

STV®CNC Gear Reduction Kit

The STV®CNC Gear Reduction System are 3 (X, Y & Z) separate mounted stepper motors with belt-driven gears to increase precision & gliding fluidity. Handcrafted Cable Wiring fastens into your Plasma Table. The Kit is designed, manufactured, assembled & tested in-house.

STV®CNC Standard Versus Gear Reduction Kit Comparison

	STANDARD STEPPER MOTORS	GEAR REDUCTION KIT
SYSTEM RATIO	1:1 Direct Drive Gear Ratio	3:1 Gear Reduction Gear Ratio
PRECISION MARGIN OF ERROR (10ft travelled)	10 ft. = Off by 0.05" - 0.08"	10 ft. = Off by 0.02" - 0.05"
MOTION ACCURACY	0.005" per 12" inches	0.002" per 12" inches
STEP RESOLUTION	(+) or (-) 0.0005" inches	(+) or (-) 0.0005" inches
X&Y MOVEMENT	Follows through with X&Y Standard Coordinate requests	Fluidity between X&Y Coordinates when cutting circular or rounded outputs
WEIGHT & MOTION	Torque, weight & wear leans towards the shaft of the motor	Torque, weight & wear leans towards the belt in the housing
SPEED	Follows through with Motor's Standard Speed of up to 600 inches per minute	Weight shifts towards belt. Motor focuses on increased speed & fluid motion. Up to 1000 inches per minute. Higher speeds may alter expectations of best cut quality results.
WEAR & TEAR	Regular wear & tear to the rack and pinion due to start & stop motion	Extended Timeframe considered for regular wear & tear mainly towards the belt & gear housing. Gear housing may require maintenance checks on gear tightness over an extended length of time.

*IMPORTANT: The information has been provided to understand and grasp the increased difference and longevity of adding a gear reduction kit to your table specifically when placing a new order. if you have an early SparX™ model and wish to purchase a gear reduction kit, please call 1-855-930-1122 to discuss a late model upgraded kit to your existing table. Any additional questions you may have you can source our FAQ page on our website or you are always welcome to speak with our support staff at 1-855-930-1122.