

ROLLER CAM TYPE

- » The roller cam consists of an input cam shaft and a roller turret.
- » The roller cam is designed with rolling contact, featuring high rigidity, high speed and outstanding durability.
- » Engagement between the roller and the cam is preloaded to fully eliminate backlash, enabling the roller and cam to exhibit their ultra-high precision feature.
- » With rolling contact to transmit kinetic energy, energy consumption during drive can be dramatically reduced. This enables the roller cam to achieve over 90% transmission efficiency.



>> The reduction ratio of gears is low that runs fast.

- >> Indexing accuracy within 20 arc-sec, repeatability with 4 arc-sec.
- Adopt ISO 230-2, the highest international inspection standard.
- > Optional European advanced angle encoders.

> Carburizing steel and bearing steel, HRC58 ° ~ 60 °.

> Nearly zero backlash, low wear and low vibration.



PRECISION





- » The accuracy can be maintained for a long time without adjusting the backlash.
- » Four point rolling contact surface, mutual restraint positioning, ultra-high rigidity.

» It is not easy to distort when processing crash, and the influence of precision is small.

» Important locking interface is reserved for excellent rigidity that integrated casting design.



> Low noise, fast maintenance. Environmental

COMPARISON TABLE

		1
SSPM ROLLER CAM	WORM GEAR	DIRECT-DRIVE TORQUE MOTOR
Cam Shaft: Carburized Steel, HRC58°~60°	Worm: Carburized steel, HRC60°	
Cam Follower: Bearing Steel, HRC58°~60°	Worm gear: Phosphor Bronze, HB90°	Direct Drive By Motor
Rolling Contact	Sliding Contact	-
Nearly Zero-backlash (within 5 arc-sec)	Backlash Required	-
Good	Low	Good
Required	Not Available	Whinout
High	Low	High
Within 20 arc-sec	15~20 arc-sec	Within 30 arc-sec
Low	High	Low
Good	Poor	Good
High	Low	Low
Good	Poor	Moderate
Not Need	Required	Not Need
	Cam Shaft: Carburized Steel, HRC58°~60° Cam Follower: Bearing Steel, HRC58°~60° Rolling Contact Nearly Zero-backlash (within 5 arc-sec) Good Required High Within 20 arc-sec Low Good High	Cam Shaft: Carburized Steel, HRC58°~60°Worm: Carburized steel, HRC60°Cam Follower: Bearing Steel, HRC58°~60°Worm gear: Phosphor Bronze, HB90°Rolling ContactSliding ContactNearly Zero-backlash (within 5 arc-sec)Backlash RequiredGoodLowHighLowWithin 20 arc-secHighLowHighGoodPoorHighLowGoodPoor

ADVANTAGE ANALYSIS





TIMAE VARIATION OF POSITIONING ACCURACY



Worm gear type needs regular maintenance because the accuracy will decrease with time.

Roller cam type does not need maintenance because it can maintain stable accuracy for long-term use.

ear type requires back clearance adjustment twice a year

Roller cam type does not require regular back clearance adjustment and maintenance, because long-term use can maintain stable accuracy.