

DUST TEST SYSTEMS



Dust Test Chambers Types ST



Dust Test Chamber SYSTEM WEISS, Type ST 1000 U

WEISS Dust Chambers allow reproducible testing of the resistibility of electro-technical products against dust, and the determination of IP-protection types by housings of electrical devices and equipment of road vehicles.

Special Features:

- Chambers are suitable to meet test specifications
- Compact design, ready for connection
- Easy operation
- Easy to service

Design Features

ST 1000 for standard SAE J575

ST 1000U for DIN/VDE 0470 part 1 (EN 60529),

IEC 68-2-68, La2 (DIN EN 60068-2-68)

- Waste air exhaust via dust filter (ST1000)
- Abrasion resistance of all components in contact with the dust
- Transparent doors for easy charging, with surrounding special gaskets
- Dust collecting section below the test chamber

Optional Equipment

- Test chamber lighting
- Low pressure system for specimen
- Ports, 50 mm and 100 mm Ø
- movable design

Test Chamber Dimensions			Overall Dimensions			Door opening	
Height mm	Width mm	Depth mm	Height mm	Width mm	Depth mm	Height mm	Width mm
1.000	950	950	1.900	1.250	1.050	850	850

Special sizes upon request

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Dust test chambers for horizontal air flow with wind simulation

Design Features for ST 600 and ST 2000

- Housing made of galvanised sheet steel, enamelled
- Ring duct with integrated test chamber (horizontal air flow)
- Uniform and steered flow by air baffle plates
- Air velocity control by speed adjustable air fan
- Abrasion resistance of all components in contact with the dust
- Large doors for easy loading, with surrounding special gaskets
- Dust measurement and control by means of a dust dosage device
- Temperature-conditioning device
- Dehumidification system with compressed air drier
- Operating hour counter



Dust test plate ST 600, System Weiss

Optional Equipment

- Digital programmer
- Port, 50 mm Ø, 100 mm Ø
- Low pressure system for specimen
- Point printer for registration of temperature
air velocity
dust density
- Rotary table, 300 mm Ø

Type	Test Chamber Dimensions			Overall Dimensions			Door opening		for tests acc. to
	Height mm	Width mm	Depth mm	Height mm	Width mm	Depth mm	Height mm	Width mm	
ST 600	800	1.000	800	2.400	4.200	1.500	840	740	MILSTD 810D Meth. 510.2 DIN 40 050, part 9 IEC 68-2-68, Lc1
ST 2000	800	3.100	800	2.500	6.400	1.800	700	3.000	

Special sizes upon request

All data are subject to technical modifications.

Test Specifications

No.	Test Specification	Protection Grade	Test Duration	Temperature (°C)	Rel. Humidity (%)	Air - velocity (m/sec.)	Dust Density	Dust Composition	Particle Size
1	DIN/VDE 470 part 1 picture 2 (EN 60529)	IP 5 X dust protected resp. IP 6 X dust-tight	2 - 8 h depending on the air flow rate			vertically, to achieve slowest possible down-ward settlement	2 kg per m ³ chamber volume	100 % dry fine grained talcum	wire diameter 50 µm, mesh size 75 µm, square mesh
2	IEC 68-2-68, La2 (DIN EN 60068-2-68)		2 - 8 h depending on the air flow rate		<25 %	vertically, to achieve slowest possible down-ward settlement	2 kg per m ³ chamber volume	100 % dry fine grained talcum	wire diameter 50 µm, mesh size 75 µm, square mesh
3	IEC 68-2-68, Lc1 (DIN EN 60068-2-68)		2 - 24 h		<25 %	1,5 - 10 horizontal	1 ± 0,3 2 ± 0,5 5 ± 1,5 10 ± 3	Olivin, quartz or felspar	fine dust 2-75 µm dust 2-150 µm
4	DIN 40050 part 9, May 1993 picture 1 vertically	IP 5KX IP 6KX	20 cycles 15 min Pause, 6 sec. dust whirl up				2 kg per m ³ chamber volume	50 % limestone 50 % flue dust	33 weight parts ≤ 32 µm 67 weight parts ≥ 32 µm; ≤ 250 µm
	DIN 40050 part 9, May 1993 picture 2 horizontal	IP 5K X IP 6K X	0,5 - 24 h			1,5	5 ± 2	50 % limestone 50 % flue dust	33 weight parts ≤ 32 µm 67 weight parts ≥ 32 µm; ≤ 250 µm
5	MIL-STD-810D Method 510.2 (flue dust)		6 + 16 h	23 °C	max. 30 %	9 and 1,5	10,6 ± 7	97-99 % SiO ₂	US standard 100 % No. 100 98±2 No. 140 90±2 No. 200 75±2 No. 325
6	SAE standard J 575		5 h 15 min Pause, 2 - 15 sec whirl up dust					Portland cement acc. to ASTM C 150-77, Type 1	

For further material testing Weiss Umwelttechnik GmbH provides an extensive program of units and systems:



- Temperature and climate test cabinets from 64 l up to walk-in chambers
- Shock test cabinets for temperature shocks from -80 to +250 °C
- combined temperature and climate test cabinets and units with vibrator
- Temperature-conditioning chamber for tension testing machine
- Corrosion test units
- Climate test cabinets for combined climate and gassing tests
- Climate cabinets for combined climate and gassing tests
- Spray and Splash water test units according to the relevant national and international standards.

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