

HDA Series

Diaphragm Accumulators



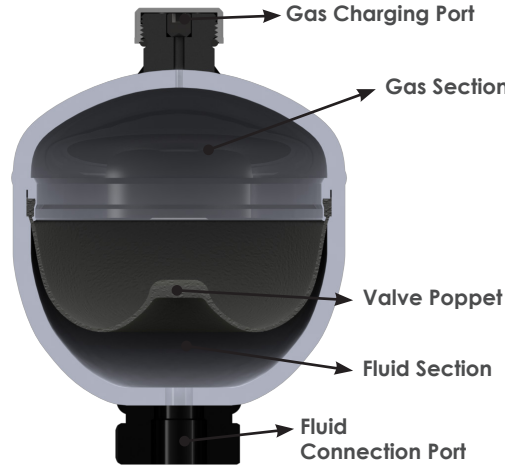
Features



- Capacities from 0.075 to 3.8 Liters
- Low cost, Non-repairable design
- Operating pressures to 250 bar
- Durable metric gas valve

Quick Overview

The HydroLync Diaphragm Accumulator (HDA) stores fluid pressure energy or absorbs pulsations in the system line to maintain hydraulic system stability. The diaphragm accumulator is composed



of an upper gas section with a diaphragm and a fluid section with a lower gas portion. The fluid section is connected to the hydraulic circuit to intake fluid as the pressure increases and the gas is compressed. When the pressure decreases, the compressed gas expands and discharges the stored fluid into the circuit.

At the bottom of the diaphragm, there is a button or valve poppet. When the accumulator is completely emptied, the valve poppet blocks the hydraulic discharge port to prevent damage to the diaphragm.

Material

The shell material is typically made of carbon steel, but stainless steel (SUS 316L) can also be used upon customer request. The diaphragm material is as follows:

Compound	Temp. Range	Fluid
NBR	-15 °C to + 80 °C	Mineral oil
ECO (HYDRIN)	-40 °C to +125 °C	Mineral oil
IIR (BUTYL)	-30 °C to + 90 °C	Brake fluid
FKM (VITON)	-45 °C to +150 °C	Chlorination Hydrocarbon

Application case

- Presses, agricultural, and construction machines equipped with hydraulic drives.
- Hydraulic break system
- Hydraulic power drive
- Hydraulic suspension

Ordering code

Example: HD

A		0.75	-	210	-	R
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1
2
3
4
5

1 Shell material	
Code	Material
A	Carbon Steel (Standard)
AS	Stainless Steel 304

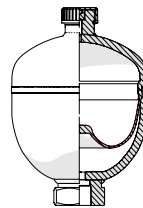
2 Bladder material		
Code	Material	Temp. Range
	NBR - Nitrile (standard)	-15~80 °C
ECO	Hydrin (Contact sales team)	-40~125 °C
IIR	Butyl (Contact sales team)	-30~90 °C
FKM	VITON (Contact sales team)	-45~150 °C

3 Volume	
Code	Volume
0.075	0.08 Liter / 0.02 Gallon
0.16	0.16 Liter / 0.04 Gallon
0.32	0.32 Liter / 0.08 Gallon
0.5	0.5 Liter / 0.13 Gallon
0.7	0.7 Liter / 0.18 Gallon
0.75	0.75 Liter / 0.2 Gallon
1.0	1.0 Liter / 0.26 Gallon
1.4	1.4 Liter / 0.37 Gallon
2.0	2.0 Liter / 0.53 Gallon
2.8	2.8 Liter / 0.74 Gallon
3.8	3.8 Liter / 1 Gallon

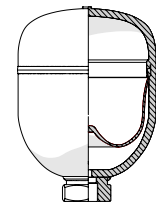
4 Pressure	
Code	Max. Working pressure
100	100 bar
210	210 bar (Standard)
250	250 bar
330	330 bar

* The standard specification is 210 bar, and other specifications require separate inquiries.

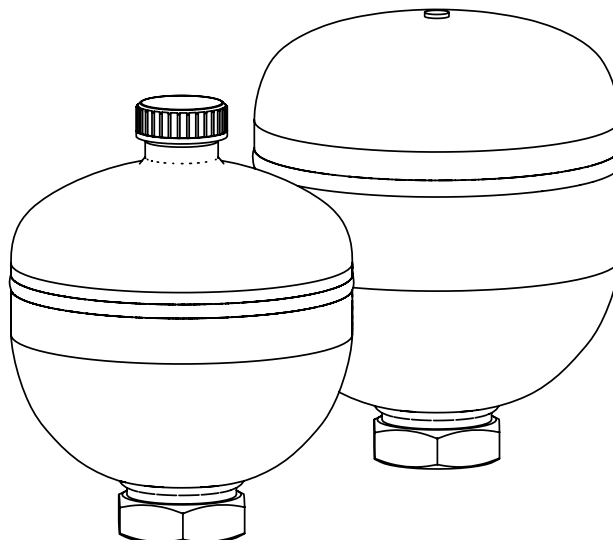
5 Type	
Code	Welding type
R	Rechargeable (Standard)
S	Sealed



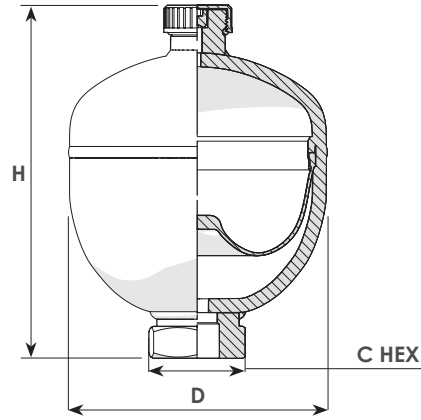
R type
(Rechargeable)



S type
(Sealed)



HDA R type
Rechargeable



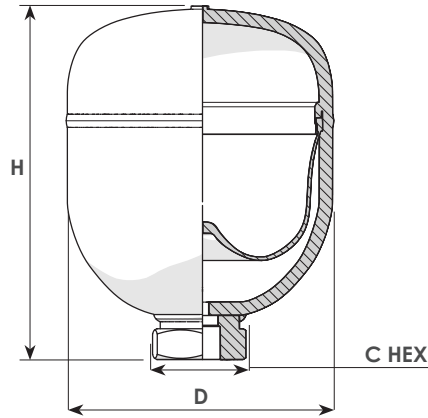
Volume (L)	Pressure (bar)	Compression Ratio	Air Port	Oil Port	H	D	C Hex	Weight
0.075	210/330	8:1	M28x1.5	G1/2HEX	123	64	22	0.9
0.16	210/330	8:1	M28x1.5	G1/2HEX	120	74	32	1.0
0.32	210/330	8:1	M28x1.5	G1/2HEX	138	93	32	1.4
0.5	210/330	8:1	M28x1.5	G1/2HEX	155	105	32	1.7
0.75	100/210/330	8:1	M28x1.5	G1/2HEX	160	120	41	2.6
1.0	100/210/330	6:1	M28x1.5	G1/2HEX	159	136	41	4.0
1.4	100/210/330	6:1	M28x1.5	G1/2HEX	182	150	41	8.7
2.0	100/210/330	6:1	M28x1.5	G3/4HEX	200	166	41	6.2
2.8	250/330	4:1	M28x1.5	G3/4HEX	301	174	41	11.0
3.8	100/210/330	4:1	M28x1.5	G3/4HEX	340	174	41	12.3

* The stainless steel shell is determined according to the customer's request.

HDA S Type
Sealed



Accumulators

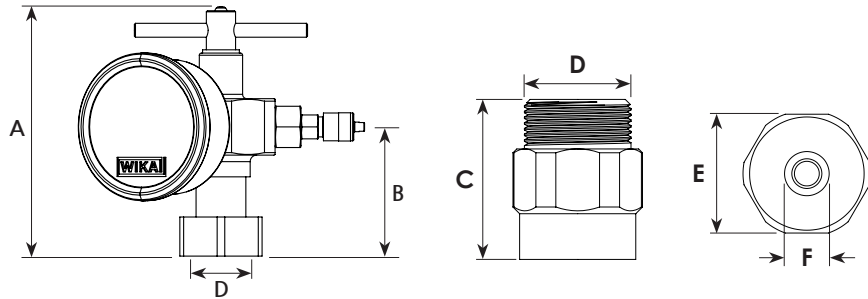


Volume (L)	Pressure (bar)	Compression Ratio	Oil Port	H	D	C Hex	Weight (Kg)
0.075	100/210/330	8:1	PF1/4(M)	123	64	22	0.7
0.16	100/210/330	8:1	G1/2(F)-14	120	74	32	0.9
0.32	100/210/330	8:1	G1/2(F)-14	138	93	30	1.6
0.5	100/210/330	8:1	M18x1.5	155	105	30	1.7
0.7	100/210/330	8:1	G1/2(F)	145	106	32	2.0
0.75	100/210/330	8:1	M18x1.5(M)	160	120	30	2.6
1.0	100/210/330	6:1	M22x1.5(F)	159	136	41	3.9
1.4	100/210/330	6:1	G1/2(F)-14	182	150	41	5.5
2.0	100/210/330	6:1	G3/4(F)-14	200	166	41	6.6
2.8	100/210/330	4:1	G3/4(F)-14	301	175	41	10.0
3.5	100/210/330	4:1	G3/4(F)-14	340	175	41	11.3

* The stainless steel shell is determined according to the customer's request.

N₂ charging kit HCD

- **Material:** Carbon Steel - Zinc plated
- **Features:** 1) Charging hose: Length 2.8m, Maximum operating pressure 210 bar
2) It offers high compatibility and can support products from other brands



A	B	C	D	E	F
		42			5/16"-24UNF
		42			G 1/4"
113	59.5	42	M28 x 1.5	32	5/8"-18UNF
		39			7/8"-14UNF (Short)
		44			7/8"-14UNF (Long)

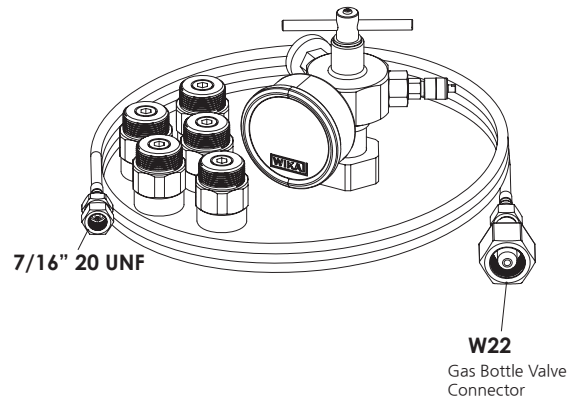
Ordering code

Example: HCD 250 - D - 5 - 1 - 1 - 1

1 2 3 4 5 6

1	Pressure gauge
250	250 bar (Standard)
10	10 bar
25	25 bar
60	60 bar
100	100 bar
2	Gauge type
D	D Type (Standard)
A	A Type
3	Gas valve adopters
	None (Standard)
1	5/16-24UNF
2	G 1/4
3	5/8-18UNF
4	7/8-14UNF (short)
5	7/8-14UNF (Long)
6	Full Set

4	Charging hose
1	M16 - W22-7/16" 20 UNF 210 bar, 2.8m
2	M16 - W22-7/16" 20 UNF 400 bar, 2.8m
3	For customization, please consult with our sales team.
5	Case
1	Hard case (Standard)
2	For customization, please consult with our sales team.



					M28x1.5
5/16-24UNF	G 1/4	5/8-18UNF	7/8-14UNF(S)	7/8-14UNF(L)	



KakaoTalk



YouTube



Hydro Lync

Engineering Excellence

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