

Laboratory Scale
Supercritical Fluid Systems

Spe-ed™ SFE 2/4



Spe-ed SFE-2

2-Vessel Simultaneous Oven-based Extraction System

The *Spe-ed* SFE-2 is the original SFE in our series of instruments for supercritical fluid extraction. Built in conjunction with the USDA, this system was designed to meet the rigorous needs of day-to-day use in the research lab. It is simple to operate, fast and affordable, with unique features not found in other SCF systems.

The system features:

- temperatures to 240°C
- pressure up to 10,000 psi (690 BAR)
- pump flow rates up to 400mL/min
- independent control of flow rates to each vessel
- fully-adjustable, non-clogging, variable restrictors
- parallel processing capabilities of 1 or 2 vessels from 5mL to 1.0L
- collection into SPE cartridges or standard glassware
- in-line trapping capabilities
- modifier addition capability
- multiple flow path capability
- extract directly from liquid samples



Spe-ed SFE-4

4-Vessel Simultaneous Oven-based Extraction System

Designed for every day use in the research lab, the *Spe-ed* SFE-4 is easy to use, cost-effective, and durable. The *Spe-ed* SFE-4 has all the advantages of the *Spe-ed* SFE-2 while expanding parallel processing capabilities up to four extractor vessels. This system doubles the processing capability of the *Spe-ed* SFE-2.

The system features:

- temperatures to 240°C
- pressure up to 10,000 psi (690 BAR)
- pump flow rates up to 400mL/min
- independent control of flow rates to each vessel
- fully-adjustable, non-clogging, variable restrictors
- parallel processing capabilities of up to 4 vessels from 5mL to 1.0L
- collection into SPE cartridges or standard glassware
- in-line trapping capabilities
- modifier addition capability
- multiple flow path capability
- extract directly from liquid samples



High Pressure Vessels

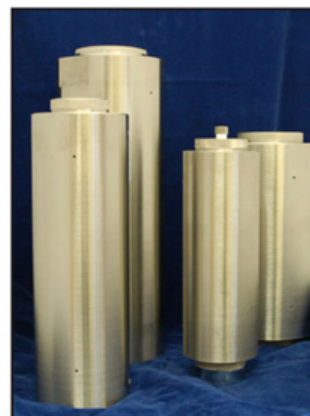
| ASI Part Numbers | Nominal Volume mL | Outer Diameter in. (cm) | Outer Length in. (cm) | Inner Diameter in. (cm) | Inner Length in. (cm) | End Cap Ports Top/Bottom |
|------------------|-------------------|-------------------------|-----------------------|-------------------------|-----------------------|--------------------------|
| 6411 / 7972* | 5 | 1.00 (2.54) | 5.13 (13.03) | 0.39 (0.99) | 2.24 (5.69) | 1 / 1 |
| 6411 / 7972 | 10 | 1.00 (2.54) | 5.13 (13.03) | 0.56 (1.42) | 2.24 (5.69) | 1 / 1 |
| 6412 / 7973 | 24 | 1.00 (2.54) | 8.88 (22.55) | 0.56 (1.42) | 5.90 (14.99) | 1 / 1 |
| 6413 / 7974 | 32 | 1.00 (2.54) | 10.50 (26.67) | 0.56 (1.42) | 8.00 (20.32) | 1 / 1 |
| 6414 / 7975 | 50 | 1.00 (2.54) | 15.25 (38.73) | 0.56 (1.42) | 12.72 (32.31) | 1 / 1 |
| 6415 / 7329 | 100 | 2.25 (5.72) | 9.57 (24.30) | 1.25 (3.17) | 4.97 (12.62) | 1 / 2 |
| 7907 / 7324 | 300 | 3.50 (8.89) | 11.42 (29.00) | 2.00 (5.08) | 5.87 (14.91) | 1 / 2 |
| 7926 / 7323 | 500 | 4.75 (12.06) | 9.49 (24.10) | 3.00 (7.62) | 4.49 (11.40) | 5 / 5 |
| 7908 / 7322 | 1000 | 4.75 (12.06) | 13.63 (34.62) | 3.00 (7.62) | 8.62 (21.89) | 5 / 5 |

*Uses a removable sleeve to reduce the inner diameter.

- All vessels are made of 17-4 stainless steel and are rated for maximum operating conditions of 10,000 psi (690 BAR), and 240°C
- All vessels are manufactured following general ASME guidelines. Specific ASME (or other) certification available.
- 100mL and larger vessels include spring-energized PTFE cup seals, rated to 240°C.
- 5mL through 50mL vessels include O-rings and Back-up rings rated to 150°C. Optional high-temperature cup seals are available.



SFE Vessels - 5mL / 10mL to 50mL



SFE Vessels - 100mL to 1,000mL