

Thermo Scientific
LC Columns and Accessories

More capabilities

New possibilities

Dionex products strengthen our LC column offering – creating new and exciting possibilities for scientific analysis

Thermo
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Trusted solutions for uncompromised analysis

With the acquisition of Dionex Corporation, we have expanded our Thermo Scientific Chromatography Columns and Consumables portfolio to include Dionex HPLC and Sample Preparation products that includes Acclaim, ProPac, DNAPac, PepMap columns, and the AutoTrace workstation.

Our comprehensive LC column offering creates new and exciting possibilities for scientific analysis. You now have access to a wider range of innovative and trusted chromatography consumables that have built a reputation for developing industry's leading chromatography column chemistries and ground breaking sample preparation and method development. The following pages illustrate the new range, scope and excellence of our chromatography consumables where you'll find the best of separations science delivering solutions to help move your science forward.

Optimal selectivity through innovative chemistry

Thermo Scientific Acclaim Columns

Acclaim™ HPLC columns are based on high-purity, porous silica particles (2.2, 3.0, 4.5µm), with advanced and innovative column bonding technologies. This provides complementary selectivity, high column efficiencies, and symmetrical peaks. Acclaim columns meet the high standards set by modern HPLC and LC/MS methods offering unique chemistries, ultra high resolution, and higher throughput for the pharmaceutical, biopharmaceutical, environmental, chemical, food and beverage markets.

Acclaim Reversed-Phase Columns

- **120 C18** – High-quality, rugged workhorse
- **300 C18** – Selectivity similar to 120 C18 with faster analysis
- **120 C8** – Selectivity similar to 120 C18 with lower hydrophobic retention
- **PolarAdvantage™ (PA)** – Excellent aqueous compatibility
- **PolarAdvantage II (PA2)** – Excellent hydrolytic stability and aqueous compatibility
- **Phenyl-1** – Unique selectivity for aromatic molecules
- **Acclaim C30** – Superior separation of hydrophobic, long chain, structural isomers

Acclaim HILIC Columns

- **Mixed-Mode HILIC-1** – Unique low-polarity; operates in both RP and HILIC modes
- **HILIC-10** – Unique higher polarity; general-purpose HILIC column

Acclaim Mixed-Mode Columns

- **Mixed-Mode WAX-1** – Separates anionic molecules with powerful adjustable selectivity control
- **Mixed-Mode WCX-1** – Separates cationic molecules with powerful adjustable selectivity control

Acclaim Specialty Columns

- **Acclaim Trinity™ P1** – pharmaceutical and counterion analysis
- **Acclaim Surfactant** – simultaneous separation of all types of surfactants
- **Acclaim Organic Acid** – hydrophilic organic acids and aliphatic acids
- **Acclaim Explosives** – explosives residues in environmental water and soil samples
- **Acclaim Carbamate** – pesticides in environmental samples
- **Acclaim Carbonyl** – aldehydes and ketones in environmental samples



Exceptionally high resolution separation of biomolecules

Thermo Scientific BioLC columns



ProPac and Ion Exchange Columns

Based on pellicular nonporous core particles, they provide exceptionally high resolution and efficiency for separations of proteins and protein variants, resolving isoforms that differ by a single charged residue. The unique grafted cation-exchange surface provides pH-based selectivity control and fast mass transfer for high-efficiency peaks and high resolution separations. Application types include analysis of sequence, truncation, phosphorylation, sialylation and deamidation protein variants, including monoclonal antibody, blood and dairy protein variant samples.



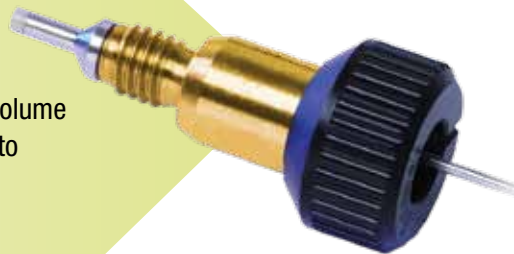
BioLC Specialty Columns

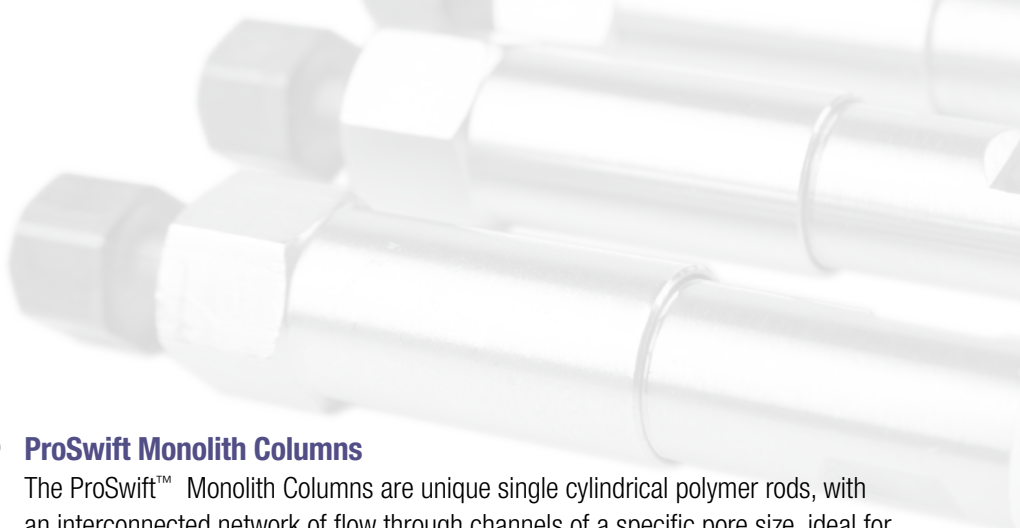
The BioLC™ columns are designed for high resolution protein separations.

- **ProPac™ HIC-10 Columns** – High-resolution, high-capacity, silica-based with exceptional hydrolytic stability.
- **ProPac IMAC-10 Columns** – High-resolution HPLC columns with high resolving power and elution peaks of high concentration and low volume.
- **ProPac ConA Columns** – Affinity monolith columns for unsurpassed fast, highly efficient enrichment and purification of Concanavalin A (Con A) binding glycans, glycopeptides, and glycoproteins.
- **MABPac™ SEC-1 Columns** – Size exclusion chromatography (SEC) columns (300Å, 5µm silica) specifically designed for separation and characterization of monoclonal antibodies (MAb) and their aggregates, as well as the analysis of Fab and Fc fragments resulting from proteolysis.
- **MABPac SCX-10 columns** – Strong cation-exchange columns designed specifically for the high-resolution, high-efficiency analysis of monoclonal antibodies and associated variants.

Thermo Scientific Viper Finger Tight Fittings

Viper™ is a universal finger tight fitting system. It combines all the advantages of a fingertight one-piece, non-ferrule based fitting system and thus provides quality data by design. It will fit to the valves and columns from many different vendors and guarantees a zero dead volume connection as soon as it is fitted. Viper is highly flexible, extremely easy to use and robust. And finally, it is compatible with the high pressures used in UHPLC – supporting pressures of up to 1200 bar.





ProSwift Monolith Columns

The ProSwift™ Monolith Columns are unique single cylindrical polymer rods, with an interconnected network of flow through channels of a specific pore size, ideal for protein separations.

- High-resolution, high loading capacity for protein separations. These analytical columns offer fast analysis and short separation times with high recovery, low carry over, and excellent stability over a wide pH range of 1 to 14



DNAPac Columns for Nucleic Acids

DNAPac™ columns are strong anion-exchange analytical columns that provide exceptional and unsurpassed high resolution separation of oligonucleotides.

- Resolve full length oligonucleotides from n-1 and n+1 oligonucleotides and failure sequences: single base resolution of oligonucleotides.

DNASwift SAX-1S Monolith Column

The DNASwift SAX-1S is a strong anion-exchange monolith column that provides high-resolution for the purification of oligonucleotides.

- High purity and yields with exceptionally high capacity



Acclaim PepMap: nano / capillary / micro LC Columns

Specially designed for high-resolution peptide separations suitable for any ESI-MS or MALDI-MS application including peptide mapping where the wide range of formats allows maximum resolution (discovery) or increased throughput (validation). Due to their high loading capacity, the Acclaim PepMap columns are well suited for the analysis of low abundant peptides in complex proteomics samples.

- Available in UHPLC compatible 5, 3 and 2 μm particles with NanoViper™ finger tight fittings for easy column installation with zero dead volume.

PepSwift / ProSwift monolithic nano / capillary / micro columns

Designed for high-resolution LC/MS analysis in protein identification, biomarker discovery, and systems biology. Based on a polystyrene divinylbenzene copolymer, the monolithic structure offers a high-quality alternative to traditional microparticulate sorbents, providing improved mass transfer and fast separations. High-sensitivity proteomics and biotech applications are easily performed using these columns.

Automated SPE

high-throughput workstation

Thermo Scientific Dionex AutoTrace Workstation



The Dionex AutoTrace™ 280 SPE instrument is a powerful, high-throughput workstation dedicated specifically for automating Solid-Phase Extraction (SPE). The Dionex AutoTrace workstation automates the cartridge or disk conditioning, sample loading, rinsing, and eluting steps for large volume aqueous solution extractions (20 mL to 20 L). The unit can process up to six samples in parallel, automatically conditioning, washing, and eluting SPE cartridges (1-, 3-, and 6-mL cartridges) or disks (47-mm disks) with a choice of up to five reagents. The unit also segregates aqueous and solvent waste using separate waste lines for efficient, cost effective waste handling.

Easy-to-use

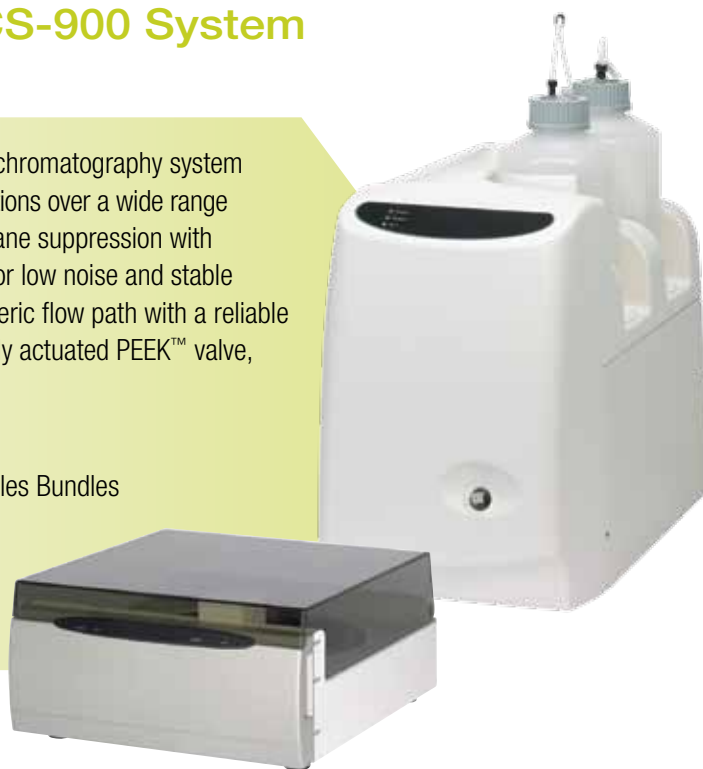
ion chromatography system

Thermo Scientific Dionex ICS-900 System

The Dionex ICS-900 is an integrated, single-channel ion chromatography system designed to run specific isocratic anion and cation applications over a wide range of detection limits (ppm to ppb). The system uses membrane suppression with Displacement Chemical Regeneration (DCR) technology for low noise and stable baselines. Each Dionex ICS-900 system has an all-polymeric flow path with a reliable dual piston pump, high-pressure pulse damper, electrically actuated PEEK™ valve, and a temperature-controlled conductivity cell.

Dionex ICS-900 Ion Chromatography System includes:

- Dionex IonPac AS22 Anion or CS12A Cation Consumables Bundles
- Dionex AS-DV Autosampler Optimized for IC analyses
- Dionex Chromeleon 7 SE Software for practical automation and versatile reporting



Protecting your analytical column

Thermo Scientific Dionex IC and LC Sample Preparation



Dionex OnGuard cartridge for Off-Line Sample preparation

The Dionex OnGuard II cartridges are used to remove matrix interferences such as phenols, metals, cations, anions or hydrophobic substances that are encountered in IC and HPLC applications. They can be used singly or in series to remove matrix interferences. They increase the lifetime of analytical columns as they eliminate matrix problems.

Dionex IC Vials

Vial kits designed for use with the Dionex AS-AP Autosampler; they are 10 mL polystyrene sample vials with wide openings for large-volume injections and trace analysis.



Dionex InGuard cartridges for automated In-Line Sample preparation

Dionex InGuard Cartridges are automated sample pretreatment cartridges designed to remove matrix interferences in IC or LC systems. The Dionex InGuard is installed in-line between the autosampler and the IC injection valve facilitating immediate, automated sample pretreatment.

Dionex IC Reagents and Standards

Anion and cation standards offered for ion chromatography applications include fluoride, chloride, sulfate, combined anion and cation standards. These standards are ready to dilute and are traceable to NIST Standard Reference Materials and are QC checked for ionic contamination. Also available are MS standards for validation and calibration of MSQ systems and internal standards for perchlorate and haloacetic acid analysis. Also available are ion-pairing reagents for use with the IonPac NS1 reversed phase polymeric column to determine high molecular weight ionic analytes that are difficult to separate using ion-exchange chromatography.



Dionex SolEx columns for On-line Sample preparation

The Dionex SolEx On-line Solid-phase extraction (SPE) cartridges and RSLC columns are designed for fast and easy on-line preconcentration of contaminants from water samples prior to HPLC analysis. Water contaminants, including pesticides, antibiotics, pharmaceutical, are of great concern to society and must be monitored. These cartridges are designed to be easily integrated into the HPLC system – they can be placed in the injector or autosampler, for multiple samples with direct injection onto the analytical column.

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these great chromatography resources

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