

**X-RAY  
SULFUR  
METER  
model**

**RX-620SA**

**ISO 8754, ASTM D4294**



**RX-620SA** determines **total sulfur in petroleum products**, such as gas oil, fuel oil, crude oil and naphtha, using energy dispersive X-ray fluorescence(EDXRF) method, which is an accurate, non-destructive, economical and yet quick method prescribed in ISO 8754 and ASTM D4294-03. Once a sample is set, the total sulfur is determined automatically in 300 seconds(typical). The model RX-620SA is a 12-sample carousel model. After its successful predecessors, this fourth generation has been developed to further improve the accuracy and ease of use.

**HIGH PRECISION:** Pulse height analysis(PHA) is automatically carried out before each measurement to adjust the system. This innovative system design has further improved the precision.

**WIDE RANGE OF SAMPLES:** Patented "Diamond Parameter Method" accurately compensates for measurement error caused by different carbon/hydrogen(C/H) ratio of individual sample. This state-of-art technology enabled measurement of wide range of samples of different C/H ratios with uncompromising precision.

**AMBIENT TEMPERATURE AND BAROMETRIC PRESSURE COMPENSATION:** Compensation for ambient temperature and barometric pressure are made automatically to drastically minimize the drift.

**AUTOMATIC CALIBRATION:** Set certified calibration standards and start automatic calibration program to carry out automatic calibration. Either multiple point calibration at up to 12 points or two point calibration starts.

**CAROUSEL TYPE SAMPLE CHANGER WITH ACRYLIC COVER:** X-ray shielding is by a metallic cover moving downward on the objective sample cell. Since the acrylic dust cover is not intended for shielding X-ray, it may be opened during a test, allowing access to sample cells in the cue.

### SPECIFICATIONS:

#### TYPE:

Total sulfur analyzer for petroleum products by energy-dispersive X-ray fluorescence method (EDXRF)

#### CONFORMING STANDARDS:

ISO 8754, ASTM D4294-03, etc.

#### SAMPLE CANGER:

Carousel type 12-position sample changer. Sample cells not being measured are accessible during the measurement.

#### SAMPLE VOLUME:

Approx. 5ml

#### MEASURING RANGE:

0-6.00wt%

#### REPEATABILITY: (Typical)

Range	Repeatability	Measuring Time
0.008wt%max	10ppm*	300sec x 3times
0.05wt%max	20ppm	100sec x 3times
0.05-0.50wt%	40ppm	100sec x 3times
0.51-1.50wt%	60ppm	100sec x 3times
1.51-2.00wt%	100ppm	100sec x 3times
2.01-4.00wt%	200ppm	100sec x 3times
4.01-6.00wt%	400ppm	100sec x 3times

\*: ASTM D4294 designates the repeatability in the range(r). In terms of standard deviation, 5ppm.

#### C/H RATIO COMPENSATION:

Automatic with 0.003wt% max of compensation error when a 1wt% sample is tested.

#### MEASURING TIME:

10-990sec. 1-99 times.

#### CALIBRATION:

\*Automatic two point calibration automatically followed by a measurement.

\*Manual two point calibration

\*Automatic multiple-point calibration(up to 12 points)

\*Manual multiple-point calibration(up to 12 points)

**X-RAY SOURCE:** X-ray tube rated 7KV

#### SAMPLE CELL:

2-piece Teflon cup with disposable mylar film

#### PRINTER:

Built-in impact dot matrix printer (57mm)

#### DISPLAY:

LCD (20 characters x 4 lines)

**DATA OUTPUT:** RS-232C 1cannel

#### X-RAY LEAKAGE:

0.6μSv/Hr or less on instrument surface

#### OPARATING TEMPERATURE/HUMIDITY:

10-30 °C with a temperature drift within 10°C in a day.

RH to be within 80%.

#### POWER SULLPY:

AC 100-240V+/-10%, 45-66Hz, 200VA

#### SAFETY:

Interlock mechanism against accidental X-ray leakage

#### DIMENSIONS/WEIGHT:

560mmW x515mmD x245mmH/ 29kg

#### ORDERING INFORMATION:

##### STANDARD ACCESSORIES:

- |                                 |        |
|---------------------------------|--------|
| 1.Power supply cable            | 1pc    |
| 2.Sample cell holder            | 12pcs  |
| 3.Sample cell holder spring     | 12pcs  |
| 4.Teflon sample cells           | 12pcs  |
| 5.Sample cell assembling jig    | 1set   |
| 6.Sample cell disassembling jig | 1pc    |
| 7. Mylar sheet (200mm x 1,000m) | 1roll  |
| 8. Sample cell stand            | 1pc    |
| 9.Printer roll paper            | 3rolls |
| 10.Printer ink ribbon           | 1pc    |
| 11.Printing paper holder        | 1pc    |
| 12.Spare glass tube fuse        | 2pcs   |

##### START UP KIT:

- Certified calibration standard (requires when set-up)  
(0.0%,100ppm,200ppm,500ppm,800ppm,0.1%,  
0.2%,0.5%,1%,2%,3%,&4%)

##### SUGGESTED SPARES:

- |                                     |        |
|-------------------------------------|--------|
| 1. Mylar film (200mm x 1,000m)      | 1 roll |
| 2. Printer roll paper (5rolls/pack) | 5 pks  |
| 3. Printer ink ribbon               | 5 pcs  |

Specifications subject to change without prior notice.

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