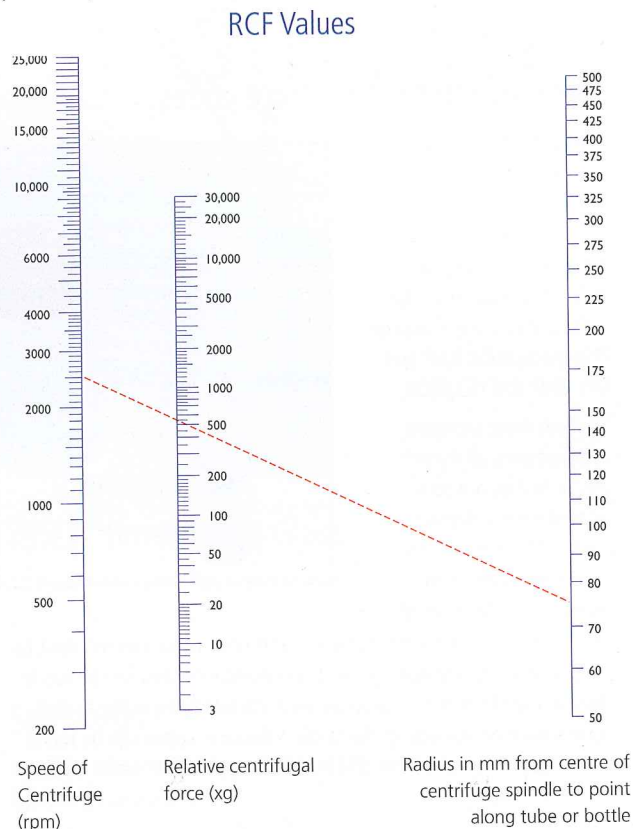


Centrifuge tubes

This catalogue lists a number of Pyrex® and Quickfit® centrifuge tubes. Within the product information for each entry we advise the maximum Relative Centrifugal Force (RCF) they can be subjected to. Before centrifuging, it is important to calculate the actual RCF values that will be generated. This can quickly be determined by using the following nomogram.

To calculate the RCF value at any point along the tube, measure the radius, in mm, from the centre of the centrifuge spindle to the particular point.



NB: The chosen point should be the base of the tube as this area will experience the maximum RCF.

Note the radius value from the right of the table and draw a line to the appropriate centrifuge speed value on the left hand column. The RCF value is the point where the line crosses the centre column.

The nomogram is based on the following equation:

$$RCF = (11.17 \times 10^{-7}) RN^2$$

R = Rotational radius (in mm)

N = Rotational speed (in RPM)

The allocated RCF values are for tubes in good condition. Do not use centrifuge tubes which are scratched, abraded or chipped as the strength will be seriously impaired.

Sintered discs

The SciLabware ranges of filtration glassware utilise sintered discs manufactured from Pyrex® borosilicate glass. Since they are manufactured from Pyrex® they are resistant to the majority of corrosive reagents, unaffected by ammonia, sulphuric acid and other solvents that are damaging to filter paper. The sintered glassware is available in six porosity classes from 0 – 5, as outlined in the table below. The pore sizes indicated, give a range of pores present within the sinter disc. Therefore, the size of particles that will be obstructed will generally be of a size at the upper end of the range.

Porosity Grade	ISO 4793 designation	Pore index (mic.)	Principal uses
0	P250	160 - 250	Coarse filtration, gas dispersion and support for other filter material
1	P160	100 - 160	Course precipitate filtration, gas dispersion, coarse grain material filtration
2	P100	40 - 100	Medium and crystalline precipitate filtration, medium filtration and washing of gases
3	P40	16 - 40	Analytical work with medium precipitates
4	P16	10 - 16	Analytical work with fine precipitates
5	P10	4 - 10	Bacteria filtration

In addition to the above detail, sinters should be treated under the same conditions as described in the general Pyrex® thermal properties as listed on page 13.

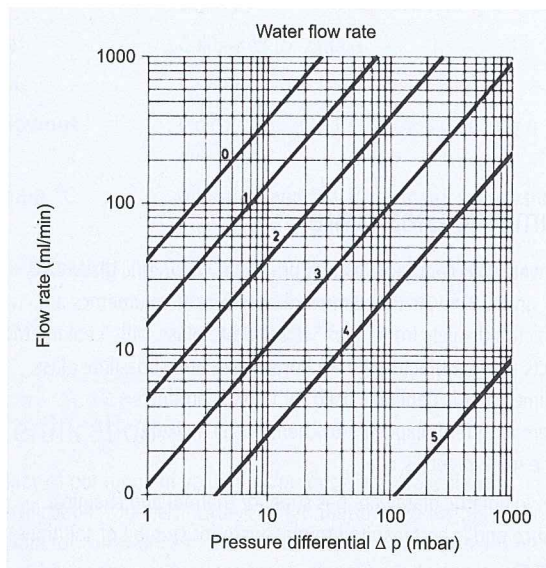
When using new sintered glassware for the first time, we recommend a wash with hydrochloric acid followed by several rinses with distilled water to remove any residual glass dust particles from the sinter.

Sintered discs (continued)

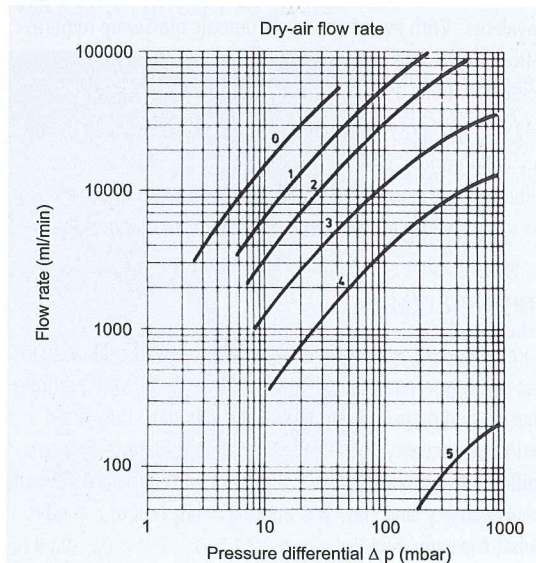
In order to select the correct sinter for any specific application, in addition to the porosity, it is also useful to know the flow rates of liquids and gases through the sinters. These values are given in the charts below for water and air. The data applies to 30mm diameter filter discs. The flow rates for other disc diameters can be calculated by multiplying the value read off by the conversion factor given in the table below.

Filter disc dia. mm	10	20	30	40	60	90	120	150	175
Conversion factor	0,13	0,55	1	1,5	2,5	4,3	6,8	9,7	15

Water flow rate

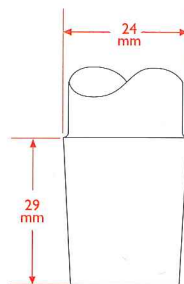


Dry-air flow rate

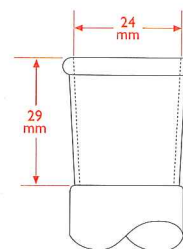


Quickfit® Products

Conical joints

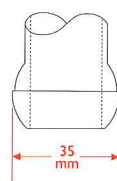


24/29 cone



24/29 socket

Spherical joints

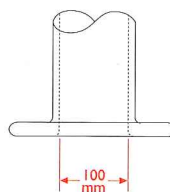


S35 ball



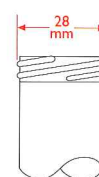
S35 cup

Flat flange



100mm bore flange

Screwthread



28 screwthread

Conical Joints - size designation

Size designation	Actual dia. of wide end (mm)	Actual dia. of narrow end (mm)	Nominal length of engagement (mm)
7/16	7.5	5.9	16
10/19	10.0	8.1	19
12/21	12.5	10.4	21
14/23	14.5	12.2	23
19/26	18.8	16.2	26
24/29	24.0	21.1	29
29/32	29.2	26.0	32
34/35	34.5	31.0	35
40/38	40.0	36.2	38
45/40	45.0	41.0	40
50/42	50.0	45.8	42
55/44	55.0	50.6	44
60/46	60.0	55.4	46