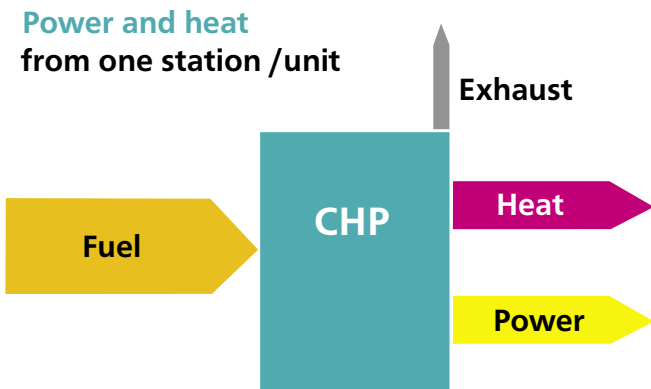# Mini Power
Combined Heat and Power Station

Maschinenbau Reindl GmbH

Mini Power CHP Technology

Technology that saves on energy, not on convenience

Power and heat
from one station /unit

Exhaust

Fuel → CHP → Heat

Power

Technology

A combined heat and power station (CHP) consists of a motor-generator unit with associated heat exchangers.

The engine is an industrial combustion engine that has been modified for this specific case of operation. This ensures a very long system service time.

The water-cooled generator, flange-mounted directly onto the combustion engine, is connected upon starting of the motor and generates power that can either be used in the house or can be fed in the public power supply network.

Heat produced during operation of the combustion engine is supplied to the building's heating system via exhaust gas and cooling water exchangers.
Due to the system's closed water circuit, the CHP is protected against external parasitic/disturbing influences (dirt, air in the heating system, etc.).

Usage of energy

Thanks to the heat isolation of the system, its water-cooled generator, exhaust gas heat exchanger and the cooling water connection of the combustion engine, the heat generated in the process is supplied almost entirely to the heating and warm water system.
If the generated power is considered as well, it becomes obvious that the efficiency factor/ratio of the used primary energy is distinctly higher than that of conventional power plants.

Efficiancy (factor)

Coal-fuelled power plant	Diesel engine	CHP	Perpetuum Mobile
35%	37%	80%	
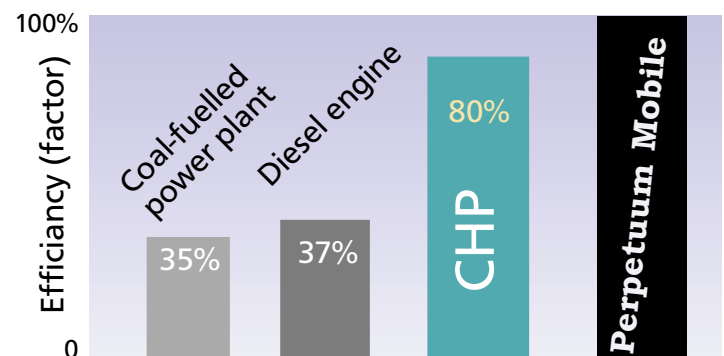
Convenience

The system is encapsulated in a very effective insulating sound-absorbing casing which ensures that the operating noise is negligible even in closest proximity to the system. With its compact sturdy basic frame, layered on levelling plates ,the system can be installed virtually anywhere in the building. No specific prerequisites need to be met by the installation site.

The CHP is delivered ready for connection, which makes installation a lot easier which considerably reduces the installation effort.
External transport vats ensure a safe transport to the installation site.

Last but not least, operability is greatly supported by a full maintenance service, which guarantees the convenience you are used to.

Mini Power CHP Technology

Technology that ensures professional energy management

warm ◎

Boiler

cold ◎

Distributor

Buffer

CHP
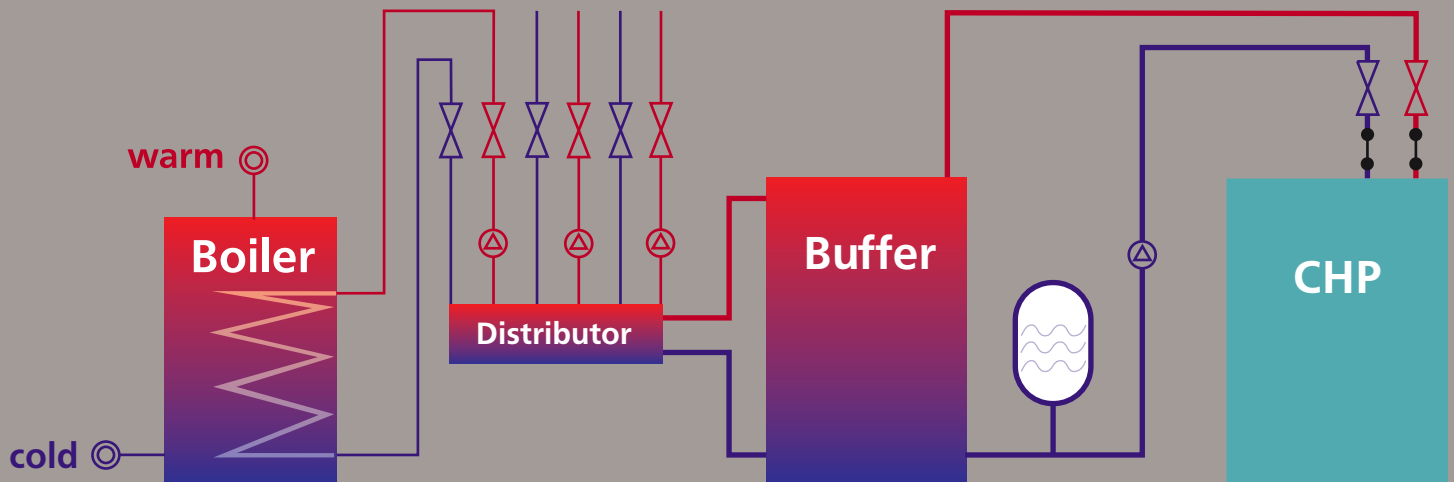
Intelligent regulation system

With the CHP control, the *Mini Power* system can be configured such that convenience and efficiency are optimal and aggregate management is perfect.

The HRP22 is included in the standard delivery scope/package. It supplies all the functions required for buffer, boiler and heating control. Highest ease of use is ensured due to consistent parameter monitoring and their representation both in diagram format and in plain text.

CHP applications:

One-family houses and apartment buildings
Residential houses with adjacent premises
Old buildings
Public houses
Hotels

Agricultural estates
Office buildings
Schools and kinder gardens
Business enterprises
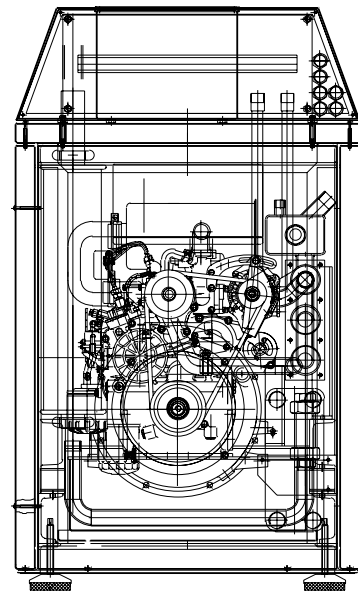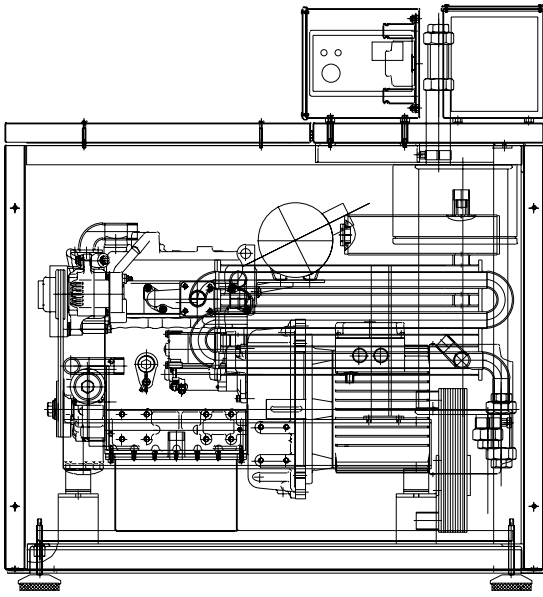Workshops and facilities
Production halls
Swimming baths/pools

Hotel

Multiple dwelling

Old Building

Mini Power CHP Technology

Technology that will convince you

BK5.5/H *Mini Power*

Fuel	Fuel oil
Electrical performance	5,7 kVA
Heat capacity	13,5 KW
Rated voltage	400 V
Frequency	50 Hz
Engine speed	1500 U/min
Engine type	Kubota
Number of cylinders	3
Cylinder capacity	1123 ccm
Fuel consumption	2,3 l/h
Operation mode	Network parallel operation
Generator type	Asynchronous (water- cooled)
Isolated operation	-
Noise emission	56 dB(A)
Control	HRP 22
Start battery	12 V 45 Ah
Weight	540 kg
Dimensions: LxWxD	1080 x 690 x 1200 mm
Maintenance intervals	2500 h
Type of operation	Heat operated

Designation/Installation	Connection
Heating circuit pre-pressure 2,5 bar	3/4" AG
Exhaust gas pipe	$\varnothing$ 28 mm 1"AG
Fuel pipe	$\varnothing$ 10 mm
Bus bar	5 x 2,5 mm²
Pre-fuse S-Automat	3 Pol. 20A-K
Circulation capacity	720 l/h

No responsibility is taken for the correctness of this information

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