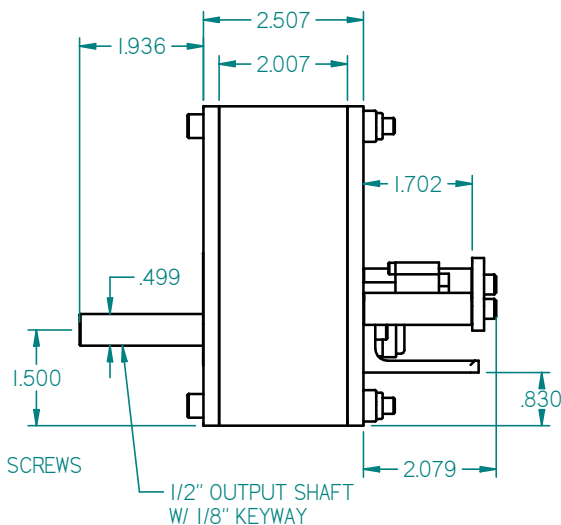
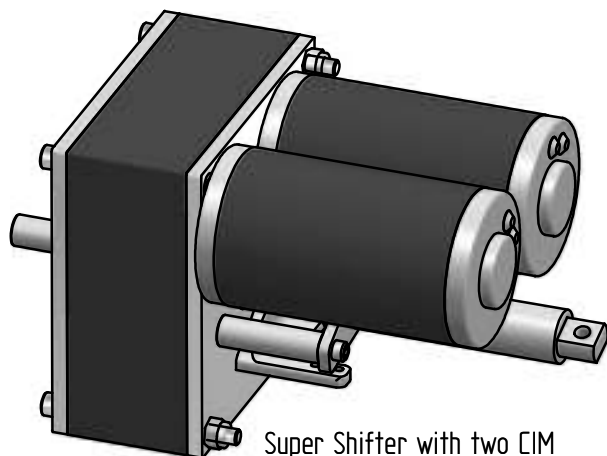


OUTPUT  
SHAFT

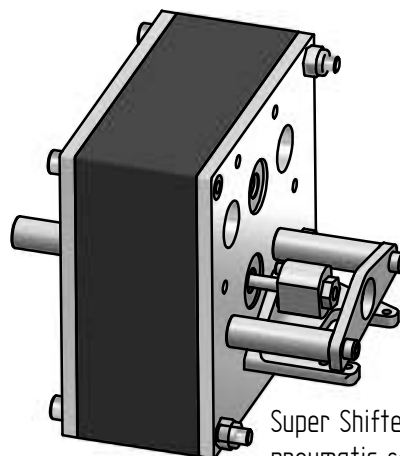
MOUNTING SCREWS  
(1/4"-20)



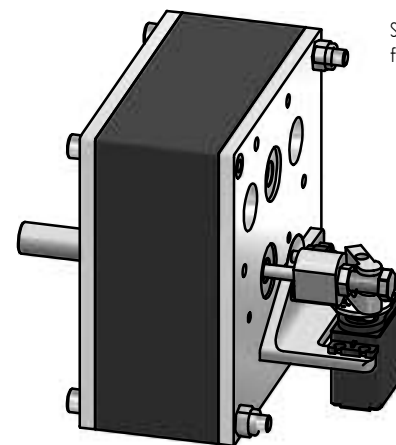
1/2" OUTPUT SHAFT  
W/ 1/8" KEYWAY



Super Shifter with two CIM  
Motors and 04-05-DP  
Bimba cylinder installed.  
Total weight: 10.0 pounds



Super Shifter with  
pneumatic setup.  
Total weight: 4.0 pounds



Super Shifter with servo  
shifting setup.  
Total weight: 4.0 pounds

OPTIONAL PARTS AVAILABLE:  
GEARS  
OUTPUT SHAFTS:  
LONGER STEEL, STANDARD AND LONG ALUMINUM HEX  
SPACERS (REPLACING BOX EXTRUSION)  
SEE <http://www.andymark.biz/am-0114.html> FOR INFO

#### REVISION HISTORY

REV	DESCRIPTION	DATE	APPROVED

#### STANDARD GEARING:

All gears are 4140 steel, 20 dp, 14.5 p.a.  
Ratio between High and Low gears: 2.56:1  
FINAL STAGE, w/ 45:20 gear set  
Low Gear: 24.0:1  
High Gear: 9.4:1

OPTIONAL "FINAL STAGE" GEARING  
(available as optional parts)  
FINAL STAGE w/ 48:17 gear set  
Low Gear: 30.11  
High Gear: 11.8:1

OPTIONAL "OUTPUT" GEARING  
(available as optional parts)  
Ratio between High and Low gears: 4:1  
FINAL STAGE, w/ 45:20 gear set  
Low Gear: 24.0:1  
High Gear: 6.0:1  
FINAL STAGE w/ 48:17 gear set  
Low Gear: 30.11  
High Gear: 7.5:1

See <http://www.andymark.biz/am-0114.html>  
for more information.

DRAWN	Andy Baker	05/05/09	<div>ANDYMARK.BIZ</div> <div>STANDARD SOLUTIONS FOR COMPETITION ROBOTS</div> <div>TITLE</div> <div>SUPER SHIFTER</div>		
MATERIAL					
QUANTITY					
HEAT TREAT					
FINISH					
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES ANGLES ±0.5° 2 PL ±0.01" 3 PL ±0.005"			SIZE A3	DWG NO SUPER_SHIFTER_ASM.DFT	REV 1
			FILE NAME: super_shifter_asm.dft		
			SCALE:	WEIGHT:	SHEET 1 OF 1