

S Series – Industrial pumps (long coupled)

| Documentation packs | | |
|------------------------------------|--|--|
| Documentation pack | Inclusive documents | Standard |
| Bronze pack | Order acknowledgement (electronic) | ● |
| | Installation, Operating & Maintenance manual | ● |
| | Declaration of conformity | ● |
| | ATEX Declaration of conformity – only if contracted | |
| Silver pack (includes bronze pack) | Standard pump GA drawing | |
| | Hydrostatic test certificate | |
| | Pump HQ performance test certificate | |
| | Spare parts list – commissioning | |
| | Type 2.2 certificates (* pressure containing + process wetted parts only) – only if contracted | |
| 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 | Electronic CD – Adobe (.pdf), ms office (.xls.doc) |
| | Hard copy | |

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

| NDE | |
|---------------------|--|
| 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. © Copyright 2005-2017. Amarinth Limited. E&OE.



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S Series – Small industrial pumps (long coupled)

technical specification



| 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 SSD 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 20m ³ /h |
| Differential head | Up to 55m |
| Speed | Up to 3600 rpm |
| Configurations | Long coupled pump Bareshaft |
| Frame sizes | 025x025x173 to 040x040x127 |
| Design life | 15 years (2 years uninterrupted operation) |

| Material Options | Casing | Impeller |
|-----------------------|--------------------------|--------------------------|
| Cast Iron / Cast Iron | BS EN 1561 Gr EN GJL 250 | BS EN 1561 Gr EN GJL 250 |
| Cast Iron / Gun Metal | 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 | ASTM A744 CF 8M | ASTM A744 CF 8M |
| Titanium / Titanium | ASTM B367 Gr C2 | ASTM B367 Gr C2 |
| Gunmetal / Gunmetal | BS EN 1982 CC492K GS | BS EN 1982 CC492K GS |

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MP2510-355 REV D (Apr 17)

| 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 / fabrication | 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 nut | Easy maintenance | ● |
| Balancing | Static balance | Prolonged pump life | ● |
| ▼ Seals & seal housing | | | |
| Shaft diameters | 5/8" (15.9mm), 19mm | | ● |
| 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 | |
| ▼ Bearing, bracket | | | |
| Style | One piece fabrication | Better concentricity, less run out | ● |
| Construction | Robust design | Long life | ● |
| Bearings | Deep groove ball | Ease of maintenance | ● |
| Design bearing life | 17,500 hours (L10) @ standard duties | | ● |
| Bearing seals | Lip seals | Ease of maintenance | ● |
| | Non-contacting bearing isolators | Minimal wear, Long life, ATEX | |
| Lubrication | Grease | | ● |
| Running temperature | Less than 50°C above ambient | Long life | ● |
| Bearing bracket materials | Carbon steel | | ● |

| Features | Technical notes | Benefits | Standard |
|-----------------------------|--|----------------------------------|----------|
| Shaft materials | Stainless steel 316 | | ● |
| | Customer specified | Material to match casing / fluid | |
| ▼ Coupling and Guard | | | |
| Coupling style | Non spacer wrap round type | Easy maintenance | ● |
| Construction | Bored & keywayed | Easy removal | ● |
| Manufacturers | Autoguard | | ● |
| | Customer specified | Matched to site standard | |
| Standards | ATEX | | |
| Guard | Single piece in carbon steel | | ● |
| | Single piece in brass | Non sparking / ATEX compliant | |
| ▼ Baseplate | | | |
| Style | Open | Ease of grouting / rigidity | ● |
| | Customer specified | Replacing existing | |
| Construction | Fabricated from rolled steel sections | Rugged construction | ● |
| | with 4 lifting points | | |
| Earthing points | 2 off M10 screws | | ● |
| Material | Carbon steel | | ● |
| ▼ 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 paper lined | Long term storage | |
| | Wooden box with vacuum sealed bag | Moisture free | |
| Airfreight | Wooden box paper lined | Long term storage | |
| | Wooden box with vacuum sealed bag | Moisture free | |