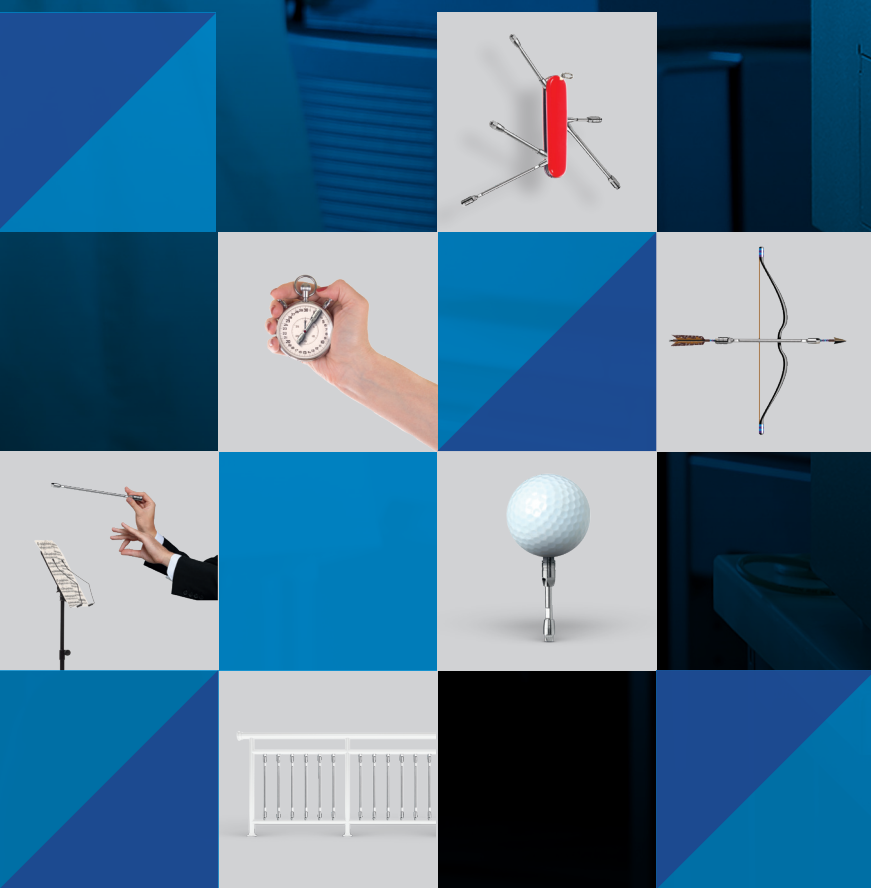


# MaxPeak™ Premier Columns



Waters™

# Why Choose MaxPeak™ Premier Columns?

Waters MaxPeak Premier Columns enable scientists to have more confidence in their chromatographic separations with the inclusion of MaxPeak High Performance Surfaces (HPS) Technology. MaxPeak HPS Technology is designed to increase analyte recovery, sensitivity, and reproducibility by minimizing analyte/surface interactions that can lead to sample losses.

MaxPeak Premier Columns mitigate the loss of metal sensitive analytes, such as lipids, organic acids, acidic peptides, oligonucleotides, and other compounds containing phosphate, carboxylate, or other chelating functionalities. Chelation of compounds with stainless-steel surfaces can lead to uncertainty in analytical results. With expanded particle size options, you can now use MaxPeak Premier Columns to create and transfer methods, from development to QC, using any LC system.

## MaxPeak Premier Columns Provide:

- Reduced column conditioning and passivation times
- Improved sensitivity and peak shapes
- Simpler mobile phases without complex additives
- Time savings in method development
- Reduced risk and greater confidence in data and decision making
- Scalability across all analytical LC platforms – UPLC – UHPLC – HPLC

## The ultimate solution for your chromatographic separations



### Trusted Particle Technology

- Flexible options for ALL applications
- Growing number of chemistries available

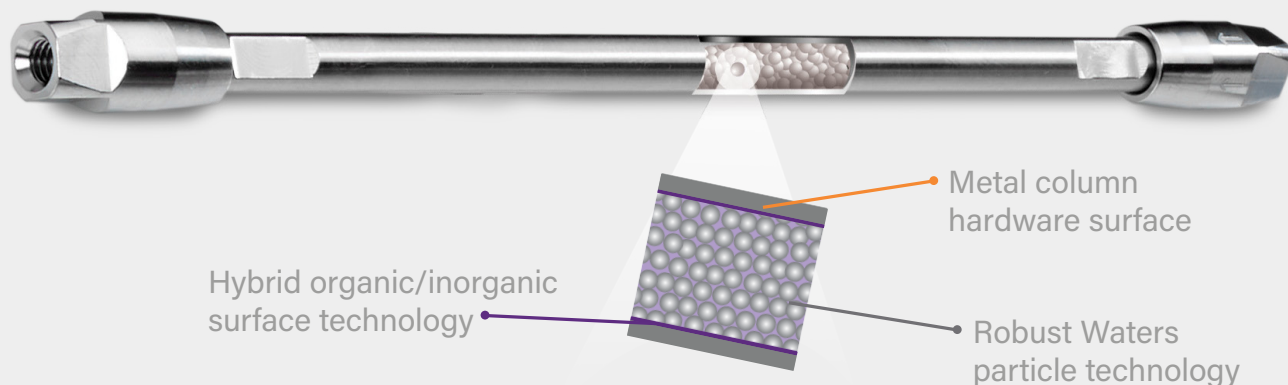
Acquity™ PREMIER  
COLUMNS

Atlantis™ PREMIER  
Columns

Bridge™ PREMIER  
COLUMNS

CORTECS™ PREMIER  
COLUMNS

XSELECT™ PREMIER  
Columns



**Eliminate doubt with consistent performance and reliable results right from the start**



**High Performance Surfaces**

- See everything in your sample
- Reduce variability risks
- Confidence in your results



**Integrated Column Protection**

- Protection for your investment
- Increase your column lifetime
- Maintain separation efficiency



**VAN GUARD™**  
FIT

# Why MAX scalability matters.

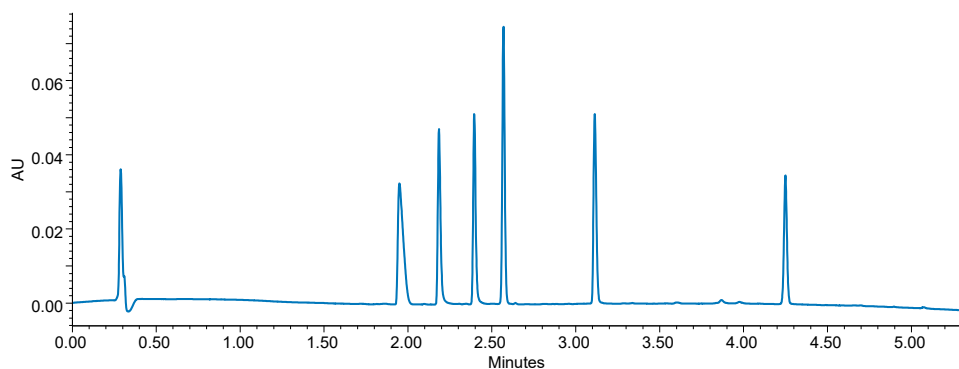
Your LC system shouldn't limit you on achieving your chromatographic goals.

Fully scalable column chemistries and column hardware technologies allow for seamless method migration on any LC system. Having access to the newest column technologies in HPLC particle sizes helps make method transfer easier, faster, and more likely to succeed.

- Consistent chromatography
- Seamless scalability
- Simplified method development and transfer

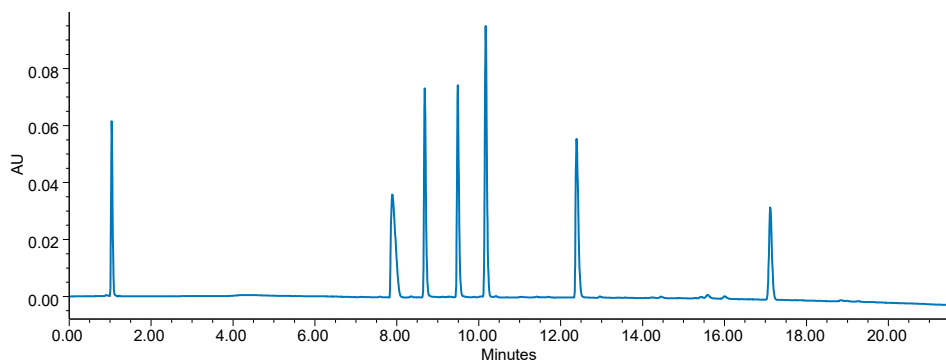


## ACQUITY™ Premier BEH™ C<sub>18</sub> 1.7 μm 2.1 x 50mm Column H-Class UPLC System



Seamless scalability  
between columns,  
particle sizes and  
LC systems

## XBridge™ Premier BEH C<sub>18</sub> 3.5 μm 4.6 x 100mm Column Arc™ HPLC System



Eliminate doubt  
with a total solution  
you can trust.

1) Thiourea, 2) Metoprolol, 3) Hydrocortisone Phosphate, 4) Dexamethasone Phosphate, 5) Prednisone, 6) Amitriptyline, 7) Dipropyl phthalate.

# Why MAX reproducibility matters.

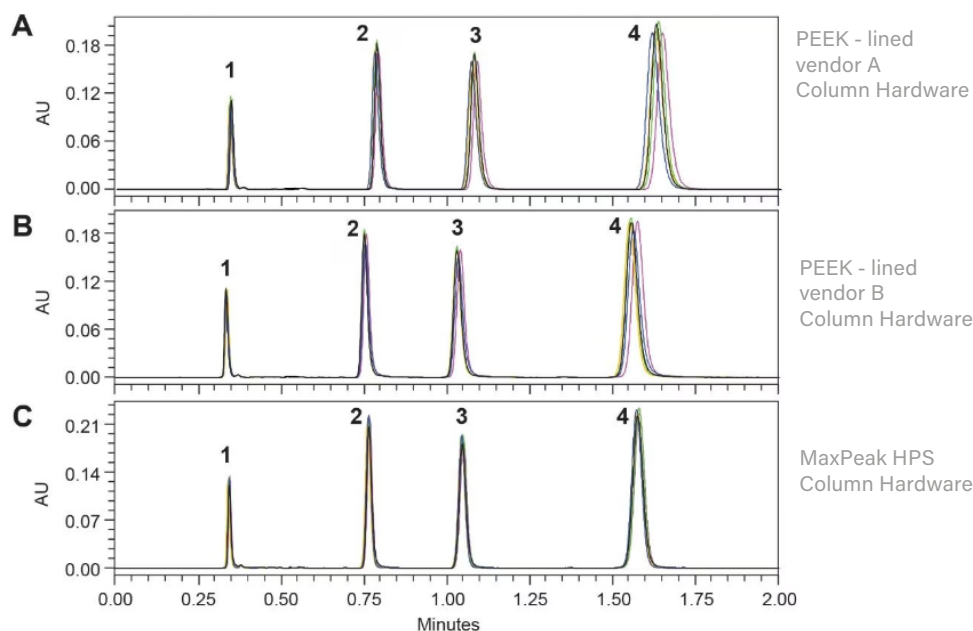
Having a fully reproducible method for your separations means saving time and costs for years to come.

That's why MaxPeak Premier Columns can make a lasting impact. Instead of troubleshooting reproducibility problems caused by analyte loss due to non-specific adsorption, you can focus on the job at hand, injection after injection.

- Time and cost savings
- Consistent results
- Lasting performance



Chromatographic peaks: 1) Thiourea, 2) Naphthalene, 3) Acenaphthene, 4) Octanophenone



Chromatograms for N=5 columns packed in (A) PEEK-lined Vendor A hardware, (B) PEEK-lined Vendor B hardware, and (C) MaxPeak HPS hardware.

Read more about the benefits of MaxPeak HPS compared to PEEK-lined steel.



Watch a video to learn how MaxPeak Premier Columns with MaxPeak HPS can reduce analyte loss due to metal/surface interactions, reduce passivation needs and increase sensitivity and reproducibility in your analysis.

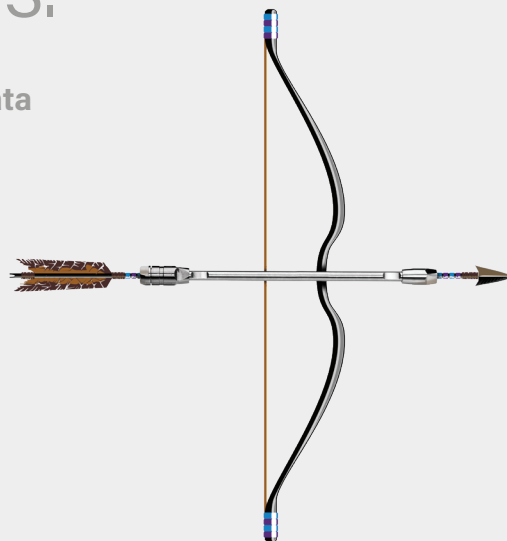


# Why MAX accuracy matters.

Getting accurate data from your LC columns means having data you can rely on to make critical decisions about your work.

That's why switching to MaxPeak Premier Columns can make all the difference. Instead of the doubt that comes with inadequate chromatographic resolution, tailing peaks, and sub-optimal sensitivity, you get the level of accuracy you need to reach your separation goals with confidence, time and time again.

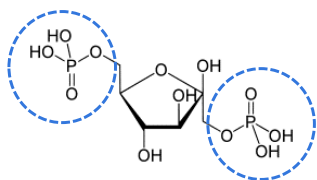
- Eliminate non-specific adsorption
- Improve accuracy and reduce variability
- Hit your targets quickly



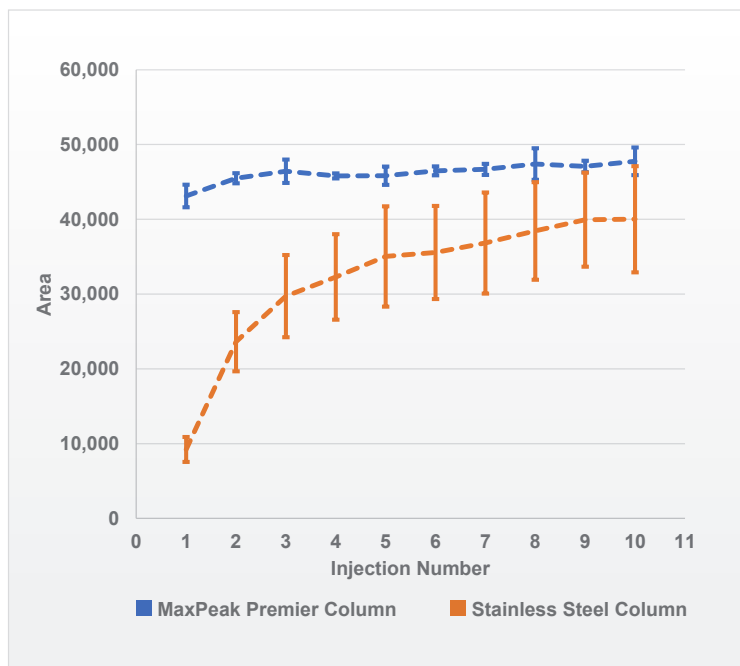
## Consistent Chromatography for Fructose 1,6-bisphosphate from the First to Tenth Injection

n=6 Columns	MaxPeak HPS	Stainless Steel
Ave injection %RSD	3.6%	29.6%
% Change in Area inj. 1 - inj. 10	10.8%	341.8%

- Atlantis BEH C<sub>18</sub> AX 1.7 μm Columns
- Fructose 1,6-bisphosphate, 0.2 μg injected



- Conditions
  - 10 mM ammonium formate pH 2.00 (aq)
  - Column Temp: 30 °C
  - ESI - detection



See the right answer from the first injection, with low variability and the highest recovery.

# Why MAX speed matters.

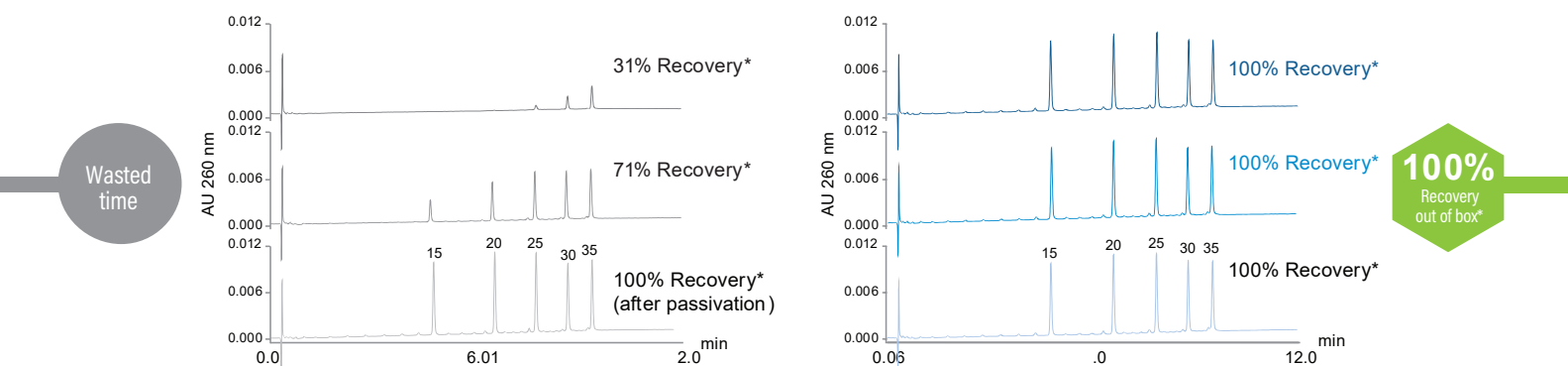
Being able to carry out analyte testing without lengthy column conditioning means being able to get your products to market faster.

That's why choosing MaxPeak Premier Columns matters. Instead of the doubt that comes with navigating time constraints and roadblocks, you can expect right-first-time results for a faster route to market.

- Deliver right-first-time results
- Save time and costs in lengthy analysis
- Get your product to market faster



## Save time by avoiding lengthy column conditioning.



Is NSA sabotaging your lab's productivity?  
Find out how MaxPeak Premier Columns can help.



Watch a video to learn how CORTECS™ Premier Columns allow scaling for improved separations, speed and faster flow rates, all without sacrificing resolution.

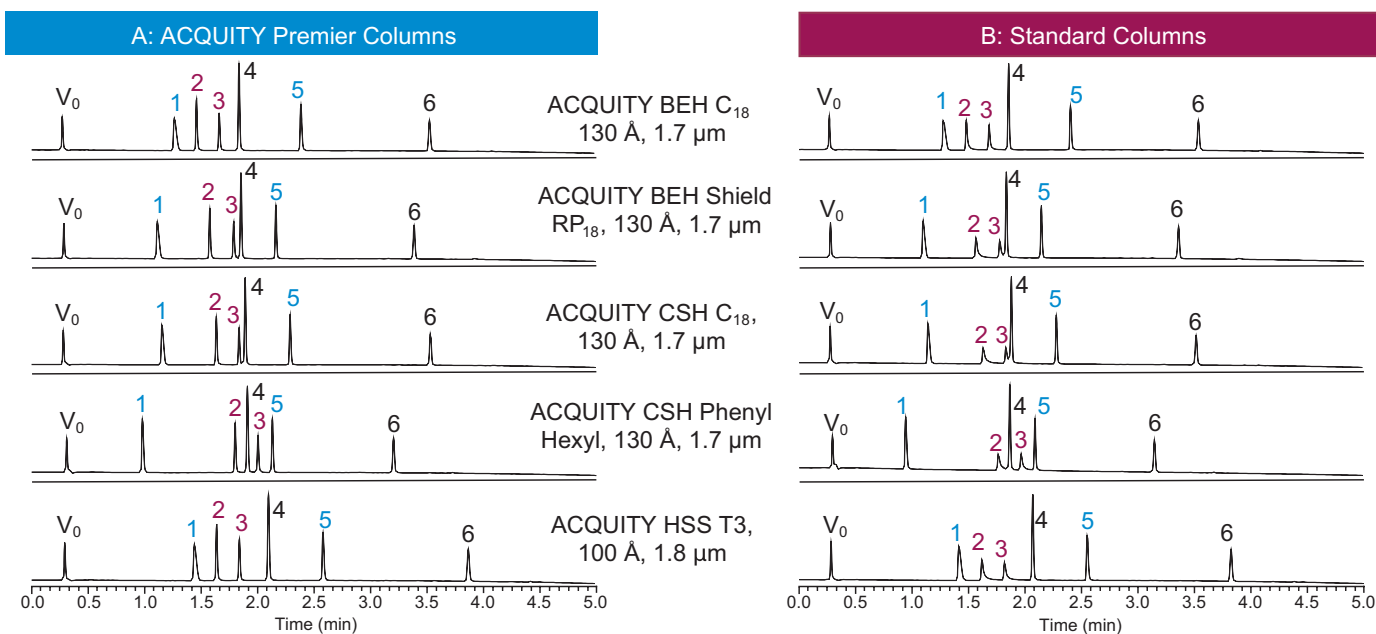


# Why MAX confidence matters.

Working with consistent analytical data from the start means you can develop the robust methods you need across all types of applications.

That's why choosing MaxPeak Premier Columns can give you a boost. When you can develop methods without a concern for analyte loss due to non-specific adsorption, you know you are getting the best sensitivity, peak shape and end result without compromise.

- Quick and easy method development
- Compatibility across LC platforms
- Enhanced efficiency



Peaks 2 and 3 have higher sensitivity with MaxPeak Premier Column Technology.

See better quality data while maintaining selectivity.  
Check out the MaxPeak Application Notebook to learn more.





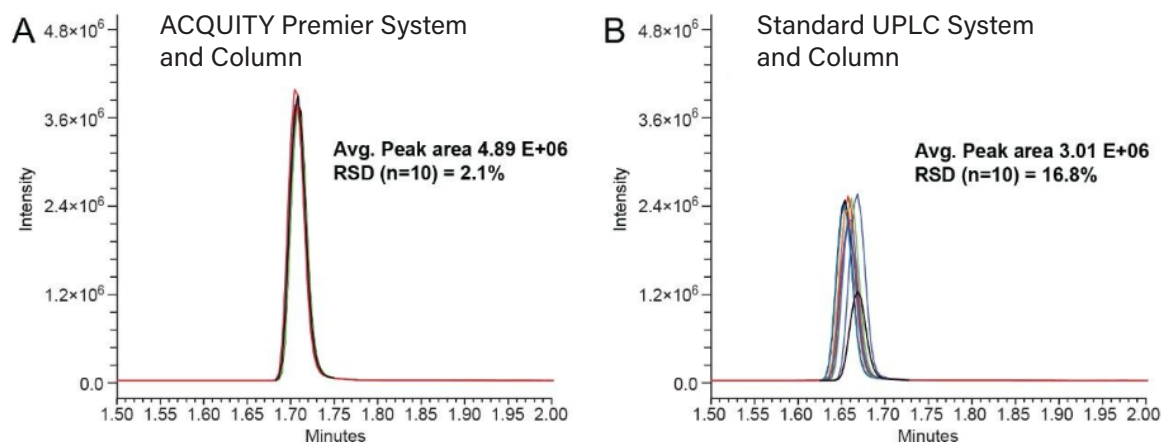
# Why MAX control matters.

Having complete control over your separations means having control of your analytical results.

That's why using MaxPeak Premier Columns can help put your mind at ease. Instead of the doubt that comes with inconsistent, unpredictable performance, you can expect reliable results from routine analyses.

## MaxPeak Premier Columns:

- Are made in ISO-certified manufacturing plants
- Deliver predicable performance
- Deliver superior peak shape for phosphorylated and carboxylated analytes



(A) Overlay depicting 10 replicate injections of deferoxamine mesylate obtained using the ACQUITY Premier Solution.  
(B) Overlay depicting 10 replicate injections of the same analyte using a standard UPLC system and a standard column.

*"Mitigation of deleterious analyte interactions with chromatographic columns and systems has always plagued separations scientists striving for perfect peak shapes and recoveries. Material modifications that maintain all the best properties of stainless steel while reducing or even eliminating these secondary binding events will be transformative. Removal of internal passivation procedures and skipping mobile phase additives to address chelation is exciting and is something we are looking forward to exploring more!"*

Jonathan Shackman, Bristol Myers Squibb

Learn how to gain more control over your analytical results.





## Waters Columns and Analytical Standards and Reagents Selection Chart



## Column Coach



Visit [waters.com/tothemax](https://waters.com/tothemax) to learn more about MaxPeak Premier Columns.

Visit [waters.com/qualityHPLC](https://waters.com/qualityHPLC) for more information on our full range of HPLC Columns.

For your local sales office, please visit [waters.com/contact](https://waters.com/contact)



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

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