

# BENCH TOP SPECTROPHOTOMETER

## BS 3020



EPC / PRODUCTS / APPLICATION / SOFTWARE / ACCESSORIES / CONSUMABLES / SERVICES

**Analytical Technologies Limited**

An ISO 9001 Certified Company

[www.analyticalgroup.net](http://www.analyticalgroup.net)

Bench top spectrophotometer BS 3020 has the advantage of excellent inter-instrument agreement, high accuracy and good replicability. It could meet your requirement for both color quality control and color matching easily.

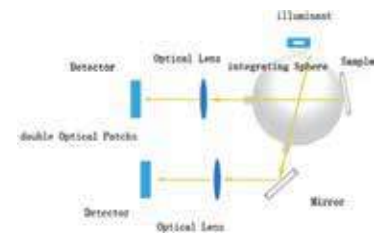
### ▶▶ **Brief Introduction**

Transmission D/0 Structure and Reflection D/8 Structure.



### ▶▶ **Double Optical Paths Spectral Analysis Technology**

It could get the measurement sample data and internal environment data at the same time to make sure the testing accuracy and stability for long time running.



### ▶▶ **Compatible with SCI/SCE Measurement**

It is easy to adjust the testing calibers. The largest caliber diameter reaches 25.4mm. It could test the sample with different sizes. BS 3020 is not only suitable for testing the color of opacity sample, but also suitable for transparent or translucent sample's transmittance and turbidity.

### ▶▶ **Large Screen Display**

It could finish the sample measurement without connecting with PC. Large screen display to make sure customer could see the testing result directly and clearly. It will be more convenient to set the instrument status. The color match software are optional according to customer's need.





▶▶ **Unique Calibration Board Design**

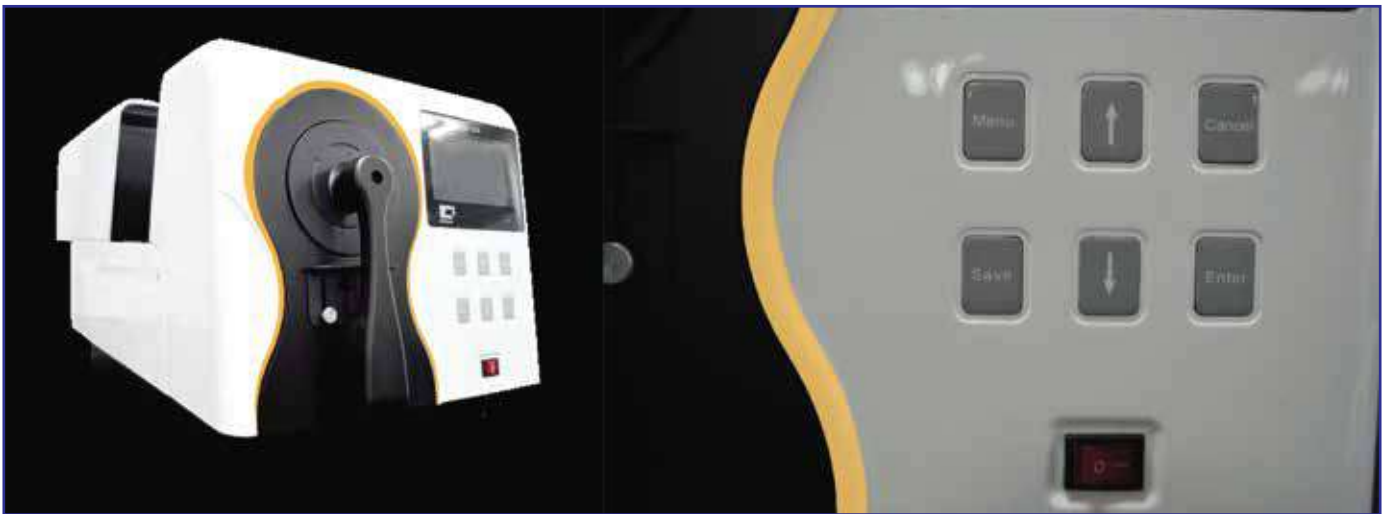
Fix the calibration board on the testing caliber to make sure the accuracy of the white calibration and guarantee the high accuracy for measurement.

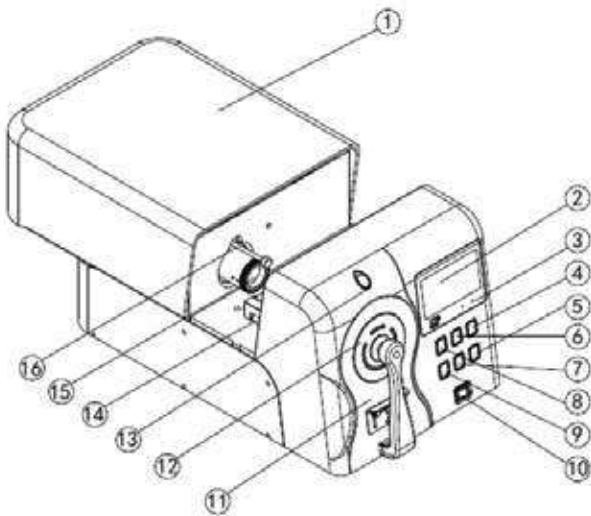
▶▶ **Flexible Test Fixture**

It could fix the sample with different size and thickness on the testing port tightly in case of stray light entering to affect the testing accuracy.

▶▶ **More Product Pictures**







- 1. Top hatch
- 2. Display screen
- 3. Transmittance measurement indicator
- 4. Cancel button
- 5. Enter button
- 6. Up button
- 7. Down button
- 8. Menu button
- 9. Menu button
- 10. Save button
- 11. Fix mount

## ►► Technical Data

Type	Priority
Measurement Condition	Reflection: d/8 (Diffused illumination, 8 degrees viewing) Compatible with SCI/SCE Measurement ISO7724/1 Teil7, JIS Z8722 condition C,CIE No.15,ASTM E1164 Transmittance d/0(Diffused lighting, Vertical direction receiving).
Size Of Integrating Sphere	Φ15.2cm.
Illumination Light Source	CLEDs(entire wavelength balanced LED light source)
Sensor	dual optical path sensor array
Wavelength Range	400-700nm or custom made (360-740nm)
Wavelength Interval	10nm.
Size Of Integrating Sphere	Φ15.2cm
Illumination Light Source	CLEDs(entire wavelength balanced LED light source)
Sensor	dual optical path sensor array
Wavelength Range	400-700nm or custom made (360-740nm)
Wavelength Interval	10nm
Half Spectral Width	5nm
Reflectivity Range	0-200%
Reflectivity Resolution	0.01%
Observation Angle	2°/10°

<b>Measurement light source</b>	A,C,D50,D55,D65,D75,F1,F2,F3,F4,F5,F6,F7,F8,F9 ,F10,F11,F12 CWF,U30,DLF,NBF,TL83,TL84
<b>Data being displayed</b>	Reflectance and Transmittance graph/value, chromatic value, color difference values , color - assessment results, color tendency, color simulation manual input standard sample, generate measurement reports
<b>Measurement time interval</b>	2 seconds
<b>Reflection Aperture</b>	Large Aperture (LAV):2.54cm (=1inch) Medium Aperture (MAV):1.5cm(=0.6inch) Small Aperture (SAV):0.75cmx1.0cm(0.3inch x 0.4inch)
	Very Small Aperture (VSAV):0.3cmx0.8cm (0.12inch x 0.31inch)
<b>Color space</b>	CIE-L*a*b,L*C*h,CIE-L*u*v,XYZ,Yxy,Transmittance , Hunterlab, Munsell MI,CMYK, RGB,HSB
<b>Color difference formulas</b>	$\Delta E^*ab$ , $\Delta E^*CH$ , $\Delta E^*uv$ , $\Delta E^*cmc(2:1)$ , $\Delta E^*cmc(1:1)$ , $\Delta E^*94$ , $\Delta E^*00$ $\Delta Eab$ (Hunter),555color classification.
<b>Other colorimetric indices</b>	WI(ASTM E313-10,ASTM E313-73,CIE/ISO, AATCC, Hunter, Taube Berger, Ganz, Stensby),YI(ASTM D1925 , ASTM E313-00,ASTM E313-73),Tint(ASTM E313-00, CIE,Ganz),Metamerism index Milm, Stick color fastness , Color fastness, APHA, Pt-Co, Gardner,haze
<b>Repeatability</b>	light splitting reflectivity: standard deviation within 0.08% Chromaticity value: Standard deviation within $\Delta E^*ab$ 0.015 * When a white calibration plate is measured 30 x at 5-second intervals after white calibration (max.0.03)
<b>Interface</b>	USB
<b>Data storage</b>	mass storage
<b>Light source longevity</b>	5 years, 1.5 million tests
<b>Size</b>	583*330*304mm(L*W*H)
<b>Work temperature range</b>	15 -32 (60°F-90°F)
<b>Relative Humidity</b>	0 to 45,relative humidity 80% or below (at 35°C), no condensatont

<b>Standard accessories</b>	power line, color management software, drive software, USB cable, black/white calibration tile, 40x10 cuvette, cuvette support, testing report
<b>Packing Information</b>	Size: 105x53x43cm, Weight:50kg



▶▶ Regulatory compliances



▶▶ Corporate Social Responsibility

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2. Improving quality of life by offering YOGA Training courses, Work shops / Seminars etc.

3. ANALYTICAL FOUNDATION aims to DETOXYFY human minds, souls and body by means of Yoga, Meditation, Ayurveda, Health Care, Awards, Media, Events, Camps etc.

▶▶ Reach us @



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