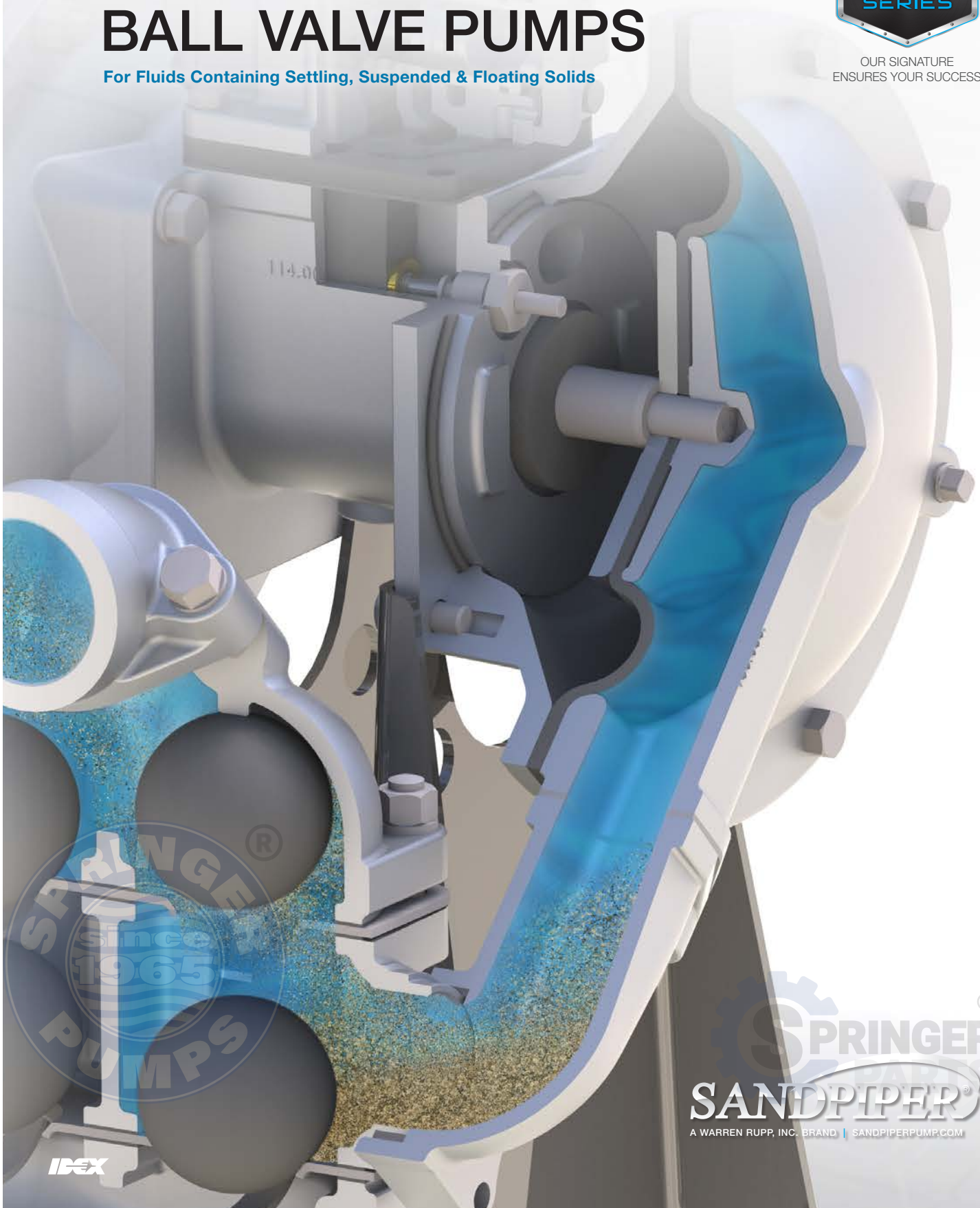


# HEAVY DUTY BALL VALVE PUMPS

For Fluids Containing Settling, Suspended & Floating Solids



OUR SIGNATURE  
ENSURES YOUR SUCCESS



**SPRINGER**  
**SANDPIPER**  
A WARREN RUPP, INC. BRAND | [SANDPIPERPUMP.COM](http://SANDPIPERPUMP.COM)

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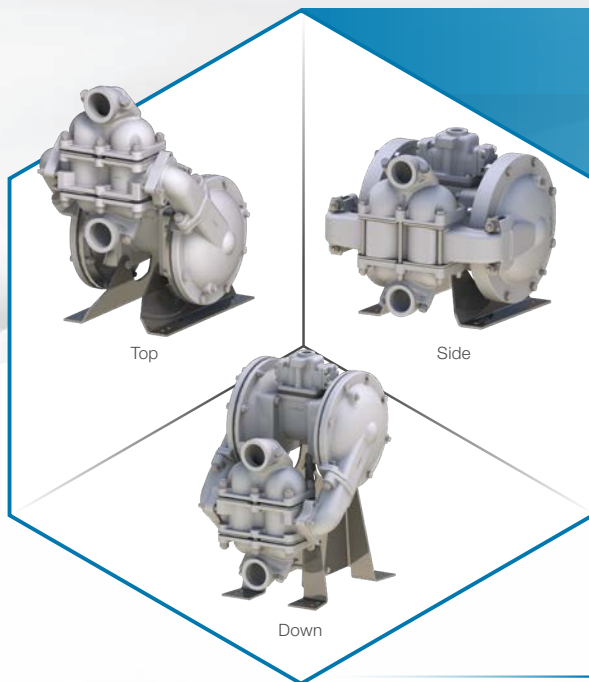
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Springer Pumps, LLC  
Springer Parts®

Websites: [www.springerpumps.com](http://www.springerpumps.com)  
[www.springerparts.com](http://www.springerparts.com)

# KEY ADVANTAGES OF SANDPIPER HE

THE SOLUTION FOR FLUIDS CONTAINING SETTLING, SUSPENDED & FLOATING SOLIDS



## MULTIPLE PORTING POSITIONS A SANDPIPER EXCLUSIVE

### Top, Down, & Side Porting Positions

Optimized performance depending on the pumped fluid or installation requirements.

- **Top Ported:** For fluids containing floating solids, suspended solids, or entrained gases. The discharge port is positioned above the center of the pump for easier evacuation and less build-up of solid material or gases.
- **Down Ported:** For fluids containing settling solids. The discharge port is positioned below the center of the pump so solids settle in the elbow and are discharged. This helps reduce wear on the diaphragms and associated components.
- **Side Ported:** For use in confined spaces. The ports are positioned with the center of the pump, allowing for installation in smaller, confined spaces.



## SANDPIPER'S EXTERNALLY SERVICEABLE QUICK & EASY ACCESS TO MAXIMIZE UPTIME

SANDPIPER's Externally Serviceable Air Distribution System (ESADS+PLUS) allows for quick and easy access to the pilot and spool valves without removing the pump from service, maximizing uptime!

## SANDPIPER



### 5 MINUTES - MAINTENANCE / CLEANING

Accomplished in minutes without removing pump from service by removing only 4 bolts



Saves you money by minimizing downtime

The Air Motor's Pilot Valve is the Most Often Serviced Part on an AODD Pump

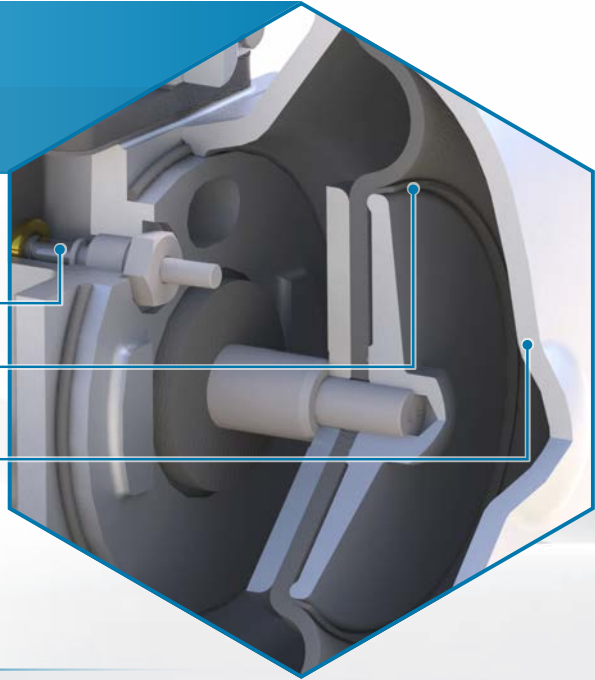
See back page  
for Down Ported  
Advantages

# HEAVY DUTY BALL VALVE PUMPS

## HEAVY DUTY WEAR PARTS A SANDPIPER EXCLUSIVE

### SANDPIPER Heavy Duty Ball Valve Pump Features

- Heavy duty plunger bushings and actuator pins are designed to withstand severe applications
- Diaphragm wear pads are installed between the diaphragm and outer diaphragm plate, providing a secondary wear surface which extends the life of the diaphragm
- Thicker, more robust wetted castings provide extended wear resistance
- Heavy duty weighted check valve balls are 30-60% heavier than solid rubber check balls, allowing for more consistent chamber filling



## LE AIR DISTRIBUTION SYSTEM (ESADS+PLUS)

Competitor pumps require disassembly and re-assembly of many parts, requiring additional knowledge and time; leading to increased downtime and cost.

### VS COMPETITORS



#### 55+ MINUTES MAINTENANCE / CLEANING

The air valve components can only be accessed by removing the pump from service and taking it entirely apart



Costs you money due to extended downtime



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# FEATURES & BENEFITS

## EXCLUSIVE TO SANDPIPER HEAVY DUTY BALL VALVE PUMPS



### Externally Serviceable Air Distribution System

Allows for quick and easy access to the main air drive components without disassembly of the entire pump and / or removing it from service



### Cross-Drilled Directional Spool Valve

Guarantees the pump will not stall and ensures on / off reliability



### All Bolted Construction

Ensure sealing forces are applied evenly across the pump for leak-free operation



### Heavy Duty Actuator Plungers

Ensure reliable pilot valve operation



### Robust Diaphragm Connecting Rod

Guaranteed not to bend or break; assures reliable and consistent diaphragm operation



### Diaphragm Wear Pads

Extend the life of the diaphragm by reducing the frictional stresses associated with the outer diaphragm plate during operation



### Weighted Elastomeric Check Balls

For reliable pump performance with viscous fluids



### Large Flow Area

Reduces fluid velocity through pump, which often lessens wear



### Thick Manifold & Chamber Walls

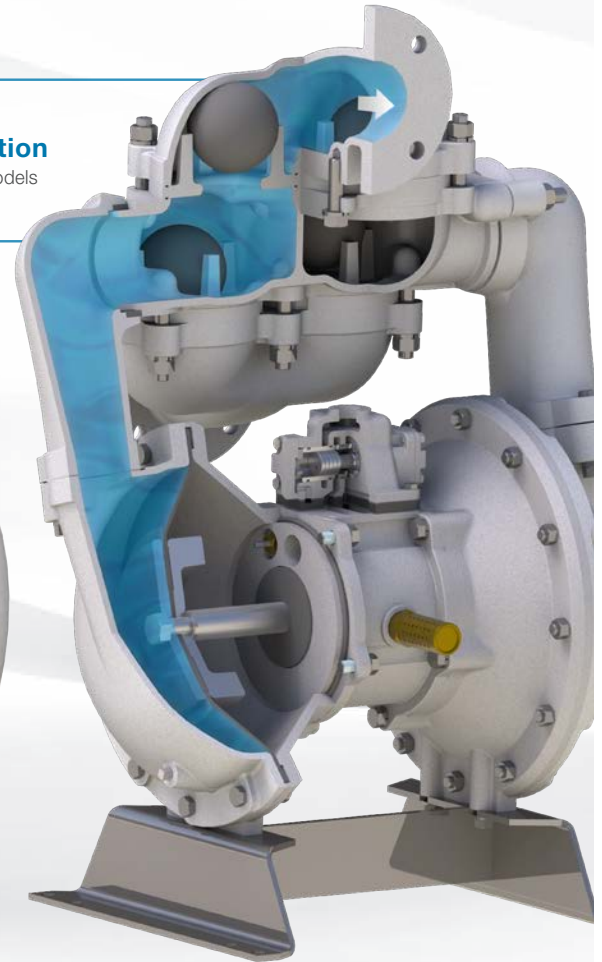
Greater wear resistance when pumping solids and solid laden slurries, providing extended service life

# ITS



## Top Porting Position

Only available in certain models



## Down Porting Position

Only available in certain models



## Side Porting Position

Only available in certain models



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# HEAVY DUTY BALL VALVE PUMPS

PERFORMANCE & SPECIFICATIONS

What is

**EVOLUTION**

OPTIMIZED PERFORMANCE

Optimized performance without sacrificing proven reliability. These pumps have undergone an engineering EVOLUTION, leveraging trusted and proven product designs to improve their performance by application of advanced engineering methods.

## SPECIFICATIONS

### SIZES

1 - 4"  
25 - 102 mm

### FLOW

42 - 300 GPM  
159 - 1136 LPM

### SOLIDS HANDLING

.25 - .875"  
6.3 - 22.2 mm

### DISPLACEMENT

.09 - 2 gallon  
.34 - 7.6 liter

PUMP CHARACTERISTICS		Metallic
Fluid Characteristics	Water	✓
	Suspended Solids	✓
	Non-Suspended Solids	✓
	Line Size Solids	⚠ Use Flap Valve Pump
	Sludge / Slurry	✓
	High Viscosity (Flowable Fluids)	✓
	Erosion / Abrasive Fluids	High ✓
		Moderate ✓
		Low ✓
	Corrosion	✓
Installation	Permanent	✓
	Portable	✓
	Containment / Prevention	!
	Flooded Suction	✓
	Suction Lift	✓
	Submerged	✓
Duty	Intermittent / On-Demand	✓
	Continuous	✓

✓ = Best   ✓ = Suited   ! = Limitations   ⚠ = Use listed pump

For more detailed Performance and Specification information, please visit [SANDPIPERPUMP.COM](http://SANDPIPERPUMP.COM)



**SB1 / SB25 Metallic** - Porting: Top, Side, Down



**SOLIDS HANDLING**  
Up to .25" (6.3 mm)

**MAX FLOW**  
42 GPM (159 LPM)

**MAX PRESSURE**  
125 psi (8.6 bar)

**DISPLACEMENT**  
.09 gallon (.34 liter)

## OPTIONS

Porting	Wet End	Elastomers		Air End
1" NPT / BSP Threaded	Aluminum	Nitrile (Buna)	Fluorocarbon (FKM)	Aluminum
	Stainless Steel	Neoprene	Hytrel®	Cast Iron
		Santoprene®	EPDM	
		PTFE		

Santoprene® is a registered tradename of Exxon Mobil Corp. Hytrel® is a registered trademark of E.I. du Pont de Nemours and Company.



## HDB1½ / HDB40 Metallic - Porting: Side



**SOLIDS HANDLING**  
Up to .25" (6.3 mm)

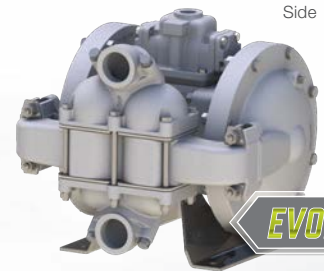
**MAX FLOW**  
122 GPM (462 LPM)

**MAX PRESSURE**  
125 psi (8.6 bar)

**DISPLACEMENT**  
.37 gallon (1.4 liter)

OPTIONS				
Porting	Wet End	Elastomers		Air End
1½" NPT / BSP Threaded	Aluminum	Nitrile (Buna)	Fluorocarbon (FKM)	Aluminum
	Stainless Steel	Neoprene	Hytrel®	Cast Iron
	Cast Iron	Santoprene®	EPDM	
		PTFE		

Top and bottom porting not available for this model



Side

**EVOLUTION**



## HDB2 Metallic - Porting: Top, Down



**SOLIDS HANDLING**  
Up to .375" (9 mm)

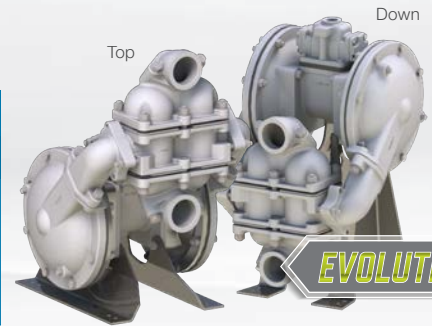
**MAX FLOW**  
135 GPM (511 LPM)

**MAX PRESSURE**  
125 psi (8.6 bar)

**DISPLACEMENT**  
.46 gallon (1.7 liter)

OPTIONS				
Porting	Wet End	Elastomers		Air End
2" NPT	Aluminum	Nitrile (Buna)	Fluorocarbon (FKM)	Aluminum
	Stainless Steel	Neoprene	Hytrel®	Cast Iron
	Cast Iron	Santoprene®	EPDM	
		PTFE		

Side porting not available for this model



Down

Top

**EVOLUTION**



## HDB3 / HDB4 Metallic - Porting: Top, Down



**SOLIDS HANDLING**  
Up to .875" (22.2 mm)

**MAX FLOW**  
300 GPM (1136 LPM)

**MAX PRESSURE**  
125 psi (8.6 bar)

**DISPLACEMENT**  
2.0 gallon (7.6 liter)

OPTIONS				
Porting	Wet End	Elastomers		Air End
3" ANSI Flange 4" ANSI Flange	Stainless Steel	Nitrile (Buna)	Fluorocarbon (FKM)	Cast Iron
	Cast Iron	Neoprene	PTFE	
		Santoprene®		
		EPDM		

Side porting not available for this model



Top

Down

**EVOLUTION**

# SANDPIPER'S EXCLUSIVE DOWN PORTED ADVANTAGE

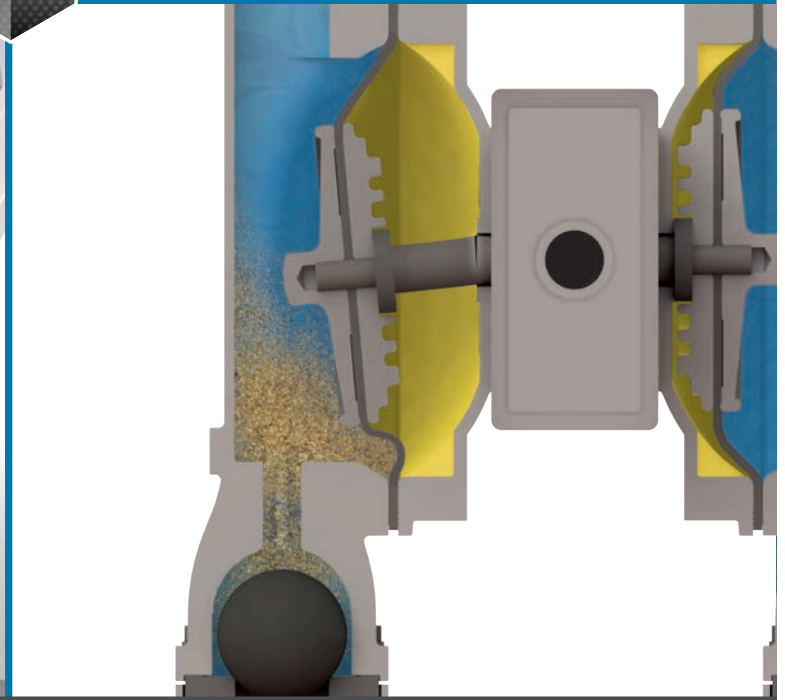
## SANDPIPER

HEAVY DUTY BALL VALVE PUMP

VS

## TYPICAL

TOP DISCHARGE BALL VALVE PUMP



### What happens when solids settle in the pump?

- ✓ Nothing impedes the operation of the pump
- ✓ As solids settle, they collect in the elbow instead of the diaphragm chamber and are discharged; this limits wear on the diaphragm and associated components

### What happens when solids settle in the pump?

- ✗ Bent, broken diaphragm plates
- ✗ Non-uniform diaphragm wear
- ✗ Bent, broken diaphragm connecting rods
- ✗ Restriction on the suction side of the pump

Contact Your Local Distributor to Place Your Order:

**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](http://SANDPIPERPUMP.COM)



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