

# GB-K™

## Gas Booster Package



### PURPOSE / APPLICATIONS

The GB-K booster package provides a safe, simple and complete solution to the challenge of very high gas pressure supply generation. It generates up to 86 MPa (11 000 psi) gas pressure by boosting the input from a lower pressure gas source, such as a gas bottle. Operation is hands free and self regulating so the package can be mounted out of the way: under a bench or behind a partition.

The GB-K booster package is intended to be used as the high pressure source for calibration and test systems, particularly high pressure gas controller/calibrators and

piston gauges. It is the standard choice for supplying a **DHI** PPCK+ high pressure controller/calibrator and includes a separately regulated, low pressure channel to handle the PPCK+ drive air requirement.

Two models are available depending on the output pressure required: GB-K-75 is for pressure up to 50 MPa (7 500 psi) and GB-K-152 is for pressure up to 86 MPa (11 000 psi).

### DESCRIPTION

A Pascal press type booster generates high gas pressure from a lower gas pressure. The booster is a two-stroke, single stage, reciprocating pump that operates continuously until

the ratio of the drive air on the low pressure piston and the pressure on the high pressure piston is in equilibrium at the piston area ratio of 75 or 152:1. The output pressure is defined by the drive pressure which the user sets with the built-in regulator and gauge. On the high pressure side, an accumulator followed by a high pressure regulator, dampens the effect of booster cycling, assuring a stable and continuous output of pressure. A high pressure gauge allows the user to observe the high pressure regulator setting.

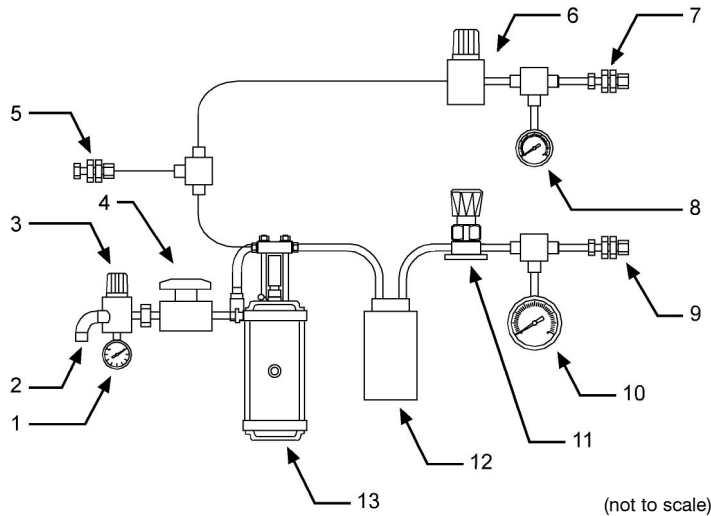
The GB-K includes a separate low pressure channel to fill the drive air pressure requirement of a **DHI** PPCK+ high pressure controller/calibrator. This channel uses the gas supplied to the high pressure side of the booster but bypasses the booster, going directly to a regulator and a gauge. The GB-K booster package includes the adaptors and tubing necessary to connect the GB-K booster package to a PPCK+ pressure controller/calibrator.

All that is required to get a GB-K booster package up and running is a supply of instrument quality gas of at least 2 MPa (300 psi) and shop drive air to power the booster. In most cases, a bottle supplies the instrument gas and a compressor or plant shop air supplies the drive pressure. Once the booster package regulators have been set, since the GB-K runs automatically and requires no regular maintenance, it can be mounted in any convenient, out of the way location.



**Calibration Solutions  
for Pressure  
and Flow™**

## PNEUMATIC SCHEMATIC



1. Drive air gauge
2. SHOP DRIVE AIR INLET port
3. Drive air regulator
4. Drive air shut-off valve
5. SUPPLY INLET port
6. LOW PRESSURE ADJUST regulator
7. LOW PRESSURE OUTLET port
8. Low pressure outlet gauge
9. HIGH PRESSURE OUTLET port
10. High pressure outlet gauge
11. HIGH PRESSURE ADJUST regulator
12. Volume cylinder (accumulator)
13. Booster pump

## SPECIFICATIONS

### Regulated High Pressure Output:

### Regulated Low Pressure Output: Booster Piston Ratio:

### Instrument Gas Supply:

### Shop Drive Air Required:

### Pressure Connections:

Shop Drive Air Supply:

Instrument Gas Supply:

Low Pressure Output:

High Pressure Output:

### Dimensions:

### Weight:

#### GB-K-75

0.35 to 50 MPa (200 to 7 500 psi)

0.14 to 1.2 MPa (20 to 180 psi)

75:1

2 to 20 MPa at 140 to 560 slm (300 to 3 000 psi at 5 to 20 scfm), 10 micron filtration with dewpoint of - 20 °C

(maximum desired output pressure/75 or 152 depending on model) at 425 to 2 125 slm (15 to 75 scfm), 60 micron filtration and 50% relative humidity

1/4 in. NPT F

1/8 in. NPT F

1/8 in. NPT F

DH200 F (gland and collar type)

355 mm W x 430 mm H x 290 mm D (14 in. x 17 in. x 11.5 in.)

18.6 kg (41 lb.)

#### GB-K-152

0.35 to 86 MPa (200 to 11 000 psi)

0.14 to 1.2 MPa (20 to 180 psi)

152:1

## ORDERING INFORMATION

Product Designation	Part Number	Description
<b>GB-K BOOSTER PACKAGE</b>		
GB-K-75	401092	Booster package, 75:1
GB-K-152	401086	Booster package, 152:1
<b>BOOSTER ONLY WITH SHOP AIR CONTROL KIT (no output regulators or gauges, no accumulator)</b>		
Booster, Gas	401002	75:1, with control kit
Booster, Gas	400509	152:1, with control kit

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Due to a policy of continual product improvement, all product specifications, descriptions and features are subject to change without notice.

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