

Agilent 1260 Infinity LC



Infinitely more confident

1260



Agilent 1260 Infinity LC

Infinitely more confident.

The new **1260 Infinity LC** sets higher standards in performance and value to give you more confidence in your results. The 600 bar power range combines with 80 Hz UV detector speeds and up to 10 times higher sensitivity. That's true RRLC performance! At the same time you can run your existing HPLC methods — completely unchanged. In short, the best solution for any HPLC or RRLC application.

And within the price range of a typical HPLC!

Raising the HPLC standard

The 1260 Infinity LC raises the bar in HPLC! With a 600 bar power range up to 5 mL/min for isocratic, quaternary and binary systems — and 200 bar up to 10 mL/min for isocratic and quaternary systems — plus 80 Hz detector speeds and $10 \, x$ higher sensitivity, you will reach new levels of versatility, higher resolution and faster separations.

100% HPLC compatibility

On one system you can run your established and validated HPLC methods — unchanged — as well as push RRLC to new levels of performance.

HPLC price – RRLC performance

The 1260 Infinity LC is priced similar to earlier 1200 Series HPLC Systems and significantly lower than 1200 Series RRLC systems – so you get much more value for your investment.

Infinitely more choice

The modular design concept of the 1260 Infinity LC and the wide range of solvent delivery, injection and detection options, allow you to configure a system that matches exactly your needs for chromatographic performance and flexibility. Whatever your application needs you can be confident of achieving higher quality data and faster results. Mix and match modules to configure your system for:

- Analytical LC with binary, quaternary or isocratic elution
- · Low-flow LC with capillary or nano-scale flow rates
- · Purification at micro, analytical or prep scale
- Workflow and application-based LC and LC/MS solutions for automated method development, multi-methods, walk-up, high capacity or high throughput









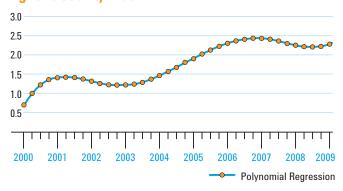
Best solution for any application – and any budget!



For utmost flexibility Agilent has created a continuum of products — from compact instruments for routine LC to ultrahigh performance LC/MS systems. Choose the best configuration to optimize every part of your laboratory operations and rest assured that each system can be enhanced as required to meet future challenges.



Agilent Quality Index



Our continuous commitment to reliability and robustness is reflected in the Agilent Quality Index that has more than tripled over the last 10 years.

Higher sensitivity means higher productivity

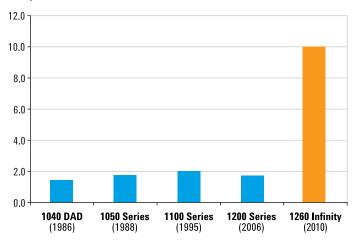
Boost your lab — tenfold!

Using the same innovative technology that makes the 1290 Infinity LC the most powerful system available, the 1260 Infinity Diode Array Detector now brings up to 10 times higher sensitivity with 80 Hz detection speed to HPLC. Combined with the detector's superior baseline performance means you can cope with the narrowest peaks and lowest detection limits for more confidence in your results and higher productivity in your lab.

Boosting HPLC sensitivity...

Fitted with a 60 mm path length Agilent Max-Light cartridge cell, the 1260 Infinity Diode Array Detector achieves a peak-to-peak noise level of 0.6 $\mu AU/cm$ (ASTM). This is the most significant improvement in detection sensitivity ever brought to HPLC and is proof of Agilent's relentless innovation and groundbreaking contributions to LC technology.

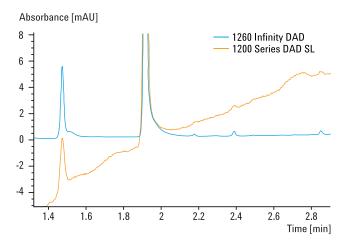
n-fold sensitivity increase over previous models



Compared to the 1040 DAD – the world's first diode array detector – the new 1260 Infinity Diode Array Detector represents the most significant increase in detection sensitivity for HPLC users.

...and HPLC baseline robustness

Highest sensitivity is not the only important performance characteristic. The 1260 Infinity DAD is also significantly less susceptible to refractive index effects for highest baseline robustness — the examples on page 5 show how this helps you in your day-to-day work.



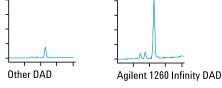
Highest baseline robustness through significantly reduced refractive index effects.

Your pathway to higher productivity

The sensitivity boost offered by the new 1260 Infinity LC not only gives you more confidence in your results – it also allows you to achieve higher levels of productivity.

Higher confidence

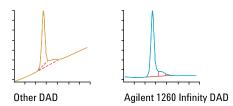
When analyzing trace-level components, the higher detection sensitivity of the 1260 Infinity DAD will give you clearer results. And you will be able to make clearer statements about the purity of your samples.



The sampler looks clean with other diode array detectors but the Agilent 1260 Infinity DAD shows the true picture.

Less reintegration

Automatic integration of low-level peaks on drifting baselines is often not possible and manual reintegration is required — an extremely time-consuming task. With the higher sensitivity and baseline robustness of the 1260 Infinity DAD you can trust your automatic integration more than ever and save precious time.



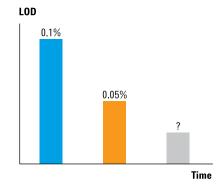
With other diode array detectors it is difficult to decide where exactly to position the integration marks. On a flat baseline as with the 1260 Infinity DAD this is much easier, giving more consistent results.

Less sample preparation

The higher sensitivity of the 1260 Infinity DAD means you have a higher chance of being able to analyze your samples directly, eliminating sophisticated and time-consuming sample preparation such as pre-analysis concentration.

More prepared for potential change

Regulatory bodies have lowered the required detection limits continuously over the last years. With the 1260 Infinity DAD you can rest assured that you have made a safe investment that will be able to meet increasing demands for many years to come.



Wider power range means higher productivity and more confidence

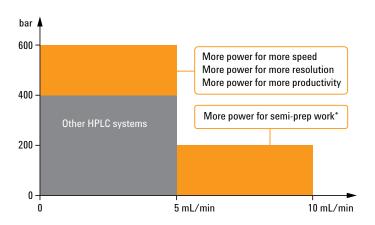
More power for HPLC.

All 1260 Infinity LC modules — such as pumps, autosamplers and valves for analytical flow ranges — now handle pressures up to 600 bar. This offers you new levels of productivity, data quality and robustness to give you highest confidence in your results. Further, you get all this for the price of a typical HPLC instrument!

HPLC and **RRLC** without compromises

Even today, many established methods are still based on large particle columns. In contrast, newly developed methods are more often based on columns using small particles, which offer higher separation efficiencies. This higher separation efficiency can be utilized either by reducing the column length and thereby the analysis time, or by maintaining the column length and separation time but achieving higher chromatographic resolution.

With the 1260 Infinity pumps you make a future-proof investment — without higher expenditure on your LC system. If you want to explore the maximum in terms of resolution per time, take a close look at to the 1290 Infinity LC system with twice the power of the 1260 Infinity LC — or even three times more power than other HPLC systems.

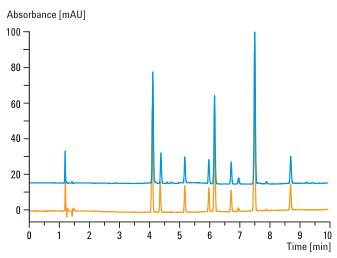


*1260 Infinity Quaternary and Isocratic pumps only

Full backwards compatibility

The 1260 Infinity LC gives you full backwards compatibility. That means you can run your established and validated methods — on the same system.

1260 Infinity Quaternary LC (ZORBAX SB-C18, 4.6 x 150 mm, 5 μm)
1200 Series Quaternary LC (ZORBAX SB-C18, 4.6 x 150 mm, 5 μm)

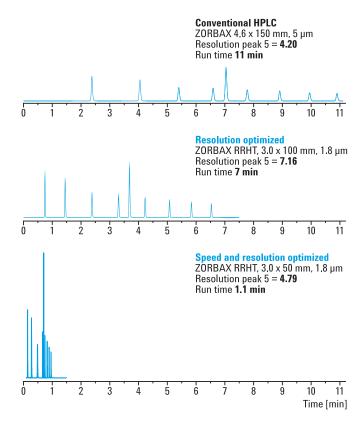


More power for more speed

If your separations are of medium complexity with sufficient resolution between the peaks, shorter sub-2-micron columns with the same separation efficiency will reduce analysis times drastically and thereby significantly increase the throughput of your system.

More power for more resolution

Increase the resolution of your separations by deploying columns with smaller particles and achieve better separation of closely eluting compounds. Get higher confidence in your results and reduce the number of uncertain results and repeat analyses.







Calculate for yourself how much you can save by deploying Agilent Rapid Resolution LC technology! The online method translator and cost savings calculator helps you to transfer your HPLC methods and calculate your cost savings. Visit www.agilent.com/chem/RRLC_MT

Agilent 1260 Infinity Quaternary and Isocratic LC

Higher productivity. More confidence.

With the 1260 Infinity Isocratic and Quaternary LCs you can achieve new levels of performance in standard HPLC applications. This performance is driven by higher data quality and faster results that translates into higher productivity in you lab and more confidence in your results.

Ideal for standard applications

Standard-bore 4.6 mm and 3.0 mm ID columns — with conventional particles, sub-2-µm particles or superficially porous particle — are ideally suited for the 1260 Infinity Isocratic and Quaternary LCs. Run your existing applications with ease and rest assured that have more than enough headroom to optimize your methods or apply advanced methods and column technologies. There is even enough flow rate available to run semi-preparative applications — simply add a 1260 Infinity Fraction Collector.

Upgradeable for future-proof investment

The 1260 Infinity Isocratic und Quaternary Pumps are based on the same fundamental design and are identical except for the quaternary pump's proportioning valve and new integrated degassing unit. This means you can start with an isocratic system and later upgrade the pump to quaternary operation. Adding further 1260 Infinity or even 1290 Infinity modules transforms your system to a high-end LC capable of handling any application.



1200 Infinity system	Standard HPLC	Poroshell columns	Sub-2-µm columns	4.6 mm columns	3.0 mm columns	2.1 mm columns	Fast LC	High resolution	MS frontend	Semi-prep
1260 Infinity Quaternary LC										
1260 Infinity Isocratic LC										

1260 Infinity Quaternary LC

The 1260 Infinity Quaternary LC is the ideal tool to meet your liquid chromatography needs, regardless of whether you run a pharmaceutical or chemical quality assurance lab, environmental or food analysis lab, or a university or governmental lab.

Tailor your system to your needs – from manual injection with variable wavelength detection for routine analysis up to a high-end system with multiple columns for solvent selection and highest sensitivity diode array detection suitable for method development tasks – all based on 1200 Infinity Series modules from one vendor – Agilent.

Further, all configurations are supported by all Agilent chromatography data systems and most third-party software packages.

Regardless of how you setup your 1260 Infinity Quarternary system, you will always have an advantage over other "standard" HPLC systems. Especially if you opt for the new 1260 Infinity Diode Array Detector.

1260 Infinity Isocratic LC

The 1260 Infinity Isocratic LC is ideally suited for simple separation challenges such as many QA/QC methods, GPC or SEC analysis that do not require gradient separation. With the increased flow range up to 10 mL/min, the 1260 Infinity Isocratic LC can also be used for semi-preparative applications.





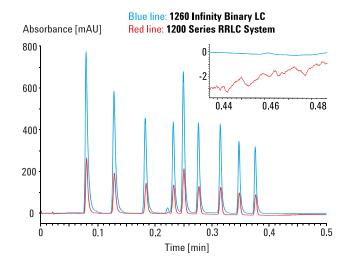
Agilent 1260 Infinity Binary LC

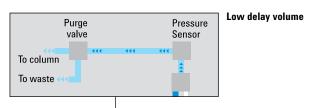
Higher performance. Lower cost.

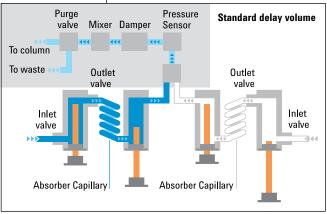
The 1260 Infinity Binary LC delivers not only RRLC results but also gives you significantly higher UV-sensitivity. Its scalable delay volume makes it ideally suited for standard bore columns and as a front-end for MS detection. Further, it comes at the price of a typical binary system for conventional HPLC!

Higher detection performance

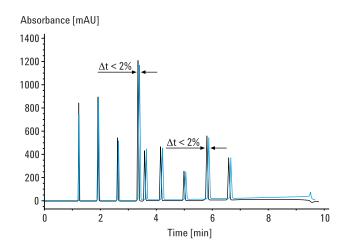
Based on the successful 1200 Series Rapid Resolution LC system, the new 1260 Infinity Binary LC delivers the same RRLC power but with increased detection performance thanks to the new 1260 Infinity Diode Array Detector. With full backwards compatibility for your established HPLC and RRLC methods, all these major performance improvements are now offered at an even more attractive price.







The 1260 Infinity Binary Pump has a configurable delay volume down to 120 μ L. Combined with a flow range up to 5 mL/min at 600 bar, this provides universal applicability from narrow bore 2.1 mm ID to standard bore 4.6 mm ID columns, matching the needs for both LC and LC/MS.



The standard delay volume configuration of the 1260 Infinity Binary Pump allows you to run not only RRLC but also conventional HPLC methods without compromising performance or changing chromatographic patterns.

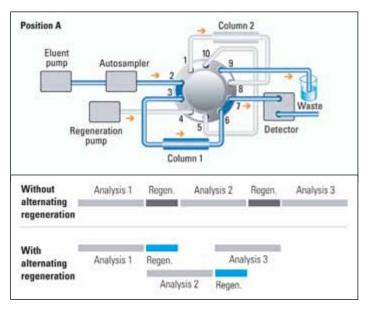
Higher throughputs

A special high throughput configuration of the 1260 Infinity Binary LC enables maximized productivity for laboratories with high sample loads. While one column is used for the analysis the second column is washed and regenerated by a regeneration pump. With this high throughput configuration, you can reduce cycle times by up to 50 percent and achieve throughputs of 2000 samples/day.

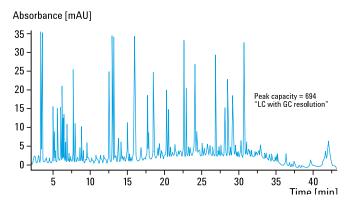
Use an 1290 Infinity LC Injector HTS or HTS for highest sample capacity and benefit from the full mix-and-match capabilities of the 1200 Infinity Series!

Higher peak capacity

Achieve "GC-like resolution" with peak capacities of more than 700 using long ZORBAX RRHT columns on your 1260 Infinity Binary LC system. The example shows the analysis of a tryptic digest of BSA using a ZORBAX RRHT SB-C18 column (2.1 x 150 mm, 1.8 μ m).



Throughputs of 2000 samples/day can be achieved through alternating column regeneration (ACR).



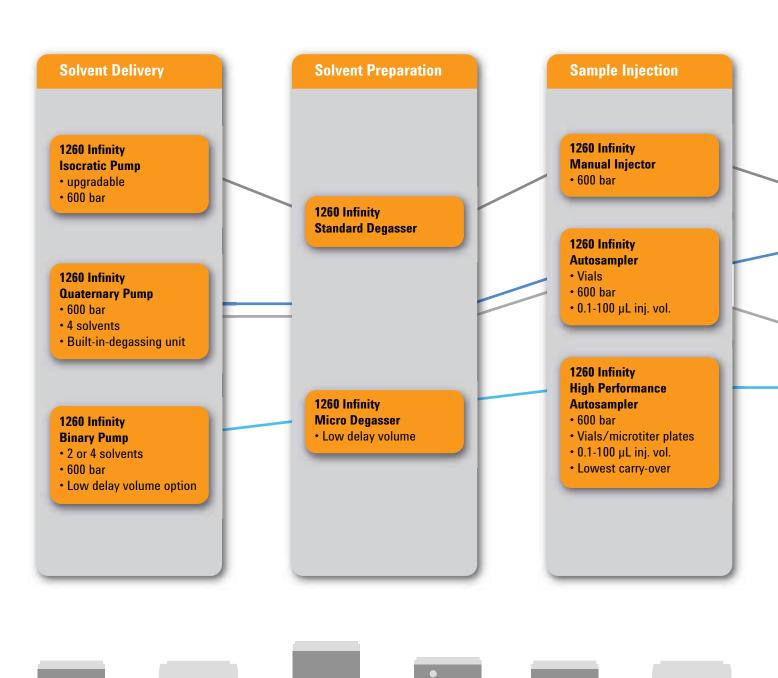
Peak capacities of more than 700 can be achieved using a ZORBAX RRHT SB-C18 column (2.1 x 150 mm, 1.8 μ m) to analyze a tryptic digest of BSA.

1200 Infinity system	Standard HPLC	Poroshell columns	Sub-2-µm columns	4.6 mm columns	3.0 mm columns	2.1 mm columns	Fast LC	High resolution	MS frontend	Semi-prep
1260 Infinity Binary LC										

Agilent 1260 Infinity LC

Infinitely more choice.

The modular design of the 1200 Infinity Series with compatible technology across the entire portfolio allows you to configure a system that meets your application requirements while remaining within the confines of your budget. Literally hundreds of combinations are possible. Here is just a selection of typical configurations. Consult the 1200 Infinity Series Selection Guide or ask your Agilent representative for a comprehensive overview.



Entry-level isocratic system for GPC/SEC analysis







Standard quaternary system for routine analysis









High-end quaternary system for method development













Research-grade binary LC/MS system for impurity identification















Column Compartments UV Detection **Special Detection &** MS Systems **1260 Infinity VWD** • 80 Hz 1260 Infinity **1260 Infinity Fluorescence Detector Column Compartment** • Two temperature zones • Up to 80°C 1260 Infinity Column switching **Refractive Index Detector** 1260 Infinity DAD **1260 Infinity** 1290 Infinity • 80 Hz data rate **Evaporative Light Column Compartment** • 1 or 6 cm cell **Scattering Detector** • 3.0 or 0.6 µAU/cm noise • Quick-Change valves · Dispersion optimized • Up to 100°C 6150 Single Clustering Quadrupole MS 1290 Infinity DAD • 160 Hz data rate 6230 Accurate Variable slit Mass TOF MS • 1 or 6 cm cell • 3.0 or 0.6 µAU/cm noise

Workflow and application-based LC & LC/MS solutions

Infinitely more possibilities.

The flexibility of the 1200 Infinity Series allows Agilent to offer the broadest of portfolio of liquid chromatography solutions. Choose from high performance systems for analytical LC or configure your system to meet specific application requirements. From nanoflow to high-throughput LC/MS and from amino-acid to GPC analysis, the 1200 Infinity Series gives you infinite possibilities to solve your separation challenges.

Automated method development and multi-method solutions

A 1260 Infinity Binary or Quaternary LC can be configured to handle multiple methods or develop new methods. With a cluster of two or even three column compartments and selection valves you gain automated access to up to 8 columns and 26 solvents. These highly-productive configurations are supported by a broad choice of Agilent ZORBAX and Poroshell columns as well as many specialized application software packages.



High-capacity, high-throughput LC/MS

The low delay volume of the 1260 Infinity Binary LC makes it purpose-built for high speed separations. Agilent Quick-Change valves in the column compartment facilitate parallel analysis and column equilibration, doubling your throughput. Add a 1290 Infinity LC Injector HTS to the system for highest sample capacity.



Low-flow LC

The 1260 Infinity capillary and nanoflow 400-bar pumps both include electronic flow control — an Agilent-unique feature that delivers unprecedented flow stability. Options for handling minute amounts of sample allow you to configure optimum front-end solutions for LC/MS or HPLC-Chip/MS.



Purification and preparative LC

Agilent offers preparative LC solutions for purification of nanogram to gram quantities of samples. Based on 1260 Infinity modules, these systems can be tailored to your sample and detection requirements. Fraction collection can be triggered by UV, mass or other detection signal, or by a combination of these.



Bio-compatible LC

For analysis of biologically-active substances, a range of 1260 Infinity modules are available with bio-compatible flow paths. All internal parts in contact with eluent are inert, thereby protecting your valuable samples against degradation during analysis.



BIO inert

Analytical SFC – super critical fluid chromatography

Ideal for separation and purification of chiral compounds Agilent's solution for supercritical fluid chromatography sets new standards for performance, reliability and ease-of-use. A wide dynamic range allows you to measure enantiomeric excess and quantify peaks that are 0.01 percent of the main peak.



GPC/SEC Analysis

The 1260 Infinity Isocratic Pump provides the constant and stable flow rate that is essential to maintain high resolution. This high flow precision and the excellent temperature stability of the column compartment ensure highest accuracy and precision of molecular weight determinations.



Agilent 6000 Series LC/MS Systems

Infinitely better together.

If you're looking for more sensitive target compound analysis and better identification of unknowns, take a close look at Agilent's comprehensive LC/MS portfolio. With a 40-year track record of relentless innovation and groundbreaking contributions to MS technology, we deliver everything you expect from a mass spectrometry leader. All 1200 Infinity Series LC systems deliver performance perfectly in tune with our 6000 Series mass spectrometers, working infinitely better together.

6100 Series Single Quadrupole

From routine QC to research-level applications, Agilent 6100 Series Quadrupole LC/MS systems offer industry-leading data quality in an easy-to-use, space-saving benchtop package.

6400 Series Triple Quadrupole

Whether you are quantifying pharmaceutical candidates, measuring trace-level environmental or food contaminants, or confirming biomarkers, the Agilent 6400 Series Triple Quadrupole LC/MS systems offer greater sensitivity, productivity, and value than ever before.

6200 Series Accurate-Mass TOF

For confirming synthetic compounds, profiling biomarkers, identifying impurities, screening for pesticides or characterizing intact proteins, the Agilent 6200 Series Accurate-Mass Time of-Flight LC/MS delivers unmatched speed and performance in a compact benchtop instrument.

6500 Series UHD Accurate-Mass Q-TOF

Using the power of True Hi-Def TOF technology, the Agilent Accurate-Mass Q-TOFs achieve an unmatched combination of MS and MS/MS mass accuracy, mass resolution, sensitivity, in-spectrum dynamic range and speed.







To learn more about the Agilent 6000 Series, visit www.agilent.com/chem/lcms

Software and informatics solutions

New levels of usability and uptime.

Agilent offers software and informatics solutions to obtain all the benefits of the 1200 Infinity Series' performance levels. Agilent ChemStation and Agilent EZChrom Elite give you the most comprehensive and fully traceable management of any 1200 Infinity Series LC system. These chromatography data systems focus on different analytical workflows but are based on common instrument drivers and navigation, offer one unified result data format and integrate seamlessly with Agilent OpenLAB Enterprise Content Manager (ECM). They are both fully scalable, giving you instrument control, result generation, data management and advanced reporting for all Agilent 1200 Infinity Series LC systems.

Agilent OpenLAB reaches beyond the lab

Agilent OpenLAB enables you to manage, share, and organize your data securely across laboratories and departments. It lets you derive business intelligence with a relational reporting database and offers workflow automation for fast execution of routine workflows.

Agilent ChemStation maximizes the value of your 1200 Infinity Series LC in research and development

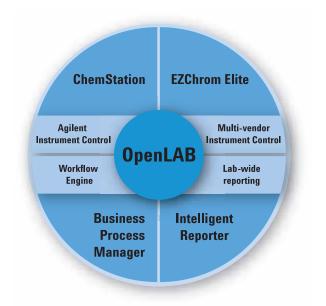
Agilent ChemStation is designed for the advanced needs of research and development scientists in chemical and pharmaceutical laboratories. It is easy to customize to specific needs and offers a broad range of add-on modules to support specific applications. ChemStation is the most comprehensive control software for all Agilent chromatography systems.

Agilent EZChrom Elite maximizes the value of your 1200 Infinity Series LC in quality control

Agilent EZChrom Elite is fully scalable from an entry-level configuration with EZChrom Compact to a multi-user, multi-site distributed systems with hundreds of instruments and users. EZChrom offers full flexibility with control for chromatographic equipment from both Agilent as well as other vendors. This combination makes it ideal for routine operation in $\Omega A/\Omega C$ laboratories.

Agilent Lab Advisor

Lab Advisor helps you to keep your lab's instruments in top condition and reduces unnecessary lab downtime. It provides you with advanced diagnostic and maintenance capabilities for your 1200 Infinity Series LC — independent of the software you use to control your instrument. In short, Lab Advisor helps you achieve high quality chromatographic results in the most efficient way.





To learn more about Agilent chromatography data systems, visit www.agilent.com/chem/cds

LC columns, supplies and services

Accurate results quickly and confidently.

Maximize system performance and reliability for all your separation needs by combining your 1200 Infinity Series LC system with Agilent ZORBAX and Poroshell LC columns and LC supplies. Designed with the same attention to detail, quality and superior performance you have come to expect from Agilent instruments and backed by over 40 years of chromatography experience, you can count on Agilent's columns and supplies to deliver the high quality results you need and expect, time after time.

Unparalleled quality and flexible choices within the ZORBAX LC column family

- Wide selection of chemistries Eclipse Plus, Eclipse XDB, StableBond, Extend, Bonus-RP, HILIC and more
- Superior flexibility and product scalability with a wide range of particle sizes (1.8, 3.5, 5, 7 μ m and superficially porous 2.7 μ m) and column dimensions
- Individual column performance reports to document column-to-column and lot-to-lot reproducibility
- Superior particle strength for even the most demanding high pressure applications

Column technology to help you get the most from your 1260 Infinity LC

Agilent Poroshell 120 Columns have a solid 1.7 μ m core and a 0.5 μ m porous outer layer, so you get the resolving power of a 2.7 μ m particle, at the speed of a sub-2-micron particle, with significantly lower backpressure. And, they are manufactured with a proprietary single-step porous shell process that has been designed by Agilent to improve reproducibility.

Poroshell 120 columns offer:

- Up to two times the number of theoretical plats compared to conventional 3.5 μm columns
- Improved resolving power, even as you take advantage of speed gains
- Improved ability to handle dirty samples, due to their standard 2 μm frit



Learn more at www.agilent.com/chem/poroshell120

Preparative scale separation columns

Agilent's range of columns for preparative HPLC — with internal diameters from 4.6 to 50 mm, covers the complete flow rate range of the Agilent 1260 Infinity Preparative-scale Purification System. The Agilent Prep C18 and normal phase columns enable highest sample loading and exhibit proven stability up to pH 10 as well as extended column lifetime. The highly acclaimed Z0RBAX columns — Z0RBAX Prep HT for reversed phase separation and normal phase chromatography — facilitate high sample throughput and are ideal for samples that are complex or difficult to separate.



High purity, high recovery and high throughput can be easily achieved with Agilent ZORBAX PrepHT columns, which are available in a variety of bonded phases — Eclipse XDB, StableBond, Bonus-RP, and Extend-C18 — for optimized resolution and loadability under any conditions.

Capillary and nano columns for micro-fraction collection and MALDI spotting

Extremes in sensitivity with limited samples volumes require small column IDs. For your proteomic applications either for one-dimensional or for two-dimensional separation workflows including offline micro-fraction collection, Agilent has a wide variety of column choices. Column IDs start as low as 0.075 μm and 0.1 μm , which are perfectly suited for MALDI spotting applications. Micro-fraction collection is usually performed at capillary flow rates with column IDs of 0.3, 0.5, or 0.8 μm . Agilent offers a broad choice of ZORBAX reversed phase columns for different applications with different bonding chemistries, pore and particle sizes.



BioHPLC Columns

on-column sample dilution.

Agilent provides a full range of reversed phase, size exclusion and ion exchange BioHPLC columns to enable highly reproducible and high resolution analytical separations of monoclonal antibodies, proteins, peptides and other biomolecules.



Agilent Advantage Service and Support

Agilent provides customer-focused products and services for all stages in an instrument's lifecycle, from installation and upgrade to operation and repair. Whether you need support for a single instrument or a multi-lab, multi-vendor operation, Agilent offers an Advantage service solution to help you solve problems quickly, increase your uptime and optimize your lab's resources.

Agilent Compliance and Functional Verification Services

Count on Agilent to provide the proof of calibration or system qualification you need to support your ISO 17025 or GLP/GMP quality initiatives. In fact, Agilent has been ranked number one in compliance by independent survey since 1995.

Agilent Software Service and Support

Agilent's Professional Services organization facilitates process and productivity enhancements using software and informatics products and technology. Partner with Agilent consultants and let us help you develop comprehensive software and support strategies that ensure continued system uptime and maximum productivity.

Agilent Value Promise — 10 years of guaranteed value

In addition to continually evolving products, we offer something else unique to the industry — our 10-year value guarantee. The Agilent Value Promise guarantees you at least 10 years of instrument use from your date of purchase, or we will credit you with the residual value of that system toward an upgraded model. Not only does Agilent ensure a safe purchase now, we help ensure your investment is as valuable to you in the long run.

Agilent Service Guarantee

Should your Agilent instrument require service while covered by an Agilent service agreement, we guarantee repair or we



will replace your instrument for free. No other manufacturer or service provider offers this level of commitment to keeping your laboratory running at maximum productivity.

Further information

For full details of the Agilent 1200 Infinity Series LC systems and application-based LC solutions, ask for a brochure or visit our web site at www.agilent.com/chem/1200



Agilent 1200 Infinity Series Selection Guide Publication Number 5990-4333EN

Agilent 1200 Infinity Series Portfolio Publication Number

Agilent 1290 Infinity LC Publication Number 5990-5062EN

5990-3333EN

Agilent 1220 Infinity LC Publication Number 5990-5060EN Learn more: www.agilent.com/chem/1200

Buy online: www.agilent.com/chem/store

Find an Agilent customer center in your country: www.aqilent.com/chem/contactus

U.S. and Canada 1-800-227-9770, agilent_inquiries@agilent com

Europe info_agilent@agilent.com

Asia Pacific inquiry_lsca@agilent.com

© Agilent Technologies, Inc. 2010 Published in USA, July 1, 2010 Publication Number 5990-5061EN

