

# **NRG Zone**

Central system design manifold for installation of Heat Pumps, Gas & Oil Boilers, Biomass, Solid Fuel & Multi-Boiler Applications.



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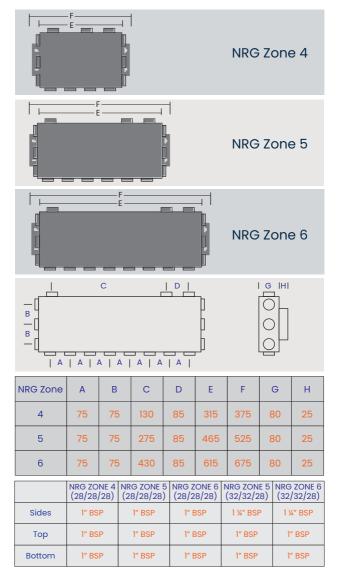


NRG Zone complies with all regulations, manufacturer's guidelines & established good practices in the industry.

#### **Technical Data**



## ZONE



Job Specific & Custom Sizes Available

### Safe & Effective Hybrid Interlinking

### NRG Zone removes all the complexity from designing and installing hybrid systems

NRG Zone is a prefabricated hydronic system module linking boilers and zones in an efficient, trouble-free, organised system. Using neat consecutive zone flow and return connections, an integrated air elimination mechanism, ancillary connection ports, and multiple boiler connection options.

NRG Zone works with sealed or open systems and fully pumped or gravity-fed circuits, allowing boilers to circulate without obstruction and promoting perfect heat distribution. In addition, high or condensing temperature appliances can interconnect with optimal efficiency. Therefore, even complex hybrid systems could have condensing and biomass (solid fuel) boilers working flawlessly together.

NRG Zone includes ports for sensors, filling, expansion and cold feed connections, reducing installation time and cost. Also, the fully open bypass between each chamber neutralises the various pump's activity from each other, allowing zone or boiler circulators to pump away from the manifold's neutral point, as recommended by manufacturers for optimal performance.

NRG Zone Manifold's 'no-moving-parts' design is a solution for even the most complex system layouts.



#### **How it Works**

Three strategically patented positioned chambers within the NRGZone are suitable for Open or Sealed, Low and High Temperature systems applications.



#### **NRG Zone Operation**

The Flow Chamber collects the hot appliance flow inputs, and from there, the various zone pumps circulate out, allowing each of them equal access to the hottest water in the system. Other boilers can connect to the opposite side F&R connections as each section has enough cross-sectional area to handle the system flow within the manifold's design limitations.

The Bypass Chamber is used with non-condensing boilers requiring a higher temperature return to prevent corrosive damage from flue gas condensate to their combustion chambers. Therefore, the different return temperatures can easily cater to hybrid systems with high and low-temperature appliances.

The Return Chamber isolates the coolest returning system water after it has delivered its heat energy to the zones. This cooler system water is the optimal temperature required to enhance the efficiency of condensing boilers or heat pumps.

### **Built-in Air Purge**

The water velocity slows as it passes through the NRG Zone as there is a significant increase in inner area and surface compared to the incoming pipe; air accumulates, forming bubbles that break free and rise upwards and out through the vent.

### What is NRG Zone?

NRG Zone is a prefabricated system manifold that revolutionises central heating installations by reducing design time with easy-to-visualise concepts and easier, more reliable installations.

#### Safe and Reliable Systems that Work - First Time, Every Time!

NRG Zone allows installers to reduce costly on-site pipe fabrication and equipment assembly with a pre-structurerd layout for single or multiple boilers and zones to suit almost any application or installer preference.

#### **NRG Zone Features:**



Optimise system conditions for heat pumps, boilers, and biomass appliances.



NRG Zone saves space, complexity and installation time with built-in established good system design principles.



Pre-insulated, with built-in dynamic full-system bypass, integrated system neutral point and air separation.



Simplifies system commissioning and zone balancing by adjusting the circulator's head setting against zone flow rates.



Simplify system designs with unobstructed water paths through the manifold, especially with biomass boilers or solid fuel installations.



Simplifies safe and effective interlinking of multiple boilers and hybrid heat pump systems with all other fuel types.



Design trouble-free and regulation-compliant systems faster, better, and more profitable.





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