

## Maximal transfer of heat from flue gases to the accumulation rings

For Romotop MAMMOTH accumulation rings, just like for every heat exchanger, the size of the heat exchange areas that are capable of absorbing heat from flue gases to the individual rings is of great significance. The size of the heat exchange area is significantly dependent on the size of the rise of the internal “s” helical ladder. The lower the rise of the helix, the more threads the accumulation ring can have and in this way the necessary heat exchange areas can be achieved.

It was possible to reduce the size of the rise of the helix of the internal helical ladder in Romotop MAMMOTH accumulation rings by more than three times compared with the standard solution, which resulted in a significant rise in the heat exchange area. In addition, the ladder was sloped downwards to the centre of the ring which

is marked in the drawing as the angle “ $\varphi$ ”. Thanks to this sloping, the heat exchange area increased and this also prevents the clogging of the rings with solid particles contained in the flue gas. These particles fall freely through the internal opening in the axis of the ring back into the combustion chamber of the fireplace insert. The entire accumulation ring is constructed such that it does not affect the draft in the chimney.

