

## **ISO 5199 INLINE CHEMICAL PUMPS**

Amarinth K Series pumps are designed to ISO 5199 and are fully UKEx, ATEX, EACEx, ISO 80079-36 compliant when requested for the Chemical and Pharmaceutical markets, though they can be easily modified for Petrochemical applications. A full range of material options are available as standard to match your application, including NACE compliant materials. Standard documentation, testing and NDT packs are offered. Alternatively bespoke packages can be tailored to fit your exact requirements.



General description	A range of vertical inline overhung pumps available as foot, frame or pipeline mounted variants and manufactured in a variety of alloys	
Construction	Backpullout design with metal-to-metal fits	
Design methodology	Advanced computer techniques, 3D modelling, FEA & CFD	
Design standards	ISO 5199:2002 ATEX EC-Directive 2014/34/EU	
Design pressure rating	20 barg @ 20°C	
Suction pressure rating	16 barg (standard construction)	
Temperature rating	-40°C to 160°C (standard construction)	
Performance envelope Flow rate Differential head Speed	Up to 550 m³/h Up to 240 m Up to 3600 rpm	
Configurations	Long-coupled pump Bareshaft pump Rotating assembly	
Frame sizes	040x025x145 to 200x150x510	
Design life	20 years(2 years uninterrupted operation)	

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### key features

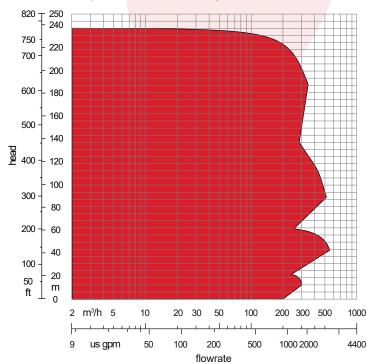
- Single stage inline mounted centrifugal pumps
- 20 bar pumps to ISO 5199 (2002) and ATEX compliance on application
- -40°C to 160°C temperature applications
- · Shrouded or semi-open impellers
- A range of alloys available on request including NACE compliant materials
- Tested to ISO 5199 procedures head, flow, NPSH, noise, and vibration
- · A range of seals and systems (PED compliant)

#### materials



Material Options	Casing	Impeller
SS 316 / SS 316	ASTM A744 CF 8M	ASTM A744 CF 8M
CastIron / CastIron	EN 1561 Gr EN GJL250	EN 1561 Gr EN GJL250
SGIron / SS316	EN 1563 Gr EN GJS400 18 LT	ASTM A744 CF 8M
Carbon Steel / SS316	ASTM A216 WCB	ASTM A744 CF 8M
Carbon steel / 12% Cr SS	ASTM A216 WCB	ASTM A217 Gr CA 15
Duplex SS/ Duplex SS	ASTMA890 Gr 4A (UNS J92205)	ASTMA890 Gr 4A (UNS J92205)
Super Duplex SS/ Super Duplex SS	ASTMA890 Gr 6A (UNS J93380)	ASTMA890 Gr 6A (UNS J93380)
Hastelloy B / Hastelloy B	ASTMA494 Gr N 7M	ASTMA494 Gr N 7M
Hastelloy C/ Hastelloy C	ASTMA494 Gr CW 12MW	ASTMA494 Gr CW 12MW
Monel / Monel	ASTMA494 Gr M35 1	ASTMA494 Gr M35 1
Titanium / Titanium	ASTM B367 Gr C2	ASTM B367 Gr C2
Customer specified	Other alloys available on request in compliant materials	cluding NACE Other alloys available on request including NACE compliant materials

## K Series hydraulic coverage



## typical applications

- Solvent
- Water
- Utility water
- · Demineralized water
- Brackish water
- De-aeriated
- · Sea water
- Potable water
- Pharmaceutical
  - Service water



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