

CLEAN SCREEN[®] - RSV

Reduced Solvent Volume Extraction Columns

Reduced Solvent Volume extraction columns are micro bed packed columns which offer the advantages of disc technology yet maintain the proven track record of our conventional SPE columns. We offer CLEAN SCREEN[®] and CLEAN-UP[®] RSV columns. CLEAN SCREEN[®] sorbents contain a copolymeric bonded phase silica that includes a reverse phase component and an ion exchanger. CLEAN-THRU[®] tips are also provided for our CLEAN SCREEN[®] RSV columns to allow for a flow-through tip which prevents the sample from having any contact with the vacuum manifold lid.

Reduced Solvent Volume columns use 75% less solvent than traditional packed columns. Less solvent means faster extractions, higher throughput and less waste disposal which translates into significant savings in both time and money. Results demonstrate that therapeutic and abused drugs in urine and blood matrices can be extracted with cleanliness, high recoveries and consistent reproducibility by using the Reduced Solvent Volume extraction column.

RSV columns are available in both 3 ml and 10 ml configurations. These columns can be used with vacuum manifolds or positive pressure, as well as conventional automated extraction equipment.

Advantages of Reduced Solvent Volume Extraction

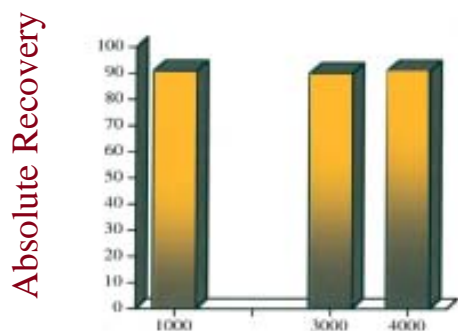
- **75% Reduction in total liquid volumes**
 - Lower cost per extraction
 - Faster extraction times
 - Less disposal cost
 - Increased automated throughput

- **50% Reduction in eluate volume**
 - Faster dry down times
 - Reduced exposure to organic solvents

- **Superior flow characteristics**
 - Less flow restriction from matrix proteins or particulates
 - More reliable for automated processing

- **High capacity**
 - Greater linear range

Capacity



THC-COOH Standards (ng/ml) in spiked urine

91% (n=4) for 1000 ng/ml

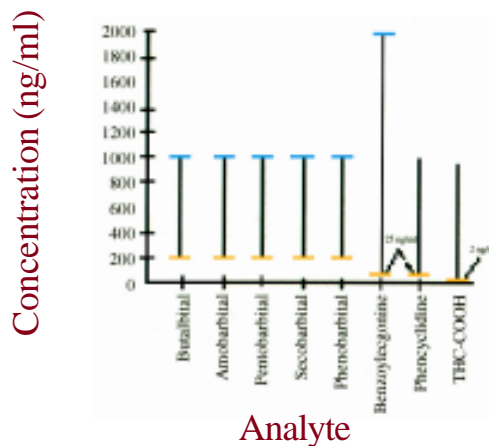
90% (n=2) for 3000 ng/ml

91% (n=4) for 4000 ng/ml

No analyte breakthrough at 1000 ng/ml and less than 0.2% analyte breakthrough at 3000 and 4000 ng/ml levels.

Recovery

Linear Ranges Exhibiting Greater than 85% Recoveries in Urine



Analyte

— Highest Concentration Tested
— Lowest Concentration Tested

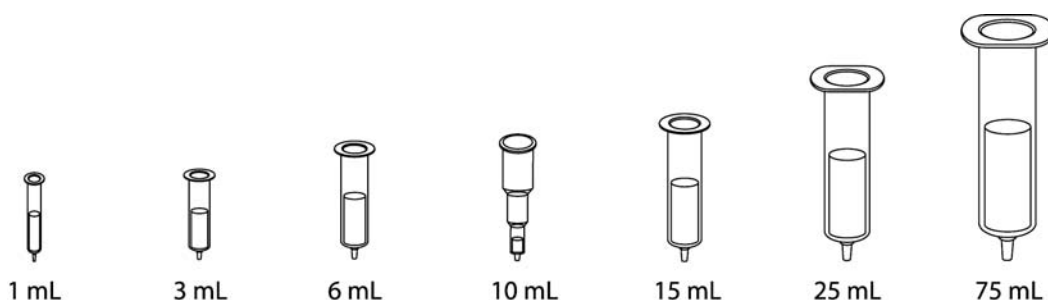
Solvent Reduction

Analyte	Solvent Usage Reduced Solvent Volume* SPE columns	Solvent Usage Traditional Packed columns	% Solvent Reduction
Barbiturates	4.25 mL	18 mL	76%
Benzoyllecgonine	4.65 mL	19 mL	76%
THC-COOH	4.85 mL	16.4 mL	73%
Phencyclidine	5.15 mL	19 mL	70%

*UCT product # CSDAUA83

CLEAN SCREEN® RSV

Reduced Solvent Volume Extraction Columns



Chemistries are offered on these particle sizes.

Small Particle (5-20 μm)

Intermediate Particle (25-40 μm)

Standard Particle (40-60 μm)

Large Particle (125-210 μm)

Copolymeric Extraction for all Drug Classes

Part Number without disposable tips	Part Number with disposable tips	Amount sorbent / Tube volume	Units per bag
CSDAUA83	CCDAUA83	80mg / 3mL	50
ZSDAUA08	ZCDAUA08	80mg / 10mL	50

DAU

column is copolymerized on a rigid, purified silica gel support. The two functional groups include a reverse phase, and an ion exchanger, benzenesulfonic acid. This column is commonly used for analyzing a wide range of drugs of abuse, including acidic, basic & neutral drugs.

Specific for THC & THCA Extraction

Part Number without disposable tips	Part Number with disposable tips	Amount sorbent / Tube volume	Units per bag
CSTHCA83	CCTHCA83	80mg / 3mL	50
ZSTHCA08	ZCTHCA08	80mg / 10mL	50

THC

column is copolymerized on a rigid, purified silica gel support. The two functional groups include an octyl reverse phase, and an ion exchanger, quaternary amine acid. This column is commonly used for analyzing THC and its metabolites.

CLEAN-UP® RSV

Reduced Solvent Volume Extraction Columns

C18, Octadecyl

Part Number without disposable tips	Part Number with disposable tips	Amount sorbent / Tube volume	Units per bag
CUC18A083	CEC18A083	80mg / 3mL	50
CUC18A08Z	CEC18A08Z	80mg / 10mL	50

% Organic Loading: 21.70

Application:

Removes hydrophobic impurities, de-salting and purification of hydrophobic compounds.