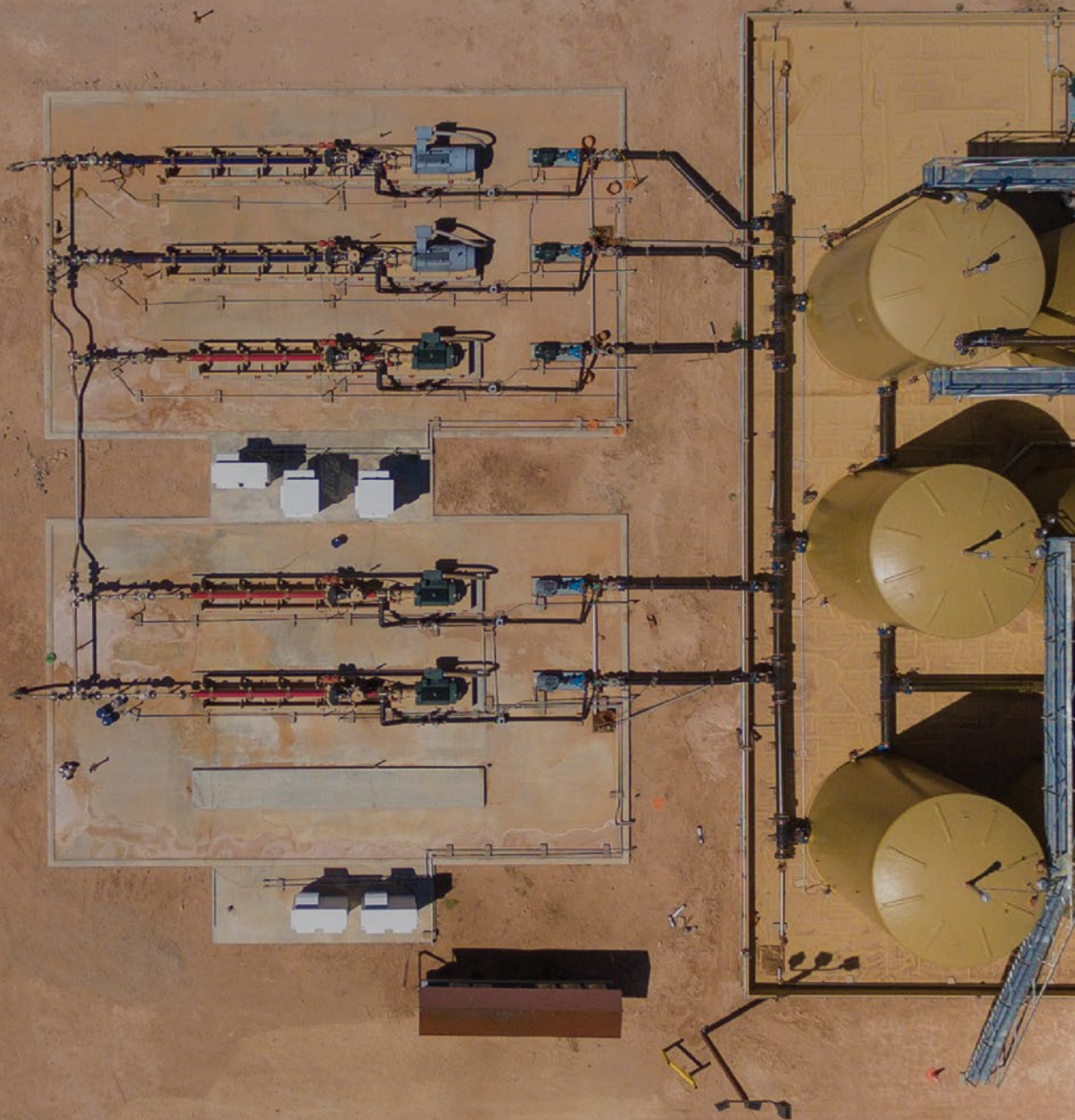


# HOSS

When it comes to customized  
horizontal surface pumps,  
there's **no comparison.**



The logo for NOV (National Oilwell Varco), consisting of the letters "NOV" in a bold, white, sans-serif font. The letter "O" is stylized with a circular graphic element inside it.





# Our promise

To design and manufacture the most reliable and technically advanced horizontal pump systems, and to provide responsive, industry-leading service and support.

**At HOSS Pump Systems, we stand confidently behind our commitment to our customers and ourselves. Here's how we are leading the way:**



### **Reliability**

Our sole focus is on building the best horizontal pumps. Period. This singular obsession with sweating the details allows our team to engineer highly reliable pumps that will go the distance, and then some. The unmatched run time of a HOSS pump means more uptime (and fewer headaches). When your operation is on the line, only a HOSS pump will do.



### **Technology**

From manufacturing our premium horizontal pumps to how we take care of our customers, continuous innovation isn't just a buzzword; it's a relentless pursuit to raise the bar. Again. Our patented thrust chamber technology provides the industry's most robust design, delivering unmatched operational longevity and reliability that you can't find anywhere else on the market. So, go ahead – take advantage of our best-in-class technology. We insist.



### **Responsiveness**

Anyone can sell a pump. The real measure of a reliable supplier is how they respond when you need support. Our experienced field service team does whatever it takes to support you after the sale, delivering progressive preventative maintenance programs with unmatched response and accessibility. As a HOSS customer, you'll receive 24/7 on-demand access to customer service and support whenever and wherever you need it.



# Reliability

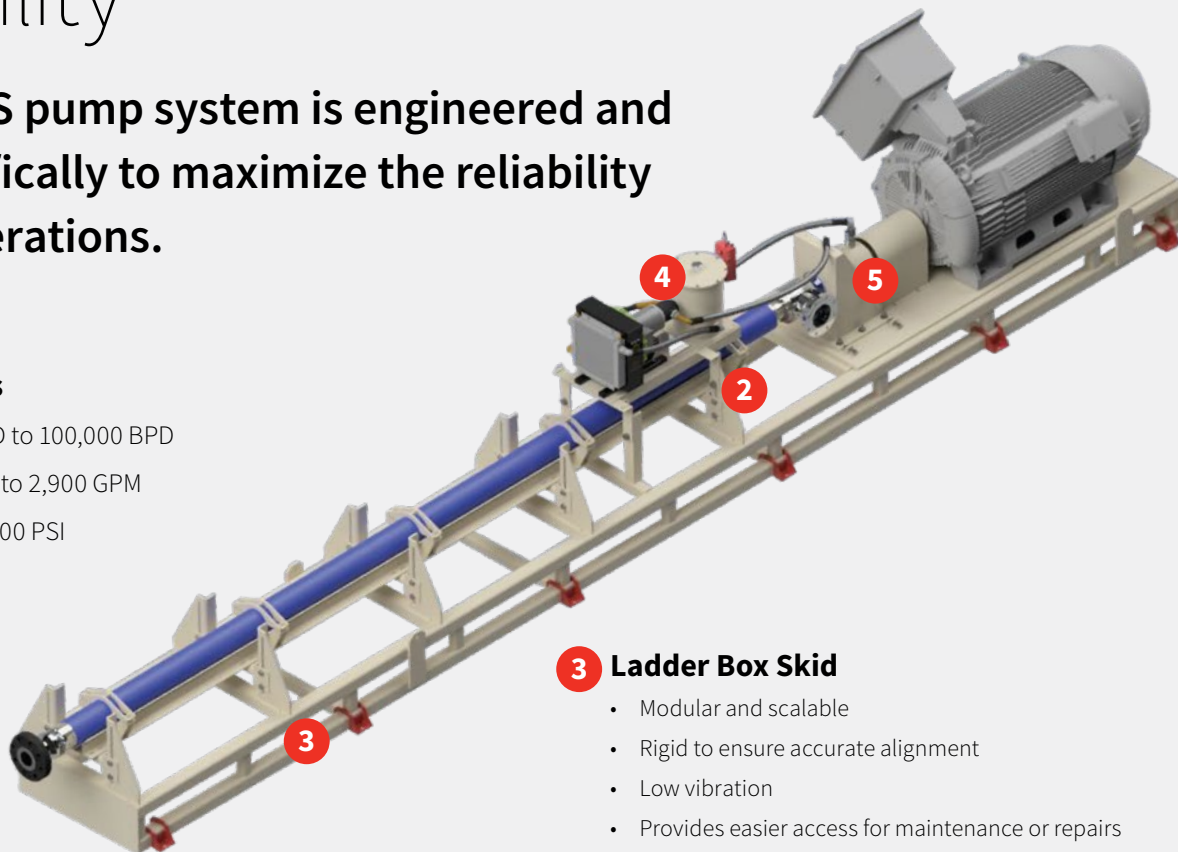
Every HOSS pump system is engineered and built specifically to maximize the reliability of your operations.

### HOSS Capacities

**Flow Rates:** 400 BPD to 100,000 BPD

**Flow Rates:** 12 GPM to 2,900 GPM

**Pressures:** Up to 6,000 PSI



#### 1 Pump

- Pump sizes available in 400, 538, 675, 862, 875, 950, 1025, 1100, and 1200 series
- Pressure limits have been re-rated for safe surface operation
- Discharge pressures available to 6,000 psi MAWP with the 538 series and 675 series pumps
- Pump has an over-sized, thicker housing that provides a higher pressure rating
- Stages: Ni-resist, Duplex SS, coated Teflon, or boronized
- Bearings: Ni-resist, tungsten carbide, and Graphalloy
- Pumps are sized and designed for each application

#### 2 Instrumentation

- Vibration Monitoring (Analog or Digital)
- HTC oil level switch and resistance temperature detector
- Suction Pressure (Analog or Digital)
- Discharge Pressure (Analog or Digital)
- Optional Explosion-Proof Instruments and Enclosures
- All types of instrumentation available

#### 3 Ladder Box Skid

- Modular and scalable
- Rigid to ensure accurate alignment
- Low vibration
- Provides easier access for maintenance or repairs
- Field adaptable
- Available in either a V Trough or Pedestal design

#### 4 Cooler Package

- Lubricates the HTC, providing long run times
- Reduces oil temperatures to increase bearing life under high loads
- In severe applications, it can be fitted with an internal cooling coil for an external water supply
- Optional external filter

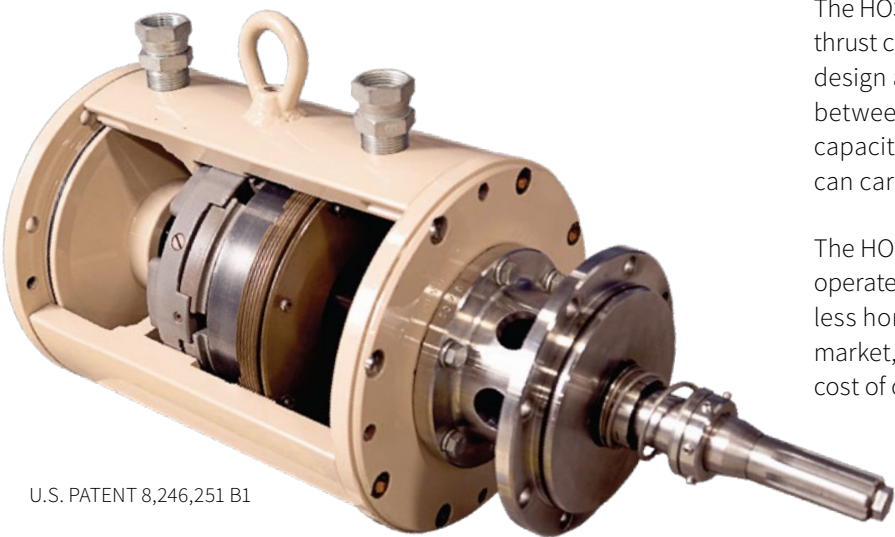
#### 5 Horizontal Thrust Chamber

- Patented design
- Continuous operation thrust loads of up to 75,000 lbs
- Supports all major standard seals on the market and custom specifications
- Two different seal combinations to fit your application without changing out the HTC
- High-strength shaft option rated to 2,000 hp
- Easy removal for maintenance/repairs
- Utilizes all API flush systems



# Technology

## The HOSS Horizontal Thrust Chamber with thrust capacities of up to 75,000 lbs.



U.S. PATENT 8,246,251 B1

The HOSS thrust chamber is unlike any other horizontal thrust chamber on the market, both in terms of technical design and its ability to deliver increased mean time between failure. The standard HOSS thrust carrying capacity is 19,400 lbs, while our more robust models can carry up to 75,000 lbs of thrust.

The HOSS thrust chamber is a fully flooded system that operates at a lower temperature. It consumes significantly less horsepower than other thrust chambers on the market, increasing system run life and lowering the total cost of ownership.

THE HOSS DIFFERENCE	HOSS Pump Systems	Competitor A	Competitor B	Competitor C
Patented horizontal thrust chamber design	✓	X	X	X
Engineered design and build tailored to your specifications	✓	X	X	X
Thrust chamber designed and built in-house	✓	X	X	X
Standard thrust chamber thrust capacity rated at 19,400 lbs	✓	X	X	X
Thrust capacities up to 75,000 lbs	✓	X	X	X
Significantly less horsepower required to operate a HOSS HTC	✓	X	X	X
Fully flooded HTC cooling design - no air entrainment	✓	X	X	X
Lower HTC operating temperatures	✓	X	X	X
HTC cooling unit on all standard HOSS High Load HPS Systems	✓	X	X	X
HPS skids built in our fabrication facility	✓	X	X	X
Immediate 24/7 service response and dispatch	✓	X	X	X

# Applications

Our HOSS pump can be used in various applications around the world, including:

- Produced Water Injection
- NGL Pipeline
- Amine Service
- Crude LACT and Pipeline
- Glycol Service
- Hydrocarbon Liquids
- CO<sub>2</sub> Transport and Injection
- Sour Gas Injection
- Mining: High Volume and High-Pressure De-Watering and Leaching Operations
- Desalination: Supporting high-pressure reverse osmosis systems for freshwater conversion
- Boiler Feed: Maintaining stable, high-pressure water supply in thermal power systems
- Jet Fuel Handling: Built for precision and contamination-free transfer under pressure
- Deep Well Applications: Reliable performance at depth for municipal and industrial water supply
- High-Pressure Sanitation: Supporting sanitation systems where pressure and flow are critical



# Responsiveness

Strategically located HOSS HPS field service technicians  
**24/7/365 Repair Service - Quick Dispatch**

Our technicians are dedicated to Horizontal Pump Systems and have specialized training in the following:

- Proper Laser Alignment
- Complex Mechanical Seal troubleshooting, repairs, and installation
- Vibration Analysis
- VSD and instrumentation troubleshooting and repair
- Instrumentation install, setup, and calibration
- Proper HPS installation-skid leveling and anchoring
- Service trucks tooled and stocked specifically for HPS service
- Parts inventory on hand for quick repairs and limited downtime
- Testing capabilities to ensure pumps are operating correctly



# Available inventory

While HOSS is known for the quickest customized system lead times in the industry, we realize that you may need a pump within 24 hours or less. That's why we maintain stock of completed units and other critical parts for immediate, same-day delivery for the most urgent applications. When your reputation is on the line, you can count on HOSS.

## HOSS 600HP - 44 Stages

	BPD	GPM	Fluid	Produced water
<b>Rate</b>	12,500	364.3	SG	1.05
<b>Viscosity(cP):</b>				1
<b>Pressures</b>	PSI	Head in feet	<b>Temp:</b>	95°F (35°C)
<b>Intake</b>	30	66		
<b>Discharge</b>	1,850	4,070		
<b>Differential</b>	1,820	4,004		

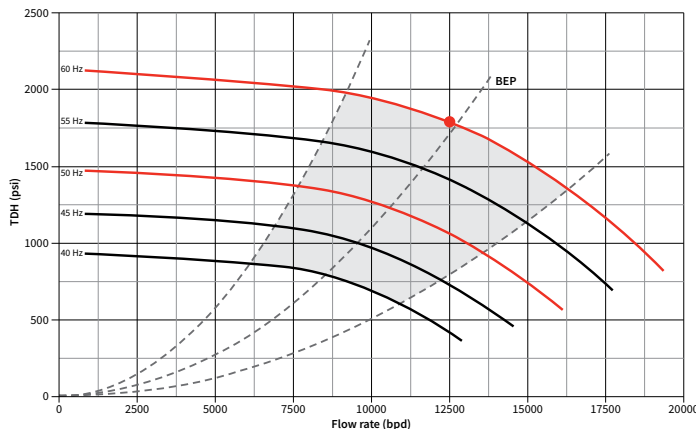
Motor description				
Manufacturer	Frame size	HP	Power	RPM
<b>TECO (or equivalent)</b>	5810A	600	3/60/460	3,600
<b>System overall length: 31 ft</b>				

## HOSS 500HP - 40 Stages

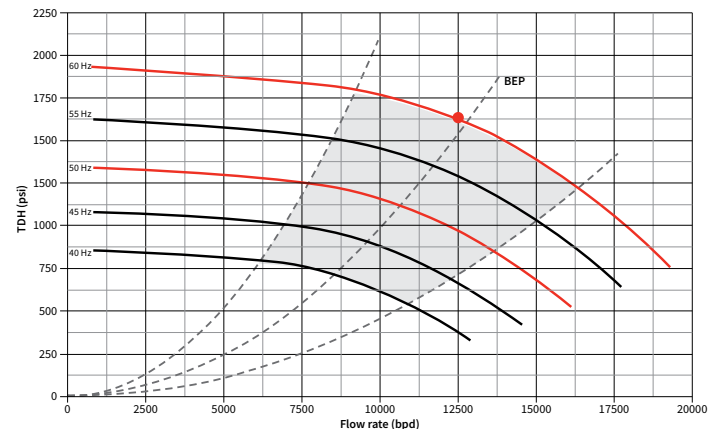
	BPD	GPM	Fluid	Produced water
<b>Rate</b>	12,500	364.3	SG	1.05
<b>Viscosity(cP):</b>				1
<b>Pressures</b>	PSI	Head in feet	<b>Temp:</b>	95°F (35°C)
<b>Intake</b>	30	66		
<b>Discharge</b>	1,650	3,630		
<b>Differential</b>	1,620	3,564		

Motor description				
Manufacturer	Frame size	HP	Power	RPM
<b>GE (or equivalent)</b>	5011LS	500	3/60/460	3,600
<b>System overall length: 29 ft</b>				

Variable speed, SG = 1.05, Viscosity = 1 cP  
Target: 12500 (bpd) at TDH of 1790.7 (psi)



Variable speed, SG = 1.05, Viscosity = 1 cP  
Target: 12500 (bpd) at TDH of 1627.9 (psi)



## Pressure Control Valves

We maintain an inventory of Cyclonic brand pressure control valves from Class 600 to Class 2500. Each valve design has been customized for precise control and reduced wear in centrifugal pump applications.



## Fluid Filtration

Removing abrasive fluid particles is critical to increasing pump longevity. We stock 4-, 6-, and 7-bag filter housings, as well as replacement bags.





Guardian™ VFD



VFD - 705



Variable frequency drives  
and automation



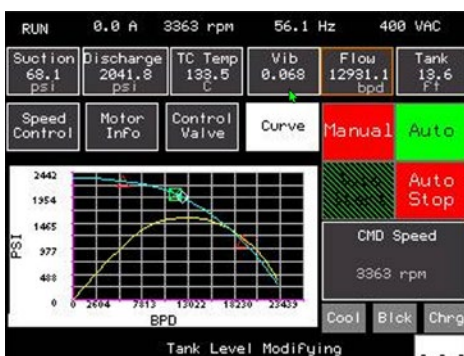


## Features and benefits

- Displays “Live” pump curves
- Thrust bearing cooler pump control
- Charge pump control
- Automated Choke/Control valve control
- Automatic sequential start up control for associated pumps
- Primary control methods
  - Deadband Operating Window
  - PID control
- Primary control inputs
  - Suction pressure
  - Discharge pressure
  - Differential pressure
  - Tank level (sensors or switches)
  - Pump torque
  - Flow
  - BEP
- Complete field configurable IO
- Standard instrumentation
  - Suction pressure
  - Discharge pressure
  - Vibration
  - Low Oil Level
  - Low Voltage Instrumentation side box comes standard for personnel safety
  - 5% Line Reactor included

With Max Production, we are empowering oil and gas operators to optimize well production and equipment performance, resulting in greater returns through the life of their assets.

From remote monitoring & control to fully autonomous systems, Max Production offers a suite of applications to maximize profitability at every level of digital maturity.



# Site optimization consulting

## Legendary expertise

Our extensive experience in saltwater disposal and horizontal pumps provides significant competitive advantages.

We take an in-depth look at all of your site's assets and operations to identify optimization opportunities that enable you to reduce operational costs, lower power consumption, and extend equipment run times.

By combining our optimization expertise with remote monitoring and real-time alerts, we can help reduce your operating costs. Lower operating costs mean a lower cost per barrel—and more value going where it matters most: your bottom line.



**After gathering all relevant data from the site visit, company records, field operators, and other sources, we'll develop an operational plan tailored to your site. This plan will include setpoint adjustments to maximize output, minimize power consumption, and extend equipment life while delivering the required fluid volume.**

### **Recommended changes may include a combination of the following:**

- Install a power meter or monitoring device to accurately track energy costs
- Reset the run scheme for the HPS
- Programming changes
- Tank level control changes
- Response time changes
- Revise the PLC to a better control version, if necessary
- Resize the pump stage design type or count
- Install a VFD
- Resize an existing pressure control valve
- Resize a pressure control valve
- Intake piping changes
- Discharge piping changes
- Filtration changes
- Well recommendations
- Others



# Testing

With the largest pump performance test bench in the industry, HOSS can test each pump barrel we manufacture at 60 Hz, up to 35,000 BPD. Full-speed testing ensures the reliability and performance you need in the field. Build and test operations in Tulsa, Edmonton, and Midland enable us to provide new and rebuilt pumps across North America in days, not weeks. **When downtime isn't an option, choose HOSS.**



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