

# DIN EN 1366-5:2010-06 (E)

## Fire resistance tests for service installations - Part 5: Service ducts and shafts

---

<b>Contents</b>		<b>Page</b>
Foreword .....		4
Introduction .....		5
<b>1</b>	<b>Scope .....</b>	<b>6</b>
<b>2</b>	<b>Normative references .....</b>	<b>6</b>
<b>3</b>	<b>Terms and definitions .....</b>	<b>6</b>
<b>4</b>	<b>Test equipment .....</b>	<b>7</b>
4.1	General .....	7
4.2	Furnace .....	7
4.3	Loading equipment .....	7
4.4	Gas extraction equipment (optional) .....	7
<b>5</b>	<b>Test conditions .....</b>	<b>7</b>
5.1	Furnace .....	7
5.2	Loading .....	7
<b>6</b>	<b>Test specimen .....</b>	<b>8</b>
6.1	Size .....	8
6.1.1	General .....	8
6.1.2	Length .....	8
6.1.3	Cross-section .....	8
6.2	Number .....	8
6.3	Design .....	8
6.3.1	General .....	8
6.3.2	Duct and shaft arrangement .....	9
<b>7</b>	<b>Installation of test specimen .....</b>	<b>10</b>
7.1	General .....	10
7.2	Standard supporting construction .....	10
7.3	Non-standard supporting constructions .....	10
<b>8</b>	<b>Conditioning .....</b>	<b>11</b>
8.1	General .....	11
8.2	Sealing materials prepared with moisture .....	11
<b>9</b>	<b>Application of instrumentation .....</b>	<b>11</b>
9.1	Thermocouples .....	11
9.1.1	Furnace thermocouples (plate thermometers) .....	11
9.1.2	Thermocouple locations .....	11
9.2	Pressure .....	12
<b>10</b>	<b>Test procedure .....</b>	<b>12</b>
10.1	General .....	12
10.2	Test measurements and observations .....	12
10.2.1	General .....	12
10.2.2	Integrity .....	12
10.2.3	Insulation (temperature of the surfaces outside the furnace - for both exposure at the inside and exposure at the outside) .....	13

10.2.4	Additional observations .....	13
10.3	Termination of the test .....	13
11	Performance criteria .....	13
11.1	Integrity .....	13
11.2	Insulation .....	13
12	Test report .....	13
13	Field of direct application of test results .....	14
13.1	Walls or floors through which the ducts or shafts lead .....	14
13.2	Sizes of ducts or shafts .....	14
13.2.1	Fire exposure from outside .....	14
13.2.2	Fire exposure from inside .....	15
13.3	Admissible services .....	15
13.4	Suspension devices for ducts .....	15
13.4.1	Material and sizing .....	15
13.4.2	Elongation .....	15
	Bibliography .....	24