

# SYD-XY150-1 Asphalt Mixture Gyrotory Compactor

## Summary

This instrument is a reference to the People's Republic of China transportation industry standard JT/T 724-724 "rotating compaction instrument", JTG E20-2011 Standard Test Methods for Bitumen and Bituminous Mixtures for Highway Engineering of T 0736-2011 the "asphalt mixture spinning compacted specimen method (SGC)" requirements, and the association of American material experiment D6925 ASTM standards, the American association of state highway and transportation officials AASHTO T312 standard, etc.. And absorb the advanced technology of the gyrotory compactor, learn widely from others' strong points and the design and manufacture. Compaction method is applicable to electric pneumatic rotary forming  $\Phi$  150 mm or  $\Phi$  100 mm (Separate purchase) emulsified asphalt and asphalt mixture, cold recycled mixture in the cylinder specimen compacted molding. In order to the lab to do the test on physical and mechanical properties of asphalt mixture.

## I. Main technical features

1. Using high hardness and high quality steel as a framework, to ensure accurate angle control.
2. Electro-pneumatic servo control regulation.
3. Color display touch control system, can be directly connected to the computer, through the interface of microcomputer can display a variety of curve table, and with the touch screen bumpless connection, joint control over the instrument.
4. Can be easily set the angle of the rotation compaction, compaction pressure, rotating speed, the number of rotation and other test parameters.
5. Compaction process that can be measured and real-time display test rotation angle, compacting pressure, specimen compaction, rotation number and other important parameters.
6. The operation of the compaction test result can be saved, draw, printed and so on.
7. Two kinds of operation modes to complete compaction experiment: (1) preset number of revolutions, (2) pre-specified height.
8. Interface configuration: 1 USB interface, 1 RS232 interface.
9. The integration of the built-in ejector.
10. Can do the heating insulation of the tryout rotation studio (optional).
11. Used for emulsified asphalt and cold recycled mixture compaction experiment.

## II. Main technical specifications

1. Rotating compaction displacement range: (0 ~ 250) mm.
2. Molded specimen height range: (50 ~ 170) mm.
3. Rotational compaction displacement accuracy: less than 0.10mm.
4. Rotation angle of compaction: (0 ~ 2) °,  $\pm 0.02$  ° adjustable, set at the factory to  $1.16$  °  $\pm 0.02$  ° (inner corners), can be customized a greater angle.
5. Rotating compaction pressure: (0 ~ 1000) kPa  $\pm 3\%$  adjustable, set at the factory to 600kpa  $\pm 2\%$ , more pressure can be customized.
6. Rotation speed: (30  $\pm$  0.3) r / min, can be customized continuously adjustable speed.
7. Spinning times: (0 to 999) times.
8. Displacement measurement: (0 ~ 220) mm.
9. Tryout Size: Standard configuration  $\Phi$ 150mm, can be customized  $\Phi$ 100mm.
10. The method of pressure: pneumatic.
11. The whole Dimensions: 900mm  $\times$  700mm  $\times$  1800mm (length  $\times$  width  $\times$  height).
12. Instrument packaging size: 1000mm  $\times$  800mm  $\times$  1950mm (length  $\times$  width  $\times$  height).
13. Mold weight: 7.5kg.
14. Weight: 400kg.
15. Power Supply: AC (220  $\pm$  5%) V, 50Hz; machine power 1000W.
16. Air requirements: pressure not less than 1.3 Mpa, volume 60 litres, 12 kg to start.

