

STS Sample Transfer Systems are manufactured and protected under the following patent: 5,705,128.

Sample Transfer System

This sample transfer system uses thin (.040 inch) sample plates with six sawtooth shaped ramps, profiled on the plate's edge. The sample transfer probe is fitted with a fork consisting of three tab-shaped spring fingers positioned radially on a barrel. The sample plate locks on to the fork by rotating the fork's fingers over three of the six ramps. When the fork is rotated, the locking fingers slide up the ramps to stops. The plate is gripped by the spring fingers, holding it tight to the barrel of the fork.

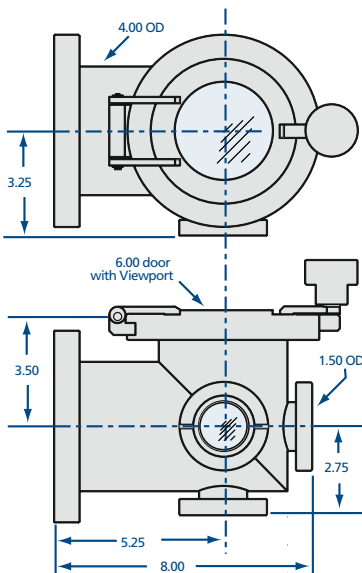
Transferring the sample from the probe fork to a manipulator sample dock is done with a rotary motion. The dock has the same type of locking fingers as the fork. The plate is mated to the dock by orienting it so that the three unused ramps can receive the dock's fingers. Rotating the fork releases the plate at the same time the fingers on the dock grip and lock the plate to the manipulator. This rotary movement makes a smooth sample transfer from the fork to dock and back again.

Nor-Cal's sample transfer system allows easy, forgiving sample transfer from a rotary/linear feedthrough to the sample dock mounted inside the chamber. Systems are available for sample sizes ranging from 1/2 inch to 3 inches. Each system includes a dock assembly custom fitted to place the sample on target in your particular chamber, a transfer fork assembly which mounts to a rotary/linear device and two stainless steel sample plates. Molybdenum sample plates are also available. Call for details and pricing.

Features

- Fast thermal response and greater extremes
- Larger samples may be introduced through smaller ID plumbing
- Excellent sample plane repeatability
- Adapts to most goniometers and precision gearboxes
- Excellent performance for direct and indirect cooling
- Transferable thermocouple, optional
- Transferable intrinsic direct heating
- Five-year guarantee

MODEL NUMBER	SAMPLE OD	MINIMUM PORT OD
STS-050	1/2	1 1/2
STS-100	1	1 1/2
STS-200	2	2 1/2
STS-300	3	4



Load Lock Chamber

Load lock chambers are an efficient means to introduce a sample into a vacuum chamber without impacting the main chamber vacuum. Load Locks are provided with a six inch CF flange for mounting to the gate valve, a six inch Add-A-Door with 7056 glass viewport, a 2 3/4 inch CF flange for attachment of the linear feedthrough, and two 2 3/4 inch CF flanges for pumping and gauges. Standard finish is electropolished. Custom sizes and configurations are readily available. Call for pricing.

MODEL NUMBER

LL-600-ADV-150-3

SPECIFICATIONS

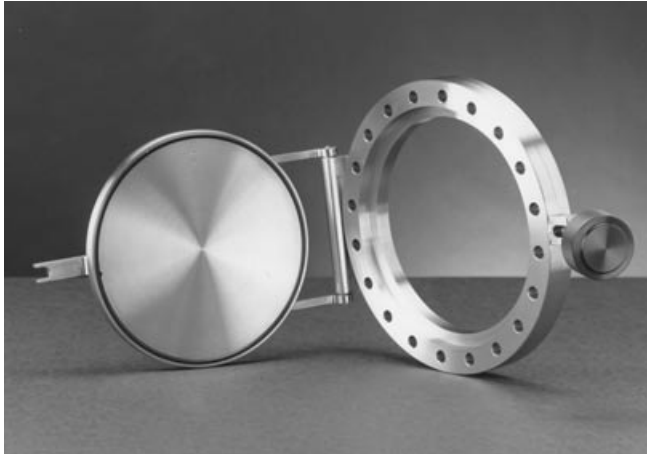
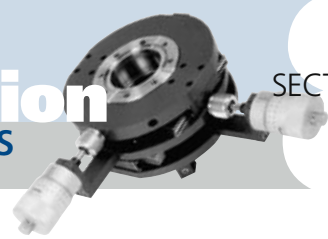
Construction

Flanges: 304 stainless steel
Body: 304 stainless steel
Viewport: 7056 glass
O-ring: Viton

Temperature range: -20°C to 200°C

Vacuum range: $\geq 10^{-8}$ Torr - High vacuum





An Add-A-Door can provide easy access to a vacuum system when elastomer seals are acceptable. The hinged, Viton sealed door is quickly bolted to an existing CF (Conflat style) flanged chamber port. The door is opened easily by turning a knurled knob. These doors are available for 2³/₄ to 10 inch OD flanges with a solid metal door or with a viewport. Standard finish is electropolished. Custom sizes can be supplied upon request.

SPECIFICATIONS

Construction

Body: 304 stainless steel
 Flange: 2³/₄ to 10 inch CF
 Door: Blank, 7056 glass, or fused silica
 O-ring: Viton standard

Temperature range: -20°C to 200°C

Vacuum range: $\geq 10^{-8}$ Torr - High vacuum

Add-A-Doors

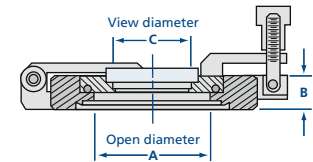
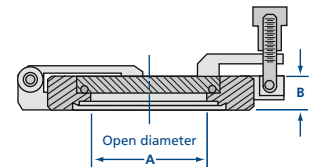
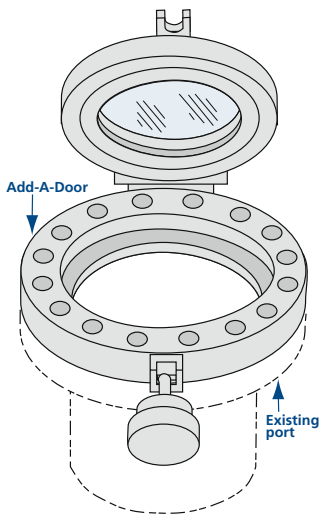
MODEL NUMBER	FLANGE TYPE	A	B
AD-275	2.75 CF	1.380	0.500
AD-450	4.50 CF	2.435	0.687
AD-600	6.00 CF	3.917	0.781
AD-800	8.00 CF	5.875	0.875
AD-1000	10.00 CF	7.875	0.968

Add-A-Doors with Viewport – 7056 Glass

MODEL NUMBER	FLANGE TYPE	A	B	C
ADV-450	4.50 CF	2.435	0.69	1.49
ADV-600	6.00 CF	3.917	1.00	2.65
ADV-800	8.00 CF	5.875	1.20	3.88
ADV-1000	10.00 CF	7.875	1.30	5.60

Add-A-Doors with Viewport – Fused Silica

MODEL NUMBER	FLANGE TYPE	A	B	C
ADVQ-450	4.50 CF	2.435	0.74	1.40
ADVQ-600	6.00 CF	3.917	1.02	2.69
ADVQ-800	8.00 CF	5.875	1.21	3.88
ADVQ-1000	10.00 CF	7.875	1.28	5.38



Viewport Optical Transmission Curves

