

FPK & FPS Series Charging & Gauging Units



Description

To maintain system performance HYDAC recommends that the gas precharge pressure is checked regularly. A loss in the gas precharge pressure will cause a drop in the system efficiency 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 43) which will allow constant 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:

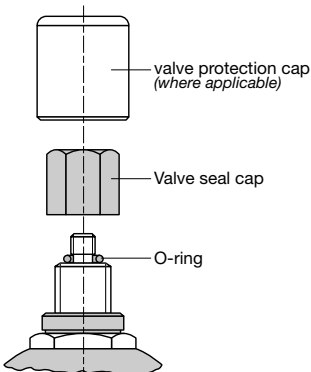
Model FPS

For use with gas valve version 4.
(except on top repairable bladder accumulators)



Gas Valve Version 4

on a Bottom Repairable
Bladder Accumulator

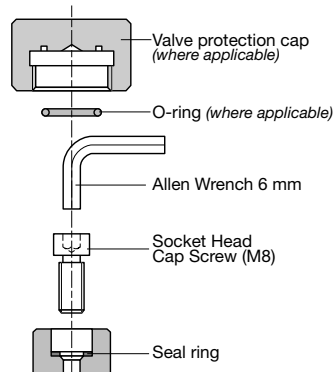


Model FPK

For use with gas valve version 1.

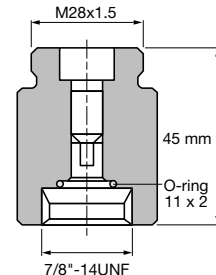


Gas Valve Version 1



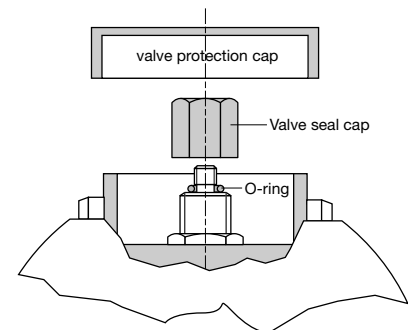
Adapter A3 (FPK/SB)

An adapter that must be used with the FPK model in order to fit HYDAC gas valve version 4, including top repairable bladder accumulators.



Gas Valve Version 4

on a Top Repairable Bladder
Accumulator



Charging & Gauging Units **HYDAC**

Model Code

FPS 250 F 2.5 - G4 - K

Series

- 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 FPK/SB adapter

Gauge Pressure Range

- 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)

Charging Hose

- F = with cap screw G1 (thread W24, 32x1/14 - DIN477)

Charging Hose Length

- 2.5 = 8 ft. (2.5 m)
- 4.0 = 13 ft. (4 m)

Adapter

- 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 integral 4m high-pressure hose
- G1 = Germany (integral part of charging hose)
- G2 = Australia, Great Britain, India
- G3 = France
- G5 = Italy
- G6 = Japan - Taiwan
- G7 = Japan - South Korea
- G8 = Brazil
- G9 = China
- G10 = Russia

Case

- K = plastic carrying case (standard)

Additional Accessories:

- ADAPTER A3 (FPK/SB) = adapter for using FPK Charging Unit with top repairable bladder accumulators
- NOTE: for other adapters please consult factory.
- 6mm Allen Wrench (for HYDAC Gas Valve Version 1)
- 14mm Open End Wrench (for HYDAC gauge)

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
For spare parts see page 63.

Note: For Oil, Gas & Marine specific charging & gauging units please refer to page 46

Adapters

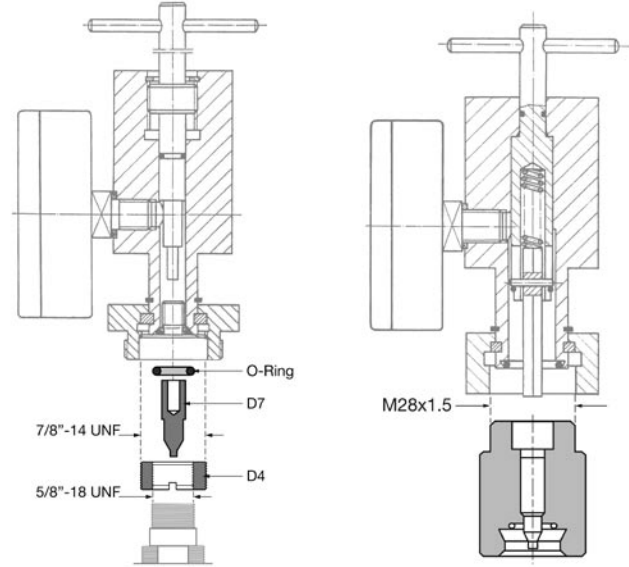
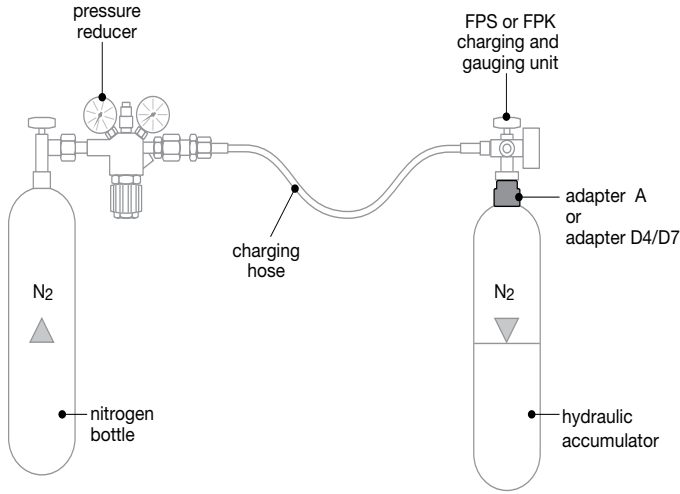
Connecting Charging & Gauging Units to 3000 psi Accumulators

FPS Unit

with Adapter D4/D7

FPK Unit

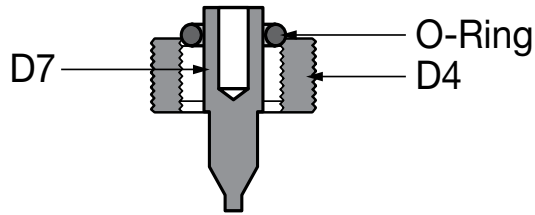
with Adapter A*



Adapter D4/D7

Part Number 02067646

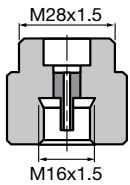
Used with FPS Charging & Gauging Unit



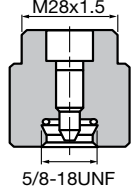
*A Adapters

Used with FPK Charging & Gauging Unit

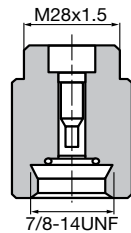
A1
PN 00361619



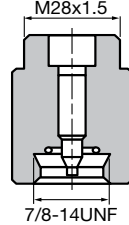
A2
PN 00361605



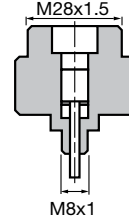
A3 (ADAPTER FPK/SB)
PN 00291533



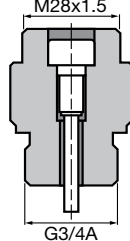
A4
PN 00291536



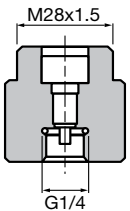
A5
PN 00291531



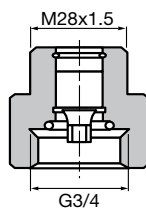
A6
PN 02108819



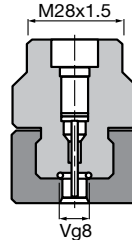
A7
PN 02110629



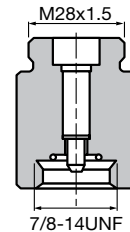
A8
PN 02124524



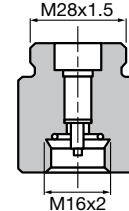
A9
PN 02128638



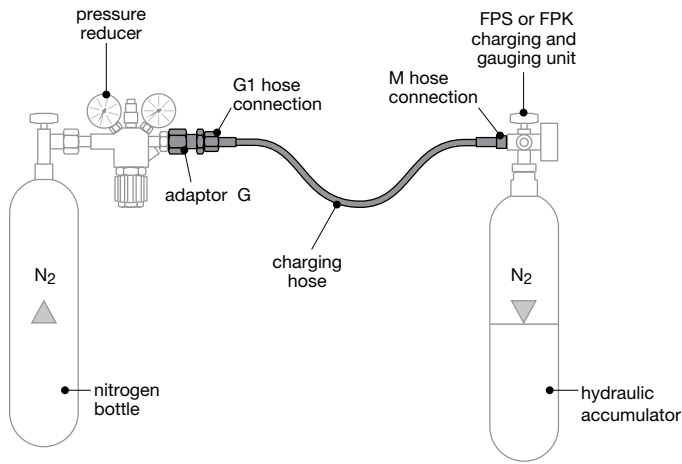
A10
PN 02128849



A11
PN 03018210

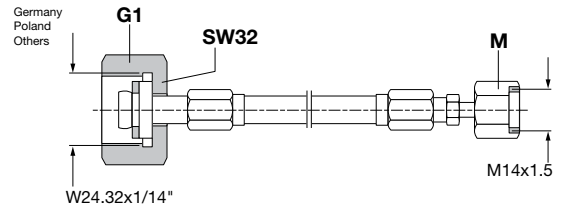


Adapters Connecting Charging Hose to Gas Bottle



Charging Hoses

Length	Part Number
2.5 m	00236514
4.0 m	00236515
10.0 m	00373405
15.0 m	02115552
20.0 m	02109765
28.0 m	02109574



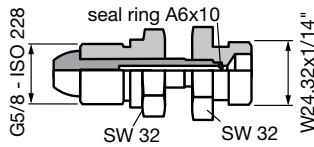
G Adapters

From N2 Bottle to Charging Hose

G2

PN 00236376

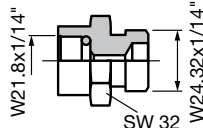
Australia
Argentina
Great Britain
Vietnam
Others



G3

PN 02103421

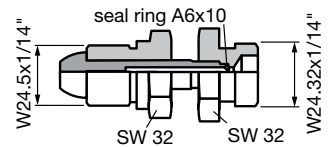
Egypt
Lebanon
Israel
Others



G4

PN 02068737

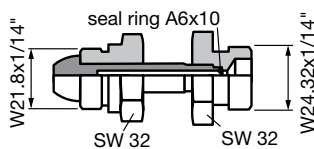
USA
Canada
Puerto Rico



G5

PN 00236373

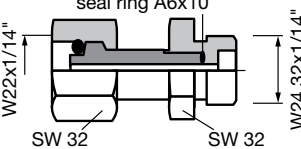
Italy



G6

PN 02103423

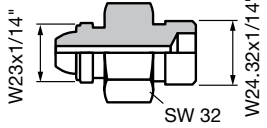
Japan



G7

PN 00236377

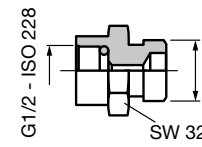
Korea



G8

PN 02103425

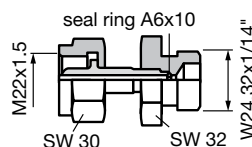
Brazil
Chile
Columbia
Others



G9

PN 00241168

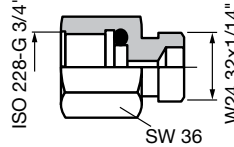
Taiwan



G10

PN 02103427

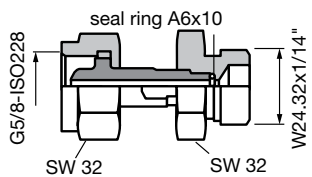
Russia
Trinidad
Tobago
Venezuela



G11

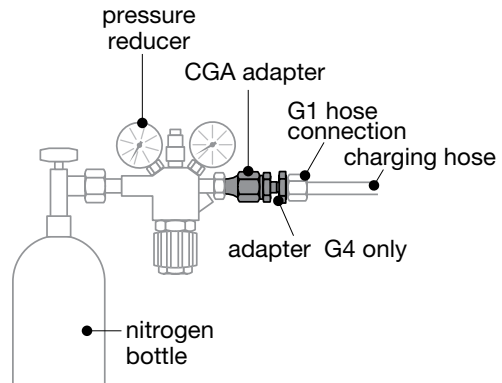
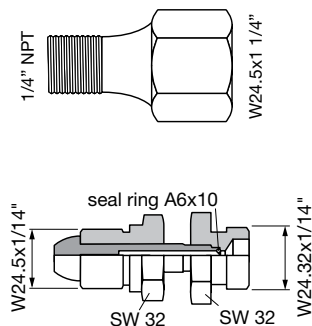
PN 03018678

China



CGA 580 Adapter (for USA only)

From G4 Adapter to Regulator



FPO Series Charging and Gauging Units



Description

To maintain system performance HYDAC recommends that the gas precharge pressure is checked regularly. A loss in the gas precharge pressure will cause a drop in the system efficiency 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 which will allow constant 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.

Model Code

	FPO 210 F 3 - K
Charging and Gauging Unit	_____
FPO = for use with Gas Valve Version 4 (8VI-ISO 4570) for SB, SBO and SK	
Gauge Pressure Range	_____
210 = 0 to 3000 psi (0 to 210 bar)	
Charging Hose	_____
F = with nitrogen bottle connection CGA-580	
Charging Hose Length	_____
3.0 = 10 ft. (3 m)	
Case	_____
K = plastic carrying case (standard)	

Additional Accessories:

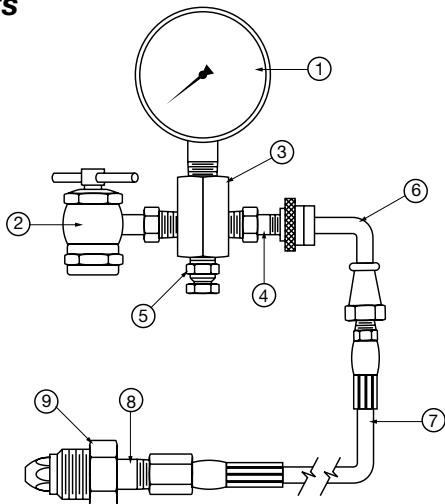
Gas Valve Extension Rod - to be used with top repairable accumulators

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

Note: For the full line of charging & gauging units please refer to page 35

Parts



Part Description	Item	Quantity	Part No.
FPO 210 Replacement Kit consists of:			
Pressure Gauge, 3000 PSI	1	1	02701622
T-Handle Lock Chuck	2	1	02701615
Charging Manifold, FPO	3	1	consult factory
Tank Valve	4	1	02701617
Bleeder Valve	5	1	consult factory
Hose Assembly FPO 210 (CGA 580) consists of:			
High Pressure Coupling (swivel)	6	1	02701590
Hose, FPO 3000 PSI, 3m	7	1	02701621
Nipple Gland, CGA-580	8	1	02701620
Nut, CGA-580	9	1	02701619