Adamant Namiki Precision Jewel Co., Ltd.

No Electricity Locking System

"dyNALOX" is Namiki's original locking system, where torque is transferred from input to output, but not the otherway around.

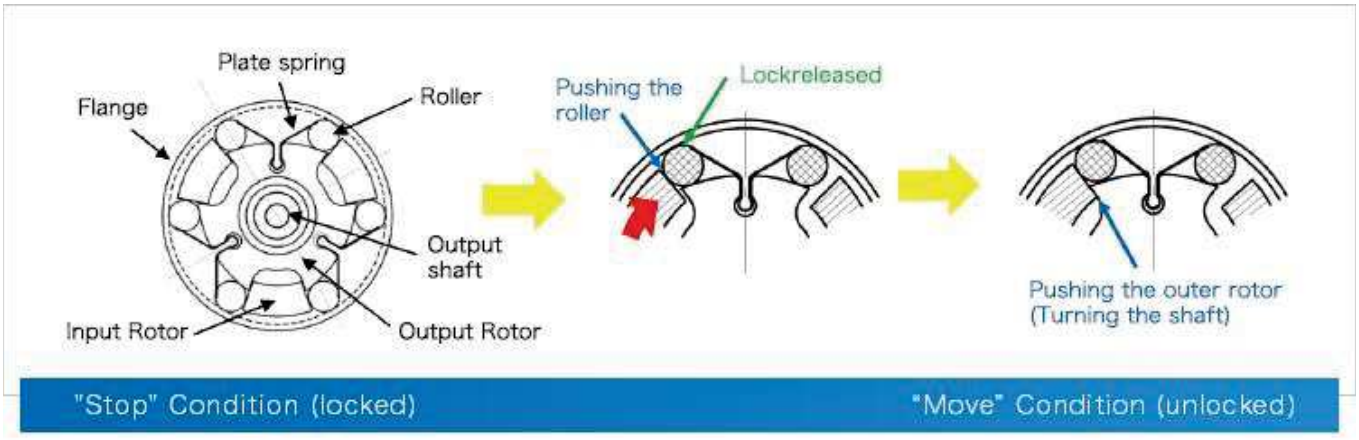
Features

① Outer force is disconnected without use of a low efficiency reduction system such as a worm gear or slide screw. System can be made small in size.

② No electric power is required in this system. Contributes to low current consumption, emergency stop function.

"dyNALOX" is designed to transfer torque from the input shaft to the output shaft, but rotation from the output shaft is locked so the torque from the outside does not transfer to the inside. This system can be easily adopted by adding a few extra millimeters on top of a planetary gear. With this, the motor is locked from outside force even under no-power conditions.

Composition and Mechanism



Rollers prevent the output shaft from rotating either direction.	The rollers are pushed out by the input rotor, and the lock is removed.	Input rotor makes contact with the output rotor and the output shaft rotates.

dyNALOX Mounted Planetary Gearhead

- Feature:

dyNALOX input rotor and the first stage of the planetary gear are made in one body to make it more compact.

- Specification

dyNALOX series			LPG07		LPG12		
Outer diameter			7		12		mm
Max allowable torque			70		400		mNm
Max input speed			12,000		8,000		rpm
Shaft radial play			≤0.02		≤0.02		°
Output shaft bearing			Sintered sleeve bearing				
Gear ratio (Efficiency)	Total length	1 Stage	4.7:1 (74%)	8.4	4.8:1 (75%)	15.7	mm
		2 Stage	22:1 (63%)	10.6	23:1 (66%)	19.5	mm
		3 Stage	105:1 (52%)	12.8	107:1 (60%)	23.3	mm
		4 Stage	494:1 (43%)	15.1	509:1 (52%)	27.2	mm

dyNALOX Registered patent

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