### Data File 18-1171-61 AC

# Kvick Flow cassette holder

There are two versions of the Kvick™ Flow cassette holder: one uses the hydraulic and the other uses manual clamping systems. Both holders are used in cross flow filtration systems handling sample batch volumes from 5 to 1000 liters. These holders are designed for holding Kvick Flow-5 (0.46 m² or 5 ft²) and Kvick Flow-25 (2.33 m² or 25 ft²) cassettes. The holders can also be used with other cassettes with the same geometries. The front-mounted standard sanitary ports provide easy connection. The hydraulic holder is simple to use and the manual holder is an economical alternative.

Designed for flexibility and ease of use, Kvick Flow cassette holders may be used for concentration and diafiltration of biological solutions. With other products in the Kvick family, trial data can be linearly scaled up or down covering a great range of scales from laboratory to pilot to production processes.

## Kvick Flow cassette holder features

Benefiting from a design and engineering approach usually reserved for large-scale production systems, the Kvick Flow cassette holders provide:

- Three forward facing ports for the convenience of pipe connection
- Vertically-oriented cassettes for easy installation
- Two versions: hydraulic holder for easy operation and manual holder for low cost

## **Components**

The main components include a front plate (distribution manifold), a back plate, and tie rods. These components hold the cassettes in place and manage the flow of process fluids into and out of the cassettes. The hydraulic version contains a hydraulic cylinder and unit. The manual version contains a torque wrench. All holders are mounted on a stainless steel stand.

#### **Cassettes**

The Kvick Flow holder can hold up to 15 Kvick Flow-5 or three Kvick Flow-25 cassettes. Kvick Flow cassettes contain polyethersulfone (PES) membranes, are available in molecular weight cutoffs of 5 kD, 10 kD select, 10 kD, 30 kD, 50 kD, and 100 kD to fit a broad range of applications.

## **Typical applications**

- Antibody concentration/diafiltration
- Plasma purification/concentration
- Recombinant protein concentration/diafiltration
- Plasmid concentration/diafiltration
- Vaccine concentration/purification





Figure 1. Kvick Flow hydraulic holder

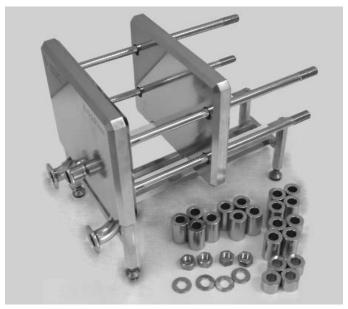


Figure 2. Kvick Flow manual holder

#### Kvick Flow cassette holder specifications

Feed and retentate port fittings: 1-inch TC

Permeate port fitting: 1-inch TC

Maximum temperature: 50°C (122°F)

Maximum feed pressure: 0 to 4 barg

(5 to 60 psig)

Maximum cassette holding capacity: (15) Kvick Flow-5 or (3) Kvick Flow-25 cassettes

Holdup volume (nominal): 90 ml, feed/retentate side

Hydraulic holder:

Dimensions (W  $\times$  L  $\times$  H) 28  $\times$  66  $\times$  36 cm (11  $\times$  26  $\times$  14 in, without hydraulic unit)

Weight 45 kg (100 lb, without hydraulic unit)

Hydraulic unit:

Dimensions (W  $\times$  L  $\times$  H) 54  $\times$  41  $\times$  33 cm (21  $\times$  16  $\times$  13 in)

Weight 39 kg (85 lb)

Manual holder:

Dimensions (W  $\times$  L  $\times$  H) 28  $\times$  59  $\times$  36 cm (11  $\times$  17  $\times$  14 in)

Weight 36 kg (80 lb)

#### Materials of construction

Wetted parts:

Front plate (distribution manifold) Polished 316L stainless steel, Ra <0.65  $\mu$ m Back plate Polished 316L stainless steel, Ra <0.65  $\mu$ m

Other parts:

Tie rods, washers, stand, and spacers: 316L stainless steel

Rail adapter Teflon
Tie rod nuts Brass

## **Ordering Information**

| Code number | Model number    | Description  |
|-------------|-----------------|--|
| 56-4115-93  | KFHR0115000SS   | Kvick Flow hydraulic holder, US-style power connection |
| 56-4115-93  | KFHR0115000SS20 | Kvick Flow hydraulic holder, EU-style power connection |
| 11-0006-67  | KFHR0115TQE     | Kvick Flow manual holder                               |
| 56-4113-63  | KFLGS001033     | Kvick Flow cassette gasket                             |
| 56-4113-78  | KFSY0107CPM10   | 1-in sanitary CPM-style fitting for pressure gauge     |
| 56-4113-79  | KFSY0107APGA100 | Pressure gauge, 0-6.9 barg (0-100 psig), CPM style     |
| 56-4113-80  | KFSY0107APSW100 | Pressure gauge, 0-6.9 barg (0-100 psig), CPM style     |
| 56-4113-89  | KFSY0107CPMORI  | <sup>3</sup> / <sub>4</sub> -in O-ring for CPM fitting |
| 56-4113-17  | KFSY0105TCG10   | <sup>1</sup> / <sub>2</sub> -in sanitary gasket, EPDM  |
| 56-4112-88  | KFSY0107TCG15   | 1½-in sanitary gasket, EPDM                            |
| 56-4112-89  | KFSY0107TCL15   | 1½-in sanitary clamp, SS                               |
| 56-4112-94  | KFST01071DV10   | 1-in sanitary in-line diaphragm valve                  |

## For additional product and ordering information

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