



OIL & GAS

UPSTREAM & MIDSTREAM



GSERIES



DRILLERS
SERIES



**Natural Gas
Accessories**

SANDPIPER®

A WARREN RUPP, INC. BRAND | SANDPIPERPUMP.COM

THE SANDPIPER ADVANTAGE

PUMPS BUILT FOR YOUR OIL & GAS APPLICATIONS

For over 50 years, SANDPIPER, a Warren Rupp, Inc. brand, has been a leading global Air Operated Double Diaphragm (AODD) pump company, featuring the broadest range of products to meet the needs of a wide variety of applications. Decades of innovation, combined with world class engineering expertise allows the SANDPIPER team to create products that meet the demand of an ever-changing marketplace. Learn more at SANDPIPERPUMP.COM

Features & Benefits



Safety

SANDPIPER pumps comply with the broadest set of certifications and standards in the industry



Guaranteed Reliability

- All pumps come with a 5-Year Limited Warranty
- ESADS+Plus Air / Gas Valve guaranteed not to stall
- Corrosion resistant stainless steel diaphragm connecting rod guaranteed not to bend



Dual Power Sources

All SANDPIPER pumps operate using compressed air, but we also have CSA Certified G-Series pumps available for running off of your local reserve of natural gas



Fully Groundable

Pumps are ATEX compliant and safe in potentially explosive atmospheres by ensuring static electricity dissipation



All Bolted Construction

Superior reliability is defined by our all bolted pump construction that allows for instant part alignment, uniform torquing of seals and high pressure capabilities



Tested Quality

SANDPIPER pumps are 100% wet tested after final assembly to ensure proper functionality; testing includes, but is not limited to, deadheading, priming and sealing



SANDPIPER® G-SERIES

DIAPHRAGM PUMPS FOR THE OIL & GAS MARKET

Traditional AODD pumps are designed for use with air only. Over the years, oil and gas operators have opted to power their diaphragm pumps with easily accessible natural gas. The application of AODD pumps driven by natural gas created a unique set of safety requirements that previously did not exist. In 2003, SANDPIPER recognized the need and partnered with the Canadian Standards Association (CSA®) to lead the development of the first-ever safety certification for Gas Operated Double Diaphragm (GODD) pumps. CSA Certified GODD pumps are designed and tested to be powered by natural gas when installed according to the certification and local requirements. SANDPIPER is the ONLY GODD pump manufacturer that offers a full range of CSA Blue Star (ANSI LC6) / Blue Flame (Canadian Technical Letter R-14) Certified pumps from ½" to 3" sizes. Our G-Series *Dual Power* pump line carries the most stringent certifications for safety and reliability in the double diaphragm pump industry and is proven successful in worldwide oil and gas applications.

The Widest Range of Certified Safe & Reliable Natural Gas Operated Pumps



SANDPIPER's CSA Certified G-Series Pumps meet the unique safety requirements for diaphragm pumps operated by natural gas:

- Constructed to prevent the accumulation of static electric charge and fully groundable to ensure static electricity dissipation (comes standard with attached grounding strap)
- Withstand a hydrostatic strength test pressure of 500 PSI (five times the maximum operating pressure of 100 PSI, the highest standard in the industry)
 - Canadian Technical Letter R-14 requires 500 PSI
 - ANSI LC6 requires 400 PSI
 - Hydraulic Institute requires 188 PSI
- Elastomeric seals have been tested for compatibility with the various chemicals normally expected to be found in both sweet and sour gas
- Every pump is leak tested to 150 PSI at the factory before packaging to ensure natural gas emissions are properly contained
- Comply with NACE Standard MR0175/ISO15156 for corrosion resistance

ESADS+Plus Air / Gas Distribution System - A SANDPIPER Exclusive

Independent of the pilot valve position, the cross-drilled pressure ports in the main directional air / gas valve spool provide a pneumatic bias of the spool at either end of travel. This is accomplished by directing (inner) chamber pressure to the end of the spool, boosting and sustaining pilot pressure until point-of-shift of the pilot valve.

Externally Serviceable Air / Gas Distribution System includes:



Complete in-line serviceability



Lube free, consistent restarts



On-off-on reliability guaranteed



PATENTED cross-drilled pressure ports



SCAN TO WATCH THE ESADS+PLUS VIDEO
SANDPIPERPUMP.COM/ESADSVIDEO



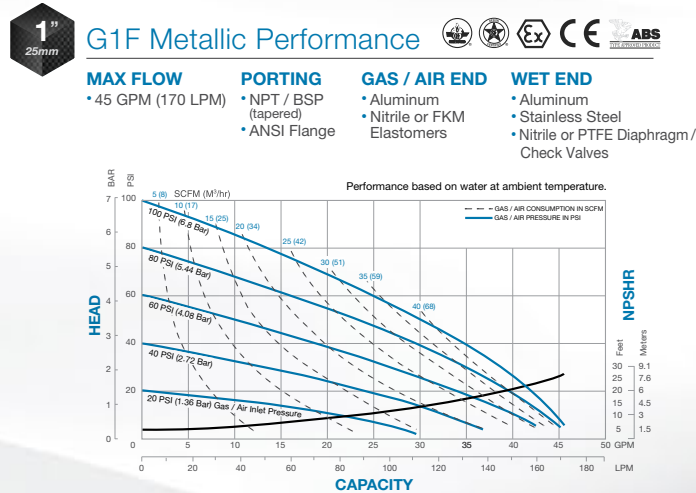
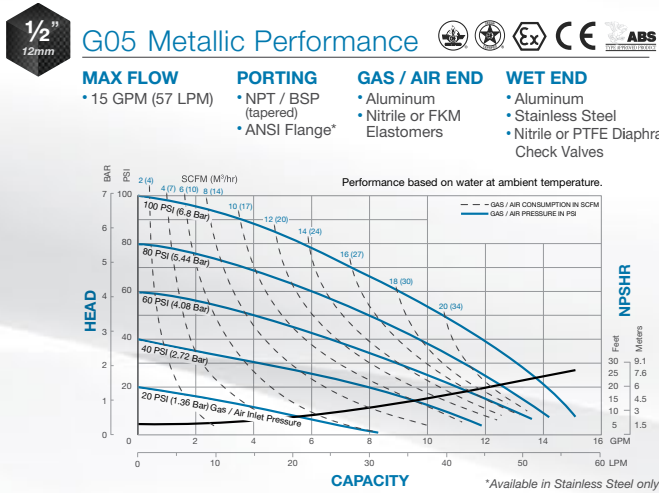
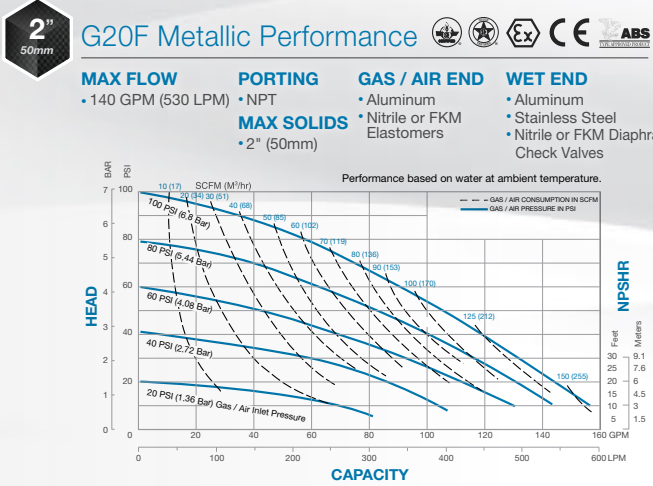
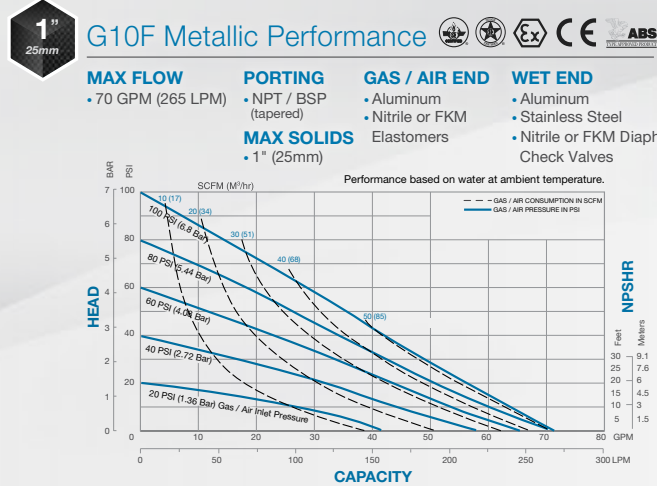
Applications

- Flare Knockout
- Tank Bottom Recirculation / Transfer
- Sump / Utility / General Transfer
- Glycol & Lube Oil Transfer
- Separators & Knockout Drums
- Glycol Recirculation / Heat Trace

DUAL POWER NATURAL GAS OR AIR OPERATED PUMPS

CSA CERTIFIED

FLAP VALVE PUMPS

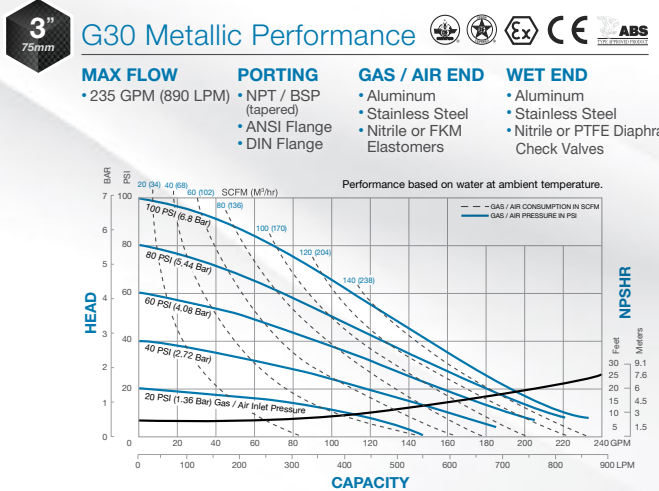
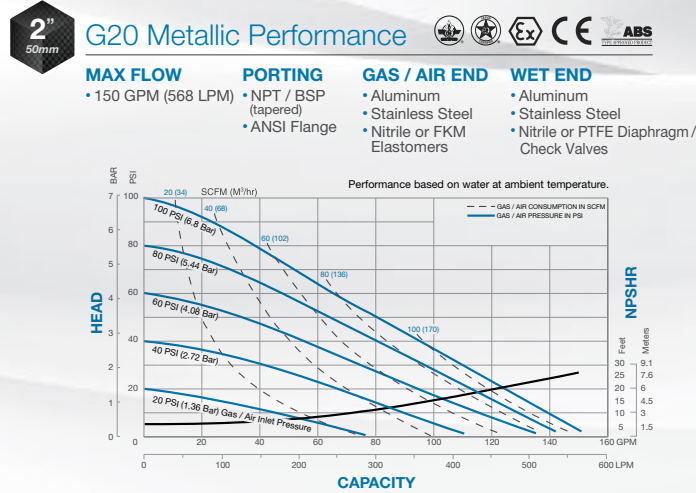
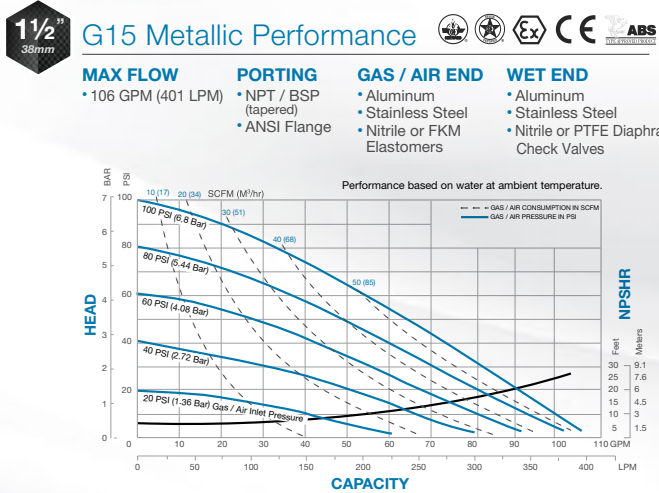


Remote Site Serviceability
ESADS+Plus Air / Gas System allows for an on-site maintenance time of only 5 minutes

Temperature Limits
-10°F (-23°C) to 180°F (82°C)

Hydrostatic Strength Test
500 PSI (34.5 BAR)

Nitrite or FKM Elastomers
Air / Gas End options for varying temperatures and chemical compatibility



DUAL POWER

All SANDPIPER G-Series pumps feature Dual Power capabilities and may be safely powered by compressed air or natural gas depending on the application, which offers simplified purchasing, maintenance and training while reducing inventory.

CSA is the Canadian Standards Association, an international organization for testing products to ensure public safety, and the governing agency for the Natural Gas Industry.

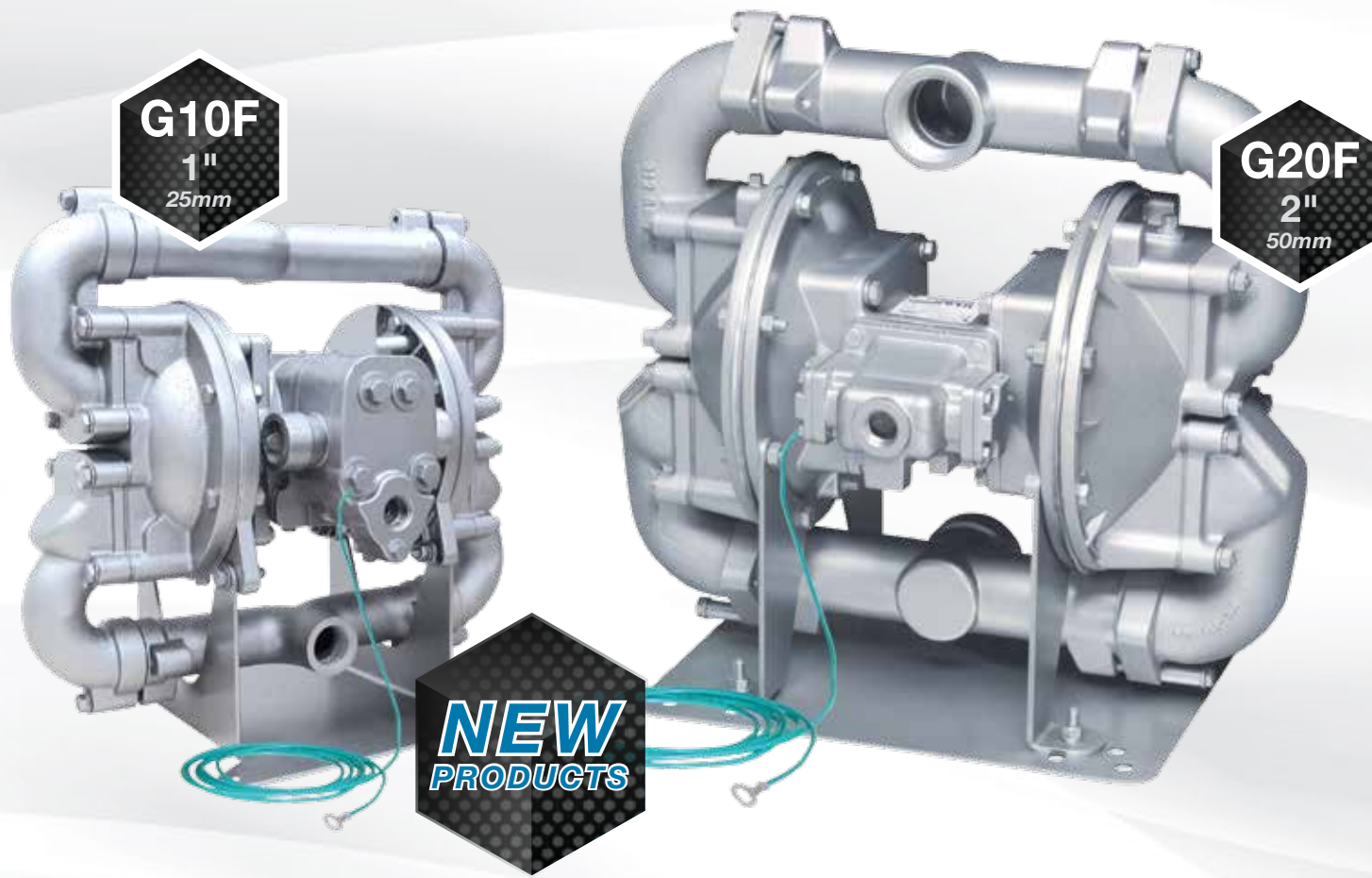
HEAVY DUTY FLAP VALVE PUMPS

CSA CERTIFIED FOR NATURAL GAS OPERATION

The G10F and G20F Heavy Duty Flap Valve Pumps are the newest addition to SANDPIPER's line of CSA Certified G-Series *Dual Power* Pumps. The flap check valve design allows passage of larger solids than traditional ball valve pumps and is ideal for abrasive slurries, suspended and non-suspended solids and line-size solids requirements. The exclusive bottom discharge porting arrangement provides superior suction lift and eliminates the damage from settling solids in your pump. This Heavy Duty pump features thick wall construction and is enhanced with an extended wear package.

Performance & Reliability

-  **Flap Check Valves**
Ideal for abrasive and viscous fluids, sludge & slurry
-  **Solids Handling**
Up to 2" (50mm)
-  **Superior Dry Prime**
Dry suction lift up to 24' (7m) of water
-  **Bottom Discharge**
Gravity assist is ideal for pumping liquids with settling solids and slurry
-  **ESADS+Plus Air / Gas Valve**
Externally Serviceable Air / Gas Distribution System
-  **All Bolted Construction**
Durable and leak free design
-  **Durable Diaphragm Connecting Rod**
Guaranteed to not bend or yield in operation
-  **Deadheads Safely & Runs Dry**
No pump or system damage



G10F & G20F

THE INDUSTRY'S ONLY
CSA CERTIFIED GAS OPERATED
FLAP VALVE PUMPS



Recommended Applications:

- Tank Bottom Recirculation / Transfer
- Sump / Utility / General Transfer



DUAL POWER

DESIGNED & TESTED
TO BE SAFELY POWERED
BY COMPRESSED AIR
OR NATURAL GAS

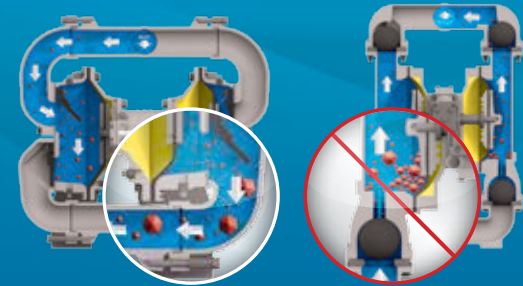
Safety

-  **No Electricity Required & Fully Groundable**
Safe operation in potentially explosive atmospheres
-  **Natural Gas Operation**
Certified to be safely powered by natural gas
-  **Safety Compliance**
   



Bottom Discharge Porting

Eliminate the damage from settling solids in your pump with the exclusive bottom discharge arrangement.



Bottom Discharge Top Discharge

AIR OPERATED DRILLERS SERIES

FOR DRILLING APPLICATIONS

SANDPIPER Drillers Series pumps operate on compressed air and are designed for the toughest drilling applications. The durable roll cage and skid base configurations provide portability and pump protection. The flap check valve design allows passage of larger solids than traditional ball valve pumps and is ideal for your drilling applications. The exclusive bottom discharge porting arrangement provides superior suction lift and eliminates the damage from settling solids in your pump. This Heavy Duty pump features thick wall construction and is enhanced with an extended wear package.

Features & Benefits

- Flap Check Valves**
Ideal for abrasive & viscous fluids, sludge & slurry
- Solids Handling**
Up to 3" (75mm)
- Superior Dry Prime**
Dry suction lift up to 24' (7m) of water
- Bottom Discharge**
Gravity assist is ideal for pumping liquids with settling solids and slurry
- Portable**
Safely and easily transported
- ESADS+Plus Air Valve**
Externally Serviceable Air Distribution System
- All Bolted Construction**
Durable and leak free design
- Durable Diaphragm Connecting Rod**
Guaranteed to not bend or yield in operation
- Low Initial Purchase Price**
Economical compared to other technologies

For Drilling Applications:

- Drilling Mud
- Cellar Sump
- Mud Make-Up
- General Transfer
- Filtration
- Settling Pond Transfer

DMF3 is available in Skid Base configuration

DMF3
3"
75mm

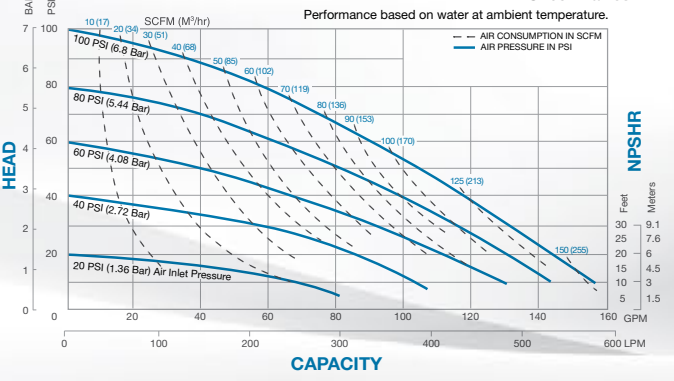
DMF2 is available in Roll Cage or Skid Base configuration

DMF2
2"
50mm



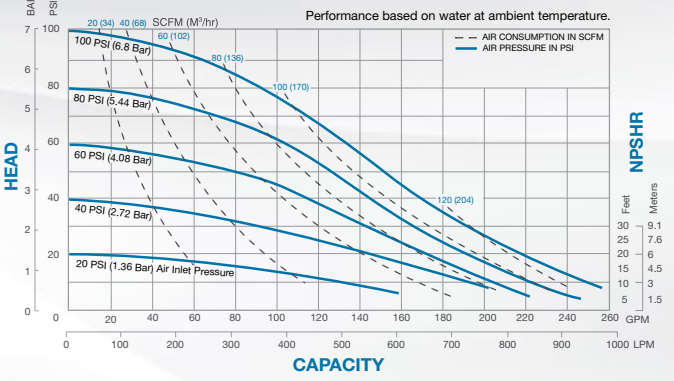
DMF2 Metallic Performance

- MAX FLOW**
• 140 GPM (530 LPM)
- PORTING**
• NPT
- AIR END**
• Aluminum
• Nitrile Elastomers
- WET END**
• Aluminum
• Nitrile Diaphragm/Check Valves

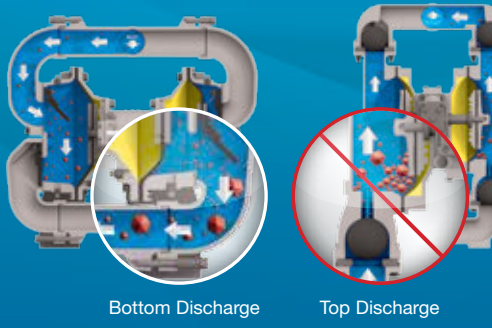


DMF3 Metallic Performance

- MAX FLOW**
• 260 GPM (984 LPM)
- PORTING**
• ANSI Flange
- AIR END**
• Aluminum
• Nitrile Elastomers
- WET END**
• Aluminum
• Nitrile Diaphragm/Check Valves



Bottom Discharge Porting
Eliminate the damage from settling solids in your pump with the exclusive bottom discharge arrangement.



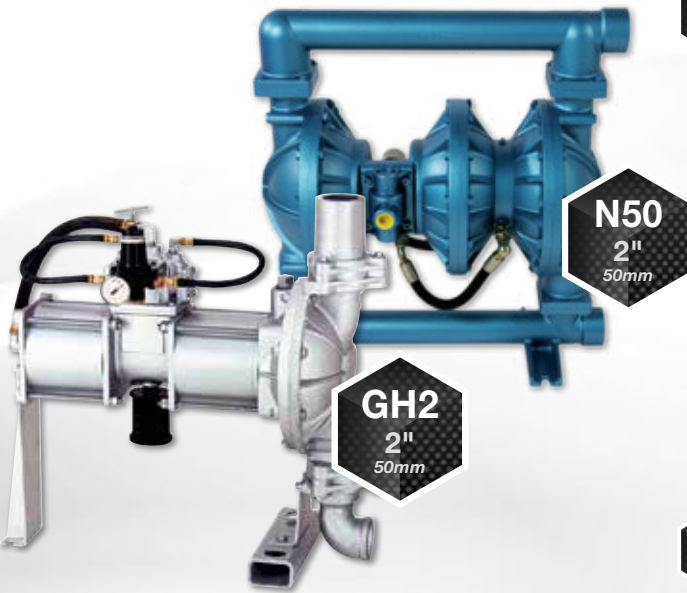
SPECIAL DUTY PUMPS

PERFORMANCE & SPECIFICATIONS

High Pressure Pumps

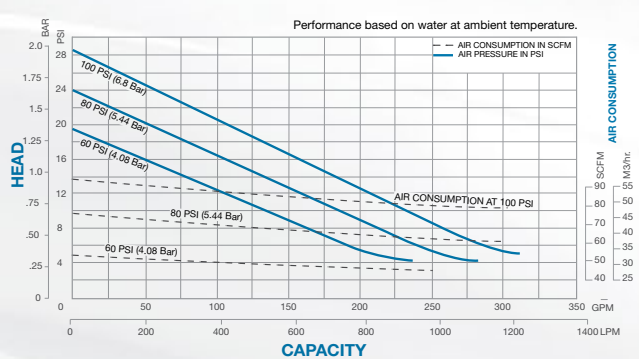
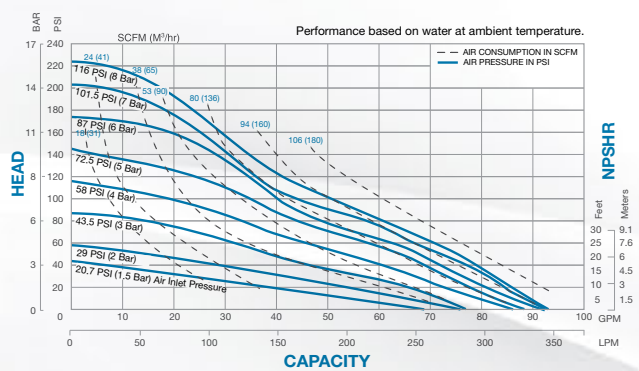
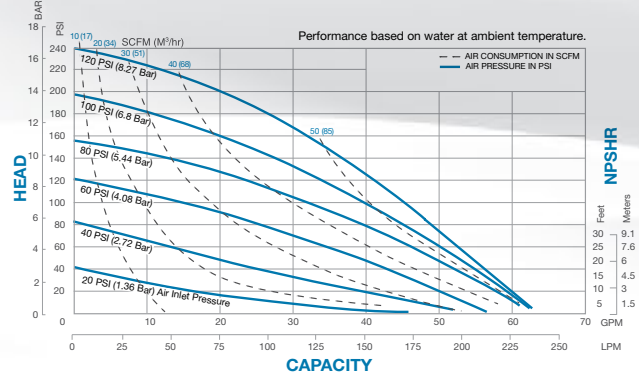
SANDPIPER GH2-M Single Diaphragm High Pressure Metallic Pumps deliver discharge pressure twice the inlet pressure, up to 250 PSI (17.2 BAR). Designed for Oil & Gas applications requiring higher discharge pressures. Available in Cast Iron and Stainless Steel with various elastomer options. Equipped with elastomeric seals and components that are compatible with the various chemicals normally expected to be found in natural gas.

Blagdon N50 High Pressure Pumps provide enhanced power in applications where pressure is paramount and flow rate is an issue. Using two air chambers to double the air per stroke, these pumps achieve discharge pressures up to 238 PSI (16 BAR) with flow rates as high as 90 GPM (341 LPM).



Air Operated Submersible Centrifugal Pumps

SludgeMaster™ Submersible, Air-Powered Trash Pumps handle mud, leaves, twigs, sand, sludge, trash-laden water and soft solids to 1½" (3.8cm). High capacity, low head. These pumps weigh only 59 pounds (26kg), and can fit through an opening as small as 14" (35cm). Sturdy construction for rough handling and long life. Optional rock screen available.



NATURAL GAS ACCESSORIES

GAS LINE PREPARATION & REGULATION FOR SAFETY & IMPROVED PUMP LIFE

CSA Certified Natural Gas Pressure Regulators



The **ONLY** CSA Certified point-of-use natural gas regulators available on the market today!

A safety port has been added to help prevent escaping gas in the case of a regulator diaphragm rupture. Simply add a pipe or hose fitting to the unit to divert or reclaim any natural gas.

SANDPIPER Natural Gas Pressure Regulators are safe, reliable and environmentally friendly. These exclusive CSA Certified and UL Listed point-of-use regulators provide superior regulation and excellent stability. All regulators include a durable glycerin filled pressure gauge to dampen the effects of pulsation and vibration common in pump applications.

TECHNICAL SPECIFICATIONS							
Part Number	Port Size	Max Flow (SCFM)	Pump Models	Max Inlet Pressure	Regulating Pressure Range	Temperature Rating	Materials of Construction
020.057.000	1/4" NPT	25	G05	250 PSI (17.2 BAR)	0 - 120 PSI (0 - 8.3 BAR)	0°F - 160°F (-17.8°C - 71.1°C)	Aluminum, Brass, Plated Steel, Nitrile
020.058.000	1/2" NPT	110	G1F, G10F	400 PSI (27.6 BAR)	0 - 125 PSI (0 - 8.6 BAR)	-40°F - 200°F (-40.0°C - 93.3°C)	Zinc, Aluminum, Plated Steel, Nitrile, Brass
020.059.000	3/4" NPT	110	G15, G20	400 PSI (27.6 BAR)	0 - 125 PSI (0 - 8.6 BAR)	-40°F - 200°F (-40.0°C - 93.3°C)	Zinc, Aluminum, Plated Steel, Nitrile, Brass
020.060.000	3/4" NPT	260	G20F, G30	400 PSI (27.6 BAR)	0 - 125 PSI (0 - 8.6 BAR)	-40°F - 200°F (-40.0°C - 93.3°C)	Zinc, Aluminum, Plated Steel, Nitrile, Brass

Diaphragm Material: Nitrile elastomer with polyester fabric
All gauge ports & vent ports are tapped 1/4" NPT
Replacement pressure gauge part number: 020.061.000

Note: The use of a relief valve is recommended for these products in accordance with NFPA 58.

Natural Gas Filters

SANDPIPER Natural Gas Filters provide superior particulate protection from systems with high concentrations of solid contaminants. These point-of-use filters are built from durable and lightweight aluminum, feature very high dirt-holding capacity and offer lower pressure drop than other comparable products.

TECHNICAL SPECIFICATIONS							
Part Number	Port Size	Max Flow (SCFM)	Pump Models	Replacement Filter Element	Max Inlet Pressure	Max Temperature	Materials of Construction
020.062.000	1/4" NPT	25	G05	020.065.000	500 PSI (34 BAR)	175°F (80°C)	Aluminum Housing, Nitrile Seals, Molded Urethane End Seals
020.063.000	1/2" NPT	42	G1F	020.065.000			
020.064.000	3/4" NPT	133	G10F, G15, G20, G20F & G30	020.066.000			

Stainless Steel manual drain 1/8" NPT
Micron Rating: 3

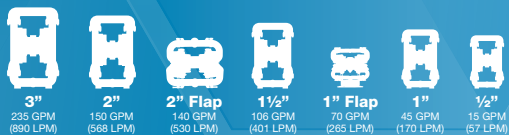




COMPETITOR

**SANDPIPER PUMPS EXCEL IN EVERY ASPECT OF
SAFETY AND RELIABILITY WITHIN THE OIL & GAS INDUSTRY**

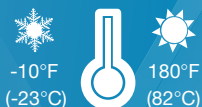
WIDEST AVAILABLE RANGE



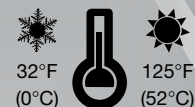
SIZE & FLOW



WIDEST TEMPERATURE RANGE



TEMP



BROADEST CERTIFICATIONS IN THE INDUSTRY

SAFETY COMPLIANCE WITH:



SAFETY

SAFETY COMPLIANCE WITH:



LARGEST SOLIDS PASSAGE

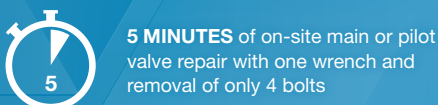


SOLIDS HANDLING

TOP DISCHARGE ONLY
Up to ¼"



EASE OF REPAIR AND LESS DOWNTIME



GAS / AIR VALVE REPAIR

55 MINUTES of off-site main and pilot valve repair with a variety of tools needed to remove pump from line and transport for repair



ENHANCED TEMPERATURE RESISTANCE AND CHEMICAL COMPATIBILITY



GAS / AIR END MATERIALS

LIMITED
Aluminum only
Nitrile Elastomers only



BEST GUARANTEE IN THE INDUSTRY



PERFORMANCE RELIABILITY

LIMITED
Connecting Rod prone to bending
5-year Limited Warranty



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