

# TIRED OF FAILED GEAR PUMPS?

# SANDPIPER HAS THE SOLUTION

FOR YOUR TANK BOTTOM RECIRCULATION NEEDS!



- Tolerance increases due to solids, paraffins and sand
- Reduction in flow
- Frequent gear pump servicing
- Lack of lubricity

SANDPIPER's G-Series™ Heavy Duty Flap Valve Pump offers dependable tank bottom recirculation that is designed to handle solids, paraffins and abrasives.

## KEY BENEFITS

- Built for **large solids passage**; up to line size!
- Bottom discharge design **eliminates damage** from settling solids, sand and paraffins
- Reliable for remote locations; completely **submersible and dry run capable**
- Safer technology, **no electricity required**; ATEX and CSA certified
- Dual Power - designed and tested to be **safely powered by compressed air or natural gas**

## SOUND FAMILIAR?



LEARN MORE AT: [SANDPIPERPUMP.COM/OILGAS](https://sandpiperpump.com/oilgas)



# DO YOUR GEAR PUMPS STRUGGLE TO EVACUATE SOLIDS OUT OF YOUR TANK?

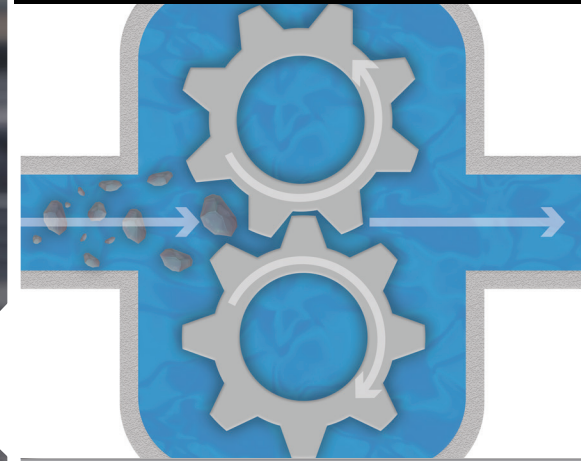
## WHEN A GEAR PUMP IS USED

- Lack of suction does not evacuate all sand and paraffins
- A channel is formed in settled solids where water is recirculated
- Requires vacuum truck to properly remove buildup

If solids-laden fluid reaches the pump, the close tolerance gears will wear prematurely. Flow slippage increases, and efficiency decreases until pump failure occurs.

## TYPICAL GEAR PUMP

Large solids cannot pass through pump, affecting operation.



While **gear pumps** can move clean, clear fluids effectively, they lack the ability to handle solids and fluids without lubricity. Historically, gear pumps have been used to pull tank bottoms which commonly see the presence of water and sand; greatly shortening the life of the pump.

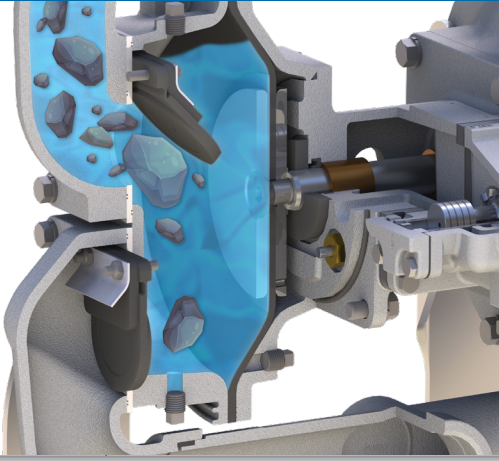
- Gear pumps only pull liquids, requiring a greater NPSH; this creates a wire draw, allowing for sand and debris to build up in the tank
- If sand and solids within the tank get to the gear pump, damage will occur due to the close tolerances, causing degrading flow issues
- Solids and debris never get evacuated to the heater treater
- Gear pumps will continue to pump against a closed valve or clogged pipe; without a relief valve, this will continue until pipe, pump or equipment fails

# SANDPIPER

## HEAVY DUTY FLAP VALVE PUMP

Large solids easily pass through the pump.

# SANDPIPER IS THE DURABLE, SOLIDS HANDLING SOLUTION!



**SANDPIPER Heavy Duty Flap Valve Pumps** are engineered to handle up to line size solids without premature failure, allowing the turning of storage tanks to be effective and efficient. With the CSA certification, these pumps can be run on air or gas.

- Flap valve pumps pull a vacuum, requiring a lower NPSH to evacuate settling solids, sand and paraffins out of the tank
- The Heavy Duty Flap Valve Pump works with gravity (top suction – bottom discharge) to evacuate solids from the pump, extending the life of the diaphragms
- Greater GPM output allows for turning of tank in shorter amount of time
- No need for a bypass valve, as the pump will dead head safely without damage

## WHEN A HEAVY DUTY FLAP VALVE PUMP IS USED

- Adequate suction evacuates sand and paraffins
- Solids up to 3" are able to pass through pump, turning the tank properly
- Fewer calls for vacuum trucks and less down time

## NO STAND REQUIRED

- Pump does not need to be mounted above the containment wall in case of rain or spill
- Ground level mounting provides more complete tank evacuation

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# PROMINENT EAGLE FORD OIL & GAS COMPANY TRUSTS SANDPIPER FOR ITS TANK BOTTOM RECIRCULATION NEEDS.

## INDUSTRY:

Midstream Oil & Gas Production

## DISTRIBUTOR:

Odessa Pumps and Equipment

## PRODUCT:

G20F Heavy Duty Flap Valve Pump



## PROCESS OVERVIEW:

Tank bottom recirculation is the process of transferring crude oil, natural gas liquids (NGLs) and paraffins to keep the product from separating prior to further processing.

## PROBLEM OVERVIEW:

A large private company located within the Eagle Ford basin was experiencing problems with previous gear pump technology. This South Texas company focuses on Midstream Oil & Gas, and had ongoing problems related to its tank bottom recirculation applications at multiple large facilities.

During processing, storing, and transporting at the production pad, this company began experiencing issues with its gear pumps. These issues included:

- Solids and abrasives deteriorating internal gears, resulting in a reduction in flow
- Premature seal failure, causing cleanup costs and downtime
- Lubrication needed by gear pumps was lacking due to water present in the tanks

## SOLUTIONS OVERVIEW:

Burdened by the issues above, the customer turned to Odessa Pumps for a solution. Odessa Pumps recommended the SANDPIPER G-Series Heavy Duty Flap (HDF) Valve pump due to its unique design, allowing the passage of entrained solids up to 2". The G-Series HDF pump can transfer a variety of fluids, ranging from water and condensate to viscous crude oil. In addition to the solids and viscosity handling capabilities, the construction of the SANDPIPER G-Series HDF pump can be configured for compatibility with nearly all oil field fluids.



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**SANDPIPER®**

Warren Rupp, Inc. | A Unit of IDEX Corporation  
800 North Main Street, Mansfield, OH 44902 USA  
Phone: 419.524.8388 | Fax: 419.522.7867  
[SANDPIPERPUMP.COM](https://sandpiperpump.com)

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