

# Polarimeter Tubes

Bellingham + Stanley polarimeter tubes are manufactured to high quality standards. Tube ends are precision ground and windows made from specially selected low strain glass providing highest accuracy along the light path.



Figure 1

There is a wide range of tubes to suit different applications, as shown in the table below.

- Water-jacketed tubes can be used to provide temperature control as required.
- Jacketed funnel flow-through tubes are convenient for certain repetitive measurement applications such as in busy sugar testing laboratories.
- Continuous flow through tubes allows monitoring of pumped samples, for example following chemical reactions.

Bellingham + Stanley polarimeter tubes conform to ICUMSA recommendations and are compatible with most makes of polarimeter.



Figure 2

Plastic end cap glass tube for general use.  
(Figure 1 - left of picture)

| Order Code | Description   | Length  |
|------------|---|---------|
| 35-29      | Standard glass sample tube with bulb to clear           | 100     |
| 35-30      | bubble from field of view.                              | 200     |
| 35-28      | * most suited to Model D7                               | 50-200* |
| 35-46      | Centre filling glass tube with straight central arm for | 100     |
| 35-47      | filling from funnel or flexible tube, thus eliminating  | 200     |
| 35-45      | the need to disturb cover glasses.                      | 50-200* |
| 35-57      | Centre filling glass tube with cup-shaped centre        | 100     |
| 35-58      | filler to reduce risk of spillage.                      | 200     |
| 35-56      |   | 50-200* |

\*Tube of specified length to order

Stainless steel end cap glass tube for use with aggressive samples and solvents.  
(Figure 1 - right of picture)

| Order Code | Description                   | Length |
|------------|-------------------------------|--------|
| 35-10      | Metal end, centre fill, glass | 100    |
| 35-11      | Metal end, centre fill, glass | 200    |



Figure 3

Stainless steel, water jacketed tubes suitable for use with ADP400 series polarimeters, all requiring specially suited slotted lids as indicated. Plastic end caps are supplied as standard with stainless steel versions being optionally available.  
(Figure 2 - right of picture and figure 3)

| Order Code | Description                         | Slotted Lid Code | Length |
|------------|-------------------------------------|------------------|--------|
| 36-57      | Funnel flow-through tube (Figure 3) | 37-012           | 100    |
| 36-58      |                                     | 37-011           | 200    |
| 36-67      | Continuous flow-through tube        | 37-012           | 100    |
| 36-68      |                                     | 37-011           | 200    |
| 36-77      | Centre-Fill tube (Figure 2 – right) | 37-010           | 100    |
| 36-78      |                                     | 37-009           | 200    |

All lengths shown are in millimetres (mm)

\*Except for Centre-Fill tubes, which are nickel-plated brass.

For earlier ADP220 models, please contact Bellingham + Stanley.

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**Bellingham  
+ Stanley**

## General Specifications

| Parameter                | Value        |
|--------------------------|--------------|
| Collar external diameter | 30mm nominal |
| Tube internal diameter   | 8mm          |
| Window size              | 15.5mm       |
| Capacity                 | 5.02ml/100mm |

# Polarimeter Tubes - Low Volume



Figure 4



Figure 5



Figure 6

In addition to supplying standard 8mm diameter polarimeter tubes, Bellingham + Stanley also offer a range of low volume versions to allow users with a restricted volume of sample to make polarimetric analysis. Such applications include those in the chemical and pharmaceutical industry, where synthesis of the product provides little sample at the end of a process, or in the fragrance market, where sample value is relatively high.

The low volume is achieved by reducing the internal diameter of the tube to a minimum of 5mm and by reducing the tube length.

Low volume tubes are manufactured of stainless steel or PTFE with low strain cover glasses and rubber washers. They facilitate easy handling of sample by way of two luer taper connections (inlet/outlet) allowing use of compatible syringes for manual application or automated sample flow. The design of sample flow removes air bubbles and negates the need to remove cover glasses between each sample. For temperature-controlled measurement, water-jacketed versions are available and a 'temperature sensor clip' is available providing a mechanical connection to ADP polarimeter external temperature probes.

Low Volume Tubes without water jacket  
(Figure 4)

| Order Code | Description                   | Volume (ml) |
|------------|-------------------------------|-------------|
| 35-71      | 5 x 50mm stainless steel tube | 1.0         |
| 35-72      | 5 x 25mm stainless steel tube | 0.5         |
| 35-73      | 5 x 10mm stainless steel tube | 0.2         |
| 35-74      | 5 x 5mm stainless steel tube  | 0.1         |

Low Volume Tubes for temperature control applications  
(Figure 5)

| Order Code | Description                                     | Volume (ml) |
|------------|---|-------------|
| 35-76      | 5 x 50mm stainless steel tube with water jacket | 1.0         |
| 35-75      | 5 x 25mm stainless steel tube with water jacket | 0.5         |

Low Volume Tubes for highly acidic samples  
(Figure 6)

| Order Code | Description                     | Volume (ml) |
|------------|---------------------------------|-------------|
| 35-78      | 5 x 50mm glass loaded PTFE tube | 1.0         |
| 35-77      | 5 x 25mm glass loaded PTFE tube | 0.5         |

## Spare Parts - all types

| Order Code | Description  | Diameter | Quantity | Type           |
|------------|--|----------|----------|----------------|
| 35-60      | Low strain cover glasses                               | 15.5     | 12       | Glass          |
| 35-64      | Rubber washers for use between cover glass and end cap | 15.5     | 12       |                |
| 35-68      | End caps, plastic                                      | 15.5     | 2        |                |
| 35-20      | End caps, metal  | 15.5     | 2        | Glass          |
| 35-21      | Rubber Glands for metal end cap tubes & fitting tool   | 15.5     | 12       |                |
| 35-62      | Low strain cover glasses                               | 22.5     | 2        | Water Jacketed |
| 35-66      | Rubber washers for use between cover glass and end cap | 22.5     | 2        |                |
| 35-88      | End Caps, stainless steel                              | 22.5     | 2        |                |
| 35-79      | Temp sensor saddle                                     | -        | 1        | Low Volume     |
| 35-80      | Low strain cover glasses                               | 20       | 6        |                |
| 35-81      | Rubber washers for use between cover glass and end cap | 20       | 10       |                |

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