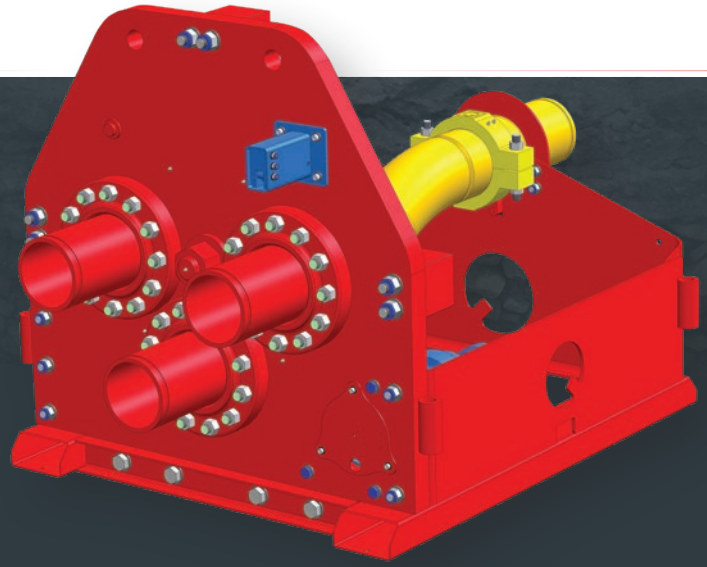
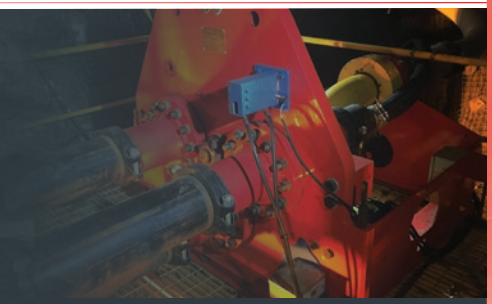
QUATTRO PROJECT ENGINEERING

ENGINEERING PARTNERSHIPS

QD4™

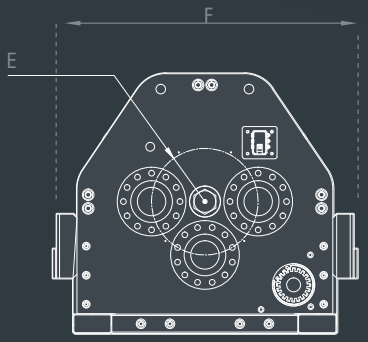
4 POSITION DIVERTER



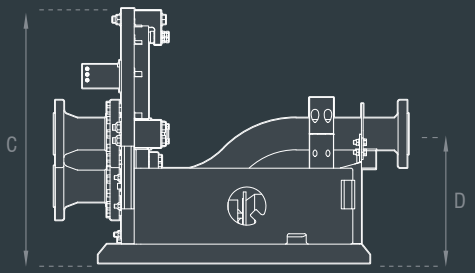


The Quattro 4 position paste diverter offers an unprecedented level of control to underground paste reticulation systems. Engineered in accordance with statutory code requirements the QD4 enables safe, controlled and efficient diversion and isolation of pressurised paste lines in an underground environment.

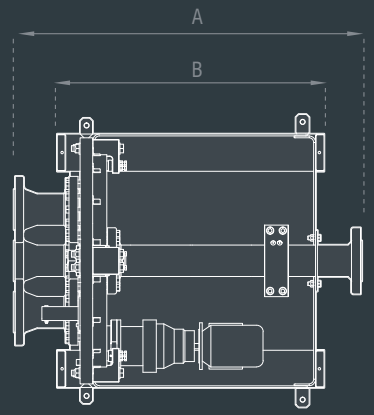
- System Isolation
- Line Diversion
- Line Dump
- Rated to 10MPa
- 1000V drive
- Full Automation
- 6” and 8”
- Auto and Manual Lockout



Front View



Side View



Rear View

Nominal Bore Size	Dimensions						Schedule	Rating (MPa)
	A	B	C	D	E	F		
6” or 150 mm	1915	1430	1340	680	275	1360	80	10
8” or 200 mm	2090	1625	1440	730	305	1418	80	10

Products

quattrope.com

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QD4™

4 Position Diverter

CONTROL PHILOSOPHY

QPE have been at the forefront of integrated system design intrinsically linking surface plant with underground. Fundamental to this philosophy is the inclusion of QPE's diverter range which enable the underground reticulation to be segmented in the event of a system blockage/stoppage.

By positioning a QD4 at the bottom of the primary borehole, the most expensive element of system infrastructure is protected. Further incorporation of Quattro's 2 position diverter range ensure that friction losses resisting system flush are minimised which ensure that the available system head can quickly and easily alleviate blockage/stoppage scenarios.

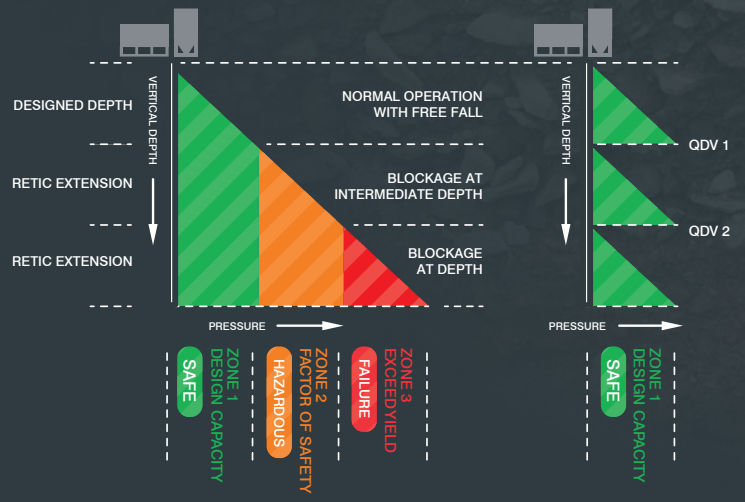
FUNCTIONALITY

Diversion of flow is created by the rotation of the sluice plate (A) from position (2) to position (4) on the diversion manifold (B). This simple mechanism completely removes the risk, time and cost associated with manual changeover of the reticulation pipe and as there are no "dead" zones, the valve is not susceptible to the seizure.

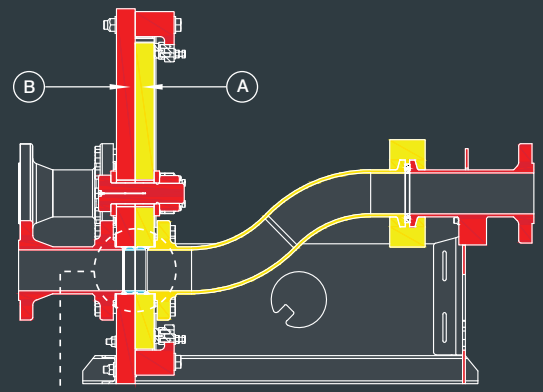
Rotation of the sluice plate (A) to the "blanked" position (1) **isolates** the paste feed from surface. This mechanism ensures the system is fully isolated and "locked out" enabling personnel to safely undertake maintenance activities on the system. Further, in the event of an emergency blockage situation, this divides the reticulation system up into "segments" which ensures the pipe work remains within its rated capacity.

Once isolated, each segment can be systematically bled by rotating the sluice plate (A) to **dump** position (3) with upstream capacity directed to a suitable sump. This position also facilitates full diameter free flow flushing of the system replacing the commonly employed knife gate dump valve arrangement, which due to the reduction in pipe diameter, 90° bend and "dead" zone, can be a hindrance to achieving a reliable and comprehensive flush of the system.

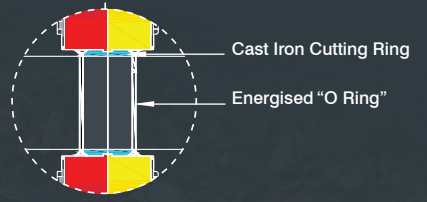
The valve has been designed with service and maintenance activities in mind. Regular greasing can take place at any time, particularly during service if a remote automatic greaser is employed. All seals can be safely replaced in situ by service crew personnel through the removal of the ANSI flanged pipe spools attached to both the sluice plate (A) and diversion manifold (B). The QDV makes provision for both automatic and manual lockout creating an engineered safety control with redundancy measure for the protection of maintenance personnel.



Valve Positions



Section



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