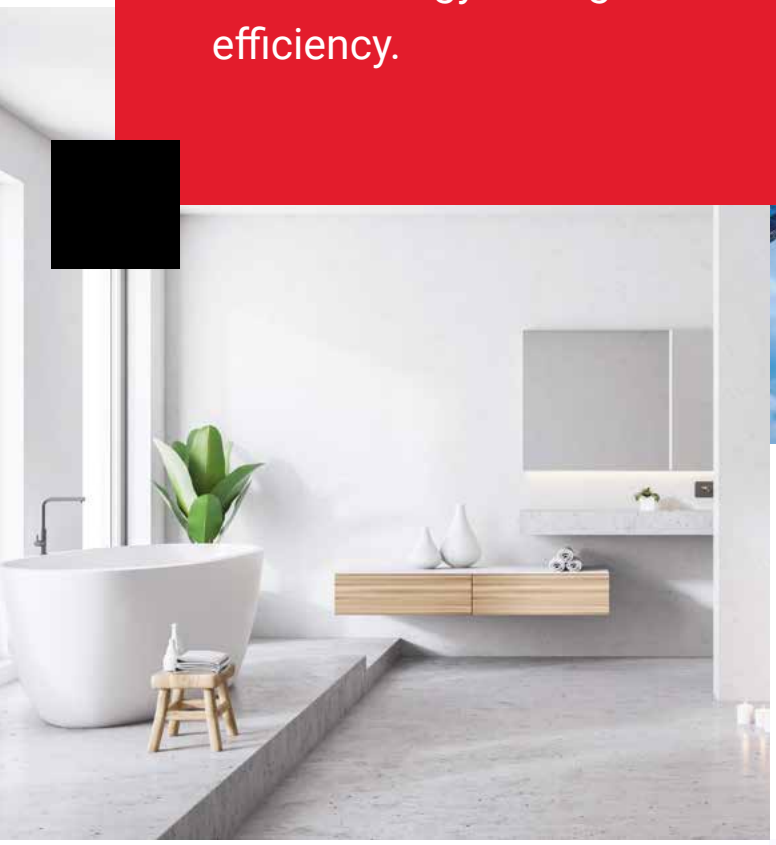
resideo

Hydraulic balancing.

Braukmann balancing valves ensure energy savings and efficiency.



Hydraulic balancing with Braukmann balancing valves means

Saving energy

If all the components in a hydraulically balanced heating system work more efficiently, this will lead to a reduction in energy costs. The potential saving is dependent on the kind of balancing (static or dynamic) and on the energy performance of the building. As a rule, more heating energy can be saved by hydraulic balancing in new buildings.* The range is between roughly 5 % for old, unrenovated buildings and around 10 % for newer buildings and buildings which have undergone energy-saving renovation measures.

Protecting the environment

Low CO2 emissions helps to protect the environment. In times of climate change and dwindling resources, this is not just an ecological necessity but is also frequently required by law.

Optimising the system

Hydraulic balancing should be carried out independently of other energy-related renovation measures, such as replacing boiler, heat pump or thermal insulation. With an adjusted flow and correct return-flow temperatures, the efficiency of a heat pump can be increased by a factor of 2**, for example. Significantly lower return-flow temperatures are also optimum for a condensing boiler heating system.

Increasing heating comfort

Hydraulic balancing also increases comfort by evenly distributing heat through all rooms. The radiators no longer “whistle” and “whoosh”, and after the temperature has dropped overnight, the rooms warm up again quickly at the expected time.

No hydraulic balancing: Energy-saving potential of	Static hydraulic balancing: Energy-saving potential of	Dynamic hydraulic balancing with differential pressure controllers: Energy-saving potential of	Dynamic hydraulic balancing with flow controller PICV: Energy-saving potential of
0 %	5 %	10 %	30 %

* TÜV SÜD GROUP

** Bauzentrum München Lehrgänge

PROPERTY USER

- **More comfortable living** on account of consistently pleasant room temperatures and without any irritating flow noise in the heating system.
- **Saving energy and money:** hydraulic balancing ensures maximum efficiency of all the components in heating systems and thus reduces energy costs.
- **Environmentally friendly and sustainable:** active environmental protection as a result of reduced CO2 emissions.

PLANNERS

- **Simple and secure planning:** a complete product range with balancing valves in a vast array of dimensions to meet all requirements and to suit a multitude of applications. Now also available in flanged sizes.
- **Faster project handling** and less expense for the site management, with a perfectly balanced system in place immediately after installation.
- **Reliable partner:** Resideo will assist you with planning and choosing suitable products.

Advantages across the board.

Resideo Braukmann balancing valves means maximum efficiency, satisfied customers and fast planning / installation.

HOUSING INDUSTRY

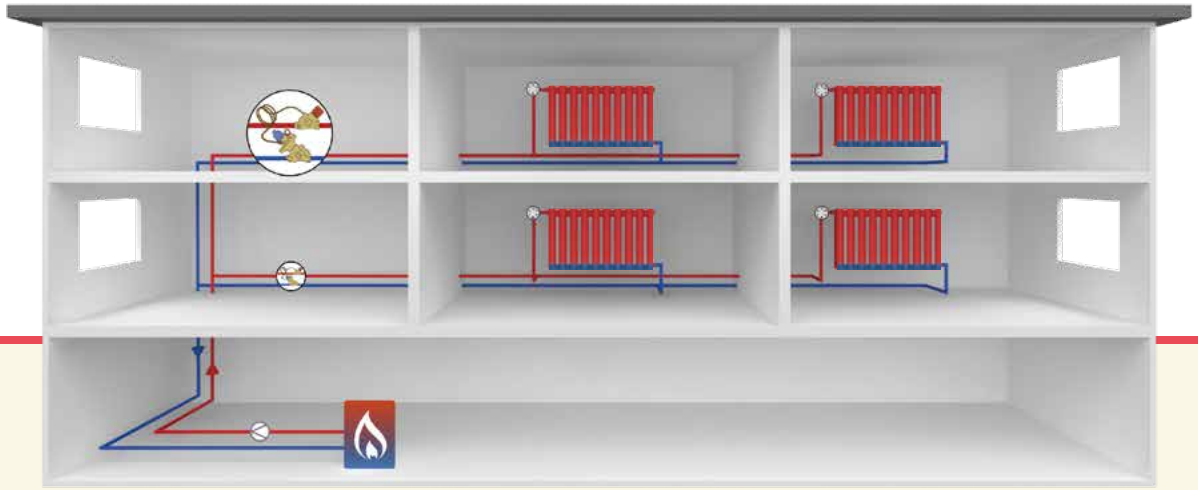
- **Satisfied tenants and homeowners** thanks to increased convenience and lower incidental costs. No complaints due to heating problems.
- **Energy savings** due to hydraulic balancing, pump optimisation, heating, tapware and control system.
- **Cost-effective renovation possibility:** energy savings can be achieved at a considerably lower price than with other measures.

INSTALLATION ENGINEERS

- **Fast installation** and easy commissioning reduce time spent on-site to a minimum.
- **Higher customer satisfaction** thanks to expert advice and a reliable system – without problems such as system noises and cold or overheated rooms.
- **High standards compliance:** with Braukmann balancing valves, you can meet the requirements of local and international regulations.

Hydraulic balancing
Applications expertise

Central heating – two-pipe system



SYSTEM DESCRIPTION

Two-pipe systems for distributing heat are most common in Europe. The radiators are connected in parallel and supplied with the same flow temperature by means of supply and return pipes. In modern buildings, heat distribution is horizontal: each apartment is supplied by a dedicated section. In pre-existing systems, on the other hand, vertical distribution is common, with supply and return lines running through multiple floors.

HYDRAULIC BALANCING

For modern two-pipe systems with speed-regulated pumps, hydraulic balancing using automatic differential pressure controllers is recommended. These ensure constant, preset pressures and, work in combination with adjustable thermostatic valves. They ensure the correct, consumer-specific flow and thus the correct distribution of heat. This maximises convenience and energy savings.

Braukmann Balancing Valves: Dynamic solutions

Automatic differential pressure controllers such as Kombi-Auto and Kombi-3-Plus with membrane for applications from DN10 to DN50. Alternative for applications with up to 60 kPa and flows up to 160l/h: Kombi-TRV

Kombi-Auto Kombi-S

Kombi-Auto Flange

Kombi-3-Plus

Kombi-TRV

Braukmann Balancing Valves: Static solutions

Static balancing valves for applications from DN10 to DN400

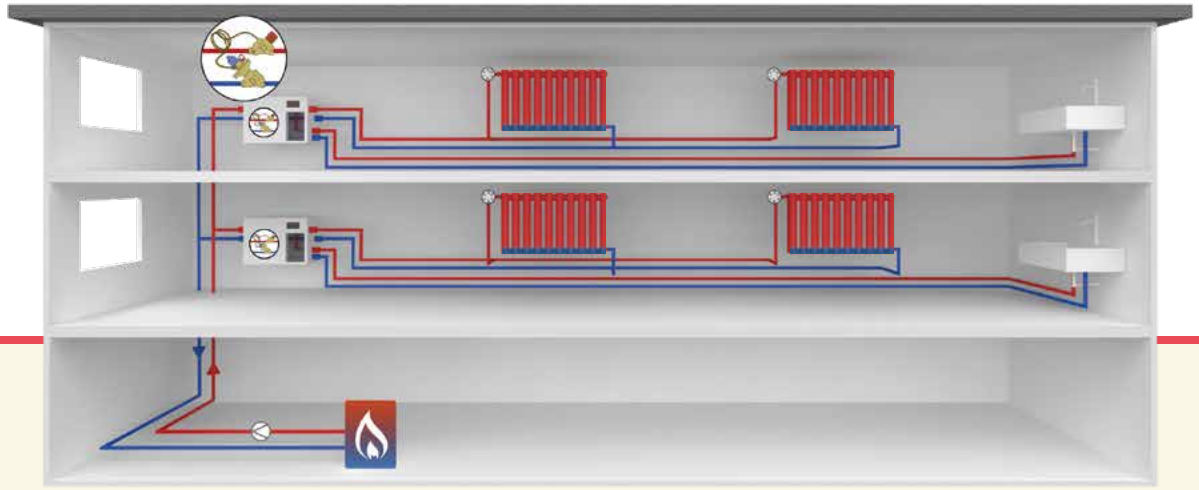
Kombi-3-Plus

Kombi-2-Plus

Kombi-F

For maximum convenience and energy savings:
Braukmann Balancing Valves can be used to hydraulically balance all conventional heating and cooling systems.
Capable. Complete. Kombi!

Central heating – heat interface units



SYSTEM DESCRIPTION

Central heating systems equipped with local heat interface units are in principal comparable to two-pipe systems. Radiators connected in parallel or heating circuits in panel heating are supplied with the same flow temperature via supply and return pipes. Heat interface units contain all the components for combined local water heating and hot water distribution and for horizontal distribution of the heating water to individual apartments.

HYDRAULIC BALANCING

As in modern two-pipe systems with speed-regulated pumps, hydraulic balancing using automatic differential pressure controllers is recommended. These ensure constant, preset pressures and, in combination with adjustable thermostatic valves, also ensure the correct, consumer-specific flow and thus the correct distribution of heat. In the case of applications with heat exchange units, the differential pressure controller on the primary side should be arranged upstream of these heat exchange units so that the generation of heat for hot water is also balanced.

Braukmann Balancing Valves: Dynamic solutions

Automatic differential pressure controllers such as Kombi-Auto and Kombi-3-Plus with membrane for applications from DN10 to DN32, Kombi-Auto Flange available from DN65 up to DN150

Kombi-Auto Flange

Kombi-Auto Kombi-S

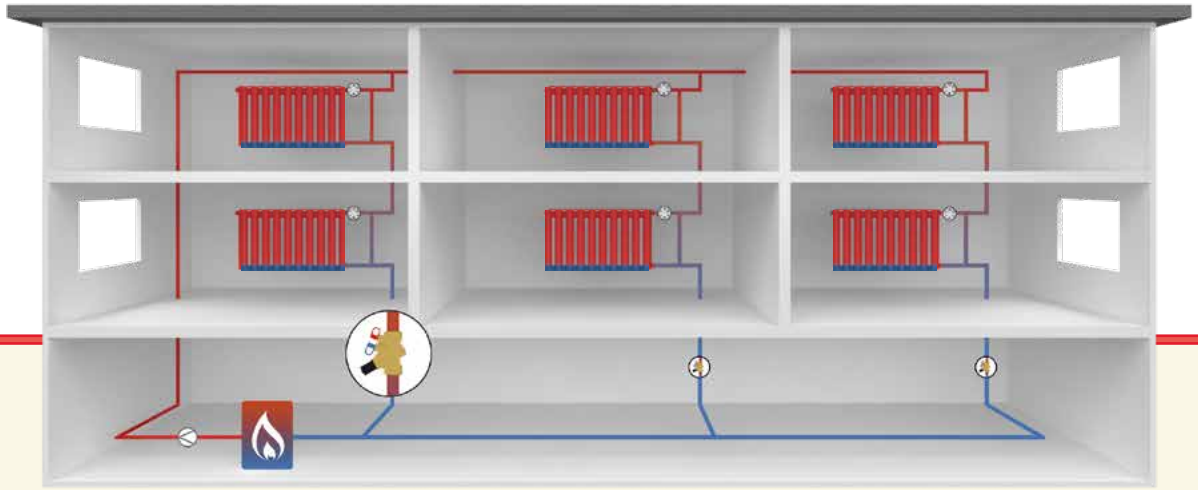
Kombi-3-Plus

Braukmann Balancing Valves: Static solutions

Kombi-3-Plus static balancing valves for applications from DN10 to DN32

Kombi-3-Plus

Central heating – one-pipe system



SYSTEM DESCRIPTION

One-pipe systems for heat distribution are still widespread in existing building stock in Europe in some regions. The radiators are connected one after the other in series and are each supplied with a proportion of the heating water. The majority of the circulating heating water bypasses the respective radiator on a bypass circuit so that it can be mixed with the cooled water from the radiator downstream of that radiator. The flow of mixed water is then fed to the next radiator in the circuit. As a result, all the radiators in a one-pipe system have different flow temperatures dictated by the system. One-pipe systems can have a horizontal or vertical network architecture.

HYDRAULIC BALANCING

For modernised one-pipe systems with a constant flow, hydraulic balancing by means of automatic flow controllers or pressure-independent control valves is recommended. Flow controllers ensure defined flow in radiator groups arranged horizontally or vertically. Pressure-independent control valves enable defined return flow temperatures when the heating system is operated in design mode or under partial load. Thermostatic valves with distribution ensure correct flow at the radiator and thus correct distribution of heat.

Braukmann Balancing Valves: Dynamic solutions

Kombi-VX flow controllers and Kombi PICV return-temperature-flow-controlled, pressure-independent control valves

Kombi-VX

Kombi PICV

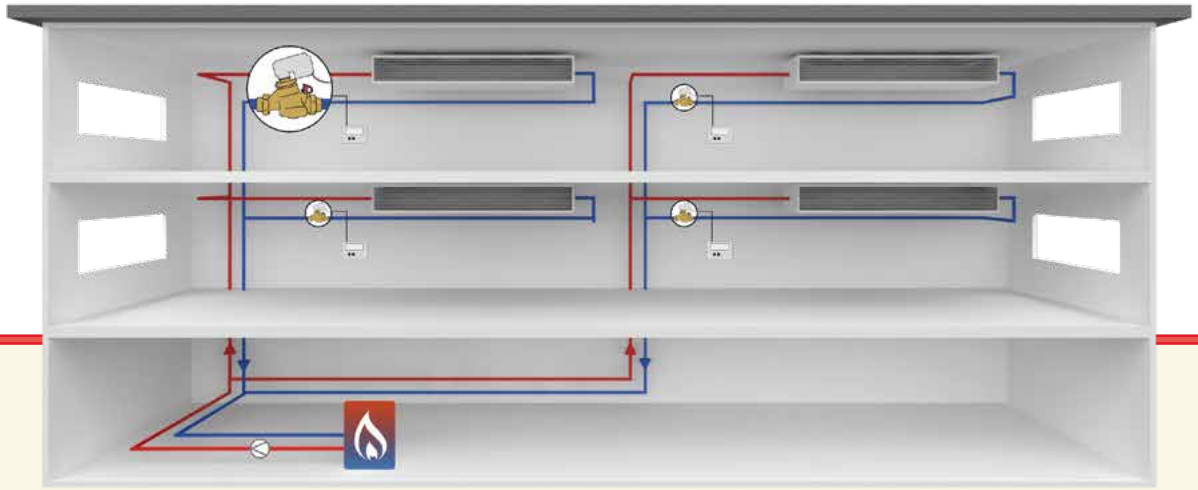
Braukmann Balancing Valves: Static solutions

Kombi-3-Plus and Kombi-2-Plus static balancing valves for applications from DN10 to DN25

Kombi-3-Plus

Kombi-2-Plus

Fan coil – two-conductor system



SYSTEM DESCRIPTION

Two-conductor systems with local fan coils as heat exchangers are in principle realised as a two-pipe system. All fan coils connected in parallel are supplied with heating or cooling at the same flow temperature via supply and return pipes. The switch from heating to cooling operation and vice versa is carried out centrally. Fan coils are usually used to supply heating or cooling room by room. The cooling or heating is fed to the room using temperature-controlled air by means of heat exchangers and fans. Engineered control is on a room-by-room or group-by-group basis using room thermostats or by incorporation in the building automation system.

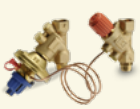
HYDRAULIC BALANCING

As in modern two-pipe systems with speed-regulated pumps, hydraulic balancing using automatic differential pressure controllers in the pipes/circuits is recommended. These ensure constant, preset pressures and, in combination with adjustable control valves with actuation at the fan coil, also ensure the correct, consumer-specific flow and thus the correct distribution of heat. Alternatively, hydraulic balancing in modern systems is carried out on a consumer-specific basis with pressure-independent control valves and actuators at the fan coil. It is also recommended that pre-control be carried out in this case using automatic differential pressure controllers.

Braukmann Balancing Valves: Dynamic solutions

Kombi-Auto automatic differential pressure controllers for applications from DN10 to DN50.
Flanged versions are available from DN65 to DN150
Alternative: Kombi PICV

Kombi-Auto Flange



Kombi-Auto Kombi-S

Kombi PICV

Braukmann Balancing Valves: Static solutions

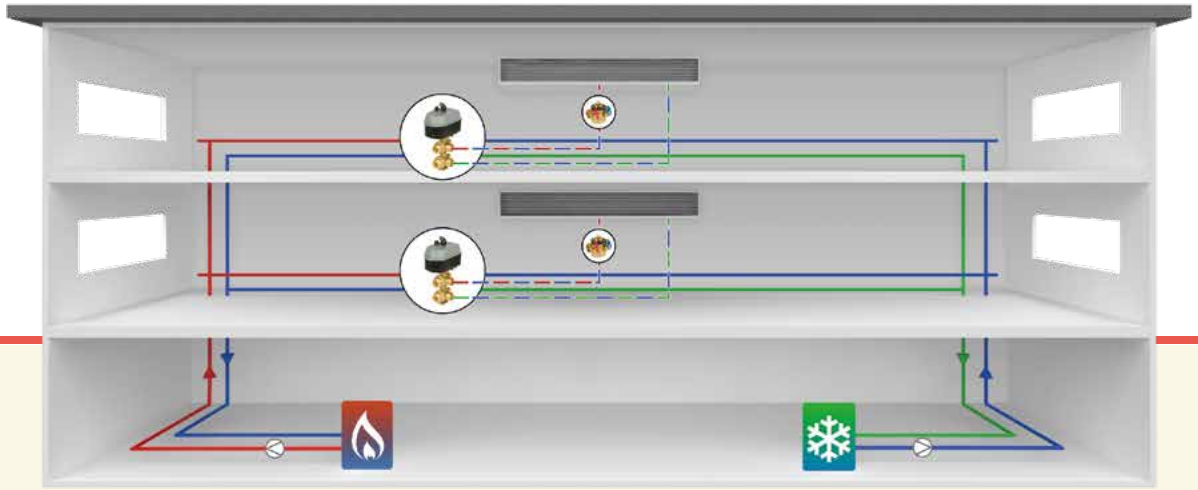
Static balancing valves for applications from DN10 to DN400

Kombi-3-Plus

Kombi-2-Plus

Kombi-F

Fan coil – four-conductor system



SYSTEM DESCRIPTION

Four-conductor systems are in principal realised as a “double” two-pipe system. All fan coils connected in parallel are simultaneously supplied with heating or cooling at the same flow temperature via supply and return pipes. The switch from heating to cooling operation is carried out for each room as needed. This “switchover” prevents simultaneous cooling or heating operation. A choice of cooling/heating is fed to the room using temperature-controlled air by means of heat exchangers and fans. Engineered control is on a room-by-room or group-by-group basis using room thermostats with “switchover” or by incorporation in the building automation system.

HYDRAULIC BALANCING

As in modern two-pipe systems with speed-regulated pumps, hydraulic balancing using automatic differential pressure controllers in the pipes/circuits is recommended. These ensure constant, preset pressures and, in combination with adjustable control valves with actuation at the fan coil, also ensure the correct, consumer- specific flow and thus the correct distribution of heat. Alternatively, hydraulic balancing in modern systems is carried out on a consumer-specific basis with pressure-independent control valves and actuators at the fan coil. It is also recommended that pre-control be carried out in this case using automatic differential pressure controllers.

Braukmann Balancing Valves: Dynamic solutions

Kombi-Auto automatic differential pressure controllers for applications from DN10 to DN50. Flanged versions are available from DN65 to DN150. Alternative: Kombi PICV

Kombi-Auto Flange

Kombi-Auto

Kombi PICV

Kombi PICV with VBG26

Braukmann Balancing Valves: Static solutions

Kombi-3-Plus static balancing valves for applications from DN10 bis DN400

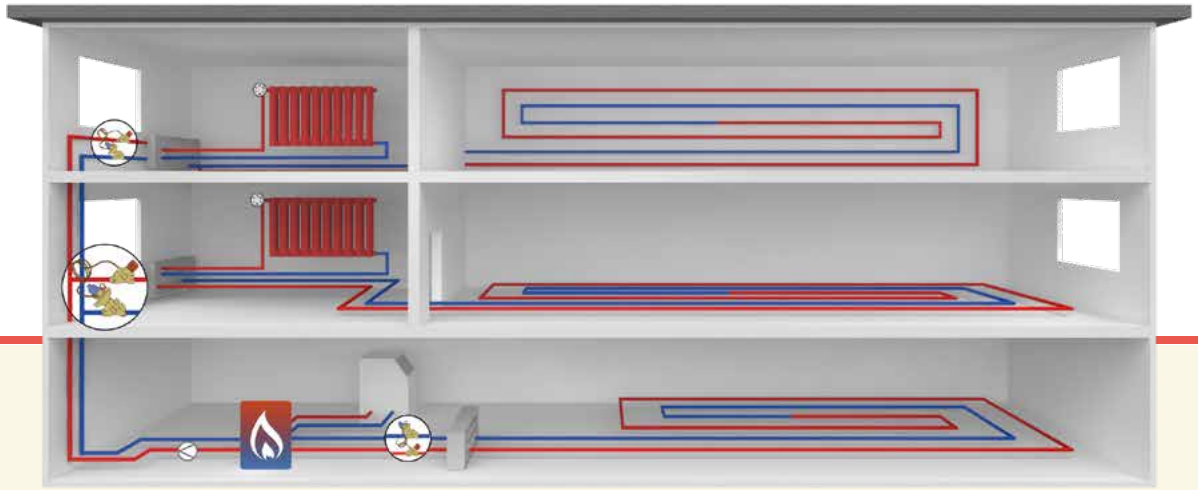
Kombi-3-Plus

Kombi-2-Plus

Kombi-F

VBG 26

Surface temperature regulation – underfloor heating



SYSTEM DESCRIPTION

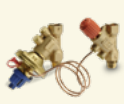
Central heating systems with surface heating (underfloor, panel or overhead heating) are generally realised as a two-pipe system. One or more heating circuit distributors (manifolds) are supplied with heat at the same flow temperature via supply and return pipes. Heat is supplied to the room-specific heating circuits from the heating circuit distributor as required. The heat is supplied to the rooms to be heated via the floor structure by means of pipelines laid across the surface, through which hot water flows. The control is done on a room-by-room or group-by-group basis using room thermostats, if required together with individual timing control.

HYDRAULIC BALANCING

As in modern two-pipe systems with speed-regulated pumps, hydraulic balancing using automatic differential pressure controllers in the pipes/circuits is recommended. These ensure constant, preset pressures and, in combination with adjustable control valves for each heating circuit at the heating circuit distributor, also ensure the correct, consumer-specific flow and thus the correct distribution of heat. The heating-circuit-specific control valves are controlled by means of room thermostats. This maximises convenience and energy savings.

Braukmann Balancing Valves: Dynamic solutions

Automatic differential pressure controllers such as Kombi-Auto and Kombi-3-Plus with membrane for applications from DN10 to DN50



Kombi-Auto
Kombi-S

Kombi-3-Plus

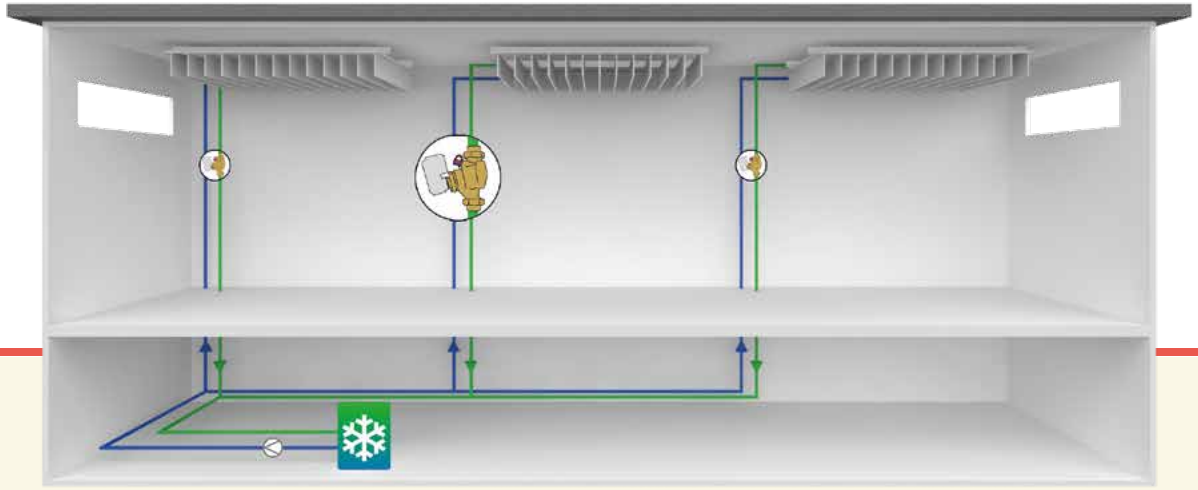
Braukmann Balancing Valves: Static solutions

Kombi-3-Plus static balancing valves for applications from DN10 to DN50

Kombi-3-Plus

Kombi-2-Plus

Surface temperature regulation – chilled ceilings



SYSTEM DESCRIPTION

Central systems with chilled ceilings are generally realised as a two-pipe system. Chilled ceilings are supplied with cooling at the same flow temperature via supply and return pipes. Chilled ceilings are usually used to cool non-residential buildings, such as offices, retail and exhibition spaces, on a room-by-room basis. The cooling is supplied to the room via the floor structure or extensive heat-exchange surfaces by means of pipe -lines laid across the surface, through which cold water flows. The control is done on a room-by-room or group-by-group basis using room thermostats, if required together with individual timing control.

HYDRAULIC BALANCING

As in modern two-pipe systems with speed-regulated pumps, hydraulic balancing using automatic differential pressure controllers in the pipes/circuits is recommended. These ensure constant, preset pressures and, in combination with adjustable control valves for each cooling circuit at the cooling circuit distributor or for each cooling surface element, also ensure the correct, consumer-specific flow and thus the correct distribution of cooling. The cooling-circuit-specific control valves are controlled by means of room thermostats. Humidity sensors avoid condensation forming. Alternatively, hydraulic balancing can be carried out on a consumer-specific basis with pressure-independent control valves with actuators at the cooling surface element.

Braukmann Balancing Valves: Dynamic solutions

Automatic differential pressure controllers such as Kombi-Auto and Kombi-3-Plus with membrane for applications from DN10 to DN50.
Alternative: Kombi PICV

Kombi-Auto

Kombi-S

Kombi PICV

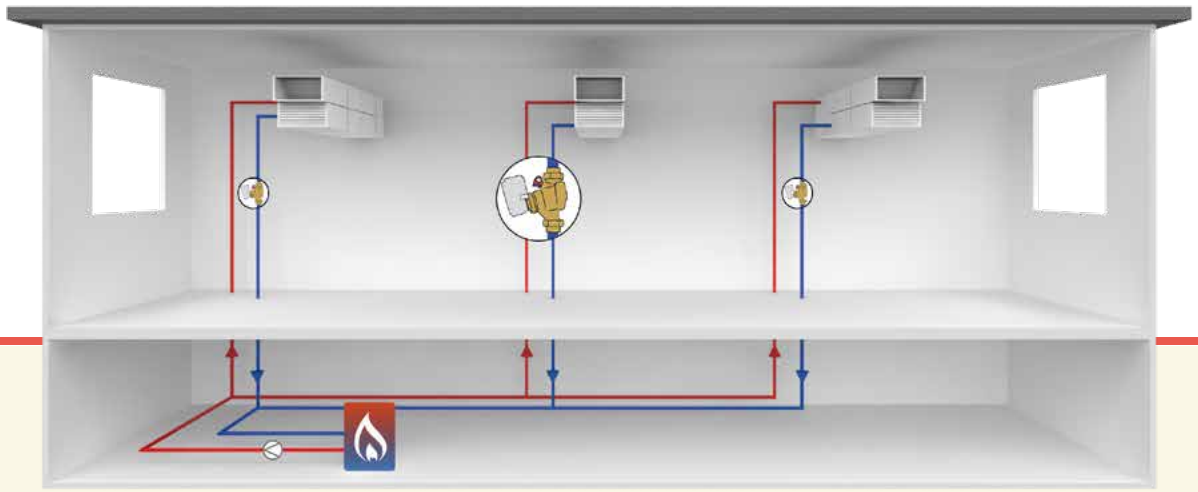
Braukmann Balancing Valves: Static solutions

Kombi-3-Plus and Kombi-2-Plus static balancing valves for applications from DN10 bis DN50

Kombi-3-Plus

Kombi-2-Plus

Air-handling unit – air heaters



SYSTEM DESCRIPTION

Central heating systems with air handling units are in principle realised as a two-pipe system. All air heaters connected in parallel are supplied with heat at the same flow temperature via supply and return pipes. Air heaters are usually used to heat non-residential buildings such as sports facilities and assembly halls on a room-by-room basis or as air-curtain systems in entrance areas. Heat is fed to the room in the form of heated air by means of heat exchangers and electric fans. The control is done on a room-by-room or group-by-group basis using room thermostats or by incorporation into a building management system.

HYDRAULIC BALANCING

As in modern two-pipe systems with speed-regulated pumps, hydraulic balancing using automatic differential pressure controllers in the pipes/circuits is recommended. These ensure constant, preset pressures and, in combination with adjustable control valves with actuation at the fan heater, also ensure the correct, consumer-specific flow and thus the correct distribution of heat. Alternatively, hydraulic balancing can be carried out on a consumer-specific basis with pressure-independent control valves having actuators at the air heater.

Braukmann Balancing Valves: Dynamic solutions

Kombi-Auto automatic differential pressure controllers for applications from DN10 to DN50.
Alternative: Kombi PICV up to DN50 or flanged Kombi-QM up to DN150

Kombi-Auto
Kombi-S

Kombi PICV

Braukmann Balancing Valves: Static solutions

Static balancing valves for applications from DN10 to DN400

Kombi-3-Plus

Kombi-2-Plus

Kombi-F

A valve for static balancing

Kombi-2-Plus V5032

Variable and safe
Kombi-2-Plus is a static shut-off and balancing valve for return flow with the additional functions: shut-off, presetting and measurement.

TECHNICAL DATA

- Valve housing in dezincification resistant brass
- Pressure rate PN16
- Medium: water or glycol/water mixture at -20 up to 130 °C
- Zero-maintenance due to double O-ring seal on the spindle
- PTFE seat seal
- Connection sizes:
  – DN10 to DN80 with internal thread

ADVANTAGES

- Shut-off and balancing by means of stroke limiting with digital setting display
- Quick and easy flow measurement with integrated SafeCon™ measurement connections
- All functions located on one side for easier access and use
- Valve insert with easy-to-read display of the preset value – can be set and read from outside
- Preset is not changed during shut-off

Kombi-3-Plus V5000 / V5010

Remarkably versatile
The combination of Kombi-3-Plus blue and Kombi-3-Plus red is the standard solution for static hydraulic balancing. With the simple installation of a membrane, old systems can very easily be upgraded from static hydraulic balancing to dynamic balancing.

TECHNICAL DATA

- Valve housing in red bronze
- Pressure rate PN16
- Medium: water or glycol/water mixture at -20 up to 130 °C
- Zero-maintenance due to double O-ring seal on the spindle
- PTFE seat seal
- Connection sizes:
  – DN10 to DN80 with internal thread
  – DN10 to DN50 with external thread

ADVANTAGES

- Shut-off and balancing by means of stroke limiting with digital setting display
- Subsequent upgrade to automatic differential pressure controller possible
- Precise flow measurement with the red fixed orifice supply valve
- Various options for extension via the valve insert (actuator for zone control, measurement, draining, control with a membrane)
- Valve insert with easy-to-read display of the preset value – can be set and read from outside
- Preset is not changed during shut-off

Kombi-F V6000

Functionality on a large scale
The Kombi-F balancing and shut-off valve enables adjustment of the individual heating sections, with the additional functions: shut-off, presetting and measurement.

TECHNICAL DATA

- Valve housing in grey cast iron
- Pressure rate PN16
- Medium: water or glycol/water mixture at -20 up to 130 °C
- Stainless steel valve insert
- PTFE seat seal
- Connection sizes:
  – DN20 to DN400 in flanged design

ADVANTAGES

- Shut-off and balancing by means of stroke limiting with digital setting display
- Quick and easy flow measurement with SafeCon™ measurement connections
- Stainless steel spindle
- Non-rising spindle with double seal
- Preset is not changed during shut-off

Static hydraulic balancing

By installing balancing valves, variable pressure losses are incorporated in the pipes, enabling even flow and distribution.

EVALUATION

	low	high
Energy efficiency		
Comfort		
Commissioning complexity		
Calculation effort		

ADVANTAGES

- Designed to ensure even flow rates in the different sections

DISADVANTAGES

- Only applies to the design scenario (generally full capacity)
- There are temperature differences within floors
- Presetting the shut-off valves requires complex calculation
- Complex measurements and settings are necessary for commissioning

Energy-saving potential of up to:

5 %

A valve for dynamic balancing with differential pressure control

Kombi-Auto V5001PY and Kombi-Auto Flange V7000

Perfect control

The Kombi-Auto V5001PY automatic differential pressure controller is the standard solution for dynamic hydraulic balancing in new buildings and renovation projects. The easy installation and setting guarantee perfectly-functioning hydraulic balancing – right from the very start.

TECHNICAL DATA

- Valve housing in dezincification resistant brass
- Pressure rate PN16
- Medium: water or glycol/water mixture at -20 up to 130 °C
- 2 pressure ranges: 5 – 35 kPa, 30 – 60 kPa
- Connection sizes: DN15 to DN50 with internal thread
- Kombi-S as a shut-off partner valve for connection of an impulse tube and extended measurement functions
- Flanged version: Connection sizes: DN65 to DN150, max. differential pressure 4bar, max. operating temperature: -10 up to 120 °C

ADVANTAGES

- No tools required for presetting
- Hand wheel displaying the preset differential pressure in kPa
- Presets secured against unintentional adjustment – can also be sealed
- SafeCon™ measurement connection
- Concealed shut-off function for easy maintenance of the system
- Preset is not changed during shut-off
- Insulation shell included in the scope of supply for optimum insulation and convenience only for threaded version

Kombi-3-Plus with membrane

Simple and complete

Simple installation of a membrane turns the Kombi-3-Plus into a dynamic solution for hydraulic balancing.

TECHNICAL DATA

- Valve housing in red bronze
- Kombi-3-Plus pressure rate: PN16, in combination with a membrane: PN10
- Medium: water or glycol/water mixture at -20 up to 130 °C
- Zero-maintenance due to double Oring seal on the spindle
- PTFE seat seal
- Connection sizes:
  - DN10 to DN40 with internal thread
  - DN10 to DN40 with external thread

ADVANTAGES

- Existing systems with Kombi-3-Plus can be upgraded from static control to differential pressure control, without any great expense.
- Upgrading also possible during operation

Kombi-TRV V2100PI

All in one

A simple and robust solution for two-pipe heating systems with differential pressure up to 60 kPa and flows up to 160 l/h: Kombi-TRV combines a thermostatic radiator valve with inbuilt differential pressure controller.

TECHNICAL DATA

- Valve housing in brass
- Medium: water or glycol/water mixture
- Max. differential pressure 60 kPa
- Max. design flow 160 l/h
- Standard dimensions according to EN 215
- Thermostatic radiator valve 30x1,5
- Design size DN10, DN15, DN20
- Design angle, straight, axial (only DN10 + DN15)

ADVANTAGES

- Less effort
- Easy automatic hydronic balancing
- Less system components
- Fast planning
- Easy installation and commissioning
- Reliable, robust and less dirt sensitive design
- No complex piping and pressure loss calculations

Use the TRV balancing app to find the right presetting of radiator valves quickly and easily.

GET IT ON Google Play

Download on the App Store

Dynamic hydraulic balancing with differential pressure controllers

Differential pressure controllers maintain a constant differential pressure in the pipes, regardless of the flow. This form of balancing is particularly suitable for systems with a variable flow, such as two-pipe heating systems.

EVALUATION

	low	high
Energy efficiency		
Comfort		
Commissioning complexity		
Calculation effort		

ADVANTAGES

- Automatically adjusts for all operating conditions, even under partial load
- Easy to set up hydraulic balancing, since only the calculated differential pressure needs to be set

DISADVANTAGES

- Installation complexity is slightly higher than with static balancing because an impulse tube is required (does not apply to Kombi-TRV)

Energy-saving potential of up to:

10 %

A valve for dynamic balancing with flow control

Kombi PICV V5007T

All in one

As an automatic, pressure-independent control valve, the Kombi PICV combines the advantages of an automatic pressure-independent flow controller with those of a constant valve – all in one product. They can cover all flow requirements from DN15 to DN50 threaded applications. For bigger flanged applications from DN65 up to DN150 Kombi-QM is used.

TECHNICAL DATA

- Medium: Water or water-glycol mixture, quality to VDI 2035 pH-value: 8 up to 9.5
- Max. operating pressure:
  max. 25 bar for V5007TZ10..., V5007TN10...;
  max. 16 bar for V5007TZ20..., V5007TN20...
- Differential pressure range: Δpmin 600 kPa (6 bar)
- Max. operating temperature medium: -5 up to 120 °C
- Connections/Sizes: DN15 to DN50
- Leakage: According to Class IV
  IEC 60534-2-3 (up to 6 bar differential pressure)

ADVANTAGES

- Dirt resistant design: no dead zones in the valves. Maintenance of the system possible through draining screw
- Precise pressure independent flow performance
- Highest energy saving potential due to efficient energy transfer and minimized pump speed
- Measuring possibility to find the optimal setpoint for the pump
- Reduced movements of actuators as pressure fluctuation do not influence the required temperature
- No complex calculation needed for selection
- No balancing method needed for commissioning
- 2 versions of the product available
- Patented design of the product
- Easy commissioning: Presetting with visual flow scale

Kombi-VX V5003FY

All under control

The Kombi-VX automatic control valves ensure a constant flow rate, even under fluctuating pressure conditions. The flow rate can be preset from outside on the valve insert.

TECHNICAL DATA

- Valve housing in brass
- Pressure rate PN25
- Medium: water or glycol/water mixture at -20 up to 120 °C
- Connection sizes:
  – DN15 to DN50 with internal thread

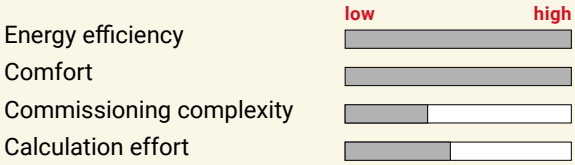
ADVANTAGES

- Controls the set flow rate independently of the pressure
- Precise control over the full stroke
- Handling of all functions from one valve side
- All variants with SafeCon™ measurement connections to ascertain the optimum pump pressure
- Valve insert with easy-to-read display of the preset value – can be set and read from outside
- Valve inserts can be replaced with any of the nominal widths DN15, 20 and 25

Dynamic hydraulic balancing with flow controller PICV

Flow controllers maintain a constant flow in the pipes, regardless of the differential pressure. Pressure independent control valves vary the flow together with an actuator, depending on the consumption.

EVALUATION



ADVANTAGES

- Automatically adjusts for all operating conditions, even under partial load
- Easy to set up hydraulic balancing, since only the calculated flow needs to be set
- Wide range of application
  - Sizes DN15 to DN50 cover all popular sizes on Fan Coil Units.
  - Various versions to support standard flow rates as well as low flow and high flow needs
  - Covers hydronic balancing and temperature control in one valve thus reducing mounting costs
- Maintenance friendly
  - Emergency shut-off function with plastic cap: not for permanent use, available as accessory
  - Dirt resistant design: no dead zones in the valves. Maintenance of the system possible through draining screw

Energy-saving potential of up to:

30 %

A valve for 4-conductor systems with one heat exchanger

VBG26

One signal switches between heating and cooling

The Resideo Braukmann VBG26 valves are 6-way motorized ball valves that switch the flow between heating and cooling. With the innovative design a cross-flow is reliably prevented. The valves can be equipped with a 2-position thermoelectric actuator MR6-024-2POS fulfilling exactly the function of the changeover from heating to cooling. Combined with the MR6-024-010 a 0…10V actuator it is possible to switch to an additional 3rd position where both heating and cooling circuits are closed.

Kombi PICV with VBG26

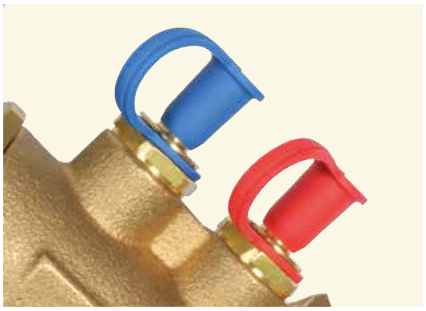
Balancing possibilities

To meet the required temperatures and to avoid an overflow in the system, a hydraulic balancing can be done. With the VBG26 valves there are two possibilities to do it. The simple way is to use the included kv-discs. The valves are supplied with the maximum kv and can be configured to other kv's by using the kv-discs. Using kv-discs have the advantage that the logistics is reduced as only the DN size needs to be considered (DN15 and DN20) and the flow rates can be done by kv-discs – no need to order and store various DN sizes of a valve with various flow rates. The recommended way of system balancing is with a PICV. We highly recommend using the Kombi PICV (V5007) with the VBG26 valve. A separate tailpiece (ACS-15T) can be ordered to connect the Kombi PICV directly to the 6-way valve, thus saving installation space and effort. The Kombi PICV automatically balances the set flow rate independent from pressure fluctuations, and the actuator further maintains the flow rate according to the temperature. Combined Kombi PICV and VBG26 valves are the ideal solution for chilled ceilings and single fan coil units!

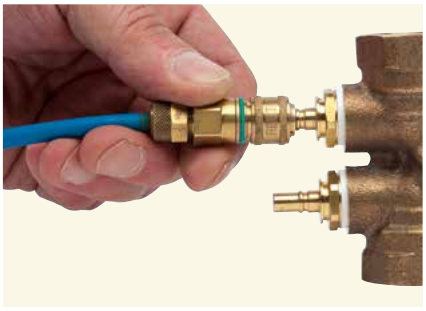
Resideo solutions: Clever. Clean. Quick.

SafeCon™ measurement connections

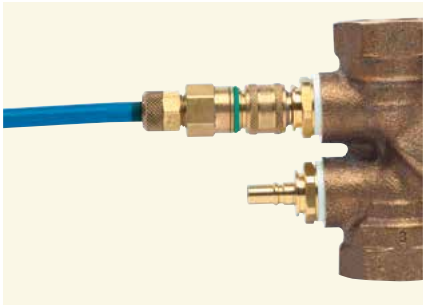
Commissioning made easy
When commissioning a system, carrying out measurements is a time-consuming and unpopular task. Resideo Braukmann snap-on SafeCon™ measurement connections can be used to carry out any necessary measurements quickly, easily and safely – no matter what the installation position!



Pressure test connections with clear colour coding.



Attaching the test hose with a simple “click”.



Measurement can be carried out with a secure connection.

To remove the hose, pull the ring and remove. Done!

BasicMes

The measurement device for any eventuality
With BasicMes-2 (VM242A), Resideo Braukmann offers a measuring computer for determining flow values, which is predominantly used in heating and cooling systems. A large, coloured display simultaneously shows the flow, differential pressure, valve choice and presetting. The measurement results can be downloaded using the USB cable included as an accessory. BasicMes from Resideo Braukmann can be used to test all popular brands of balancing valves: for any eventuality – BasicMes!

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