

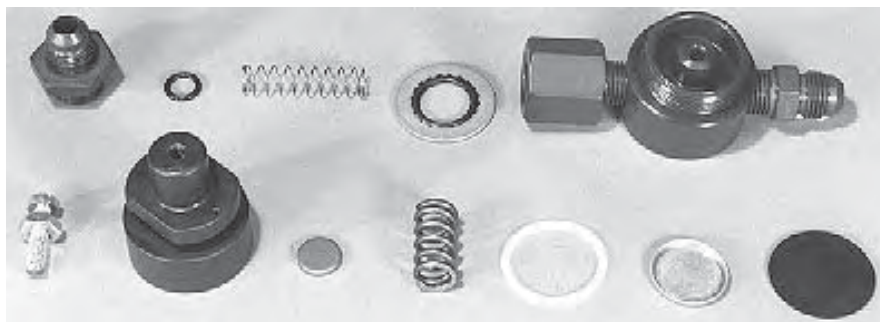
# HIGH SPEED BYPASS VALVE

## ADVANTAGE OF KINSLER'S DIAPHRAGM HIGH SPEED BYPASS VALVE

The advantage of this valve over the "jet can" type used in the past is that it has less internal friction on it's moving parts, and it has a much larger area for the pressure to act on for regulation, resulting in a valve that opens at the same RPM every time. Easily adjusted using a blade screwdriver and a 7/16" wrench; no parts to drop or lose, no dealing with leaking fuel when changing pressure settings.

## DIAPHRAGM VALVE AND COMPONENTS

- 3903 Kinsler diaphragm high speed bypass valve, neoprene diaphragm, gasoline and methanol, hard-anodized aluminum, includes 6 AN male flare fittings, model: H
- 3904 Kinsler diaphragm high speed bypass valve with restrictor jet provision, neoprene diaphragm, gasoline and methanol, hard-anodized aluminum, includes 6 AN male flare fittings, model: HR
- 3950 Kinsler diaphragm high speed bypass valve, teflon diaphragm, nitro. ONLY, hard-anodized aluminum, includes 6 AN male flare fittings, model: H
- 3951 Kinsler diaphragm high speed bypass valve with restrictor jet provision, teflon diaphragm, nitro. ONLY, hard anodized aluminum, includes 6 AN male flare fittings, model: HR
- 3926 Labor to flow test and set diaphragm valve pressure on flow bench



### COMPONENTS

- 3929 Adjusting screw and lock nut; 12-24 thread, screws are ground to specific length then radiused on end for smooth operation
- 3932 Upper spring rest; goes between adjusting screw and spring
- 3933 Lower spring rest; goes between spring and diaphragm
- 3937 Spring; standard .084" wire diameter for high speed diaphragm valve
- 3941 Slip ring; teflon, goes between diaphragm and tower
- 3944 Diaphragm; neoprene, for gasoline and methanol ONLY
- 3947 Diaphragm; teflon, for nitromethane ONLY
- 3949 Restrictor jet pod assembly, 1/4" male NPT inlet x 6 AN male flare outlet, includes spring, washer o-ring, end cap, and jet sealing o-ring
- 3016 End cap for #3949; 6 AN male flare, hard-anodized aluminum
- 3010 Washer o-ring; for #3949 and #3016
- 3116 O-ring; jet sealing, for #3949 and #3016
- 6170 Fitting; Kinsler hard-anodized aluminum, 6 AN male flare x 1/4" male NPT

### "E" DIMENSION

URNS OF SCREW	CHANGE IN "E" DIMENSION	CHANGE IN OPENING PRESSURE
1/4	.010"	5.1 ± 1.3 PSI *

\* The average pressure change was determined by testing (5) valves between 40 and 90 PSI.

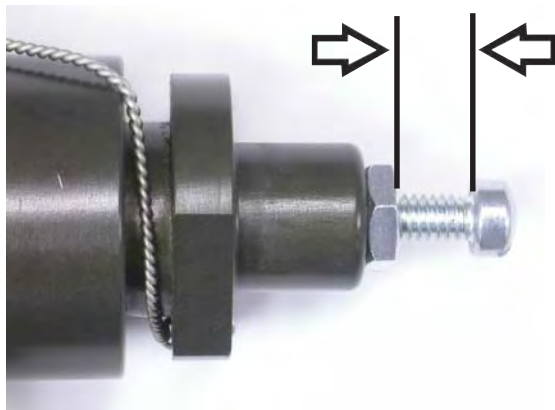


#3903 Model: H

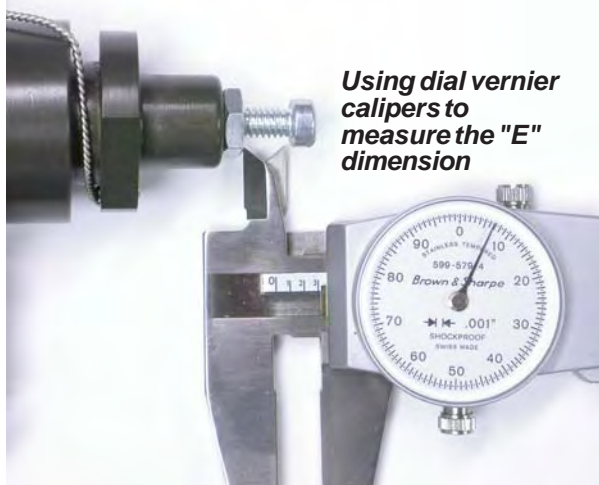
#3904 Model: HR

### MEASURING THE "E" DIMENSION

A vernier caliper is the most accurate method for measuring the "E" dimension, but a good steel scale will suffice if read carefully. On every unit calibrated by us, the 'as shipped' "E" dimension is recorded on the tech sheet titled "A Few Important Notes". About .002" inch change in the "E" dimension gives one PSI change in pressure.



*The "E" dimension on the adjustment screw is the distance between the bottom of the screw head and the top face of the nut*



*Using dial vernier calipers to measure the "E" dimension*

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