925	63.00
	10	557	158,020	50.30
	15	417	117,716	37.50

\* NB - All values shown are approximate

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# Tesla (Uк) Ltd



3 bar Valve Housing

Gauge



Filling Loop with isolation and double check valve

Nut & Olive

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# Tesla (UK) Ltd

# Sealed System Kit INFORMATION LEAFLET



The Teslafit Sealed System Kit utilises proven technology in a modular, easy to use form. It is designed to make initial installation of a sealed system or conventional vented heating system to a sealed heating system, as easy as posibble.

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### **Teslafit Sealed System Kit**

#### Description

The Tesla sealed system kit contains all the basic control functions needed for a sealed system when an expansion vessel and mounting bracket are used. A filling loop (consisting of a double check valve/isolator, a flexible hose and a shut-off valve) a pressure gauge to show system pressure; and a 3 bar pressure relief valve, which is part of a connection manifold.

#### **Working Parameters and Specifications**

Maxiumum pressure:	3bar			
Maximum operating temperature, vessel:	99°C			
Maximum operating temperature,				
check valve and hose:	65°C			

#### Installation

#### 1.1

Select where the Tesla sealed system kit will be fitted, ideally it should be fitted at a neutral point in the system.



#### 1.2

Mount the vessel to the wall using the bracket (sold separately) then following the instructions supplied with the expansion vessel, adjust the pressure in the vessel to 0.2 bar or 0.3 bar above the static pressure



#### 1.3

Connect the 3/4" union connection on the manifold to the expansion vessel.

NOTE: The system can be installed in any orientation as long as the seat of the pressure relief valve is drained and access can be gained to the charging part of the vessel.

#### 1.4

Connect the pressure relief drain 1/2'' FBSP connection so it takes any discharged water to a safe outlet via a tundish.

#### 1.5

Connect the single isolator on the filling loop to the spigot on the manifold.

#### 1.6

Connect the 15mm compression outlet connection of the manifold to the heating system.

#### 1.7

Connect the presure gauge to the  $1/4^{\prime\prime}$  FBSP connection on the manifold

#### 1.8

Fit the 1/4" turn ball valve (incorporates double check valve) to the mains supply and using the flexible hose connect the mains to the single isolator.

#### 1.9

Turn the water supply on and slowly open the quarter turn valve until the system starts to fill. Check for leaks and if none are found, continue to fill the system up, until 0.2bar below the charge pressure of the expansion vessel. Check that no air is trapped in the system and if not, disconnect the hose.

#### 2.0

The system can now be commisioned.



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