



ENGLISH

Datasheet RS Pro Refractometer

RS Stock No: 877-1781



Specifications:

Provides quick analysis of concentration of water mix cutting fluids.

Enables easy and accurate dilution control.

Scale Range: 0 -18% Brix

Minimum Division: 0.1% Brix

Accuracy: $\pm 0.1\%$

Supplied with:

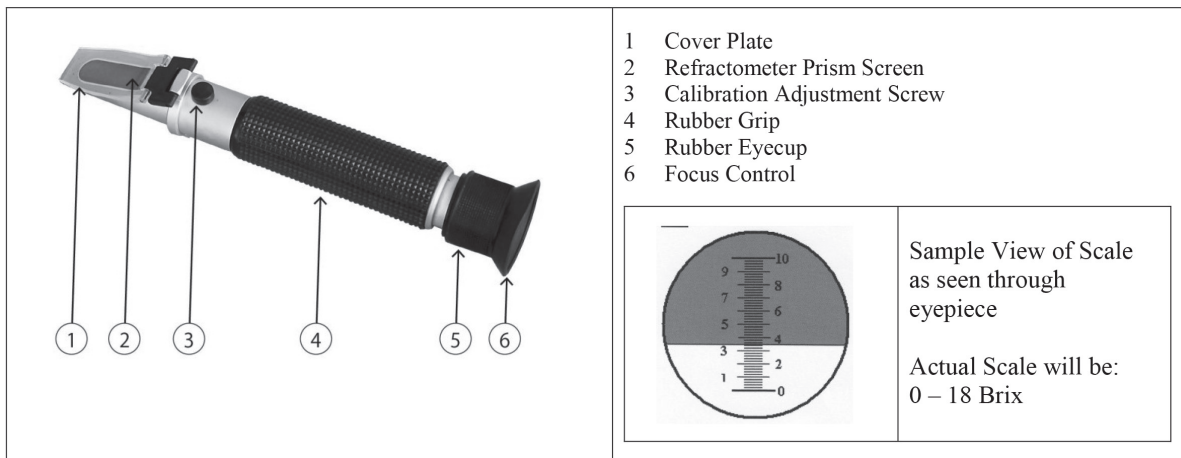
Plastic Specimen Dropper

Calibration Adjustment Tool

Fitted Instrument Case

Order Code	Manufacturers Code	Description
877-1781	59-732-025	Refractometer

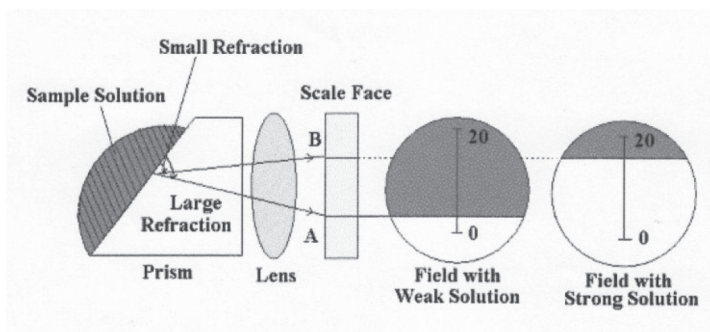
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Measurement Principle:

Refractometers utilise a prism which possesses a much greater refractive index than the sample solution to be measured. Measurements are made possible using the refractive phenomena which arise at the interface of the prism and the sample solution. In the case of a weak sample solution, the difference between the refractive index of the solution and that of the prism is great, therefore the angle of refraction is large (see A on diagram)

In the case of a strong sample solution, the difference between the refractive index of the prism is smaller and therefore the angle of refraction is smaller (see B on diagram)





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Calibration:

The Refractometer should be recalibrated each time it is used.

Open the Cover Plate and place 2-3 drops of distilled water on the Prism Screen

Close the Cover Plate so the liquid spreads across the entire surface of the Prism Screen without air bubbles or dry spots

To calibrate look through the Eyepiece and turn the Calibration Adjusting Screw to align the blue/white divide

with the zero position on the scale.

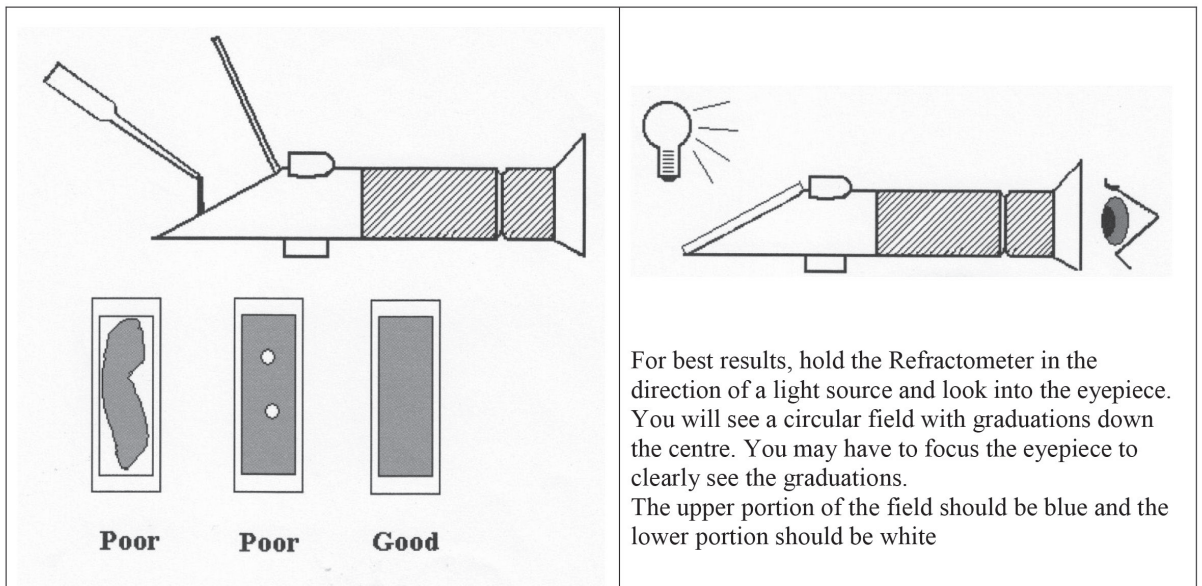
Once the instrument has been calibrated wipe the Prism Screen to remove any residual water.

Measurement:

Now repeat the process using 2-3 drops of the solution to be measured.

Take the reading where the boundary of the blue/white divide line crosses the graduated scale.

The scale will provide a direct reading of the Brix concentration





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General Information:

Accurate measurement depends on careful calibration

The prism and the sample must be at the same temperature for accurate results

Do not expose the instrument to damp working conditions or immerse in water

Do not measure abrasive or corrosive chemicals as they can damage the surface of the Prism Screen

Clean the instrument between each measurement with a soft damp cloth

Failure to clean the Prism Screen on a regular basis will lead to inaccurate results and damage to the Prism Screen

coating

This is an optical instrument and therefore requires careful handling and storage to ensure its accuracy and

reliability