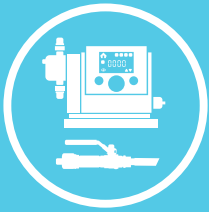
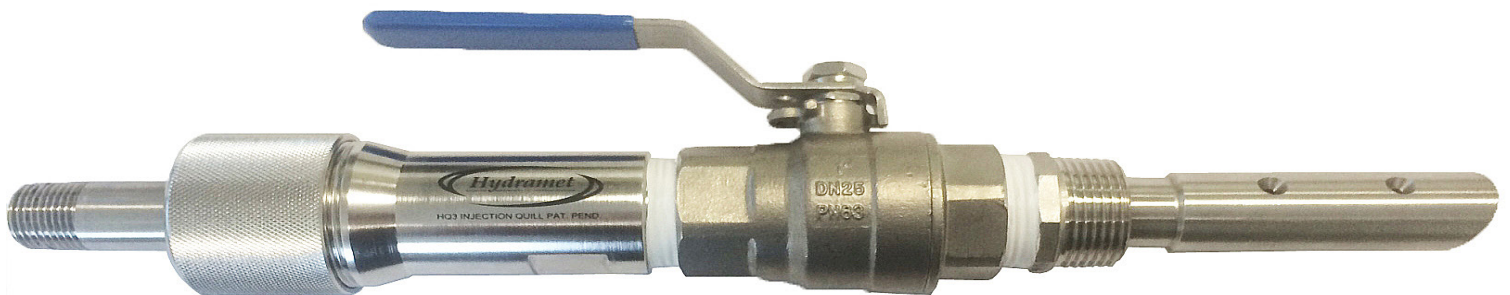


Engineered and designed with operator safety in mind. The HQ3 injection quill is the future of injecting chemicals safely



The HQ3 injection quill significantly improves operator safety when injecting chemicals



It is mechanically impossible for the quill to pass through the seal chamber; it cannot become a projectile

The HQ3 chemical injection quill introduces a number of new design features compared to standard injection quills. In particular, results have shown that the HQ3 chemical injection quill has improved operator safety and mixing effectiveness.

A misconception when using traditional dosing spears is that the chain attached to the spear limits the travel of the spear and therefore prevents it from being ejected. It is often referred to as a safety chain, but it is unrated and intended as a guide of how far the spear can be withdrawn. The chain should not be relied upon to protect operators.

The HQ3 has removed the so called "safety chain" and has been designed to prevent the spear from being ejected out of the pipeline under pressure.

The addition of the new retention system also improves environmental safety significantly over the chain stop version. Chemical spills are avoided while retracting the spear.

Safety features

The HQ3 has proven to improve operator safety significantly by;

- Allowing the safe withdrawal of the spear from a pressurised water main during operation, without the need for a shutdown
- Making it mechanically impossible for the spear to pass through the seal chamber, ensuring the spear cannot become a projectile
- Keeping the spear in place whilst in operation via the retention chamber
- Strengthening the shaft to avoid breaking under pressure
- Reducing risk of chemical exposure

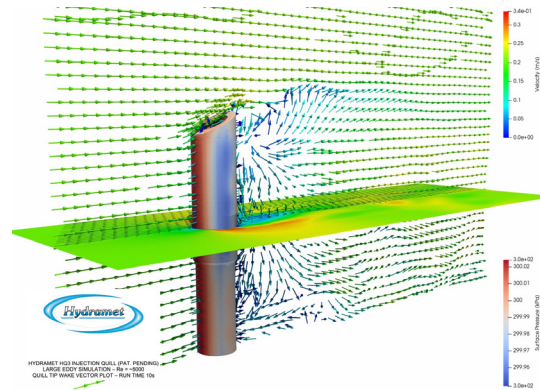
Mechanical features

- Excellent resistance to stress corrosion cracking (SCC) in chloride bearing environments
- Excellent resistance to corrosion fatigue and erosion corrosion
- Very high mechanical strength
- Seal chamber minimises risk of leaks or exposure to chemicals
- Length can be adjusted on site - no cutting required
- Suitable for dosing into various pipe sizes



Mixing features

- By design, the shaft creates a flow disturbance, improving mixing in low velocity flows
- Angled spear tip improves mixing creating turbulence at the dosing point
- Discharge ports ensure optimum mixing



Applications

- Ideally suited to chlorination systems
- Injecting chemicals in indoor and outdoor applications
- Installation of non-return valve required to avoid any contamination of dosing line

Specifications

Materials	SAF 2205 duplex stainless steel shaft - very high mechanical strength and is rated to 15MPa 316 stainless steel ball valve 316 stainless steel seal chamber		
Insertion	The quill should ideally be injecting chemical into fully-developed turbulent flow. A minimum insertion of 100mm for DN300 or smaller and a minimum insertion of 25% for pipes greater than DN300 is recommended		
Mechanical properties	The quill is sufficiently strong enough to avoid resonance induced by turbulence or vortex shredding		
Pressure	Independently NATA tested and certified to AS4037		
Ordering information	Size	Length of quill	Part no
	½"	380mm	HQ33002
	½"	680mm	HQ36002
	½"	980mm	HQ39002

hydramet.com.au

Patent pending



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