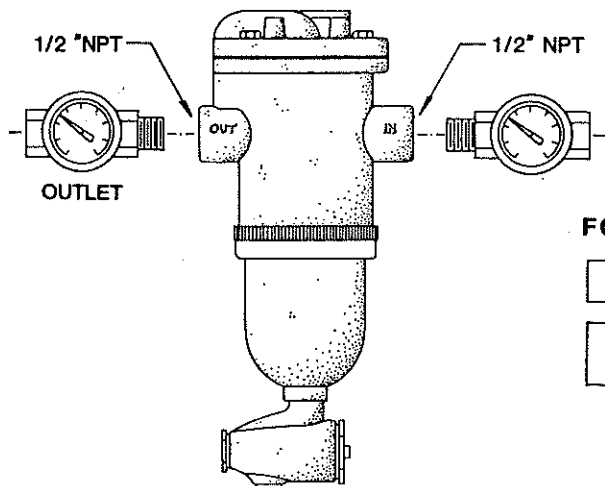




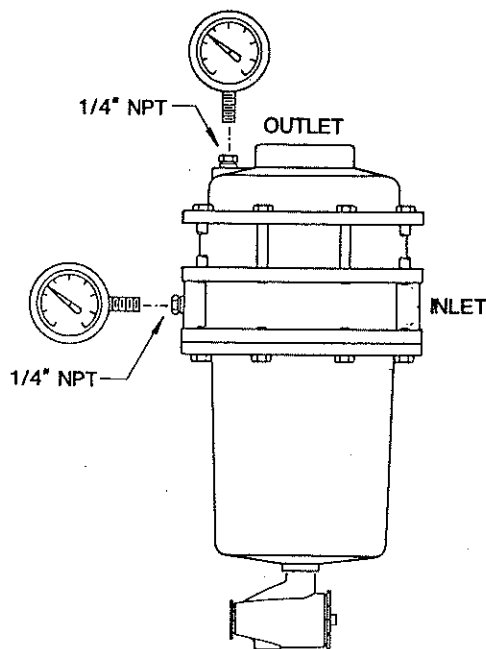
## FILTER/DRYER PRESSURE DROP KITS

These kits include a matched pair of dial gauges that indicate the pressure drop between the inlet and outlet of a filter or dryer. The difference between the readings determines the actual pressure drop present. Increases in the degree of pressure drop may indicate either excessive flow rates through the filter/dryer or that the filter cartridge element is plugged with contaminants.



### FOR 1/2" NPT CONNECTIONS

KIT NO.	INLET PRESSURE	APPLICABLE FLOW RATING
1760-3-53	150 PSIG max.	10 SCFM, 12 SCFM, 20 SCFM



### FOR 1/4" NPT CONNECTIONS

KIT NO.	INLET PRESSURE	APPLICABLE FLOW RATING
1760-7-53	150 PSIG max.	60 SCFM, 80 SCFM, 100 SCFM, 150 SCFM, 200 SCFM
1760-7-55	300 PSIG max.	100 SCFM, 150 SCFM, 200 SCFM, 350 SCFM, 750 SCFM, 1000 SCFM

# Installation Instructions

Pressure Drop Kit No.

1760-3-53

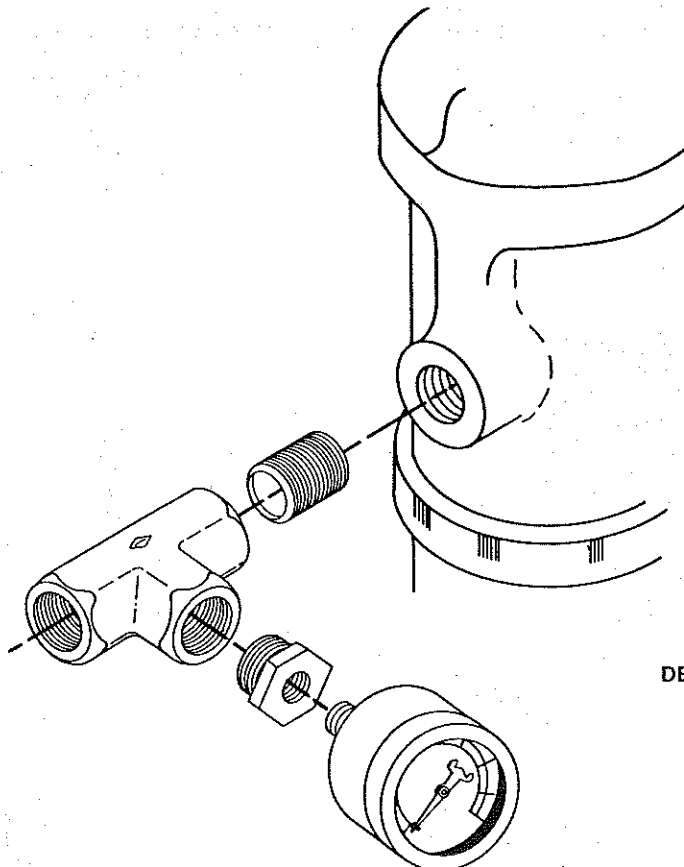
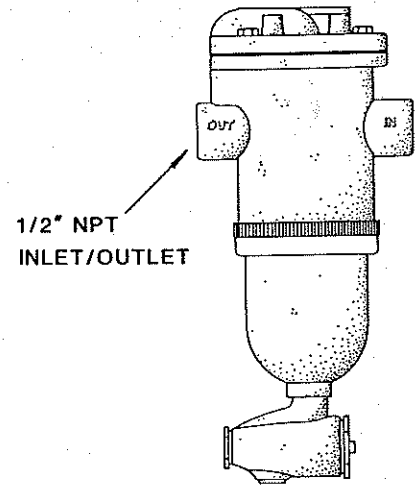
Kit is intended for installation on filters having 1/2" NPT inlet and outlet connections. (Reducer bushing can be used for 3/8" NPT connections if applicable.)

Pressure Drop Indicating Kit is comprised of:

- (2) 1/2" NPT pipe nipples
- (2) 1/2" NPT pipe tees
- (2) 1/2" NPT-M x 1/4" NPT-F pipe bushings
- (2) 0-160 PSIG pressure gauges

Detail A depicts the assembly and installation of the pressure drop kit at the INLET and OUTLET connections of the King Filter or Dryer.

- A-1. Install the supplied pipe nipples into the inlet and outlet connections. (Use reducer bushing if filter has other than 1/2" NPT connections.) Use thread sealant and tighten securely to ensure leak-tight connection.
- A-2. Thread supplied pipe tee onto nipple and tighten into position so that gauge, when installed, faces outward.
- A-3. Insert pipe bushing (reducer) into tee connection and install supplied pressure gauge.



DETAIL A

# Installation Instructions

Pressure Drop Kit No.

1760-7-55 (300 PSIG Max.)

1760-7-53 (160 PSIG Max.)

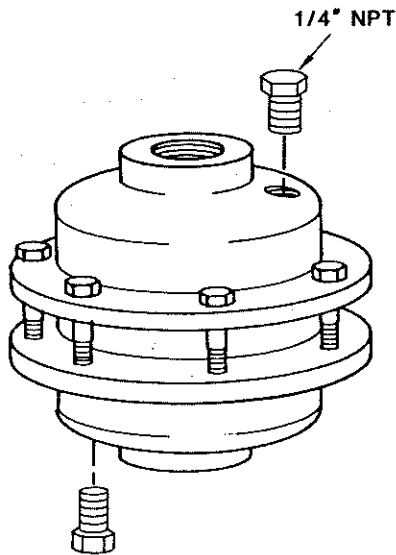
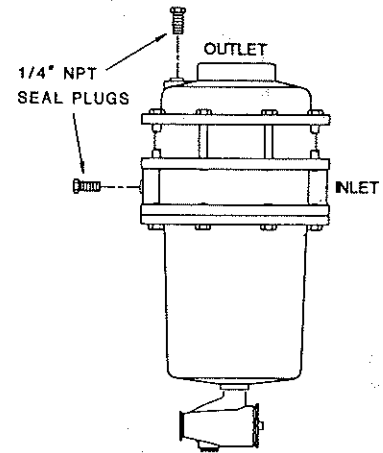
Kit is intended for installation on filters having 1/4" NPT connections on filter housing. (These connections normally have 1/4" NPT seal plugs installed - see illustration.)

Pressure Drop Indicating Kit is comprised of:

- (2) 1/4" NPT pipe nipples
- (2) 1/4" NPT pipe elbows
- (2) pressure gauges (0-160 or 0-300 PSIG)

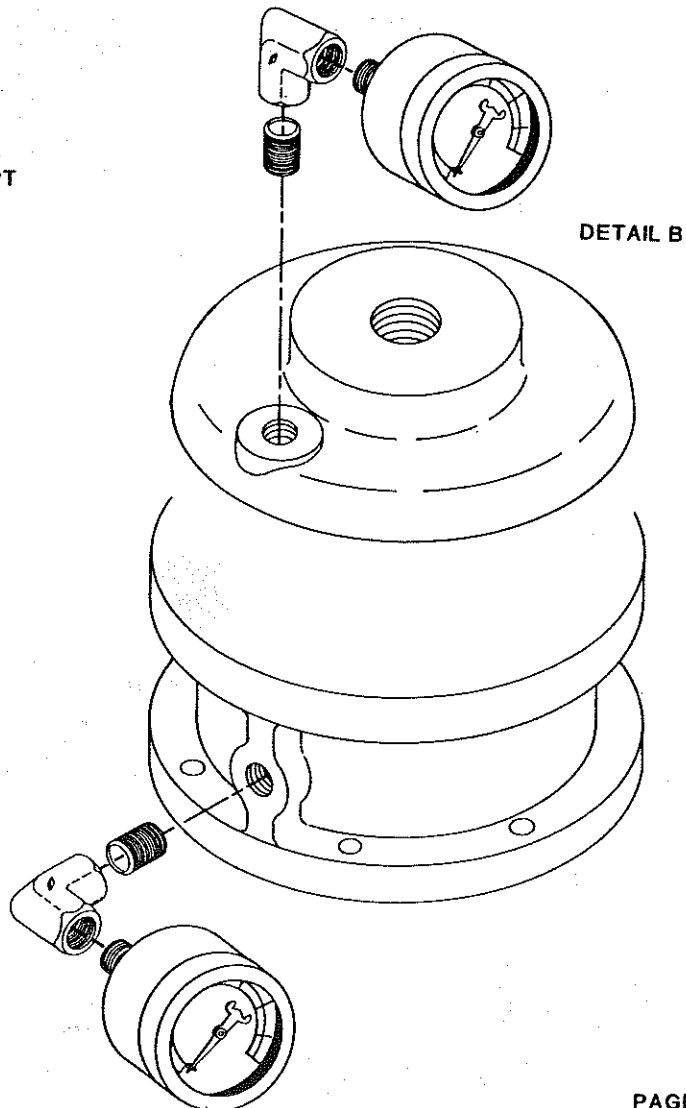
Detail B depicts the assembly and installation of the pressure drop kit at the filter housing tapped connections.

- B-1. Remove the existing seal plugs from the connections on the housing as shown in the detail view. Install the supplied pipe nipples into the connections. Use thread sealant and tighten securely to ensure leak-tight connections.
- B-2. Thread pipe elbow onto installed nipple and tighten into position so that gauge, when installed, faces outward.
- B-3. Install pressure gauge into elbow and tighten securely.



DETAIL C

AEROSOL STRAINER CONNECTIONS



DETAIL B



## Troubleshooting

### Pressure Drop Due to Cartridge Contamination -

King Filter Cartridges generally retain their filtering efficiency even when a high pressure drop exists between the inlet and outlet of the filter. However, in many applications, excessive pressure drops are not desirable. In these situations (assuming normal flow rates) an increase in the pressure drop may indicate the need for filter cartridge replacement.

### Pressure Drop Due to High Flow Rate -

When the flow rate through the filter exceeds the filter rating, the cartridge typically will have a shorter life and less cleaning efficiency. Excessive flow rates may be the result of an under-sized filter or where additional devices added to the downstream airline has greatly increased the air consumption.

Repeated, sudden drops in pressure indicated on the outlet gauge can often be attributed to instantaneous air consumption by certain types of machinery. (While a device may list air consumption in SCFM, it may actually consume this amount in small occasional bursts of a second or so duration.)



**KING**  
ENGINEERING  
CORPORATION

3201 South State St, Ann Arbor, Michigan 48108-1625 U.S.A.

P.O. Box 1228, Ann Arbor, Michigan 48106-1228 U.S.A.

Phone: (734) 662-5691 • FAX: (734) 662-6652