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**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!

Core Product Groups

Valves

Mounting Technology

Reservoir Accessories

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.

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.
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.
OVERVIEW OF VALVES

High Press Ball Valves

- KHB
- KHP
- KHM
- KHB3H
- KHB3K
- KH3

Low Press Ball Valves

- KHR
- KHNVL
- KHNVN

Coaxial Valves

- CX 2/2
- CX 3/2

In-Line Flow Control Valves

- DV
- DRV
- RV
- SRVR
- RBE
- AEV

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.
High Pressure Ball Valves

KHM Series
Forged Housing

KHB Series
Block 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.

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)

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.

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

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.
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.

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.
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.

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.
Coaxial Valves

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

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

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.
Coaxial Valves

CX Series
DN10 with NPT Ports

2/2 Way

<table>
<thead>
<tr>
<th>Function</th>
<th>Control System</th>
<th>Voltage</th>
<th>Length</th>
<th>Kv Value [m^3/h]</th>
<th>Model Code</th>
<th>HYDAC Part Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>NC</td>
<td>Direct</td>
<td>24VDC</td>
<td>159.5mm</td>
<td>2.1</td>
<td>CX03-2/2-D/C-2/10/040/038-NPT/24VDC</td>
<td>4412872</td>
</tr>
<tr>
<td>NO</td>
<td>Direct</td>
<td>24VDC</td>
<td>159.5mm</td>
<td>2.1</td>
<td>CX03-2/2-D/O-2/10/040/038-NPT/24VDC</td>
<td>4412873</td>
</tr>
<tr>
<td>NC</td>
<td>Externally Controlled</td>
<td>NAMUR interface</td>
<td>159.5mm</td>
<td>2.7</td>
<td>CX06-2/2-F/C-2/10/064/038-NPT</td>
<td>4412907</td>
</tr>
<tr>
<td>NO</td>
<td>Externally Controlled</td>
<td>NAMUR interface</td>
<td>159.5mm</td>
<td>2.7</td>
<td>CX06-2/2-F/O-2/10/064/038-NPT</td>
<td>4412908</td>
</tr>
</tbody>
</table>

3/2 Way

<table>
<thead>
<tr>
<th>Function</th>
<th>Control System</th>
<th>Voltage</th>
<th>Length</th>
<th>Kv Value [m^3/h]</th>
<th>Model Code</th>
<th>HYDAC Part Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>NC</td>
<td>Direct</td>
<td>24VDC</td>
<td>166.5mm</td>
<td>2.0</td>
<td>CX03-3/2-D/C-2/10/040/038-NPT/24VDC</td>
<td>4412874</td>
</tr>
<tr>
<td>NO</td>
<td>Direct</td>
<td>24VDC</td>
<td>166.5mm</td>
<td>2.0</td>
<td>CX03-3/2-D/O-2/10/040/038-NPT/24VDC</td>
<td>4412905</td>
</tr>
<tr>
<td>NC</td>
<td>Externally Controlled</td>
<td>NAMUR interface</td>
<td>166.5mm</td>
<td>2.2</td>
<td>CX06-3/2-F/C-2/10/064/038-NPT</td>
<td>4412909</td>
</tr>
<tr>
<td>NO</td>
<td>Externally Controlled</td>
<td>NAMUR interface</td>
<td>166.5mm</td>
<td>2.2</td>
<td>CX06-3/2-F/O-2/10/064/038-NPT</td>
<td>4412910</td>
</tr>
</tbody>
</table>

Other sizes will be made available upon request.

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.
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.

<table>
<thead>
<tr>
<th>Flow Control Valves</th>
<th>Model</th>
<th>Application</th>
<th>Size</th>
<th>Pressure</th>
</tr>
</thead>
<tbody>
<tr>
<td>DV, DRV</td>
<td>Needle Valves</td>
<td>Sz. 06-16</td>
<td>1/8” to 1 1/2”</td>
<td>Up to 5000 psi</td>
</tr>
<tr>
<td>DVP, DRVP</td>
<td>Needle Valves</td>
<td>Sz. 20-40</td>
<td>1/8” to 1 1/2”</td>
<td>Up to 5000 psi</td>
</tr>
<tr>
<td>SRVR, SRVRP</td>
<td>Pressure Compensated Flow Control Valves</td>
<td></td>
<td>1/4” to 3/4”</td>
<td>Up to 3000 psi</td>
</tr>
<tr>
<td>RV, RVP</td>
<td>Check Valves</td>
<td></td>
<td>1/8” to 2”</td>
<td>Up to 5000 psi</td>
</tr>
<tr>
<td>RB, RBE</td>
<td>Hose Break Valves</td>
<td></td>
<td>–</td>
<td>Up to 5000 psi</td>
</tr>
<tr>
<td>AEV</td>
<td>Automatic Air Vent Valves</td>
<td></td>
<td>1/4”</td>
<td>Up to 8700 psi</td>
</tr>
</tbody>
</table>

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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
OVERVIEW OF MOUNTING TECHNOLOGY

Band Straps

- Flat
- Round
- Round with Pipe Mount
- Prebent

DIN 3015 & Series Strips

- HRL
- HREL
- HRZ
- HRL

Standard Clamps

- HRBGS
- HUB
- HRRBS
- HSPN

Custom Clamps

- HY-ROFLEX

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.
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

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.
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!

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.
**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 damper 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

**Arrangements**

Various arrangements are available in each series.

**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

- Weld Plate Mounting
- C-Rail Mounting
- Stacking

**HRRL Series:** Heavy Duty with Rubber Inserts

- Weld Plate Mounting
- C-Rail Mounting
- Stacking

**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...)

**HRRL 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.

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.
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.

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.
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.

Technical Specification

Diameter
Variable to suit all commonly-used cable diameters up to ø73 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

Segments and Inserts

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

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.
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.
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 Gauge

- FSA
- FSK

Other

- 1620 Test Points
- Micro Bore Flex hose
- Gauge Isolator
- Split Flange
- Gauge

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

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 ingestion 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

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.
RESERVOIR ACCESSORIES

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

VF 10 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
- 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 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

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.

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.
Particulate Breathers (Industrial)

BL Series

Specifications
- Maximum flow rate: 110 scfm/850 gpm
- 3 or 10 micron
- Steel Canister
- 10 micron Betamicron®
- 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.

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.
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 absorbent from oil
contamination
- Replacement cartridges
- Color Indication: When maximum adsorption is reached, the silica
gel turns from purple to orange
- Optional visual indicator

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

<table>
<thead>
<tr>
<th>Replacement Cartridges</th>
</tr>
</thead>
<tbody>
<tr>
<td>Part Number</td>
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<tr>
<td>--------------</td>
</tr>
<tr>
<td>1300418</td>
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</tr>
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<td>1308314</td>
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<td>1299654</td>
</tr>
</tbody>
</table>

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.
BD Series*

085 N 2 W 2.0

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
- ¾" NPT male fitting
- All models are rated for 5 SCFM at 1 psig
- Optional Check valves

BDLP Serie*

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.

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.
## Suction Strainers

### SFE Series
In-Tank Suction Strainer Element

### MSS Series
Magnetic Suction Separators

### 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.

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.
**Technical Data**

<table>
<thead>
<tr>
<th>Material</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Housing</td>
<td>Anodized Aluminum or ABS Plastic</td>
</tr>
<tr>
<td>Sight Tube</td>
<td>Polyamide or Glass</td>
</tr>
<tr>
<td>Seals</td>
<td>Fluorocarbon, NBR</td>
</tr>
<tr>
<td>Nuts / Bolts</td>
<td>Steel, Zinc plated</td>
</tr>
</tbody>
</table>

**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

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

Gauges
2 1/2” face - 1/4” NPT Connection

Split Flanges
SAE Code 61 & 62

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.
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!
MARKET OVERVIEW

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 PN02066195
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.

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