Water Meter-specific 'dynamic management three-proof valve' and other Valves For comparison

Comparative	Dynamic management	Lock valve+check valve combination
Products	Three-proof valve	
Effectiveness Comparison	Regardless of whether it's a new or old residential area, or the persistent issue of various water meters 'self-rotation,' after installing the 'three- proof valve,' it can completely solve the problem	After installation, issues such as water pressure fluctuations, pulsation phenomena, or the presence of impurities can still prevent the effective resolution of problems like water meter "self-rotation."
Water flow pressure loss comparison	A large diameter, obstacle-free, and smoothly designed passage to ensure smooth water flow and high flow rate.	Spring-loaded check valve: Hindered by spring resistance and a narrowed passage, it severely affects water flow. On the other hand, the flap check valve: Due to a sudden expansion in the middle of the valve body and the 'pulsating' water flow, it causes valve flap vibration, leading to turbulent water flow that affects water meter measurement.

User management function comparison	"Dynamic management" function + non-card magnetic lock design Assist in upgrading the water company's management methods and improving reliability.	 "A single △ or magnetic management function results in keys scattered everywhere, rendering it meaningless for management. Furthermore, such magnetic management valves cannot function properly due to magnetic pole design principles."
Core principal comparison	"Permanent magnetism + hydraulic self-dynamic check is the core. It can ensure stable performance under various water usage conditions in the long term."	Relying on spring force or depending on reverse water pressure for check valves is the core. Due to spring jamming, failure, and water pressure 'pulsation,' the effectiveness cannot be guaranteed.
Economic benefits and management benefits comparison	Fewer installation nodes (fewer leakage points) + saving the installation cost of one valve and joint + lower initial comprehensive investment, high economic value. One valve serves the function of three valves, reducing overall costs and leakage points.	An additional node means an additional potential leakage point, and installation materials and costs increase. When considering the one- time purchase price alone, it appears to be low. However, it cannot effectively address the 'three-proof' issues, causes water flow problems, and fails to improve water company management. Without a doubt, it is not worth further promotion.

Notes:

A Three-Proof:

a. Preventing water meter self-rotation: Resolving water usage disputes and improving customer satisfaction.

b. Preventing non-metered dripping water: Enhancing meter sensitivity, improving measurement accuracy, and fairness.

c. Preventing sewage and hot water from flowing back into the pipe network: Addressing water pollution risks and enhancing drinking water safety.

B Dynamic Management:

a. Daily management: Can be managed by the water company itself, or the regular \triangle key can be given to the property management for daily management, to lighten the burden on the water company.

b. Special management when necessary, such as before or after the handover of new buildings when enhanced management is required, the "Golden Arch" magnetic lock can be added.