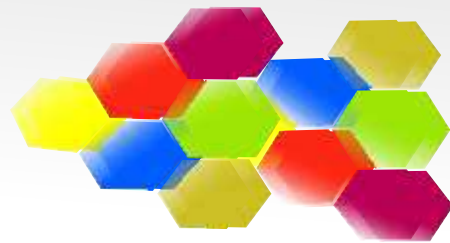




chromatography world





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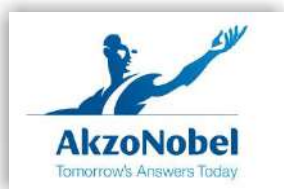


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LIQUID CHROMATOGRAPHY CONSUMABLES & ACCESSORIES

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| <ul style="list-style-type: none"> ▶ Autosampler Supplies ▶ Detectors ▶ Filters and Regulators ▶ Filters and Traps ▶ Fittings and Ferrules ▶ Injection Valves / Loops ▶ Injectors | <ul style="list-style-type: none"> ▶ Laboratory Supplies ▶ Lamps ▶ Pumps ▶ Syringe Filters ▶ Syringes ▶ Tubing ▶ Vials |
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UV/VISIBLE SPECTROSCOPY CONSUMABLES & ACCESSORIES

- ▶ Deuterium and Tungsten Source Lamps
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GC CAPILLARY COLUMNS

- ▶ GC Capillary Columns for Clarus 500 & 600 GC
- ▶ GC Capillary Columns for AutoSystem
- ▶ GC Capillary Columns for AutoSystem XL
- ▶ PerkinElmer Elite-XLB

GC CONSUMABLES & ACCESSORIES

- ▶ Autosampler Crimp and Screw Top Vials
- ▶ Autosampler Starter Kit
- ▶ Autosampler Vial Convenience Kits
- ▶ Vespel /Graphite Ferrules for Clarus for 500 & 600
- ▶ GC Educational Consumable Kit - Electronic Crimper
- ▶ GC Educational Consumable Kit - Manual Crimper

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- ▶ ICP-MS Consumables
- ▶ NexION 300 ICP-MS Consumables and Supplies
- ▶ ICP-OES Consumables
- ▶ Optima 8x00 ICP-OES Consumables
- ▶ 7300 V ICP-OES Consumables

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| ▶ Autoinjector Spares | ▶ Spare Parts for 2400/2410 |
| ▶ Calibration Standards | ▶ Tools |
| ▶ Fittings for Scrubber | ▶ Tubes |
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- ▶ Nucleogel
- ▶ Nucleodex
- ▶ Nucleocel

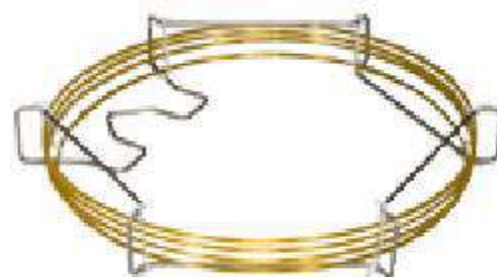


- ▶ Resolvosil BSA
- ▶ Nucleogen
- ▶ VarioPrep Columns
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GC COLUMNS

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SPE AND OTHER CONSUMABLES

CHROMABOND QuEChERS



CHROMABOND[®] phases for SPE

CHROMABOND[®] HILIC

CHROMABOND[®] HLB



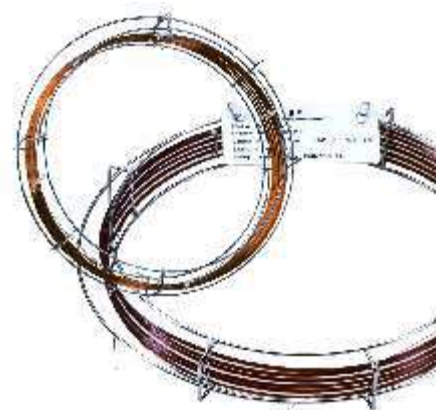
CHROMABOND[®] Flash RS Cartridges



GC Capillary Columns

Quick Phase Reference Chart

Phase/Description		
E Elite-200 Trifluoropropylmethyl	Elite-200 Trifluoropropylmethyl	Elite-5, Elite 5ms, Elite -5ht 5% Diphenyl – 95% Dimethyl
Elite-5Amine 5% Diphenyl – 95% Dimethyl Polysiloxane	Elite-35, Elite-35ms 35% Phenyl – 65% Methyl	Elite-17, Elite-17ms, Elite-17ht 50% Phenyl – 50% Methyl
Elite-1301 6% Cyanopropylphenyl	Elite-1701 14% Cyanopropylphenyl – 86% Dimethyl	Elite-225 50% Cyanopropylphenyl – 50% Phenyl methyl
Elite-WAX Polyethylene Glycol	Elite-FFAP Polyethylene Glycol – Acid Modified	Elite-608 Specialty phase for semi- volatile pesticides (EPA 608)
Elite-624, Elite-Volatiles Volatiles, Specialty phase for volatiles	Elite-CLPesticides Specialty Phase for Chlorinated Pesticides	Elite-VMS Specialty Phase for Volatile Organics on GC/MS
Elite-PONA Dimethyl polysiloxane processed for the detailed analysis of petroleum naphtha		



Vial Crimper & Decapper

GC Gas Flow Meter Leak Detector



N9304500	11mm Electronic Crimper/Battery
N9304501	20mm Electronic Crimper/Battery
N9304502	11mm Electronic Decapper/Battery
N9304503	20mm Electronic Decapper/Battery



Description	Part No.
Flow Meter Plus	N9307088
Recalibration service for flowmark flowmeter	N9307085
Soft Carrying Case	N9306142

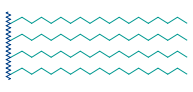
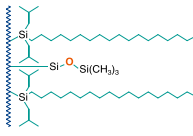
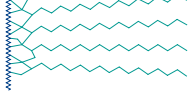
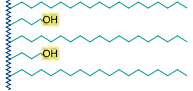
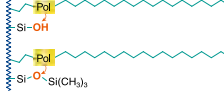
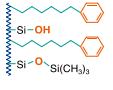
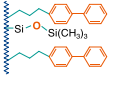
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NUCLEODUR® phase overview



Overview of NUCLEODUR® HPLC phases

Phase	Specification	Page	Characteristic*	Stability	Structure
 C ₁₈ Gravity	octadecyl, high density coating, multi-endcapping 18 % C · USP L1	158	A ●●●●● B ● C ●●●	pH 1–11, suitable for LC/MS	NUCLEODUR® (Si-O) ₂ H 
 C ₁₈ Gravity-SB	octadecyl (monomeric), extensive endcapping 13 % C · USP L1	162	A ●●●●● B ●●● C -	pH 1–9, suitable for LC/MS	NUCLEODUR® (Si-O) ₂ H 
 C ₈ Gravity	octyl, high density coating, multi-endcapping 11 % C · USP L7	158	A ●●● B ● C ●●	pH 1–11, suitable for LC/MS	NUCLEODUR® (Si-O) ₂ H 
 C ₁₈ Isis	octadecyl phase with specially crosslinked surface modification endcapping 20 % C · USP L1	164	A ●●●●● B ●● C ●●●●●	pH 1–10, suitable for LC/MS	NUCLEODUR® (Si-O) ₂ H 
 C ₁₈ Pyramid	octadecyl with polar endcapping 14 % C · USP L1	166	A ●●●●● B ●●● C ●●	stable in 100 % aqueous eluent, pH 1–9, suitable for LC/MS	NUCLEODUR® (Si-O) ₂ H 
 PolarTec	octadecyl with embedded polar group 17 % C · USP L1 and L60	168	A ●●●●● B ●●● C ●●●●●	stable in 100 % aqueous eluent, pH 1–9, suitable for LC/MS	NUCLEODUR® (Si-O) ₂ H 
 Phenyl-Hexyl	phenylhexyl, multi-endcapping 10 % C · USP L11	170	A ●● B ●●● C ●	pH 1–10, suitable for LC/MS	NUCLEODUR® (Si-O) ₂ H 
 π ²	biphenylpropyl, multi-endcapping 17 % C · USP L11	172	A ●● B ●●●● C ●●●	pH 1.5–10	NUCLEODUR® (Si-O) ₂ H 

* A = ● hydrophobic selectivity, B = ● polar / ionic selectivity, C = ● steric selectivity

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NUCLEODUR® phase overview



Application	Similar phases**	Interactions · retention mechanism
in general compounds with ionizable functional groups such as basic pharmaceuticals and pesticides	NUCLEOSIL® C ₁₈ HD Xterra® RP18 / MS C18; Luna® C18(2), Gemini®, Synergi® Max RP; Zorbax® Extend-C18; Inertsil® ODS III; Purospher® STAR RP-18; Hypersil™ BDS	hydrophobic (van der Waals interactions)
overall sophisticated analytical separations, especially for polar compounds, e.g., antibiotics, water-soluble vitamins, organic acids	–	hydrophobic (van der Waals interactions) with additional polar interactions
like C ₁₈ Gravity, however, generally shorter retention times for nonpolar compounds	NUCLEOSIL® C ₈ HD Xterra® RP8 / MS C8; Luna® C8; Zorbax® Eclipse XDB-C8	hydrophobic (van der Waals interactions)
high steric selectivity, thus suited for separation of positional and structural isomers, planar / nonplanar molecules	NUCLEOSIL® C ₁₈ AB Inertsil® ODS-P; Pro C18 RS	steric and hydrophobic
basic pharmaceuticals, very polar compounds, organic acids	Aqua, Synergi® Hydro-RP; AQ; Atlantis® dC18; Polaris® C18-A	hydrophobic and polar (H bonds)
basic pharmaceuticals, organic acids, pesticides, amino acids, water-soluble vitamins	NUCLEOSIL® C ₁₈ Nautilus ProntoSIL® C18 AQ, Zorbax® Bonus-RP, Polaris® Amide-C18; Ascentis® RP Amide, SymmetryShield™ RP18; SUPELCOSIL™ LC-ABZ ⁺ ; HyPURITY™ ADVANCE; ACCLAIM Polar AD II	hydrophobic and polar (H bonds)
aromatic and unsaturated compounds, polar compounds like pharmaceuticals, antibiotics	Luna® Phenyl-Hexyl; Zorbax® Eclipse Plus Phenyl-Hexyl; Kromasil® Phenyl-Hexyl	π-π and hydrophobic
aromatic and unsaturated compounds, polar compounds like pharmaceuticals, antibiotics	Pinnacle® DB Biphenyl; Ultra Biphenyl	π-π and hydrophobic

** phases which provide a similar selectivity based on chemical and physical properties

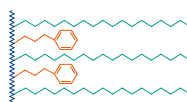
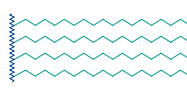
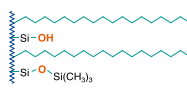
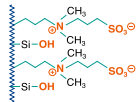
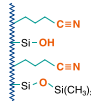
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NUCLEODUR® phase overview



Overview of NUCLEODUR® HPLC phases

Phase	Specification	Page	Characteristic*	Stability	Structure
 PFP	pentafluorophenylpropyl, multi-endcapping 8 % C · USP L43	174	A ●● B ●●●● C ●●●●	pH 1–9, suitable for LC/MS	NUCLEODUR® (Si-O) ₂ _n 
 Sphinx RP	bifunctional, balanced ratio of propylphenyl and octadecyl, endcapping 15 % C · USP L1 and L11	176	A ●●●● B ●●●● C ●	pH 1–10, suitable for LC/MS	NUCLEODUR® (Si-O) ₂ _n 
 C ₁₈ HTec	octadecyl, high density coating, high capacity, multi-endcapping 18 % C · USP L1	178	A ●●●●●● B ● C ●●●●	pH 1–11, suitable for LC/MS	NUCLEODUR® (Si-O) ₂ _n 
 C ₁₈ ec	octadecyl, medium density, endcapping available in 110 Å and 300 Å pore size 17.5 % / 4 % C · USP L1	181	A ●●●●● B ● C ●●●●●	pH 1–9	NUCLEODUR® (Si-O) ₂ _n 
 C ₈ ec	octyl, medium density, endcap- ping 10.5 % C · USP L7	181	A ●●● B ●●● C ●●●●	pH 1–9	NUCLEODUR® (Si-O) ₂ _n 
 C ₄ ec	butyl, medium density, endcap- ping, 300 Å pore size 2.5 % C · USP L26	181	A ● B ●● C ●●●	pH 1–9	NUCLEODUR® (Si-O) ₂ _n 
 HILIC	zwitterionic ammonium – sulfonic acid phase 7 % C	184	A ● B ●●●●● C -	pH 2–8.5	NUCLEODUR® (Si-O) ₂ _n 
 CN/CN-RP	cyano (nitrile) for NP and RP separations 7 % C · USP L10	186	A ● B ●●●● C -	pH 1–8, stable towards highly aqueous mobile phases	NUCLEODUR® (Si-O) ₂ _n 

* A = ● hydrophobic selectivity, B = ● polar / ionic selectivity, C = ● steric selectivity



NUCLEODUR® phase overview



Application	Similar phases**	Interactions · retention mechanism
aromatic and unsaturated compounds, halogen compounds, phenols, isomers, polar pharmaceuticals, antibiotics	ACQUITY® CSH Fluoro-Phenyl; Hypersil™ GOLD PFP; Luna® PFP(2); Discovery® HS F5; Allure® PFP Propyl; Ultra II PFP Propyl	polar (H bond), dipole-dipole, π - π and hydrophobic
compounds with aromatic and multiple bond systems	no similar phases	π - π and hydrophobic
robust and well base deactivated C ₁₈ phase; all separation tasks with preparative potential	Xterra® RP18/MS C18/SunFire™ C18; Luna® C18(2), Gemini®, Synergi® Max RP; Zorbax® Extend-C18; Inertsil® ODS III; Purospher® STAR RP-18; Hypersil® BDS	hydrophobic (van der Waals interactions)
robust C ₁₈ phase for routine analyses	NUCLEOSIL® C ₁₈ ; Spherisorb® ODS II; Symmetry® C18; Hypersil® ODS; Inertsil® ODS II; Kromasil® C18; LiChrospher® RP-18	hydrophobic (van der Waals interactions) some residual silanol interactions
robust C ₈ phase for routine analyses	NUCLEOSIL® C ₈ ec / C ₈ ; Spherisorb® C8; Symmetry® C8; Hypersil® MOS; Kromasil® C8; LiChrospher® RP-8	hydrophobic (van der Waals interactions) some residual silanol interactions
biological macromolecules like proteins or peptides	Jupiter® C4; ACE® C4	hydrophobic (van der Waals interactions) some residual silanol interactions
hydrophilic compounds such as polar organic acids and bases, polar natural compounds	Sequant™ ZIC®-HILIC; Obelisc™	ionic / hydrophilic and electrostatic
polar organic compounds (basic drugs), molecules containing π -electron systems	NUCLEOSIL® CN / CN-RP	π - π and polar (H bond), hydrophobic

** phases which provide a similar selectivity based on chemical and physical properties

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NUCLEODUR® phase overview

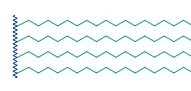
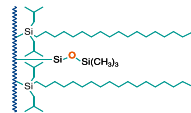
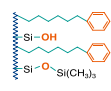
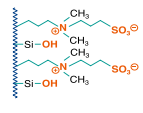


Overview of NUCLEODUR® HPLC phases

Phase	Specification	Page	Characteristic*	Stability	Structure
 NH ₂ / NH ₂ -RP	aminopropyl for NP and RP separations 2.5 % C · USP L8	188	A ● B ● ● ● ● C -	pH 2–8, stable towards highly aqueous mobile phases	NUCLEODUR® (Si-O) ₂ n 
 SiOH	unmodified high purity silica · USP L3	190	A - B - C -	pH 2–8	NUCLEODUR® (Si-O) ₂ n 

* A = ● hydrophobic selectivity, B = ● polar / ionic selectivity, C = ● steric selectivity

Overview of NUCLEOSHELL® HPLC phases

Phase	Specification	Page	Characteristic*	Stability	Structure
 RP 18	octadecyl, multi-endcapping 7.8 % C (2.7 µm particles) 6.1 % C (5 µm particles) USP L1	200	A ● ● ● ● ● ● B ● C ● ● ●	pH 1–11, suitable for LC/MS	NUCLEOSHELL® (Si-O) ₂ n 
 RP 18plus	octadecyl (monomeric), multi-endcapping 5.7 % C (2.7 µm particles) 4.4 % C (5 µm particles) USP L1	202	A ● ● ● ● ● B ● ● ● ● C -	pH 2–9, suitable for LC/MS	NUCLEOSHELL® (Si-O) ₂ n 
 Phenyl-Hexyl	phenylhexyl, multi-endcapping 4.5 % C (2.7 µm particles) USP L11	204	A ● ● B ● ● ● ● C ●	pH 1–10, suitable for LC/MS	NUCLEOSHELL® (Si-O) ₂ n 
 PFP	pentafluorophenyl, multi-endcapping ~ 3 % C (2.7 µm particles) USP L43	206	A ● ● B ● ● ● ● ● C ● ● ● ● ●	pH 1–9, suitable for LC/MS	NUCLEOSHELL® (Si-O) ₂ n 
 HILIC	zwitterionic ammonium – sulfonic acid 1.3 % C (2.7 µm particles)	208	A ● B ● ● ● ● ● ● C -	pH 2–8.5, suitable for LC/MS	NUCLEOSHELL® (Si-O) ₂ n 

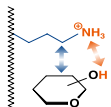
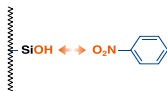
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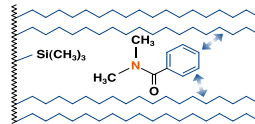
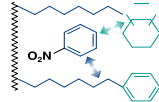
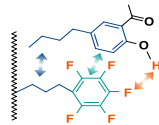
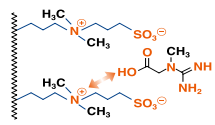
NUCLEODUR® phase overview



Application	Similar phases**	Interactions · retention mechanism
sugars, sugar alcohols and other hydroxy compounds, DNA bases, polar compounds in general	NUCLEOSIL® NH ₂ /NH ₂ -RP	polar / ionic and hydrophobic 
polar compounds in general	NUCLEOSIL® SiOH	polar / ionic 

** phases which provide a similar selectivity based on chemical and physical properties

Overview of NUCLEOSHELL® HPLC phases

Application	Similar phases**	Interactions · retention mechanism
overall sophisticated analytical separations, e.g., analgesics, anti-inflammatory drugs, antidepressants; herbicides; phytopharmaceuticals; immunosuppressants	Kinetex® C18; Cortecs® C18; Raptor® C18; Accucore® C18; Ascentis® Express C18	hydrophobic (van der Waals interactions) 
overall sophisticated analytical separations, especially for polar compounds, e.g., pharmaceuticals like antibiotics, water-soluble vitamins, organic acids	Kinetex® XB-C18; Bonshell® ASB-C18; Raptor® ARC-C18;	hydrophobic (van der Waals interactions) 
aromatic and unsaturated compounds, polar compounds like pharmaceuticals, antibiotics	Ascentis® Express Phenyl-Hexyl; Kinetex® Phenyl-Hexyl; Accucore® Phenyl-Hexyl; Ultracore® Phenyl-Hexyl; Poroshell® Phenyl-Hexyl	π-π and hydrophobic 
aromatic and unsaturated compounds, phenols, halogenated hydrocarbons, isomers, polar compounds like pharmaceuticals, antibiotics	Kinetex® PFP; Ascentis® Express F5; Accucore® PFP	polar (H bond), dipole-dipole, π-π and hydrophobic 
hydrophilic compounds such as organic polar acids and bases, polar natural compounds	–	ionic / hydrophilic and electrostatic 

** phases which provide a similar selectivity based on chemical and physical properties



SUPER CRITICAL FLUID (SFC) COLUMNS

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- ▶ Traditional SFC Phases
- ▶ **NEW!** GreenSep GC S Guard Columns

NORMAL PHASE MATERIALS

- ▶ Polar Bonded Phases
- ▶ Adsorption Phases
- ▶ Chromegabond R NPI

ION EXCHANGE

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- ▶ Traditional Ion Exchange Phases

MATERIALS FOR CHIRAL SEPARATIONS

- ▶ Ragis Technologies Chiral Columns
- ▶ Pirkle Types
- ▶ Polysaccharide Coated C Sps

MOLECULAR SIZE EXCLUSION PHASES

HPLC COLUMNS FOR BIO SEPERATIONS

- ▶ MacroSep R for Bio Seperations

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- ▶ HPLC Columns for Petroleum Analysys

COMMERCIAL HPLC PACKINGS

- ▶ Exsil R HPLC Materials
- ▶ Kromasil R HPLC Materials
- ▶ LiChrosorb R & LiChrosper HPLC Materials
- ▶ Polygosil TM HPLC Materials
- ▶ Nucleosil R HPLC Materials
- ▶ ZirChrom TM HPLC Materials

FLASH CHROMATOGRAPHY

- ▶ ChromegaFlash™

COMPONENTS AND ACCESSORIES

- ▶ HPLC Guard Column Cartridges
- ▶ Ultra Low Volume Guard Column
- ▶ Column Couplers
- ▶ Universal Couplers
- ▶ Fingertight Fittings
- ▶ LC Connectors
- ▶ Green Sep GC S - Guard Column system





CHROMEGABOND HPLC COLUMNS

Chromega™ HPLC columns are expertly produced to ensure the highest levels of performance, durability, and quality. These stable columns offer excellent reproducibility, maximum efficiencies, high capacity, and high permeability

REVERSE PHASE COLUMNS

- ▶ Epic C18 & Epic C8
- ▶ Epic C18 SD & Epic C4 SD
- ▶ Epic Polar
- ▶ Non Conventional Epic Phases
- ▶ Chromegabond R WR
- ▶ Epic Polar XP

SUB 2 MICRON HPLC COLUMNS

- ▶ Reverse Phases
- ▶ HILIC Phases
- ▶ SFC Phases

UNIQUE REVERSE PHASE COLUMNS

- ▶ Aqua Sep TM
- ▶ Epic Phenyl Hexy
- ▶ Gammabond Alumina
- ▶ Chromegabond OD S- PI
- ▶ Chromegabond P SC
- ▶ Chromegabond C22

LC- MS COLUMNS

- ▶ LC- M S Kits
- ▶ HILIC Columns
- ▶ Epic C18 M S
- ▶ Epic Polar

FLUORINATED COLUMNS

- ▶ Epic PFP- LB FO-LB
- ▶ Traditional Fluorinated Phases -
- ▶ Chromegabond R PFP/T
- ▶ Chromegabond R L S



HILIC HPLC COLUMNS

HILIC Engineered Columns -

- ▶ Epic HILIC -HC
- ▶ Epic HILIC -RP
- ▶ Epic HILIC -PI
- ▶ Epic HILIC -FL

Traditional HILIC Phases

DAISO PROCESS CHROMATOGRAPHY

Commercially Equivalent Phases-Overview

- ▶ Aviator HPLC Columns
- ▶ Hyper Select HPLC Columns
- ▶ Sonoma HPLC Columns
- ▶ Marvel HPLC Columns
- ▶ Spherisep HPLC Columns
- ▶ StarRise HPLC Columns
- ▶ Harmony HPLC Columns
- ▶ Micropak HPLC Columns
- ▶ Neptune HPLC Columns
- ▶ DeactSil HPLC Columns
- ▶ Partisep HPLC Columns
- ▶ MacroDac HPLC Columns
- ▶ Chromegabond Ultra

PREPARATIVE COLUMNS

SFC Columns -

- ▶ Traditional SFC Columns
- ▶ GreenSep SFC Columns
- ▶ Normal Phase Columns
- ▶ Reverse Phase Columns
- ▶ Chiral Phase Columns

Mitsubishi Analytical & Purification Solutions

Mitsubishi Chemical India is a wholly-owned subsidiary company of Mitsubishi Chemical Corporation which belongs to the Mitsubishi Chemical Holdings Corporation head quartered in Tokyo, Japan.

chromatography world

Exclusive Distributors for MCI
Columns, Media & Resins
all over India.

Mitsubishi Chemical and its subsidiary manufactures

HPLC columns

- Ion exchange column
- USP listed columns (L17, L19, L21, L25, L31, L32, L37, L38, L39, L58)
- Sugar separation columns : Monosaccharide, Oligosaccharide, Sugar & Sugar Alcohols & Organic Analysis
- Pharmaceutical purification series and chiral separation
- Protein - Purification Column
- Ion chromatography



SEPABEADS™ Synthetic Adsorbents

- Spherical cross-linked polymer particle with porous structure
- Large surface area and fine pore structure
- Polystyrenic, Modified aromatic and Methacrylic series
- Applicable for products from plants (herbal, phytochemical), antibiotics, peptides, proteins, food additives, De-colorization and purification of various chemicals, many more to explore

PROTEIN



PHYTOCHEMICAL NUTRITION

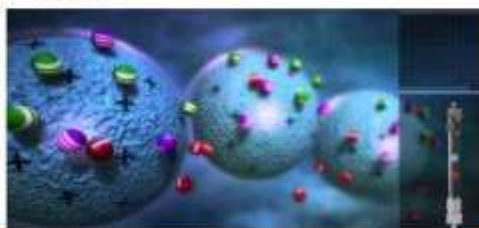


HERBAL



Diaion™ Ion Exchange Resin

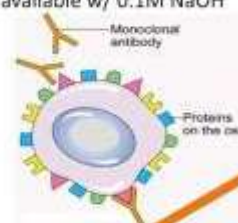
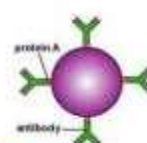
- High Quality Cation and Anion Polymeric Resin
- Micro and Macro-porous Resin
- Gel / Porous / Highly Porous ion-exchange Resin
- Chelating Resin



Bio-Separation Media

MabSpeed™ And ChromSpeed™ Chromatographic Media

- Specially designed for the purification of biopharmaceuticals (antibody-drugs, protein-drugs, Mabs etc).
- Spherical, totally porous structure, Rigid, uniform-particle size
- Low pressure drop and high shelf life
- Wider pH solvent compatibility
- Strong durability : CIP > X100 available w/ 0.1M NaOH
- Excellent hydraulic property
- DCB > 70g/L - 100g/L

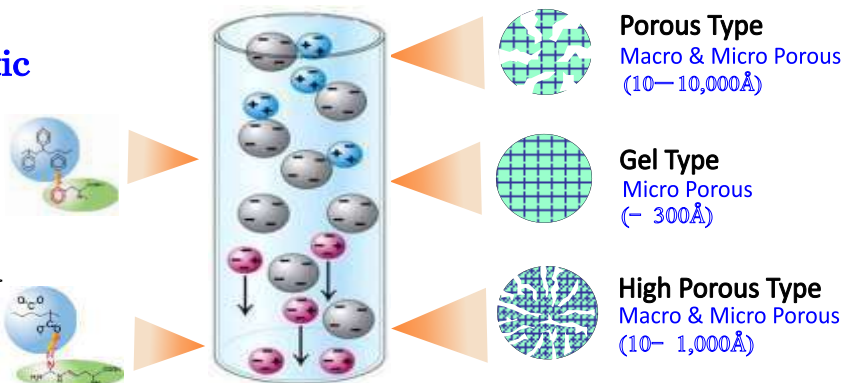


IPSUM
Lifesciences LLP
Journey from evolution to revolution

Exclusive Distributors in India

Chemical Structure of Synthetic Adsorbent/Matrix

- Polystyrenic Adsorbent
- Chemically Modified Polystyrenic Adsorbent {Higher Hydrophobicity Matrix}
- Polymethacrylic Adsorbent



Advantage of MCI Resins

- ▶ Low pressure drop
- ▶ Non-compressive bed
- ▶ Excellent Hydraulic Data
- ▶ Easy and reproducible packing
- ▶ Spherical & mono-disperse particles
- ▶ Wide Chemical stability (pH)
 - 0-14 (Polystyrenic)
 - 2-14 (Polymethacrylic)
- ▶ Rigid and durable matrix
- ▶ Wide solvent compatibility
- ▶ High throughput & high productivity

Types of Resins

- ▶ Strongly Acidic Cation Exchange Resins
- ▶ Strongly Basic Anion Exchange Resins
- ▶ Weakly Acidic Cation & Basic Anion
- ▶ Gel type Uniform Particle Size Ion Exchange Resins
- ▶ Synthetic Resins of Small Particle Size
- ▶ Cation Exchange Resins for Industrial Chromatography
- ▶ Low-odor and Low-elution Anion Exchange Resins
- ▶ Chelating Resins
- ▶ Synthetic Adsorbents

Capturing & Adsorption & Purification & Polishing of Varsity of Molecule

Plant Derived Products

- Herbal Drug
- Natural Pigments
- Phytochemical
- Food Additive



Products From Fermentation Broth

- Antibiotics
- Enzymes
- Amino acid
- Proteins
- Peptides
- Hormones
- Small Molecule API & Biologics



Food Additive & Beverage

- Vitamins
- Capsicum
- Curcumin
- Tocopherol
- Debittering
- Deashing

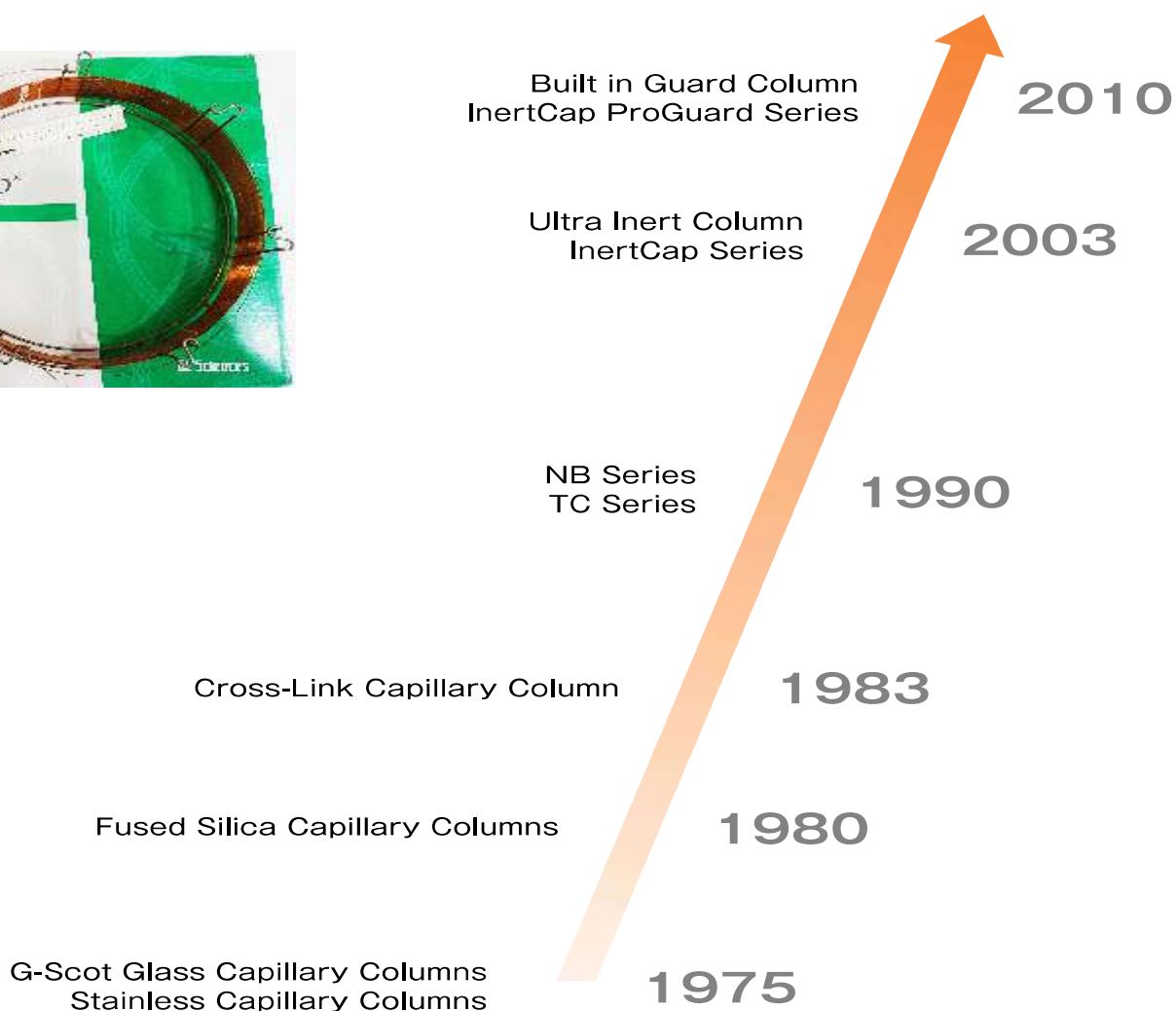


Other Application

- Ultra Pure Water
- Waste Water & Recovery
- Chemical Catalyst
- Heavy Metal Recovery
- Immobilization of Enzymes

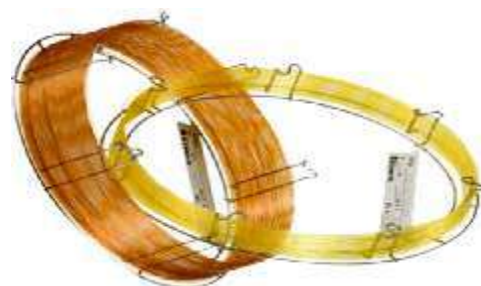


Inertcap Capillary Columns



Features of Inertcap

- High Inertness
- Low Bleed
- Product Stability
- Inspection Report
- Built-in Guard Column InertCap ProGuard
- Build-in Transfer Line InertCap T.L.
- Rigorous Quality Control Tests
- Excellent Reproducibility
- High Separation Efficiency
- Low GC/MS Bleed
- Bonded and Cross-linked



Exclusive Distributors in India

Capillary Column Phase Cross References

GL Sciences	Phase Composition	Similar Phases
InertCap 1MS	100 % Methylpolysiloxane	DB-1ms, HP-1ms, Rxi-1ms, VF-1ms, CP-Sil 5 CB Low Bleed/MS, ZB-1ms, TR-1MS, BPX1, Equity-1, 007-1
InertCap 1	100 % Methylpolysiloxane	DB-1, HP-1, ULTRA-1, Rtx-1, CP-Sil 5 CB, ZB-1, TR-1, BP1
InertCap 5MS/Sil	Phenyl Arylene polymer equivalent to a 5 % Phenyl - 95 % Methylpolysiloxane	DB-5ms, Rxi-5Sil MS, Rtx-5Sil MS, VF-5ms, ZB-5ms, TR-5MS, BPX5, SLB-5, 007-5MS, Optima-5ms, AT-5ms
InertCap 5MS/NP	5 % Phenyl 95 % Methylpolysiloxane	HP-5ms, Rxi-5ms, CP-Sil 8 CB Low Bleed/MS, ZB-5MSi, TR-5, BPX5, Equity-5, 007-5, AT-5ms
InertCap 5	5 % Phenyl 95 % Methylpolysiloxane	DB-5, HP-5, ULTRA-2, Rtx-5, CP-Sil 8 CB, ZB-5, TR-5, BP5, SPB-5, 007-5, Optima-5, AT-5
InertCap Pesticides	Phenyl Arylene polymer equivalent to a 5 % Phenyl - 95 % Methylpolysiloxane	—
InertCap 624	6 % Cyanopropylphenyl 94 % Methylpolysiloxane	DB-624, Rtx-624, VF-624ms, CP-Select 624 CB, ZB-624, BP624, 007-624, Optima-624, AT-624
InertCap 1301	6 % Cyanopropylphenyl 94 % Methylpolysiloxane	HP-1301, Rtx-1301, VF-1301ms, CP-1301, SPB-1301, 007-1301, Optima-1301, AT-1301
InertCap 25	25 % Phenyl 75 % Methylpolysiloxane	—
InertCap 35	35 % Phenyl 65 % Methylpolysiloxane	HP-35, DB-35, Rtx-35, VF-35ms, ZB-35, TR-35MS, BPX35, SPB-35, 007-11, AT-35
InertCap 1701	14 % Cyanopropylphenyl 86 % Methylpolysiloxane	DB-1701, Rtx-1701, VF-1701ms, CP-Sil 19 CB, ZB-1701, TR-1701, BP10 (1701), SPB-1701, 007-1701, Optima-1701, AT-1701
InertCap 17MS	50 % Phenyl 50 % Methylpolysiloxane	HP-17, DB-17ms, Rxi-17, VF-17ms, CP-Sil 24 CB Low Bleed/MS, ZB-50, TR-50MS, BPX50, AT-50
InertCap 17	50 % Phenyl 50 % Methylpolysiloxane	DB-17, HP-50, Rtx-50, CP-Sil 24 CB, ZB-50, SPB-50, 007-17, Optima-17, AT-50ms
InertCap 210	50 % Trifluoropropyl 50 % Methylpolysiloxane	DB-210, DB-200, Rtx-200, VF-200ms, 007-210, Optima-210, AT-210
InertCap 225	50 % Cyanopropylmethyl 50 % Phenylmethylpolysiloxane	DB-225, Rtx-225, CP-Sil 43 CB, BP225, 007-225, Optima-225, AT-225
InertCap Pure-WAX	Polyethylene Glycol (PEG)	DB-WAX, HP-INNOWAX, Rtx-Wax, Stabilwax, CP-Wax 52 CB, ZB-Wax, TR-WAX, BP20 (WAX), Supelcowax-10, 007-CW, Optima Wax, AT-Wax
InertCap WAX	Polyethylene Glycol (PEG)	DB-WAX, HP-INNOWAX, Rtx-Wax, Stabilwax, CP-Wax 52 CB, ZB-Wax, TR-WAX, BP20 (WAX), Supelcowax-10, 007-CW, Optima Wax, AT-Wax
InertCap WAX-HT	Polyethylene Glycol (PEG)	DB-WAX, HP-INNOWAX, Rtx-Wax, Stabilwax, CP-Wax 52 CB, ZB-Wax, TR-WAX, Solgel WAX, Supelcowax-10, 007-CW, Optima Wax, AT-Wax
InertCap FFAP	Nitroterephthalic acid modified Polyethylene Glycol	DB-FFAP, HP-FFAP, Stabilwax-DA, CP-WAX 58 CB, ZB-FFAP, BP21 (FFAP), 007-FFAP, Optima FFAP, Permabond FFAP, AT-AQUAWAX-DA, AT-1000, EC-1000
InertCap for Amines	GL Sciences original	CP-Volamine
InertCap CHIRAMIX	GL Sciences original	—
AQUATIC	25 % Phenyl 75 % Methylpolysiloxane	—
AQUATIC-2	25 % Phenyl 75 % Methylpolysiloxane	—

USP (US Pharmacopeia) / JP (Japanese Pharmacopeia)

USP (US Pharmacopeia)

USP Code	Phase Composition	Phase		
G1	Dimethylpolysiloxane oil	InertCap 1MS	InertCap 1	
G2	Dimethylpolysiloxane gum	InertCap 1MS	InertCap 1	
G3	50% Phenyl - 50% methylpolysiloxane	InertCap 17MS	InertCap 17	
G6	Trifluoropropylmethylpolysiloxane	InertCap 210		
G7	50% 3-Cyanopropyl - 50% phenylmethylsilicone	InertCap 225		
G14	Polyethylene glycol (av. mot. wt. of 950 to 1050)	InertCap Pure-WAX	InertCap WAX	InertCap WAX-HT
G15	Polyethylene glycol (av. mot. wt. of 3000 to 3700)	InertCap Pure-WAX	InertCap WAX	InertCap WAX-HT
G16	Polyethylene glycol compound (av. mot. wt. about 15,000). A high molecular weight compound of polyethylene glycol with a diepoxide linker	InertCap Pure-WAX	InertCap WAX	InertCap WAX-HT
G19	25% Phenyl - 25% cyanopropyl - 50% methylsilicone	InertCap 225		
G20	Polyethylene glycol (av. mot. wt. of 380 to 420)	InertCap Pure-WAX	InertCap WAX	InertCap WAX-HT
G25	Polyethylene glycol compound TPA. A high molecular weight compound of polyethylene glycol and diepoxide that is esterified with terephtharic acid.	InertCap FFAP		
G27	5% Phenyl - 95% methylpolysiloxane	InertCap 5MS/Sil	InertCap 5MS/NP	InertCap 5
G28	25% Phenyl - 75% methylpolysiloxane	InertCap 25	AQUATIC	AQUATIC-2
G35	A high molecular weight compound of a polyethylene glycol and a diepoxide that is esterified with nitroterephthalic acid.	InertCap FFAP		
G36	1% Vinyl - 5% phenylmethylpolysiloxane	InertCap 5MS/Sil	InertCap 5MS/NP	InertCap 5
G38	Phase G1 containing a small percentage of a tailing inhibitor	InertCap 1MS	InertCap 1	
G39	Polyethylene glycol (av. mol. wt. of about 1500)	InertCap Pure-WAX	InertCap WAX	InertCap WAX-HT
G42	35% phenyl-65% dimethylpolysiloxane (percentage refer to molar substitution)	InertCap 35		
G43	6% cyanopropylphenyl-94% dimethylpolysiloxane (percentage refer to molar substitution)	InertCap 624	InertCap 1301	
G46	14% Cyanopropylphenyl - 86% methylpolysiloxane	InertCap 1701		
G47	Polyethylene glycol (av. mol. wt. of about 8000)	InertCap Pure-WAX	InertCap WAX	InertCap WAX-HT

JP (Japanese Pharmacopeia)

Target Compounds	Phase	Column Size	Cat.No.
Magnesium Stearate	InertCap Pure-WAX InertCap WAX InertCap WAX-HT	0.32 mm I.D. × 30 m df = 0.50 μm	GC68244 GC67244 GC68644
Senna Leaf	InertCap 1701	0.32 mm I.D. × 30 m df = 0.25 μm	GC61242
Powdered Senna Leaf	InertCap 1701	0.32 mm I.D. × 30 m df = 0.25 μm	GC61242
Red Ginseng	InertCap 1701	0.32 mm I.D. × 30 m df = 0.25 μm	GC61242
Ginseng	InertCap 1701	0.32 mm I.D. × 30 m df = 0.25 μm	GC61242
Powdered Ginseng	InertCap 1701	0.32 mm I.D. × 30 m df = 0.25 μm	GC61242
Ethanol	InertCap 624	0.32 mm I.D. × 30 m df = 1.80 μm	GC14747
Anhydrous Ethanol	InertCap 624	0.32 mm I.D. × 30 m df = 1.80 μm	GC14747
Ethanol for Disinfection	InertCap 624	0.32 mm I.D. × 30 m df = 1.80 μm	GC14747
Epirubicin Hydrochloride	InertCap Pure-WAX InertCap WAX	0.53 mm I.D. × 30 m df = 1.00 μm	GC68445 GC67445
Colchicine	InertCap Pure-WAX InertCap WAX	0.53 mm I.D. × 30 m df = 1.00 μm	GC68445 GC67445
Benzyl Alcohol	InertCap Pure-WAX InertCap WAX	0.32 mm I.D. × 30 m df = 0.50 μm	GC68244 GC67244
Glycerin	InertCap 1701	0.32 mm I.D. × 30 m df = 1.00 μm	GC61245
Wood Creosote	InertCap 1 InertCap 5MS/Sil InertCap 5MS/NP	0.25 mm I.D. × 60 m df = 0.25 μm 0.25 mm I.D. × 30 m df = 0.25 μm 0.25 mm I.D. × 30 m df = 0.25 μm	GC11162 GC15142 GC18642
Sevoflurane	InertCap 624	0.32 mm I.D. × 30 m df = 1.80 μm	GC14747
Labetalol Hydrochloride	InertCap 1	0.53 mm I.D. × 25 m df = 5.00 μm	Contact us

Sumichiral Columns from S.A.S. Corporation -Japan

SCAS

SUMICHIRAL OA columns are high-performance chiral columns for enantiomer separation by HPLC. On SUMICHIRAL OA columns direct separation of various enantiomers can be realized effectively

Below Range available in various dimensions:

OA-5000 Series

OA-5000
OA-5000L
OA-6000
OA-6000R
OA-6100
OA-6100R

OA-2000 Series

OA-2000
OA-2000S
OA-2000I
OA-2000S

OA-3000 Series

OA-3100
OA-3100R
OA-3200
OA-3200R
OA-3300
OA-3300S

OA-4000 Series

OA-4000
OA-4000R
OA-4100
OA-4100R
OA-4400
OA-4400R
OA-4500

OA-4000 Series

OA-4500R
OA-4600
OA-4600R
OA-4700
OA-4700R
OA-4800
OA-4900

OA-7000 Series

OA-7000
OA-7100 and OA-7500
OA-7000
OA-7100 and OA-7500
OA-7000
OA-7100 and OA-7500
OA-8000



Multi-Functional Pyrolysis System



The Multi-Functional Pyrolysis System consists of the Multi-Shot Pyrolyzer (EGA/PY-3030D) and its accessories. This system is able to rapidly characterize virtually any material.

Vials, Caps, Septas



TEST	PARAMETER	RESULT
1. Glass	Type - 1 Borosilicate Glass	✓
	Outer Diameter	✓
2. Dimensional	Wall Thickness	✓
	Total Height	✓

Qualisil 9mm Short Screw Thread Vials are manufactured from type 1 hydrolic glass in an ISO 9001 Certified conditions. Dimensions are inspected and confirmed. Random samples are checked for cosmetic defects and finish. Glass used is compliant to European & US Pharmacopeia.

These are suitable to most leading brand Instruments incl. Agilent, Waters, Shimadzu, Dionex Thermo, Beckman, Leap Technologies, Merck/Hitachi, Perkin Elmer, Varian.

2ml Screw type Vials Caps Septa



QV002C

2ml Clear Screw Top Vials Certified,
9-425 - Qualisil (PK-100)

QV002CW

2ml Clear Screw Top Write-on Vials
Certified 9-425 - Qualisil (PK-100)

QV102CSS-B

Blue Screw Cap + Red PTFE/Silicon Bonded
Septa for 2ml Vials Qualisil (PK-100)

QV222CSS-B

Blue Screw Cap + Red PTFE/Sil Septa,
Pre-slit - Bonded Qualisil (PK-100)



GC-HS Vials :

Q201-500F	Qualisil Top Clear Vials, 20ml Flat Bottom 23 x 75mm USP Type 1 (Pk/100)
Q201-500R	Qualisil Crimp Top Clear Vials, 20ml Round Bottom 23 x 75mm USP Type 1 (Pk/100)
Q202-500	Qualisil Crimp Top Clear Vials, 10ml USP Type 1 (Pk/100)
Q2002	20mm x 3mm White PTFE /Silicone Septa with Aluminum Crimp Caps USP Type 1 (Pk/100)
Q2002-M	20mm x 3mm White PTFE/Silicone Septa with Magnetic Crimp Caps USP Type 1 (Pk/100)
Q202-500	Qualisil Crimp Top Clear Vials, 10ml Flat Bottom 23 x 75mm USP Type 1 (Pk/100)



HPLC & GC VIALS :



QV002C	Qualisil 2ml Screw Top Clear 9-425 Certified Vials USP Type 1 (Pk/100)
QV002CW	Qualisil 2ml Screw Top Clear 9-425 Certified Write-on Vials USP Type 1(Pk/100)
QV002A	Qualisil 2ml Screw Top Amber Vials, 9-425 USP Type 1 (Pk/100)
QV102CSS-B	Qualisil Red PTFE Silicon Bonded Septa for 2ml Vials + Blue Screw Cap USP Type 1 (Pk/100)
QV222CSS-B	Qualisil Blue Screw Caps + Red PTFE Silicon Septa, Pre-Slit - Bonded USP Type 1 (Pk/100)
QV002CW + QV102CSS-B	Qualisil 2ml Screw Top Clear 9-425 Certified Write - on Vials + Blue Screw Cap With Red PTFE/ Silicon Septa Bonded USP Type 1 (Pk/100)
QV002CW + QV222CSS-B	Qualisil 2ml Screw Top Clear 9-425 Certified Write-on Vials + Blue Screw Cap + Red PTFE/ Silicon Septa, Pre-Slit + Bonded Qualisil USP Type 1 (Pk/100)

QC-110A	2ml Crimp Neck Clear Vials 12 x 32mm, 1st Hydrol Glass, Wide Opening USP Type 1 (Pk/100)
QC-110B	2ml Crimp Neck Clear Vials with Patch 12 x 32mm, 1st Hydrol Glass, Wide Opening USP Type 1 (Pk/100)
QC-110C	2ml Crimp Neck Amber Vials 12 x 32mm, 1st Hydrol Glass, Wide Opening USP Type 1 (Pk/100)
QC-110D	2ml Crimp Neck Amber Vials with Patch 12 x 32mm, 1st Hydrol Glass, Wide Opening USP Type 1 (Pk/100)
QC-117A	Aluminum Crimp Cap Clear 5.5mm centre hole with PTFE/Silicon Septa USP Type 1 (Pk/100)
QC-117G	Aluminum Crimp Cap Clear 5.5mm centre hole with Pre-Slit PTFE/Silicone Septa USP Type 1 (Pk/100)



QC-110SA	2ml Snap Type Clear Vials 12 X 32mm, 1st Hydrol Glass, Wide Opening USP Type 1 (Pk/100)
QC-110SB	2ml Snap Type Clear Vials with Patch 12 X 32mm, 1st Hydrol Glass, Wide Opening USP Type 1 (Pk/100)
QC-110SC	2ml Snap Type Amber Vials 12 X 32mm, 1st Hydrol Glass, Wide Opening USP Type 1 (Pk/100)
QC-110SD	2ml Snap Type Clear Vials with Patch 12 X 32mm, 1st Hydrol Glass, Wide Opening USP Type 1 (Pk/100)
QC-112SA	11mm Snap Clear Caps with Silicon White / PTFE Red Septa USP Type 1 (Pk/100)
QC-112SG	11mm Snap Clear Caps with Silicon White / PTFE Red Pre-Slit Septa USP Type 1 (Pk/100)



CP-SV1F 1ml clear Shell Vials 8 x 32 with Star burst Plugs USP Type 1 (Pk/100)

TC-60A	0.2ml Micro-Insert, 31x6mm, Clear Glass, 1st Hydrol Type, Flat Bottom, Fill Vol. 0.35 USP Type 1
TC-60D	0.1ml Micro-Insert, 29x5.7mm, Clear Glass, 1st Hydrol Type, Mandrel Point with assembled Plastic Spring, Fill Vol. 0.20 USP Type 1

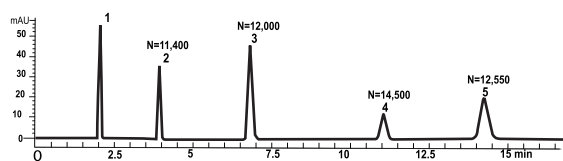


We can provide other size of Vials & Sample Bottles.

Qualisil HPLC Column

Qualisil® BDS-C18 & BDS-C8 Columns with improved base deactivation. Qualisil® BDS is manufactured in USA under stringent process & strict quality control. Qualisil® BDS make use of high purity silica & purest reagents. Qualisil® BDS offers excellent peak shape & resolution not only for Basic Compounds but also for Acidic & Neutral Compounds.

Better Separation Performance



Qualisil® BDS C18

Carbon Load	12%
Pore Size	130Å
Surface Area	300 m ² /g
Particle Size	5µm
Temp Limits	60°C
pH range	pH (2-8)
Endcapped	Yes

LC Conditions

Column Dimensions : Qualisil® BDS C18 4.6 X 150, 5µm
 Mobile Phase : 90% 50 mM KH₂PO₄ / 10% ACN
 Flow Rate : 1.0ml/min
 Detector : UV254-nm
 Injection : 1.0µL

Sample Components :

Concentration : 0.2mg/ml

1. Uracil
2. Procainamide
3. N-acetyl procainamide
4. N-Propionyl procainamide
5. Caffeine

Excellent Peak Shape
Better Resolution

Excellent Performance

Unbelievable Price

Improved Base Deactivation

Improved Tailing

Ultra Pure Silica

pH Stability

Longer Life

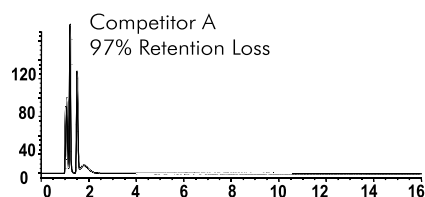
Better Resolution

Qualisil® HPLC Column Ordering Information



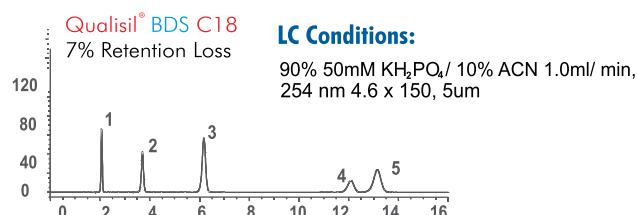
Brand Name	Specification						
	Carbon Load	Pore Size	Surface Area	Partical Size	Temp Limits	pH Range	Endcapped
Qualisil C18 BDS	12%	170Å	290m ² /g	5µm	60°C	pH (2-8)	Yes
Qualisil C18 Gold	17%	170Å	290m ² /g	5µm	60°C	pH (2-9)	Yes
Qualisil C8	12%	130Å	300m ² /g	5µm	60°C	pH (2 to 8)	Yes

Better Retention For Polar Compounds in High Aqueous Mobile Phases



Sample:

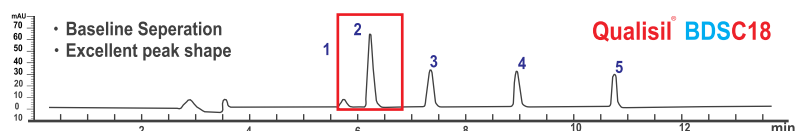
1. Uracil
2. Procainamide
3. N-acetyl Procainamide
4. N-propionyl Procainamide
5. Caffeine



LC Conditions:

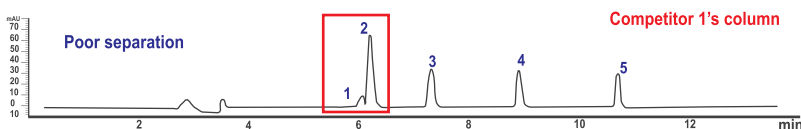
90% 50mM KH₂PO₄ / 10% ACN 1.0ml/ min,
254 nm 4.6 x 150, 5µm

Dual Benefits

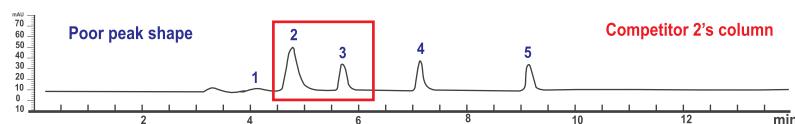


Qualisil® BDS C18

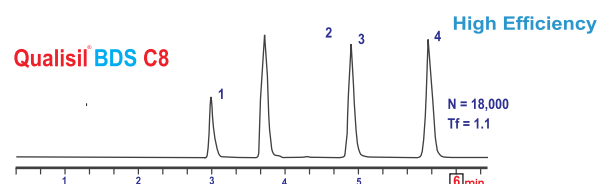
1. Benzoic acid
2. Sorbic acid
3. Methyl p-hydroxybenzoate
4. Ethyl p-hydroxybenzoate
5. Propylparaben



Competitor 1's column



Competitor 2's column



Qualisil® BDS C8

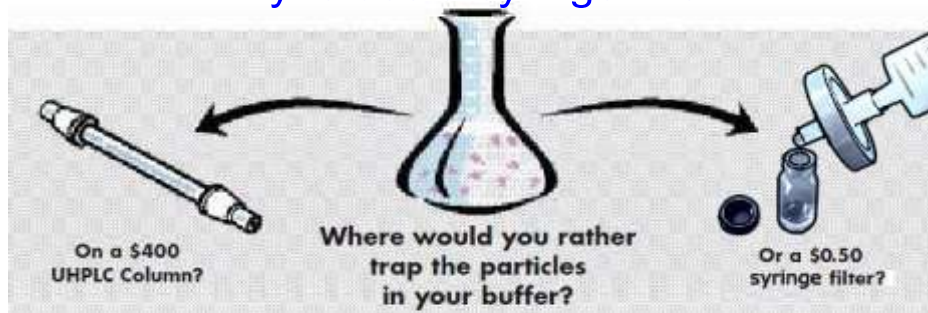
Sample:	Column :	4.6 x 250mm, 5µm
1. Uracil	Mobile Phase :	80% / 20% Methanol/ Water
2. Phenol	Flow Rate :	1 ml/min
3. 4-Chloronitrobenzene	Injection :	5µL
4. Toluene	Temperature :	Ambient
	Detector :	VWD, 254 nm

Syringe Filter

Features

- Color coding of each unit for easy identification
- Added sample distribution ring
- Resistance high pressure
- Only Layer Membrane Structure, less dissolution content
- Passed HPLC Test

Why to use a syringe filter?



Step :1 Choose the suitable membrane filtration medium Characteristics of samples

Solutions	Recommended
Solvent Mixtures	Nylon, Hydrophilic PTFE,
Tissue culture Media, Buffers, Protein Analysis/Biological Samples	CA, PES, MCE, Hydrophilic PVDF
High Particulate Loads	PP, GF, Filter with pre-filter
Aggressive or Pure Organic Solvents	Hydrophobic PTFE,PVDF

Step :2 Choose the suitable diameter

Volume of samples	Recommended
<10ml	13mm
<100ml	25mm

Step :3 Choose the suitable pore size based on the nature of your sample

- Removal of high particulate matter with a pre filter is critical before any drug, toxic, or dirty environmental sample is filtered to ensure the highest syringe filter membrane performance.
- Generally, 0.45um porosity filters are used to remove particulates from samples and mobile phase solutions. For Sterile-filtration, a 0.20um porosity filter can be used.

Parameters	13 mm		25 mm	
Filtration area (cm ²)	0.92		2.98	
Normal Pore Size (µm)	0.22	0.45	0.22	0.45
Holdup volume (µl)	<10		<100	
Smample volumne (ml)	<10		<120	
Inlet /Outlet	Female luer lock/Male luer slip			
Maxnimum Operating Temperature	50°C		50°C	
Maxnimum Operating Pressure (psi)	>87		>87	

Order Information :

Nylon Syringe Filter



- ➡ Hydrophilic property
- ➡ Uniform aperture
- ➡ Excellent chemical stability and flexibility, durable
- ➡ Suitable for filtration of aqueous and most organic solvent
- ➡ Compatibility with various sterilizing methods

Part No	Diameter	Pore Size	Wettability	Package
QN1345	13 mm	0.45um	Qualisil Nylon Syringe Filter	Pk/100
QN1322	13 mm	0.22um	Qualisil Nylon Syringe Filter	Pk/100
QN2545	25 mm	0.45um	Qualisil Nylon Syringe Filter	Pk/100
QN2522	25 mm	0.22um	Qualisil Nylon Syringe Filter	Pk/100

PTFE Syringe Filter Hydrophobic



- ➡ Strong Hydrophobic property
- ➡ Broad solvent chemical compatibility
- ➡ Excellent particle retention
- ➡ Suitable for filtration all Organic solutions, even for acetone, DMSO, THF, etc. and Gas filtration
- ➡ Compatibility with various sterilizing methods

Part No	Diameter	Pore Size	Wettability	Package
Q13PTB022E	13mm	0.22um	Qualisil Hydrophobic PTFE Syringe Filter	Pk/100
Q13PTB045E	13mm	0.45um	Qualisil Hydrophobic PTFE Syringe Filter	Pk/100
Q25PTB022E	25mm	0.22um	Qualisil Hydrophobic PTFE Syringe Filter	Pk/100
Q25PTB045E	25mm	0.45um	Qualisil Hydrophobic PTFE Syringe Filter	Pk/100

PTFE Syringe Filter (Hydrophilic)



- ➡ Special treated PTFE with Hydrophilic property
- ➡ Broad chemical resistance
- ➡ Excellent particle retention
- ➡ Compatibility with various sterilizing methods
- ➡ Suitable for filtration all solutions, even for acetone, DMSO, THF, etc.
- ➡ Normally used with pH range 1-14

Part No	Diameter	Pore Size	Wettability	Package
Q13PTL022E	13mm	0.22um	Qualisil Hydrophilic PTFE Syringe Filter	Pk/100
Q13PTL045E	13mm	0.45um	Qualisil Hydrophilic PTFE Syringe Filter	Pk/100
Q25PTL022E	25mm	0.22um	Qualisil Hydrophilic PTFE Syringe Filter	Pk/100
Q25PTL045E	25mm	0.45um	Qualisil Hydrophilic PTFE Syringe Filter	Pk/100

PVDF Syringe Filter Hydrophobic



- ➡ Hydrophobic property
- ➡ High mechanical and tensile strength
- ➡ Broad chemical and temperature resistance
- ➡ Suitable for the filtration of gas, steam and high temperature liquids.
- ➡ Compatibility with various sterilizing methods
- ➡ Normally used with pH range 2-13.

Part No	Diameter	Pore Size	Wettability	Package
Q13PVB022E	13mm	0.22µm	Qualisil Hydrophobic PVDF Syringe Filter	Pk/100
Q13PVB045E	13mm	0.22µm	Qualisil Hydrophobic PVDF Syringe Filter	Pk/100
Q25PVB022E	25mm	0.22µm	Qualisil Hydrophobic PVDF Syringe Filter	Pk/100
Q25PVB045E	25mm	0.45µm	Qualisil Hydrophobic PVDF Syringe Filter	Pk/100

PVDF Syringe Filter Hydrophilic



- ➡ Hydrophobic property
- ➡ 100% polypropylene construction
- ➡ Excellent for difficult-to-filter dissolution samples
- ➡ Acid and base resistant
- ➡ Wide Chemical compatibility with solvents
- ➡ High throughput for viscous samples

Part No	Diameter	Pore Size	Wettability	Package
Q13PVL022E	13mm	0.22µm	Qualisil Hydrophilic PVDF Syringe Filter	Pk/100
Q13PVL045E	13mm	0.45µm	Qualisil Hydrophilic PVDF Syringe Filter	Pk/100
Q25PVL022E	25mm	0.22µm	Qualisil Hydrophilic PVDF Syringe Filter	Pk/100
Q25PVL045E	25mm	0.45µm	Qualisil Hydrophilic PVDF Syringe Filter	Pk/100

PES Syringe Filter



- ➡ Hydrophilic property
- ➡ High flow rate and high Throughputs
- ➡ Low protein binding
- ➡ Low in extractables
- ➡ Suitable for removing small particles, bacteria, viruses
- ➡ And fungi aqueous phase.
- ➡ Normally used with PH 3-12.

Part No	Diameter	Pore Size	Wettability	Package
QPES1345	13mm	0.45µm	Qualisil PES Syringe Filter	Pk/100
QPES1322	13mm	0.22µm	Qualisil PES Syringe Filter	Pk/100
QPES2545	25mm	0.45µm	Qualisil PES Syringe Filter	Pk/100
QPES2522	25mm	0.22µm	Qualisil PES Syringe Filter	Pk/100

MCE Syringe Filter



- ➡ Better hydrophilic property
- ➡ Low protein binding
- ➡ Great water flux and better cutoff effect
- ➡ Ideal for aqueous based samples, tissue culture and sensitive biological samples
- ➡ Has a lower chemical resistance
- ➡ Autoclave: sterilized by dry heat at 121°C for 15mins

Part No	Diameter	Pore Size	Wettability	Package
QMC1345	13mm	0.45µm	Qualisil MCE Syringe Filter	Pk/100
QMCE1322	13mm	0.22µm	Qualisil MCE Syringe Filter	Pk/100
QMCE2545	25mm	0.45µm	Qualisil MCE Syringe Filter	Pk/100
QMCE2522	25mm	0.22µm	Qualisil MCE Syringe Filter	Pk/100

CA Syringe Filter



- ➡ Hydrophilic property
- ➡ Low protein binding: suitable for aqueous protein solutions
- ➡ Nitrate free: suitable for groundwater filtration
- ➡ Quiet uniform pore size structure
- ➡ Extensive pore size specification
- ➡ Cell retention and particle collection

Part No	Diameter	Pore Size	Wettability	Package
Q13CA022E	13mm	0.22µm	Qualisil Cellulose Acetate Syringe Filter	Pk/100
Q13CA045E	13mm	0.45µm	Qualisil Cellulose Acetate Syringe Filter	Pk/100
Q25CA022E	25mm	0.22µm	Qualisil Cellulose Acetate Syringe Filter	Pk/100
Q25CA045E	25mm	0.45µm	Qualisil Cellulose Acetate Syringe Filter	Pk/100

Microglass Fibers Syringe Filters



- ➡ Hydrophilic Material Membrane
- ➡ High Dirt-handling Capacity
- ➡ Excellent Compatibility with Organic solvents
- ➡ Used for solvent filtrations to avoid binder extractions
- ➡ High contamination loading ability for high throughputs

Part No	Diameter	Pore Size	Wettability	Package
QGF2510	25mm	1.0µm	Microglass fibers Syringe Filters	Pk/100

Chemical Compatibility Table

Note +: Resistant ○: Limited Resistant -: Not Resistant

Solvent	MCE	CA	NY	PTE	H-PTF	PVDF	PES	GF	PP
Acetaldehyde	-	-	○	+	+	+		+	○
Acetic acid, 100%	-	-	-	+	+	+	+	+	+
Acetone	-	-	+	+	+			+	+
Acetonitrile	-	-	+	+	+	+	+	+	+
Ammonia, 25%	-	-	-	+	+	+	+	+	+
Benzene	+	+	+	+	+	○		+	○
n-Butanol	+	+	○	+	+	+	+	+	+
Cyclohexane	+	+	○	+	+	+	+	+	+
Dichloromethane	+	-	-	+	+	+	-	+	-
Diethyl ether	○	○	+	+	+	+	+	+	○
Dimethylformamide	-	-	+	+	+	-	-	+	+
1,4-Dioxane	-	-	+	+	+	○	-	+	○
Ethanol	-	+	+	+	+	+	+	+	+
Ethyl acetate	-	-	+	+	+	+	+	+	○
Ethylene glycol	○	○	+	+	+	+	+	+	+
Formic acid, 100%	+	-	-	+	+	+	+	+	+
Hydrochloric acid, 30%	-	-	-	+	+	+	+	+	+
Methanol	-	-	+	+	+	+	+	+	+
Nitric acid, 65%	-	-	-	○	○	○		+	-
Oxalic acid, 10% aqueous	+	-	-	+	+	+		+	+
Petroleum ether	+	+	+	+	+	+	+	+	+
Phosphoric acid, 80%	-	-	-	+	+	○		+	+
Potassium hydroxyde,	-	-	+	+	+	○	+	+	+
2-Propanol	+	+	+	+	+	+	+	+	+
Sodium hydroxyde, 1 mol/L	-	-	+	+	+	○	○	○	+
Tetrachloromethane	+	-	+	+	+	○		+	○
Tetrahydrofuran	-	-	○	+	+	+	-	+	○
Toluene	+	-	+	+	+	+	+	+	○
Trichloroethene	+	+	○	+	+	+		+	○
Trichloromethane	+	-	-	+	+	+	-	+	-
Urea	+	+	+	+	+	+		+	+
Water	+	+	+	+	+	+	+	+	+
Xylene	+	+	+	+	+	○		+	○

Columnsafe

International Quality & Design

Long Life with MS Build/ Frame

Qualisil Columnsafe

This Column storage unit is an ideal and safe place for all HPLC columns used in a lab. It is compact unit with aesthetic look offering defined place for new and used columns. This is helpful in avoiding columns getting exposed to various environmental conditions or mishandling. Columnsafe is available in 3 popular sizes of 50 No's, 100 No's and 200 Columns or more.

Sturdy Unit



Salient Features:

- International Quality Design with Sturdy Unit
- Pleasant Dual Colour Mode
- Long Life with MS Frame
- Extra Drawer for Document and COAs
- Central Locking System with single Push button for lock
- Keeping HPLC Columns Safe and Secured with possible sorting & Storage as per convenience
- Easy to clean and maintain
- More Column can be accommodated with shorter length
- Columns upto 300mm length and 7.8mm can also be accommodated comfortably
- Complimentary value additions with folder, pen, Keychain and Writing Pad
- Customised columnsafe as per your requirement is possible



Model : QCS050

Qualisil MS make Columnsafe for 50 or more columns
with Powder Coating & Central Locking Facility
(5 Drawers x 10 Columns + 1 Drawer for Document)

Dimensions : L x W x D

In Inches : 12" 11" 13"

Weight : 13.30 Kg Approx



* Table Top Model



Model : QCS100

Qualisil MS make Columnsafe for 100 or more columns
with Powder Coating & Central Locking Facility
(10 Drawers x 10 Columns + 1 Drawer for Document)

Dimensions : L x W x D

In Inches : 21" 11" 18"

Weight : 21.700 Kg Approx

* This Model also has Wheels for having ease in moving from one location to other

Model : QCS200

Qualisil MS make Columnsafe for 200 or more columns
with Powder Coating & Central Locking Facility
(10 Drawers x 20 Columns + 1 Drawer for Document)

Dimensions : L x W x D

In Inches : 21" 20" 18"

Weight : 38 Kg Approx



* This Model also has Wheels for having ease in moving from one location to other

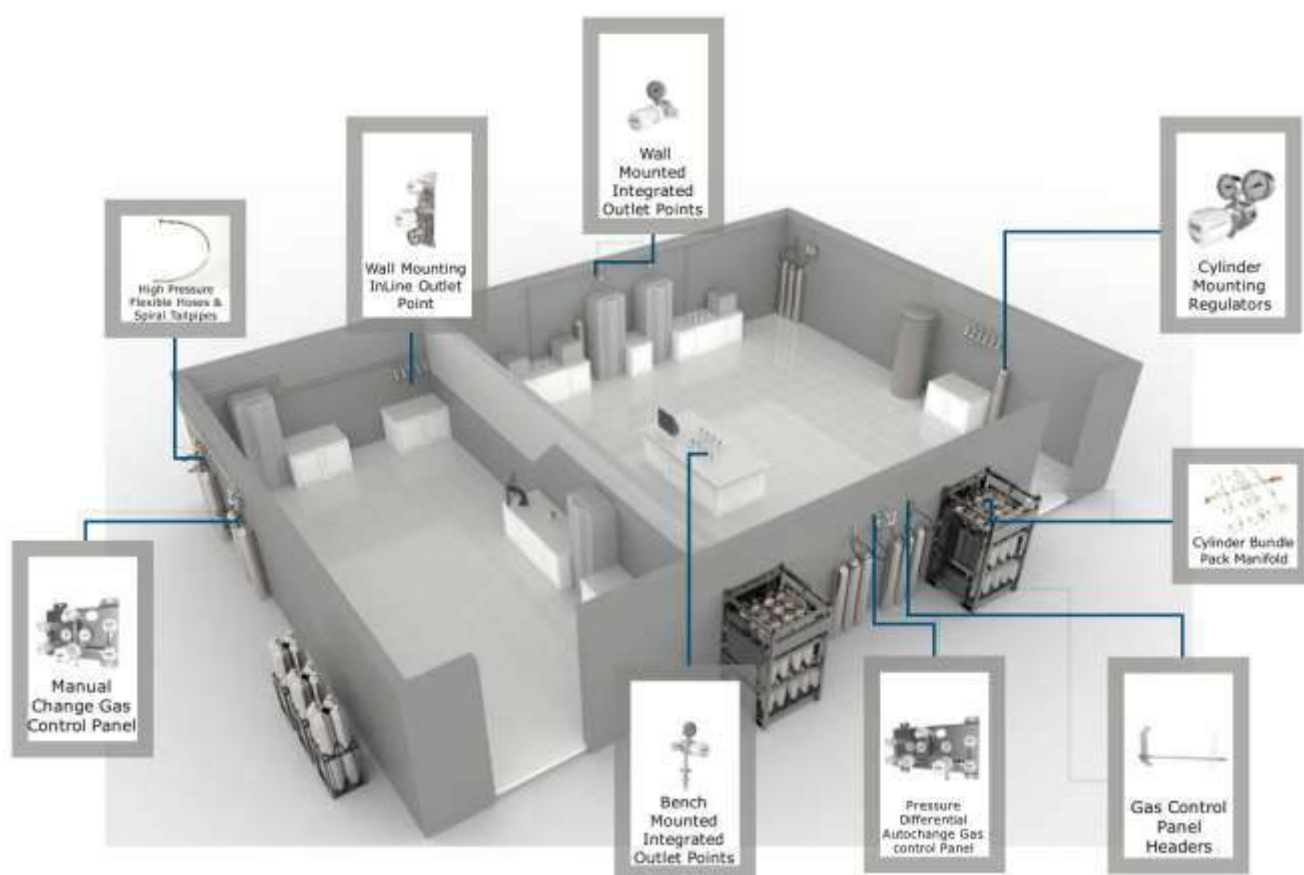
Online Gas Generators

- ▶ Gas World offers hi-tech Gas Generators for online use of Nitrogen, Hydrogen, Zero Air & combination of Nitrogen-Zero Air.
- ▶ Purity from 99.97 to 99.999% Gas Generation is achievable for various Laboratory & Industrial Applications.
- ▶ Maintenance free, Noise free and durable equipment for continues use without any stoppage of Gas delivery to your equipment.



“Gas World” products and services :

- **Laboratory Gas Piping Solutions**
- **Cylinder Pressure Regulators**
- **Cylinder Holding Brackets**
- **Panel & Line Regulators**
- **Pressure Control Panels**
- **Purification Panel**
- **Tube Fittings**
- **Hose Pipes**
- **Gas Filters**
- **Valves**



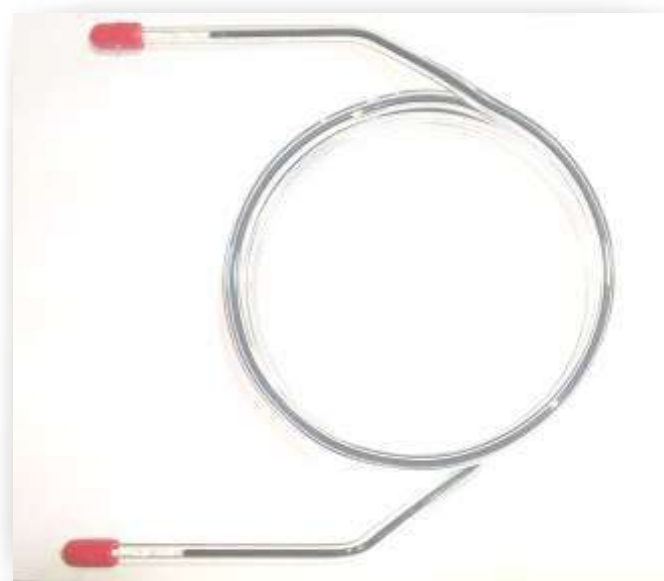
Pack Column

We also provide :

Qualisil S.S. Packed GC Column & Qualisil Glass Column

Packing material List

- ▶ Apizon -L
- ▶ Carbowax Series
- ▶ Carbowaxs 20M + KOH
- ▶ Dc Series
- ▶ QF-1
- ▶ DEGS
- ▶ DEGS-PS
- ▶ Reoplex-400
- ▶ Porapak-Q/QS/P/PS/N
- ▶ Haysep-Q/QS/P/Ps/N
- ▶ Haysep-A
- ▶ Chromosorb-101 to 108
- ▶ Chromosorb-102 (S6)
- ▶ FFAP
- ▶ OV-Series
- ▶ SE-30
- ▶ SE-54/SE-52
- ▶ SF-96
- ▶ 3%OV-225
- ▶ 10%OV-225
- ▶ Sorbitol



Other phases and customised columns are also available

CHROMATOGRAPHY WORLD

217, 2nd Floor, Champaklal Industrial Area
Near Sion Telephone Exchange,
Sion East, Mumbai-400022.
Call : 022 - 24082098/24082099/43159100
Email : sales@chromatographyworld.com
speed@chromatographyworld.com



**chromatography
world**

VENDOR CREATION / AMENDMENT (ADDRESS / BANK ACCOUNT NO.)

Name of Vendor*	CHROMATOGRAPHY WORLD	
Address* (Please Update New Address)	217, CHAMPAKLAL INDUSTRIAL ESTATE, 2 ND FLOOR, SION EAST,	
Postal Code*	400 022	
City*	MUMBAI	
State*	MAHARASHTRA	
Telephone*	Ph: 022-24082098/ 24082099 / 43159100 Mobile: 9594931999.	
E-mail	dhiren@chromatographyworld.com / geeta@chromatographyworld.com	
Structure of Firm*(Please tick where applicable)	LIMITED/PRIVATE LIMITED/PARTNERSHIP/PROPRIETORSHIP/INDIVIDUAL ✓	
Statutory Details :		
PAN Number*#	AAG FC 1217K	
Service Tax Reg No # (Mandatory if Vendor provides any service)	NA	
GSTN	27AAGFC1217K1ZM	
LST No. (WBST) #	NA	
Registered Under Micro, Small and Medium Enterprises Development Act 2006 #	☐ YES ☒ NO	
If Yes Then Small Scale Industry Regn Number	NA	
MICRO/SMALL/MEDIUM under Micro, Small and Medium Enterprises Development Act, 2006#	NA	
Mode of Payment:	☐ Cheque ☒ Direct Transfer to Bank through NEFT	
If you opt for direct payment to bank through NEFT, please provide declaration as per Annex-I attached herewith		

Sub : Bank details confirmation

Dear Sir,

Bank Account Details for crediting the amount:

Bank Name	Kotak Mahindra Bank		
Bank Branch	Matunga Branch		
Bank Branch Address	Raj Niketan, Bhandarkar Road, Mumbai -400 019.		
Bank Account Number	4611234274		
Bank Account Name	CHROMATOGRAPHY WORLD		
Bank Account Type	☒ CURRENT ☐ SAVINGS ☐ CASH CREDIT		
Bank IFSC Code (attested by Banker)	KKBK0000644		
Bank MICR Code	400485049		

I hereby declare that the particulars furnished above are correct and complete.

For Kotak Mahindra Bank

Without any risk or responsibility on the part of the Bank or any of its Signing Officials We Confirm that this signature agrees with the Specimen held on our records.



Authorised Signatory
Sion Branch, Sion (W),
Mumbai-400 022

For Chromatography World

Partner



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