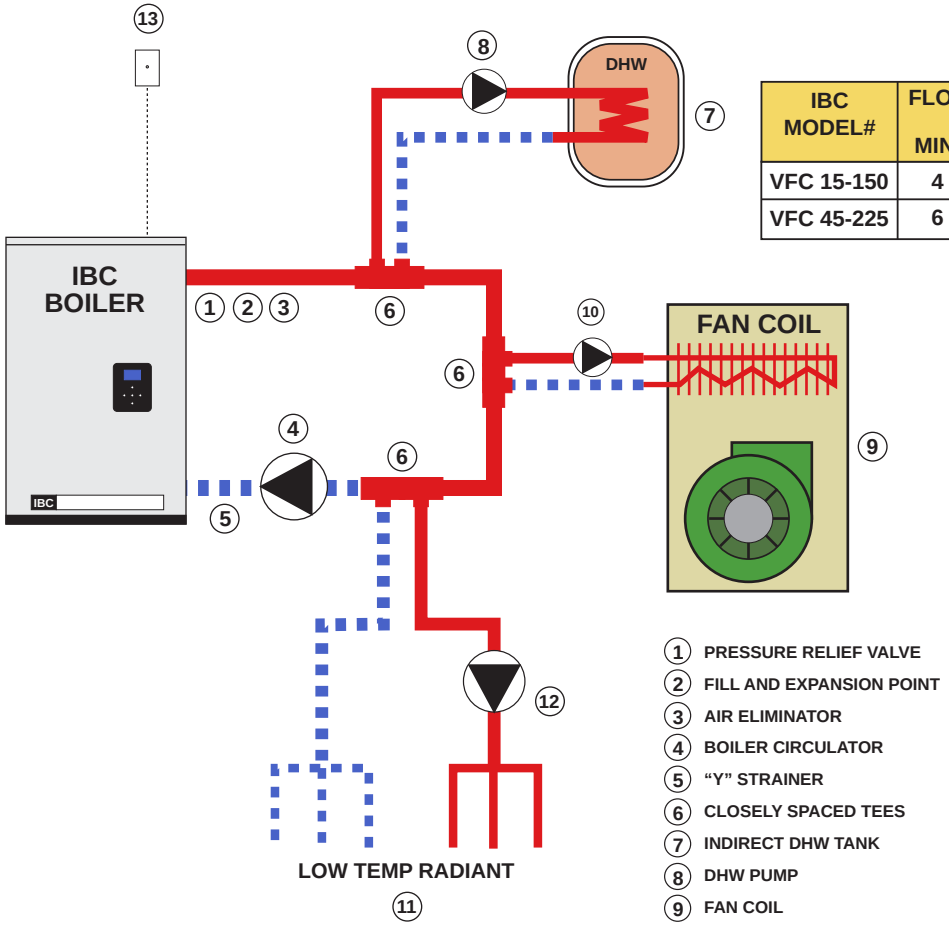
IBC Energy Saving Technologies

SINGLE BOILER APPLICATION
THREE LOAD SYSTEM

Drawing A2C
31 - 10 - 06



IBC MODEL#	FLOW RATE IN US gpm Water at 60°F MINIMUM	MAXIMUM	MINIMUM BOILER LOOP PIPE SIZE (Type L Copper)	RECOMMENDED BOILER PUMP (Or Equivalent) BOILER PUMP SIZING IS BASED ON A PRIMARY BOILER LOOP WITH MINIMAL (LESS THAN 4 FEET) HEAD LOSSES. TOTAL HEAD LOSS VS. FLOW FOR 15-150 = APPROX 6 FT. @ 12 GPM - FOR 45-225 = APPROX 16 FT. @ 20 GPM				
VFC 15-150	4 gpm	16 gpm	1 1/4"	Grundfos UP 15-58	Taco 007F	Wilo Star 16	Armstrong Astro 30	B&G NRF-22
VFC 45-225	6 gpm	25 gpm	1 1/2"	Grundfos UP 26-99	Taco 011F	Wilo Star 30	Armstrong Astro 50	B&G NRF-33

1. PRESSURE RELIEF VALVE
2. FILL AND EXPANSION POINT
3. AIR ELIMINATOR
4. BOILER CIRCULATOR
5. "Y" STRAINER
6. CLOSELY SPACED TEES
7. INDIRECT DHW TANK
8. DHW PUMP
9. FAN COIL
10. FAN COIL PUMP
11. RADIANT FLOOR SYSTEM
12. RADIANT FLOOR PUMP
13. OUTDOOR SENSOR

CONTROL NOTES:

Boiler pump must be controlled by IBC internal control switching relay.

Pump sizing suggestions depend on short boiler loop of suggested pipe size.

Outdoor sensor to be installed on a North facing wall, out of direct sunlight and away from any external heat sources such as dryer or exhaust vents.

"Call for heat" to originate from a "dry contact" for each of the loads connected. There is an option to use a tekmar 071 sensor for the domestic hot water tank if there is an appropriate temperature well available in the tank.

All pumps can be connected to and controlled by, the IBC internal control relays.

The fan coil should be fitted with a temperature sensing switch to prevent its fan from running when the coil is not hot enough.

REFERENCE DOCUMENTS:

IBC VFC 15-150 and VFC 45-225 Modulating gas boilers INSTALLATION AND OPERATING INSTRUCTIONS (VFCM 15225 Manual V2.0 – May 2006)

DRAWING T1 22-06-06, WIRING DRAWING WA2 31-07-06

CAUTION: This drawing is a simple schematic guide to a successful installation. There may be many necessary components not shown here. We require that our boilers be installed by licensed and experienced trades people who are familiar with the applicable local and national codes. System design is to be completed by an experienced hydronic designer or Engineer. It is necessary to carefully read and follow the installation instructions that come with the boiler along with the application drawing that fits your system.