

S1F NON-METALLIC PUMP TECHNICAL DATA SHEET



SERIES

STANDARD DUTY BALL VALVE PUMPS

Offering the widest range of performance and application capabilities

PERFORMANCE

SUCTION / DISCHARGE PORT SIZE

- 1" ANSI Flange or PN10 25mm DIN Flange

CAPACITY

- 0 to 53 gallons per minute (0 to 200 liters per minute)

AIR DISTRIBUTION VALVE

- No-lube, no-stall design

SOLIDS-HANDLING

- Up to .25 in. (6 mm)

HEADS UP TO

- 100 psi or 231 ft. of water (7 bar or 70 meters)

MAXIMUM OPERATING PRESSURE

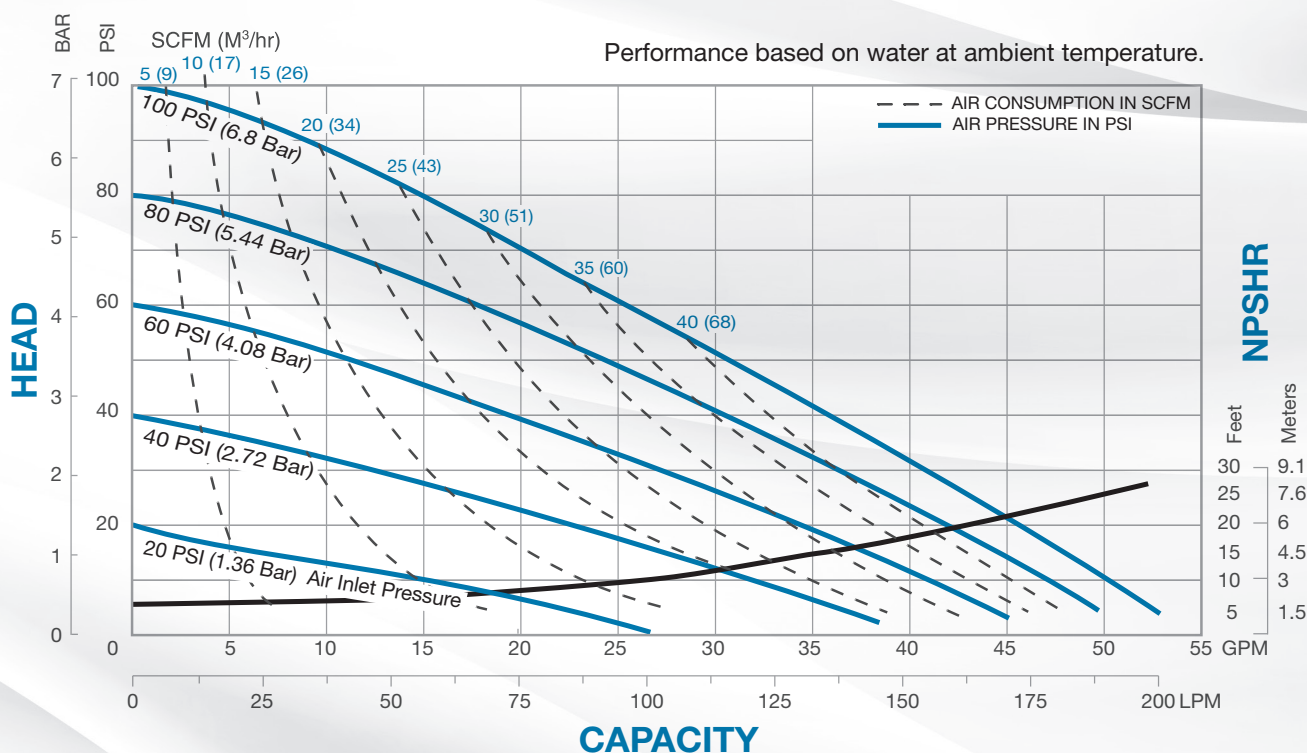
- 100 psi (7 bar)

DISPLACEMENT/STROKE

- .19 Gallon / .72 liter

WEIGHTS

- Polypropylene 42 lbs. (19kg)
- PVDF 54 lbs. (24kg)
- Conductive Polypropylene 40 lbs. (18kg)



5 YEAR LIMITED PRODUCT WARRANTY

5 Year Guarantee for defects in material or workmanship. See sandpiperpump.com/content/warranty-certifications for complete warranty, including terms and conditions, limitations and exclusions.



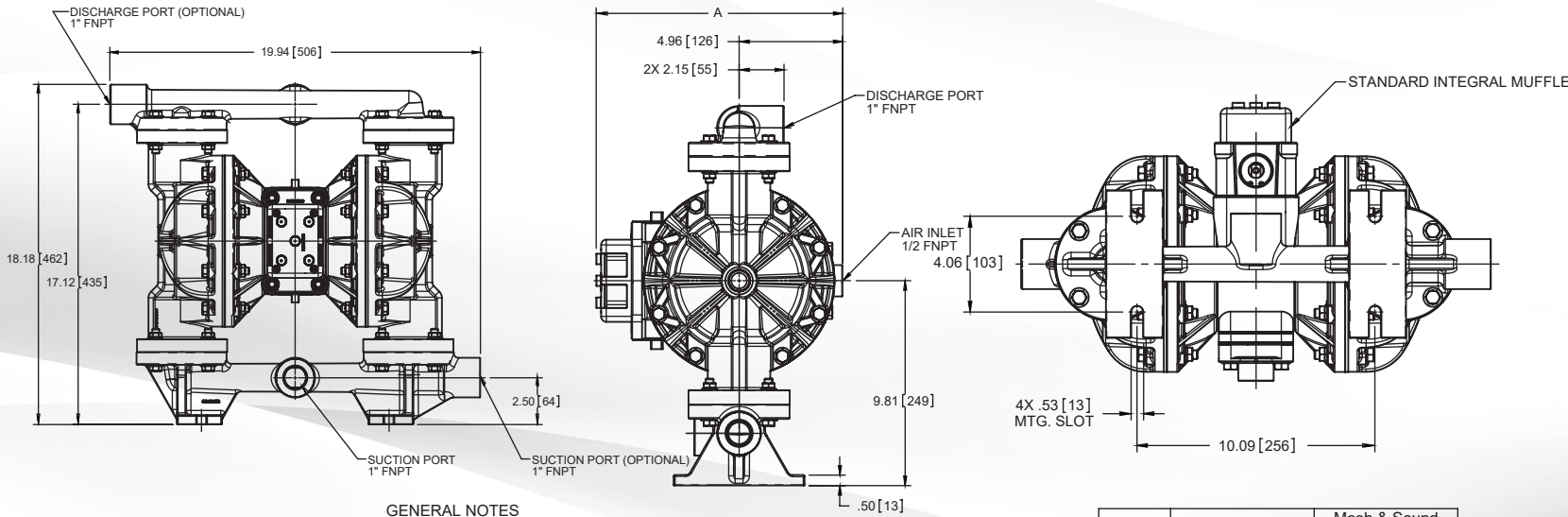
USE ONLY GENUINE SANDPIPER PARTS

All certification, standards, guarantees & warranties originally supplied with this pump will be invalidated by the use of service parts not identified as "Genuine SANDPIPER Parts."

DIMENSIONS

S1F Non-Metallic Inline Ported Option- Polypropylene Wet End Models ONLY

Dimensions in inches (metric dimensions in brackets). Dimensional Tolerance .125" (3mm).



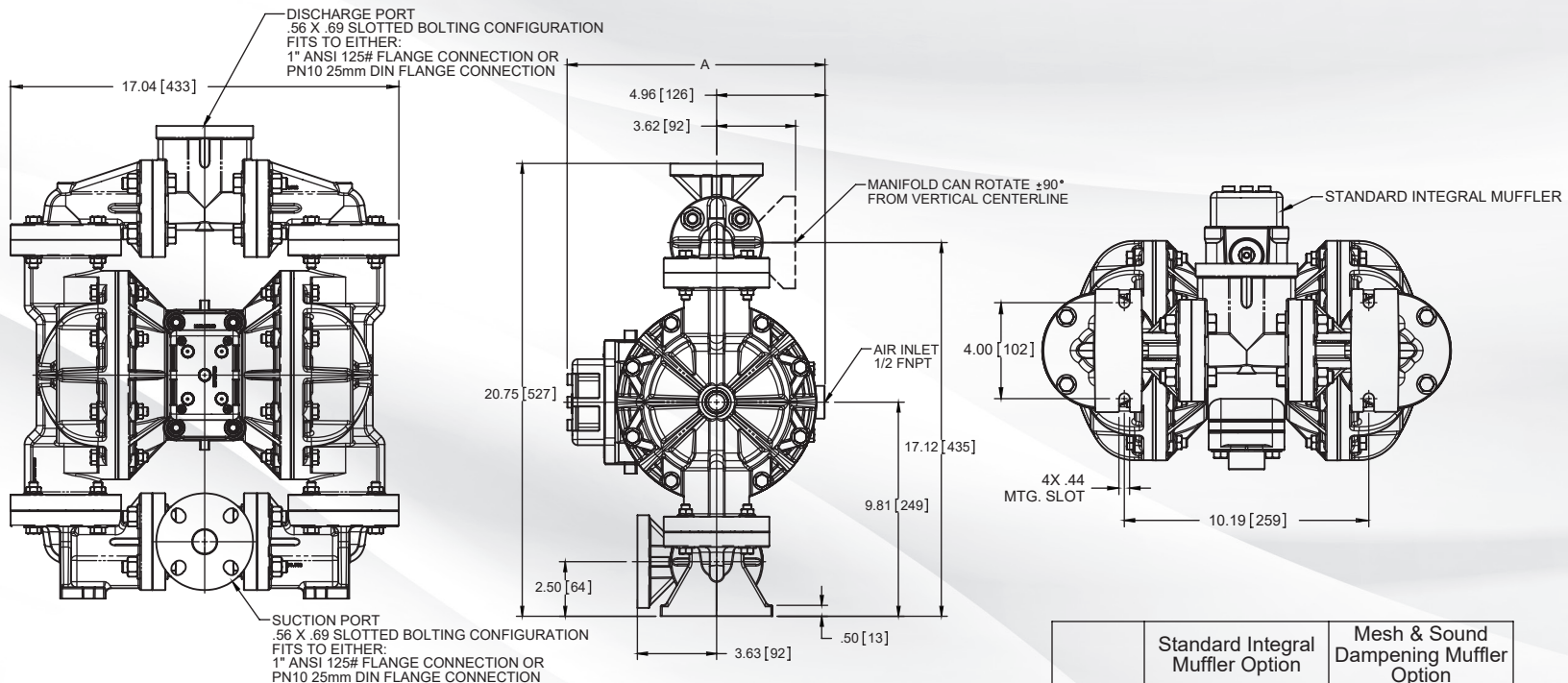
GENERAL NOTES

1. OPTIONAL SUCTION & DISCHARGE SIDE PORTS WILL BE PLUGGED AT FACTORY, NOT SHOWN
2. STANDARD INTEGRAL MUFFLER (SHOWN) COVERS 1" FNPT EXHAUST PORT FOR OPTIONAL MUFFLER STYLES OR PIPING EXHAUST AIR IN SUBMERGED APPLICATIONS

	Standard Integral Muffler Option	Mesh & Sound Dampening Muffler Option
A	11.81 [300]	13.50 [343]

S1F Non-Metallic Center Ported Options

Dimensions in inches (metric dimensions in brackets). Dimensional Tolerance .125" (3mm).



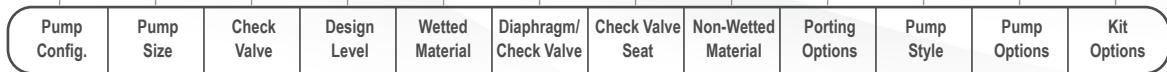
GENERAL NOTES

1. STANDARD INTEGRAL MUFFLER (SHOWN) COVERS 1" FNPT EXHAUST PORT FOR OPTIONAL MUFFLER STYLES OR PIPING EXHAUST AIR IN SUBMERGED APPLICATIONS

	Standard Integral Muffler Option	Mesh & Sound Dampening Muffler Option
A	11.81 [300]	13.50 [343]

EXPLANATION OF PUMP NOMENCLATURE

Your Model #: **S**
(fill in from pump nameplate)



Model #: **S XX X X X X X X X X X X XX**

PUMP BRAND
S SANDPIPER®

PUMP SIZE
1F 1" Full Flow

CHECK VALVE TYPE
B Ball

DESIGN LEVEL
3 Design Level

WETTED MATERIAL
K PVDF
P Polypropylene
C Conductive Polypropylene
V Conductive PVDF

DIAPHRAGM/CHECK VALVE MATERIALS
1 Santoprene/Santoprene
2 PTFE Santoprene Backup/PTFE
3 PTFE Pumping, PTFE-Santoprene Backup Driver/PTFE
4 Santoprene Pumping/Santoprene
B Nitrile/Nitrile
G PTFE-Neoprene Backup/PTFE
M Santoprene/PTFE
N Neoprene/Neoprene
V FKM/FKM
Y PTFE Pumping/One-Piece Bonded Driver/PTFE
Z One-Piece Bonded/PTFE

CHECK VALVE SEAT
K PVDF
P Polypropylene

NON-WETTED MATERIAL OPTIONS
P Polypropylene
1 40% Glass Filled Polypropylene with PTFE hardware
C Conductive Polypropylene

PORTING OPTIONS
N NPT Thread
U Universal (Fits ANSI and DIN)
7 Dual Porting (ANSI)
8 Top Dual Porting (ANSI)
9 Bottom Dual Porting (ANSI)

PUMP STYLE
D With Electronic Leak Detection (110 V)
E With Electronic Leak Detection (220V)
I Inline Porting NPT Threads
M With Mechanical Leak Detection
S Standard
V With Visual Leak Detection

PUMP OPTIONS
0 None
6 Metal Muffler

KIT OPTIONS
00. None

P0. 10.30VDC Pulse Output Kit
P1. Intrinsically-Safe 5.30VDC, 110/120VAC 220/240 VAC Pulse Output Kit
P2. 110/120 or 220/240VAC Pulse Output Kit

KIT OPTIONS (CONT.)

E0. Solenoid Kit with 24VDC Coil
E1. Solenoid Kit with 24VDC Explosion-Proof Coil
E2. Solenoid Kit with 24VAC/12VDC Coil
E3. Solenoid Kit with 12VDC Explosion-Proof Coil
E4. Solenoid Kit with 110VAC Coil
E5. Solenoid Kit with 110VAC Explosion-Proof Coil
E6. Solenoid Kit with 220VAC Coil
E7. Solenoid Kit with 220VAC Explosion-Proof Coil
E8. Solenoid Kit with 110VAC, 50 Hz Explosion-Proof Coil
E9. Solenoid Kit with 230VAC, 50 Hz Explosion-Proof Coil
SP. Stroke Indicator Pins
A1. Solenoid Kit with 12 VDC ATEX Compliant Coil
A2. Solenoid Kit with 24 VDC ATEX Compliant Coil
A3. Solenoid Kit with 110/120 VAC 50/60 Hz ATEX Compliant Coil
A4. Solenoid Kit with 220/240 VAC 50/60 Hz ATEX Compliant Coil

MATERIALS

Material Profile:	Operating Temperatures:	
	Max.	Min.
CAUTION! Operating temperature limitations are as follows:		
CONDUCTIVE ACETAL: Tough, impact resistant, ductile. Good abrasion resistance and low friction surface. Generally inert, with good chemical resistance except for strong acids and oxidizing agents.	190°F 88°C	-20°F -29°C
EPDM: Shows very good water and chemical resistance. Has poor resistance to oils and solvents, but is fair in ketones and alcohols.	280°F 138°C	-40°F -40°C
FKM (FLUOROCARBON): Shows good resistance to a wide range of oils and solvents; especially all aliphatic, aromatic and halogenated hydrocarbons, acids, animal and vegetable oils. Hot water or hot aqueous solutions (over 70°F(21°C)) will attack FKM.	350°F 177°C	-40°F -40°C
HYTREL®: Good on acids, bases, amines and glycols at room temperatures only.	220°F 104°C	-20°F -29°C
NEOPRENE: All purpose. Resistance to vegetable oils. Generally not affected by moderate chemicals, fats, greases and many oils and solvents. Generally attacked by strong oxidizing acids, ketones, esters and nitro hydrocarbons and chlorinated aromatic hydrocarbons.	200°F 93°C	-10°F -23°C
NITRILE: General purpose, oil-resistant. Shows good solvent, oil, water and hydraulic fluid resistance. Should not be used with highly polar solvents like acetone and MEK, ozone, chlorinated hydrocarbons and nitro hydrocarbons.	190°F 88°C	-10°F -23°C
NYLON: 6/6 High strength and toughness over a wide temperature range. Moderate to good resistance to fuels, oils and chemicals.	180°F 82°C	32°F 0°C

POLYPROPYLENE: A thermoplastic polymer. Moderate tensile and flex strength. Resists strong acids and alkali. Attacked by chlorine, fuming nitric acid and other strong oxidizing agents.	180°F 82°C	32°F 0°C
PVDF: (Polyvinylidene Fluoride) A durable fluoroplastic with excellent chemical resistance. Excellent for UV applications. High tensile strength and impact resistance.	250°F 121°C	0°F -18°C
SANTOPRENE®: Injection molded thermoplastic elastomer with no fabric layer. Long mechanical flex life. Excellent abrasion resistance.	275°F 135°C	-40°F -40°C
UHMW PE: A thermoplastic that is highly resistant to a broad range of chemicals. Exhibits outstanding abrasion and impact resistance, along with environmental stress-cracking resistance.	180°F 82°C	-35°F -37°C
URETHANE: Shows good resistance to abrasives. Has poor resistance to most solvents and oils.	150°F 66°C	32°F 0°C
VIRGIN PTFE: (PFA/TFE) Chemically inert, virtually impervious. Very few chemicals are known to chemically react with PTFE; molten alkali metals, turbulent liquid or gaseous fluorine and a few fluoro-chemicals such as chlorine trifluoride or oxygen difluoride which readily liberate free fluorine at elevated temperatures.	220°F 104°C	-35°F -37°C
Maximum and Minimum Temperatures are the limits for which these materials can be operated. Temperatures coupled with pressure affect the longevity of diaphragm pump components. Maximum life should not be expected at the extreme limits of the temperature ranges.		
Metals:		
ALLOY C: Equal to ASTM494 CW-12M-1 specification for nickel and nickel alloy.		
STAINLESS STEEL: Equal to or exceeding ASTM specification A743 CF-8M for corrosion resistant iron chromium, iron chromium nickel and nickel based alloy castings for general applications. Commonly referred to as 316 Stainless Steel in the pump industry.		

For specific applications, always consult the Chemical Resistance Chart.

S15 NON-METALLIC PUMP TECHNICAL DATA SHEET

SERIES

STANDARD DUTY BALL VALVE PUMPS

Offering the widest range of performance and application capabilities

PERFORMANCE

SUCTION / DISCHARGE PORT SIZE

- 1 1/2 ANSI Flange or

CAPACITY

- 0 to 100 GPM (0 to 378 LPM)

AIR DISTRIBUTION VALVE

- No-lube, no-stall design

SOLIDS-HANDLING

- Up to .47 in. (12mm)

HEADS UP TO

- 100 psi or 231 ft. of water
(7 bar or 70 meters)

MAXIMUM OPERATING PRESSURE

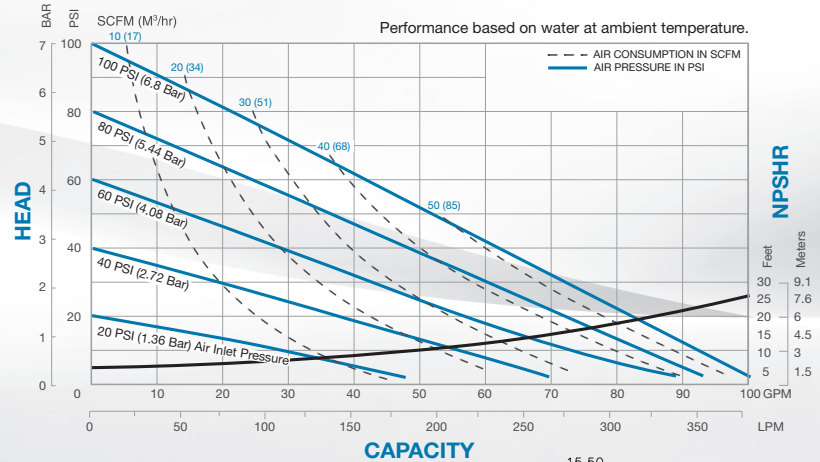
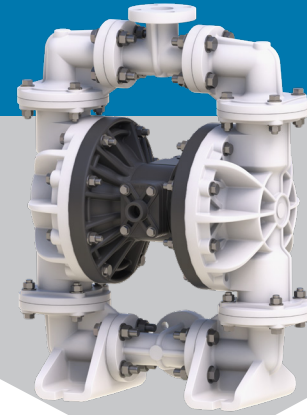
- 100 psi (7 bar)

DISPLACEMENT/STROKE

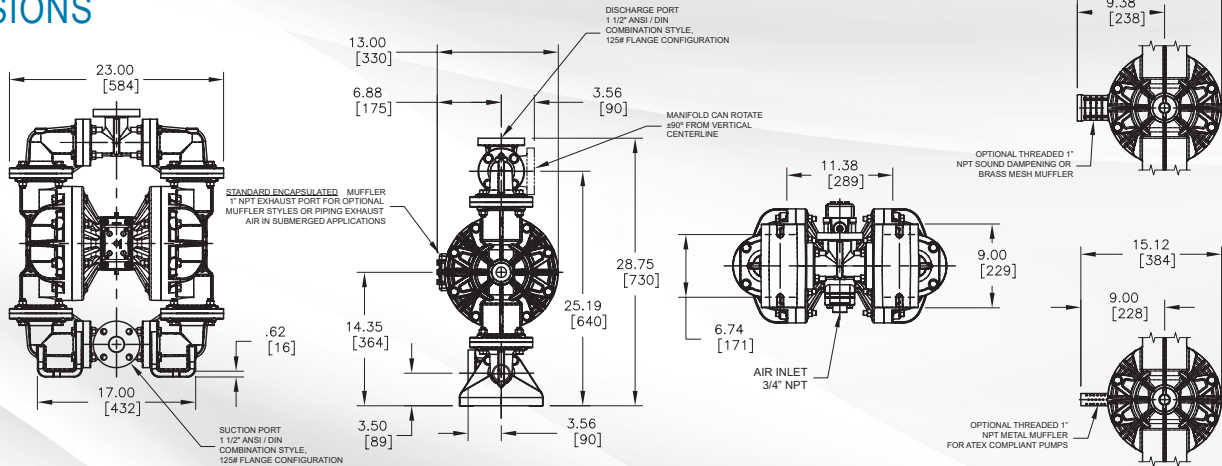
- .43 Gallon / 1.63 liter

WEIGHTS

- Polypropylene 82 lbs. (37kg)
- PVDF 112 lbs. (51kg)
- Conductive Polypropylene 85 lbs. (38kg)
- Polypropylene Spill Containment 149 lbs. (68kg)
- PVDF Spill Containment 194 lbs. (88kg)



DIMENSIONS



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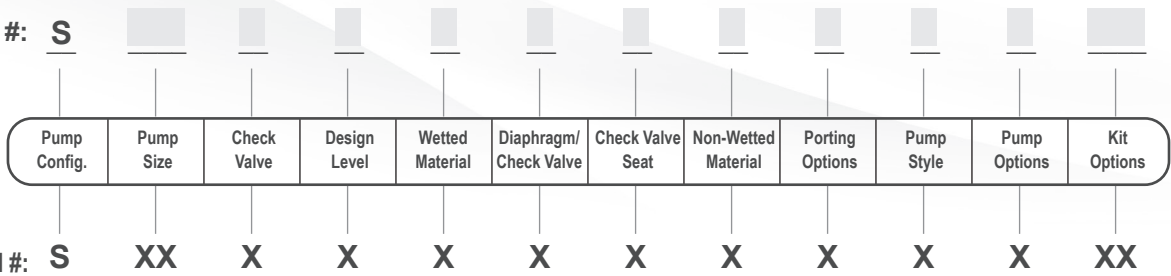


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EXPLANATION OF PUMP NOMENCLATURE

Your Model #: **S**
(fill in from pump nameplate)



PUMP BRAND
S SANDPIPER®

PUMP SIZE
15 1 1/2"

CHECK VALVE TYPE
B Ball

DESIGN LEVEL
3 Design Level

WETTED MATERIAL
K PVDF
P Polypropylene
C Conductive Polypropylene

DIAPHRAGM/CHECK VALVE MATERIALS
1 Santoprene/Santoprene
2 PTFE-Santoprene Backup/PTFE
6 PTFE Pumping, PTFE-Neoprene Backup Driver/PTFE
B Nitrile/Nitrile
C FKM / PTFE
G PTFE-Neoprene Backup/PTFE
M Santoprene/PTFE
N Neoprene/Neoprene
U Urethane/Urethane
Z One-Piece Bonded/PTFE

CHECK VALVE SEAT
K PVDF
P Polypropylene

NON-WETTED MATERIAL OPTIONS
C Carbon Filled Conductive Polypropylene
P 40%Glass Filled Polypropylene
1 40%Glass Filled Polypropylene w/PTFE Coated Hardware

PORTING OPTIONS
U Universal Flange (Fits ANSI & DIN)
7 Dual Porting (ANSI)
8 Top Dual Porting (ANSI)
9 Bottom Dual Porting (ANSI)

PUMP STYLE
D with Electronic Leak Detection (110V)
E with Electronic Leak Detection (220V)
M with Mechanical Leak Detection
S Standard
V with Visual Leak Detection

PUMP OPTIONS
0 None
6 Metal Muffler

KIT OPTIONS
00. None
P0. 10.30VDC Pulse Output Kit

P1. Intrinsically-Safe 5.30VDC, 110/120VAC 220/240 VAC Pulse Output Kit
P2. 110/120 or 220/240VAC Pulse Output Kit
E0. Solenoid Kit with 24VDC Coil
E1. Solenoid Kit with 24VDC Explosion-Proof Coil
E2. Solenoid Kit with 24VAC/12VDC Coil
E3. Solenoid Kit with 12VDC Explosion-Proof Coil
E4. Solenoid Kit with 110VAC Coil
E5. Solenoid Kit with 110VAC Explosion-Proof Coil
E6. Solenoid Kit with 220VAC Coil
E7. Solenoid Kit with 220VAC Explosion-Proof Coil
E8. Solenoid Kit with 110VAC, 50 Hz Explosion-Proof Coil
E9. Solenoid Kit with 230VAC, 50 Hz Explosion-Proof Coil
SP. Stroke Indicator Pins
A1. Solenoid Kit with 12 VDC ATEX Compliant Coil
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MATERIALS

Material Profile:	Operating Temperatures:	
	Max.	Min.
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HYTREL®: Good on acids, bases, amines and glycols at room temperatures only.	220°F 104°C	-20°F -29°C
NEOPRENE: All purpose. Resistance to vegetable oils. Generally not affected by moderate chemicals, fats, greases and many oils and solvents. Generally attacked by strong oxidizing acids, ketones, esters and nitro hydrocarbons and chlorinated aromatic hydrocarbons.	200°F 93°C	-10°F -23°C
NITRILE: General purpose, oil-resistant. Shows good solvent, oil, water and hydraulic fluid resistance. Should not be used with highly polar solvents like acetone and MEK, ozone, chlorinated hydrocarbons and nitro hydrocarbons.	190°F 88°C	-10°F -23°C
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POLYPROPYLENE: A thermoplastic polymer. Moderate tensile and flex strength. Resists strong acids and alkali. Attacked by chlorine, fuming nitric acid and other strong oxidizing agents.	180°F 82°C	32°F 0°C
PVDF: (Polyvinylidene Fluoride) A durable fluoroplastic with excellent chemical resistance. Excellent for UV applications. High tensile strength and impact resistance.	250°F 121°C	0°F -18°C
SANTOPRENE®: Injection molded thermoplastic elastomer with no fabric layer. Long mechanical flex life. Excellent abrasion resistance.	275°F 135°C	-40°F -40°C
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For specific applications, always consult the Chemical Resistance Chart.



NOTE: See service manual for ATEX details.

S20 NON-METALLIC PUMP TECHNICAL DATA SHEET

SERIES

STANDARD DUTY BALL VALVE PUMPS

Offering the widest range of performance and application capabilities

PERFORMANCE

SUCTION / DISCHARGE PORT SIZE

- 2" Universal Flange
(Fits ANSI & DIN Flange)

CAPACITY

- 0 to 160 GPM (0 to 605 LPM)

AIR DISTRIBUTION VALVE

- No-lube, no-stall design

SOLIDS-HANDLING

- Up to .66 in. (17mm)

HEADS UP TO

- 100 psi or 231 ft. of water
(7 bar or 70 meters)

MAXIMUM OPERATING PRESSURE

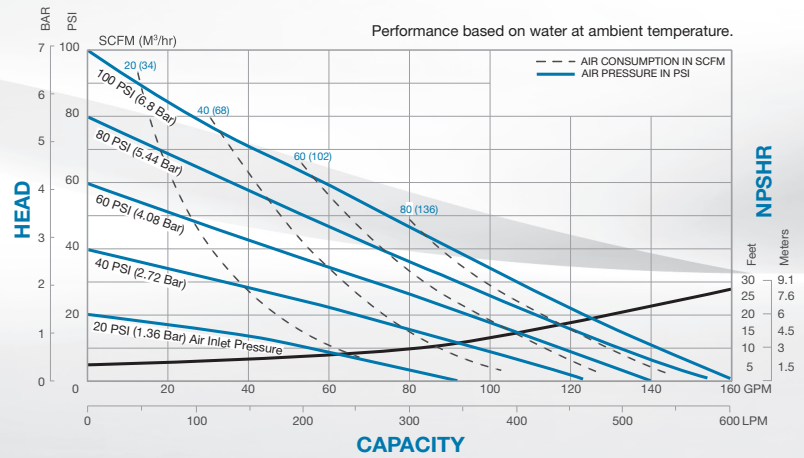
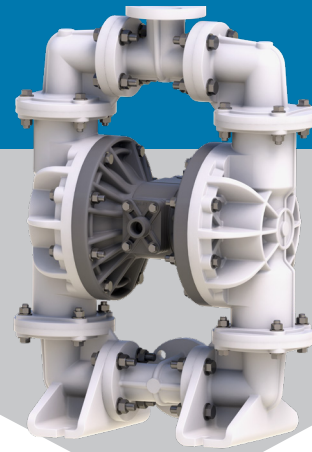
- 100 psi (7 bar)

DISPLACEMENT/STROKE

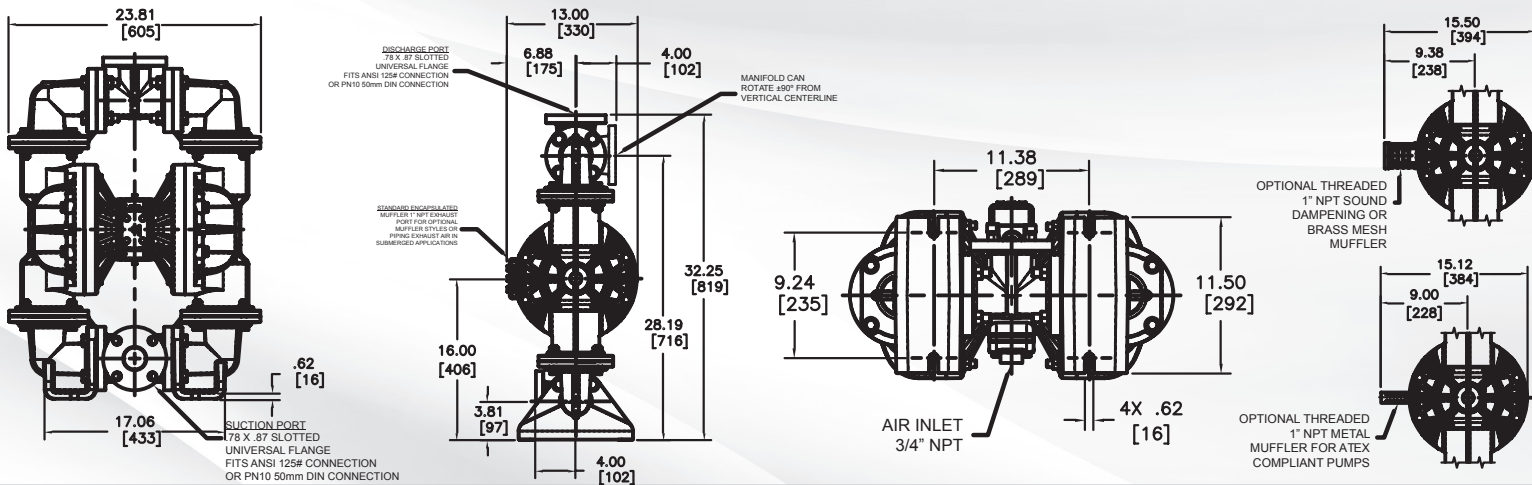
- .46 Gallon / 1.73 liter

WEIGHTS

- Polypropylene 95 lbs. (43kg)
- PVDF 130 lbs. (59kg)
- Conductive Polypropylene 100 lbs. (45kg)



DIMENSIONS



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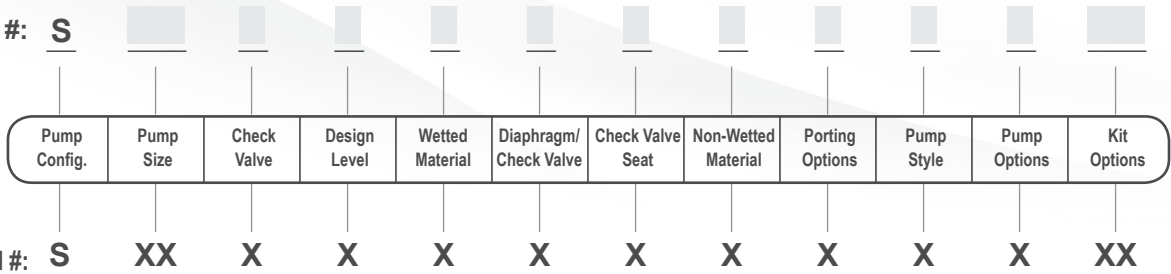


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EXPLANATION OF PUMP NOMENCLATURE

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(fill in from pump nameplate)



PUMP BRAND
S SANDPIPER®

PUMP SIZE
20 2"

CHECK VALVE TYPE
B Ball

DESIGN LEVEL
3 Design Level

WETTED MATERIAL
K PVDF
P Polypropylene
C Conductive Polypropylene

DIAPHRAGM/CHECK VALVE MATERIALS
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B Nitrile/Nitrile
C FKM / PTFE
G PTFE-Neoprene Backup/PTFE
M Santoprene/PTFE
N Neoprene/Neoprene
Z One-Piece Bonded/PTFE

CHECK VALVE SEAT
K PVDF
P Polypropylene

NON-WETTED MATERIAL OPTIONS
C Carbon Filled Conductive Polypropylene
P 40%Glass Filled Polypropylene
1 40%Glass Filled Polypropylene w/PTFE Coated Hardware

PORTING OPTIONS
U Universal Flange (Fits ANSI & DIN)
7 Dual Porting (ANSI)
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PUMP STYLE
D with Electronic Leak Detection (110V)
E with Electronic Leak Detection (220V)
M with Mechanical Leak Detection
S Standard
V with Visual Leak Detection

PUMP OPTIONS
0 None
6 Metal Muffler

KIT OPTIONS
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SERIES

STANDARD DUTY BALL VALVE PUMPS

Offering the widest range of performance and application capabilities

PERFORMANCE

SUCTION / DISCHARGE PORT SIZE

- 3" ANSI Flange or 80mm DIN Flange

CAPACITY

- 0 to 280 GPM (0 to 1060 LPM)

AIR DISTRIBUTION VALVE

- No-lube, no-stall design

SOLIDS-HANDLING

- Up to .75 (19 mm)

HEADS UP TO

- 100 psi or 231 ft. of water
(7 bar or 70 meters)

MAXIMUM OPERATING PRESSURE

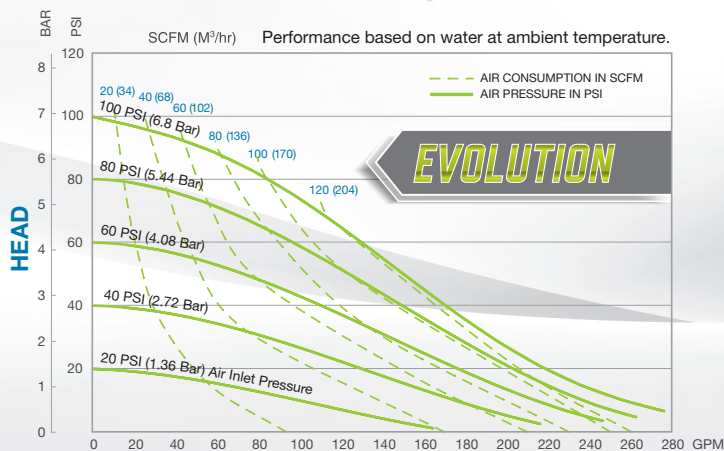
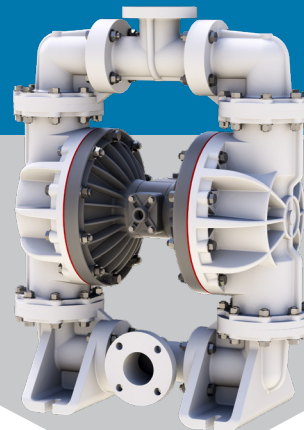
- 100 psi (7 bar)

DISPLACEMENT/STROKE

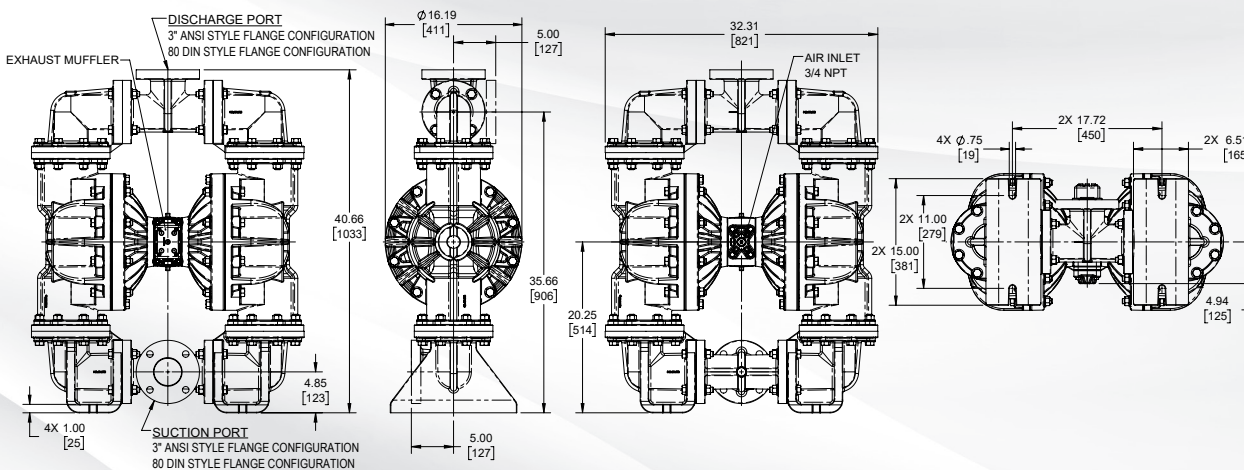
- 1.0 Gallon / 3.78 liter

WEIGHTS

- Polypropylene 208 lbs (94 kg)
- PVDF 271 lbs (123 kg)



DIMENSIONS



5 YEAR LIMITED PRODUCT WARRANTY

5 Year Guarantee for defects in material or workmanship. See sandpiperpump.com/content/warranty-certifications for complete warranty, including terms and conditions, limitations and exclusions.

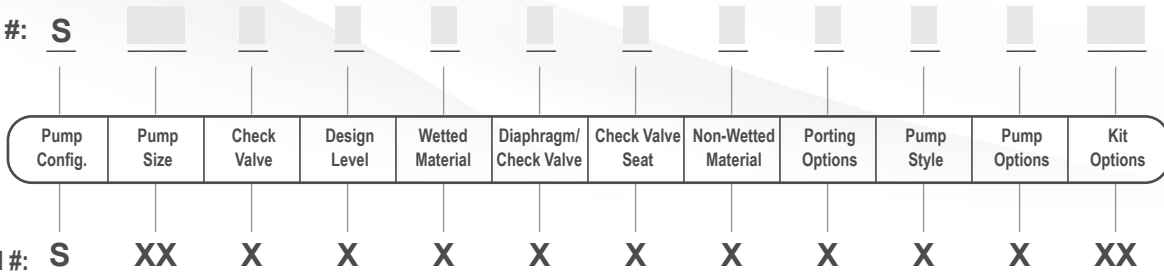


USE ONLY GENUINE SANDPIPER PARTS

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EXPLANATION OF PUMP NOMENCLATURE

Your Model #: **S**
(fill in from
pump nameplate)



PUMP BRAND
S SANDPIPER®

PUMP SIZE
30 3"

CHECK VALVE TYPE
B Ball

DESIGN LEVEL
3 Design Level

WETTED MATERIAL
K PVDF
P Polypropylene

DIAPHRAGM/CHECK VALVE MATERIALS
1 Santoprene/Santoprene
2 PTFE-Santoprene Backup/PTFE
3 PTFE Pumping, PTFE - Santoprene, Backup Driver / PTFE
4 Santoprene Pumping, Santoprene Driver / Santoprene
M Santoprene/PTFE

CHECK VALVE SEAT
K PVDF
P Polypropylene

NON-WETTED MATERIAL OPTIONS
P 40% Glass Filled Polypropylene
1 40% Glass Filled Polypropylene w / PTFE Coated Hardware

PORTING OPTIONS
A ANSI Flange
D DIN Flange
7 Dual Porting (ANSI)
8 Top Dual Porting (ANSI)
9 Bottom Dual Porting (ANSI)

PUMP STYLE
D with Electronic Leak Detection (110V)
E with Electronic Leak Detection (220V)
M with Mechanical Leak Detection
S Standard
V with Visual Leak Detection

PUMP OPTIONS
0 None

KIT OPTIONS

00. None
P0. 10.30VDC Pulse Output Kit
P1. Intrinsically-Safe 5.30VDC, 110/120VAC 220/240 VAC Pulse Output Kit
P2. 110/120 or 220/240VAC Pulse Output Kit
E0. Solenoid Kit with 24VDC Coil
E1. Solenoid Kit with 24VDC, Explosion-Proof Coil
E2. Solenoid Kit with 24VAC/12VDC Coil
E3. Solenoid Kit with 12VDC, Explosion-Proof Coil
E4. Solenoid Kit with 110VAC Coil
E5. Solenoid Kit with 110VAC Explosion-Proof Coil
E6. Solenoid Kit with 220VAC Coil
E7. Solenoid Kit with 220VAC Explosion-Proof Coil
E8. Solenoid Kit with 110VAC, 50 Hz Explosion-Proof Coil
E9. Solenoid Kit with 230VAC, 50 Hz Explosion-Proof Coil
SP. Stroke Indicator Pins

MATERIALS

Material Profile:	Operating Temperatures:	
	Max.	Min.
CAUTION! Operating temperature limitations are as follows: CONDUCTIVE ACETAL: Tough, impact resistant, ductile. Good abrasion resistance and low friction surface. Generally inert, with good chemical resistance except for strong acids and oxidizing agents.	190°F 88°C	-20°F -29°C
EPDM: Shows very good water and chemical resistance. Has poor resistance to oils and solvents, but is fair in ketones and alcohols.	280°F 138°C	-40°F -40°C
FKM (FLUOROCARBON): Shows good resistance to a wide range of oils and solvents; especially all aliphatic, aromatic and halogenated hydrocarbons, acids, animal and vegetable oils. Hot water or hot aqueous solutions (over 70°F(21°C)) will attack FKM.	350°F 177°C	-40°F -40°C
HYTREL®: Good on acids, bases, amines and glycols at room temperatures only.	220°F 104°C	-20°F -29°C
NEOPRENE: All purpose. Resistance to vegetable oils. Generally not affected by moderate chemicals, fats, greases and many oils and solvents. Generally attacked by strong oxidizing acids, ketones, esters and nitro hydrocarbons and chlorinated aromatic hydrocarbons.	200°F 93°C	-10°F -23°C
NITRILE: General purpose, oil-resistant. Shows good solvent, oil, water and hydraulic fluid resistance. Should not be used with highly polar solvents like acetone and MEK, ozone, chlorinated hydrocarbons and nitro hydrocarbons.	190°F 88°C	-10°F -23°C
NYLON: 6/6 High strength and toughness over a wide temperature range. Moderate to good resistance to fuels, oils and chemicals.	180°F 82°C	32°F 0°C

POLYPROPYLENE: A thermoplastic polymer. Moderate tensile and flex strength. Resists strong acids and alkali. Attacked by chlorine, fuming nitric acid and other strong oxidizing agents.	180°F 82°C	32°F 0°C
PVDF: (Polyvinylidene Fluoride) A durable fluoroplastic with excellent chemical resistance. Excellent for UV applications. High tensile strength and impact resistance.	250°F 121°C	0°F -18°C
SANTOPRENE®: Injection molded thermoplastic elastomer with no fabric layer. Long mechanical flex life. Excellent abrasion resistance.	275°F 135°C	-40°F -40°C
UHMW PE: A thermoplastic that is highly resistant to a broad range of chemicals. Exhibits outstanding abrasion and impact resistance, along with environmental stress-cracking resistance.	180°F 82°C	-35°F -37°C
URETHANE: Shows good resistance to abrasives. Has poor resistance to most solvents and oils.	150°F 66°C	32°F 0°C
VIRGIN PTFE: (PFA/TFE) Chemically inert, virtually impervious. Very few chemicals are known to chemically react with PTFE; molten alkali metals, turbulent liquid or gaseous fluorine and a few fluoro-chemicals such as chlorine trifluoride or oxygen difluoride which readily liberate free fluorine at elevated temperatures.	220°F 104°C	-35°F -37°C
Maximum and Minimum Temperatures are the limits for which these materials can be operated. Temperatures coupled with pressure affect the longevity of diaphragm pump components. Maximum life should not be expected at the extreme limits of the temperature ranges.		
Metals:		
ALLOY C: Equal to ASTM494 CW-12M-1 specification for nickel and nickel alloy.		
STAINLESS STEEL: Equal to or exceeding ASTM specification A743 CF-8M for corrosion resistant iron chromium, iron chromium nickel and nickel based alloy castings for general applications. Commonly referred to as 316 Stainless Steel in the pump industry.		

For specific applications, always consult the Chemical Resistance Chart.

ST1 & ST25 METALLIC PUMP TECHNICAL DATA SHEET



SERIES

CONTAINMENT DUTY BALL VALVE PUMPS

The only complete line of AODD pumps featuring superior fluid containment; protecting your people, environment, and pump.

PERFORMANCE

SUCTION / DISCHARGE PORT SIZE

- ST1: 1" NPT (internal)
- ST25: 1" BSP Tapered (internal)

CAPACITY

- 0 to 42 GPM (0 to 159 LPM)

AIR DISTRIBUTION VALVE

- No-lube, no-stall design

SOLIDS-HANDLING

- Occasional solids only, to nearly .25" (6.3mm)

HEADS UP TO

- 125 psi or 289 ft. of water (8.8 Kg/cm² or 88 meters)

MAXIMUM OPERATING PRESSURE

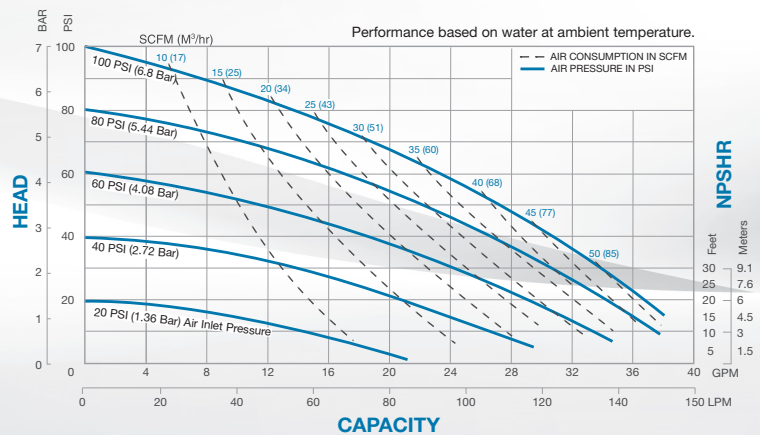
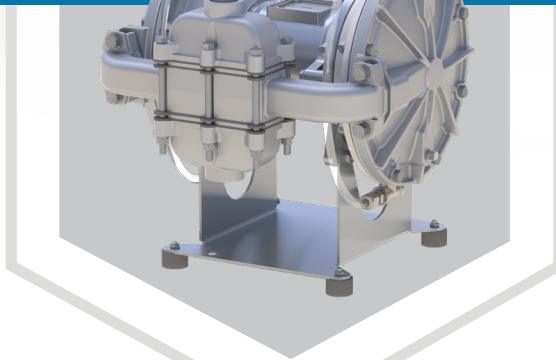
- 125 psi (8.6 bar)

DISPLACEMENT/STROKE

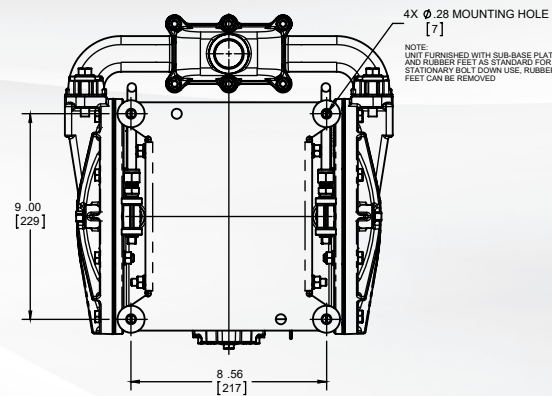
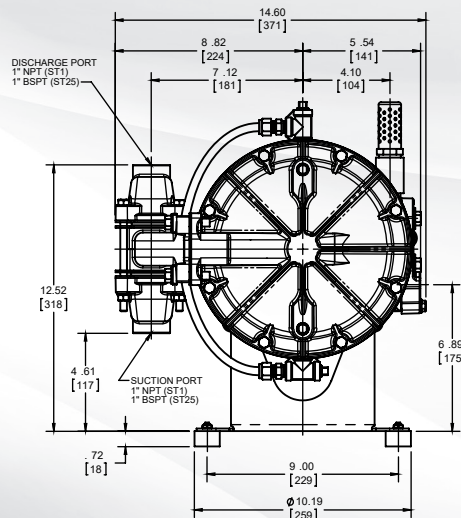
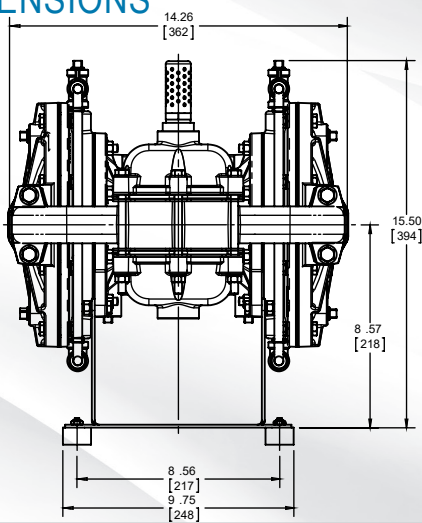
- .09 Gallon / .34 liter

WEIGHTS

- Aluminum 46 lbs. (20kg)
- Stainless Steel 67 lbs. (30kg)



DIMENSIONS



5 YEAR LIMITED PRODUCT WARRANTY

5 Year Guarantee for defects in material or workmanship. See sandpiperpump.com/content/warranty-certifications for complete warranty, including terms and conditions, limitations and exclusions.

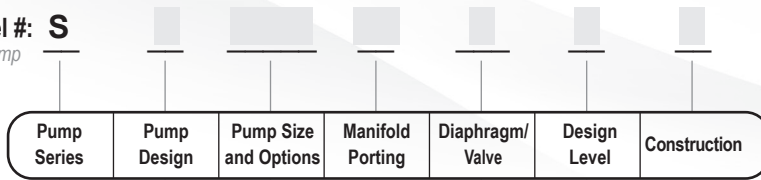


USE ONLY GENUINE SANDPIPER PARTS

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EXPLANATION OF PUMP NOMENCLATURE

Your Model #: **S**
(fill in from pump nameplate)



Model #: **S X XXXXXX, XX XXX X XX**

PUMP SERIES

S SANDPIPER®

PUMP DESIGN

T Spill Containment

PUMP SIZE & OPTIONS

1 1" NPT

25 1" BSP Tapered

OPTIONS

VL Visual Leak Detection Sight Tubes

MANIFOLD PORTING POSITION

D Side

DIAPHRAGM CHECK VALVE MATERIALS

NG Neoprene Driver Diaphragms, PTFE Pumping Diaphragms and PTFE Check Balls

VG FKM Driver Diaphragms / PTFE Pumping Diaphragms and PTFE Check Balls

GNG Neoprene Back-Up with PTFE Overlay Driver Diaphragms, PTFE Pumping Diaphragms and PTFE Check Balls

DESIGN LEVEL

5

CONSTRUCTION

A Aluminum Wetted, Aluminum Air

SS Stainless Steel Wetted, Aluminum Air

HC Alloy-C Wetted, Aluminum Air

MATERIALS

Material Profile:	Operating Temperatures:	
	Max.	Min.
CAUTION! Operating temperature limitations are as follows: CONDUCTIVE ACETAL: Tough, impact resistant, ductile. Good abrasion resistance and low friction surface. Generally inert, with good chemical resistance except for strong acids and oxidizing agents.	190°F 88°C	-20°F -29°C
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FKM (FLUOROCARBON): Shows good resistance to a wide range of oils and solvents; especially all aliphatic, aromatic and halogenated hydrocarbons, acids, animal and vegetable oils. Hot water or hot aqueous solutions (over 70°F(21°C)) will attack FKM.	350°F 177°C	-40°F -40°C
HYTREL®: Good on acids, bases, amines and glycols at room temperatures only.	220°F 104°C	-20°F -29°C
NEOPRENE: All purpose. Resistance to vegetable oils. Generally not affected by moderate chemicals, fats, greases and many oils and solvents. Generally attacked by strong oxidizing acids, ketones, esters and nitro hydrocarbons and chlorinated aromatic hydrocarbons.	200°F 93°C	-10°F -23°C
NITRILE: General purpose, oil-resistant. Shows good solvent, oil, water and hydraulic fluid resistance. Should not be used with highly polar solvents like acetone and MEK, ozone, chlorinated hydrocarbons and nitro hydrocarbons.	190°F 88°C	-10°F -23°C
NYLON: 6/6 High strength and toughness over a wide temperature range. Moderate to good resistance to fuels, oils and chemicals.	180°F 82°C	32°F 0°C

POLYPROPYLENE: A thermoplastic polymer. Moderate tensile and flex strength. Resists strong acids and alkali. Attacked by chlorine, fuming nitric acid and other strong oxidizing agents.	180°F 82°C	32°F 0°C
PVDF: (Polyvinylidene Fluoride) A durable fluoroplastic with excellent chemical resistance. Excellent for UV applications. High tensile strength and impact resistance.	250°F 121°C	0°F -18°C
SANTOPRENE®: Injection molded thermoplastic elastomer with no fabric layer. Long mechanical flex life. Excellent abrasion resistance.	275°F 135°C	-40°F -40°C
UHMW PE: A thermoplastic that is highly resistant to a broad range of chemicals. Exhibits outstanding abrasion and impact resistance, along with environmental stress-cracking resistance.	180°F 82°C	-35°F -37°C
URETHANE: Shows good resistance to abrasives. Has poor resistance to most solvents and oils.	150°F 66°C	32°F 0°C
VIRGIN PTFE: (PFA/TFE) Chemically inert, virtually impervious. Very few chemicals are known to chemically react with PTFE; molten alkali metals, turbulent liquid or gaseous fluorine and a few fluoro-chemicals such as chlorine trifluoride or oxygen difluoride which readily liberate free fluorine at elevated temperatures.	220°F 104°C	-35°F -37°C
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For specific applications, always consult the Chemical Resistance Chart.



NOTE: See service manual for ATEX details.

ST1½ & ST40 METALLIC PUMP TECHNICAL DATA SHEET



SERIES

CONTAINMENT DUTY BALL VALVE PUMPS

The only complete line of AODD pumps featuring superior fluid containment; protecting your people, environment, and pump.

PERFORMANCE

SUCTION / DISCHARGE PORT SIZE

- ST1½: 1½ (37.5mm) NPT (F)
- ST40: 1½ (37.5MM) BSP (F)(Tapered))

CAPACITY

- 0 to 106 GPM
(0 to 400 LPM)

AIR DISTRIBUTION VALVE

- No-lube, no-stall design

SOLIDS-HANDLING

- Occasional solids only.
Up to ¼ in. (6.3mm)

HEADS UP TO

- 125 psi or 289 ft. of water
(8.8 Kg/cm2 or 88 meters)

MAXIMUM OPERATING PRESSURE

- 125 psi (8.6 bar)

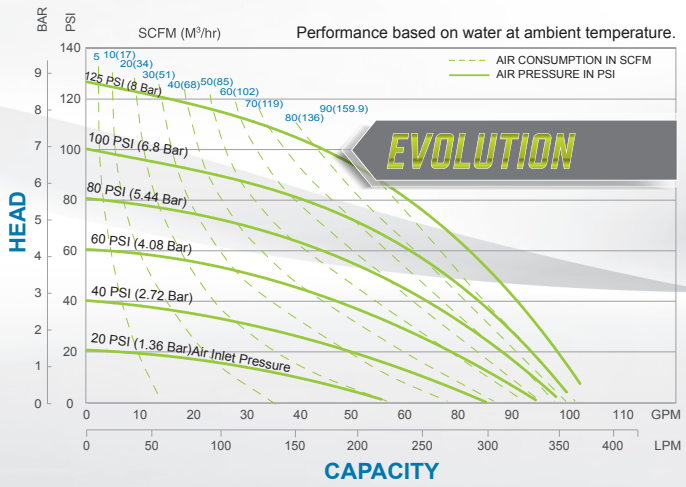
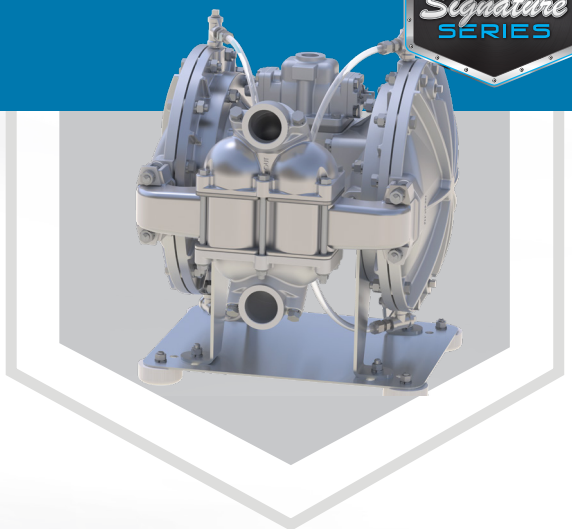
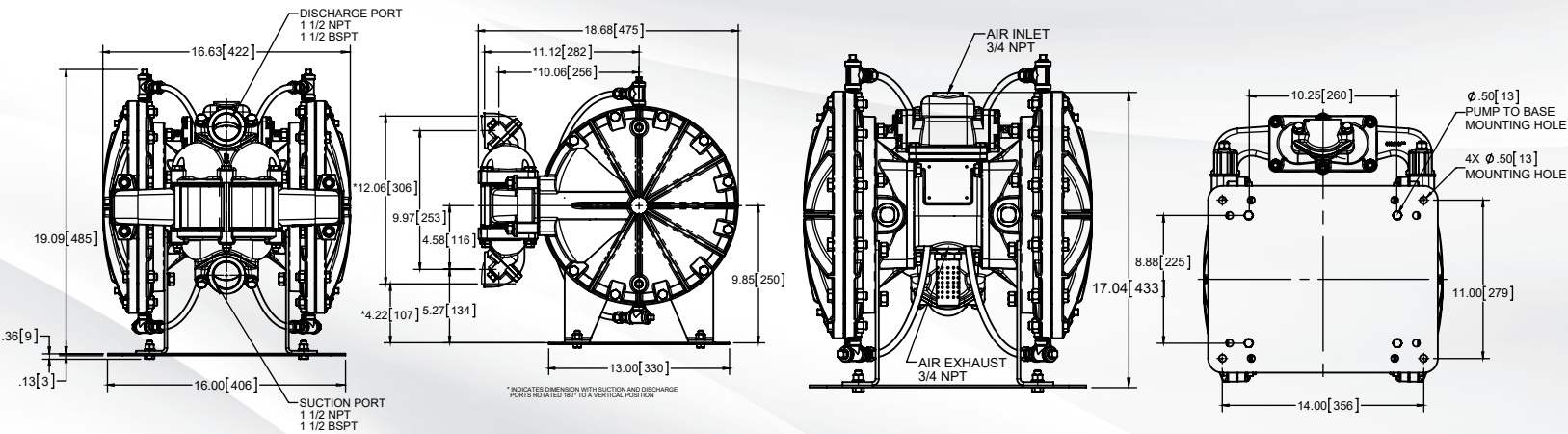
DISPLACEMENT/STROKE

- .37 Gallon / 1.29 liter

WEIGHTS

- Aluminum 99 lbs. (46kg)
- Cast Iron 146 lbs. (66kg)
- Stainless Steel 212 lbs. (95kg)

DIMENSIONS



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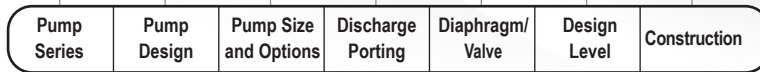


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EXPLANATION OF PUMP NOMENCLATURE

Your Model #:
 (fill in from pump nameplate)



Model #: **XX** **X** **XXXXXX**, **XX** **XXX** **X** **XX**

Pump Series

S SANDPIPER®

Pump Design

T Spill Containment

Pump Size & Options

1½" NPT
 40 1½" BSP Tapered

Options

VL Visual Leak Detection Sight Tubes

Discharge Porting Position

S Side

Diaphragm Check Valve Materials

GI EPDM Driver Diaphragms, PTFE Pumping Diaphragms, and PTFE Check Balls

GN Neoprene Driver Diaphragms, PTFE Pumping Diaphragms, and PTFE Check Balls

GV FKM Driver Diaphragms, PTFE Pumping Diaphragms, and PTFE Check Balls

Design Level

5

Construction

A Aluminum Wetted, Aluminum Air

SI Stainless Steel Wetted, Cast Iron Air

SS Stainless Steel Wetted, Aluminum Air

MATERIALS

Material Profile:	Operating Temperatures:	
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