

# Analytical Scientific Instruments

## QuickSplit Fixed Flow Splitters



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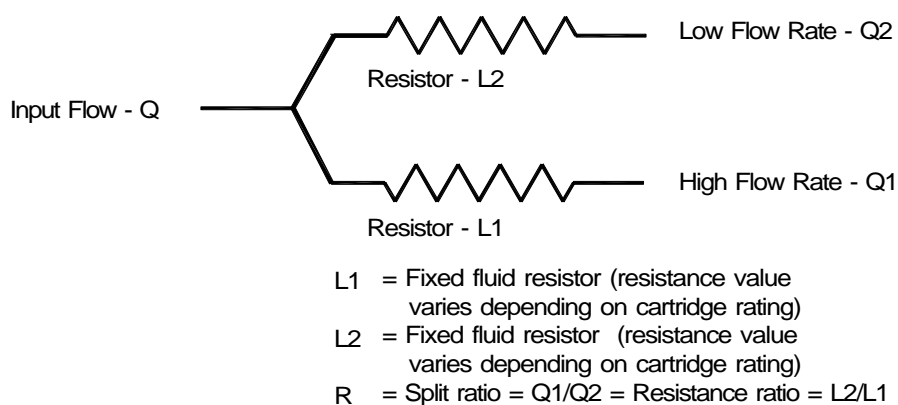
# QuickSplit™ Fixed Flow Splitter

Unlike conventional splitters that use long lengths of capillary tubing, the *ASI QuickSplit* Fixed Flow Splitter uses two compact fluid resistor elements which are designed as cartridges for easy replacement. *ASI* fluid resistors are analogous to resistors used in an electrical circuit. Resistance values (L) are rated in PSI/mL/min. Because of the extremely low internal volume of the fluid resistors, the solvent composition in both resistors at any instant in time is the same, and therefore viscosity changes associated with gradient runs do not impact the split ratio.

*QuickSplit* Fixed Flow Splitters provide a fixed split ratio with extremely low dead volume. Delay volume on the low flow rate side is as low as 100 nanoliters, depending upon the resistor cartridge selected. The split ratio is not affected by changes in solvent viscosity or pressure, and is extremely stable and reproducible. The interchangeable fluid resistors are available in a wide range of values which make it possible to create split ratios from 1:1 to as high as 20,000:1.

The flow path of the *QuickSplit* Fixed Flow Splitter contains two fluid resistors that form a parallel flow path. Both low and high flow rate streams pass through fixed resistor cartridges. The ratio of these two resistors creates the split ratio. To understand how the *QuickSplit* Fixed Flow Splitter works it helps to look at a diagram, figure 1, of the fluid resistors in relation to the flow paths and how a split ratio is calculated.

**Figure 1.** Schematic flow diagram of the *QuickSplit* Fixed Flow Splitter



Since the flow rate is indirectly proportional to resistance, changing the resistance in either flow path results in a change to the split ratio. Changing resistance is accomplished by exchanging the fixed fluid resistor cartridges with a resistor set that has different resistor ratings.

The *QuickSplit* Fixed Flow Splitter is shipped with resistors installed that deliver the nominal stated split ratio. The split ratios have a tolerance range of +/- 10%. The exact split ratio is measured at *ASI* and is stated on the certificate shipped with the splitter. The input flow rate can be adjusted to compensate for the tolerance in split ratios. For instance, a 10% increase in input flow rate will result in a 10% increase in flow at both the low and high flow channels. Flow rate and viscosity changes will change the backpressure generated by the splitter, but will not affect the actual split ratio. The *QuickSplit* Fixed Flow Splitter is shipped configured for either post-column or pre-column applications.

### QuickSplit™ Binary Fixed Flow Splitter

Easy to use “plug and play” device. The predefined split ratio eliminates tedious adjustments to capillary tubing. Split ratio changes are accomplished by changing the resistor set. The split ratio is determined by the ratio of fluid resistors installed in the splitter manifold. The pressure drop across a fixed splitter for post column applications is typically low, less than 500 PSI, and high for precolumn applications where the pressure is nominally 1,500 PSI. Available in models for semi-preparative and analytical inlet flow rates.



QuickSplit Binary Fixed Flow Splitter

### QuickSplit™ Multiport Fixed Flow Splitter

Divides the incoming flow stream into 3 or 4 channels. The QuickSplit Multiport Flow Splitter is ideal for applications that use multiple detectors and/or a fraction collector. Split ratios can be configured to be identical in each channel or custom configured to accommodate specific flow rates at each channel. Split ratios at each channel can be changed at any time by simply replacing the fluid resistor. The low internal dead volume prevents excessive dispersion. The replaceable inlet filter prevents clogging. Available in models for semi-preparative and analytical inlet flow rates.



QuickSplit Multiport Fixed Flow Splitter

## QuickSplit Fixed Flow Splitters

# Post-Column Fixed Flow Splitters

Post-column splitting is fairly straight forward. Like pre-column flow splitting, any significant additional pressure (resistance) downstream from the splitter may affect the split ratio. Post-column devices also contribute to chromatographic dispersion so care must be given to connecting tubing and fittings, especially at low flow rates. The pressure drop specification for both analytical and semi-preparative fixed splitters is 500 PSI with water at a flow rate of 1.0 mL/min. and 20.0 mL/min. respectively. Splitters are shipped complete with fluid resistors installed. **Higher inlet flow rates may result in a larger pressure drop across the flow splitter. To assure a maximum pressure drop of 500 PSI across the splitter, please specify the inlet flow when the splitter is ordered.**

### Custom Split Ratios

Split ratios and resistor cartridges other than those listed below can be ordered from ASI to custom configure the QuickSplit Fixed Flow Splitter. Please contact technical support at 800-344-4340 for additional information about custom splitters. We will gladly assist you in determining the best splitter configuration for your application.

## QuickSplit™ Binary Fixed Flow Splitters

### Analytical Splitters - Binary

**Analytical range, 0.1 mL/min. to 5 mL/min. input flow**

These splitters will produce under 500 PSI backpressure with water at 1.0 mL/min. The backpressure will decrease in direct proportion to a decrease in flow rate. Flow rates higher than 1.0 mL/min. can be used, but may result in a higher pressure drop across the splitter.

Description		ASI Part Number
Analytical Fixed Flow Splitter, Post-Column	Split Ratio = 2,000:1	620-PO10-03*
Analytical Fixed Flow Splitter, Post-Column	Split Ratio = 1,000:1	620-PO10-04*
Analytical Fixed Flow Splitter, Post-Column	Split Ratio = 500:1	620-PO10-05*
Analytical Fixed Flow Splitter, Post-Column	Split Ratio = 200:1	620-PO10-06*
Analytical Fixed Flow Splitter, Post-Column	Split Ratio = 100:1	620-PO10-07*
Analytical Fixed Flow Splitter, Post-Column	Split Ratio = 50:1	620-PO10-08*
Analytical Fixed Flow Splitter, Post-Column	Split Ratio = 20:1	620-PO10-09*
Analytical Fixed Flow Splitter, Post-Column	Split Ratio = 10:1	620-PO10-10*
Analytical Fixed Flow Splitter, Post-Column	Split Ratio = 5:1	620-PO10-11*
Analytical Fixed Flow Splitter, Post-Column	Split Ratio = 3:1	620-PO10-12*
Analytical Fixed Flow Splitter, Post-Column	Split Ratio = 1:1	620-PO10-13*
Analytical Fixed Flow Splitter, Post-Column	Split Ratio = Custom	620-PO10-CS*

\* Does not come with mounting bracket, please see Page 24 for mounting bracket order information.

# QuickSplit Fixed Flow Splitters

## Analytical Replacement Resistor Sets - Binary

Description		ASI Part Number
Analytical Fixed Flow Splitter Resistor Set, Post-Column	Split Ratio = 2,000:1	620-1110-03
Analytical Fixed Flow Splitter Resistor Set, Post-Column	Split Ratio = 1,000:1	620-1110-04
Analytical Fixed Flow Splitter Resistor Set, Post-Column	Split Ratio = 500:1	620-1110-05
Analytical Fixed Flow Splitter Resistor Set, Post-Column	Split Ratio = 200:1	620-1110-06
Analytical Fixed Flow Splitter Resistor Set, Post-Column	Split Ratio = 100:1	620-1110-07
Analytical Fixed Flow Splitter Resistor Set, Post-Column	Split Ratio = 50:1	620-1110-08
Analytical Fixed Flow Splitter Resistor Set, Post-Column	Split Ratio = 20:1	620-1110-09
Analytical Fixed Flow Splitter Resistor Set, Post-Column	Split Ratio = 10:1	620-1110-10
Analytical Fixed Flow Splitter Resistor Set, Post-Column	Split Ratio = 5:1	620-1110-11
Analytical Fixed Flow Splitter Resistor Set, Post-Column	Split Ratio = 3:1	620-1110-12
Analytical Fixed Flow Splitter Resistor Set, Post-Column	Split Ratio = 1:1	620-1110-13
Analytical Fixed Flow Splitter Resistor Set, Post-Column	Split Ratio = Custom	620-1110-CS

## Semi-Preparative Splitters - Binary

### Semi-Prep range, 5 mL/min. to 40 mL/min. input flow

These splitters will produce under 500 PSI backpressure with water at 20.0 mL/min. The backpressure will decrease in direct proportion to a decrease in flow rate. Flow rates higher than 20.0 mL/min. can be used, but may result in a higher pressure drop across the splitter. **In order to assure <500 PSI pressure drop across the splitter, please specify the inlet flow when you order.**

Description		ASI Part Number
Semi-Preparative Fixed Flow Splitter, Post-Column	Split Ratio = 20,000:1	620-PO20-00*
Semi-Preparative Fixed Flow Splitter, Post-Column	Split Ratio = 10,000:1	620-PO20-01*
Semi-Preparative Fixed Flow Splitter, Post-Column	Split Ratio = 5,000:1	620-PO20-02*
Semi-Preparative Fixed Flow Splitter, Post-Column	Split Ratio = 2,000:1	620-PO20-03*
Semi-Preparative Fixed Flow Splitter, Post-Column	Split Ratio = 1,000:1	620-PO20-04*
Semi-Preparative Fixed Flow Splitter, Post-Column	Split Ratio = 500:1	620-PO20-05*
Semi-Preparative Fixed Flow Splitter, Post-Column	Split Ratio = Custom	620-PO20-CS*

\* Does not come with mounting bracket.

**The Low Flow Resistor Cartridge can be disassembled for cleaning in the event of clogging. To change split ratio, please contact technical support at 800-344-4340.**

## QuickSplit Fixed Flow Splitters

# Post-Column Fixed Flow Splitters continued

### Semi-Preparative Replacement Resistor Cartridges - Binary

Description		ASI Part Number
Semi-Preparative Fixed Flow Splitter High Flow Resistor Cartridge, Post-Column	Split Ratio = 20,000:1	620-1120-00H
Semi-Preparative Fixed Flow Splitter High Flow Resistor Cartridge, Post-Column	Split Ratio = 10,000:1	620-1120-01H
Semi-Preparative Fixed Flow Splitter High Flow Resistor Cartridge, Post-Column	Split Ratio = 5,000:1	620-1120-02H
Semi-Preparative Fixed Flow Splitter High Flow Resistor Cartridge, Post-Column	Split Ratio = 2,000:1	620-1120-03H
Semi-Preparative Fixed Flow Splitter High Flow Resistor Cartridge, Post-Column	Split Ratio = 1,000:1	620-1120-04H
Semi-Preparative Fixed Flow Splitter High Flow Resistor Cartridge, Post-Column	Split Ratio = 500:1	620-1120-05H
Semi-Preparative Fixed Flow Splitter High Flow Resistor Cartridge, Post-Column	Split Ratio = Custom	620-1120-CSH

### QuickSplit™ Multiport Fixed Flow Splitters

Please call *ASI* for assistance in configuring your *QuickSplit* Multiport Fixed Splitter prior to ordering. Please specify inlet flow rate and desired output flow rate in each channel when you order.

#### Analytical Splitters - Multiport

**Analytical range, 0.1 mL/min. to 5 mL/min. input flow**

These splitters will produce under 500 PSI backpressure with water at 1.0 mL/min. The backpressure will decrease in direct proportion to a decrease in flow rate. Flow rates higher than 1.0 mL/min. can be used, but may result in higher a pressure drop across the splitter.

Description		ASI Part Number
Analytical Three Port Fixed Flow Splitter, Post-Column	Split Ratio = Custom	630-PO10-CS*
Analytical Four Port Fixed Flow Splitter, Post-Column	Split Ratio = Custom	640-PO10-CS*

\* Comes with mounting bracket.

#### Analytical Replacement Resistor Sets\* - Multiport

Description		ASI Part Number
Analytical Three Port Fixed Flow Splitter Resistor Set, Post-Column	Split Ratio = Custom	630-1110-CS
Analytical Four Port Fixed Flow Splitter Resistor Set, Post-Column	Split Ratio = Custom	640-1110-CS

**\*Please contact *ASI* before ordering replacement resistor sets for your *QuickSplit* Multiport Fixed Flow Splitter.**

# QuickSplit Fixed Flow Splitters

## Semi-Preparative Splitters - Multiport

### Semi-Prep range, 5 mL/min. to 40 mL/min. input flow

These splitters will produce under 500 PSI backpressure with water at 20.0 mL/min. The backpressure will decrease in direct proportion to a decrease in flow rate. Flow rates higher than 20.0 mL/min can be used, but may result in a higher pressure drop across the splitter.

Description	ASI Part Number
Semi-Preparative Three Port Fixed Flow Splitter, Post-Column	Split Ratio = Custom 630-PO20-CS*
Semi-Preparative Four Port Fixed Flow Splitter, Post-Column	Split Ratio = Custom 640-PO20-CS*

\* Comes with mounting bracket.

## Semi-Preparative Splitters Replacement Resistor Sets\* - Multiport

Description	ASI Part Number
Semi-Preparative Three Port Fixed Flow Splitter Resistor Set, Post-Column	Split Ratio = Custom 630-1120-CS
Semi-Preparative Four Port Fixed Flow Splitter Resistor Set, Post-Column	Split Ratio = Custom 640-1120-CS

**\*Please contact ASI before ordering replacement resistor sets for your QuickSplit Multiport Fixed Flow Splitter.**

## QuickSplit™ Makeup-Flow Splitter Manifolds

The ASI QuickSplit Makeup-Flow Splitter Manifold is designed for post-column applications where a small amount of flow from an HPLC column is efficiently combined with a makeup-flow before it reaches the detector. Although there are many variations of this type of application, one of the most common involves splitting a small portion of the outlet flow from a preparative HPLC column which is then combined and diluted with a makeup-flow. The combined makeup-flow is used by a detector, typically Mass Spec. or UV, to trigger fraction collection from the remaining flow. A minimum delay time of 5 seconds (maximum inlet flow) is built into the splitter to insure proper sequencing between detection and fraction collection. Unique integral design eliminates tees and fittings within the splitter, resulting in extremely low peak dispersion. An additional splitter can be added after the manifold to allow splitting the makeup-flow stream prior to entering the detector. **Custom configuration orders must include inlet flow, split ratio, and delay time. In order to assure <500 PSI pressure drop across the splitter, please specify the inlet flow when you order.**

## Makeup-Flow Splitter Manifolds

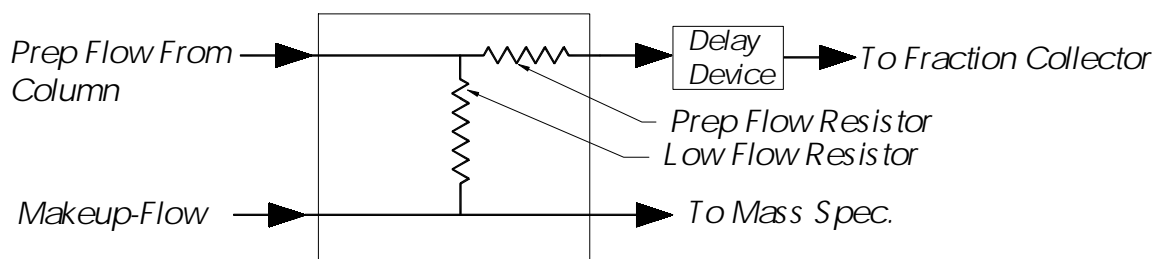
Description	ASI Part Number
Makeup-Flow Splitter Manifold Flow Range: 1 - 20 mL/min.	Split Ratio = 1,000:1 620-PO90-01
Makeup-Flow Splitter Manifold Flow Range: 20 - 50 mL/min.	Split Ratio = 1,000:1 620-PO90-02
Makeup-Flow Splitter Manifold Flow Range: 50 - 150 mL/min.	Split Ratio = 5,000:1 620-PO90-03
Makeup-Flow Splitter Manifold Flow Range: Custom	Split Ratio = Custom 620-PO90-CS

# QuickSplit Fixed Flow Splitters

## Makeup-Flow Splitter Manifold Replacement Resistor Cartridges

Description			ASI Part Number
Prep Flow Resistor Cartridge	Flow Range: 1 - 20 mL/min.	Split Ratio = 1,000:1	620-1190-01P
Prep Flow Resistor Cartridge	Flow Range: 20 - 50 mL/min.	Split Ratio = 1,000:1	620-1190-02P
Prep Flow Resistor Cartridge	Flow Range: 50 - 150 mL/min.	Split Ratio = 5,000:1	620-1190-03P
Prep Flow Resistor Cartridge	Flow Range: Custom	Split Ratio = Custom	620-1190-CSP

**The Low Flow Resistor Cartridge can be disassembled for cleaning in the event of clogging. To change flow range or split ratio, please contact technical support at 800-344-4340.**



## Pre-Column Fixed Flow Splitters

Pre-column splitting is used for micro, capillary, and nano HPLC applications, where the flow from the pump is split from analytical flow rates down to microliter or nanoliter flows. It is important to note that even though the split ratio created by the splitter valve will remain constant, the split ratio will change when a HPLC column is installed. This is due to the added resistance on the low flow rate channel from the HPLC column. This added resistance must be factored in to make sure the fluid resistors selected for the flow splitter provide the correct split ratio. Please contact *ASI* if you need assistance. Splitters are shipped complete with fluid resistors installed.

**When ordering a pre-column flow splitter please provide *ASI* with the column flow rate and back pressure. If the inlet flow rate or column pressure specification is not provided, *ASI* will configure pre-column flow splitters assuming a 0.5 mL/min. splitter inlet flow rate and a pressure drop across the column of 1,500 PSI. Adjustments to the low flow rate channel can be made by increasing or decreasing the splitter inlet flow rate.**

### **Custom Split Ratios**

Split ratios and resistor cartridges other than those listed below can be ordered from *ASI* to custom configure the *QuickSplit* Fixed Flow Splitter. Please contact technical support at 800-344-4340 for additional information about custom splitters. We will gladly assist you in determining the best splitter configuration for your application.

# QuickSplit Fixed Flow Splitters

## QuickSplit™ Binary Fixed Flow Splitters

### Analytical Splitters - Binary

**Analytical range, 0.1 mL/min. to 0.5 mL/min. input flow**

The pressure drop across a pre-column flow splitter will generally be between 1,000 PSI to 3,500 PSI. The exact pressure drop will depend on how the splitter is configured.

Description		ASI Part Number
Analytical Fixed Flow Splitter, Pre-Column	Split Ratio = 2,000:1	620-PR10-03*
Analytical Fixed Flow Splitter, Pre-Column	Split Ratio = 1,000:1	620-PR10-04*
Analytical Fixed Flow Splitter, Pre-Column	Split Ratio = 500:1	620-PR10-05*
Analytical Fixed Flow Splitter, Pre-Column	Split Ratio = 200:1	620-PR10-06*
Analytical Fixed Flow Splitter, Pre-Column	Split Ratio = 100:1	620-PR10-07*
Analytical Fixed Flow Splitter, Pre-Column	Split Ratio = 50:1	620-PR10-08*
Analytical Fixed Flow Splitter, Pre-Column	Split Ratio = 20:1	620-PR10-09*
Analytical Fixed Flow Splitter, Pre-Column	Split Ratio = 10:1	620-PR10-10*
Analytical Fixed Flow Splitter, Pre-Column	Split Ratio = Custom	620-PR10-CS*

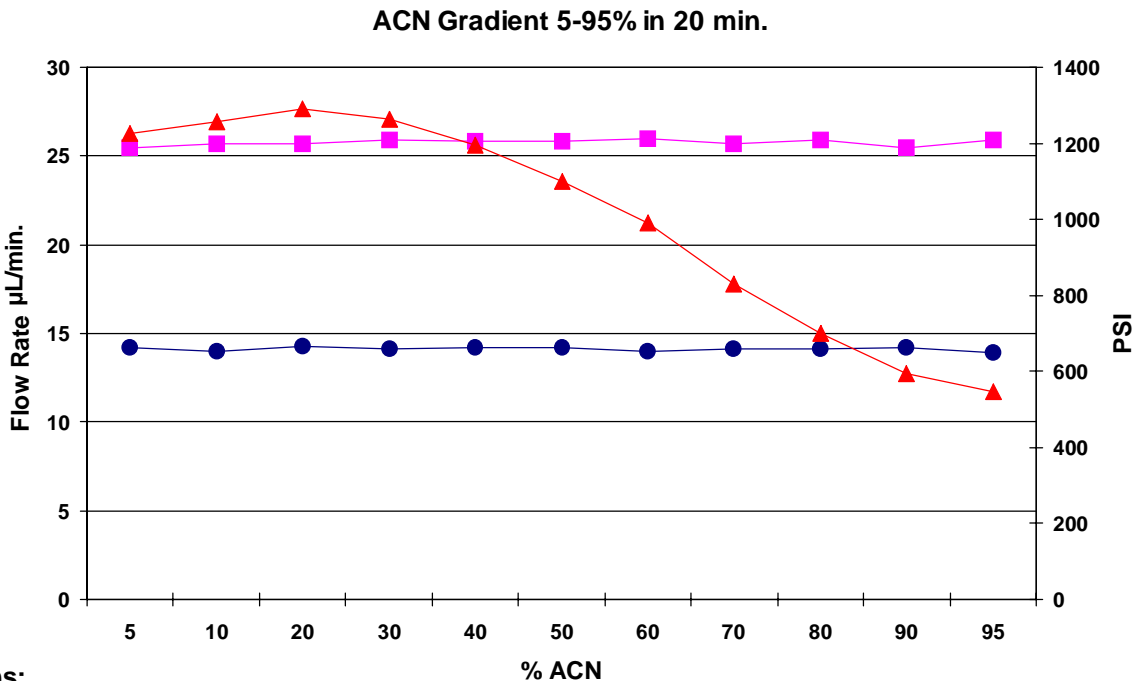
\* Does not come with mounting bracket, please see Page 24 for mounting bracket order information.

### Analytical Replacement Resistor Sets - Binary

Description		ASI Part Number
Analytical Fixed Flow Splitter Resistor Set, Pre-Column	Split Ratio = 2,000:1	620-PR00-03
Analytical Fixed Flow Splitter Resistor Set, Pre-Column	Split Ratio = 1,000:1	620-PR00-04
Analytical Fixed Flow Splitter Resistor Set, Pre-Column	Split Ratio = 500:1	620-PR00-05
Analytical Fixed Flow Splitter Resistor Set, Pre-Column	Split Ratio = 200:1	620-PR00-06
Analytical Fixed Flow Splitter Resistor Set, Pre-Column	Split Ratio = 100:1	620-PR00-07
Analytical Fixed Flow Splitter Resistor Set, Pre-Column	Split Ratio = 50:1	620-PR00-08
Analytical Fixed Flow Splitter Resistor Set, Pre-Column	Split Ratio = 20:1	620-PR00-09
Analytical Fixed Flow Splitter Resistor Set, Pre-Column	Split Ratio = 10:1	620-PR00-10
Analytical Fixed Flow Splitter Resistor Set, Pre-Column	Split Ratio = Custom	620-PR00-CS

# QuickSplit Fixed Flow Splitters

## Effect of Gradient on Flow Rate Stability



### Conditions:

Splitter 620-PO10-CS

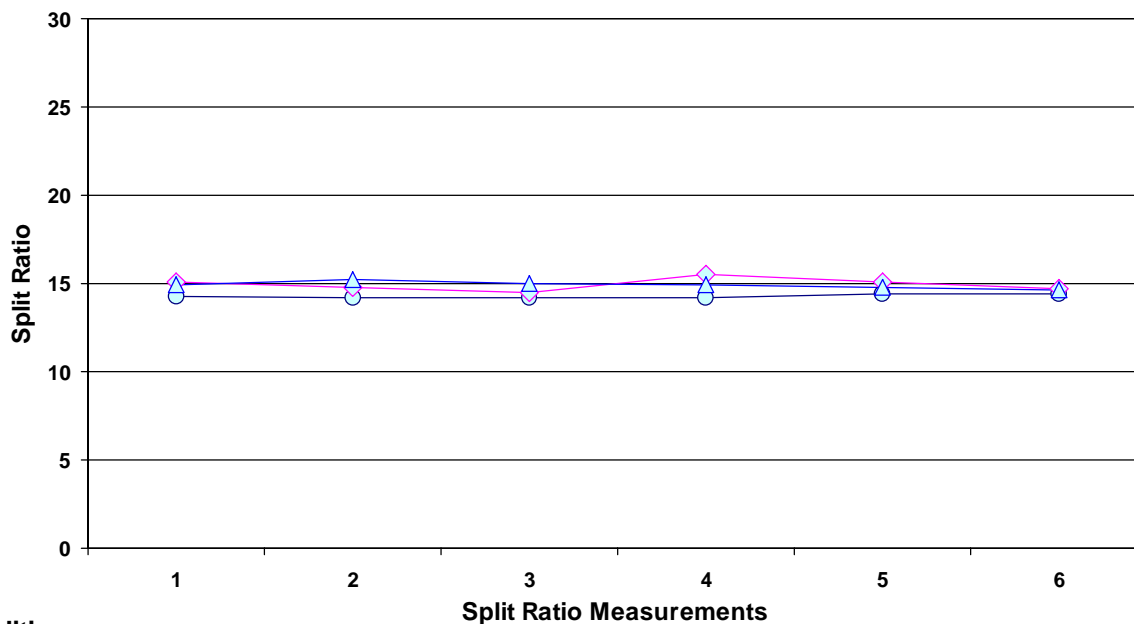
Split Ratio 15:1

Inlet Flow 400µL/min.



## Effect of Viscosity on Split Ratio

Split Ratio vs %IPA

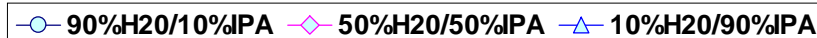


### Conditions:

Splitter 620-PO10-CS

Split Ratio 15:1

Inlet Flow 400µL/min.



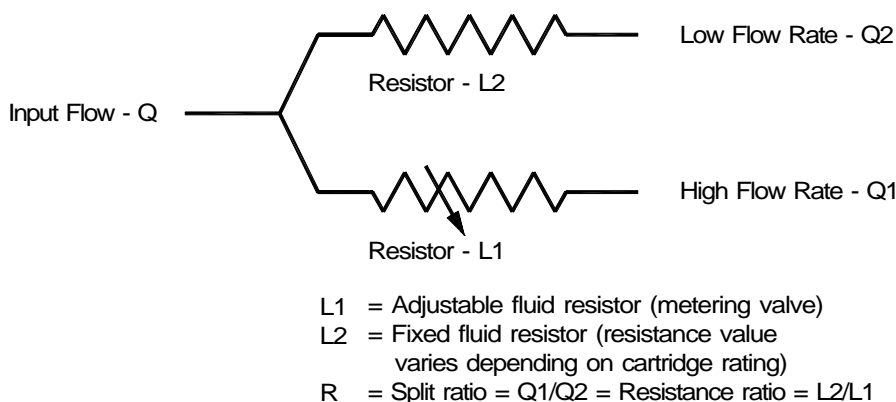
## QuickSplit™ Adjustable Flow Splitter

Unlike conventional splitters that use long lengths of capillary tubing, the *ASI QuickSplit* Adjustable Flow Splitter uses fluid resistors to achieve a wide range of split ratios. The flow path of the *QuickSplit* Adjustable Flow Splitter contains two fluid resistors that form a parallel flow path. The low flow rate stream passes through a fixed resistor cartridge, while the high flow rate stream passes through an adjustable fluid resistor (metering valve). The ratio of these two resistors creates the split flow ratio. The fixed fluid resistor is analogous to a resistor used in an electrical circuit. The compact fluid resistor elements are designed as cartridges for easy replacement with resistance values (L2) rated in PSI/mL/min. Because of the extremely low internal volume of the fluid resistors, the solvent composition in both resistors at any instant in time is the same, and therefore viscosity changes associated with gradient runs do not impact the split ratio.

Due to the rugged design, the split ratio repeatability is  $\pm 1\%$  of setting, and unlike alternative splitter valves or tees, will not be affected by actions that effect input flow such as turning the pump off and on, or pressure spikes. Because the *QuickSplit* Adjustable Flow Splitter incorporates a metering valve, split ratios can be changed frequently with flow changes that are stable and reproducible. The *QuickSplit* Adjustable Flow Splitter will create split ratios that are not affected by changes in solvent viscosity or pressure and provides direct real time control over split ratio optimization.

To understand how the *QuickSplit* Adjustable Flow Splitter works it helps to look at a diagram, figure 2, of the fluid resistors in relation to the flow paths and how a split ratio is calculated.

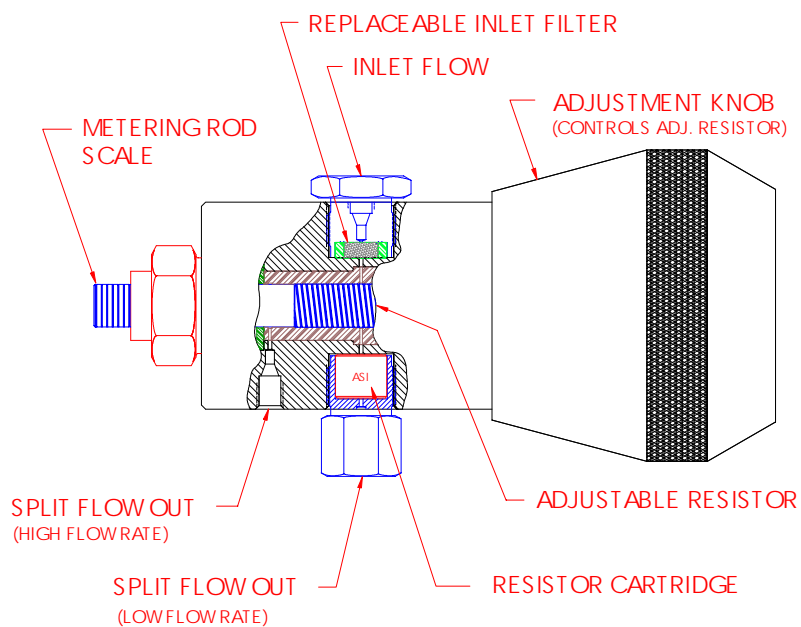
**Figure 2.** Schematic flow diagram of the *QuickSplit* Adjustable Flow Splitter



Since the flow rate is indirectly proportional to resistance, changing the resistance in either flow path results in a change to the split ratio. Changing resistance is accomplished by adjusting the metering valve on the high flow rate channel or exchanging the fixed fluid resistor cartridge in the low flow rate channel with a resistor cartridge which has a different resistance rating. Adjusting the metering valve is analogous to changing the capillary tubing length or diameter on conventional tee type flow splitters. The *QuickSplit* Adjustable Flow Splitter has a convenient mounting bracket and hand adjustment knob to control the split ratio. The split ratio is adjusted by turning the adjustment knob. Split ratios are increased by turning the adjustment knob clockwise, and decreased by turning the knob counter-clockwise. Split ratios are not affected by changes in solvent viscosities or pressure, which makes this product suitable for gradient applications as well as isocratic. The *QuickSplit* Adjustable Flow Splitter is shipped configured for either post-column or pre-column applications.

## QuickSplit Adjustable Flow Splitters

# QuickSplit™ Adjustable Flow Splitter



QuickSplit Adjustable Flow Splitter



QuickSplit Adjustable Flow Splitter

## Post-Column Adjustable Flow Splitters

Post-column splitting is fairly straight forward. Like pre-column flow splitting, any significant additional pressure (resistance) down stream from the splitter may affect the split ratio. Post-column devices also contribute to chromatographic dispersion so care must be given to connecting tubing and fittings, especially at low flow rates.

Use the back pressure vs split ratio chart on *page 22 and 23* to select a *QuickSplit* Adjustable Flow Splitter that will provide the desired split ratio range and back pressure. These charts correspond to several flow rates and solvent systems. The back pressure is directly proportional to flow rate and viscosity. The back pressure estimates on these charts only apply to post-column applications. Splitters are shipped complete with the resistor cartridge installed.

**To assure optimum pressure drop across the splitter, please specify the inlet flow when the splitter is ordered.**

### **Custom Split Ratios**

Split ratios and resistor cartridges other than those listed below can be ordered from *ASI* to custom configure the *QuickSplit* Adjustable Flow Splitter. Please contact technical support at 800-344-4340 for additional information about custom splitters. We will gladly assist you in determining the best splitter configuration for your application.

## **QuickSplit™ Adjustable Flow Splitters**

### **Analytical Splitters**

**Analytical range, 0.1 mL/min. to 5 mL/min. input flow**

Description	Split Ratio Range	ASI Part Number
Analytical Adjustable Flow Splitter, Post-Column	50:1 to 1,000:1	600-PO10-01
Analytical Adjustable Flow Splitter, Post-Column	15:1 to 250:1	600-PO10-03
Analytical Adjustable Flow Splitter, Post-Column	5:1 to 100:1	600-PO10-04
Analytical Adjustable Flow Splitter, Post-Column	1:1 to 20:1	600-PO10-06

### **Analytical Replacement Resistor Cartridges**

Description	Split Ratio Range	ASI Part Number
Analytical Adjustable Flow Splitter Resistor Cartridge, Post-Column	50:1 to 1,000:1	600-1110-01
Analytical Adjustable Flow Splitter Resistor Cartridge, Post-Column	15:1 to 250:1	600-1110-03
Analytical Adjustable Flow Splitter Resistor Cartridge, Post-Column	5:1 to 100:1	600-1110-04
Analytical Adjustable Flow Splitter Resistor Cartridge, Post-Column	1:1 to 20:1	600-1110-06

# QuickSplit Adjustable Flow Splitters

## Post-Column Adjustable Flow Splitters continued

### Semi-Preparative Splitters

Semi-Prep range, 5 mL/min. to 40 mL/min. input flow

Description	Split Ratio Range	ASI Part Number
Semi-Preparative Adjustable Flow Splitter, Post-Column	1,000:1 to 20,000:1	600-PO20-00
Semi-Preparative Adjustable Flow Splitter, Post-Column	100:1 to 2,000:1	600-PO20-01
Semi-Preparative Adjustable Flow Splitter, Post-Column	15:1 to 300:1	600-PO20-02
Semi-Preparative Adjustable Flow Splitter, Post-Column	1:1 to 20:1	600-PO20-03

### Semi-Preparative Replacement Resistor Cartridges

Description	Split Ratio Range	ASI Part Number
Semi-Preparative Adjustable Flow Splitter Resistor Cartridge, Post-Column	1,000:1 to 20,000:1	600-1120-00
Semi-Preparative Adjustable Flow Splitter Resistor Cartridge, Post-Column	100:1 to 2,000:1	600-1120-01
Semi-Preparative Adjustable Flow Splitter Resistor Cartridge, Post-Column	15:1 to 300:1	600-1120-02
Semi-Preparative Adjustable Flow Splitter Resistor Cartridge, Post-Column	1:1 to 20:1	600-1120-03

### Preparative Splitters

Prep range, 40 mL/min. to 200 mL/min. input flow

Description	Split Ratio Range	ASI Part Number
Preparative Adjustable Flow Splitter, Post-Column Flow Range: 40 - 125 mL/min.	Custom	600-PO30-CS
Preparative Adjustable Flow Splitter, Post-Column Flow Range: 75 - 200 mL/min.	Custom	600-PO40-CS

### Preparative Replacement Resistor Cartridges

Description	Split Ratio Range	ASI Part Number
Preparative Adjustable Flow Splitter Resistor Cartridge, Post-Column, Flow Range: 40 - 125 mL/min.	Custom	600-1130-CS
Preparative Adjustable Flow Splitter Resistor Cartridge, Post-Column, Flow Range: 75 - 200 mL/min.	Custom	600-1140-CS

## Pre-Column Adjustable Flow Splitters

Pre-column splitting is used for micro, capillary, and nano HPLC applications, where the flow from the pump is split from analytical flow rates down to microliter or nanoliter flows. It is important to note that even though the split ratio created by the splitter valve will remain constant, the split ratio will change when a HPLC column is installed. This is due to the added resistance on the low flow rate channel from the HPLC column. This added resistance must be factored in to make sure the fluid resistor selected for the flow splitter provides the correct split ratio. Please contact ASI if you need assistance. The charts on *page 22 and 23* only estimate the pressure drop across the splitter for post column applications and do not include the HPLC column back pressure. Splitters are shipped complete with the resistor cartridge installed.

**When ordering a pre-column flow splitter, please provide ASI with the column flow rate and back pressure. If the inlet flow rate or column pressure specification is not provided, ASI will configure pre-column flow splitters assuming a 0.5 mL/min. inlet flow rate and a pressure drop across the column of 1,500 PSI.**

### Custom Split Ratios

Split ratios and resistor cartridges other than those listed below can be ordered from ASI to custom configure the QuickSplit Adjustable Flow Splitter. Please contact technical support at 800-344-4340 for additional information about custom splitters. We will gladly assist you in determining the best splitter configuration for your application.

## QuickSplit™ Adjustable Flow Splitters

### Analytical Splitters

**Analytical range, 0.1 mL/min. to 1 mL/min. input flow**

These splitters will produce under 3,500 PSI backpressure with water at 0.5 mL/min.

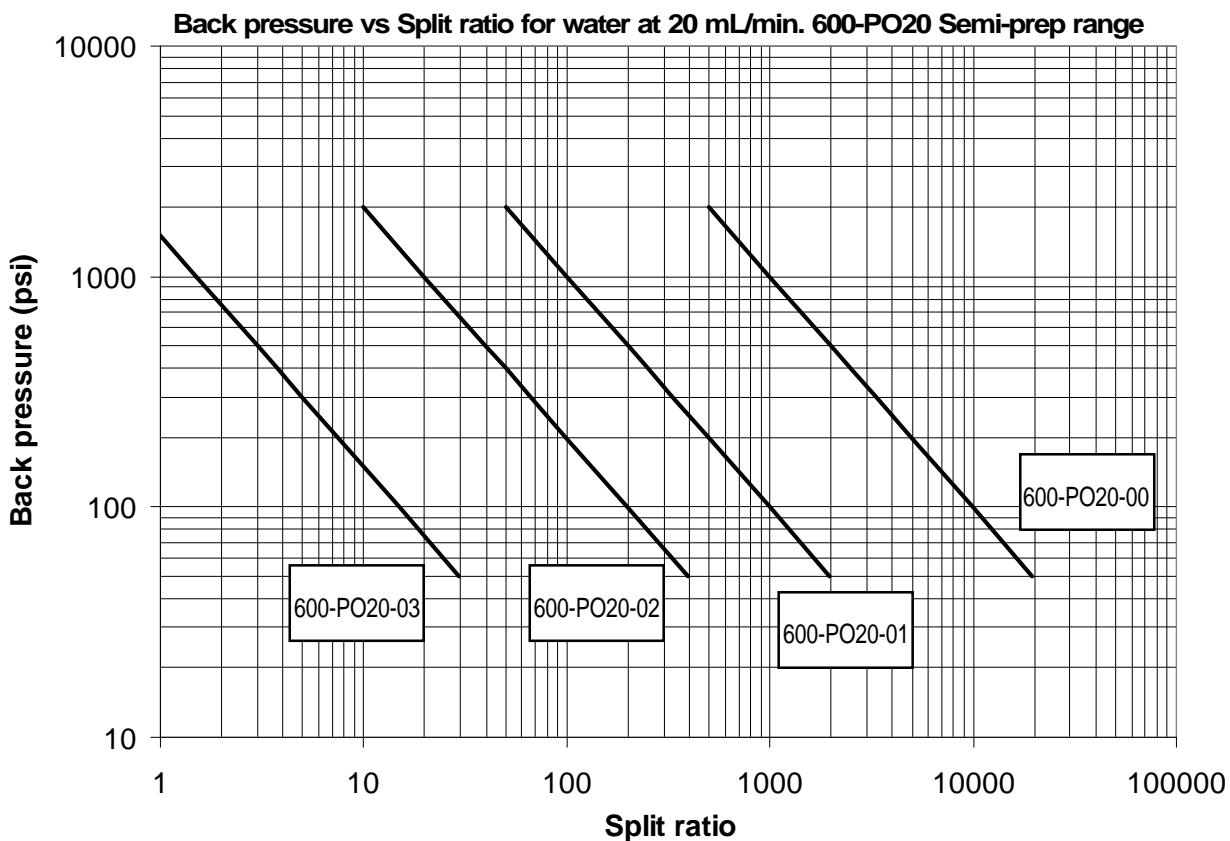
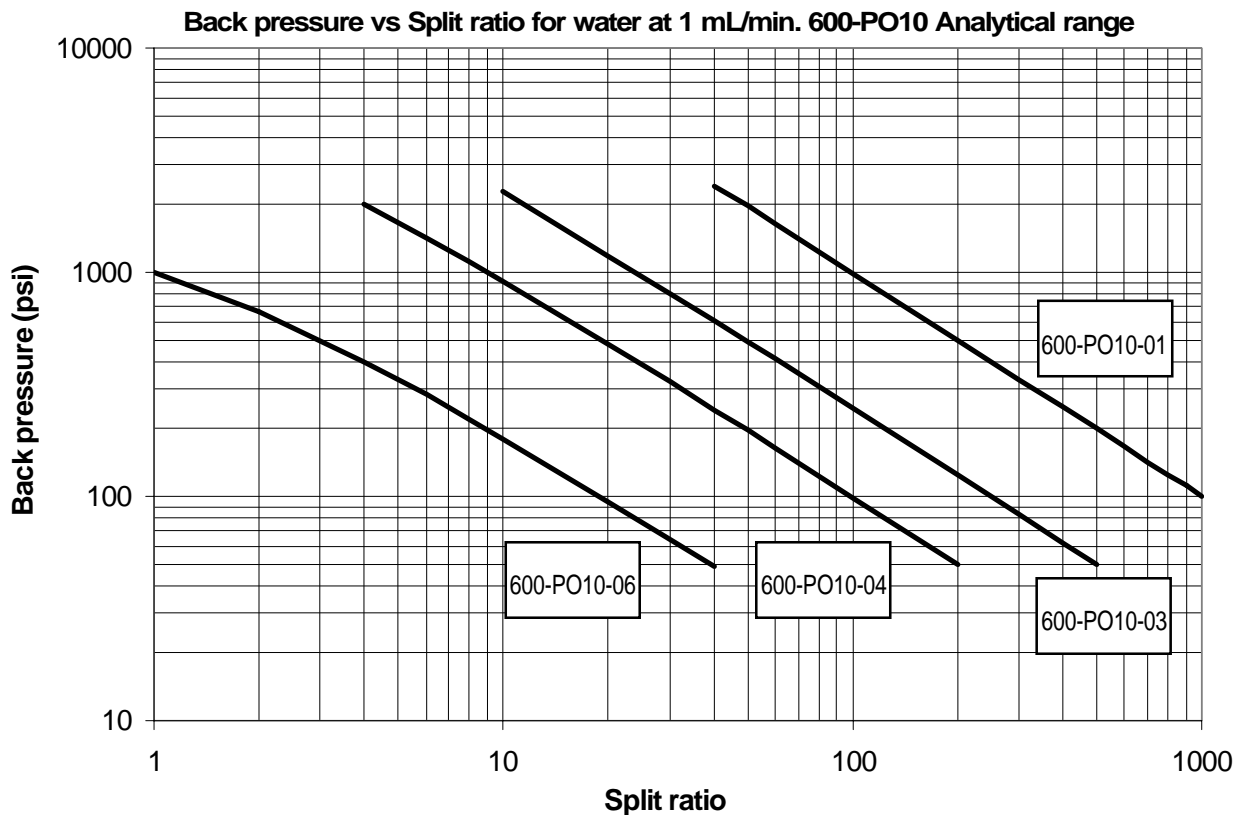
Description	Split Ratio Range	ASI Part Number
Analytical Adjustable Flow Splitter, Pre-Column	50:1 to 1,000:1	600-PR10-01
Analytical Adjustable Flow Splitter, Pre-Column	15:1 to 250:1	600-PR10-03
Analytical Adjustable Flow Splitter, Pre-Column	5:1 to 100:1	600-PR10-04
Analytical Adjustable Flow Splitter, Pre-Column	1:1 to 20:1	600-PR10-06
Analytical Adjustable Flow Splitter, Pre-Column	Custom	600-PR10-CS

### Analytical Replacement Resistor Cartridges

Description	Split Ratio Range	ASI Part Number
Analytical Adjustable Flow Splitter Resistor Cartridge, Pre-Column	50:1 to 1,000:1	600-PR00-01
Analytical Adjustable Flow Splitter Resistor Cartridge, Pre-Column	15:1 to 250:1	600-PR00-03
Analytical Adjustable Flow Splitter Resistor Cartridge, Pre-Column	5:1 to 100:1	600-PR00-04
Analytical Adjustable Flow Splitter Resistor Cartridge, Pre-Column	1:1 to 20:1	600-PR00-06
Analytical Adjustable Flow Splitter Resistor Cartridge, Pre-Column	Custom	600-PR00-CS

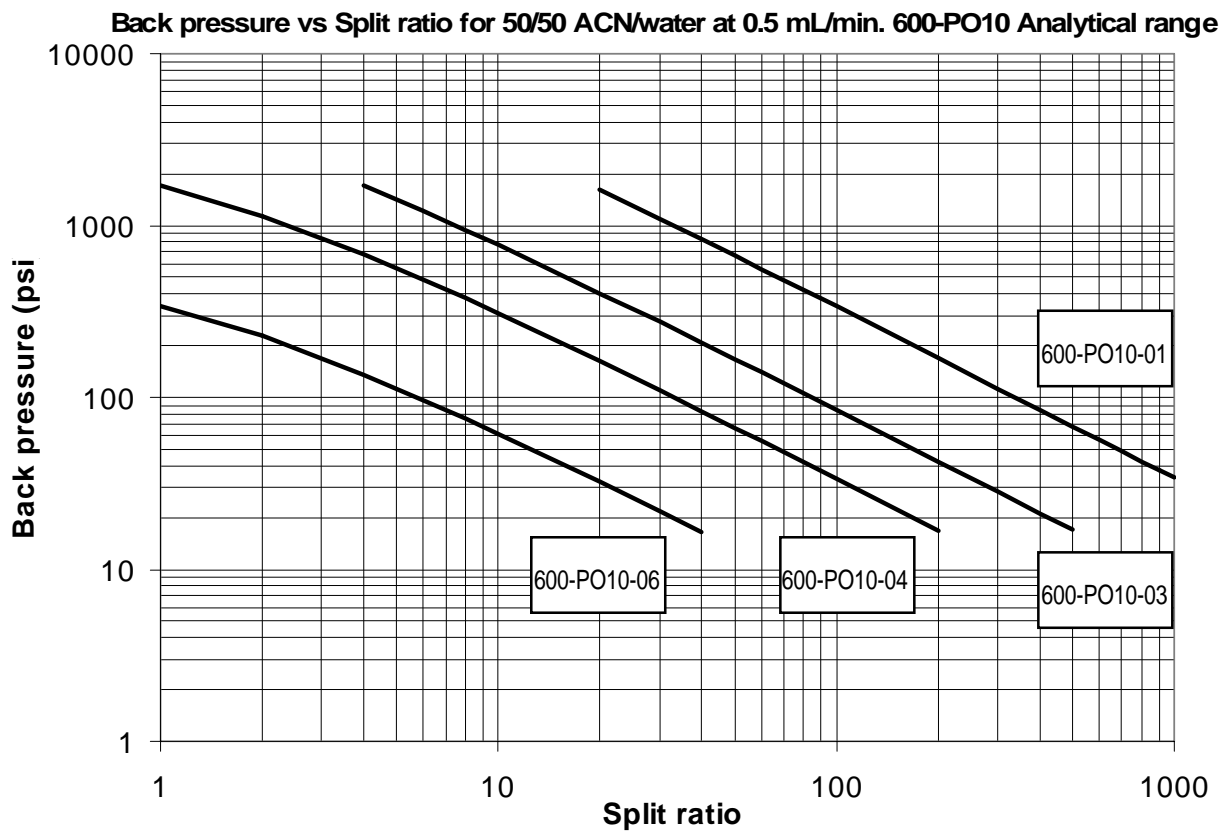
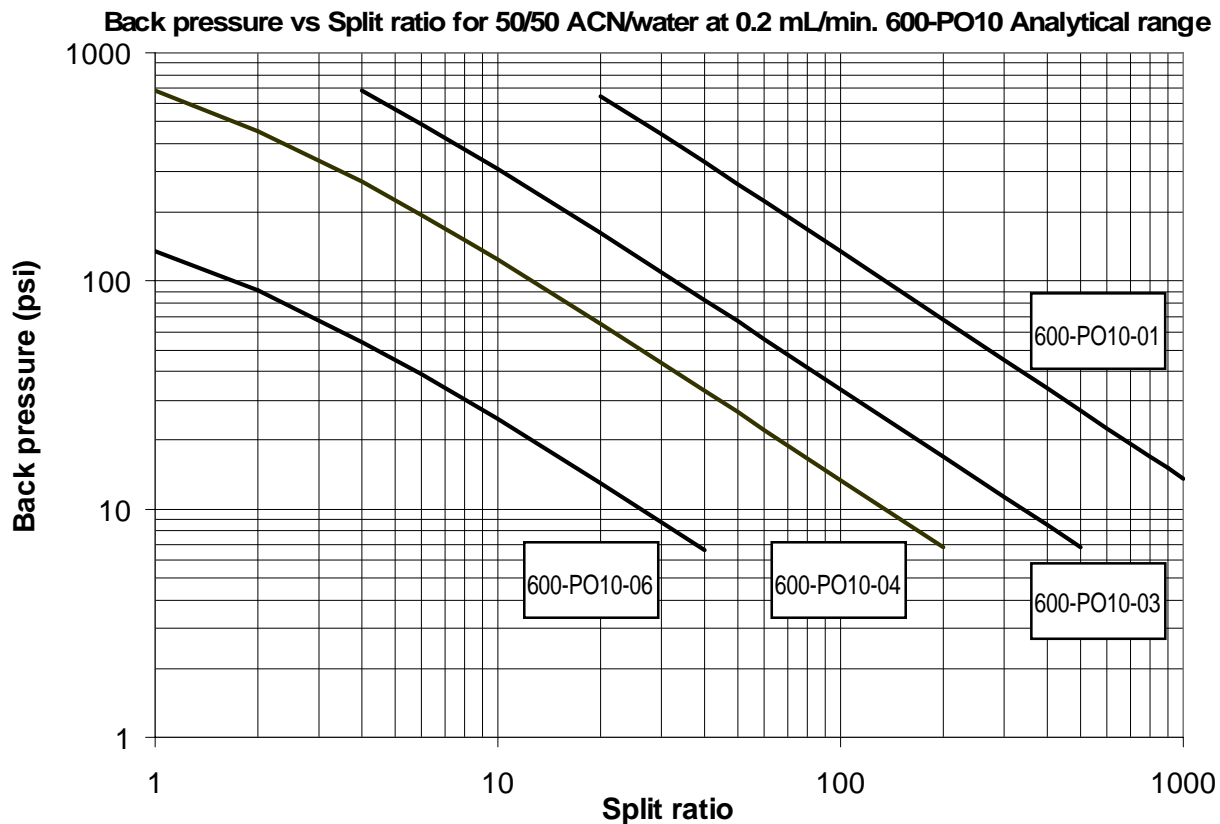
# QuickSplit Adjustable Flow Splitters

## QuickSplit Adjustable Flow Splitter Selection Charts



# QuickSplit Adjustable Flow Splitters

## QuickSplit Adjustable Flow Splitter Selection Charts



# QuickSplit Flow Splitters

## QuickSplit™ Flow Splitter Accessories Flow Measurement Kits\*

Description	ASI Part Number
Flow Rate Range 50 nL/min. to 5 µL/min.	600-0010S*
Flow Rate Range 5 µL/min. to 25 µL/min.	600-0025S
Flow Rate Range 10 µL/min. to 100 µL/min.	600-0100S
Flow Rate Range 25 µL/min. to 500 µL/min.	600-0250S

\*Kit P/N: 600-0010S interfaces to 360 µm OD fused silica tubing. All other kits interface to 1/16" OD PEEK tubing.

## QuickSplit™ Fixed Flow Splitter Accessories Replacement Inlet Filters

Description	ASI Part Number
Inlet Filter, 2 micron x 0.063" dia. 5/Pack, 1 µL Volume	620-0063-2
Straight Thru Hole, No Filter 5/Pack	620-0000-0

## Mounting Bracket 620

Description	ASI Part Number
Mounting Bracket for Fixed Flow Splitter	620-1000

## Capillary Resistor

Description	ASI Part Number
Capillary Resistor	Custom 620-PR00-CP

## QuickSplit™ Adjustable Flow Splitter Accessories Replacement Inlet Filters

Description	ASI Part Number
Inlet Filter, 2 micron x 0.063" dia. 5/Pack, 1 µL Volume	600-0063-2
Straight Thru Hole, No Filter 5/Pack	600-0000-0

## Capillary Resistor

Description	ASI Part Number
Capillary Resistor	Custom 600-PR00-CP