642 | High Speed Blow Point Tester
Model BP-2

Standard model (Left) / CE model (Right)

■Application

When vulcanizing relatively large products, including tires, belts and anti-vibration rubbers, these products will have differences in the degree of the vulcanization between their inside and surface after the vulcanization. Once they are removed from molds, their vulcanization will also proceed due to the heat they have reserved.

The Blow Point Tester allows the operators to determine the vulcanizing time of the above mentioned products and manage their processes through implementing tests. In particular, the machine calculates an equivalent degree of vulcanization from the vanishing point of voids (the point at which void will disappear) which are generated when vulcanized with tapered molds and temperature increase curb measured at four points of the center of samples with the equipped temperature sensors. This is the principle of the Blow Point Tester.

The “blow point” is defined as the degree of vulcanization at which voids will disappear and its vanishing point when vulcanizing tires. The vulcanizing time of tires is determined by simulating the time when voids within tires will be disappeared.

■Features

- Enabling automatic operation effortlessly from the data processing unit.
- Calculating the blow point value easily by cutting the vulcanized samples to identify the position of voids and entering the data into the data processing unit upon the test completion.
- Measuring the blow point value by using three different size molds as needed.

■Specifications

Model	BP-2
The size of heating plate	W350 x D200mm
The material of heating plates	Duralumin, heating with the electric heater
Mold	Material: S50C hard chrome plating When ordering, select one of the following three types of molds: ● 10mm mold (standard) (Inside dimensions: W55 x L140 x H6-10mm, tapered) ● 20mm mold (option) (Inside dimensions: W55 x L140 x H6-20mm, tapered) ● 30mm mold (option) (Inside dimensions: W55 x L140 x H6-30mm, tapered)
Driving mechanism of heating plate	Pneumatic cylinder, inner diameter 140mm
Mold clamping force	49kN or greater (@0.6MPa)
Temperature distribution	190°C±1°C (on the mold surface)
Temperature detector for control	Pt100Ω, sheath outer diameter 1.6mm
Thermocouple for the blow point measurement	Thermocouple, sheath outer diameter 1.2mm, 4 places
IN/OUT of thermocouple for measurement	Pneumatic cylinder (inner diameter: 40mm, stroke: 20mm)
Temperature range	RT+30°C to 200°C
Safety device(s)	● Over-heat protection device for upper and lower heating plates ● Safety circuit for heating plates drive system
Electrical	Three-phase, AC200 to 230V, 50/60Hz, 5.2kVA
Compressed air	0.6 to 0.7MPa
Dimensions	W570 x D800 x H785mm
Weight (approx.)	270Kg

Accessories

Description	Qty	Photo
PC and testing software	1	-----
10mm mold	1	-----
Heat retaining box for sample	1	-----

Options

Description	Model	Remarks	Photo
20mm mold	-----	-----	-----
30mm mold	-----	-----	-----
Pneumatic sample cutter	BP-CUT	19 spare blades are included	-----
Hand-lever sample cutter	CUT (SDL-100)	19 spare blades are included	-----
External step-down transformer	-----	-----	-----

Spare parts

Description	P/N	Remarks	Photo
Thermocouple	81200009	-----	-----
PTFE bushing	1100204	Model BP-1	-----
Blade for sample cutter (for both BP-CUT & CUT)	SSP-2500D	20pcs./set	-----

Related standard

JIS K 6300-4	Rubber, unvulcanized-Physical property- Part 4: Determination of blow point

Specifications are subject to change without notice.

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