ARMSTRONG

DESIGN ENVELOPE 4372 TANGO │

65–125 (2.5×2.5×5) │ 6512–004.0 │ SUBMITTAL

Job: _____

_____

Engineer: _____

Contractor: _____

Representative: _____

Order No: _____ Date: _____

Submitted by: _____ Date: _____

Approved by: _____ Date: _____

PUMP DESIGN DATA

No. of pumps:_____ Tag: _____

Total system design flow: _____L/s (USgpm)

Head: _____ m (ft) Capacity split _____%

Flow per pump head: _____L/s (USgpm)

Parallel flow: _____L/s (USgpm)

Liquid: _____ Viscosity: _____

Temperature: _____ °C (°F) Specific gravity: _____

Suction: 65 mm (2.5") Discharge: 65 mm (2.5")

MEI ≥ 0.70

MATERIALS OF CONSTRUCTION

☐ **PN 16**
   CONSTRUCTION: LPDESF
   E-coated ductile iron A536 Gr 65-45-12, stainless fitted

☐ **PN 25**
   CONSTRUCTION: HPDESF
   E-coated ductile iron A536 Gr 120-90-2, stainless fitted

MAXIMUM PUMP OPERATING CONDITIONS

☐ **PN 16**
   16 bars at 49°C (232 psig at 120°F)
   7 bars at 150°C (100 psig at 300°F)

☐ **PN 25**
   25 bars at 65°C (362 psig at 149°F)
   21 bars at 150°C (304 psig at 300°F)

FLOW READOUT ACCURACY

The Design Envelope model selected will provide flow reading on the controls local keypad & digitally for the BMS. The model readout will be factory tested to ensure ±5% accuracy.

DEPM MOTOR AND CONTROL DATA

kW: 4.0

RPM: 3000

Motor enclosure: TEFC

Volts: _____

Phase: 3

Efficiency: IE5

Orientation: Standard

Protocol (standard): ☐ BACnet™ MS/TP
☐ BACnet™ TCP/IP ☐ Modbus RTU

Control enclosure: ☐ Indoor – IP 55
☐ Outdoor – IP 66

Fused disconnect switch: Consult factory

EMI/RFI control: Integrated filter designed to meet EN61800-3

Harmonic suppression: Equivalent: 5% AC line reactor - Supporting IEEE 519-1992 requirements**

Cooling: Fan-cooled, surface cooling

Ambient temperature: -10°C to +45°C up to 1000 meters above sea level (+14°F to +113°F, 3300 ft)

Analog I/O: Two inputs, one output. Output can be configured for voltage or current

Digital I/O: Two inputs, two outputs. Outputs can be configured as inputs

Relay outputs: Two programmable

Communication port: 1-RS485

** If supplied with the system electrical details, Armstrong will run a computer simulation of the system wide harmonics. If system harmonic levels are exceeded Armstrong can also recommend additional harmonic mitigation and the costs for such mitigation.

MECHANICAL SEAL DESIGN DATA

Seal type: 2A **Stationary seat:** Silicone carbide **Secondary seal:** EPDM **Spring:** Stainless steel **Rotating hardware:** Stainless steel

FLUID TYPE	ALL GLYCOLS > 30% WT CONC		ALL OTHER NON-POTABLE FLUIDS		POTABLE (DRINKING) WATER	
Temperature	up to 93°C / 200°F	over 93°C / 200°F	up to 93°C / 200°F	over 93°C / 200°F	up to 93°C / 200°F	over 93°C / 200°F
Rotating face	Silicone carbide		Resin bonded carbon	Antimony loaded carbon	Resin bonded carbon	
Seat elastomer	EPDM (L-cup)	EPDM (o-ring)	EPDM (L-cup)	EPDM (o-ring)	EPDM (L-cup)	EPDM (o-ring)
Material code	SCsc L EPSS 2A	SCsc O EPSS 2A	C-sc L EPSS 2A	ACsc O EPSS 2A	C-sc L EPSS 2A	C-sc O EPSS 2A

OPTIONS

SENSORLESS BUNDLE (STANDARD)

Operation of pump without a remote sensor.
Includes:

- Sensorless control
- Flow readout
- Constant flow
- Constant pressure

Minimum system pressure to be maintained
_____ m (ft)

* If minimum maintained system pressure is not known:
Default to 40% of design head

☐ PARALLEL SENSORLESS

Operation of multiple pumps without a
remote sensor
Minimum system pressure to be maintained
_____ m (ft)

* If minimum maintained system pressure is not known:
Default to 40% of design head

☐ ENERGY PERFORMANCE BUNDLE

Provides energy savings on oversized systems
by adjusting pump parameters to on-site
conditions. Includes:

- Auto-flow balancing – Automatically
determines control curve between design
flow at on-site system head, and minimum
(zero-head) flow for energy savings
- Maximum flow control – Limits flow rate
to pre-set maximum for potential energy
savings

Maximum flow rate _____ L/s (gpm)

*Only available if sensorless bundle is enabled
*Available in single pump operation only

☐ PROTECTION BUNDLE

Protects other flow sensitive equipment by
setting limits of pump operation. Includes:

- Minimum flow control – Attempts to
maintain flow rate to pre-set minimum to
protect equipment in system
- Bypass valve control – Actuates a bypass
valve to protect flow sensitive equipment if
pre-set minimum flow rate is reached

Minimum flow rate _____ L/s (gpm)

*Only available if sensorless bundle is enabled

☐ DUAL SEASON SETUP

Pre-sets heating and cooling parameters for
pumps in 2-pipe systems

Cooling

Duty point _____ L/s (gpm) at
_____ m (ft)

Minimum system pressure to be maintained
_____ m (ft)

Heating

Duty point _____ L/s (gpm) at
_____ m (ft)

Minimum system pressure to be maintained
_____ m (ft)

*Available in single pump operation only

OPTIONAL SERVICES
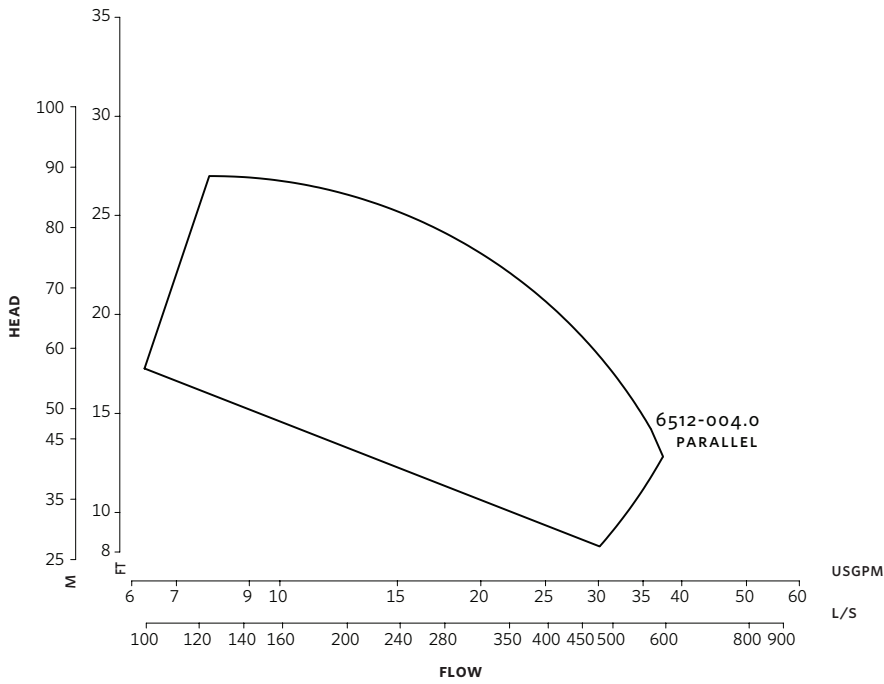
ON-SITE PUMP COMMISSIONING

PUMP MANAGER

Online service for sustained pump performance
and enhanced reliability.

Available in 3 or 5 year terms

* Requires an internet connection to be provided by
building
* Includes an extended warranty for parts and labour
(wearable parts excluded)

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DIMENSION DATA

	INDOOR (IP55/TEFC)	OUTDOOR (IP66/TEFC)
Size:	65–125	65–125
kW:	4.0	4.0
RPM:	3000	3000
AB:	462 (18.20)	518 (20.41)
B1:	140 (5.50)	140 (5.50)
B2:	140 (5.50)	140 (5.50)
C1:	241 (9.50)	241 (9.50)
C2:	241 (9.50)	241 (9.50)
CI:	–	127 (5.00)
D:	156 (6.15)	156 (6.15)
E:	208 (8.20)	219 (8.62)
S:	184 (7.24)	184 (7.24)
SD:	340 (13.39)	340 (13.39)
T:	130 (5.12)	130 (5.12)
Weight:	82.0 (181)	82.0 (181)

Dimensions – mm (inch)
Weight – kg (lbs)

- Tolerance of ±3 mm (±0.125") should be used
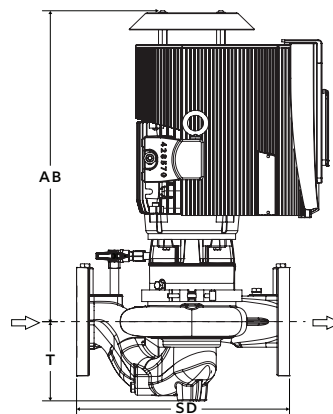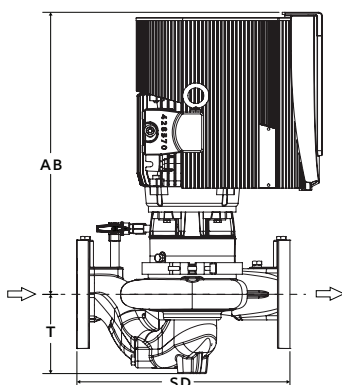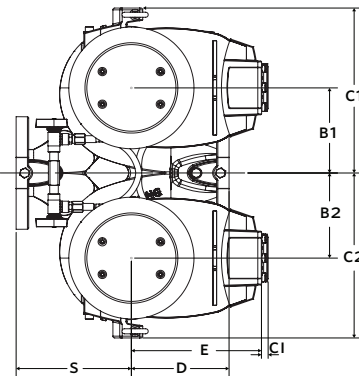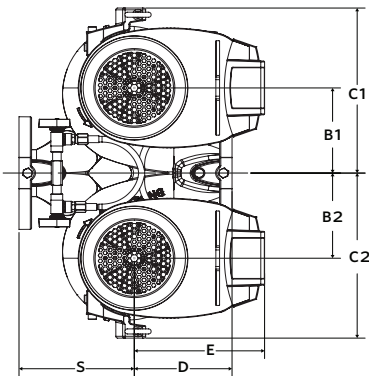- For exact installation, data please write factory for certified dimensions

Performance curves are for reference only.
Confirm current performance data with Armstrong ADEPT Quote or ADEPT Select selection software.

INDOOR

OUTDOOR

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ARMSTRONG FLUID TECHNOLOGY
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