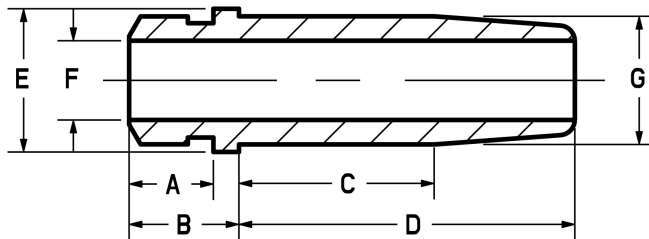**TRIUMPH 500**
BLACK DIAMOND VALVE INSTALLATION NOTES
FOR 1967-UP Cylinder heads ("non- squish band")

Kibblewhite Black Diamond™ valves are the best you can get for your Triumph motorcycle. These specially impregnated forged stainless valves have proven to have superior wear resistance and reduced friction than that of hard chromium or electrolysis nickel plating. When used with these C630 bronze guides and properly installed and finished, much tighter tolerances than factory can be used successfully for quieter operation, less friction, and much longer service life.

	head diameter	Stem diameter	tulip	length	Triumph P/N
Intake valve	1.540"	0.3102"	23º	3.480"	70-6853
Exhaust valve	1.325"	0.3095"	27º	3.425"	70-6854

Intake/Exhaust guide
(see above diagram) **A) 0.560" B) 0.610" C) 0.620" D) 1.160" E) 0.550" F 0.3105"**

INSTALLATION NOTES: PLEASE READ

These guides are not finish sized, and must be honed to size after installation to provide correct clearance. Recommended clearance in aluminum heads from Kibblewhite and Franz and Grubb are as follows:

Intake valve to guide clearance: .0010"

Exhaust valve to guide clearance .0015"

The exhaust valve stem diameter is .0005" smaller than the intake. Both intake and exhaust guides can be sized the same for correct clearance.

As C630 bronze guides are very hard, it is recommended that they are finished with a rigid mandrel type hone such as a Sunnen® P190. These recommended clearances are offered in conjunction with a thin film of moly type assembly lube on the stem on installation, the assumption that the guide is finished straight and true, and that the SEAT IS RECUT TO BE CONCENTRIC WITH THE GUIDE CENTERLINE.

If you find that you need an oversize guide PLEASE STOP and contact the shop. We will exchange for the oversize you need at no additional cost.

Machinists note: Our method of sizing these guides is using a P-180 Sunnen Honall with PK-10 adapter, BL10-308AS mandrel, with L10J69 stone.

Please see www.fagengine.com for more information