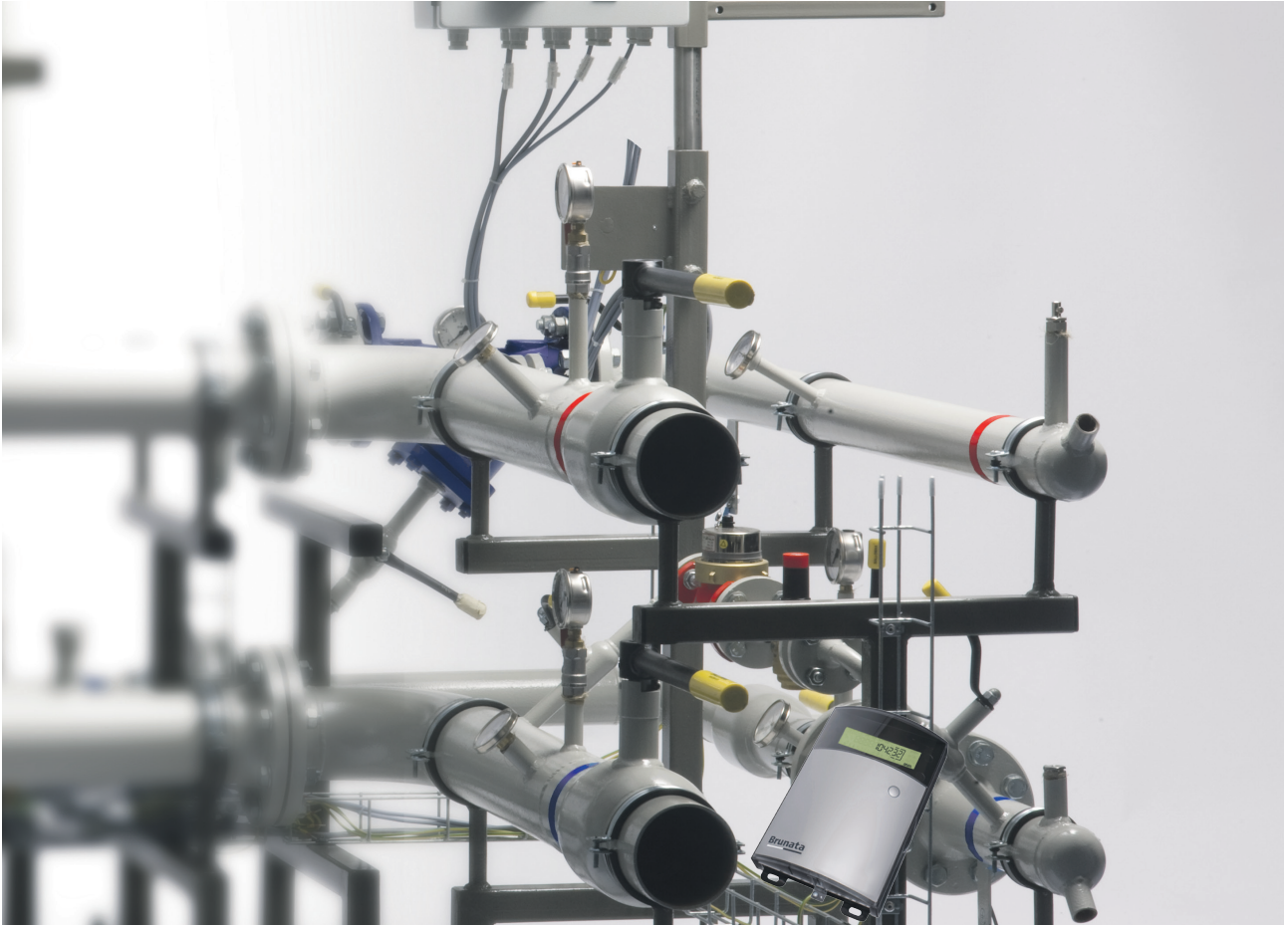


Brunata OpTherma substations



Optimising resources with
Danish substation solutions

Brunata

Brunata OpTherma substations

Linking energy networks

A substation functions as the link between the district heating plant and your local heating circuit. It separates the water circuits physically and transfers the exact amount of heat / energy needed in the building under all conditions.

The Brunata OpTherma substation is the optimum solution for connecting to the district heating network and serves the different heating requirements of most buildings – residential as well as industrial.

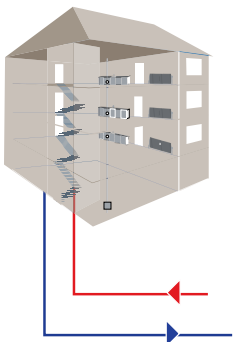
Today, district heating is recognised as the most flexible and environmentally safe way of distributing energy for heating and domestic hot water. Many countries already have comprehensive district heating networks, and expansion is ongoing.

OpTherma System Design

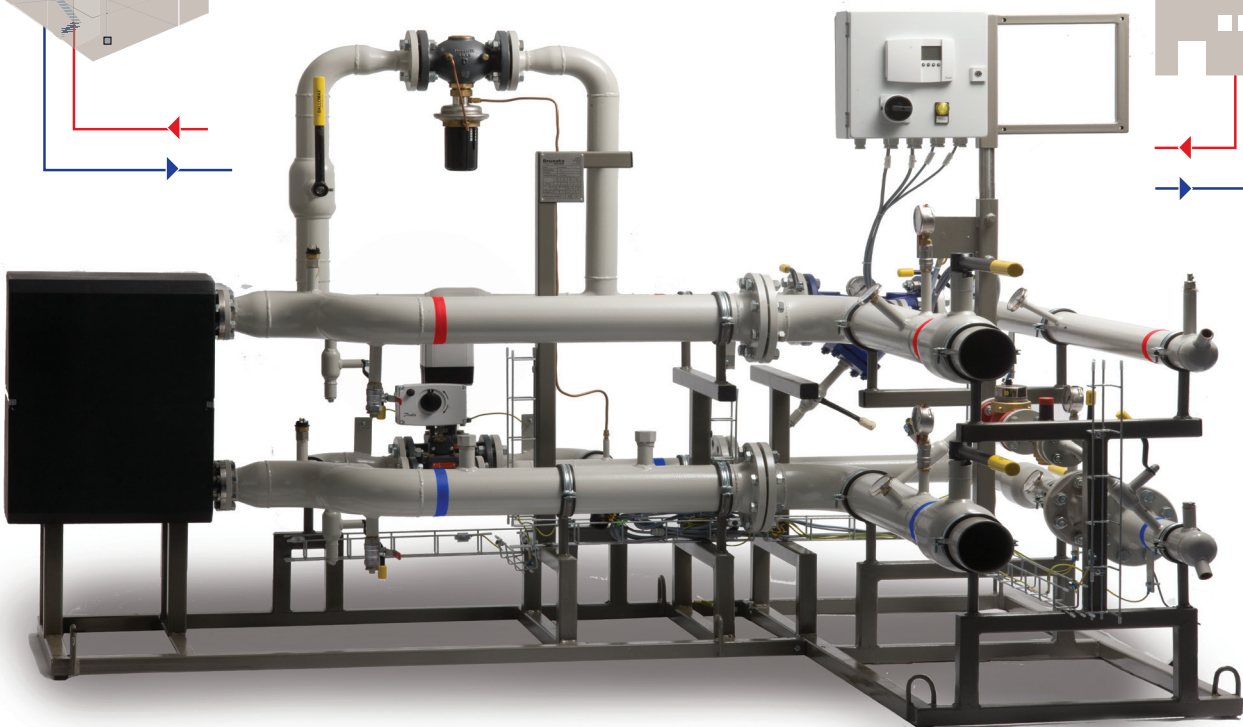
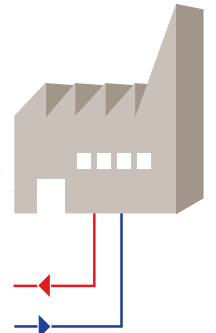
OpTherma System Design is the name of Brunata's own dimensioning software. It ensures that your local Brunata representative can provide you with the

optimum solution for all scenarios based on your wishes and unique system parameters. In all senses OpTherma System Design makes the construction and daily operations easy with:

- full configuration flexibility
- economic overview of the project
- energy efficiency
- time saving qualities



OpTherma lets you control the power of your district heating connection with ease. It is a solution for all heating purposes from single heating circuits to advanced, energy efficient multiple heat exchanger constructions including DHW.

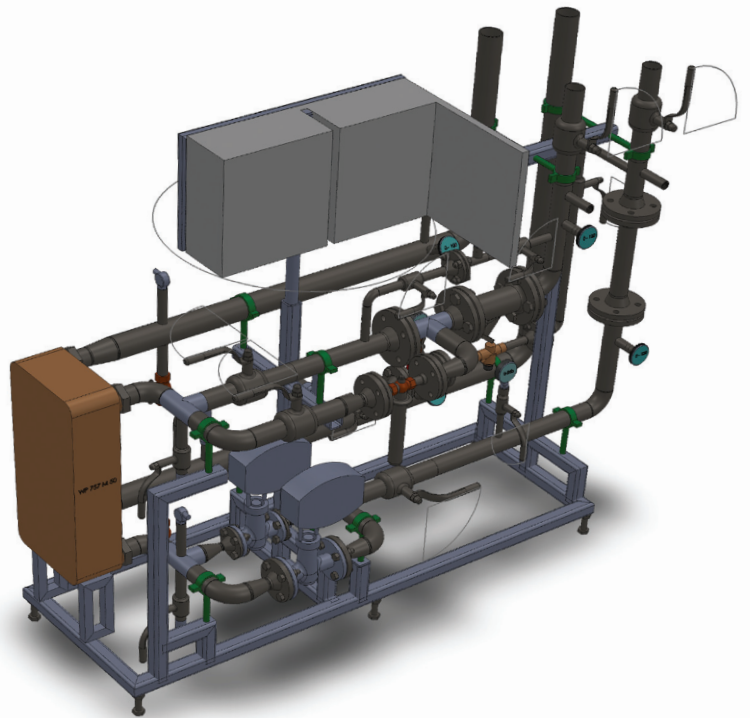


Brunata OpTherma substations

OpTherma – easy and efficient

Brunata OpTherma solutions have served international markets since 1993 with a continuous improvement in design and production capability. What started as a basic production unit is now a fully fledged and modern substation factory with the capacity of making thousands of substations per year. Today, Brunata provides need based modular substation solutions including:

- a compact design with a logical system layout that makes it easy to transport, install, service and operate
- a complete "plug & heat" solution that makes the installation phase easy for installers, consultants and building supervisors increasing overall productivity and profitability
- a substation that is delivered completely assembled, function tested and wired for trouble-free and efficient installation
- a solution that completely meets requirements and operating demands of local district heating companies

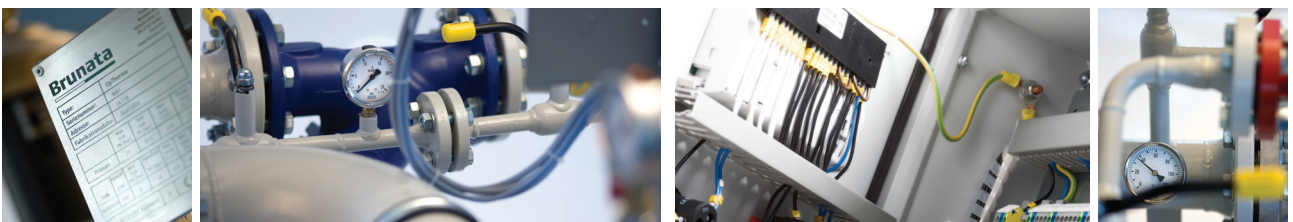


Accurate CAD 3D models with complete schematics are available for all Brunata OpTherma solutions. Customised models are made on demand.

Examples of Brunata OpTherma substation solutions

DHW KW	Central heating KW	Overall dimensions LxDxH	Weight	Connections Prim - Sec - DHW
50	100	1200x600x1200	68	DN20 - 1 ¼" - ¾"
75	150	1200x600x1300	72	DN25 - 1 ¼" - 1"
100	200	1200x600x1300	81	DN32 - 2" - 1"
125	250	1300x700x1500	90	DN32 - 2" - 1"
150	300	1400x700x1500	93	DN40 - 2" - 1 ¼"
175	350	1500x700x1500	102	DN40 - 2 ½" - 1 ¼"
200	400	1800x700x1600	110	DN40 - 2 ½" - 1 ¼"
250	450	1800x700x1600	125	DN50 - 2 ½" - 1 ¼"
∞	∞	∞	∞	∞

OpTherma substations are available in sizes and custom configurations from ~ 20KW up to 15MW+



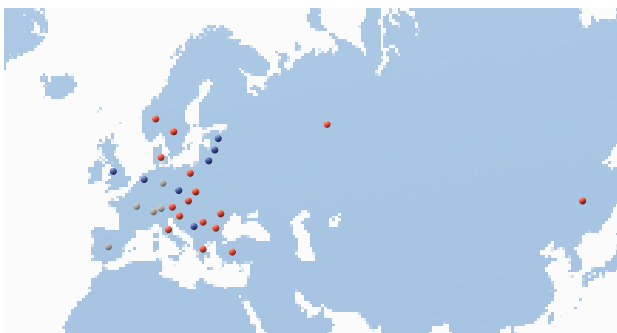
Brunata has a wide cooperation with branch leading manufacturers which guarantees high reliability, durability and low operating costs.



Brunata OpTherma substations

About Brunata

Brunata's roots can be traced back to the pioneering days in the beginning of the 20th century when a Danish engineer invented a thermoelectric heat meter for radiators. Ever since then, innovation has been a key issue for Brunata, and thus, research and development continue to be core functions in our company. With almost a century of experience, Brunata offers products and services of unique quality that comply with the requirements of today's world.



Where to find us

Brunata is present in Bulgaria, China, Croatia, Denmark, Greece, Hungary, Italy, Norway, Poland, Romania, Russia, Serbia, Slovenia, Sweden, Turkey and has partners in Bosnia-Herzegovina, Czech Republic, Great Britain, Estonia, Latvia, Slovakia and Netherlands. Brunata technology is also present in Austria, France, Germany, Spain, Switzerland and Ukraine.

Brunata OpTherma production

Brunata OpTherma production is EN ISO 9001:2008 certified, and all related products are also controlled by the thorough Brunata quality assurance. Certification is continually done by the renowned institution of Aerocert, Germany. All substations are CE marked, and pass exhaustive testing of all aspects from pressure tolerance to function testing of regulation equipment.

Documentation

All substations are delivered with a complete documentation package.

Questions or enquiries concerning Brunata OpTherma Substations ?

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Brunata

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