Documentation Packs

Documentation pack	Inclusive documents	Standard
Bronze pack	Order acknowledgement (electronic)	●
	Installation, Operating & Maintenance manual	
	Declaration of conformity	
	ATEX Declaration of conformity - if applicable	
Silver Pack (includes bronze pack)	Hydrostatic test certificate	
	Pump HQ performance test certificate	
	Spare parts list – commissioning	
	Type 2.2 certificates (*pressure containing parts only) – only if contracted	
	Standard pump GA drawing	
Gold pack (includes silver pack)	Pump SA & parts list	
	Pump HQ performance test curve	
	Pump datasheet	
	Motor type test certificate	
	Motor GA drawing	
	Motor datasheet	
	Motor Declaration of conformity	
	Motor ATEX Declaration of conformity – if applicable	
	Seal – ATEX Declaration of conformity – if applicable	
Documentation format	Hard copy	●
	Electronic CD - Adobe (.pdf), ms office (.xls .doc) - only if contracted	

Testing

Pump test	Test standard	Acceptance criteria	Standard
Hydrostatic	BSEN25199 / ISO5199	BSEN25199 / ISO5199 (1.5 x MAWP)	●
Head & flow	BSEN25199 / ISO5199 BSEN25199 / ISO5199	ISO9906 Grade 2 ISO9906 Grade 1	
Mechanical run - 1 hour at rated duty	Amarinth procedure	Amarinth procedure	
NPSH – single point	BSEN25199 / ISO5199 BSEN25199 / ISO5199	ISO9906 Grade 2 ISO9906 Grade 1	
Noise – single point at 1m	BSEN12639: 2000	Mutual Agreement	
Vibration – single point	BSEN25199 / ISO5199	BSEN25199 / ISO5199	

NDT

Various motor tests

* Pressure containing parts include; volute casing & seal housing. Process wetted parts include additional shaft & impeller. A full range of testing and documentation can be tailored to suit your exact requirements. Amarinth reserves the right to alter any information within this document without prior notification.
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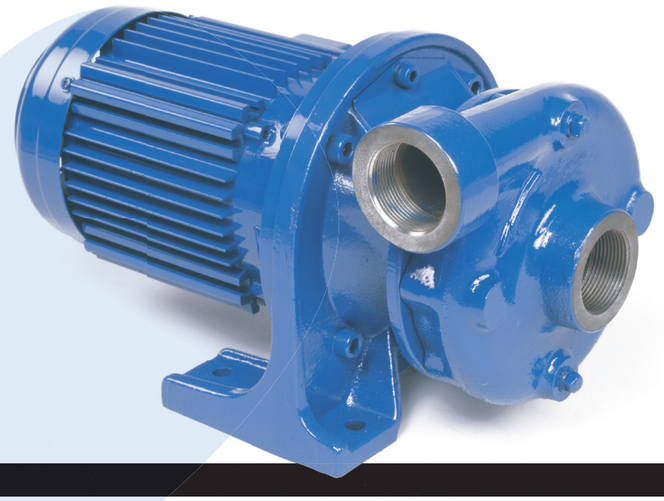
S Series – Small industrial pumps (close coupled)

technical specification



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General Specification

General description	A range of single stage centrifugal end suction pumps with tangential discharge manufactured in a variety of alloys. All pumps and individual components are fully interchangeable with the equivalent Girdlestone SSM series units.
Construction	Back pullout design with machined abutments
Design methodology	Advanced computer techniques including 3D modelling & FEA
Design standards	ATEX EC-Directive 94/9/EC
Design pressure rating	10 bar g @ 20°C
Suction pressure rating	3.5 bar g
Temperature rating	-5°C to 120°C
Performance envelope	
Flow rate	Up to 20m³/h
Differential head	Up to 55m
Speed	Up to 3600 rpm
Configurations	Close coupled pump Bareshaft pump
Frame sizes	025x025x173 to 040x040x127
Design life	15 years (2 years uninterrupted operation)

Materials

Materials	Casing	Impeller
Cast Iron / Cast Iron	BS EN 1561 Gr EN-GJL- 250	BS EN 1561 Gr EN-GJL- 250
Cast Iron / Gunmetal	BS EN 1561 Gr EN-GJL- 250	BS EN 1982 CC492K - GS
Cast Iron / SS 316	BS EN 1561 Gr EN-GJL- 250	ASTM A744 CF-8M
SS 316 / SS 316	BS 3100 316 C12	ASTM A744 CF-8M
Gunmetal / Gunmetal	BS 1400 LG2	BS EN 1982 CC492K - GS

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Features	Technical Notes	Benefits	Standard
Casing			
Construction	One piece casting	Prolonged pump life	●
Connections	Screwed BSP		●
Fasteners	High tensile SS 316	Strength & corrosion resistance	●
Gasket	CSF	Covers most fluids	●
	Customer specified	Matched to site standard	
Drain	¼ " plugged		●
Impeller			
Construction	One piece casting	Strength & integrity	●
Vanes	4 / 5 off designed specifically for low NPSH	Low NPSHr	●
Style	Shrouded	Optimum efficiency	●
	Open	Handles solids content in fluid	
Fixing	Keyed with retention screw	Easy maintenance	●
Balancing	Static balance	Prolonged pump life	●
Seals & seal housing			
Shaft diameters	30mm		●
Seal types	Single component		●
Seal housing	Bell type to suit a variety of seals	Optimum seal environment	●
Seal piping arrangement	ISO Code 01	Optimum seal environment	●
Manufacturers	John Crane		●
	AES, Burgmann, or customer specified	Matched to site standard	

Features	Technical Notes	Benefits	Standard
Motor adaptor			
Style	One piece casting with integral feet	Better concentricity, less run out	●
Construction	Heavy duty casting with machined abutments	Superior motor alignment	●
Materials	Cast Iron		●
	Stainless steel 316		
Shaft & bearings			
Bearings	Uses motor bearings (deep groove ball)	Lowest cost	●
Design bearing life	17,500 – 40,000 hrs dependant upon motor fitted		●
Shaft material	Stainless steel 316		●
	Customer specified	Material to match casing / fluid	
Driver			
Motor type	Safe area, EExN, EExd, EExde, Exe,	Matched to area requirements	
Standards	ISO frames		●
	ATEX	Hazardous area requirement	
Supply	380 – 440 / 3 / 50, 440 – 460 / 3 / 60	Matched to site standard	
Manufacturers	ABB, Brook Hansen, Loher, Seimens, TECO, WEG, Customer specified	Matched to site standard	
Paint			
Industrial specification	One pack polyurethane (Gentian Blue RAL5010)		●
Customer specification		Matched to site standard	
Packing			
Road	Palletised & cling wrap		●
Seafreight	Wooden box suitable for sea		
	Wooden box with vacuum sealing		
Airfreight	Wooden box suitable for air		

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