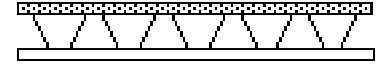


RESARO AB



THE RESARO SYSTEM

energy- and construction system

THE RESARO ELEMENT

RESARO AB creates constructing methods which take advantage of known knowledge and proficiency and joins them together with new creative ideas which improves efficiency, gives better function, lower energy consumption and better housing conditions.

Develops solutions and components necessary for job completion. Patents news, sells licenses and knowledge, and also starts up contractors.



Bollstanäs Upplands Vasby

THE RESARO SYSTEM

- A low temperature system with "soft" under floor heating, initially for the ground floor, or for both floors.
- A good indoor climate with the supply air and the outdoor air for ventilation filtered and cleaned.
- With a simple possibility for cooling of the top floor on hot summer's day, and thus the rest of the house.
- No risk of mould from moisture in the framework or in the foundation, inside outer walls at the shower, or behind the kitchen cupboards.
- A simplified heat and ventilation installation. Simplified electric wiring and piping for water, as well as sewage. Unique accessibility for all installations in the future.
- Movable electrical sockets along the outer walls.
- Lower housing costs, with
- Lower cost for insurance and financing owing to
- A reliable and environmental construction (less risk of damages from water and moisture, etc.)
- Great flexibility, with possibility to influence the planning at a late stage.

THE RESARO SYSTEM GIVES SOLUTIONS FOR SOME OF TODAY'S MOST COMMON CONSTRUCTION PROBLEMS



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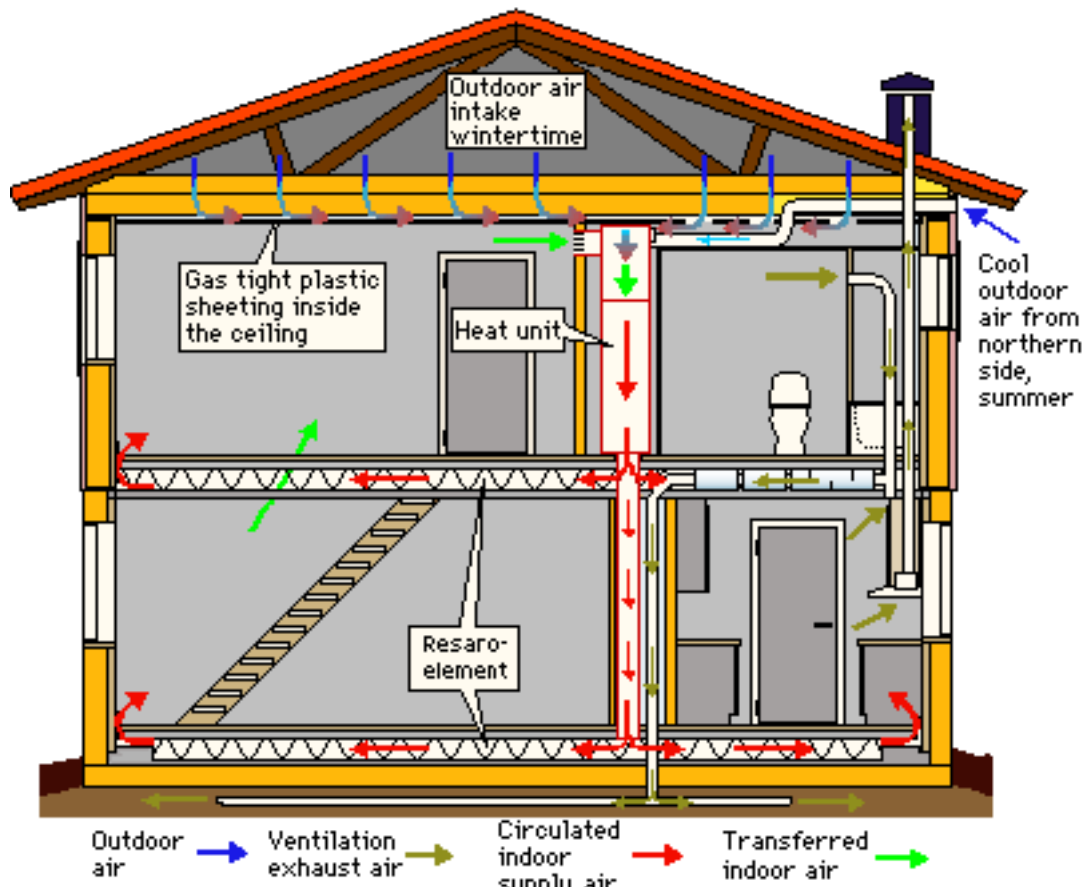
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RESARO TWO-DUCT SYSTEM SOFT WARM FLOORS THE SYSTEM EXPLAINED-INSTALLATION AND OPERATION:



RESARO TWO DUCT SYSTEM

CLOSE TO GROUND, NEW COMPLETE SYSTEM SOLUTION:

1. DYNAMIC OUTDOOR AIR INTAKE,
WITH A NEW DISTRIBUTION SYSTEM FOR THE FRESH OUTDOOR AIR INTAKE IN TWO-STOREY HOUSES
2. CIRCULATED INDOOR AIR INSIDE THE FLOORS, IN A NEW OPEN CONCRETE FLOOR STRUCTURE, THE RESARO ELEMENT, GIVES "SOFT HEATING" IN EVERY FLOOR IN THE ENTIRE HOUSE
3. PRESSURISED FOUNDATION FOR ENERGY RECOVERY WITHOUT A HEAT RECOVERY UNIT

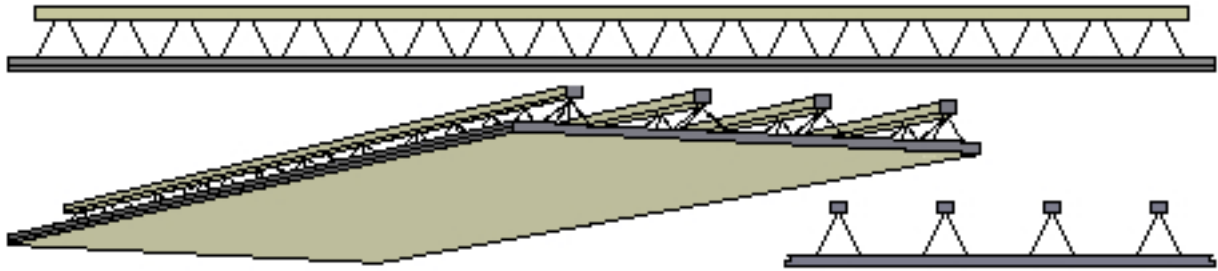
THE RESARO system:

Technology for mainly small houses and villas.

The structural system also for apartment houses.

- The RESARO system includes for instance a new simplified heating system with soft heated floors without distribution ducts or piping where we use the floors of the house for the distribution of circulating air and for the ventilation supply air, and the roof covering as a solar collector.
- Soft heated floors in combination with a temperature regulated circulated indoor air gives the best comfort with the lowest energy consumption. Heated floors provide a possibility to lower the temperature, as the room is experienced as warmer when your feet are warm.

THE RESARO ELEMENT, BUILDING ELEMENT IN CONCRETE



THE RESARO ELEMENT

FOR INSTALLATIONS WITHOUT CUTTING OF HOLES.

THE INSTALLATIONS ARE ENTIRELY ACCESSIBLE IN THE FUTURE.

ACTS AS SUPPLY DUCT FOR CIRCULATED VENTILATION- AND HEAT- AIR.

WITH A BEAM WEB FOR CASTING OF CHORDS AND SLAB IN ONE SINGLE OPERATION.

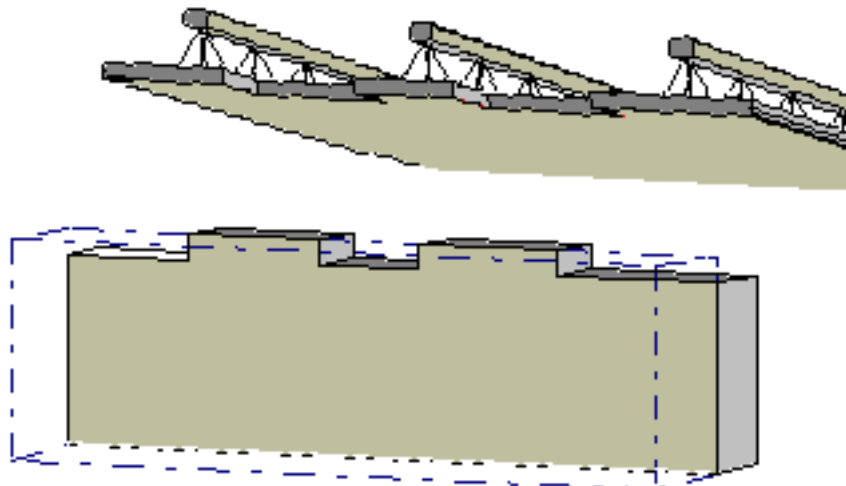
The floor structure element provides following advantages:

- A span up to 8 m facilitate normally simple support between foundation walls or an entire floor without intermediate support.
- Flexible layouts where the buyer at a late stage can suggest changes.
- Simplified installation of conduits for electricity, heating, water and drains; placed within the structural element without expensive suspension devices.
- Unique accessibility in the future to the installations of the building. Important in case of refurbishing or possible water damages.
- Improved sound reduction between the sections of the building.
- Storage of energy in the concrete plate for utilisation of cheap electrical energy at night. Equalisation of temperature.
- Easy to dry the concrete thin-plate structure. Surface finishes can be applied earlier than with other systems.

The element can be used for floors and roofs, with the plate facing upwards or downwards.

- The concrete plate facing upwards: A durable floor, which straight can support a man.
- The plate facing downwards: Further simplification of installation work.

THE RESARO WALL ELEMENT, THE RESARO WALL SUPPORT

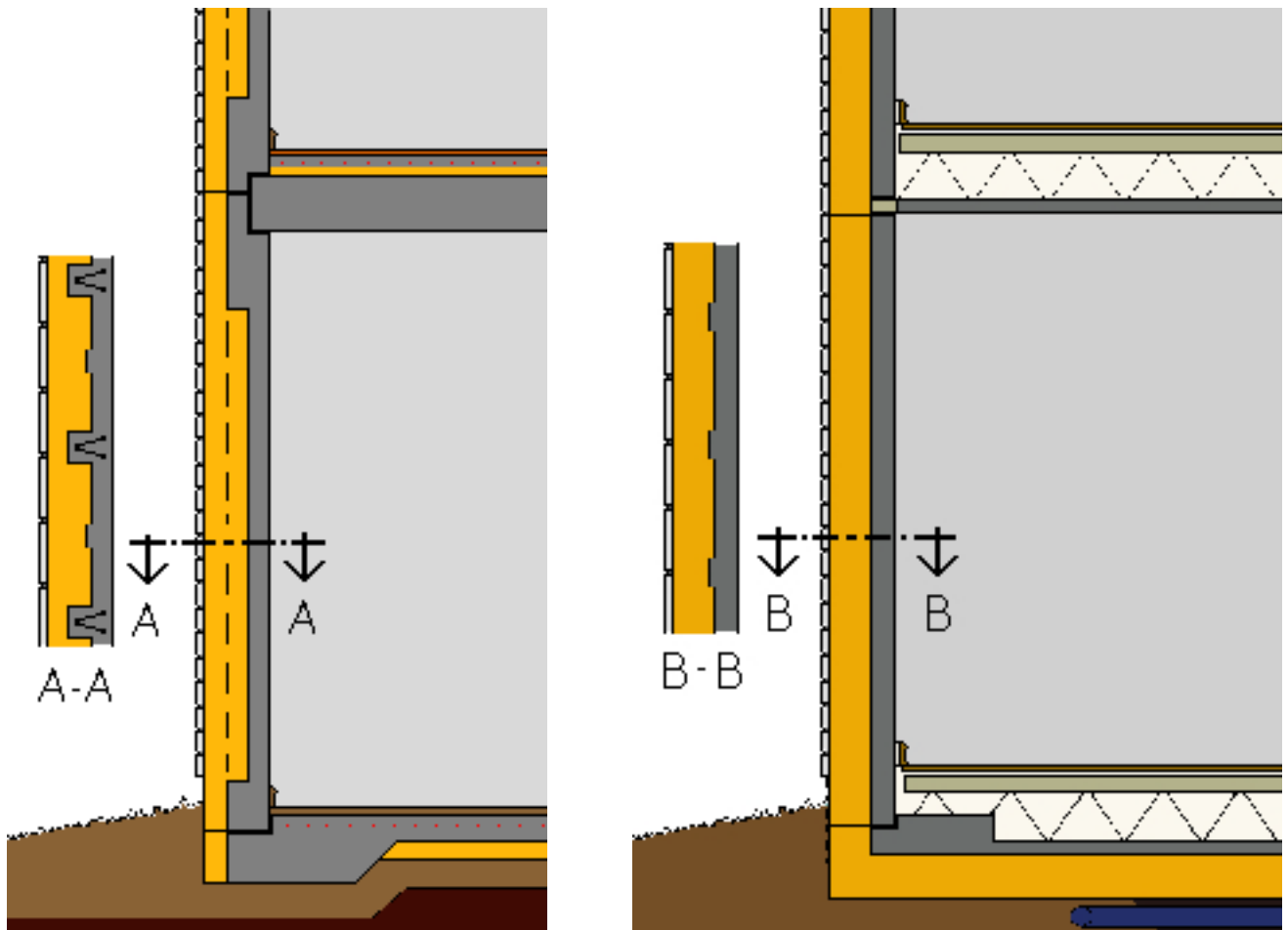


THE RESARO WALL AND THE RESARO FLOOR ELEMENT IN APARTMENT HOUSES, TERRACED HOUSES, AND VILLAS:

ARRANGEMENT RELATING TO WALL-SUPPORTING STRUCTURES

- A new joining method for precast building elements, single-course cast walls with attached insulation, together with thin-plate floors or suspended structural floors.
- The floors rest on the floor structural elements own load-supporting plate.
- The floor elements rest on the walls with a possibility to move elastically and provides axial loading.
- The invention eliminates the necessity for thickening of the concrete plate built into the wall resulting in stresses in a curved plane at the support. And eliminates the need for vertical T-beam webs in the load-supporting plate of the wall.

COMMON TECHNIQUE RESARO'S SOLUTION



RESARO'S SOLUTION: IMPERVIOUS, UNIFORM INSULATION LAYER,NO THERMAL LOSSES.....

- The superimposed wall elements also load the lower supporting wall element axially.
- Gives a thin straight concrete plate which gives a lighter element which is easier to transport, and also simplifies the casting process.
- Thin concrete plates in floors and walls cure faster.
- Surface coatings can be applied earlier without the risk of mould appearing.
- The wall concrete slab as well as the foundation is covered by a impervious, uniform insulation layer outside around the entire house, without heat conductive thermal bridges outwards or downwards.

RESARO IS THE SOLE PROPRIETOR OF THESE SOLUTIONS !

INSTALLATIONS



All installation equipment are hidden inside the structural installation floor.

Easily accessible in the future.

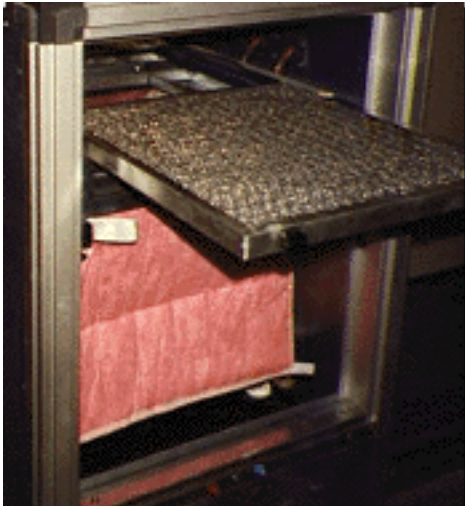
Plenty of space for ventilation ducts, sewage piping and electrical wiring without cutting of holes.

Fast drying up of the framework.

Less risk of damages from water and moisture.

HEAT- AND VENTILATION UNIT

ROUGH FILTER:

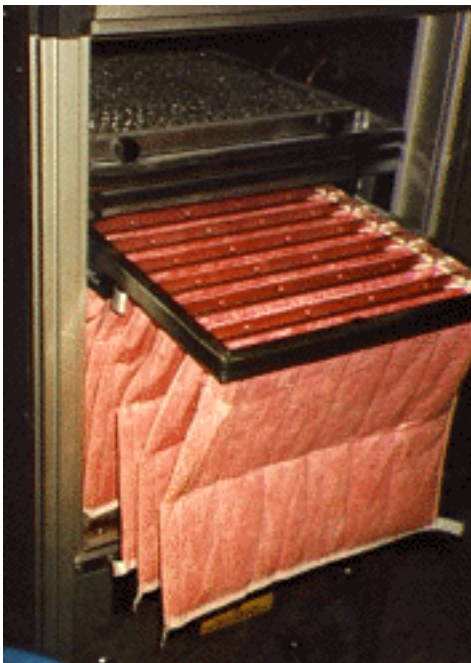


All circulation air mixed with the ventilation air passes through two filters before entering the living rooms.

The rough filter is easily cleaned by rinsing with hot water.

A pressure guard tells when it is time.

FINE FILTER:



Bag filter with standard dimensions and a large filter area.

The fine filter, for which you yourself decides the fineness grade, just need to be replaced every second year.

An easy grip system facilitates the change.

All dust caught in the filters you avoid to inhale.

Alternatively there is space for a electrostatic filter.

New filter types made of Gore Tex which can be washed and recycled , are under developing.

PREFAB ERECTING

Eight semidetached hillside houses in Bollstanäs Upplands Väsby.



These houses are equipped with Resaro's structural elements in bottom and upper floor, including outer walls in bottom floor.

Upper floor outer walls are made with framework of wood.

Nowdays we erects small houses and villas with Resaro's energy conserving concrete walls, right up to the roof.

Outer walls without cold bridges, manufactured by use of Resaro's new fast low cost casting procedure.

Furnished with i.e. wood panel if desired.



Foundation work .
Even surface layers without levels results in a fast laying of ground.

No casting on the building site.

Fast drying up of the framework.