

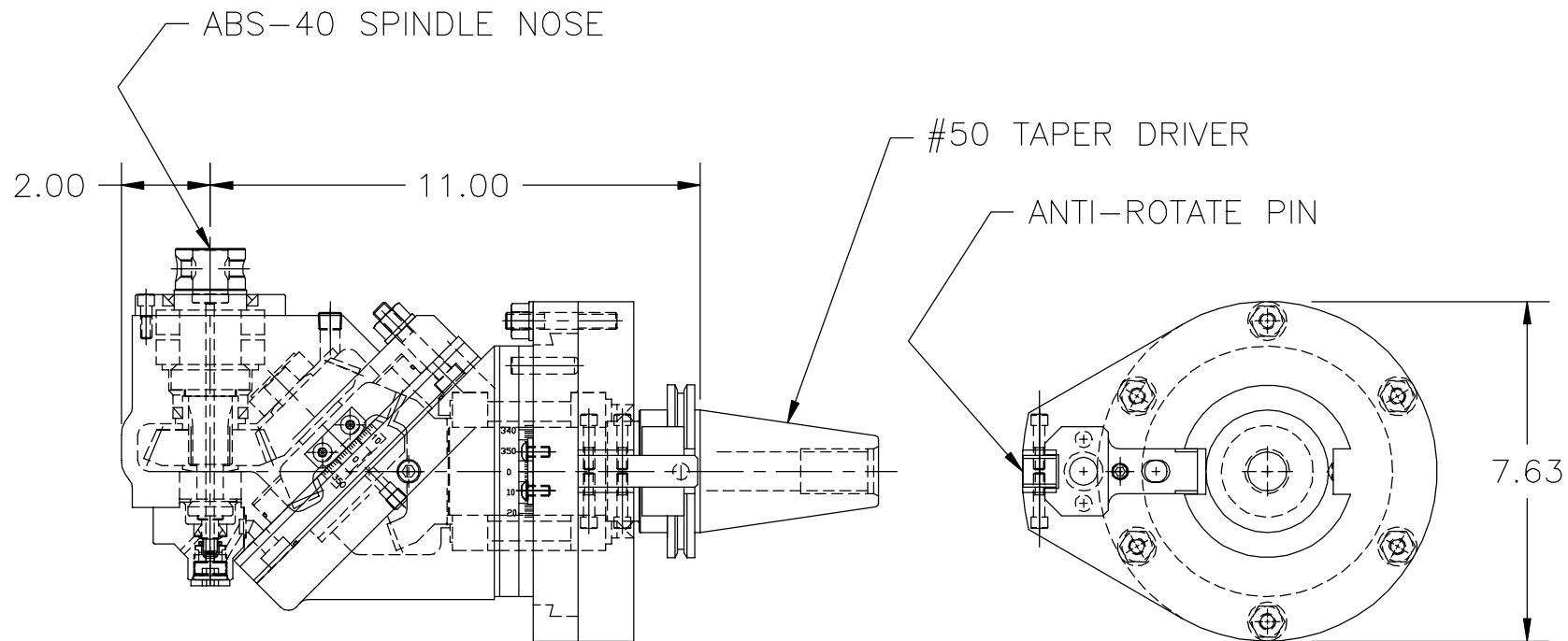
TOOL CHANGER HEADS IDEA BOOK



Key Products, Inc.
10600 W. Glenbrook Ct.
Milwaukee, WI 53224
414-355-5399

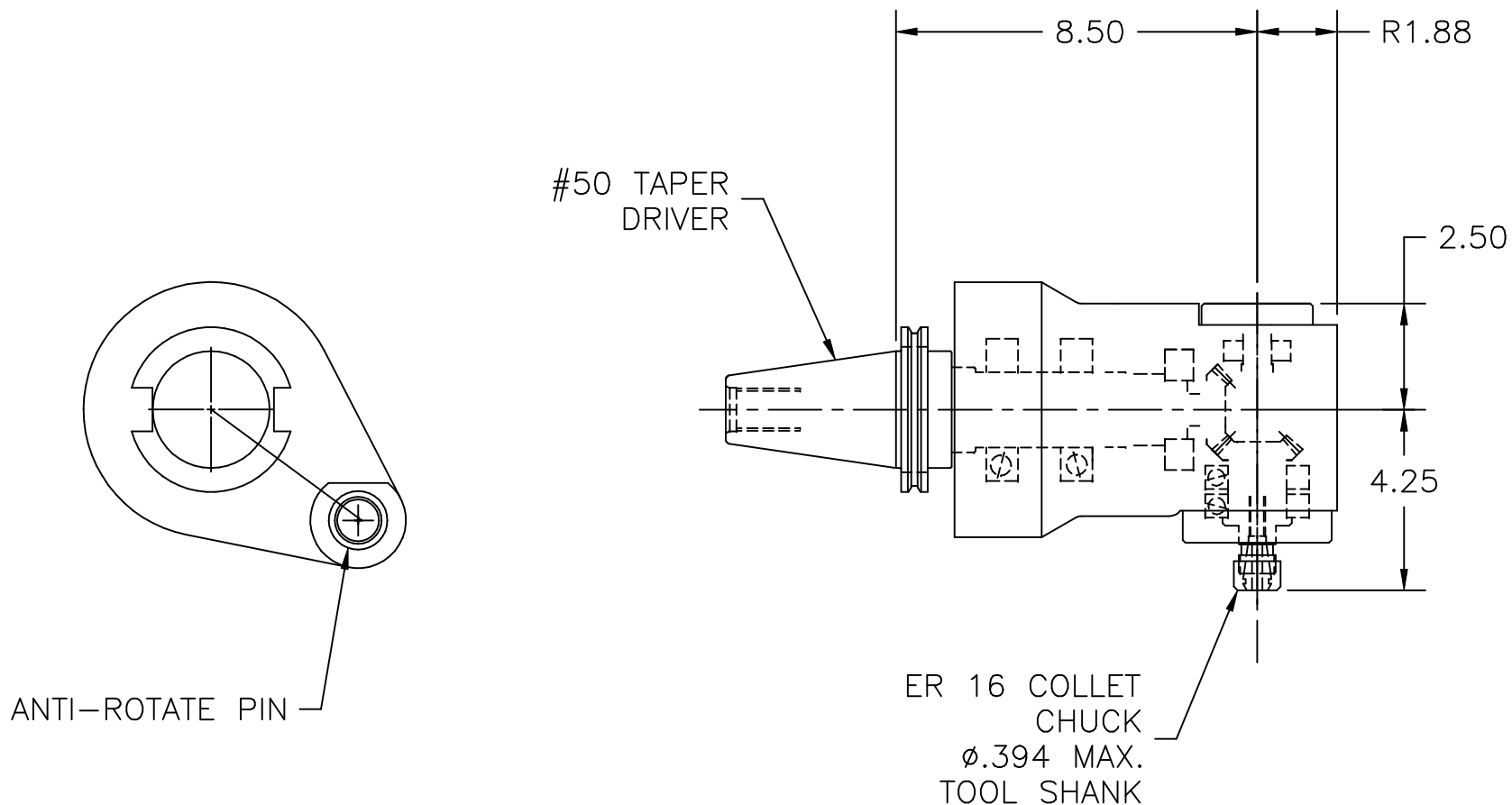
<http://www.keyproducts.net>

Key Products designs and manufactures machining attachments. This book includes some examples of previous projects. However, we can produce an attachment for your specific application.



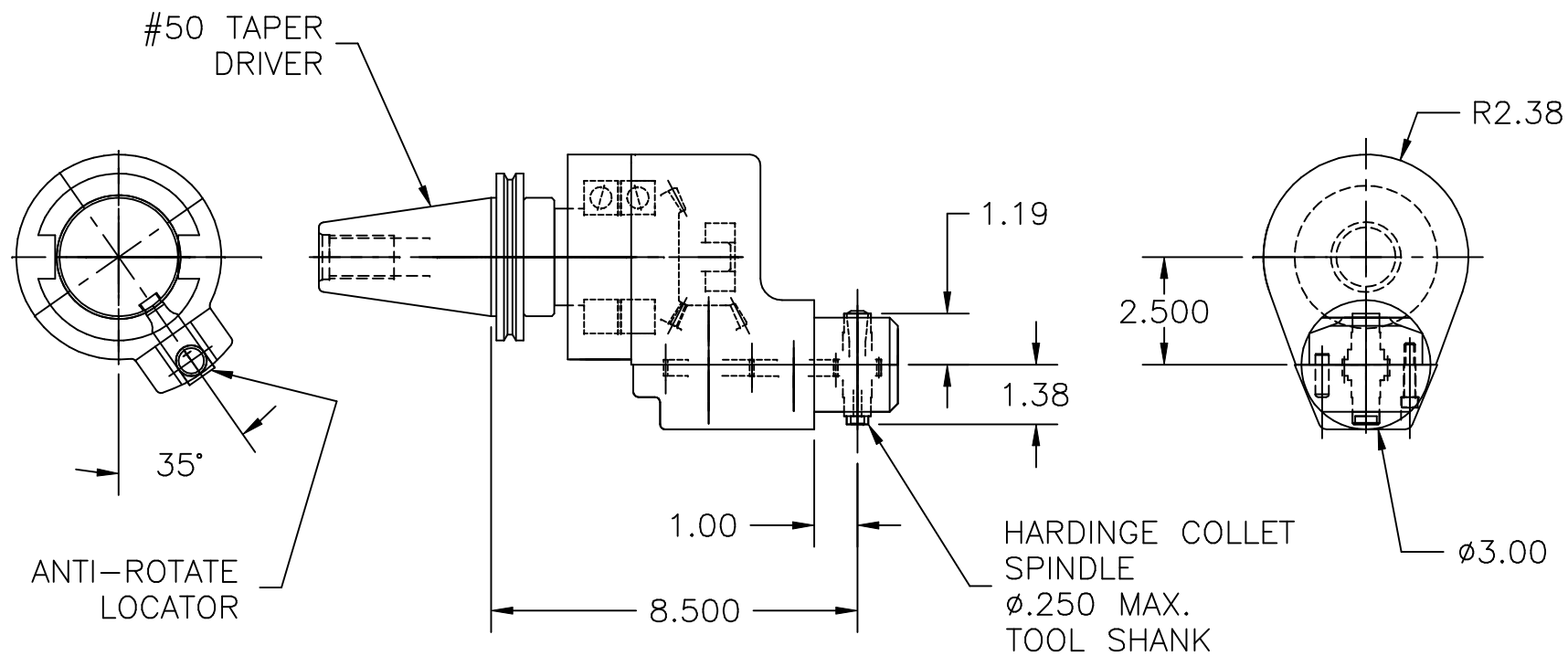
UNIVERSAL ANGULAR ATTACHMENT
 MOUNTS HORIZ. TO HMC
 WITH ANTI-ROTATE PROVISIONS
 COOLANT THRU DRIVER & OUTPUT SPINDLE
 GEAR RATIO = 1.00 TO 1.00
 GEAR CAPACITY = 1.5 HP. PER 100 RPM, UP TO MAX. 20 HP.
 MAX. SPEED = 1500 RPM
 EST. WT. = 85 LBS.

DRAWING SCALE 1/4
 206373-300



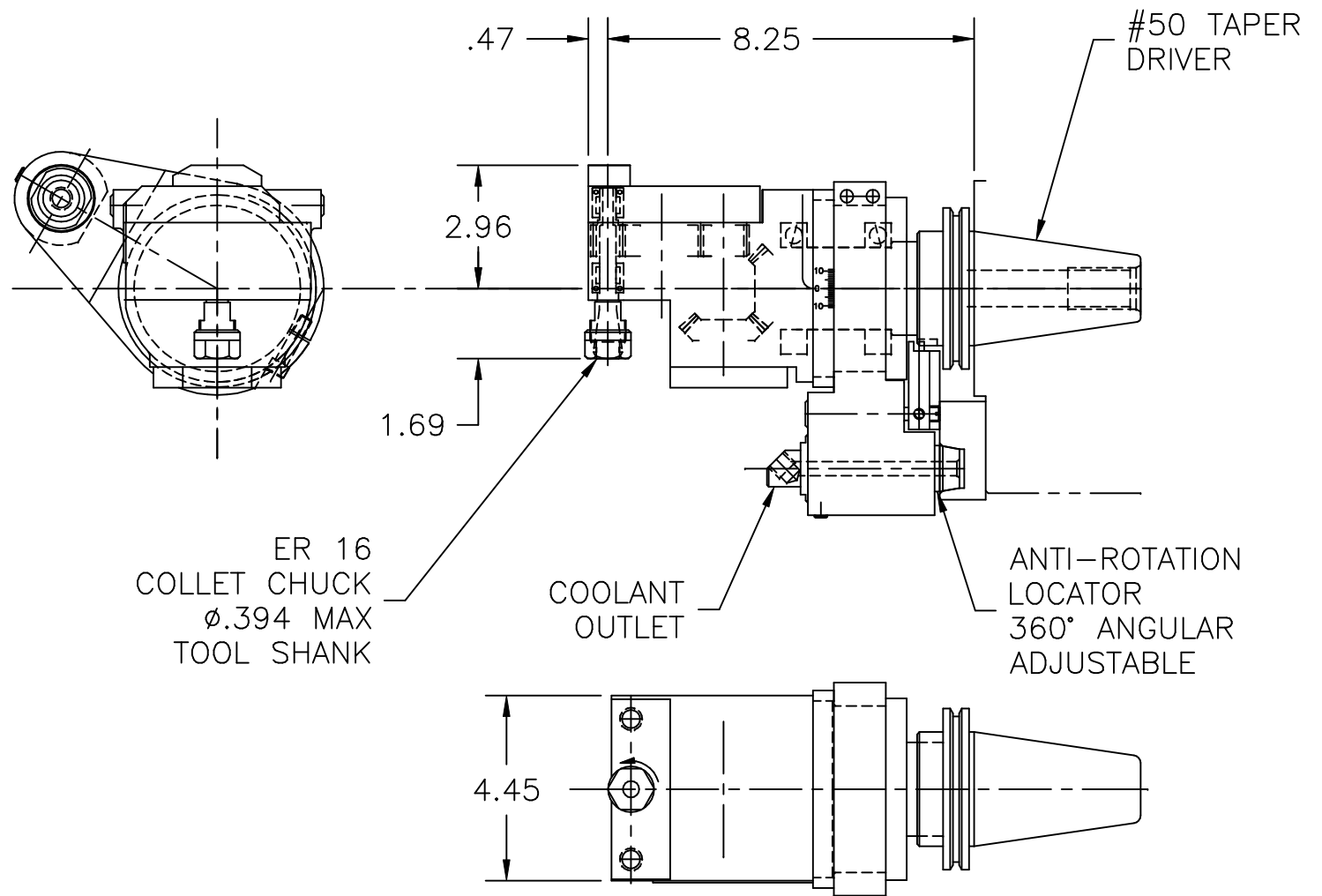
RIGHT ANGLE DRILL ATTACHMENT
 MOUNTS HORIZ.
 TO G & L RAM 500
 GEAR RATIO = 1.0 TO 1.0
 GEAR CAP. = 0.5 HP. PER 100 RPM

DRAWING SCALE 1/4
 95406-300



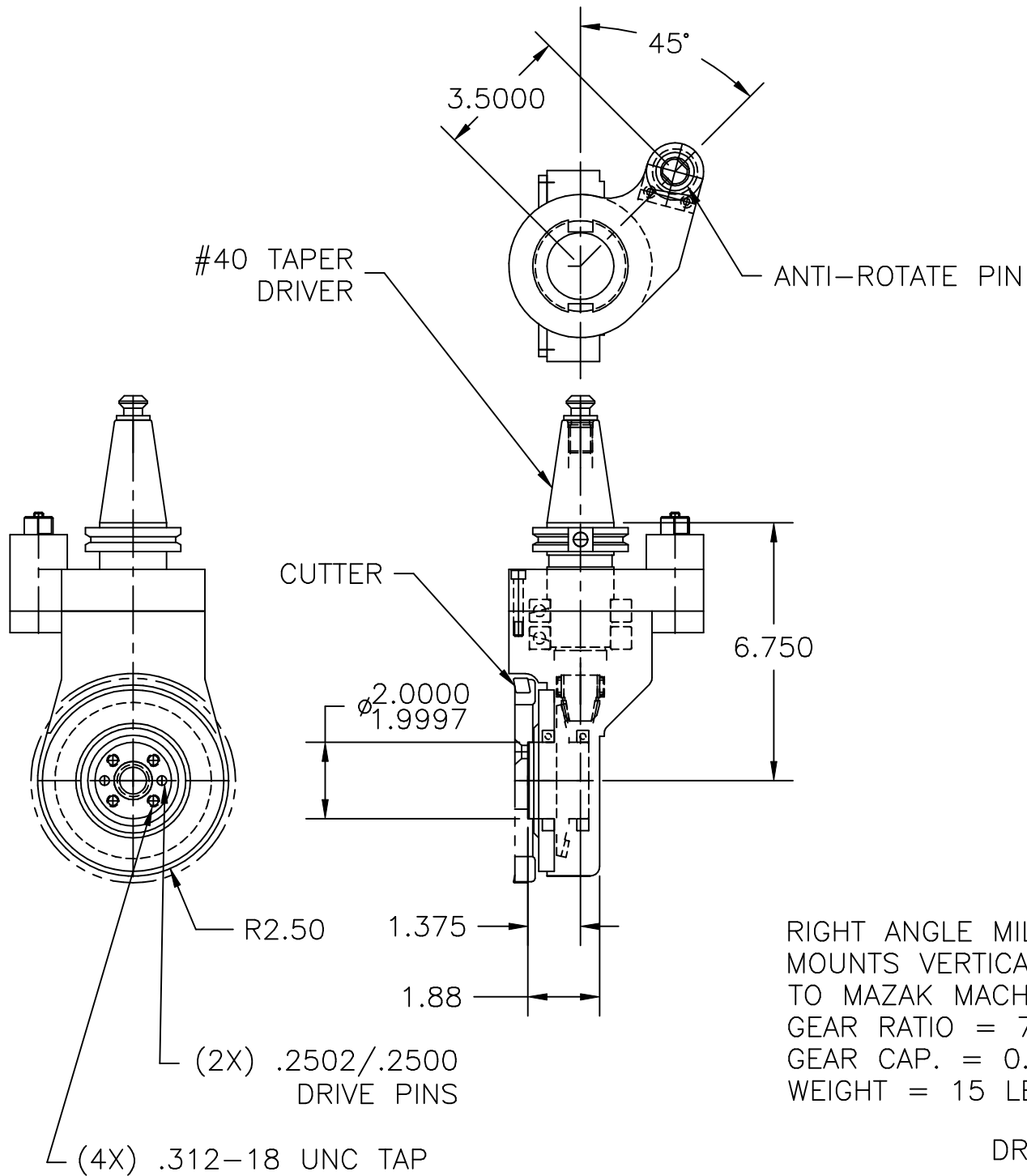
RIGHT ANGLE DRILL ATTACHMENT
 MOUNTS HORIZ.
 TO TOYODA MODEL FA550
 GEAR RATIO = 1.0 TO 4.0 INCREASE
 GEAR CAP. = 0.2 HP. PER 100 RPM OUTPUT

DRAWING SCALE 1/4
 K9190
 99165-300



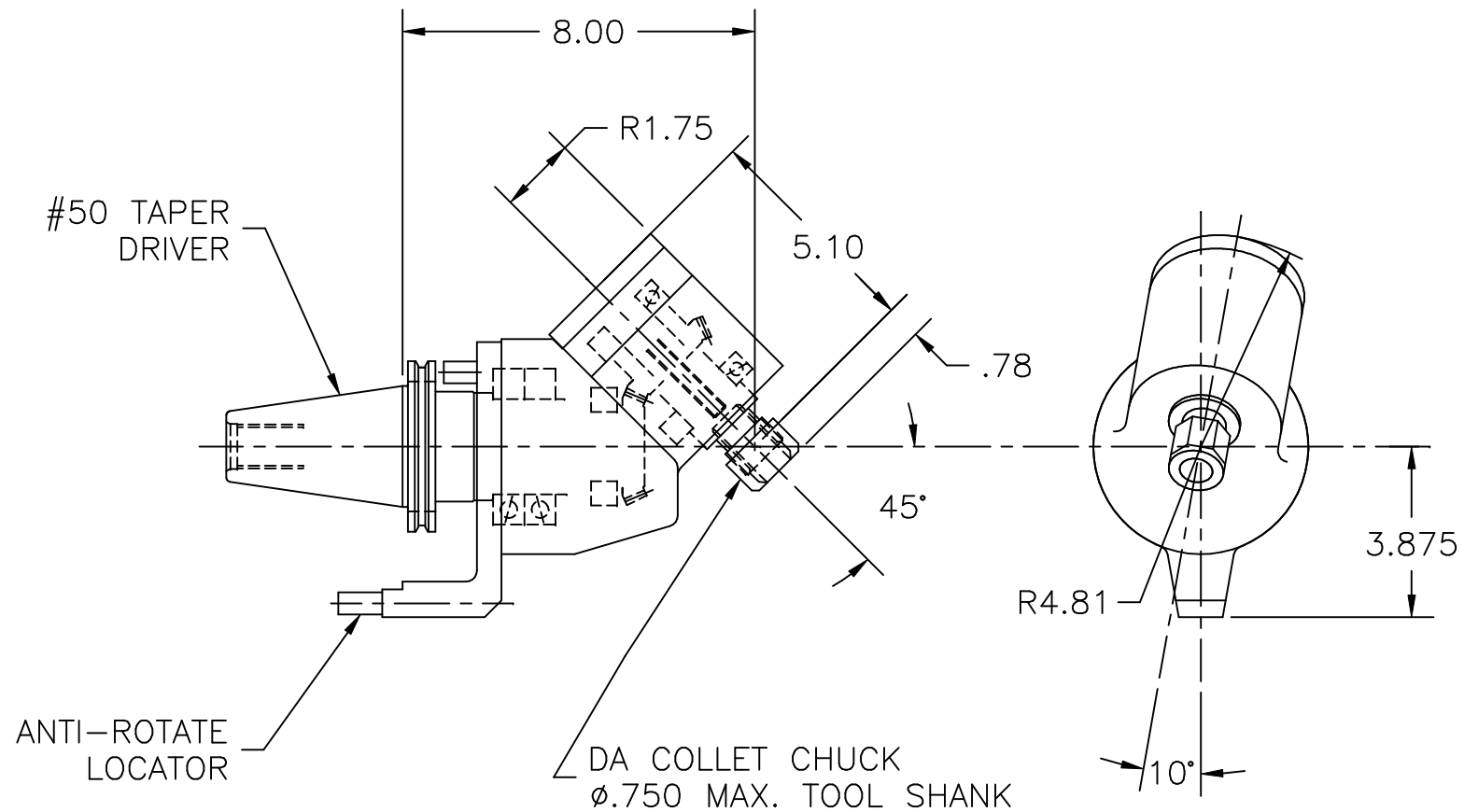
DRILL ATTACHMENT
MOUNTS HORIZ.
TO TOYODA FA 800
GEAR RATIO = 1.0 TO 1.5 INCREASE
GEAR CAP. = 0.4 HP. PER 100 RPM INPUT

DRAWING SCALE 1/4
201187-301



RIGHT ANGLE MILL ATTACHMENT
 MOUNTS VERTICALLY
 TO MAZAK MACHINE CENTER
 GEAR RATIO = 7.0 TO 40.0 REDUCTION
 GEAR CAP. = 0.2 HP. PER 100 RPM INPUT
 WEIGHT = 15 LBS

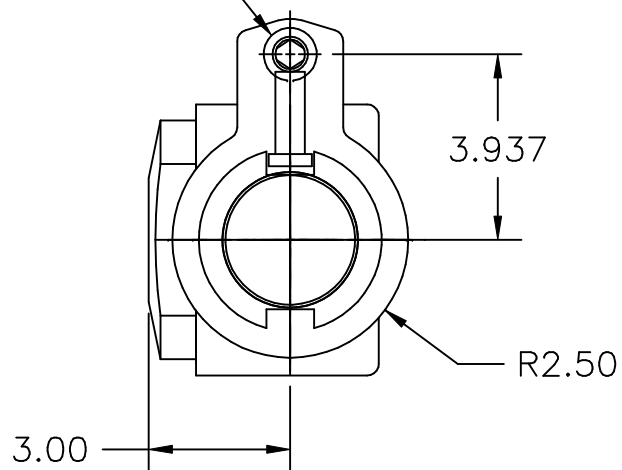
DRAWING SCALE 1/4
 204294-300



ANGULAR DRILLING ATTACHMENT
 MOUNTS HORIZ.
 TO SUNSTRAND SERIES 20 OMNIMILL
 GEAR RATIO = 1.0 TO 1.0
 GEAR CAP. = 0.9 HP. PER 100 RPM

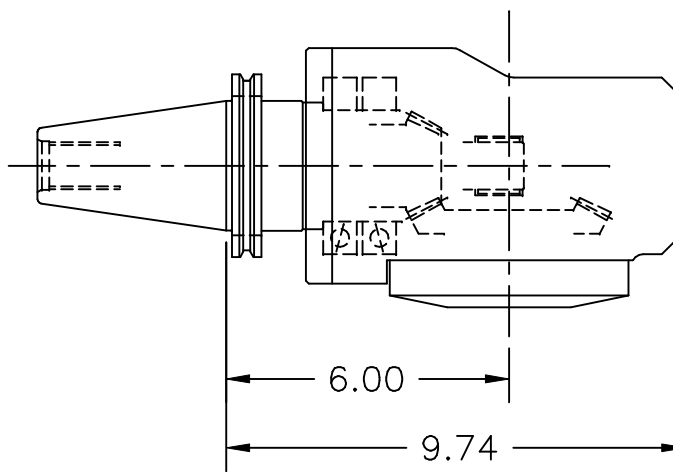
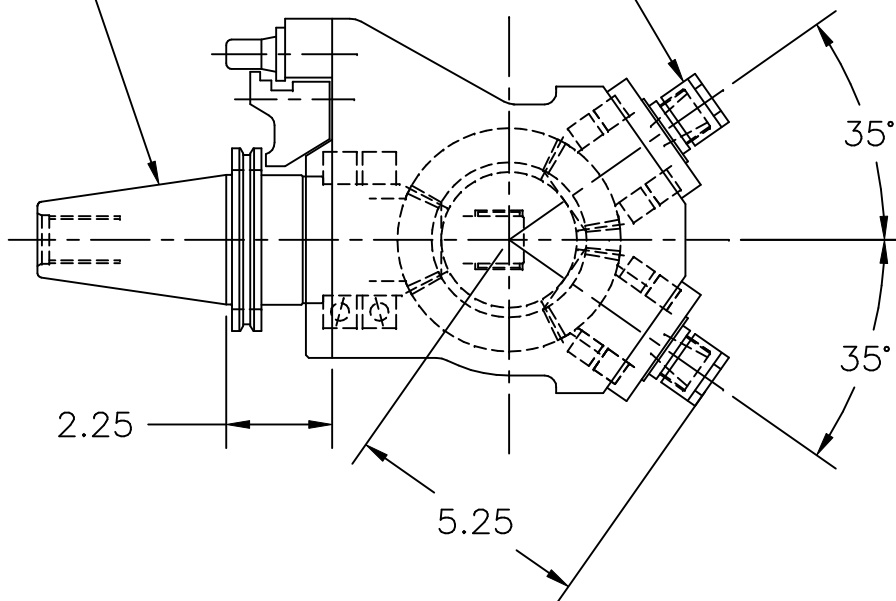
DRAWING SCALE 1/4
 K 5533

ANTI-ROTATE
LOCATOR



#50 TAPER
DRIVER

ACURA-FLEX
COLLET CHUCK
.109 - .500 DRILL
#4 - 1/2 TAP



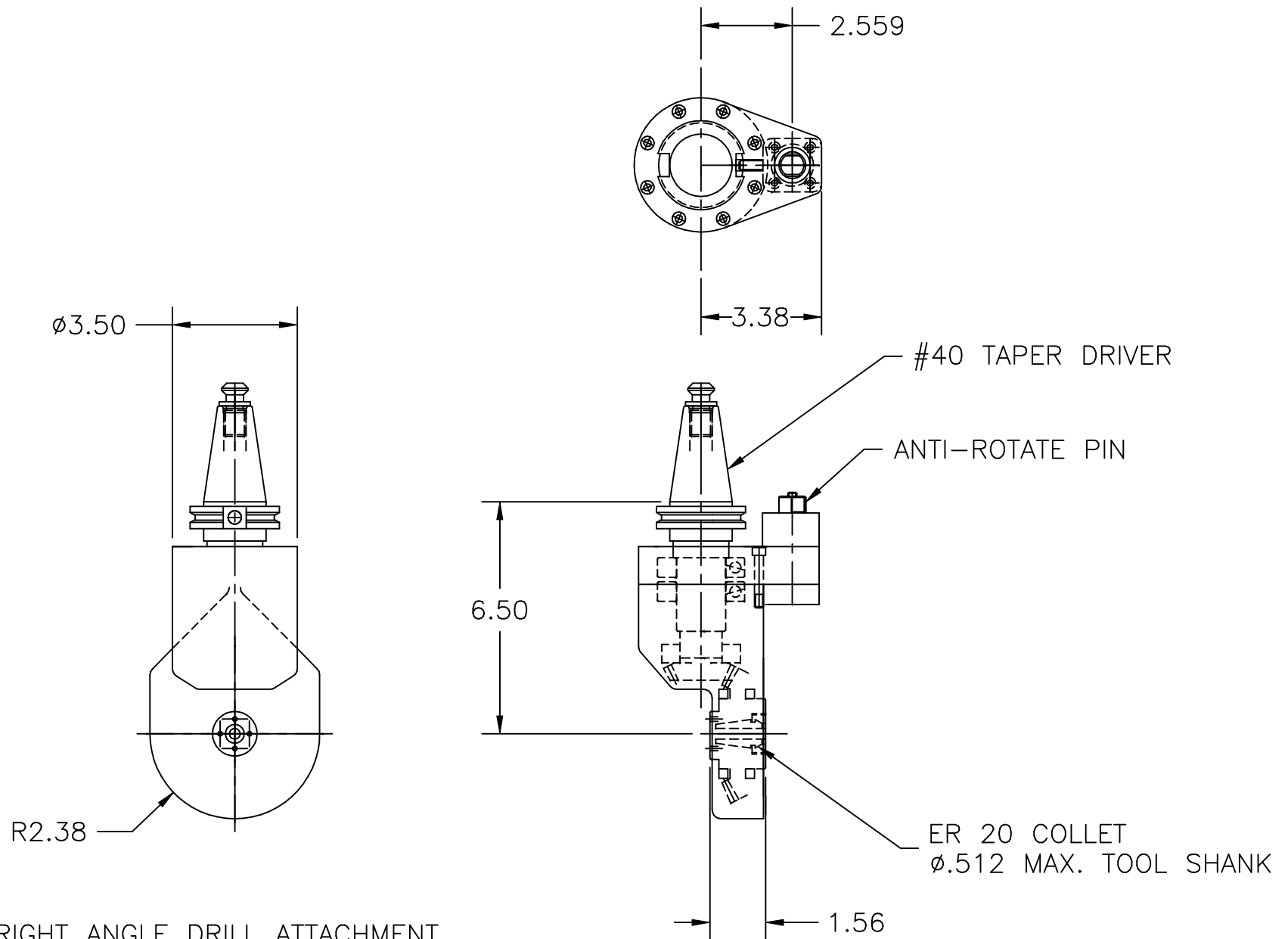
TWO SPINDLE ANGULAR
DRILL-TAP ATTACHMENT
MOUNTS HORIZ.

TO K & T #2300 ORION

GEAR RATIO = 1.0 TO 1.0

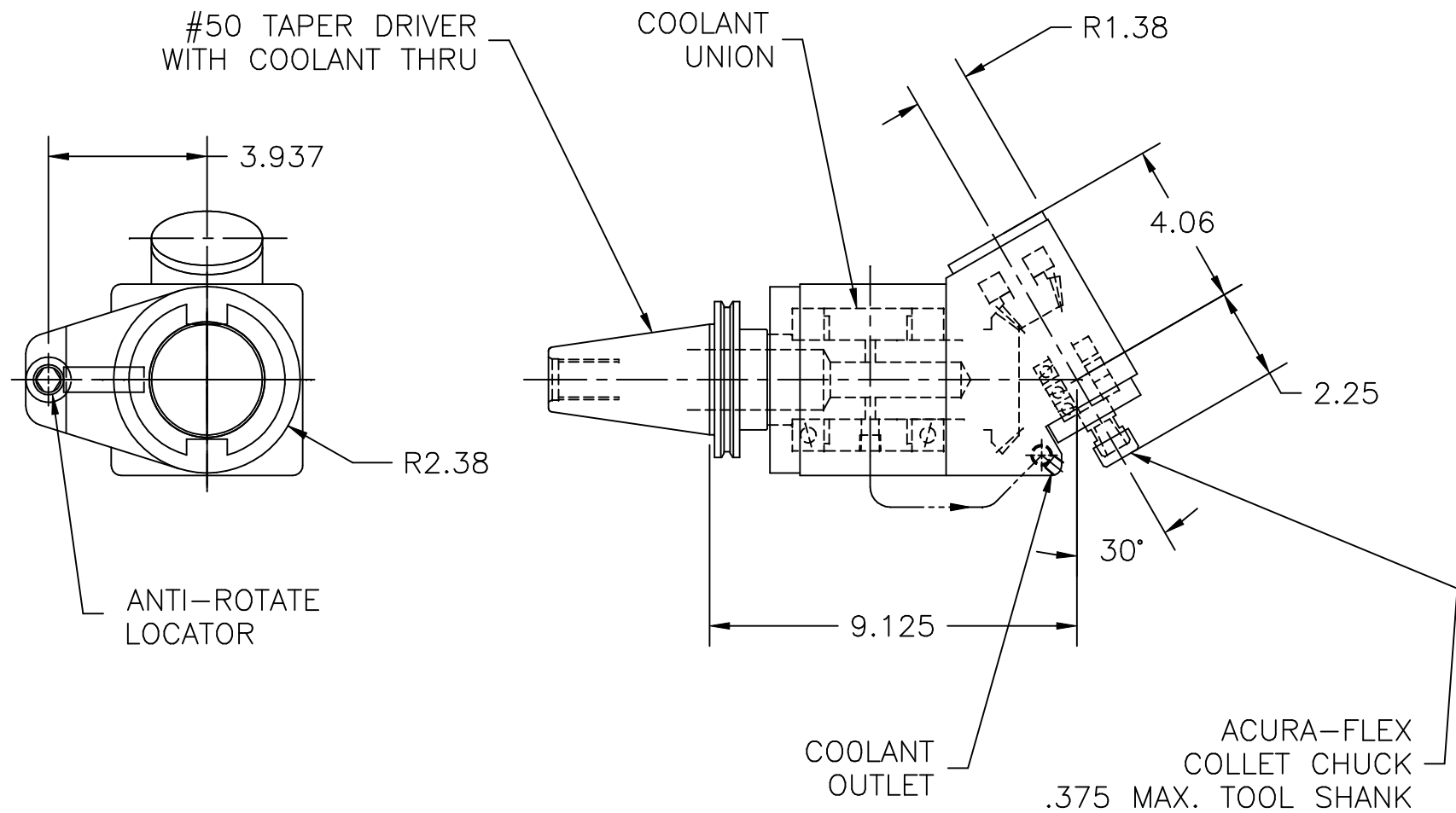
GEAR CAP. = 1.2 HP. PER 100 RPM

DRAWING SCALE 1/4
K 9213



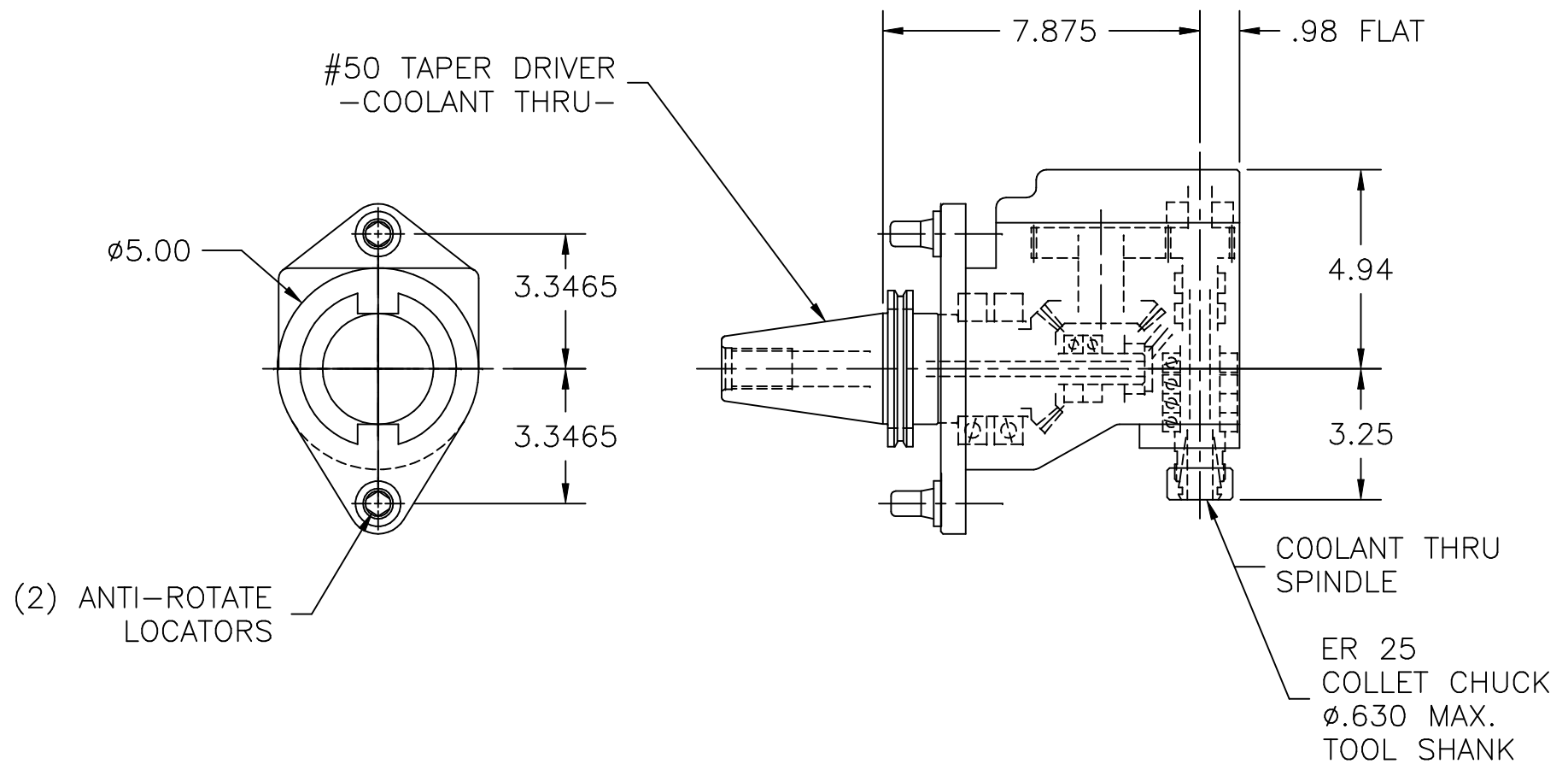
RIGHT ANGLE DRILL ATTACHMENT
 MOUNTS VERTICALLY
 TO CINCINNATI SABER 750
 GEAR RATIO = 1.0 TO 0.5 REDUCTION
 GEAR CAP. = 1.0 HP. PER 100 RPM INPUT

DRAWING SCALE 1/4
 K9892



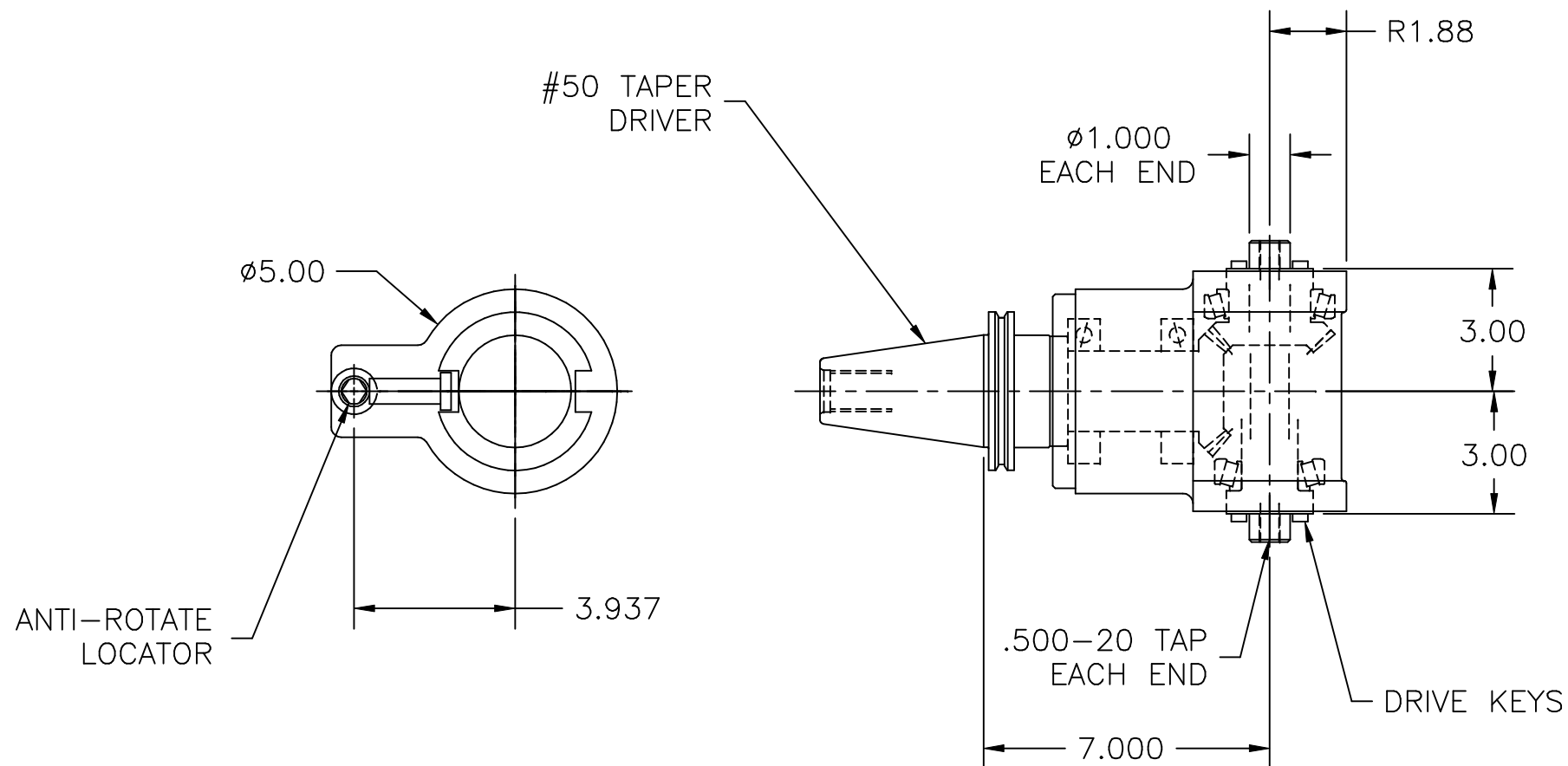
ANGULAR DRILLING ATTACHMENT
 MOUNTS HORIZ.
 TO K & T #MM1015
 GEAR RATIO = 1.0 TO 2.2 INCREASE
 GEAR CAP. = 0.5 HP. PER 100 RPM OUTPUT

DRAWING SCALE 1/4
 K 9903



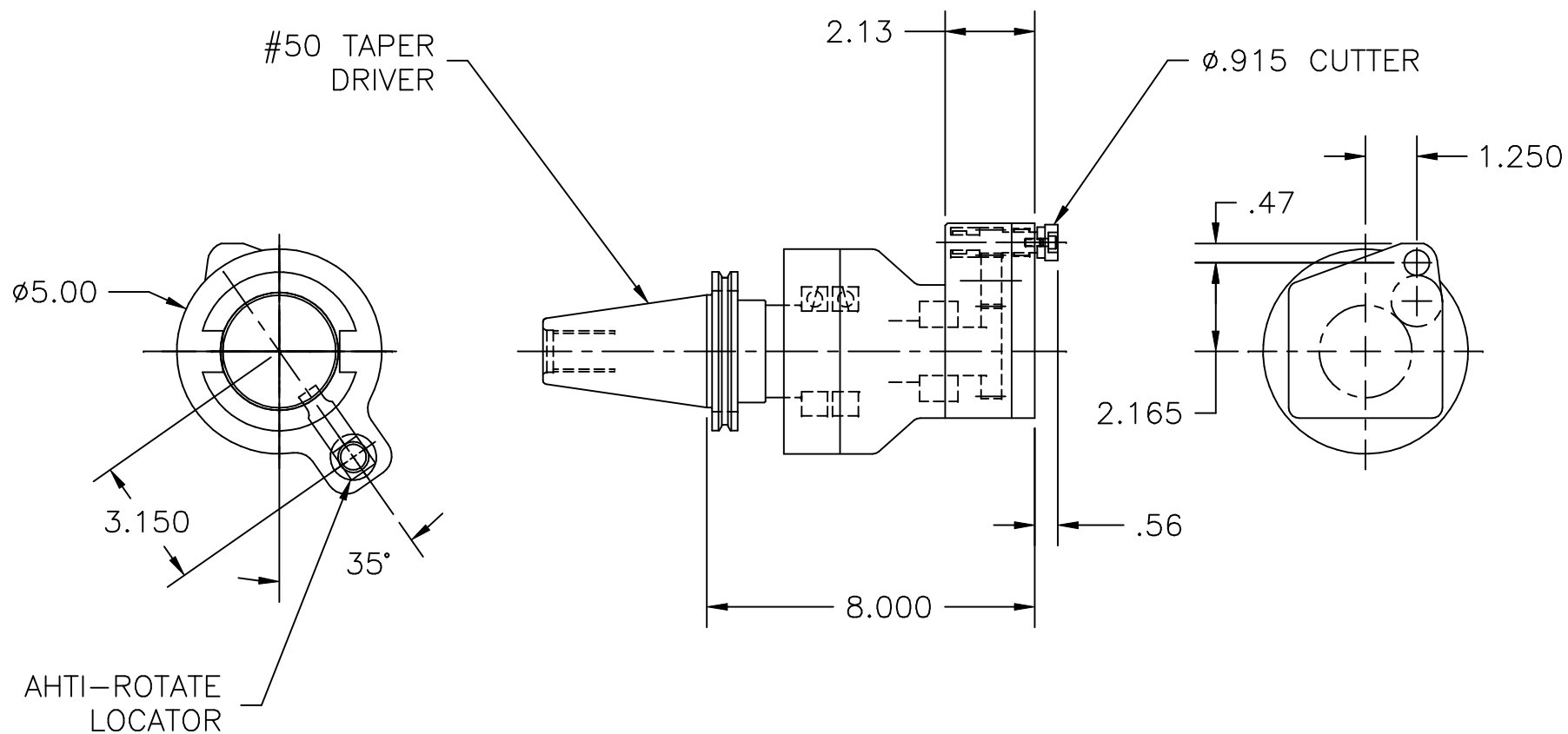
RIGHT ANGLE DRILL HEAD ATTACHMENT
 MOUNTS HORIZ.
 TO MACHINING CENTER
 GEAR RATIO = 1.0 TO 2.1 INCREASE
 GEAR CAP. = 1.2 HP PER 100 RPM INPUT
 0.6 HP PER 100 RPM OUTPUT

DRAWING SCALE 1/4
 K 9994



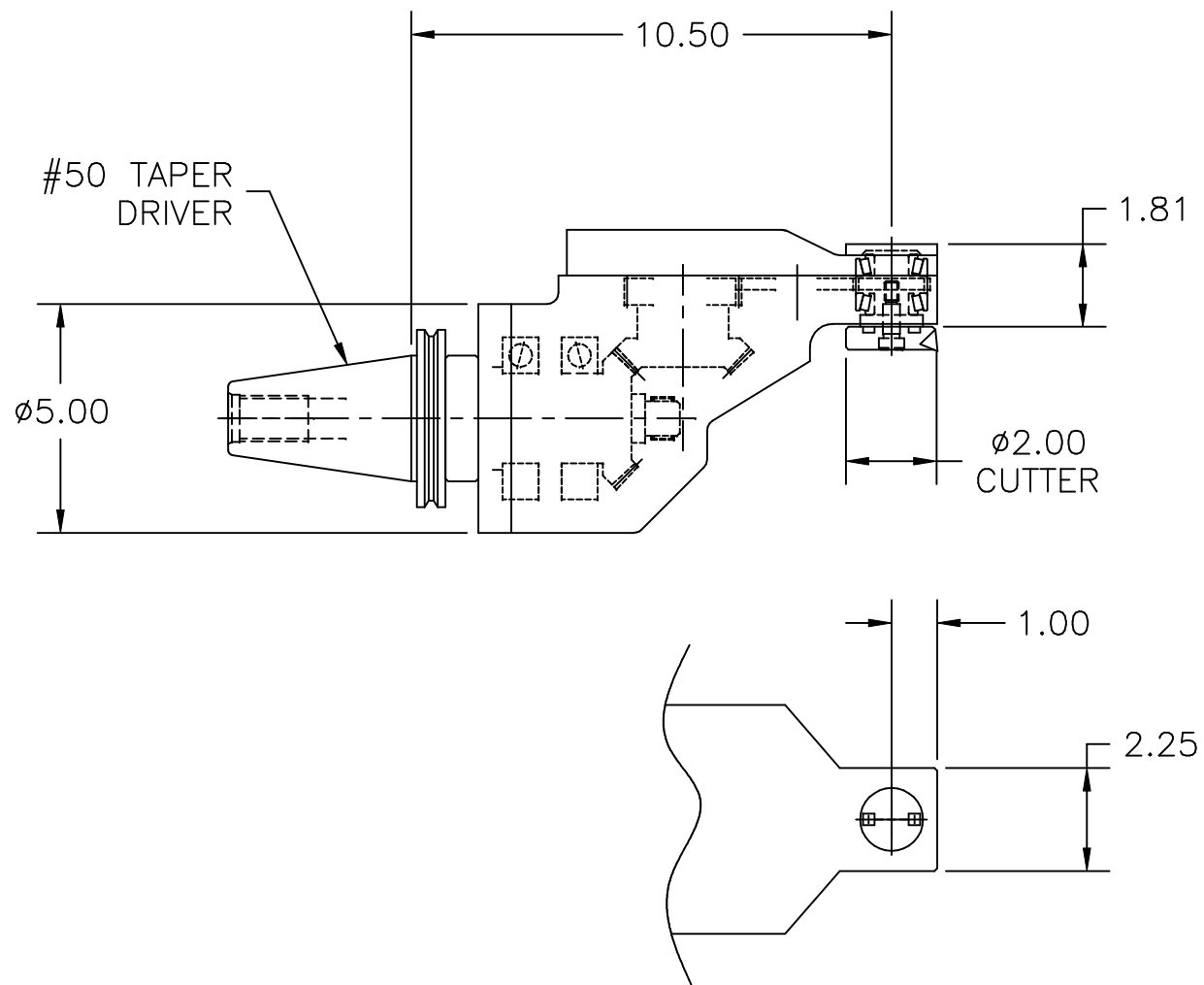
RIGHT ANGLE MILL ATTACHMENT
 MOUNTS HORIZ.
 TO K & T #2200 ORION
 MACHINING CENTER
 GEAR RATIO = 1.0 TO 1.0
 GEAR CAP. = 1.9 HP PER 100 RPM

DRAWING SCALE 1/4
 K 10226



OFFSET MILLING ATTACHMENT
 MOUNTS HORIZ.
 TO TOYOTA #FA550 MACHINING CENTER
 GEAR RATIO = 1.0 TO 3.7 INCREASE
 GEAR CAP. = 0.4 HP. PER 100 RPM INPUT

DRAWING SCALE 1/4
 K 10755



RIGHT ANGLE MILL ATTACHMENT
 MOUNTS HORIZ. TO MACHINING CENTER
 GEAR RATIO = 1.0 TO 1.5 INCREASE
 GEAR CAP. = 0.3 HP. PER 100 RPM OF OUTPUT

DRAWING SCALE 1/4
 P-020393