

## FPK & FPS Series Charging & Gauging Units



### Description

To maintain system performance HYDAC recommends that the gas precharge pressure is checked regularly. The inevitable loss of gas precharge pressure due to permeability will change the system effectiveness (performance) and could cause damage to the bladder, diaphragm, or piston accumulator.

HYDAC charging and gauging units allow hydro-pneumatic accumulators to be precharged with dry nitrogen. For these purposes, a charging and gauging unit is connected to a commercially available nitrogen bottle via a flexible charging hose.

These units also allow maintenance personnel to check the current gas precharge pressure of an accumulator. For critical systems, consider the use of a permanent gauging block (see page 82) which will provide for continuous monitoring.

All HYDAC charging and gauging units incorporate a gauge and check valve in the charging connection, and a manual bleed valve with a T-handle.

HYDAC offers two types of charging and gauging units:

- FPK for use with HYDAC version 1 gas valve
- FPS for use with HYDAC version 4 gas valve

### Model Code

Note: For Oil, Gas & Marine specific charging & gauging units please refer to page 67

	FPK	FPS	250	F	2.5	G4	K
<b>Series</b>							
FPK	=	for use with Gas Valve Version 1 (M28 x 1.5) for SBO and SK					
FPS	=	for use with Gas Valve Version 4 (8VI-ISO 4570) for SB, SBO and SK					
NOTE: SB Top repairable bladder accumulators must use FPK with Adapter A3 (FPK/SB), PN 291533							
<b>Gauge Pressure Range</b>							
10	=	0 to 145 psi					
							(0 to 10 bar)
25	=	0 to 350 psi					(0 to 25 bar)
100	=	0 to 1400 psi					(0 to 100 bar)
250	=	0 to 3500 psi					(0 to 250 bar)
400	=	0 to 5800 psi					(0 to 400 bar)
<b>Charging Hose</b>							
F	=	with cap screw G1 (thread W24, 32x1/14 - DIN477)					
<b>Charging Hose Length</b>							
2.5	=	8 ft. (2.5 m)					
4.0	=	13 ft. (4 m)					
<b>Adapter</b>							
G4	=	USA (only for CGA 580 gas bottle connections)					
G4.1	=	USA (only for CGA 680 gas bottle connections)					
		only available with 400 bar Gauge and adapter integrated onto 4m high pressure hose					
G1	=	Germany (integral part of charging hose)					
G2	=	Great Britain, India					
G3	=	France, Mexico					
G5	=	Italy					
G6	=	Japan					
G7	=	South Korea					
G8	=	Brazil, Columbia, Peru					
G9	=	Taiwan					
G10	=	Russia, Venezuela					
G11	=	China					
G12	=	Australia					
<b>Case</b>							
K	=	plastic carrying case (standard)					

#### Additional Accessories:

**ADAPTER A3 (FPK/SB)** = adapter for using FPK Charging Unit to fit HYDAC gas valve version 4, including top repairable bladder accumulators

NOTE: for other adapters please consult factory.

6mm Allen Wrench (for HYDAC Gas Valve Version 1, included with FPK Kits)

14mm Open End Wrench (for HYDAC gauge, optional)

Operating and Installation Instructions are included with each charging kit.

This is also available for download in PDF format on our web site: [www.hydacusa.com](http://www.hydacusa.com)

For spare parts see page 77.

## Model FPS

For use with gas valve version 4.  
(Except for top repairable bladder accumulators)



## Model FPK

For use with gas valve version 1.



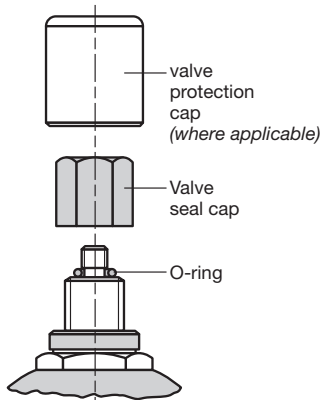
## Adapter A3 (FPK/SB)

Part No. 291533

The A3 (FPK/SB) adapter can be used with the FPK to connect to any HYDAC version 4 gas valve for both bottom and top repairable bladder accumulators. The A3 adapter also serves as the required spacer for top repairable bladder accumulators.

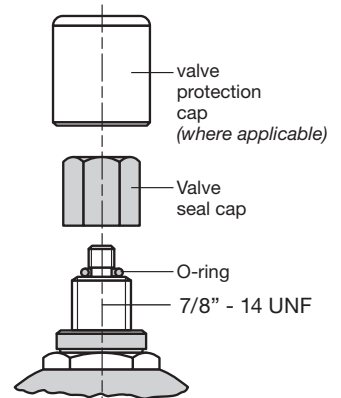
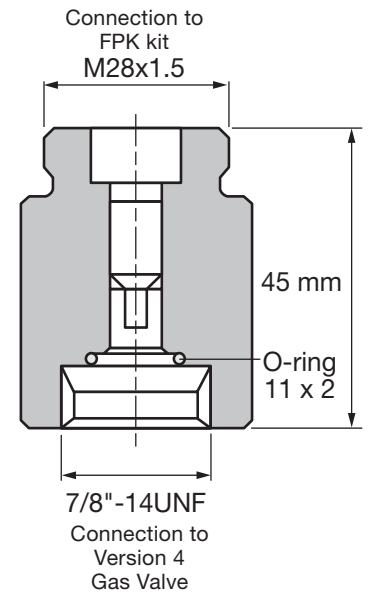
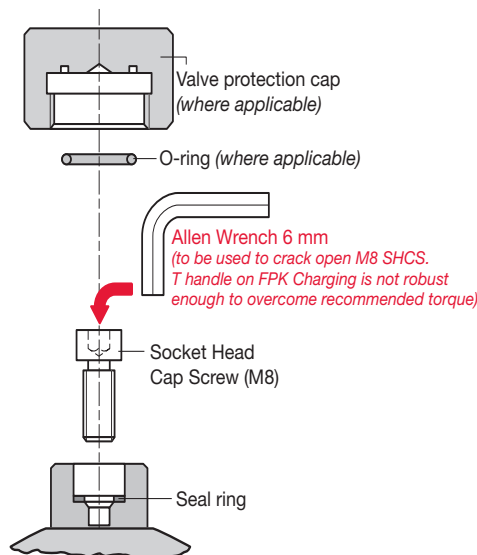
## Gas Valve Version 4

On a Bottom Repairable Bladder Accumulator as well as Diaphragm Accumulators with E4 gas valve and piston accumulators with VE Gas Valve.

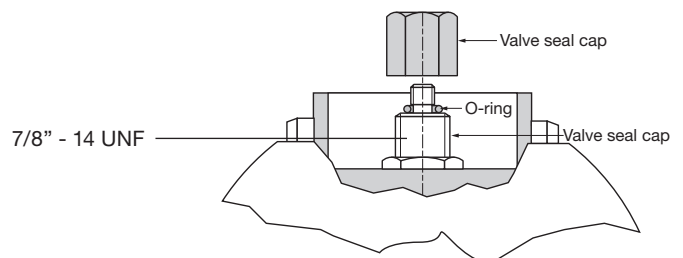


## Gas Valve Version 1

Metric, M28 x 1.5  
Used on Diaphragm Accumulators w/ E1 gas valves and Piston Accumulators w/ VA or VB gas valves



## Bottom Repairable



## Top Repairable