ProCam
DIAPHRAGM AND PLUNGER METERING PUMPS
Based in Charlotte, North Carolina, SPX FLOW is a leading global supplier of highly engineered flow components, process equipment and turn-key systems, along with the related aftermarket parts and services, into the food and beverage, power and energy and industrial end markets. SPX FLOW has more than $2 billion in annual revenues and approximately 8,000 employees with operations in over 35 countries and sales in over 150 countries around the world. To learn more about SPX FLOW, please visit our website at www.spxflow.com

FOR MORE THAN 80 YEARS, SPX FLOW’S BRAN+LUEBBE BRAND HAS BEEN PROVIDING CUSTOMERS WITH HIGH QUALITY METERING, PROCESSING AND ANALYSING EQUIPMENT.
ProCam Metering Pumps

ProCam is an economical range of metering pumps, designed for use in many industrial or hygienic processes. The mechanically actuated diaphragm pumps offer safe and reliable operation for hazardous liquids with a plunger pump head option for high pressure, low flow duties. The pumps are suitable for single & multi-stream processes and auto-control using variable speed, electric stroke or a combination of both.

SAMPLES OF EXECUTED PUMPS

Plunger metering pump with stainless steel pump head and manual flow rate control.

Designed for operating pressures up to 20 bar and flow rates up to 3,000 l/h
THE IDEAL MODEL FOR A WIDE RANGE OF APPLICATIONS

Multi-headed ProCam metering pump

Diaphragm metering pump
designed for hygienic applications

ProCam Compact Metering Station
Economical and reliable, the robust and compact design of the ProCam plunger pump allows high operational security.

**AT A GLANCE**
- Economic metering of non-hazardous fluids
- Operating pressure up to 80 bar
- Flow rates from 0.16 to approx. 60 l/h
- Robust gear technology with proven lost motion design for continuous operation at max. flow / pressure conditions
- Linear stroke adjustment with manual or electric options
- High operational security
**GENERAL**
- Gear box in a rugged cast iron housing
- Integrated worm gear
- Splash lubrication
- Electric motor (IEC, IP55)

**STANDARD**
- Single pump with plunger pump head
- Manual stroke adjustment
- Electric motor with fixed speed
- Materials for pump head and valve housing
  - Stainless steel

**OPTIONS**
- Multiple pumps with up to 6 plunger pump heads are available
- Can be combined with ProCam diaphragm metering pump
- Electric stroke length adjustment (also with integrated controller)
- Electric motor with variable speed
- Hazardous area design (up to Zone 1, IIC, T4)

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### FLOW RATE AND PRESSURES

<table>
<thead>
<tr>
<th>TYPE</th>
<th>MAX. FLOW RATE (L/H)</th>
<th>MAX. PRESSURE (BAR)</th>
<th>MATERIAL IN CONTACT WITH METERED LIQUID</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>STROKE FREQUENCY (1/MIN)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>50</td>
<td>72</td>
<td>100</td>
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<tr>
<td>PS  3</td>
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<td>PS 16</td>
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<td>17.20</td>
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<tr>
<td>PS 25</td>
<td>21.00</td>
<td>30.20</td>
<td>42.00</td>
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</tbody>
</table>
ProCam Diaphragm Metering Pumps

Our classic series of mechanically actuated double diaphragm pumps for low to medium range applications, brings the advantages and security of the double diaphragm concept to a wide variety of applications at an economical price.

**AT A GLANCE**

- Hermetically sealed pump head with mechanically operated PTFE double diaphragm allowing
  - safe metering of hazardous liquids
  - contamination free operation (important in potable water production)
- Allows economic operation without loss in operating safety and reliability
- 2 years warranty of PTFE double diaphragm
- Diaphragm condition monitoring
- Outstanding corrosion resistance due to high quality PTFE double diaphragm

**ProCam Diaphragm Metering Pumps**

- Designed for operating pressures up to 20 bar and flow rates up to 3,000 l/h

**Dimensions**

- DS / DP 15
- DS / DP 50
- DS / DP 100
- DS / DP 200
- DS / DP 500

(dimensions are max. dimensions)

- Double headed pump design
  - 2 DS / 2 DP 850 - 2 DS / 2 DP 3000

(dimensions are max. dimensions)
GENERAL
• Gear box in a rugged cast iron housing
• Integrated worm gear
• Splash lubrication
• Electric motor (IEC, IP55)

STANDARD
• Diaphragm pump with a single pump head
• Manual stroke adjustment
• Drive with fixed speed
• Materials for pump head and valve housing
  - Stainless steel
  - PVC

OPTIONS
• Multiple pumps with up to 6 pump heads are available
  (valid for type DS/DP15 – DS/DP500) or 2 pump heads
  (valid for type DS/DP850 and DS/DP3000)
• Electric stroke length adjustment (also with integrated controller)
• Electric motor with variable speed
• Hazardous area design (up to Zone 1, IIC, T4)

FLOW RATE AND PRESSURE

<table>
<thead>
<tr>
<th>TYPE</th>
<th>MAX. FLOW RATE (L/H)</th>
<th>MAX. PRESSURE (BAR)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>STROKE FREQUENCY (1/MIN)</td>
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<tr>
<td>DS/DP 15</td>
<td>5</td>
<td>7,5</td>
</tr>
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<td>DS/DP 50</td>
<td>17,5</td>
<td>25</td>
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<td>DS/DP 100</td>
<td>35</td>
<td>50</td>
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<td>DS/DP 200</td>
<td>70</td>
<td>100</td>
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<tr>
<td>DS/DP 500</td>
<td>175</td>
<td>250</td>
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<tr>
<td>DS/DP 850</td>
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<td>430</td>
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<tr>
<td>DS/DP 3000</td>
<td>1040</td>
<td>1500</td>
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</table>

* Operating pressure for plastic pump heads: 10 bar. With multiple pumps (4 - 6 heads) the max. operating pressure is only 50% of the indicated pressure.
ProCam Hygienic

AT A GLANCE

- CIP (cleaning-in-place) at 83°C
- Covers requirements in hygienic and sterile applications
- Specifically designed for applications in the pharmaceutical industry, biotechnology, cosmetics, personal care, food and beverage industry
- Flexible multi-pump head design

Clamp-connection and ball valve in SS316L with Ra 0.8, PTFE gaskets (FDA approved)

Principle of a ProCam Hygienic
FACTS

- Metering pump with PTFE double diaphragm (FDA approved) and diaphragm condition monitoring by pressure switch.
- Hygienic valve design.
- Little residence time in the product chamber of the pump head.
- Double diaphragm and valve gaskets are made of PTFE (FDA).
- Coating according to FDA requirements.
- Front cover, valves, connections in material SS 316 L with surface roughness RA 0.8 (optional Ra 0.4).

FLOW RATE AND PRESSURES

<table>
<thead>
<tr>
<th>TYPE</th>
<th>MAX. FLOW RATE (L/H)</th>
<th>MAX. PRESSURE (BAR)</th>
<th>CONNECTIONS</th>
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<tr>
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<td>HUBFREQUENZ (1/Min)</td>
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<td></td>
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<td>100</td>
</tr>
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<tr>
<td>DS 100</td>
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<td>50</td>
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</tr>
<tr>
<td>DS 200</td>
<td>70</td>
<td>100</td>
<td>140</td>
</tr>
<tr>
<td>DS 500</td>
<td>175</td>
<td>250</td>
<td>350</td>
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</table>

* With multiple pumps (4 – 6 heads) the max. operating pressure is only 50% of the indicated pressure.
Compact design – based on the ProCam metering pump this is a convenient solution for chemical preparation and metering.

**SOLID DESIGN**
- Stable base plate for pumps up to 50 kg
- Fluid temperature up to 50°C
- Tank UV stabilised for outdoor use
- Polyethylene tank material corrosion resistant against many chemicals
- Brackets for floor mounting available

**COMPLETE SOLUTION AND OPTIONS**
- Tank sizes from 60 to 500 litres (or on request)
- Standard equipment includes metering pump, tank, suction pipe, inlet valve, manual stirrer and stable mounting plate for pumps
- Easy to read liquid level due to scale moulded into the tank wall
- Wide filling port with manual screw lid for easy handling

**Options:**
- Motor driven stirrer
- Level switches (1 or 2 contacts)
- Pressure relief valve with return to the tank
- Tank drain
**SCOPE OF SUPPLY**

1. ProCam metering pump
2. Tank (PE)
3. Base plate (PVC)
4. Suction pipe (PVC)
5. Foot valve (PVC)
6. Manual stirrer (PVC)
7. Option: Motor driven stirrer
8. Option: Level switches
9. Option: Pressure relief valve
10. Option: Drain
11. Option: 4 brackets (PE) for floor mounting

**AT A GLANCE**

- Chemical industry e.g. metering of additives or inhibitors
- Water treatment plants
- CIP systems in the food & beverage industry
- Applications in the galvanizing industry
- Preparation of fertilizer solutions

**VOLUME AND DIMENSIONS**

<table>
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<tr>
<th>TANK</th>
<th>ØA</th>
<th>B</th>
<th>C1</th>
<th>C2</th>
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<td>545</td>
<td>925</td>
<td>965</td>
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<tr>
<td>100 l</td>
<td>470</td>
<td>730</td>
<td>110</td>
<td>1150</td>
<td>1/2*</td>
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<td>1295</td>
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<td>1065</td>
<td>1445</td>
<td>1485</td>
<td>1*</td>
</tr>
</tbody>
</table>
Our service at a glance

**Start up**
Regardless of location – on request our SPX FLOW technician will assist with the installation and the professional commissioning of your plant on site and ensure optimum adaptation of our pumps and systems to your production and processing environment. We ensure the full operational capability of our pumps and systems from the start.

**Repair**
To carry out repairs, please contact our experienced service team which of course exclusively uses original spare parts of manufacturer quality.

**Maintenance / Maintenance Contracts**
The regular performance of maintenance work by qualified SPX FLOW technicians gives you the assurance of maximum availability of your systems. For this reason we offer you the possibility to enter into a maintenance contract tailored to your needs. We support our products for the entire lifetime of the pump, and we accept all major inspection and maintenance tasks - possible sources of errors are detected and remedied at an early stage, so that production stops are largely avoided. Your advantage: As a maintenance customer you will enjoy priority in all service issues and receive a discount on spare parts.

**Upgrades**
We offer to customize your pump through a conversion in response to changes in production and process requirements. By using improved designs and new materials, we can optimize the pump performance and increase reliability. This will give you a reasonable alternative to a purchase of a new pump.
Diagnostic - Online / Offline / Remote

With our NOVALINK-CSM 2 system (Continuous status monitoring), we provide you with permanent or temporary fault analyses so that you avoid unplanned stop time through early detection of faults.

Advantages:
• Improved pump availability
• Planning of maintenance
• Optimization of production processes

Customer Support / Hotline

Advice and support are important to us. As a customer you are our number one priority. We advise you in error messages and assist you in the selection of spare parts. In determining the maintenance intervals you can count on our help.

24/7

Spare Parts

By using exclusively original spare parts in consistent high quality, we offer you the security of the proper functioning of your pump. A high availability of original spare parts in stock is a matter of course for us and gives us the opportunity to supply many spare parts within 24 hours.

Training

Our training courses are practical and tailored to your needs and provide detailed knowledge about function, design and repair of our pumps and systems. Our training courses are intended for users, technicians or engineers.
Metering pumps for all process areas where liquids are metered and mixed.

Process pumps for large flow rates and high operating pressures

NOVAPLEX Classic
NOVAPLEX Integral
NOVAPLEX Vector

Dynamic in-line mixer for gentle but intensive mixing

PENTAX
PENTAX Hygienic

Process systems as a complete solution for increased productivity and quality

AutoBlend Metering and mixing systems

Oil & Gas systems to aid oil & gas recovery onshore and offshore

Solar Panel Packages
Chemical Injection Systems
Flow Control Device Panels

On-line Analyzers for use in water and effluent treatment

PowerMon
PowerMon S
PowerMon Compact

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