Scienco Product Support Catalog

Experience In Motion
Pump Supplier to the World

Flowserve is the driving force in the global industrial pump marketplace. Few if any pump companies can match the capabilities in hydraulic engineering, mechanical design or materials science that Flowserve possesses.

Pump Designs

Flowserve offers a wide range of complementary pump types, built to recognized global standards and customer specifications. No other pump company in the world has the depth or breadth of expertise in the successful application of pre-engineered, engineered, and special purpose pumps and systems.

Product Brands of Distinction

ACEC™ Centrifugal Pumps
Aldrich™ Pumps
Byron Jackson® Pumps
Calder™ Energy Recovery Devices
Cameron™ Pumps
Durco® Process Pumps
Flowserve® Pumps
IDP® Pumps
Lawrence Pumps®
Niigata Worthington™ Pumps
Pacific® Pumps
Pleuger® Pumps
Scienco™ Pumps
Sier-Bath® Rotary Pumps
TKL™ Pumps
United Centrifugal® Pumps
Western Land Roller™ Irrigation Pumps
Wilson-Snyder® Pumps
Worthington® Pumps
Worthington Simpson™ Pumps
Flowserv Scienco pumps are the most dependable chemical transfer pumps in the agricultural industry. Pump to pump, chemical to chemical, Scienco pumps deliver the performance and reliability expected from a leader. After all, Scienco has been providing chemical transfer systems for more than 30 years.

**Reaping Benefits**

Scienco’s versatile transfer pumps product lines offer numerous benefits and options.

- Pump designs — diaphragm, air piston and hand pump models
- Mounting flexibility — horizontal or vertical configurations
- Chemical resistance — plastic or metallic construction
- Self-priming capability
- Portability
- Ease of use and maintenance

**Reliability Guaranteed**

Scienco’s industry-leading pumps also come with an industry-leading service program. Scienco offers its 5-Year Service Program on its standard duty PH6 pumps and pump mounted SEM-10 flow meters.

For five years from the date of manufacture, Scienco will provide a replacement pump or meter electronics within 24 hours in the case of equipment failure.

Through this program, Scienco pump users will spend less money and time on chemical transfer equipment than ever before.

For additional information about Scienco pumps or Scienco’s 5-Year Service Program, please call 800.343.PUMP (7867).
**PH6 Pump**

**PH6 Diaphragm Transfer Pump**
The PH6 diaphragm pump is a versatile transfer pump engineered for use with low and high viscosity fluids. The standard for many ag-chem mini-bulk systems, the PH6 pump is chemically resistant, easily portable and highly reliable. All PH6 pumps are 100% compliant with EPA 165.45.

**Features**
- Chemically resistant Nylon® construction; polypropylene available
- Vertical or horizontal container top mount
- Removable cartridge containing diaphragm, valves, and bypass assembly eases maintenance and field replacement
- Multiple pump-chamber design for increased dependability
- EPDM seals standard; Viton® seals optional
- SEM-10 flow meters available
- Discharge hose available
- Ball valve and spout available
- Wetted materials of construction
  - Glass-filled Nylon
  - Glass-filled polypropylene
  - Polyphenylene sulfide (PPS)
  - Stainless steel
  - Viton elastomer
  - Santoprene® diaphragm
- EPA 165.45 compliant
- 5-Year Service Program on most systems

**Operating Parameters**
- Flows to 38 l/m (10 gpm) at 16°C (60°F)
- Pressures to 1.7 bar (25 psi)
- Temperatures to 55°C (130°F)
- 12-volt battery operated motor with 6.1 m (20 ft) cable; 110-volt motor optional

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© Santoprene is a registered trademark of the Monsanto Company.
Horizontally Mounted PH6 Pump With SPAN Cap
The PH6 diaphragm pump is also available with a SPAN.

Features
• SPAN cap fits tanks with 190.5 mm (7.5 in) male threaded openings.
• Chemically resistant Nylon construction
• Horizontal container top mount
• Removable cartridge containing diaphragm, valves, and bypass assembly eases maintenance and field replacement.
• Multiple pump-chamber design for increased dependability
• EPDM seals standard; Viton seals optional
• Discharge hose
• Ball valve and spout
• 5-Year Service Program

Available Configurations
Part Number: CES-PH6-07
• No recirculation design
  • Includes SEM-10FTE flow meter
Part Number: CES-PH6-10 (pictured)
• Auto recirculation design
  • Includes SEM-10FTE flow meter
Part Number: CES-PH6-13
• Manual recirculation design
  • Includes
    – SEM-10FTE flow meter
    – Dip tube

PH6 CADDY Systems
The PH6 diaphragm pump is available in a durable, lightweight CADDY configuration for portability.

Features
• Durable, lightweight tubular frame
• 12-volt motor with 6.1 m (20 ft) cable
• 25 mm (1 in) suction port adaptable to most container fittings
• Nylon pump housing; polypropylene housing available
• EPDM seals standard; Viton seals optional
• 5-Year Service Program

Available Configurations
Part Number: CADDY-PH6
• Includes
  – Two 25 mm (1 in) EPDM hoses
  – Ball valve and spout
  – SEM-10 flow meter
Part Number: CADDY-PH6-01
• Same as CADDY-PH6 less hoses, ball valve and spout
Part Number: CADDY-PH6-02
• Same as CADDY-PH6 less SEM-10 flow meter
Part Number: CADDY-PH6-03
• Same as CADDY-PH6 but with 110-volt motor
Part Number: CADDY-PH6-10SS
• Same as CADDY-PH6 but with SEM-10SS flow meter

Vertical PH6 Pump
PH6 pump with a Nylon housing and a 50 mm (2 in) opening

Features
• Vertical container top mount
• Nylon pump housing
• EPDM seals standard; Viton available
• 12-volt motor with 6.1 m (20 ft) cable
• PH-25 bung adapter with gasket
• Dip tube
• 5-Year Service Program

Part Number: PH6 Pump

Vertical PH6 Drum Pump
PH6 pump drums or tanks with 50 mm (2 in) openings

Features
• Vertical container top mount
• Nylon pump housing with EPDM seals
• 12-volt motor with 6.1 m (20 ft) cable
• PH-25 bung adapter and dip tube
• Discharge hose, ball valve and spout
• 5-Year Service Program

Part Number: PH6P07
Part Number: PH6P01
• Pump, motor and cable only
DD6 Pump

DD6 Self-priming Diaphragm Pumps
The DD6 is a tough and versatile self-priming diaphragm pump designed to transfer liquids of high or low viscosity. It is ideal for closed system mixing, transfer and rinsing. All DD6 pumps are 100% compliant with EPA 165.45.

Features
• Durable glass-filled polypropylene pump housing and stainless steel drive unit provide excellent corrosion resistance.
• Six-celled piston diaphragm construction can run dry without damage.
• Unique mounting design enables closed system mixing, transfer and rinsing.
• Slip-in-place discharge port rotates 120° for easy operation.
• Removable drive unit allows multiple unit pumping with a single motor.
• Low amperage draw allows motor to drive pump without overheating.
• Pump cover protects pistons and springs from elements when not in use.
• Manual tank vent standard
• Wetted materials of construction
  – Glass-filled Nylon
  – Glass-filled polypropylene
  – Polyphenylene sulfide (PPS)
  – Stainless steel
  – Viton elastomer
  – Santoprene
• EPA 165.45 compliant

Operating Parameters
• Flows to 2.0 m³/h (9 gpm)
• Pressures to 1.7 bar (25 psi)
• Temperatures to 55°C (130°F)

Part Number: DD6 Pump/CKVLV

DD6 Motor
12-volt motor for the DD6 pump

Features
• 12-volt motor with 6.1 m (20 ft) cable
• Motor speeds to 2600 rpm
• Operating current of 12–16 amps
• 110-volt motor optional

Part Number: DD6 Motor

DD6 Drive Unit Package
Drive unit package for the DD6 pump

Features
• 12-volt motor with 6.1 m (20 ft) cable
• EPDM discharge hose
• Ball valve and spout
• Aluminum discharge elbow (KD-23-AC)
• Aluminum quick coupler

Available Configurations
Part Number: Drive Unit PKG-10
• Includes SEM-10 flow meter

Part Number: Drive Unit PKG-10FT
• Includes SEM-10FT flow meter

Part Number: Drive Unit PKG-10SS
• Includes SEM-10SS flow meter
AP-30 Air Piston Pump
The AP-30 Air Piston Pump is a high-capacity, low maintenance pump for herbicides, diesel fuel, gasoline, lubricating oil, and other ag-chem and industrial services.

Features
• Rugged construction with no metal-to-metal contact
• Air source versatility
  – Stationary or portable auxiliary air compressors
  – Portable carbon dioxide cylinders
• Minimal moving parts
• No motor to burn out, service or replace
• Not damaged by dead heading
• 50 mm (2 in) NPT bung adapter
• Dip tube
• Materials of construction
  – Housing — Aluminum
  – Piston — Aluminum
  – Piston liners — Stainless steel
  – Piston ring — PTFE with Buna® O-ring backup
  – Packing — PTFE
  – Valves — Nylon
  – Valve springs — stainless steel
  – Shaft — stainless steel

Operating Parameters
• Flows to 10 m³/h (30 gpm)
• Maximum air pressure: 8.6 bar (125 psi)
• 15 m³/h (9 ft³/min) compressed air

Part Number: AP-30 Air Pump
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HP Pump
The HP-55 Drum Pump is designed to efficiently deliver high volumes of harsh and viscous chemicals at low pressures.

Features
• Efficient, double pumping action ensures product delivery on both up and down strokes.
• No-friction design eliminates wear and prevents jamming.
• Outlet spout swivels to prevent drips.
• Outlet spout accepts extender hose.
• 50 mm (2 in) buttress adapter
• 50 mm (2 in) NPT adapter
• Anti-pumping safety device
• Wetted materials
  – Food grade polypropylene
  – Polyethylene
• 24-month warranty

Available Configurations
Part Number: HP-30
• Fits 15- and 30-gallon containers

Part Number: HP-55
• Fits 30- and 55-gallon containers

MHP Pump
The manually operated metered hand pump precisely delivers high volumes of chemicals at low pressures.

Features
• Rugged polypropylene construction with Viton seals
• Includes dip tube, discharge hose, ball valve and spout
• Accurate to 2% per full stroke
• 50 mm (2 in) threaded bung connection
• EPDM seals available
• Buttress thread adapter optional
• Two sizes available:
  – 1-quart/1-liter
  – 4-quart/4-liter
• Metric or English units
• Full 12-month warranty from date of shipment

Available Configurations
Part Number: MP4Q-SS
• 4-quart capacity
• English units

Part Number: MP4L-SS
• 4-liter capacity
• Metric units

Part Number: MP1Q-SS
• 1-quart capacity
• English units

Part Number: MP1L-SS
• 1-liter capacity
• Metric units
Flow Meters

SEM-10 Flow Meter
The SEM-10 electronic flow meter offers simple one-touch operation and comes ready to use.

Features
- Positive displacement nutating disk design meters liquids of various viscosities with great accuracy and minimal pressure loss.
- Simple, one-touch operation
- LCD display measures 20 mm (0.75 in) and is the largest on the market.
- Large, positive touch buttons
- Choice of calibration units
- 25 mm (1 in) rear mounting port allows meter to be mounted directly to the pump discharge.
- 25 mm (1 in) side port
- Extended battery life:
  - Takes one 3-volt lithium battery
  - Battery replaceable without removing the meter or chemical exposure
- Materials of construction:
  - Housing — Nylon
  - Meter chamber — polyphenylene sulfide and stainless steel
  - O-rings — Viton
  - Electronic body — Nylon
  - Screws — stainless steel

Operating Parameters
- Flows from 0.5 m³/h (2 gpm) to 6.8 m³/h (30 gpm)
- Pressures to 4 bar (60 psi)
- Temperatures to 65°C (150°F)
- Accuracy to ± 0.5%

Available Configurations
Part Number: SEM-10
Part Number: SEM-10EPDM
- Same as SEM-10 but with EPDM O-rings

SEM-10FT Flow Through Flow Meter
The SEM-10FT electronic flow meter is able to be mounted at the hose end.

Features
- Flow through configuration enables meter to be mounted at hose end.
- Positive displacement nutating disk design meters liquids of various viscosities with great accuracy and minimal pressure loss.
- Simple, one-touch operation
- LCD display measures 20 mm (0.75 in) and is the largest on the market.
- Large, positive touch buttons
- Choice of calibration units
- 25 mm (1 in) side port
- Extended battery life:
  - Takes one 3-volt lithium battery
  - Battery replaceable without removing the meter or chemical exposure
- Materials same as SEM-10 flow meter

Operating Parameters
- Flows from 0.5 m³/h (2 gpm) to 6.8 m³/h (30 gpm)
- Pressures to 4 bar (60 psi)
- Temperatures to 65°C (150°F)
- Accuracy to ± 0.5%

Available Configurations
Part Number: SEM-10FT
Part Number: SEM-10FTE
- Same as SEM-10FT but with EPDM O-rings
Part Number: SEM-10FTP
- Same as SEM-10FT but with polypropylene housing and EPDM O-rings

SEM-10SS Stainless Steel Electronic Flow Meter
The SEM-10SS electronic flow meter is a multiple use, non-commercial meter with a stainless steel housing. It can be used with many pesticides, chemicals and petroleum products.

Features
- Positive displacement nutating disk design meters liquids of various viscosities with great accuracy and minimal pressure loss.
- Stainless steel and plastic construction is durable and corrosion resistant.
- Simple, one-touch operation
- LCD display measures 20 mm (0.75 in) and is the largest on the market.
- Large, positive touch buttons
- Choice of calibration units
- 25 mm (1 in) rear mounting port allows meter to be mounted directly to the pump discharge.
- 25 mm (1 in) side port
- Extended battery life:
  - Takes one 3-volt lithium battery
  - Battery replaceable without removing the meter or chemical exposure
- Materials same as SEM-10 flow meter with a stainless steel housing

Operating Parameters
- Flows from 0.5 m³/h (2 gpm) to 6.8 m³/h (30 gpm)
- Pressures to 6.9 bar (100 psi)
- Temperatures to 85°C (185°F)
- Accuracy to ± 0.5%

Part Number: SEM-10SS
Parts and Components

PH6 Motor
Battery-operated electric motor assembly for the PH6 pump

Features
• 12-volt motor with 6.1 m (20 ft) cable
• Polypropylene motor housing
• Wobble plate assembly
• On/off toggle switch
• 5-Year Service Program

Part Number: PH6M01

PH6 Cartridge Kit
Pump cartridge kit for the PH6 pump with stainless steel valves

Features
• Ready-to-install Santoprene diaphragm cartridge with stainless steel valves
• EPDM bottom gasket and O-ring

Available Configurations
Part Number: PHP Kit-01
Part Number: PHP Kit-01V
• Same as PHP Kit-01 but with Viton bottom gasket and O-ring

PH6 Severe Duty Cartridge Kit
Severe duty pump cartridge kit for the PH6 pump with epoxy valves

Features
• Ready-to-install Santoprene diaphragm cartridge with epoxy valves
• EPDM gasket
• EPDM O-ring

Part Number: PHP Kit-01EPOXY

PH6 Electropolished Cartridge Kit
Cartridge kit for PH6 pumps with electropolished valves

Features
• Ready-to-install Santoprene diaphragm cartridge with electropolished stainless steel valves
• Viton bottom gasket and O-ring

Part Number: PHP Kit-01E

PH6 Gasket Kit
Pump gasket replacement kit for PH6 pumps

Features
• EPDM bottom gasket
• EPDM O-ring

Available Configurations
Part Number: PHP Kit-02
Part Number: PHP Kit-02V
• Same as PHP Kit-02 but with Viton gasket and O-ring

Power Switch Assembly
Power switch assembly for the PH6 pump and the DD6 motor

Features
• On/off toggle switch
• Molded junction box cover
• Screws

Part Number: PHP Kit-03
**Parts and Components**

### SS6 Cartridge Kit
Pump cartridge kit for the SS6 pump

**Features**
- Santoprene diaphragm cartridge
- Viton bottom gasket and O-ring

**Available Configurations**
- **Part Number: SS6 Kit-02**
- **Part Number: SS6 Kit-02V**
  - Same as SS6 Kit-02 but with Viton diaphragm
- **Part Number: SS6 Kit-02A**
  - Same as SS6 Kit-02 but with electropolished valves

### SS6 Gasket Kit
Pump gasket repair kit for the SS6 pump

**Features**
- Viton gasket
- Viton O-ring

**Available Configurations**
- **Part Number: KD-53**
- **Part Number: KS-29**
  - Same as KD-53 but with EPDM gasket and O-ring

### Elbow Kits
Elbow kits for DD6 pumps

**Features**
- Cast aluminum elbows
- Viton O-rings with spacer

**Available Configurations**
- **Part Number: KD-23-AC**
  - 25 mm (1 in) male cam lock elbow kit
- **Part Number: KD-23-01**
  - 25 mm (1 in) NPT elbow kit includes wave spring

### Ball Valve and Spout
Non-metallic ball valve and spout

**Features**
- 25 mm (1 in) NPT ball valve and spout
- Polypropylene construction

**Part Number: PH-20**

### AP-30 Repair Kit
Rebuild kit for repairing AP-30 air pump

**Features**
- Buna-N O-rings
- PTFE piston ring
- Nylon valves and valve backups
- Chevron packing
- Foam washer
- Gasket

**Part Number: AP-30 Kit**

### SS6 Gasket Kit
Pump gasket repair kit for the SS6 pump

**Features**
- Viton gasket
- Viton O-ring

**Available Configurations**
- **Part Number: KD-53**
- **Part Number: KS-29**
  - Same as KD-53 but with EPDM gasket and O-ring

### SS6 Gasket Kit
Pump gasket repair kit for the SS6 pump

**Features**
- Viton gasket
- Viton O-ring

**Available Configurations**
- **Part Number: KD-53**
- **Part Number: KS-29**
  - Same as KD-53 but with EPDM gasket and O-ring

### AP-30 Repair Kit
Rebuild kit for repairing AP-30 air pump

**Features**
- Buna-N O-rings
- PTFE piston ring
- Nylon valves and valve backups
- Chevron packing
- Foam washer
- Gasket

**Part Number: AP-30 Kit**

### Hose
Hose for suction or discharge use on PH6, DD6 and SS6 pumps

**Features**
- 25 mm x 3.65 m (1 in x 12 ft)
- EPDM hose
- 2-braid, 4-ply polypropylene fittings

**Part Number: EP-58-09**
**Parts and Components**

### Adjustable Dip Tube

Adjustable polypropylene dip tubes

**Features**
- Adjusts from 67.3 to 120.7 cm (26.5 to 47.5 in)
- Hose clamp connection
- Rubber hose
- Clamps

**Available Configurations**
- **Part Number: Xtube-V**
  - Includes Viton O-rings
- **Part Number: Xtube-E**
  - Includes EPDM O-rings

### Threaded Adjustable Dip Tube

Threaded adjustable polypropylene dip tube

**Features**
- Adjusts from 67.3 to 120.7 cm (26.5 to 47.5 in)
- 25 mm (1 in) male pipe threads

**Available Configurations**
- **Part Number: Xtube-TV**
  - Includes Viton O-ring
- **Part Number: Xtube-TE**
  - Includes EPDM O-ring

### Bung Adapter

Bung adapter

**Features**
- Fits 50 mm (2 in) male NPT x 50 mm (2 in) female NPT x 25 mm (1 in) female NPT

**Available Configurations**
- **Part Number: PH-25**
  - **Part Number: PH-25V**
    - Same as PH-25 but with venting capability

### SS6 Monsanto Tank Coupler

Monsanto tank coupler for use with the SS6 pump

**Features**
- Female quick coupler
- EPDM gasket

**Part Number: FITN-19**

### PH6 Monsanto Tank Coupler

Monsanto tank coupler for use with PH6 pumps

**Features**
- Female quick coupler
- EPDM gasket

**Part Number: FITN-33**

### Coupler Gasket

Replacement gasket for Monsanto tank couplers

**Features**
- EPDM gasket
- Fits Monsanto NPT tank couplers

**Part Number: FITN-19G**

(Gasket P/N CL-29 not included)
Parts and Components

**SPAN Cap**
Cap to adapt PH6 and DD6 pumps to 190.5 mm (7.5 in) tank openings

**Features**
- Polypropylene construction
- Standard industry threads

**Part Number:** SPA700N

**Auto Recirculation Adapter**
SPAN adapter plate

**Features**
- Polypropylene construction
- 190 mm (7.5 in) adapter plate
- Internal valve assembly for auto-recirculation
- 50 mm (2 in) NPT opening
- 18.7 mm (0.75 in) hose barb

**Part Number:** SPA700RA

**Manual Recirculation Adapter**
SPAN adapter plate

**Features**
- Polypropylene construction
- 190 mm (7.5 in) adapter plate for manual recirculation
- 50 mm (2 in) NPT opening

**Part Number:** SPA700R

**No Recirculation Adapter**
SPAN adapter plate

**Features**
- Polypropylene construction
- 190 mm (7.5 in) adapter plate for no recirculation
- 50 mm (2 in) NPT opening

**Part Number:** SPA700N

**Tank Gasket**
Tank gasket for adapter plates. For use with PH6 or DD6 pumps

**Features**
- EPDM tank gasket
- Self-adhesive

**Part Number:** SPA700G

**Vent**
Tamper-evident tank vent

**Features**
- 50 mm (2 in) buttress vent
- Polypropylene construction
- Tamper-evident plastic rivets
- EPDM tank gasket
- Viton O-rings

**Available Configurations**

- **Part Number:** Vent-00
  - Same as Vent-01 but with NPS threads

**Tank Gasket**
Tank gasket for adapter plates. For use with PH6 or DD6 pumps

**Features**
- EPDM tank gasket
- Self-adhesive

**Part Number:** SPA700G
Parts and Components

**SEM-10 Electronics Kit**
Electronics repair kit for SEM-10 flow meter. Also can be used on SEM-10FT flow meter

*Features*
- Electronic LCD display
- 3-volt lithium battery
- Mounting gasket
- Stainless steel screws

*Part Number: SEM-10 Kit-1*

**SEM-10 Chamber Kit**
Chamber repair kit for SEM-10 flow and SEM-10FT flow meters

*Features*
- Nylon
- Magnet wheel
- Top and bottom Viton O-rings

*Available Configurations*
- Part Number: SEM-10 Kit-2
- Part Number: SEM-10 Kit-2E
  - Same as SEM-10 Kit-2 but with EPDM O-rings

**SEM-10SS Electronics Kit**
Electronics repair kit for SEM-10SS flow meter

*Features*
- Potted electronic assembly
- Formed stainless steel cover
- Mounting gasket
- Viton O-rings
- Stainless steel screws

*Part Number: SEM-10SS Kit*

**SEM-10SS Conversion Kit**
Converts SEM-30 flow meter to the SEM-10SS flow meter

*Features*
- Potted electronics assembly
- Formed stainless steel cover
- Mounting gasket
- Viton O-rings
- Stainless steel screws

*Part Number: SEM-10SS CONV*

**PH6 Power Cable Kit**
Repair kit for the PH6 power cable

*Features*
- Red alligator clip with fuse holder
- Black alligator clip

*Part Number: PHA-06*

**SEM-10SS and SEM-30 Chamber Kit**
Chamber repair kit for SEM-10SS and SEM-30 flow meters

*Features*
- Magnet holder assembly
- Washer
- Drive dog assembly and pin
- Wobble plate assembly and housing
- Viton O-rings

*Part Number: SEM-20 Kit*
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