The effective conduction of heat to the depths of the accumulative mass

The effective conduction of heat from the internal parts of the accumulation ring when absorbing the heat from flue gases to the total depth of the accumulative mass is very important. It governs the speed with which the accumulation ring is prepared for use. Thanks to the special structure of the MAMMOTH Romotop ring, the accumulation segments are already prepared after two to four additions of fuel to the fire. The time required for the accumulation of heat for later use is thus significantly shortened.

For effective and fast conduction of heat to the depths of the accumulation mass, it is necessary that the internal segment of the accumulation ring manages to bring the heat absorbed from flue gases as fast as possible to the entire depth of the accumulation segments. If the used material has a low speed of heat conduction, a lot of time is needed for accumulation by the accumulation segments. For instance, if we need to heat only for a short period of time, when a material with a slow speed of

External accumulation segment

Internal castiron segment

conduction is used, it can result in the accumulation segments not heating up at all because the heat absorbed from flue gases by the internal areas of the ring will radiate back to the already cooled chimney.

That is why Romotop MAMMOTH uses an internal segment of high-quality cast iron to conduct the heat to depth. This material can conduct heat up to 40 times faster than ceramic or the fire concrete materials used for the construction of accumulation rings. Furthermore, the internal cast iron segment is equipped with a plate-shaped ring around its perimeter which transfers heat to the external layers of the accumulation segments.

