

## nanoACQUITY UPLC 2G Trap Column

### TABLE OF CONTENTS

#### I. INTRODUCTION

#### II. FITTINGS

#### III. CONNECTING THE COLUMN TO THE UPLC SYSTEM

#### IV. COLUMN USAGE

- a. Mobile Phases
- b. Sample Considerations
- c. Sample Load And Flow Rates
- d. Removal
- e. Recommended Storage

#### V. ORDERING INFORMATION

#### I. INTRODUCTION

Thank you for choosing a nanoACQUITY UPLC® 2G Trap Column. nanoACQUITY UPLC Trapping Columns are manufactured in a cGMP, ISO 9001:2000 certified plant with each step being conducted within narrow tolerances. Every column is individually tested and Certificates of Batch Analysis and a Performance Chromatogram are provided with each trapping column.

The nanoACQUITY UPLC 2G Trap Column (10,000 psi) utilize a proprietary device designed to minimize peak broadening while maximizing chromatographic efficiency. This can be used in a variety of 1D nano flow applications.



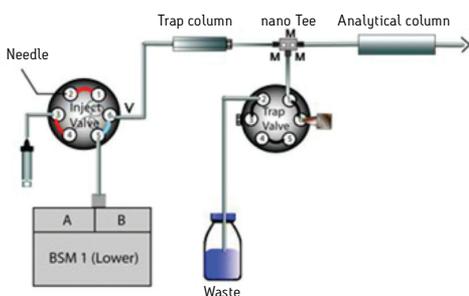


Figure 1. Trap column on a nanoACQUITY UPLC single pump configuration.

In order to achieve the highest performance from your nanoACQUITY UPLC 2G Trap Column investment, we strongly suggest you observe the care and use guidelines detailed below.

## II. FITTINGS

Depending on your Waters nanoACQUITY UPLC System and application needs, the nanoACQUITY UPLC 2G Trap Column will utilize two of the connector fittings shown in Figure 2.



Figure 2: nanoACQUITY UPLC 2G Trap Column (10,000 psi) M-detail and V-detail connection fittings.

## III. CONNECTING THE COLUMN TO THE UPLC SYSTEM

These procedures outline the steps necessary to install your nanoACQUITY UPLC 2G Trap Column (10,000 psi) onto a nanoACQUITY UPLC System. Connecting and installing your purchased trap properly is essential to minimizing dead volumes and maximizing chromatographic performance. Make sure that all connected trap fittings are bottomed into all ports and tees.

1. Start the fitting into the port.
2. Grasp the end fitting and gently push it into the appropriate nanoACQUITY UPLC tee, port, or valve. Note that bottoming of the Trap tubing into the port minimizes system dead volume.
3. Tighten the fitting according to the recommendations in the following table.
  - If the **V-Detail** fitting is new and not yet installed, tighten the fitting snug (finger-tight) plus one full turn (360 degrees) using a 1/4-inch wrench.
  - If the **M-Detail** fitting is new and not yet installed, tighten the fitting snug (finger-tight) plus 1/2 full turn (180 degrees) using a 3/16-inch wrench.
  - If either **V-Detail** or **M-Detail** fitting has been installed and removed once or more, tighten the fitting snug (finger-tight) plus 1/6 turn (60 degrees) using the correct wrench as detailed above. Proper 60 degree final tightening is used for both the **V-Detail** and **M-Detail** fittings when they have been previously used.

## IV. COLUMN USAGE

### a. Mobile Phases

Use only filtered and degassed mobile phases that are compatible with the column packing material. Switch only between mutually miscible mobile phases to prevent possible precipitation in the nanoACQUITY UPLC System lines and/or within trap columns. Note: the Symmetry<sup>®</sup> C<sub>18</sub>, 5 μm, 2G Trap Column is shipped in 100% Optima™ Acetonitrile (Fisher Scientific).

### b. Sample Considerations

The presence of particulates in the injected sample will greatly affect trap column life. Whenever possible, inject only filtered or microcentrifuged (e.g., 10,000 psi for 5 minutes) samples contained in eluent that are miscible with the separation mobile phases.

**c. Sample Load and Flow Rates**

Sample load and recommended flow rates vary depending on application. For more information, please consult an appropriate Waters applications note at [www.waters.com](http://www.waters.com).

**d. Removal**

Gradually stop the flow and wait until decompression is completed. This may take 1 - 2 minutes.

**NEVER remove the trap column when system pressure is greater than 200 psi since this can damage the packed column bed.**

Remove the trap column by disconnecting the outlet prior to trap inlet.

**e. Recommended Storage**

1. Short Term (e.g., 24 - 72 hours before reuse):  
The nanoACQUITY UPLC System should be set to flow at 300 nL/min and a composition of 50/50 water/acetonitrile.
2. Long Term (e.g., greater than 72 hours before reuse):  
Store in 100% acetonitrile and **NO** TFA or FA.

**V. ORDERING INFORMATION**

Description	Part Number
nanoACQUITY UPLC 10K-2G-VM Trap Symmetry C <sub>18</sub> , 180 µm x 20 mm, 5 µm	186006527*

\*This part number is a replacement for part number 186003514

Waters

THE SCIENCE OF WHAT'S POSSIBLE.®



Waters, The Science of What's Possible, nanoACQUITY UPLC, UPLC, and Symmetry are registered trademarks of Waters Corporation. Optima is a trademark of Fisher Scientific. All other trademarks are the property of their respective owners

©2013 Waters Corporation. Produced in the U.S.A.  
November 2013 720004296EN VW-PDF

**Waters Corporation**  
34 Maple Street  
Milford, MA 01757 U.S.A.  
T: 1 508 478 2000  
F: 1 508 872 1990  
[www.waters.com](http://www.waters.com)