

ID - 1.4m

DAC Column



ID column customization available 600mm,
800mm,900mm,1.2m,1.4m,1.6m with different IDs

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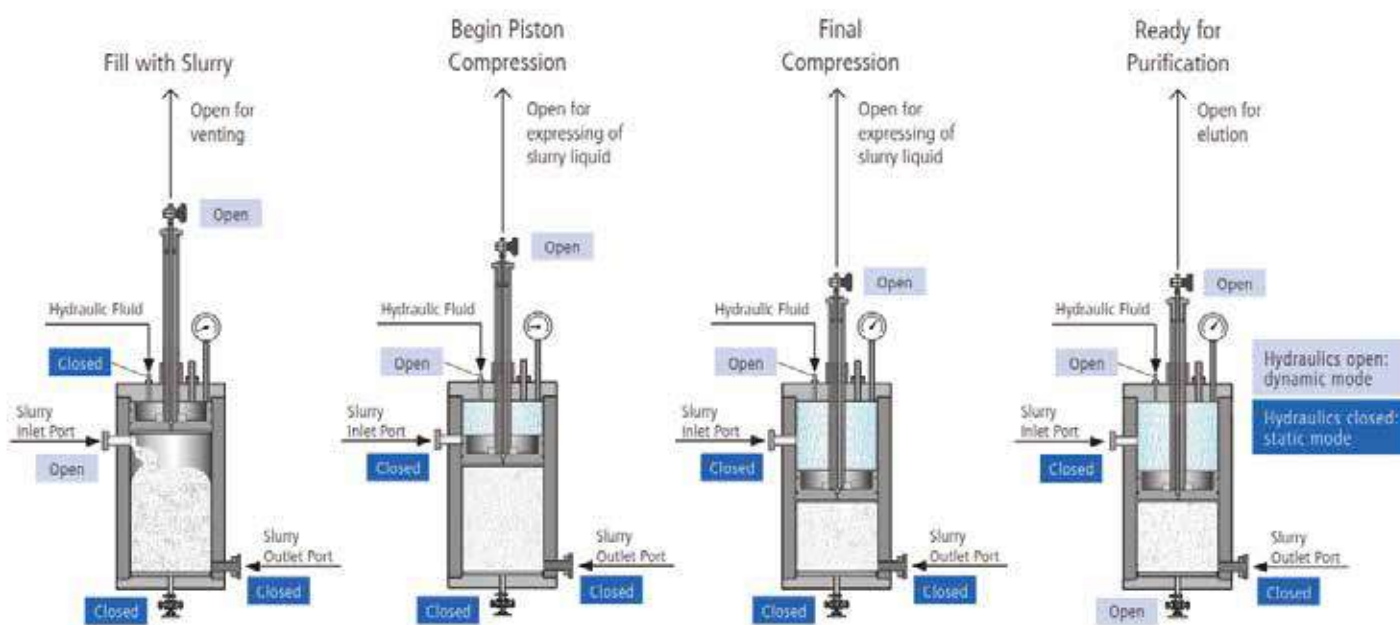
Analytical Technologies Limited

An ISO 9001 Certified Company

www.analyticalgroup.net

►► Expand the Boundaries of Liquid Chromatography

Liquid chromatography (LC) remains an integral component of downstream processing and the most powerful means of purifying active pharmaceutical ingredients (API). In response to the increasing popularity of lean manufacturing and continuous processing, we designs a range of LC columns using dynamic axial compression (DAC) technology to drive packing, unpacking and purification of gram to kilogram quantities of small molecules, peptides, oligonucleotides and microbial-derived proteins.



►► Pack Your Column in Minutes

Transfer slurry through the slurry inlet port, and a hydraulic cart drives reproducible packing using a “set it and forget it” air pressure regulator. Compartmentalized hydraulics enable our DAC LC columns to have the lowest height requirement of any comparable DAC LC column, making them ideal for laboratories, pilot plants or manufacturing suites.

Instead of hydraulic oil, clean solvents such as alcohol or the eluent can be used to pressurize the column, thereby reducing the risk of contamination in an environmentally-friendly manner.

►► Accelerate Unpacking

To unpack the depressurized column, remove the bottom plate and eject the bed out of the tube with the same hydraulic cart. The novel scraper seal retains the frit and glides along the column tube bore, wiping the column walls as the piston head rapidly unpacks the bed.

Our hoist-free feature enables the piston frit to be changed from the bottom of the column, so routine frit maintenance* can be performed without the use of an overhead hoist.

ID column customization available 600mm, 800mm, 900mm, 1.2m, 1.4m, 1.6m with different IDs

►► Take Advantage of Increased Stability

Instead of legacy “flanged tubes”, our DAC LC columns are engineered as hydraulic cylinders. Both the thicker wall of the column tube and reinforcement of the piston contribute to a mechanically robust design. This permits smooth, consistent strokes to maintain the integrity of the packed bed and reduce the risk of piston malfunction. And with our internal leak detection system, you can be assured that the seal integrity will always be known.

►► Putting the “High” Back into High Performance

Central to the performance of any chromatography column is the flow distributor. It uses CAD-modeled “active” flow distribution to maximize yield by increasing the number of theoretical plates (N) and reducing the height equivalent to a theoretical plate (HETP). Both product and eluent streams uniformly access the full extent of the packed bed surface area through a proprietary network of radial and concentric channels. This translates to sharper product peaks and higher yields and recoveries than with other distribution designs



►► Capitalize on Greater Flexibility

ATL offers stainless steel DAC LC columns with a broad range of internal diameters – from as small as 6 cm to as large as 160 cm – with the capability to tolerate pressures from 10 bar up to 200 bar. Our DAC LC columns can also be customized to other diameters and lengths in order to better fit your unique purification process.

Our DAC LC columns are available with fully separated hydraulics. Columns with similar pressure ratings and internal diameters can be operated with a single hydraulic cart when the columns are not in use simultaneously. This unique feature reduces capital costs and maximizes resource allocation.

►► Column Applications Guide

Our columns support typical rigid or small particle process LC media to facilitate purification of a wide range of active pharmaceutical ingredients.



End Product	Suggested Media	Particle Size (µm)	LC Column Type
Oligonucleotides	Small bead agarose or polymeric gel	15 - 40	MPLC HPLC
Peptides	Reverse-phase spherical silica	5 - 30	HPLC UHPLC
Microbial-derived proteins	Reverse-phase spherical silica or polymeric gel	10 - 30	MPLC HPLC
Enantiomers	Chiral	10 - 20	HPLC
Small molecules	Normal-phase spherical silica	10 - 30	HPLC
Small molecules (rapid cleanup)	Normal-phase irregular silica	40 - 63	Flash

►► Comply with Industry Standards

Each DAC LC column features 316L stainless steel construction with highly fluorinated, FDA-compliant seals that are compatible with typical organic and aqueous mobile phases. Full material traceability is provided for all stainless steel product contact parts. The following options are available:

- Electropolishing
- Jacketing and/or insulation for column temperature control
- ASME code stamps
- CE Pressure Equipment Directive compliance
- Certified USP Class VI and non-animal-derived seals

►► Pressure Ratings for Your Application

HPLC

Since high pressure columns are commonly utilized during peptide purifications, 70 and 100 bar ratings are designed to be compatible with 10 to 15 µm spherical silica gels.

UHPLC

When greater resolution is required, our ultra high performance liquid chromatography (UHPLC) columns tolerate pressures of up to 200 bar, enabling the use of silica gels as small as 5 µm. UHPLC columns are especially attractive for challenging peptide purifications and can be made with internal diameters from 6 to 60 cm.

MPLC

Many oligonucleotide or small protein purifications generate back pressure less than 20 bar. When a 20 bar column will be sufficient, MPLC columns provide the benefits associated with DAC combined with a lower pressure rating and lower up-front cost.

Flash

For cleanup of small molecules using irregular or large particle silica gels, 10 bar column designs for flash chromatography can be engineered with higher bed heights than traditional HPLC columns.



►► Related Products and Services

To augment DAC LC columns, ATL offers equipment and services related to purification and oligosynthesis.

Purification Equipment

- Flash, MPLC, HPLC and UHPLC Systems

Oligosynthesis Equipment

- Synthesis Columns
- Oligosynthesizer

►► Ordering Information

DAC HPLC Chromatography Columns

No.	Column Dimensions	Pressure Rating
AAHPLCLC6x50	6 cm i.d. x 50 cm L	100 bar
AHPLC6x70	6 cm i.d. x 70 cm L	100 bar
AAHPLCLC7.5x50	7.5 cm i.d. x 50 cm L	100 bar
AAHPLCLC7.5x70	7.5 cm i.d. x 70 cm L	100 bar
AAHPLCLC10x50	10 cm i.d. x 50 cm L	100 bar
AAHPLCLC10x70	10 cm i.d. x 70 cm L	100 bar
AAHPLCLC15x50	15 cm i.d. x 50 cm L	70 bar
AAHPLCLC15x70	15 cm i.d. x 70 cm L	70 bar
AAHPLCLC17x50	17 cm i.d. x 50 cm L	70 bar
AAHPLCLC17x70	17 cm i.d. x 70 cm L	70 bar
AAHPLCLC20x50	20 cm i.d. x 50 cm L	70 bar
AHPLC20x70	20 cm i.d. x 70 cm L	70 bar
AHPLC30x50	30 cm i.d. x 50 cm L	70 bar
AHPLC30x70	30 cm i.d. x 70 cm L	70 bar
AHPLC40x50	40 cm i.d. x 50 cm L	70 bar
AHPLC40x70	40 cm i.d. x 70 cm L	70 bar
AHPLC45x50	45 cm i.d. x 50 cm L	70 bar
AHPLC45x70	45 cm i.d. x 70 cm L	70 bar
AHPLC50x50	50 cm i.d. x 50 cm L	70 bar
AHPLC50x70	50 cm i.d. x 70 cm L	70 bar
AHPLC60x50	60 cm i.d. x 50 cm L	70 bar
AHPLC60x70	60 cm i.d. x 70 cm L	70 bar
AHPLC80x50	80 cm i.d. x 50 cm L	70 bar
AHPLC80x70	80 cm i.d. x 70 cm L	70 bar
AHPLC100x50	100 cm i.d. x 50 cm L	70 bar
AHPLC100x70	100 cm i.d. x 70 cm L	70 bar

DAC MPLC Chromatography Columns

No.	Column Dimensions	Pressure Rating
AMPLC15x50	15 cm i.d. x 50 cm L	20 bar
AMPLC15x70	15 cm i.d. x 70 cm L	20 bar
AMPLC17x50	17 cm i.d. x 50 cm L	20 bar
AMPLC17x70	17 cm i.d. x 70 cm L	20 bar
AMPLC20x50	20 cm i.d. x 50 cm L	20 bar
AMPLC20x70	20 cm i.d. x 70 cm L	20 bar
AMPLC30x50	30 cm i.d. x 50 cm L	20 bar
AMPLC30x70	30 cm i.d. x 70 cm L	20 bar
AMPLC40x50	40 cm i.d. x 50 cm L	20 bar
AMPLC40x70	40 cm i.d. x 70 cm L	20 bar
AMPLC45x50	45 cm i.d. x 50 cm L	20 bar
AMPLC45x70	45 cm i.d. x 70 cm L	20 bar
AMPLC50x50	50 cm i.d. x 50 cm L	20 bar
AMPLC50x70	50 cm i.d. x 70 cm L	20 bar
AMPLC60x50	60 cm i.d. x 50 cm L	20 bar
AMPLC60x70	60 cm i.d. x 70 cm L	20 bar
AMPLC80x50	80 cm i.d. x 50 cm L	20 bar
AMPLC80x70	80cm i.d. x 70 cm L	20 bar
AMPLC100x50	100 cm i.d. x 50 cm L	20 bar
AMPLC100x70	100 cm i.d. x 70 cm L	20 bar
AMPLC120X50	120 cm i.d. x 50 cm L	20 bar
AMPLC120X70	120 cm i.d. x 70 cm L	20 bar

DAC HPLC Column Hydraulic Carts

No.	Description	Pressure Rating
HC-Cart-10	Benchtop hydraulic cart for 6 - 10 cm i.d. DAC HCLC columns	100 bar
HC-Cart-17	Benchtop hydraulic cart for 15 - 17 cm i.d. DAC HCLC columns	70 bar
HC-Cart-30	Hydraulic cart for 20 - 30 cm i.d. DAC HCLC columns	70 bar
HC-Cart-60	Hydraulic cart for 40 - 60 cm i.d. DAC HCLC columns	70 bar
HC-Cart-100	Hydraulic cart for 80 - 100 cm i.d. DAC HCLC columns	70 bar

DAC MPLC Column Hydraulic Carts

No.	Description	Pressure Rating
MC-Cart-17	Benchtop hydraulic cart for 15 - 17 cm i.d. DAC MCLC columns	20 bar
MC-Cart-30	Hydraulic cart for 20 - 30 cm i.d. DAC MCLC columns	20 bar
MC-Cart-60	Hydraulic cart for 40 - 60 cm i.d. DAC MCLC columns	20 bar
MC-Cart-100	Hydraulic cart for 80 - 100 cm i.d. DAC MCLC columns	20 bar

DAC UHPLC Chromatography Columns

No.	Column Dimensions	Pressure Rating
UHPLC6x50	6 cm i.d. x 50 cm L	200 bar
UHPLC7.5x50	7.5 cm i.d. x 50 cm L	200 bar
UHPLC10x50	10 cm i.d. x 50 cm L	200 bar
UHPLC15x50	15 cm i.d. x 50 cm L	200 bar
UHPLC17x50	17 cm i.d. x 50 cm L	200 bar
UHPLC20x50	20 cm i.d. x 50 cm L	200 bar
UHPLC30x50	30 cm i.d. x 50 cm L	200 bar
UHPLC40x50	40 cm i.d. x 50 cm L	200 bar
UHPLC45x50	45 cm i.d. x 50 cm L	200 bar
UHPLC50x50	50 cm i.d. x 50 cm L	200 bar
UHPLC60x50	60 cm i.d. x 50 cm L	200 bar

DAC Flash Column Hydraulic Carts

No.	Description	Pressure Rating
FC-Cart-30	Hydraulic cart for 30 cm i.d. DAC Flash columns	10 bar
FC-Cart-60	Hydraulic cart for 40 - 60 cm i.d. DAC Flash columns	10 bar
FC-Cart-120	Hydraulic cart for 80 - 120 cm i.d. DAC Flash columns	10 bar

DAC UHPLC Column Hydraulic Carts

No.	Description	Pressure Rating
UHPLC-Cart-10	Benchtop hydraulic cart for 6 - 10 cm i.d. DAC UHCLC columns	200 bar
UHPLC-Cart-17	Hydraulic cart for 15 - 17 cm i.d. DAC UHCLC columns	200 bar
UHPLC-Cart-30	Hydraulic cart for 20 - 30 cm i.d. DAC UHCLC columns	200 bar
UHPLC-Cart-60	Hydraulic cart for 40 - 60 cm i.d. DAC UHCLC columns	200 bar

DAC Flash Chromatography Columns

No.	Column Dimensions	Pressure Rating
FCLP30x50	30 cm i.d. x 50 cm L	10 bar
FCLP30x100	30 cm i.d. x 100 cm L	10 bar
FCLP40x50	40 cm i.d. x 50 cm L	10 bar
FCLP40x100	40 cm i.d. x 100 cm L	10 bar
FCLP45x50	45 cm i.d. x 50 cm L	10 bar
FCLP45x100	45 cm i.d. x 100 cm L	10 bar
FCLP50x50	50 cm i.d. x 50 cm L	10 bar
FCLP50x100	50 cm i.d. x 100 cm L	10 bar
FCLP60x50	60 cm i.d. x 50 cm L	10 bar
FCLP60x100	60 cm i.d. x 100 cm L	10 bar
FCLP80x50	80 cm i.d. x 50 cm L	10 bar
FCLP80x100	80 cm i.d. x 100 cm L	10 bar
FCLP100x50	100 cm i.d. x 50 cm L	10 bar
FCLP100x100	100 cm i.d. x 100 cm L	10 bar
FCLP120x50	120 cm i.d. x 50 cm L	10 bar
FCLP120x100	120 cm i.d. x 100 cm L	10 bar

Standard Column Options

No.	Description
OPT012	Electropolished wetted parts for 6 – 10 cm i.d. columns
OPT212	Electropolished wetted parts for 15 – 20 cm i.d. columns
OPT412	Electropolished wetted parts for 30 – 45 cm i.d. columns
OPT612	Electropolished wetted parts for 50 – 60 cm i.d. columns
OPT712	Electropolished wetted parts for 70 – 80 cm i.d. columns
OPT812	Electropolished wetted parts for 100 – 120 cm i.d. columns
OPT014	ASME Code Stamp for 15 – 35 cm i.d. columns
OPT214	ASME Code Stamp for 40 – 60 cm i.d. columns
OPT414	ASME Code Stamp for 70 – 80 cm i.d. columns
OPT614	ASME Code Stamp for 100 cm i.d. columns or larger
OPT015	Heating jacket for 6 – 10 cm i.d. columns
OPT215	Heating jacket for 15 – 20 cm i.d. columns
OPT415	Heating jacket for 30 – 45 cm i.d. columns
OPT615	Heating jacket for 50 – 60 cm i.d. columns
OPT715	Heating jacket for 70 – 80 cm i.d. columns
OPT815	Heating jacket for 100 – 120 cm i.d. columns

OPT016	Heating jacket w/ insulation/sheathingfor 6 – 10 cm i.d. columns
OPT216	Heating jacket w/ insulation/sheathingfor 15 – 20 cm i.d. columns
OPT416	Heating jacket w/ insulation/sheathingfor 30 – 45 cm i.d. columns
OPT616	Heating jacket w/ insulation/sheathingfor 50 – 60 cm i.d. columns
OPT716	Heating jacket w/ insulation/sheathingfor 70 – 80 cm i.d. columns
OPT816	Heating jacket w/ insulation/sheathingfor 100 – 120 cm i.d. columns

SRV-112	IQ/OQ documentation and execution service for one column
SRV-303	Standard column documentation package
SRV-304	GMP column documentation package
SRV-307	GMP column documentation package (PED Cat I)
SRV-308	GMP column documentation package (PED CAT II)

HPLC Servicing, Validation, Trainings and Preventive Maintenance :

HPLC Servicing :HPLC Servicing : We have team of service engineers who can attend to any make of HPLC promptly @the most affordable cost.

Trainings :We also take up preventive Maintenance to reduce downtime of HPLC's Trainings.

AMC's/CMC :AMC's/CMC :We offer user training both in-House and at customer sites on HPLC principles, operations, trouble-shooting.

Validations :Validations :We have protocols for carrying out periodic Validations as per GLP/GMP/USFDA norms.

Instruments :Instruments :We offer instruments/Renting Services Modules like pumps,detector etc. on Rent.



About Analytical Technologies

Analytical Technologies is synonymous for offering technologies for doing analysis and is the Fastest Growing Global Brand having presence in at least 96 countries across the global. Analytical Technologies Limited is an ISO:9001 Certified Company engaged in Designing, Manufacturing, Marketing & providing Services for the Analytical, Chromatography, Spectroscopy, Bio Technology, Bio Medical, Clinical Diagnostics, Material Science & General Laboratory Instrumentation. Analytical Technologies, India has across the Country operations with at least 4 Regional Offices, 6 Branch Offices & Service Centers. Distributors & Channel partners worldwide.

Our Products & Technologies



UV/VIS
Spectro 2080+
Double Beam



Infra FTIR



Optima Gas
Chromatograph
3007



Optima Gas
Chromatograph
2979 Plus



Flash
Chromatograph



Atomic Absorption
Spectrophotometer



Liquid Particle
Counter



Optical Emission
Spectrophotometer



DSC/TGA



Semi Auto Bio
Chemistry Analyzer



HEMA 2062
Hematology
Analyzer



Micro Plate
Reader/Washer



URINOVA 2800
Urine Analyzer



Total Organic
Carbon 3800



Fully Automated
CLIA



NOVA-2100
Chemistry Analyzer



PCR/Gradient PCR/
RTPCR



TOC
Analyzer



Laser Particle
Size Analyzer



Ion Chromatograph



Water purification
system

Regulatory compliances



Corporate Social Responsibility

Analytical Foundation is a nonprofit organization (NGO) found for the purpose of:



Analytical
Foundation

1. Research & Innovation Scientist's awards/QC Professional Award : Quality life is possible by innovation only and the innovation is possible by research only, hence ANALYTICAL FOUNDATION is committed to identify such personalities for their contributions across various field of Science and Technology and awarding them yearly. To participate for award, send us your details of research / testing / publication at Info@analyticalfoundation.org

2. Improving quality of life by offering YOGA Training courses, Work shops/Seminars etc.

3. ANALYTICAL FOUNDATION aims to DETOXYFY human minds,souls and body by means of yoga, Meditation, Ayurveda, Health Care, Awards, Media, Events, Camps etc.



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