

HYDAC INTERNATIONAL

Hydraulic Accessories

Overview of Products



Valves

Overview of Valves - **A4**
 High Pressure Ball Valves - **A5**
 Low Pressure Ball Valves - **A8**
 Coaxial Valves - **A9**
 In-Line Flow Control Valves - **A12**

A

Mounting Technology

Overview of Mounting Technology - **B2**
 Band Straps - **B3**
 Clamps Overview - **B5**
 Series Strip Clamps - **B6**
 Standard Clamps and Clamps Plus - **B7**
 Custom Clamps - **B8**

B

Reservoir Accessories

Overview of Reservoir Accessories - **C2**
 Particulate Breathers (Mobile) - **C4**
 Particulate Breathers (Industrial) - **C5**
 Desiccant Breathers - **C6**
 Suction Strainers - **C8**
 Fluid Level Indicators - **C9**
 Test Points - **C10**
 Gauge Isolators - **C10**
 Gauges - **C10**
 Split Flanges - **C10**

C

Miscellaneous

Advanced Technical Support (ATS) - **D1**
 Market Overview - **D2**

D



Accessory Division

2204 Avenue C
 Bethlehem, PA 18017
 +1.610.266.0100
 Internet: www.hydac-na.com
 Email: HYD.catalog@hydac-na.com

NOTE

Information and related materials are subject to change without notice. This catalog, and all information and related materials it contains, are provided "as is." HYDAC makes no representation or warranty whatsoever regarding the completeness, accuracy, "up-to-dateness", or adequacy of, the HYDAC-NA domain and this catalog.

Your Expert Provider of parts and custom solutions for Valves, Mounting Technology and Reservoir Accessories!

HYDAC Accessories
Bethlehem, PA, US



HYDAC Accessories
Sulzbach/Saar, GER



Core Product Groups

Valves



Mounting Technology



Reservoir Accessories



From standard parts through custom solutions

STANDARD

HYDAC offers hundreds of valves, clamps and reservoir accessories, many of which have been conceived and designed to specific customer requirements. Others conform to internationally accepted standards such as ANSI and DIN.

MODIFIED

Maybe the handle needs to be a little longer. Maybe the breather needs a visual indicator. HYDAC's Engineering team is capable of modifying our standard products quickly and efficiently to meet your system requirements.

CUSTOM

"It has to fit where?!" HYDAC Accessories can rapidly custom engineer components to meet your design parameters. In-house 3D printing speeds the prototype process.

A

Valves

The HYDAC family of dependable high pressure ball valves and armatures provides full, unrestricted flow and positive shut-off of fluids and gases under extreme service conditions. Models are available to accommodate system pressures up to 7,250 PSI.

For competitor crossovers and/or technical information contact the Accessories division at:

Accessories.ATS@HYDAC-NA.COM



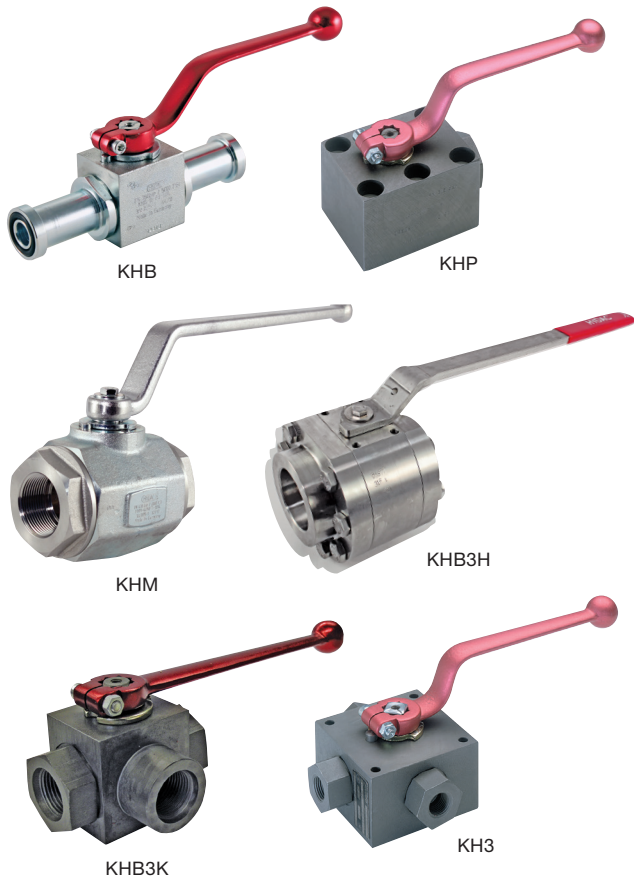
For material compatibility, HYDAC maintains a reference list intended to be a general guideline only and can be found in the online catalog which can be accessed via the QR code below and at the bottom of each page.



To reach model numbers, detailed part breakdowns, technical specifications and options scan the QR code with your smartphone in order to utilize the links embedded in this document.

OVERVIEW OF VALVES

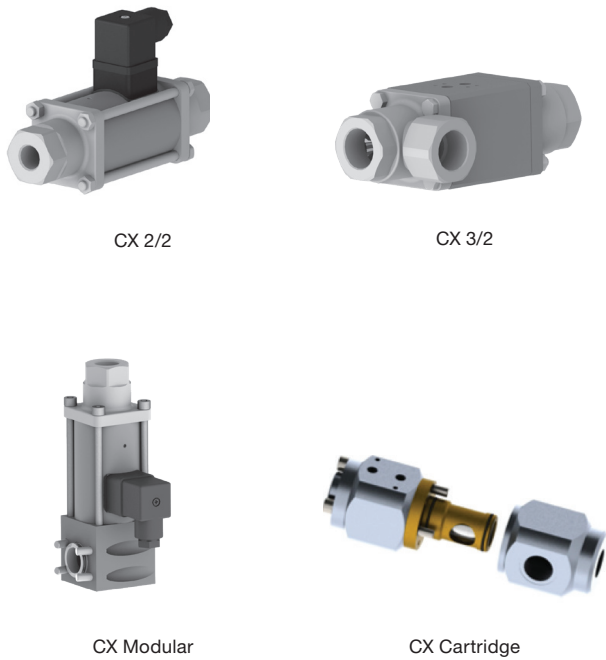
High Press Ball Valves



Low Press Ball Valves



Coaxial Valves



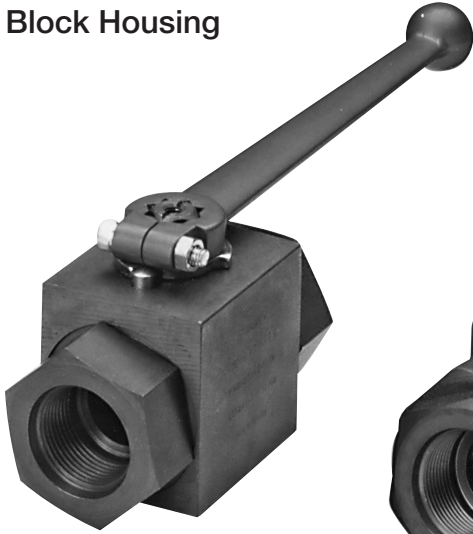
In-Line Flow Control Valves



High Pressure Ball Valves

KHB Series

Block Housing



KHM Series

Forged Housing



Specifications

- 1/4" - 2" Full Port Design
- BSP or DIN2353 Connections
- Carbon Steel or Stainless Steel Housings
- Block Housing: Sizes 06 - 25
- Forged Housing: Sizes 32 - 50
- Ball Seals: Polyacetal (*standard*)
- O-Rings: Fluoroelastomer (*FPM*) (*standard*)
- Operating Pressure to 7250 psi (500 bar) depending on valve size and seal materials selected
- Temperature Range: 14°F to 176°F with standard materials (*1114*) up to maximum pressure rating. Extended temperature range -40°F to 392°F on request with special materials and reduced pressure rating.

Standard Ball Valve Design Feature and Options & Engineering Data for the KHB, KHM, KHP, and KHB3K series of valves can be found in the valves section of the online catalog utilizing the QR code at the bottom of the page.

Available Connections

SAE & NPT, BSP & Metric Tube, and Split Flange

Locking Devices and Seal Kits are available for these series.

Ball Valve Actuator

Pneumatic Operation



Specifications

- Full Port Design
- Carbon Steel or Stainless Steel Housing
- Standard Polyacetal Ball Seals
- Operating Pressures up to 7250 psi*
- Standard Fluoroelastomer O-Rings (FPM)

High Pressure Ball Valves

KHF3/6 Series

Direct Mount SAE Flange 1/2" to 2"

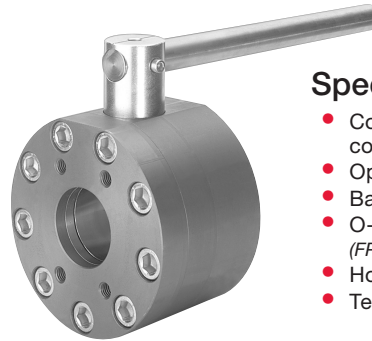


Specifications

- Connection: Dual bolt pattern fits Code 61 and 62 SAE flanges
- Operating Pressure: to 6000 psi
- Ball Seal Material: Polyacetal
- O-ring Material: Fluoroelastomer (FPM)
- Housing Material: Carbon Steel
- Temperature Range: 14° to 176°F

KHF3 Series

Direct Mount SAE Flange 2 1/2" to 4"

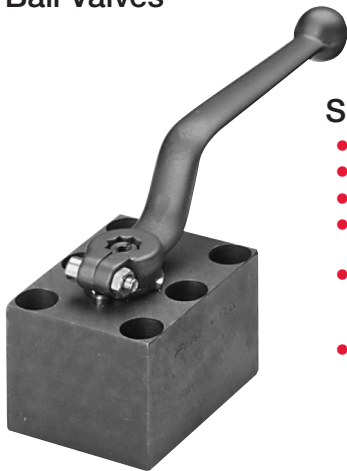


Specifications

- Connection: Bolt pattern fits code 61 SAE flanges
- Operating Pressure: to 2500 psi
- Ball Seal Material: Polyacetal
- O-ring Material: Fluoroelastomer (FPM)
- Housing Material: Carbon Steel
- Temperature Range: 14° to 176°F

KHP Series

2-way Manifold Mounted Ball Valves



Specifications

- Sizes 3/8" - 2"
- Carbon Steel Housing
- Ball Seals: Polyacetal (standard)
- O-Rings: Fluoroelastomer (FPM) (standard)
- Operating Pressure: to 5000 psi depending on seal materials selected
- Temperature Range: 14° to 176°F with standard materials (1114) up to maximum pressure rating. Extended temperature range -40° to 392°F on request with special materials and reduced pressure rating.

KHB3H Series

3 Piece Ball Valve



Specifications

- 1/2" - 4" Standard Port
- 1/2" - 2" Class 2500 ANSI (up to 6000 psi)
- 3" - 4" Class 1500 ANSI (up to 3800 psi)
- Blow-out proof stem
- Handle operated or actuated
- Applications: Offshore, Oil & Gas, Chemical, Petrochemical, Refining, Energy
- Media: Liquid or gas
- Material: Stainless Steel
- End Connections: Socket weld and threaded. Other options available (consult factory)
- Locking devices available

High Pressure Ball Valves

KHB3K Series

3-way Diverter Ball Valves

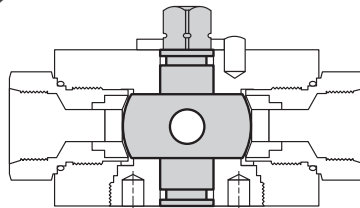
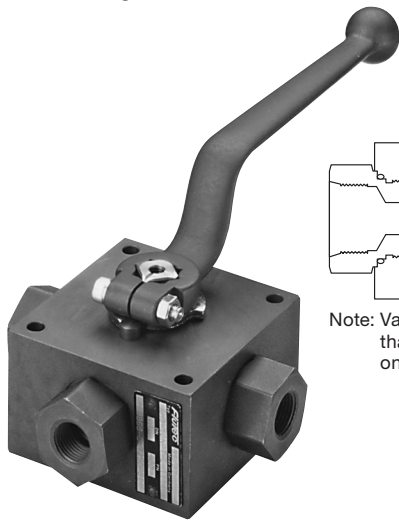


Specifications

- 1/4" - 1" Full Port Design
- 2 Position
- Carbon Steel Housing
- NPT or SAE O-Ring Connections
- Ball Seals: Polyacetal (*standard*)
- O-Rings: Fluoroelastomer (*FPM*) (*standard*)
- Operating Pressure: to 7250 psi depending on valve size and seal materials selected
- Temperature Range: 14° to 176°F with standard materials (*1114*) up to maximum pressure rating. Extended temperature range -40° to 392°F on request with special materials and reduced pressure rating.

KH3 & KH4 Series

Multiway Ball Valves



Note: Valves use a trunion design, rather than the "floating ball" design used on all other ball valves.

Specifications

- Sizes 1/4" to 3/4"
- 2 Positions, 90° Switching Standard
- Carbon Steel Housing
- L and T Ball Drilling: KH3
- L, T and X Ball Drilling: KH4
- NPT or SAE O-Ring Connections
- Ball Seals: Polyacetal (*standard*)
- O-Rings: Fluoroelastomer (*FPM*) (*standard*)
- Operating Pressure: to 7250 psi depending on valve size and seal materials selected
- Temperature Range: 14° to 176°F with standard materials (*1114*) up to maximum pressure rating. Extended temperature range -40° to 392°F on request with special materials and reduced pressure rating.

The KH3 & KH4 series are the only valves in the HYDAC lineup that utilize a trunion design rather than the floating ball design used on all other series. These series also allow for T and X style drillings, opening up new flow configurations.

Locking Devices are available for these series.

VALVES

Low Pressure Ball Valves

KHR Series

2-way Diverter Ball Valves with SAE & G Connections



Specifications

- 1/2" - 2" Full Port Design
- SAE O-ring Connections
- Ball Seals: Polyaceal (*standard*)
- O-rings: NBR (*Buna*) (*standard*)
- Aluminum Housing
- Operating Pressure: up to 400 psi (*30 bar*)
- Temperature Range: -10°C to 80°C with standard materials (*4112*)

KHNVL Series

Brass Ball Valve



Specifications

- Full port ball drilling for unrestricted flow
- Cast 2-piece brass body
- Compact assembly
- Anti-blow out stem
- Locking device available upon request

KHNVN Series

Stainless Steel

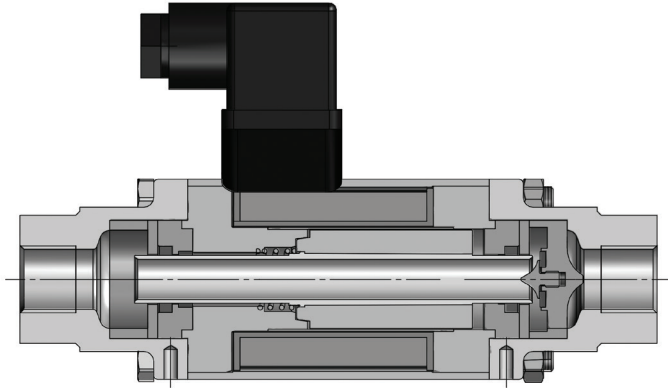


Specifications

- Full port ball drilling for unrestricted flow
- Cast 2-piece brass body
- Compact assembly
- Anti-blow out stem
- Locking device available upon request

Locking Devices are available for these series.

Coaxial Valves



Specifications

- Space Saving
- Rapid Actuation
- Improved Life in Contaminated Flow
- Reduced Cost with Modularity

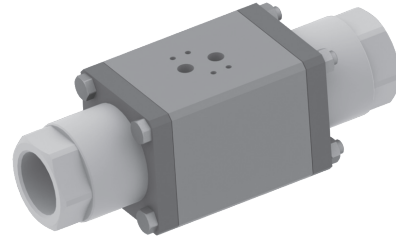
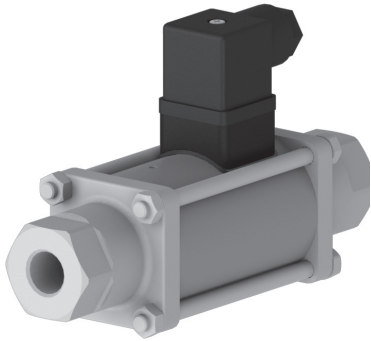
Valve Type	Ways	Control System	Series	Brochure
Piston Valves	2/2	Pilot Operated	CXK01, CXK02	E 6.175
Coaxial Valves	2/2	Direct Acting	CX02, CX03, CX04, CX05	E 6.176
Coaxial Valves	2/2	Pilot Operated	CX06, CX07, CX08, CX09	E 6.178
Coaxial Valves	3/2	Direct Acting	CX03, CX04	E 6.180
Coaxial Valves	3/2	Pilot Operated	CX06, CX07	E 6.181
CX - Flange design	2/2	Direct Acting	CX02F, CX03F, CX05F	E 6.183
CX - Flange design	2/2	Pilot Operated	CX06F, CX07F, CX08F	E 6.184
CX - Modular design	2/2	Direct Acting	CX03M, CX04M, CX05M	E 6.177
CX - Modular design	2/2	Pilot Operated	CX06M, CX07M, CX08M	E 6.179
CX - Compact	2/2	Pilot Operated	CXR	E 6.188
CX - Compact, modular design	2/2	Pilot Operated	CXRM	E 6.189
CX - Cartridge design	2/2	Pilot Operated	CXC	E 6.190
CX - High Pressure	2/2	Direct Acting	CXH1, CXH2	E 6.182
CX - ATEX	2/2	Direct Acting	CXEX	E 6.186
CX - ATEX, modular	2/2	Direct Acting	CXMEX	E 6.185
CX - ATEX	3/2	Direct Acting	CX EX	E 6.191
CX - Pressure Relief valves	2/2	Pilot Operated	CX CBV	E 6.172
Pressure Relief Valves - Right Angle	2/2	Pilot Operated	CX DBV	E 6.173

VALVES

Coaxial Valves

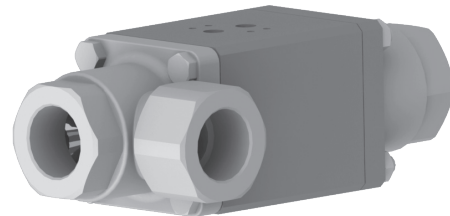
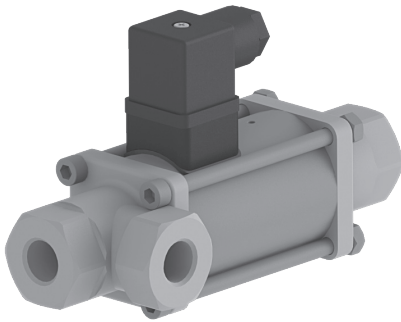
CX Series

DN10 with NPT Ports



2/2 Way

Function	Control System	Voltage	Length	Kv Value [m ³ /h]	Model Code	HYDAC Part Number
NC	Direct	24VDC	159.5mm (6.28 in)	2.1	CX03 -2/2-D/C-2/10/040/038-NPT/24VDC	4412872
NO	Direct	24VDC	159.5mm (6.28 in)	2.1	CX03 -2/2-D/O-2/10/040/038-NPT/24VDC	4412873
NC	Externally Controlled	NAMUR interface	159.5mm (6.28 in)	2.7	CX06-2/2-F/C-2/10/064/038-NPT	4412907
NO	Externally Controlled	NAMUR interface	159.5mm (6.28 in)	2.7	CX06-2/2-F/O-2/10/064/038-NPT	4412908



3/2 Way

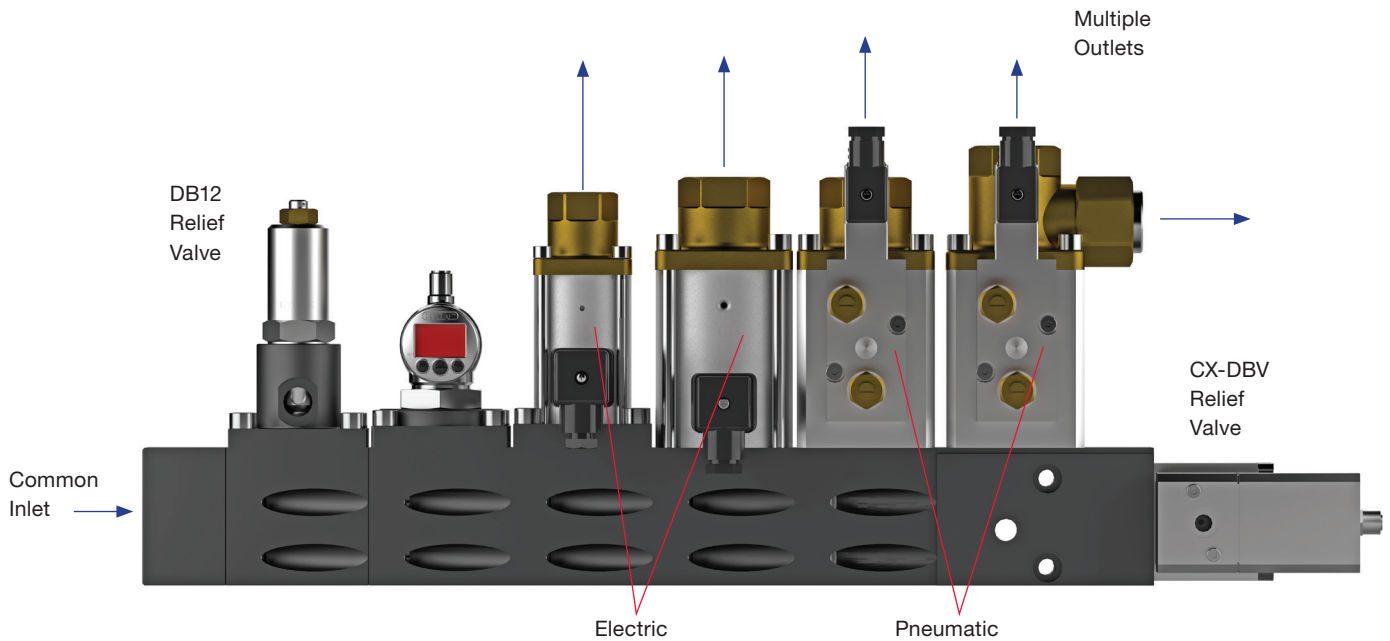
Function	Control System	Voltage	Length	Kv Value [m ³ /h]	Model Code	HYDAC Part Number
NC	Direct	24VDC	166.5mm (6.56 in)	2.0	CX03 -3/2-D/C-2/10/040/038-NPT/24VDC	4412874
NO	Direct	24VDC	166.5mm (6.56 in)	2.0	CX03 -3/2-D/O-2/10/040/038-NPT/24VDC	4412905
NC	Externally Controlled	NAMUR interface	166.5mm (6.56 in)	2.2	CX06-3/2-F/C-2/10/064/038-NPT	4412909
NO	Externally Controlled	NAMUR interface	166.5mm (6.56 in)	2.2	CX06-3/2-F/O-2/10/064/038-NPT	4412910

Other sizes will be made available upon request.

Modular CX Valves

E6.177 & E6.179

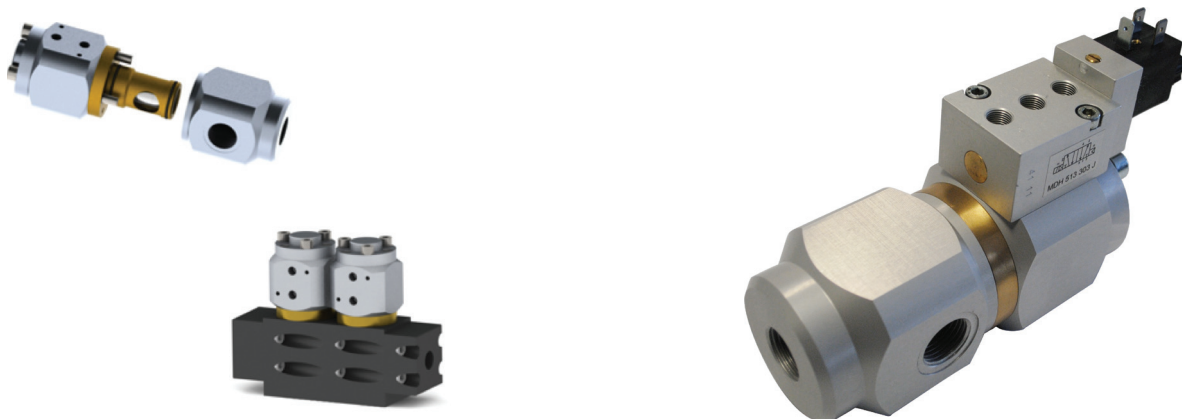
Modular valves are available to create a custom solution for your specific needs. Compatible with all series of CX valves and other HYDAC product lines, the modular CX series will save you space and investment costs.



Cartridge CX Valves

E6.190

And CX valves can be built into your own manifolds with the family of cartridge style coaxial valves.



In-Line Flow Control Valves

The HYDAC family of flow control valves permit safe, simple and repeatable control of hydraulic fluids at operating pressures to 5000 psi. The standard slotted control spindle allows for a wide range of infinitely variable flow adjustments with excellent flow characteristics. Precise adjustment of flow is achieved by a micrometer style adjustment knob featuring a color coded flow indicator for accurate, easy-to-read visual flow reference. Design modifications and special materials are available for corrosive fluids such as phosphate ester, acids and caustics.

Flow Control Valves		DV, DRV Sz. 06-16	Needle Valves	1/8" to 1 1/2"	Up to 5000 psi
		DV, DRV Sz. 20-40			
		DVP, DRVP	Needle Valves	1/8" to 1 1/2"	Up to 5000 psi
		SRVR, SRVRP	Pressure Compensated Flow Control Valves	1/4" to 3/4"	Up to 3000 psi
		RV, RVP	Check Valves	1/8" to 2"	Up to 5000 psi
		RB, RBE	Hose Break Valves	—	Up to 5000 psi
		AEV	Automatic Air Vent Valves	1/4"	Up to 8700 psi

B Mounting Technology

Mounting technology is the art of guiding hoses and piping and securing a wide variety of components to a frame in the design of mobile and industrial equipment. HYDAC understands the unique needs of the different types of conduits, reservoirs, machine architecture and environments needed to act as an expert consultant.

HYDAC's wide range of mounting products that go from standard to completely customized combined with our know-how can give you the tools to complete your build in an economical, reliable, and efficient manner. Explore the HYDAC offerings below!

Ask your HYDAC representative about our Mounting Technology Best Practices guide or contact us here for more information:

Accessories.ATS@HYDAC-NA.COM



To reach model numbers, detailed part breakdowns, technical specifications and options scan the QR code with your smartphone in order to utilize the links embedded in this document.

OVERVIEW OF MOUNTING TECHNOLOGY

Band Straps



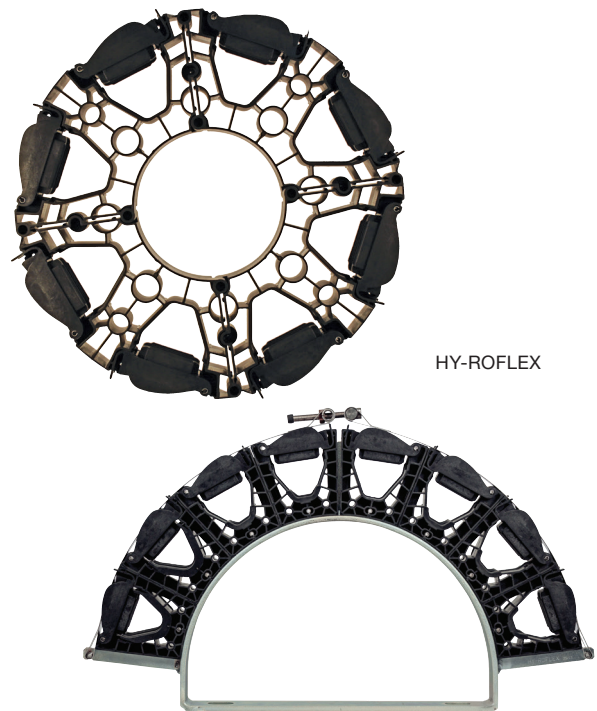
DIN 3015 & Series Strips



Standard Clamps



Custom Clamps



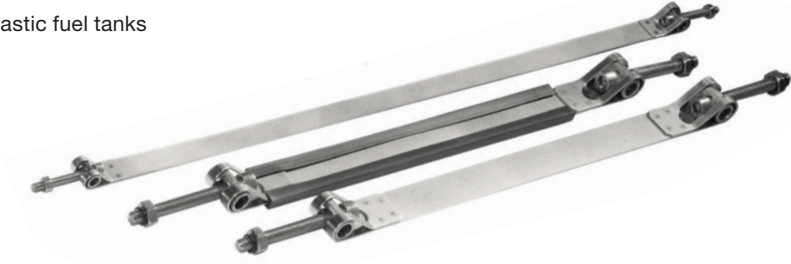
Band Straps

Flat Straps - Mounting Reservoirs to Your Frame

Mounting for non-cylindrical objects such as plastic fuel tanks

Options for:

- Material
- Fasteners
- Length, Width, Thickness
- Rubber Inserts

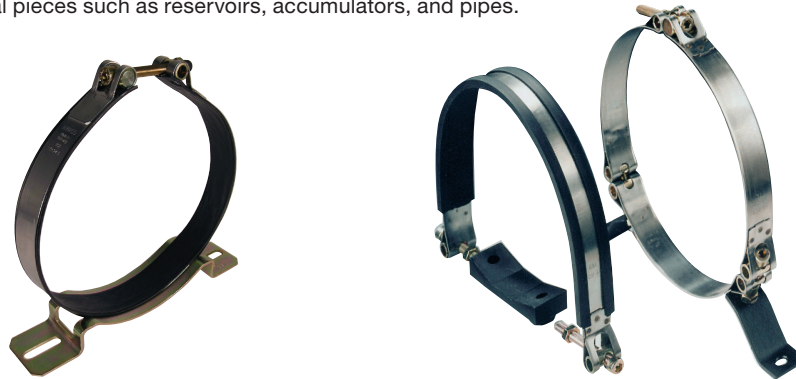


Swivel Bolt Clamps - Mounting Cylindrical Components to Your Frame

Formed Band Straps to hold cylindrical pieces such as reservoirs, accumulators, and pipes.

Options for:

- Material
- Bases
- Length, Width, Thickness
- Rubber Inserts



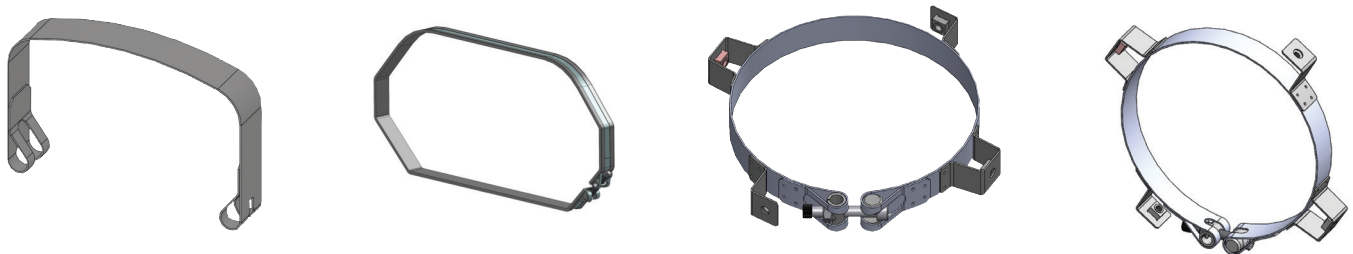
Swivel Bolt Clamps - Mounting Pipes to Cylindrical Components

Formed band straps with a variety of bases with other clamps attached in order to mount additional pipes/cables.



Special Straps - Prebent Straps Tailored to Your Needs

Special pre-bent band straps with options to weld custom attachment points formable to almost any geometry

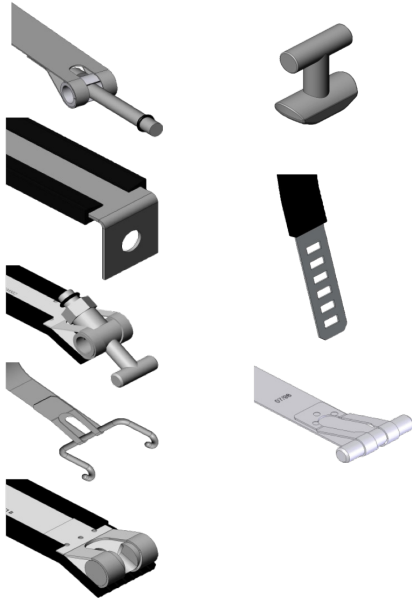


MOUNTING TECHNOLOGY

Band Straps

In addition to the material type and dimensional qualities of our clamps, many options exist for other aspects, such as:

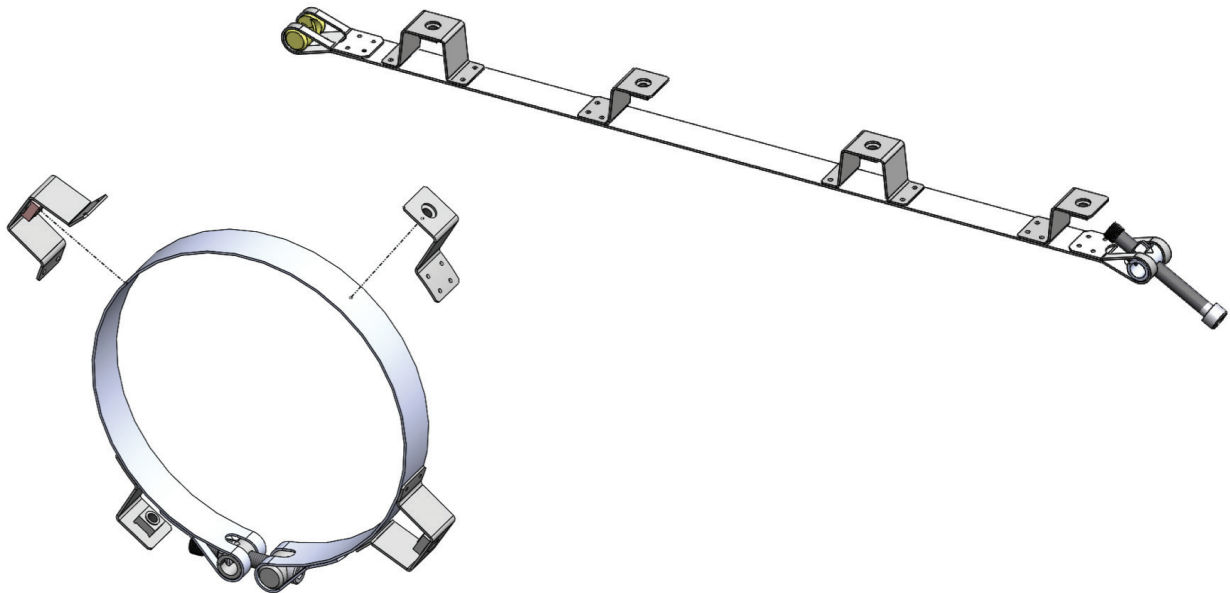
Fastening Method



Bases



Attachments and Fixtures for guiding and mounting other components



Band Straps are highly customizable. For non-standard applications consult the experts at HYDAC to see if band straps could be viable for you!

Clamps Overview

HYDAC manufactures a complete line of hose, tube, and pipe mounting components according to the DIN 3015 standard. Our clamps assure a simple, reliable dampening support for lines which absorb shock, dampen vibration, and reduce noise in plumbing systems.

HRL Series – Standard Duty

- Available to 2" tube outside diameter.
- Recommended for systems with less than 1500 PSI operating pressure and no dynamic loads.



HRS – Heavy Duty

- Available to 16" nominal pipe size
- Recommended for systems with greater than 1500 PSI operating pressure, operations with pressure surges and applications with wide temperature fluctuations.



HRZ – Twin

- Available to 1-1/4" nominal pipe size
- Recommended for systems with less than 1500 PSI operating pressure and no dynamic loads



HREL – Standard Duty w/ Rubber Insert

- Available to 2" tube outside diameter
- Recommended for systems with less than 1500 PSI operating pressure and no dynamic loads
- Provide for greater noise reduction and resistance to axial movement



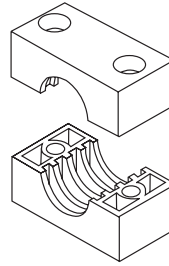
HRES – Heavy Duty w/ Rubber Insert

- Heavy duty available to 5 1/4" bore diameter
- Provide for greater noise reduction and resistance to axial movement

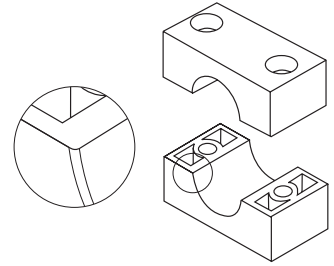


Bore Styles

Standard duty, heavy duty, and twin series are available with either ribbed bores (standard) or smooth bore (special order). When ordering a smooth bore arrangements or clamp pairs, a "G" is inserted in the code directly after the "HR" i.e. HRGL, HRGS and HRGZ



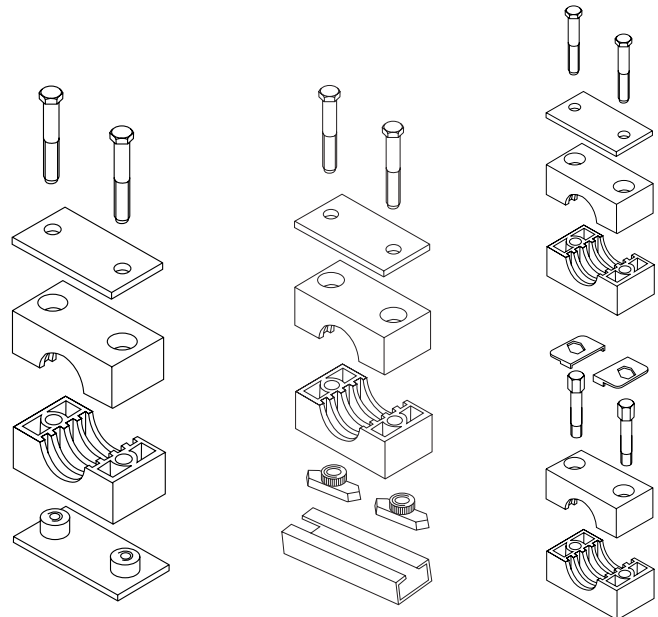
Ribbed Bore
(standard)



Smooth Bore
smooth surface and chamfered edge
prevent chaffing of hose (special)

Arrangements

Various arrangements are available in each series.



Weld Plate Mounting

C-rail Mounting

Stacking Modules & Kits

Materials

Metal components are carbon steel (standard). Stainless steel is also available. Metal components to be welded (weld plates and c-rails) and heavy duty top plates size 5-8 are phosphate coated, while all other metal components are zinc plated. Clamp pairs are polypropylene (standard). Polyamide and aluminum clamp pairs are also available.

Ordering

Clamps can be ordered as complete arrangements, or separate components. See each series for details.

MOUNTING TECHNOLOGY

HRRL & HRRLE Series

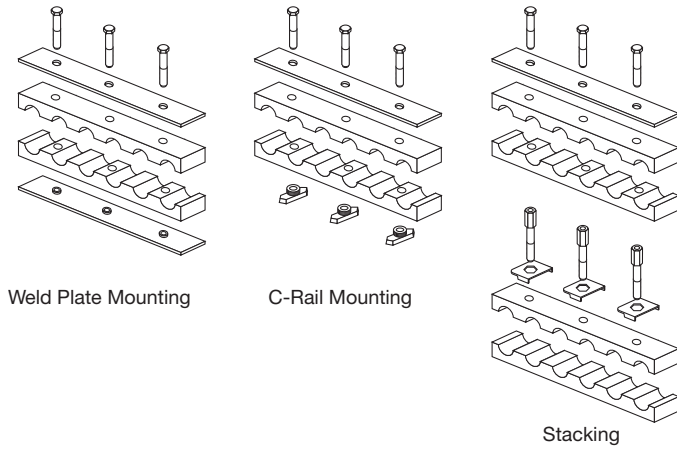
Series Strip Clamps

Description

For OEM's requiring solutions for multiple line runs HYDAC offers customized series strips. These clamps reduce inventory and installation time, while providing a more compact solution than multiple DIN 3015 clamps. The design and dimensions are based on the DIN 3015 specifications set forth for single and twin clamps. The Series Strip Program, echoes that of the DIN 3015 Clamps in that it offers similar arrangements, sizes, options, and model coding.

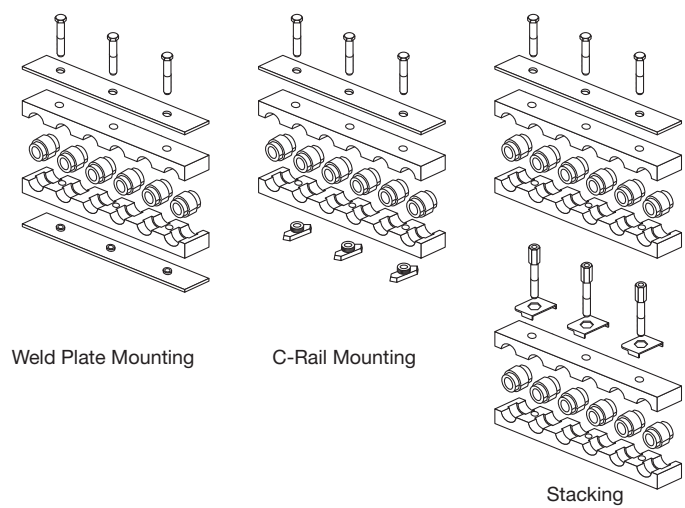
Arrangements

HRRL Series: Standard Duty



Arrangements

HRRLE Series: Heavy Duty with Rubber Inserts

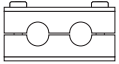


Number of Lines & Bolts

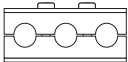
HRRL Series: Standard Duty

(diameter range: 6 to 25.4 mm)

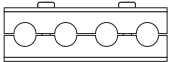
2 Lines / 2 Bolts (HRRL...2 X.../2...)



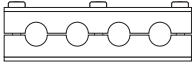
3 Lines / 2 Bolts (HRRL...3 X.../2...)



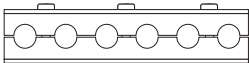
4 Lines / 2 Bolts (HRRL...4 X.../2...)



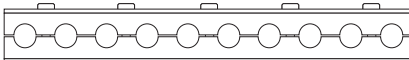
4 Lines / 3 Bolts (HRRL...4 X.../3...)



6 Lines / 3 Bolts (HRRL...6 X.../3...)



10 Lines / 5 Bolts (HRRL...10 X.../5...)



Number of Lines & Bolts

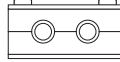
HRRLE Series: Heavy Duty with Rubber Inserts

(diameter range: 6 to 56.4 mm)

2 Lines / 1 Bolt (HRRLE...2 X.../1...)



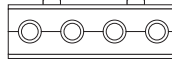
2 Lines / 2 Bolts (HRRLE...2 X.../2...)



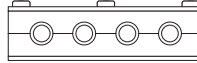
3 Lines / 2 Bolts (HRRLE...3 X.../2...)



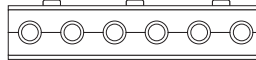
4 Lines / 2 Bolts (HRRLE...4 X.../2...)



4 Lines / 3 Bolts (HRRLE...4 X.../3...)



6 Lines / 3 Bolts (HRRLE...6 X.../3...)



Ordering

Series Strip Clamps are a custom product which must be quoted on an individual project basis. As with DIN 3015 Clamps, the Series Strip Clamps can be ordered as complete arrangements or as individual components. Series Strip Clamps are available with differing bore sizes. Contact **HYDAC** at **1.877.GO.HYDAC** (1.877.464.9322) with your specifications to request a quotation.

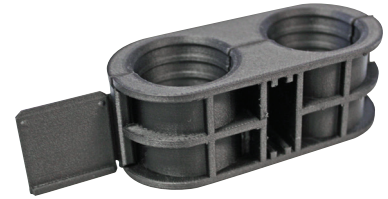
Standard Clamps

In addition to the DIN 3015 Clamps HYDAC offers other standard products that assure a simple, reliable dampening support for lines which absorb shock, dampen vibration, and reduce noise in plumbing systems. Please contact HYDAC to discuss what product is right for you and your application.

HRBGS Series Buegu Clamps



Flying Clip Clamp



Clamps Plus

HUB Series U-Bolt with Cushion Clamps



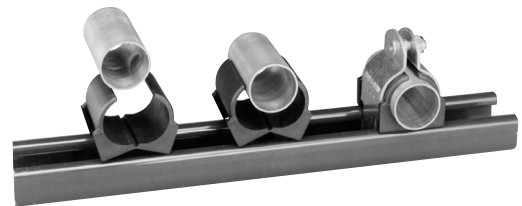
HRRBS Series U-Bolt Clamps



HOM Series Flat Cushion Clamps



CUSH Series Cushion Clamps



HSVW & HLVZ Series "P" Style Loop Clamps (Vinyl Dipped Galvanized Steel)



HROS Series Oval Clamps



HSPN & HSPW Series "P" Style Clamps



Details and ordering information for all standard clamps listed above can be found in the full Accessories Catalog.

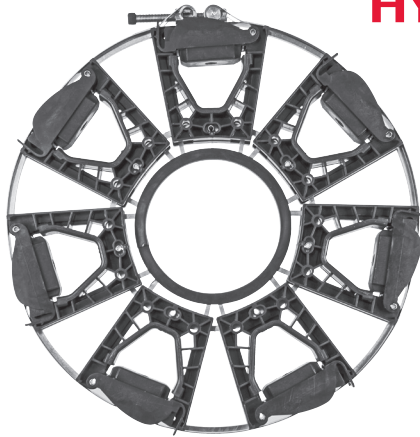
Custom Clamps

HY-ROFLEX Series

Power Cable Clamps



HY-ROFLEX



Technical Specification

Diameter

Variable to suit all commonly-used cable diameters up to $\varnothing 73$ mm (individual cables)

Materials

PPVO

HY-ROFLEX Clamping band in stainless steel

HY-ROS Support set in zinc-plated steel

Temperature range

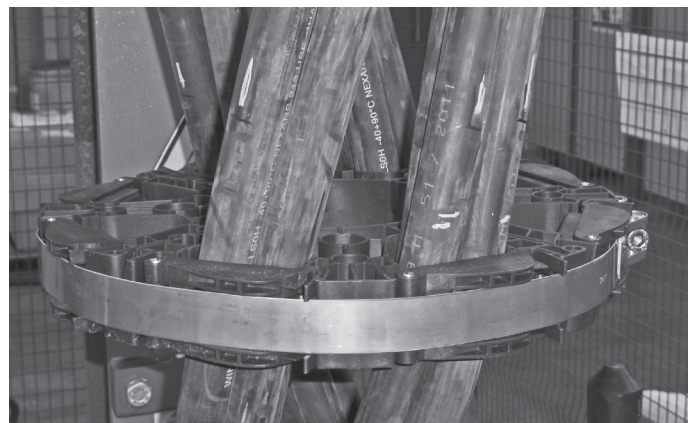
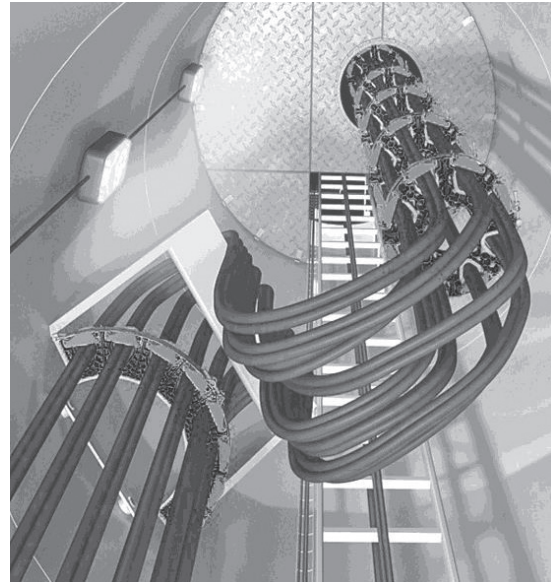
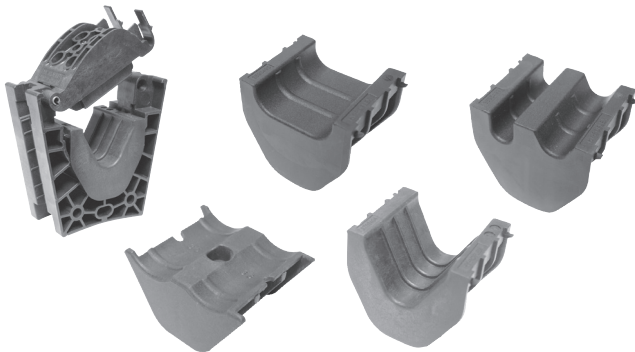
-40°F (functional) up to +194°F


Subject to technical modifications

Features

- Quick and easy installation of power cables “one click”
- Non-damaging and secure clamping of the power cable
- HR-ROS clamping bands provide a secure hole in the event of a short circuit.
- Ensures easy maintenance due to clear distribution of cable bundles and excellent accessibility to individual cables.
- Quick replacement
- Up to 27 power cables (max. 9 segments with 3 cables in each) can be installed in modular or flexible combinations of clamps segments
- Compensation of manufacturing tolerances in the cables achieved by means of spring-action fastening.

Segments and Inserts



 This is a custom clamp. For new projects contact **HYDAC** for design and ordering information.

C Reservoir Accessories

Many components from HYDAC are used on reservoirs, but no reservoir is complete with HYDAC Reservoir Accessories! Breathers play an important role in keeping particulate and moisture out of your system. Fluid Level Indicators provide monitoring, while suction strainers provide that last insurance large objects don't get sucked into your pump.

For competitor crossovers and/or technical information contact the Accessories division at:

Accessories.ATS@HYDAC-NA.COM



For material compatibility, HYDAC maintains a reference list intended to be a general guideline only and can be found in the online catalog which can be accessed via the QR code below and at the bottom of each page.



To reach model numbers, detailed part breakdowns, technical specifications and options scan the QR code with your smartphone in order to utilize the links embedded in this document.

OVERVIEW OF RESERVOIR ACCESSORIES

Particulate Breathers



BF 10



ELF 30



BF 5



BF 8

Desiccant Breathers



BDE

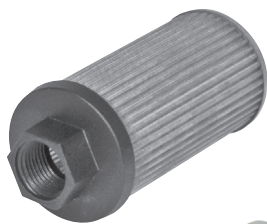


BDLP



BDM

Suction Strainers



SFE

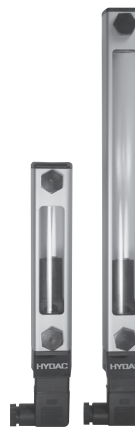


HTMS



MSS

Fluid Level Guages



FSA



FSK

Other



1620 Test Points
Micro Bore Flex hose

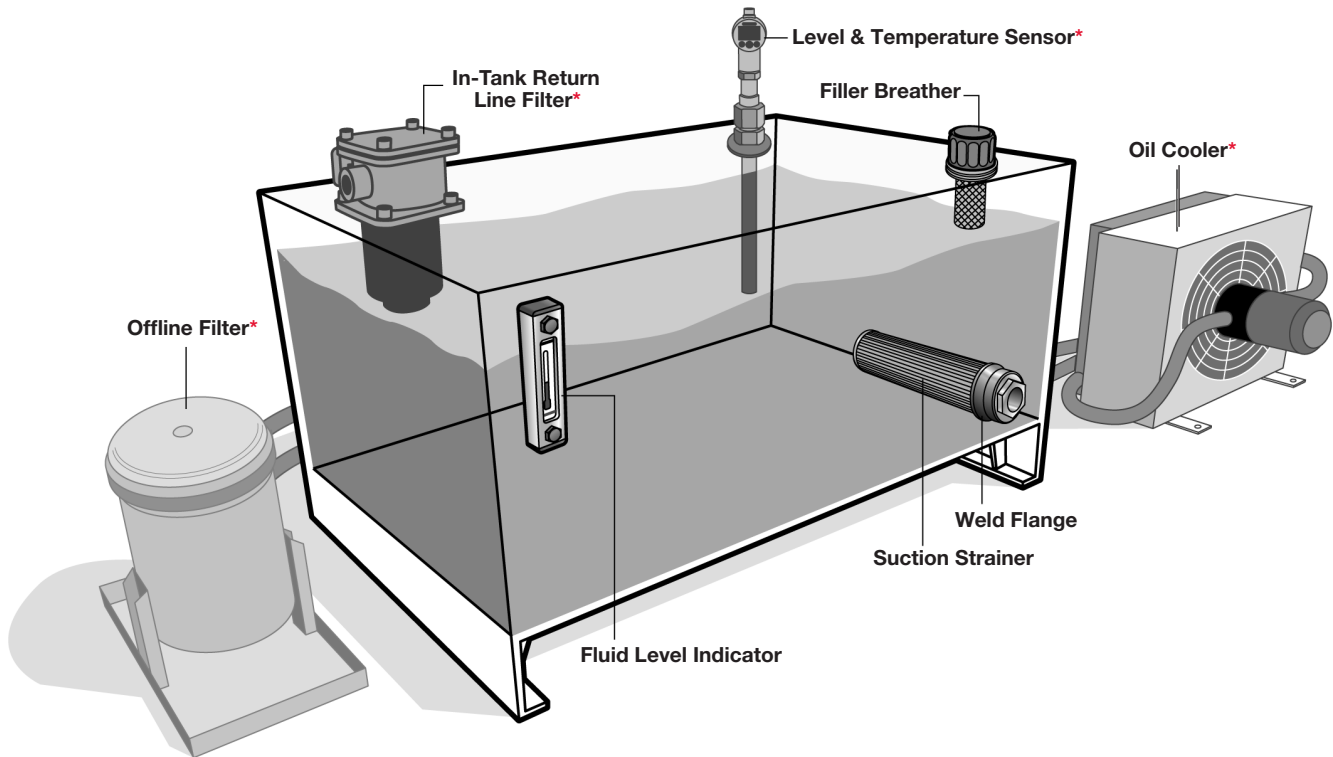
Overview of Reservoir Accessories

The reservoir of a hydraulic system can be a significant source of contamination while also serving as an ideal location for correcting adverse fluid conditions. The application of proper HYDAC reservoir accessories will allow for the monitoring and control of oil cleanliness, temperature, and level.

Breathers are commonly overlooked, or regarded as a commodity, and selected based solely upon price. This mistake can cause system inefficiency and component failure, resulting in lost production and costly repairs, especially when harsh environmental conditions exist. Using high quality HYDAC breathers and following the proper maintenance intervals will effectively combat the ingress of airborne contamination and moisture, thus, increasing the efficiency and reliability of the system.

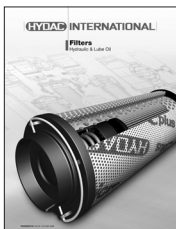
The addition of new oil to a reservoir is yet another opportunity for contaminant to enter the system. Sometimes large contaminants, which will undoubtedly cause catastrophic damage to the pump. HYDAC filler breathers will ensure that large contaminants do not enter the tank during filling, and suction strainers will keep any large contaminant that do exist in the reservoir from entering the supply line.

Fluid level must also be monitored to avoid starving the pump. HYDAC offers fluid level indicators (sometimes called sight gauges) which allow for the oil level to be viewed outside of the tank. These indicators are also available with electric switches which can be used to trigger alarms. Thermometers and thermal probes are additional options in HYDAC's line of fluid level indicators.



*Products not included in this catalog for reservoirs can be found through other HYDAC divisions

For additional information on these products please refer to:



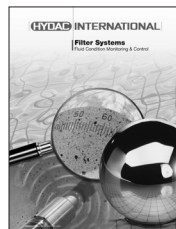
Filters Hydraulic & Lube Oil

- In-Tank
- Inside Tank
- Inline
- Duplex
- Return Line



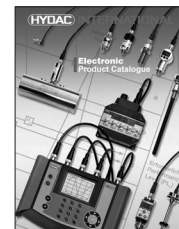
Cooling Systems

- Air Cooled Oil Coolers
- Water Cooled Oil Coolers
- Mobile Coolers
- Industrial Coolers



Filter Systems

- Portable Filters
- Offline Filtration
- Contamination Monitors and Diagnostics
- Water Content Control
- Fluid Analysis



Electronics

- Pressure and Temperature Transducers and Switches
- Flow Rate Meters
- Digital Displays
- Portable Data Recorders

Particulate Breathers (Mobile)

BF 10 Series



Specifications

- Maximum Flow Rate 13 scfm / 100 gpm at 0.04 bar
- Durable synthetic material (PA6)
- Filtration Rating 3 µm
- Buna N O-Ring
- Optional dipstick (contact factory)
- Optional customer logo (contact factory)
- Optional pressurized breather with relief valve
- Optional anti-splash device
- -22° to 212°F (-30° to 100°C)
- Phenolic resin impregnated filter element

BF 30 Series



Specifications

- Maximum flow rate - 31 scfm / 230 gpm at 0.04 bar
- Durable synthetic material (PA6)
- 3 micron
- Buna N O-Ring
- Threaded breather connection
- Optional dipstick (contact factory)
- Optional customer logo (contact factory)
- Optional pressurized breather with relief valve
- Optional anti-splash device
- -22° to 212°F (-30° to 100°C)
- Phenolic resin impregnated filter element

ELF...10 Series

Filler Breathers



Specifications

- Maximum Flow Rate - 13 scfm / 100 gpm at 0.04 bar
- Durable synthetic material (PA6)
- Filtration rating 3 µm
- Buna N O-Ring
- Threaded connection to access fill port
- Optional dipstick (contact factory)
- Optional customer logo (contact factory)
- Optional pressurized breather with relief valve
- Optional anti-splash device
- -22° to 212°F (-30° to 100°C)
- Phenolic resin impregnated filter element

ELF 30 Series

Filler Breathers



Specifications

- Maximum flow rate - 31 scfm / 230 gpm at 0.04 bar
- Durable synthetic material (PA6)
- 3 micron
- Buna N O-Ring
- Threaded connection to access fill port
- Installs via 6-bolt circle (bolts included)
- Optional dipstick (contact factory)
- Optional customer logo (contact factory)
- Optional pressurized breather with relief valve
- Optional anti-splash device
- -22° to 212°F (-30° to 100°C)
- Phenolic resin impregnated filter element

The full technical overview for breathers can be found in our catalog pages.

Breather size is selected by calculating the rate of change of fluid level in the tank. To select your BF or ELF breather, take this flow rate to our catalog pages for the type of breather you need.

Particulate Breathers (Industrial)

BL Series



Specifications

- Maximum flow rate: 110 scfm/850 gpm
- 3 or 10 micron
- Stell Canister
- 10 micron Betamicon®
- Replaceable element

BF 5 Series



Specifications

- Maximum flow rate - 105 scfm / 790 gpm at 0.01 bar
- Steel housing
- 3 micron
- Replaceable element
- Phenolic resin impregnated filter element

BF 7 Series



Specifications

- Maximum flow rate - 63 scfm / 475 gpm at 0.04 bar
- Durable synthetic material (PA6)
- 3 micron
- Replaceable element Phenolic resin impregnated paper
- Threaded breather cap connection
- Differential gauge (optional)
- -22° to 212°F (-30° to 100°C)

BF 8 Series



Specifications

- Maximum flow rate - 352 scfm / 2640 gpm at 0.01 bar
- Steel housing
- 1 micron Air Filter
- Replaceable element
- 4 bolt DN 93 flange

BF 9 Series



Specifications

- Maximum flow rate - 528 scfm / 3960 gpm at 0.01 bar
- Aluminum housing
- Replaceable element
- 2 µm Air Filter
- 8 bolt DN 125 flange

BF 52 Series



Specifications

- Maximum flow rate - 176 scfm / 1320 gpm at 0.01 bar
- Steel housing
- 3 micron
- Replaceable element (uses 2 of the standard size 5 elements)
- Phenolic resin impregnated paper
- G 2 1/2" female threaded connection

BF 72 Series



Specifications

- Maximum flow rate - 74 scfm / 555 gpm at 0.04 bar
- Durable synthetic material (PA6)
- 3 micron
- Replaceable element
- Phenolic resin impregnated paper
- Removable lid to access fill port
- Threaded breather cap connection
- Differential gauge (optional)
- -22° to 212°F (-30° to 100°C)

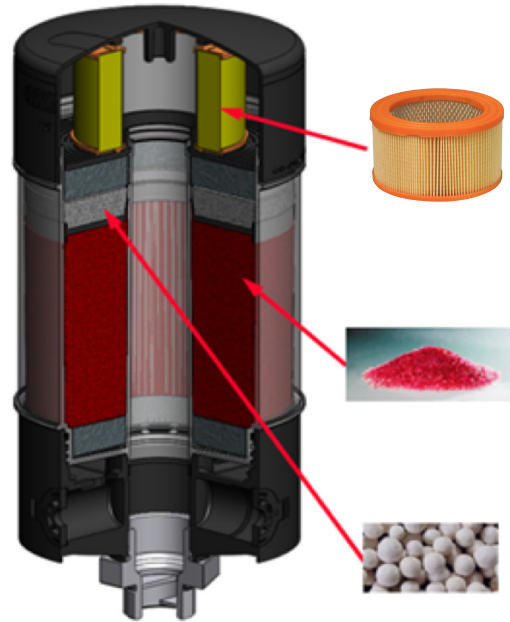
Breather size is selected by calculating the rate of change of fluid level in the tank. To select your BL or BF breather, take this flow rate to our catalog pages for the type of breather you need.

RESERVOIR ACCESSORIES

Desiccant Breathers

BDE Series

Drymicron



Description

Desiccant Breather for removing moisture from air entering gearboxes, reservoirs, fuel tanks, etc.

Features

- 2-Stage Adsorbent Filling
- Distribution of Flow by special design of the inner components
- Star-pleated air filter element (2 µm) reduces/prevents dirt and dust ingress into tank
- Integrated anti-splash tool to protect the adsorbent from oil contamination
- Replacement cartridges
- Color Indication: When maximum adsorption is reached, the silica gel turns from purple to orange
- Optional visual indicator

Replacement Cartridges

Part Number	Model Code
1300418	BDE 1000 X 2 UBM 0.0/CARTRIDGE
1299655	BDE 1000 X 2 W 0.0/CARTRIDGE
1309981	BDE 200 X 2 UBM 0.0/CARTRIDGE
1299653	BDE 200 X 2 W 0.0/CARTRIDGE
1308314	BDE 400 X 2 UBM 0.0/CARTRIDGE
1299654	BDE 400 X 2 W 0.0/CARTRIDGE

For technical data and ordering information on desiccant breathers, please visit our catalog pages.

BD Series*



Specifications

- Durable ABS plastic and impact-modified Plexiglas
- 2 micron, 100% efficiency
- Airflow up to 100 scfm (750 gpm)

BDM Series*

085 N 2 W 2.0



Specifications

- 2 micron Filter
- 3/4" NPT male fitting
- All models are rated for 5 SCFM at 1 psig
- Optional Check valves

BDLP Series*

N 2 W 1.0



Specifications

- 2 Micron Filter
- 0.280 lb Water adsorption capacity
- Standard NPT & BSPP 1" male fittings available

*These breathers are fully disposable. Once color changes from red to yellow cartridge must be replaced for optimum performance.

RESERVOIR ACCESSORIES

Suction Strainers

SFE Series

In-Tank Suction Strainer Element



MSS Series

Magnetic Suction Separators



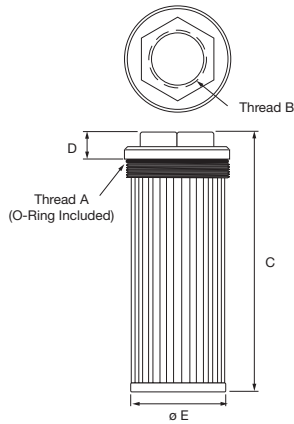
Standard
Outer Screen



SS20
Mesh Screen

HTMS Series

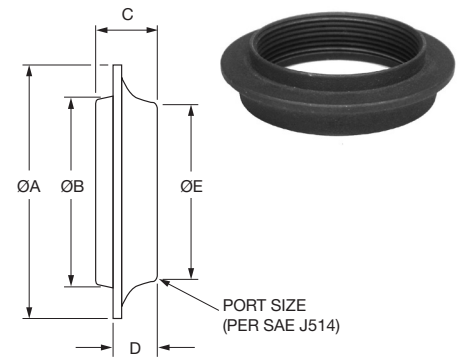
Tank Mounted Suction Strainer Elements
SAE O-Ring



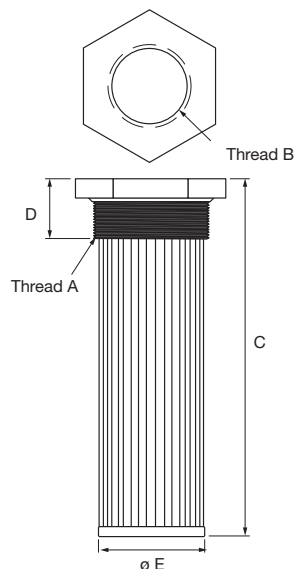
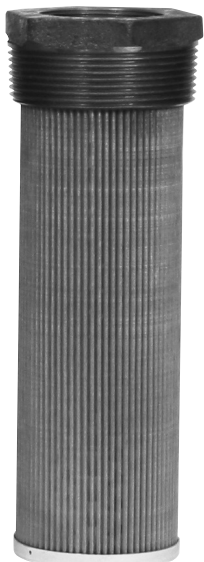
Hose Barb



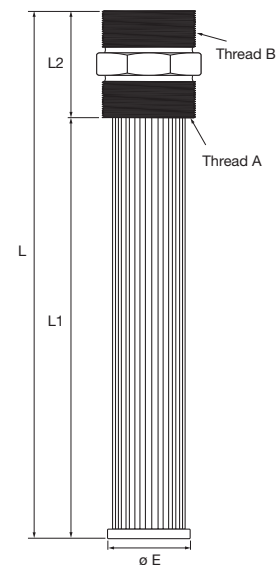
Weld Flange (SAE)



NPT



Male NPT Ports



For technical data, ordering info, and options, please visit our catalog pages.

FSK Series

Fluid Level Indicator with Electric Level Switch



FSA Series

Fluid Level Indicator



Technical Data

Material	
Housing	Anodized Aluminum or ABS Plastic
Sight Tube	Polyamide or Glass
Seals	Fluorocarbon, NBR
Nuts / Bolts	Steel, Zinc plated
Fluid Temperature	
-4° to 176°F (-20° to 80°C)	
Maximum Pressure	
14.5 PSI (1 BAR)	
Thermometer Range	
Type T (FSA only)	14° to 176°F (-10° to 80°C)
Type FT100	32° to 212°F (0° to 100°C)
Type FT200	32° to 212°F (0° to 100°C)
Type FT300	32° to 212°F (0° to 100°C)
Bolting Torque	
Max. 8 LB-FT+1 (10 Nm +2) see installation instructions below	

For more in-depth technical data, ordering info, and options, please visit our catalog pages.

Fluid Level Indicators are compatible with water and mineral oils. Exposure to cleaners and rust inhibitors can cause cracking of the tube and leaks. Contact HYDAC if your application could be exposed to cleaners or rust inhibitors.

RESERVOIR ACCESSORIES

Test Points

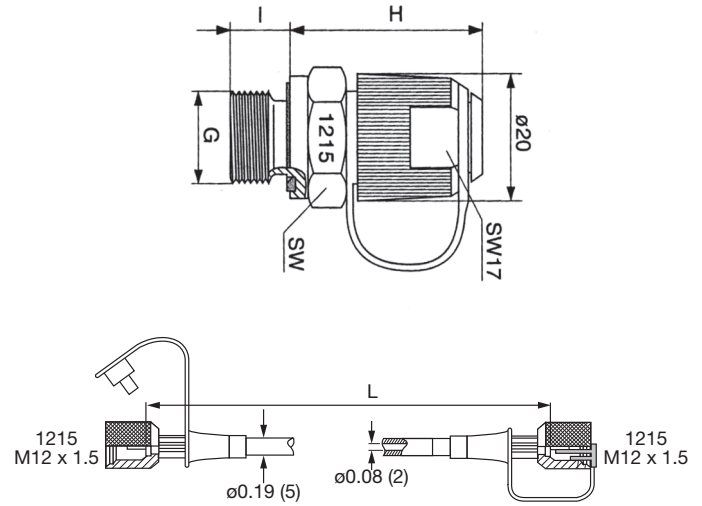
1620 Series

Test Points & Micro Bore Flex Hoses



1215 Series

Test Points (M12 x 1.5 Threads)



Information regarding test points, hoses, and test kits can be found in our catalog pages.

Gauge Isolators

MA Series

Single Gauge Isolator



MSL Series

Zero Leakage Multi-Station Gauge Isolators with Integral Gauge



MS Series

Multi-Station Gauge Isolators



Gauges

2 1/2" face - 1/4" NPT Connection



Split Flanges

SAE Code 61 & 62



front view



back view

Information regarding test gauges and split flanges can be found in our catalog pages.

HYDAC ACCESSORIES

We've made **Advanced Technical Support (ATS)** better by adding a "hunt" telephone number:

484-240-2871

HOW ATS BENEFITS YOU:

ATS is one central phone, Skype and email contact to remember or save

ATS answers every call by utilizing the hunt group telephone number



ATS addresses your day-to-day concerns while finding the most appropriate contact

ATS eliminates missed calls due to any one team member being out of the office

OUR COMMITMENT:

Answer all phone calls and return or acknowledge emails in two hours or less!

Call Hours:
8am to 5pm (EST)

Internal Skype: Accessories ATS
Email: Accessories.ATS@hydacusa.com

Global Replacement

The offerings of HYDAC Technology Corp, the USA branch of HYDAC Accessories GmbH, does not have an identical line of offerings and as such maintains a separate catalog housed at www.hydac-na.com. However, as a global company, we also provide our commitment to our US based customers to replace any items offered by our European counterparts that is installed on a machine or piece of equipment. If you need to replace one of these items, contact our Advanced Technical Support Team today!

MISCELLANEOUS

HYDAC Accessories has some key focus markets. While not limited to these, we do have unique value propositions for each of the key markets below.

Contact your HYDAC Accessories Product Manager today to learn more about the value HYDAC can bring you!

Oil and Gas

- Stainless Steel High Pressure Ball Valves
- KHB3H – Welded Repairable High Pressure Ball Valves
- Stainless Steel DIN 3015 Clamps
- API Rated Fluid Level Indicators

Wind Industry

- HRFLEX Clamps
- Desiccant Breathers for Gear Box's

Machine Tool

- CX Valves

General Industrial

- CX Valves

Rail

- HRGKSM for mounting Air Reservoirs
- DIN 3015 Clamps to NFPA 130
- High Pressure Ball Valves

Truck – On Highway

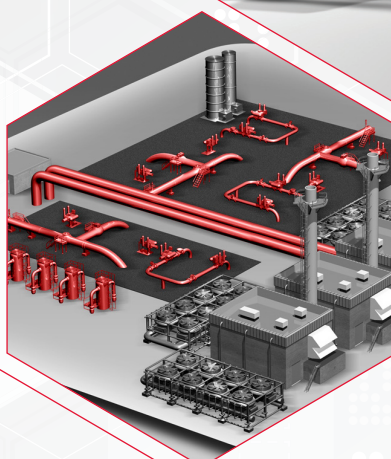
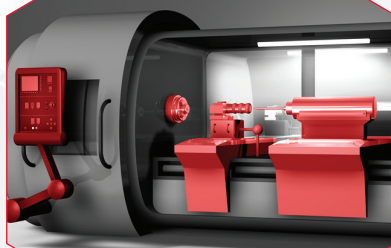
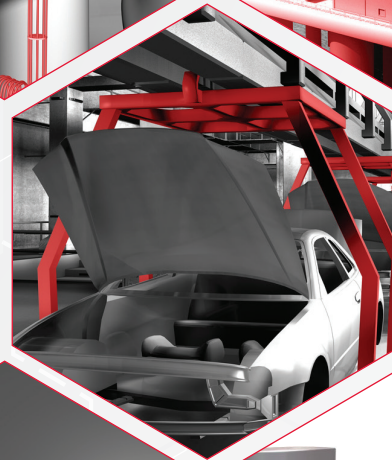
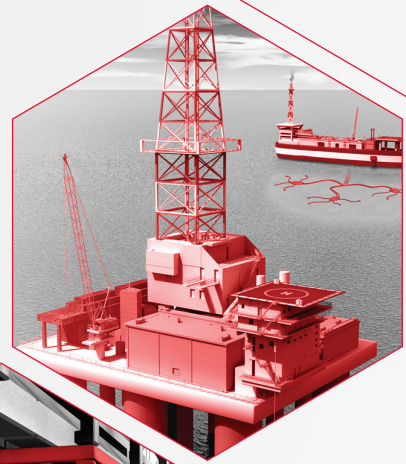
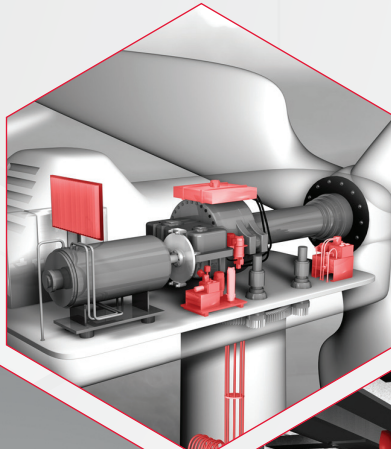
- Band Straps for mounting Air Reservoirs

Mobile – Off Highway

- Roll Over Breathers
- Suction Strainers
- Band Straps for Mounting Reservoirs

Future Mobility

- Band Straps for mounting batteries
- Breathers for Electrical Enclosures



Ordering HYDAC Literature...

HYDAC literature is available for ordering. Email us at HYD.catalog@hydac-na.com using the appropriate Part Number (PN) and name. Other brochures, manuals and technical documents are also available when ordering from our website.



Overview Brochure
PN02088157



Filters Catalog
PN02081318



Accumulators Catalog
PN02068195



Compact Hydraulics Catalog* (online only)



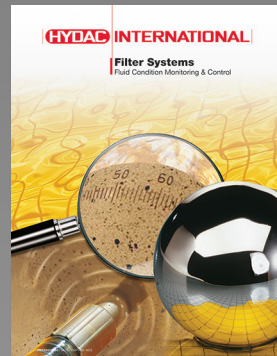
Elec. Sensors & Controls Brochure
PN2205620



Standard Coolers Catalog -
PN02085359



Filter Systems Catalog
PN02075860



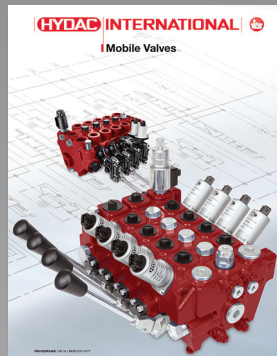
Control Technology* Catalog (online only)



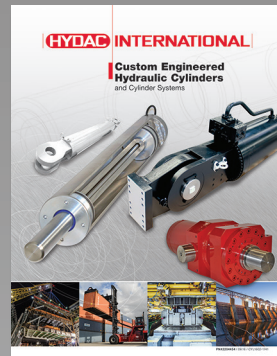
Accessories Catalog
PN02080105



Mobile Valves Brochure
PN02092408



Hydraulic Cylinders Brochure
PN2204454



Process Technology* Catalog (online only)



*These catalogs are digital file versions only.

Various market and product brochures are also available for ordering.



HYDAC TECHNOLOGY CORPORATION
HYDAC CORPORATION

2260 City Line Road
Bethlehem, PA 18017

+1.610.266.0100

HYD.catalog@hydac-na.com
www.hydac-na.com



PN#2208116/ 05.22 / ACC2003-2164



INTERNATIONAL

Global Headquarters
HYDAC INTERNATIONAL
GMBH

Industriegebiet
D – 66280 Sulzbach/Saar
Germany

Tel.: +49 6897 509-01

Fax: +49 6897 509-577

Internet: www.hydac.com
Email: info@hydac.com

North America Locations

USA

www.HYDAC-NA.com

NORTH AMERICA HEADQUARTERS

HYDAC TECHNOLOGY CORPORATION
Filter Division

2260 City Line Road
Bethlehem, PA 18017
+1.610.266.0100

HYDAC TECHNOLOGY CORPORATION
Electronic Division
Process Filter Division

HYDAC CORPORATION
Accumulator Division
90 Southland Drive
Bethlehem, PA 18017
+1.610.266.0100

HYDAC TECHNOLOGY CORPORATION
Accessory Division
2204 Avenue C
Bethlehem, PA 18017
+1.610.266.0100

HYDAC TECHNOLOGY CORPORATION
Filter System Division
Process Filter Division
Fuel Filtration Division

580 West Park Road
Leetsdale, PA 15056
+1.724.318.1100

HYDAC TECHNOLOGY CORPORATION
Hydraulic Division

450 / 445 Windy Point Drive
Glendale Heights, IL 60139
+1.630.545.0800

HYDAC TECHNOLOGY CORPORATION
TechCenter
430 Windy Point Drive
Glendale Heights, IL 60139
+1.630.545.0800

HYDAC TECHNOLOGY CORPORATION
Cooling System Division

1051 Airlie Parkway
Denver, NC 28037
+1.610.266.0100

HYDAC TECHNOLOGY CORPORATION
Mobile Hydraulic Division

1660 Enterprise Parkway • Suite E
Wooster, OH 44691
+1.610.266.0100

HYDAC CYLINDERS LLC
540 Carson Road North
Birmingham, AL 35217
+1.205.520.1220

HYDAC TECHNOLOGY CORPORATION
HYDAC CORPORATION
Sales Office & Operations

510 Stonegate Drive
Katy, TX 77494
+1.281.579.8100

HYDAC TECHNOLOGY CORPORATION
HYDAC CORPORATION
NW Sales Office & Operations

1201 NE 144th St. Bldg. B • Suite 111
Vancouver, WA 98685
+1.610.266.0100

HYDAC TECHNOLOGY CORPORATION
HYDAC CORPORATION
NE Sales Office
1660 Enterprise Parkway • Suite E
Wooster, OH 44691
+1.610.266.0100

Canada

www.HYDAC-NA.com

HYDAC CORPORATION

14 Federal Road
Welland, Ontario, Canada L3B 3P2
+1.905.714.9322

HYDAC CORPORATION
Sales Office

5160 75 Street NW
Edmonton, Alberta, Canada T6E 6W2
+1.780.484.4228

HYDAC CORPORATION
Sales Office

Montreal, Québec, Canada J2M 1K9
+1.877.539.3388

Mexico

www.HYDACmex.com

HYDAC INTERNATIONAL SA de CV

Calle Alfredo A Nobel No 35
Col Puente de Vigas
Tlalhepantla, Edo Mexico
CP 54090
Mexico
+011.52.55.4777.1262