New vertical furnace \((W \times H \times D)\) 6,4 m x 5,3 m x 2 m

At the site Lathen the Test Centre for Fire Protection of DMT GmbH & Co. KG is located. With a building area of 900 m² and an eaves height of 11,5 m, the new building offers optimal space for the mounting and fire testing of vertical test elements. A flue gas cleaning system specially built for the fire resistance tests ensure a secure, environment-conscious and climate-friendly disposal of the combustion gases. The environmental management of DMT GmbH & CO. KG is certified according to DIN EN ISO 14001:2015.

The new test furnace is designed for vertical test specimens and provides the following technical data:

- Open clearance test chamber \((W \times H) = 6.400 \text{ mm} \times 5.300 \text{ mm}\)
- Lateral firing of the furnace with in total 16 gas burners parallel towards the furnace opening
- Distance of the burner axis to the furnace opening approx. 1,25 m
- Burner capacity each approx. 400 kW whereby a total capacity of approx. 6.400 kW is reached at full power
- In total 24 furnace thermocouples are measuring the furnace temperature positioned according to EN 1363-1
- The microprocessor-controlled burners are controlled in accordance with EN 1363-1
- Into the furnace back side are embedded in total 4 sight glasses and an access door
- 2 special cameras can be placed into the sight glasses to record the test specimen during the fire test from the side of the furnace

The bright illuminated mounting hall is equipped with two modern 16 tons bridge crane with two trolleys each. Miscellaneous mounting aids are provided if required. The test area is discretely separated from the mounting area by a gate.
Relevant test methods

**EN 1364-1 : 2015**
Fire resistance tests for non-loadbearing elements – Part 1: Walls

**EN 1366-7 : 2004**
Fire resistance tests for service installations - Part 7: Conveyor systems and their closures

**EN 1634-1 : 2014**
Fire resistance and smoke control tests for door and shutter assemblies, openable windows and elements of building hardware – Part 1: Fire resistance test for door and shutter assemblies and openable windows

**EN 1364-3 : 2014**
Fire resistance tests for non-loadbearing elements – Part 3: Curtain walling – Full configuration (complete assembly)

**EN 1364-4 : 2014**
Fire resistance tests for non-loadbearing elements – Part 4: Curtain walling – Part configuration

**EN 45545-3 : 2013**
Railway applications – Fire protection on railway vehicles – Part 3: Fire resistance requirements for fire barriers

**MSC.307(88) (2010 FTP-Code) Annex 1, part 3**
Fire resistance of divisions of type A, B and F