

Netafim 100 Series

Pilot-Operated Control Valve

Pressure Reducing, Sustaining & Flow Control for Heap Leaching & Mining Systems — 2" to 14", 16–25 Bar



One valve family, many control functions

Netafim's 100 Series is a hydraulically pilot-operated diaphragm control valve — not a simple shutoff valve. The same body configures for pressure reducing (PRV), pressure sustaining (PSV), flow control (FLV), quick relief (QRV), level control (LCV), surge anticipating (SAV), and pump control (PCV) duty by swapping the pilot circuit, not the main valve.

Key Specifications

SPEC	VALUE
Sizes	2" – 14" / 50–350mm
Body / Bonnet material	Stainless steel (SST 316) or Ductile iron (customer choice)
Max pressure	16 Bar / 230 PSI or 25 Bar / 365 PSI
Min recommended flow	1 m³/h (5 GPM)
Min operating pressure	0.4 Bar (6 PSI)
Diaphragm	ALD70 (standard) or Natural rubber

Spring	SST 316 (standard) or SST 302
Mining ("MIN") configuration	ALD70 diaphragm + SST 316 spring — Hastelloy wetted components available as an upgrade for chlorine-based chemistries

Flow Rate Factor (Kv / Cv) by Size

SIZE	2 "	3 "	4 "	6 "	8 "	10 "	12 "/14 "
Kv	95	170	220	600	800	1250	1900
Cv	110	200	255	695	925	1445	2195

Head loss = (Flow rate / Flow rate factor)² — straight-flow, flanged connection, standard models, 16 Bar / 250 PSI.

Chemical Compatibility: The Diaphragm Is the Limiting Material

On a sulfuric acid heap-leach application, the **ALD70 diaphragm** is rated to only **38°C max** — a real, sourced limit that's more restrictive than the body/liner material at the same acid concentration. Confirm operating temperature against the diaphragm rating specifically before finalizing a mining application quote, not just the body material.

ALD70 is rated "Not Good" for nitric acid even at 10% concentration, chlorine dioxide, and chlorine gas. For chlorine-based chemistries, Netafim's own catalog names **Hastelloy** as the direct substitute wetted-component material.



Real-World Application: Heap Leaching

The 100 Series is built for the pressure and durability demands of leaching and other mining systems — components are crafted to withstand the high acid concentrations found in mines, with a flexible diaphragm mechanism designed to allow maximal-to-near-zero flow while operating. Available in Cast Iron, Ductile Iron, Bronze, or Stainless Steel, with a full selection of control functions and end connections to fit an existing pipeline without redesign.