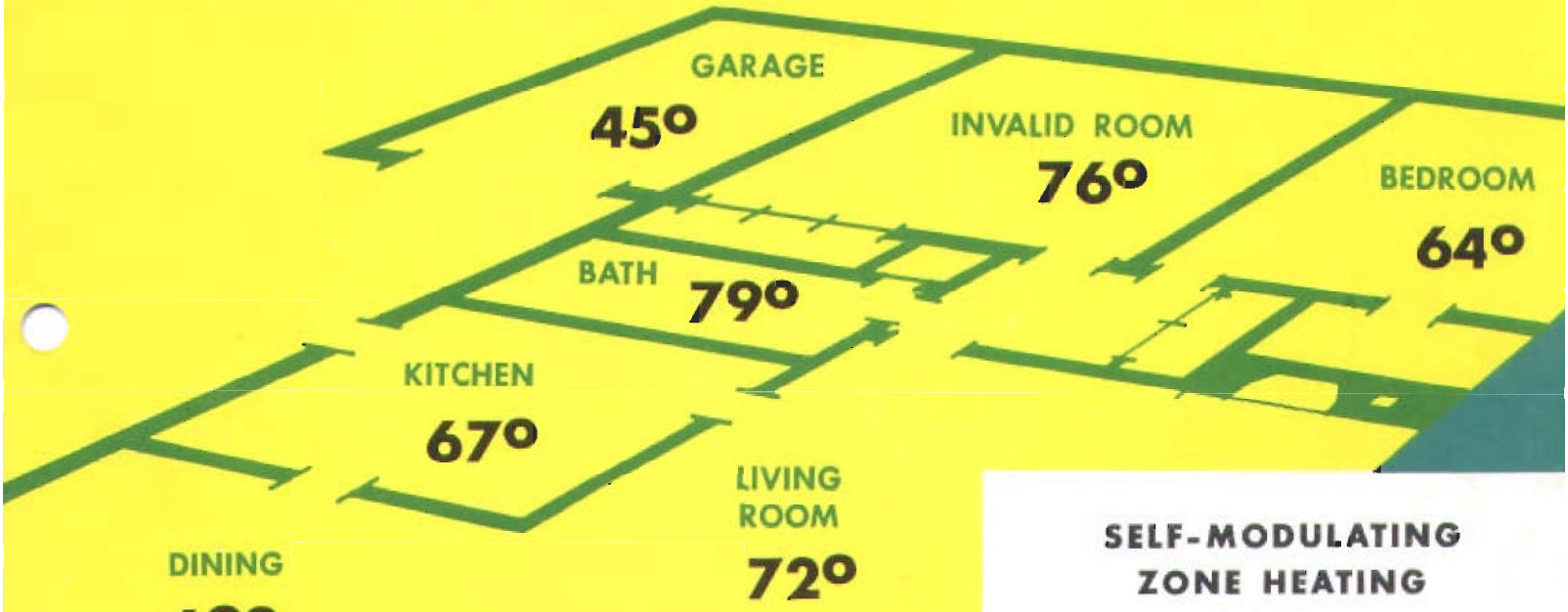
AIA-30C

SelecTemp

TRADE MARK

PRODUCT OF IRON FIREMAN

INDIVIDUAL THERMOSTATIC CONTROL OF TEMPERATURE IN EACH ROOM



For every size and type of building

- RESIDENCES
- HOTELS AND MOTELS
- APARTMENT HOUSES
- HOSPITALS
- INSTITUTIONS
- OFFICE BUILDINGS

SELF-MODULATING ZONE HEATING

The unique **SelecTemp** heating system sets an entirely new and better standard of indoor comfort. Every room in a home or building is an individual zone, with its own thermostat. Each room is heated with filtered, warm air, continuously circulated by a compact, recessed wall unit. Low pressure steam, supplied to the unit through small flexible copper tubing, provides heat and also power for the circulating fan. Ideal for new construction or modernization. **SelecTemp** systems are engineered and manufactured by Iron Fireman, famous since 1923 for fine heating equipment.

IRON FIREMAN
MANUFACTURING COMPANY
CLEVELAND 11, OHIO

AIA-30C

Now { INDIVIDUAL THERMOSTATIC CONTROL OF TEMPERATURE IN EACH ROOM

at a cost which permits its use in any building from the smallest home to the largest residential or commercial building

77°

79°

73°

Here is a new and better heating system that makes it possible for people to be *individually* and *independently* comfortable, under the some roof!

Young or old, physically active or sedentary, well or ill, people require different degrees af warmth for greatest comfort. Grandma with her knitting needs a different temperature than the young people in the recreation room. Father in his home workshop and baby in his bath each have different heating requirements. With separately controlled SelecTemp room units, every space, in every building, has its own ideal climate.

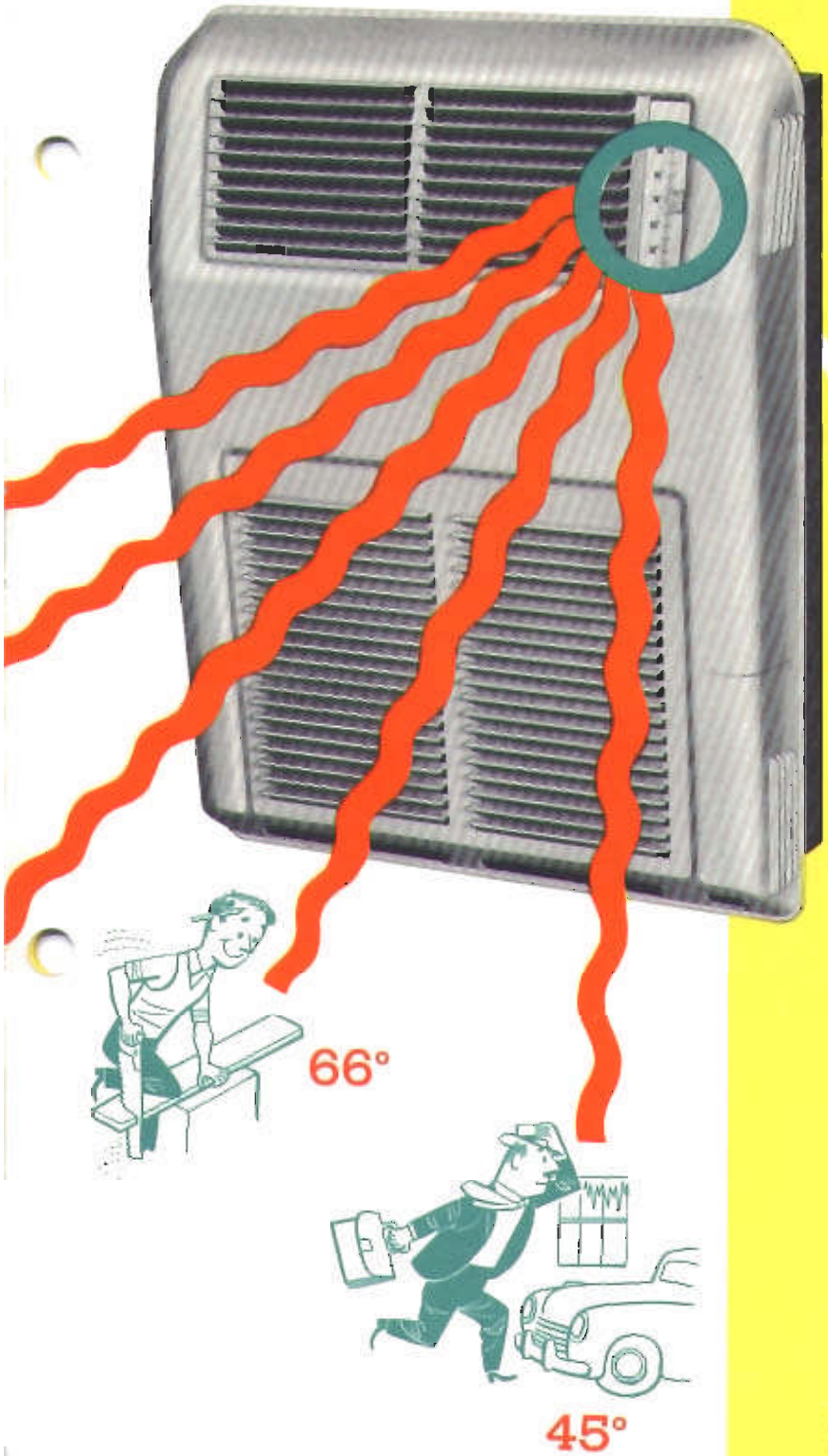
Because SelecTemp units have individual thermostats they provide extremely important advantages over usual systems of heating that have the conventional "master" thermostat to control several or all locations in the building.

The "master" thermostat used in ordinary heating systems is generolly located on an inside wall, in a center hall or other location, where it is supposed to "average" the temperature of the entire building.

If the "master" thermostat of a conventional heating system is reset for a changed heat demand at some particular location, then *all* the radiators or registers that this thermostat controls will respond proportionately. The warmth of all other places that were too hot, too cold, or just right, will be changed for either increased comfort or increased discomfort—depending upon the previous "average" thermostat setting. But a change in the thermostat setting of any SelecTemp unit will not affect units in other locations.

Individual SelecTemp thermostats in each room unit respond quickly and accurately to maintain the warmth level selected for each room or space. They automatically compensate for variations in temperature due to changes in outdoor temperatures, variations in solar heat goin from incident sunlight, and changes in velocity and direction of the wind.

A room with a fireplace burning or a kitchen where the oven is operating needs less heat from the central heating system. Temporary opening of windows or doors causes heat loss. Rooms occupied



by several people require less heat than rooms where there are only a few, because people give off heat. SelecTemp units adjust to these conditions automatically, to keep each room at the temperature for which its own thermostat is set.

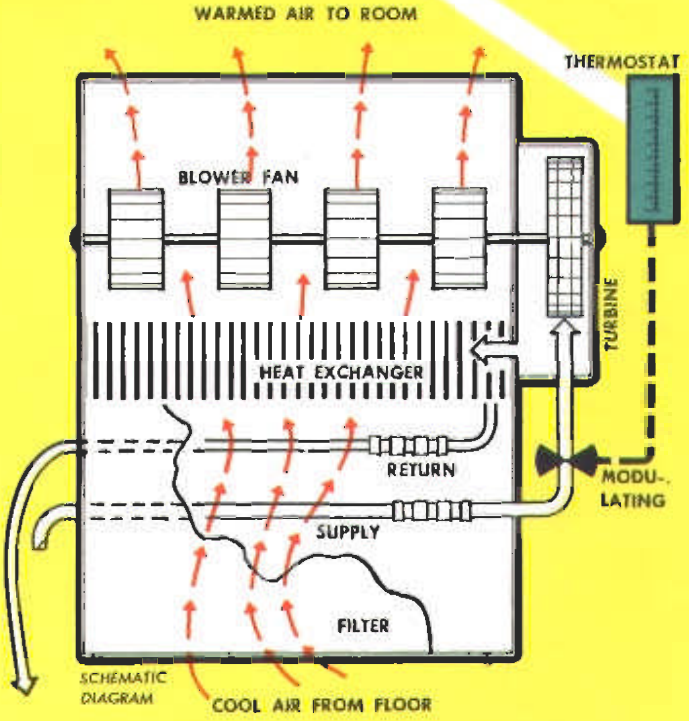
With SelecTemp, heat in rooms temporarily unused can be turned down, to as low as 40 degrees, just as easily as the electric lights are switched off when not needed. And an unheated room can be brought back quickly to comfort level simply by resetting the thermostat.

SIMPLE OPERATION OF SELECTEMP UNITS

The key to the comfort and economy of the **SelecTemp** heating system is that each separate heater unit is *individually* controlled. Each unit delivers a *continuous* flow of filtered warm air—in the *exact* amount needed to maintain the temperature selected for the location. Here is how simply the **SelecTemp** unit operates:

STEAM SUPPLY—Each **SelecTemp** heater unit receives its own supply of steam through a ¼" copper tube. When the thermostat setting of one room unit is changed it does not affect the heat output of any other unit. Boiler location has no effect on the steam supply to individual room units.

THERMOSTAT—Each **SelecTemp** unit is separately controlled by its own non-electric thermostat through a temperature range of 40° to 90°F. Warmth level is accurately maintained by the thermostat actuation of the modulating valve. This valve in turn, controls the flow of steam that drives the turbine and air-circulating blower fan, thus regulating both the fan speed and the heat output.

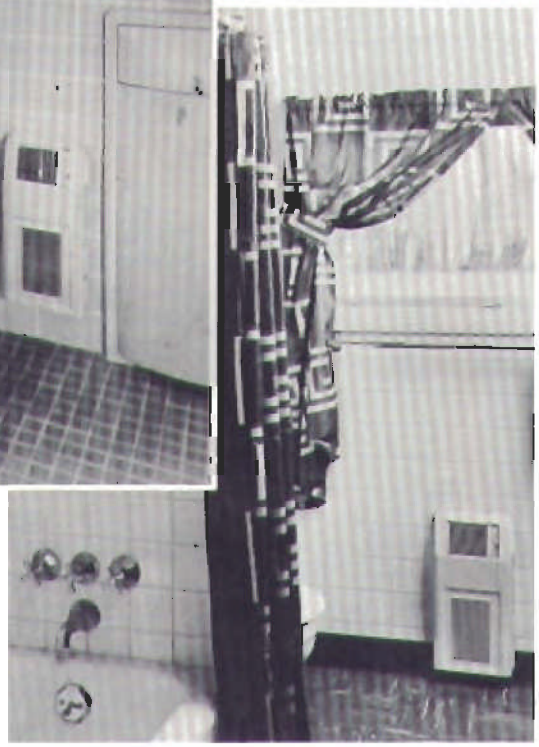


TURBINE AND BLOWER FAN—Mounted on the same stainless steel shaft that turns in self-aligning Graphitar bearings, the turbine and fan operation is smooth and quiet. No lubrication or service is required. The speed of the fan varies according to the heat output demanded by the thermostat. **SelecTemp** eliminates the usual "on-and-off" cycles that result in "cold 70°" stratification. The unit operates between slow and full speeds to supply a continuous flow of heat varying from 1/20th to maximum output capacity.

FILTERED AIR—All circulated air is filtered through a high-capacity, removable, spun glass filter. Air is drawn in through the lower louvers and travels through the filter before it is warmed by passage through the cells of the heat exchanger. It is then delivered to the turbine-driven blower fan.

HEAT EXCHANGER—Steam travels from the turbine chamber to a highly efficient automotive type copper heat exchanger that always operates at a slight vacuum. The fan delivers a gentle and continuous flow of warmed, clean air to the room through diffusing louvers near the top of the **SelecTemp** heater unit. Condensed steam from the heat exchanger returns by gravity to the boiler through a ⅛" copper tube.

SelecTemp personal



ABOVE: A bathroom with plenty of counter space in the Dale Mehring residence, Toledo, Ohio. RIGHT: An attractive bathroom in the home of Robert F. Kerhoff, La Porte, Ohio. Both these rooms have adjustable SelecTemp comfort.

ABOVE: The offices of the American Shipbuildin have individually controlled warmth from the Sel for buildings for whatever use or size can have p

ABOVE: An inviting chair in the home of V. McGee in Maumee, Ohio, where young or old can have a look at the outdoors and enjoy the gentle warmth of the SelecTemp heating unit.

FOR ANY COMFORT REQUIREMENT

BELOW: A bedroom in the home of Robert F. Kerkhoff, La Porte, Ohio. ABOVE: A unit of the De Ohio, with a detail of the bedroom shown LOWER RIGHT. Fine motels are providing SelecT guests to make them as comfortable as if they were at home.

Comfort and Economy for new or existing buil

lized warmth for work, play, or rest

mpany of Lorain, Ohio,
emp System. The rooms
nalized comfort.

IMPORTANT SelecTemp ADVANTAGES

1. Each heater unit operates independently of all others, to provide localized comfort to suit occupants of every room or zone.

2. Units respond quickly and automatically to changes in weather or indoor heat gain to maintain desired temperature.

3. Modulated heating; fans run faster or slower in response to varying heat demands. No "stop-and-start" cycles with resulting "cold 70°". Instead, controlled and continuous circulation of warmed, filtered air.

4. No fuel waste. Heat supplied to each room in exact amount needed, without overheating or underheating. Heat can be turned down to as low as 40° when a room is not in use, with quick response when heat is again wanted. Negligible heat loss from small diameter, ¼-inch copper steam supply tubing.

5. Since each room has its own filter, cleaning and redecorating are reduced to a minimum. Odors, dust or bacteria are not circulated throughout house or building.

6. Low installation cost. Use of small soft copper tubing saves time and money in new construction and modernization. SelecTemp is non-electric—no wiring required. Residential boiler can be installed anywhere, for maximum economy and convenience—in main floor utility room or basement.

7. Recessed wall units are compact and attractive in appearance, and occupy very little space. They can be finished to fit any desired color scheme.

8. Water coils in boiler provide continuous, economical year-round domestic hot water supply.

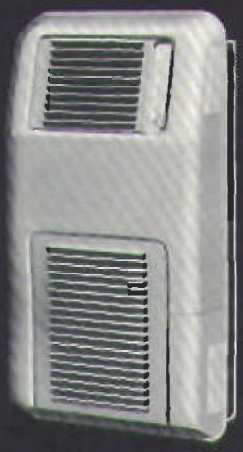
ABOVE: People who enjoy a warm breakfast can enjoy a quickly warm room, too, as in this breakfast room of the Robert F. Kerkhoff home in La Porte, Ohio.

e Motel in Toledo,
p heating for their

ABOVE: Entrance to the Wick Drive-In Hotel, Youngstown, Ohio, and **UPPER RIGHT** is a corner of the lobby. At the **RIGHT** a glimpse of a bedroom in the Cleveland Motel in Cleveland, Ohio.

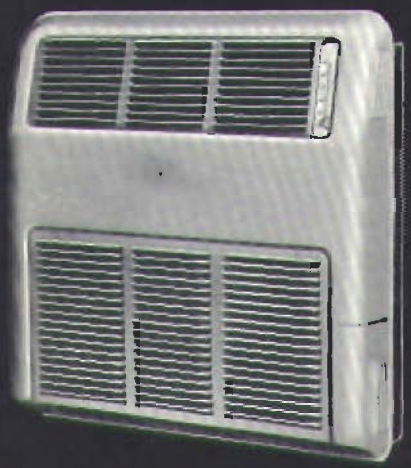
lings in every climate and all kinds of weather

3 SIZES FOR ANY COMFORT REQUIREMENT



H-6

H-12



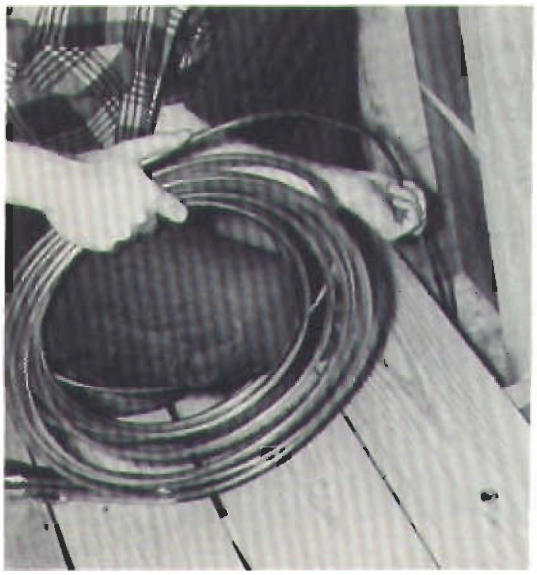
H-18

IRON FIREMAN SelecTemp TRADE MARK IS

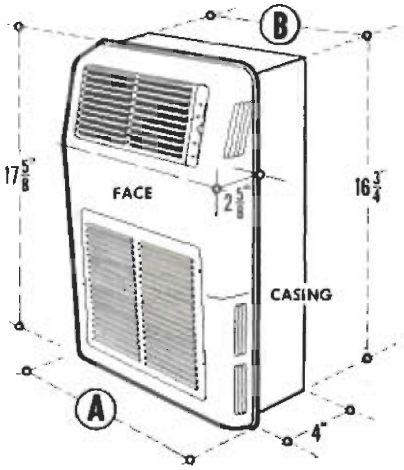
PIPING IS EASY TO RUN AS WIRING

RIGHT. A mechanic is feeding the flexible copper tubing down through a wall on a remodeling job. Unlike "hard" piping, the long lengths of the soft copper tubing are snaked into the wall for most direct runs, with minimum of cutting and fitting.

For usual runs up to about 40 ft., the 1/4" I.D. supply lines and the 1/8" I. D. gravity return lines are of soft copper tubing. Tubing is easily bent by hand for streamlining around obstructions. Headroom is not reduced, which often saves on building costs. Small size of tubing greatly reduces transmission heat losses



HIGHLY EFFICIENT HEATING UNITS



	H-6	H-12	H-18
Max. Btu delivery	6000	12000	18000
Min. Btu delivery	300	600	900
A—Face width	9 1/4"	13 5/8"	18"
B—Casing width	6 1/4"	10 1/2"	14 7/8"
Weight of unit	13 lbs.	18 lbs.	22 lbs.
Air volume CFM	60	120	180

LEFT. The louvered front is easily removable, and is finished in a neutral color baked enamel. When mounted in the wall the heating unit is unobtrusive, and can be refinished to match or harmonize with decorating scheme, or left with its neutral finish. The steel casing enclosing the heater element is mounted in the ordinary stud space in the wall.

Provisions can be made for supplying fresh, filtered, warmed, outside air through the heating units. The resulting ventilation is controllable, regardless of wind or temperature.

Under some conditions, two separate rooms may be heated by a single unit located in the dividing partition.

The individual thermostat control is conveniently located for finger-tip operation and the unit is completely non-electric.

SIMPLY AND QUICKLY INSTALLED

The speed and economy of installing **SelecTemp** is not restricted by the type of construction; size, shape or arrangement of plan; whether a new or existing building; with or without basement.

The various parts of the **SelecTemp** system have been engineered for flexible installation without time-wasting or costly special provisions under widely diverse architectural conditions. **SelecTemp** units are assembled in steel enclosures for mounting in wall stud spaces.

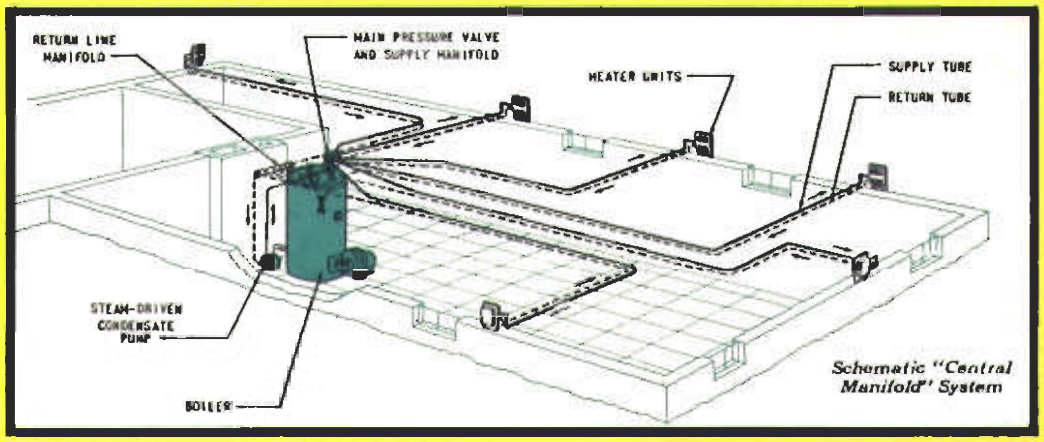
The replacement of worn-out or unsatisfactory heating systems in existing buildings with **SelecTemp** requires a minimum of cutting and patching, without interruption of normal activity in home or building.

Conventional heating systems requiring ducts or rigid piping must have chases, framing headers or trimmers, or other provisions for concealment and accommodation. This adds to cost, and frequently weakens the structure or adversely affects most efficient plan arrangement.

The compact boiler needs space no larger than a closet, and can be located anywhere from basement to attic. With no problem of headroom, unnecessary building height is eliminated as an item of cost.

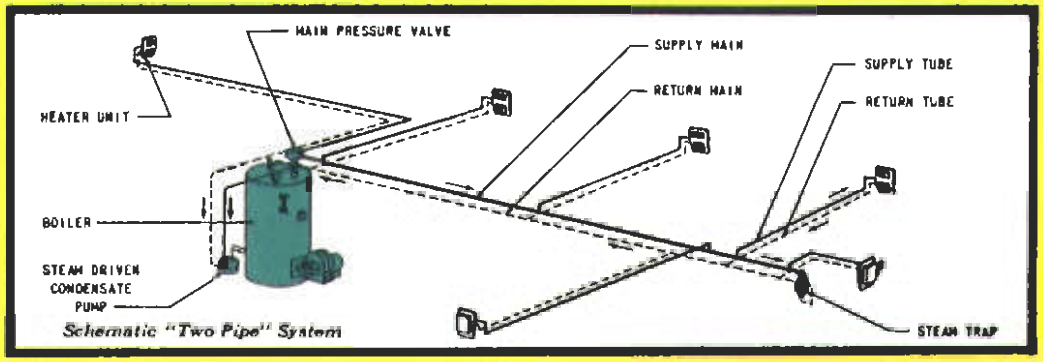
For new or old buildings, multi-storied or single floor, of any size or use, in all climates.

CENTRAL MANIFOLD SYSTEM . . . Small compact buildings, with the boiler centrally located, normally use the Central Manifold System, in which individual supply tubes connect the boiler to each heater, and individual tubes return the condensate to the pump.



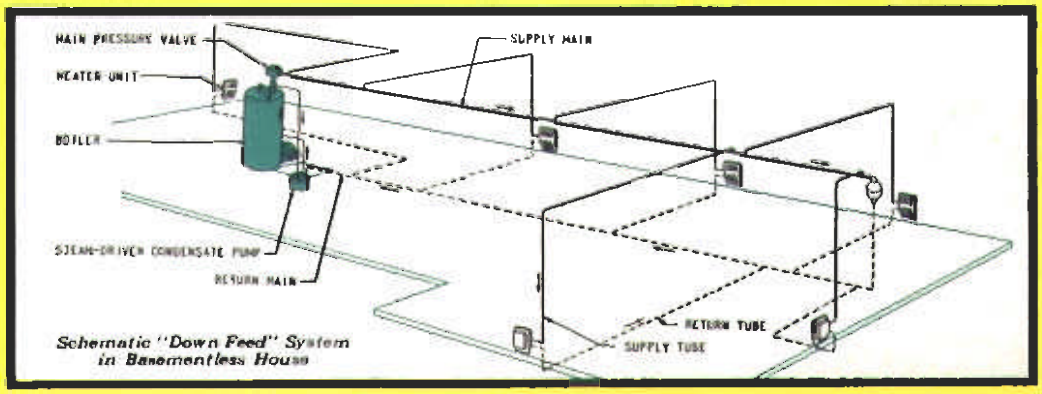
Schematic "Central Manifold" System

TWO PIPE SYSTEM . . . Where the boiler is located near one end of a larger building, a Two Pipe System is frequently used. A steam main, usually a ¾ inch pipe, delivers steam to the heater supply tubes. A return main, usually a ½ inch pipe, returns the condensate to the pump. The heaters are connected to the main with small tube branches.



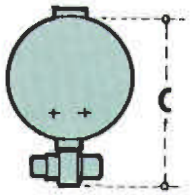
Schematic "Two Pipe" System

DOWN FEED SYSTEM . . . Piping layout for a typical slab construction basementless house, with steam supply pipes overhead and return pipes below the floor. With this construction the return pump is depressed below the floor level. The Down Feed System may be of the two pipe type as shown, or it may be of the Central Manifold type, or a combination of both types.



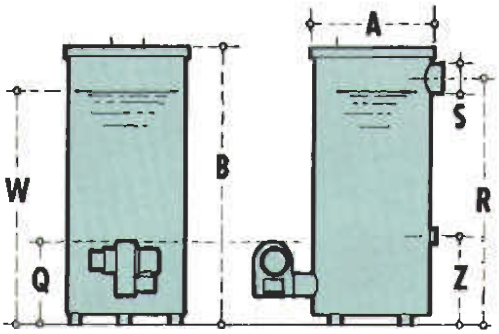
Schematic "Down Feed" System in Basementless House

SelecTemp GAS OR OIL-FIRED STEAM BOILERS



PLAN

MS Series



FRONT SIDE

OIL FIRED	114	140	180	240	320	400	500	750	1000
GAS FIRED	142	175	225	300	400	500	625	937	1250
Gross Btu Output—1000's	114	140	180	240	320	400	500	750	1000
Input Btu Rating—1000's	142	175	225	300	400	500	625	937	1250
Net Rating, Steam—Sq. Ft.	300	400	500	700	900	1100	1400	2100	3000
Oil Burner Capacity G.P.H.	1.0	1.25	1.75	2.25	3.0	3.5	4.5	7.0	9.0
Max. Steam Gauge Pressure	15	15	15	15	15	15	15	15	15
A—Boiler Diameter	21	23½	26	28½	31	33½	37	42½	49½
B—Boiler Height	57½	60½	64	66¼	70½	72⅞	76⅝	79	86¾
C—Boiler and Oil Burner	35½	38	40½	43	45½	48	51½	.....	.....
W—Water Line	51	54½	57¾	59	63	65	68	67⅝	76½
S—Stack Diameter	7	7	7	8	9	9	10	10	12
R—Stack Outlet Above Floor	57½	54¾	58	60	64	66	68⅝	68⅝	77⅞
Q—Oil Burner Top to Floor	19½	20	21	21	21	21¾	21¾	21¾	21¾
Z—Return Height	5½	16½	16¾	18	19⅛	5½	6¼	6¼	6⅜

The use of steam as a heating medium eliminates the initial, operating and maintenance costs of circulating pumps required by forced hot water systems, or circulating fans required by warm air systems. Pounding noises or "hammer", hissing air vents, radiator traps, valve packing, and other problems usually associated with steam heating systems are eliminated.

BOILER is either oil or gas fired. Compact, well insulated, attractively jacketed, and skillfully engineered for economical operation and long life. Flexibility of PIPING allows complete freedom in locating boiler and convector units. CONDENSATE PUMP is steam-driven. It returns condensate to the boiler automatically. HOT WATER COILS are built-in, instantaneous type, to supply year-'round domestic hot water.

These boilers are designed and built to the highest standards of performance for the SelecTemp System. They are compact, very well insulated and highly efficient. The jacket is of heavy gage metal, with smooth baked enamel finish.

Oil-Fired Model MSO-140 Illustrated

COST OF SelecTemp COMFORT

COST ANALYSIS—Comparison of cost of SelecTemp with other types of heating is misleading, since no other system combines such top comfort and operating economy. For budget purposes *only*, the initial cost of SelecTemp on new construction will compare favorably with radiant baseboard or other hot water or steam systems—and slightly higher than conventional forced warm air systems. It is appreciably less than other systems having more than single zone temperature control. SelecTemp is by far the best and most economical method of heating for modernization projects.

DESIGNING COSTS—Since SelecTemp systems do not require complicated planning of every part from the basement to farthest room and back again, the cost of designing and laying out working drawings for ducts, piping and other elements is reduced to a minimum.

INSTALLATION COST—The construction expense for framing, trenches, chases and other elements, combined with the prolonged time of job completion, increases the cost of installing most conventional heating systems. With SelecTemp, this is not a problem.

OPERATING COST—The cost of fuel for overheating or useless heating is avoided with the SelecTemp system. Heat is delivered when and where it is wanted, just as is electric lighting.

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