

NOVADOS Metering Pumps



NOVADOS – A superlative selection of Metering pumps

Bran+Luebbe offers you an unrivalled range of metering pumps for practically every situation where liquids have to be metered and blended. The product range includes leakage-free diaphragm pumps as well as plunger pumps.



Metering pump type H2-31 with diaphragm pumphead and manual flow rate control

Common design features

- Individual combinable metering pump gears with built-in low noise worm gear
- Individual stroke length adjustment mechanism with harmonic eccentric positive return crank drive utilizing the unsurpassed Z-shaped crankshaft
- Individual pumphead sizes allowing to build pumps with a maximum flow rate of as little as 0.4 l/h up to 40000 l/h per pumphead
- Variety of options for flow rate control from manual to remote

Applications

Industries

- Chemical Processing
- Food & Beverages
- Detergents
- Energy
- Environmental
- Oil & Gas
- Personal Care
- Petrochemical
- Pharmaceutical & Biotechnology
- Pulp & Paper
- Textile
- Water Treatment

Liquids

- From harmless to aggressive, toxic or hazardous
- From clean to slurries with up to 20% solids content
- From low to high viscosity up to 15000 cP

Service

- **Standard metering**
of one component
- **Process metering**
of one component utilizing a multihead pump
- **Multi stream metering**
For recipe blending of different liquids



Metering pump type H4-41 with high pressure diaphragm pumphead and electric flow rate control

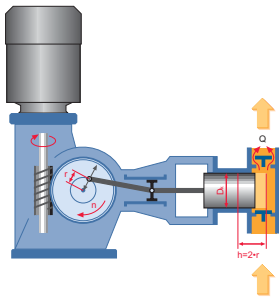


Metering pump type N-CS32C3, different pumpheads and individual flow rate control

Metering electric

NOVADOS - Concept of the Bran+Luebbe Metering Pump

Working principle of the metering pump



Metering pumps are normally composed of a motor, the metering pump gear and the pumphead.

The gear reduces the motor speed and converts the rotary motion into a reciprocating movement of a plunger in the pump-head and with a certain stroking speed.

The alternating operation of suction and discharge valves during the plunger stroke generates a flow of liquid.

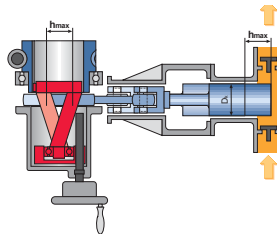
Flow rate of a metering pump is basically defined by the number of stroke volumes per time unit.

Simply effective: Flow rate adjustment by the Z-shaped crankshaft

Flow rate can be adjusted linearly and continuously between zero and maximum by altering the position of the eccentric (Z-Shape) crankshaft. This design allows adjustment while the pump is operating or at standstill. The stroke length can be set with a vernier indication of position in 0.02 mm increments (manual).

Bran+Luebbe metering pumps exceed the requirements of API 675 in terms of metering accuracy, linearity and reproducibility. Metering accuracy can be as good as 0.5 %

For a more detailed description please ask for a free copy of our CD-ROM **"The Function of the Bran+Luebbe Stroke Length Adjustment via Z-shaped crankshaft"**.



Flow rate control

Manual

- with integrated scale with 0.02 mm resolution

Electric servo motor

- directly operated
- with input signal 0/4...20 mA
- incl. explosion proof executions

Pneumatic

- directly operated
- with input signal 0.2... 1 bar
- with input signal 0/4... 20 mA



Metering pump type P51 with plastic diaphragm pumphead and pneumatic flow rate control

Diaphragm Metering Pump

Patented diaphragm position

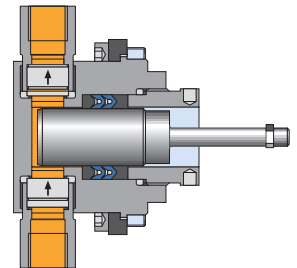
A leak-proof pump is the right choice whenever product purity or sterility are imperative or when toxic liquids must be handled.

Bran+Luebbe offers a wide range of diaphragm pumps, all with hydraulically actuated double diaphragm. Flow rates range from as little as 100 ml/h up to 10000 l/h and pressure may be as high as 1000 bar. The patented positive diaphragm position control system (PDPC) ensures that the diaphragm cannot be damaged even under critical

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Plunger Metering Pumps

The right choice for metering



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Advantages

- Metering accuracy as good as +/- 0.5% due to precise metering gears
- Harmonic flow rate pattern for all stroke setting due to positive return crankshaft

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NOVADOS - Solutions for numerous requirements

Options to suit specific applications

Pumphead executions

- **Double diaphragm** with hydraulically actuated diaphragms or
- Plunger or piston** with
 - heating or cooling jackets even incl. valves
 - quick-change valves
 - remote valves
 - optimized flow channels for slurries or viscous fluids

Valve designs

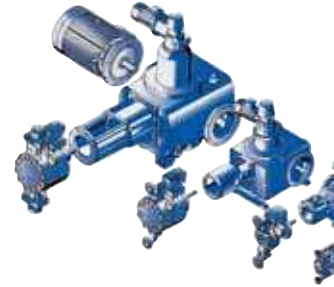
- Ball valves (single, double or triple)
- Cone valves with or without spring
- Plate valves

Materials of construction for liquid-wetted parts of the pump

- Housings of Stainless steel 1.4571, 1.4581, 1.4462,
- Alternatively PVC, PP, PVDF or stainless steel lined with HALAR (E-CTFE)
- Diaphragms of PTFE or stainless steel 1.4310
- Plungers of 1.4571, ceramic, tungsten carbide
- Valve of stainless steel or plastic, hard metals and exotic material
- Practically all exotic materials such as Hastelloy, Titanium, Stellite etc. are available as well

Horizontal and Vertical

Bran+Luebbe is the only manufacturer of metering pumps worldwide to offer both combinations, horizontal and vertical. Possible equipment combinations range



AutoBlend

AutoBlend is the brand name of systems for the production of high quality powders.

Our dedicated systems engineers develop the best possible solution for your needs, either from our extensive range of standard systems or individually designed and manufactured to your specification.

For more details please ask for the specific AutoBlend brochure.



Triplex process metering pump type BS43 with diaphragm pumphead and electric flow rate control

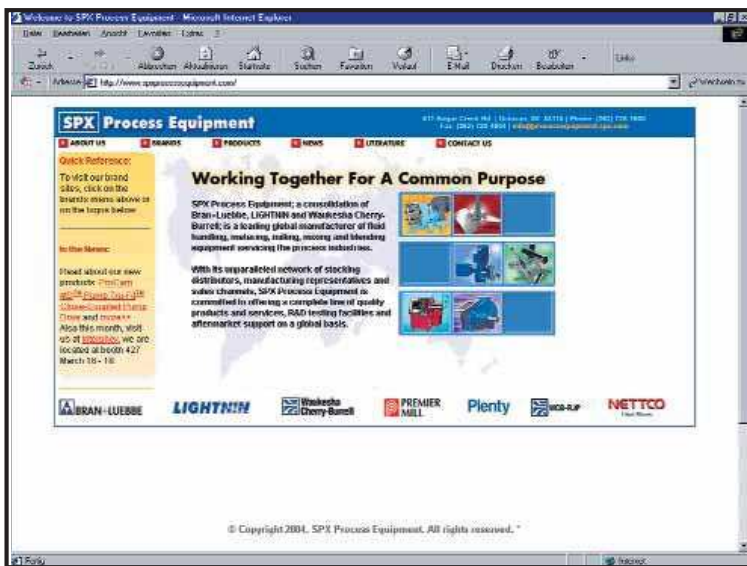
Bran+Luebbe metering and mixing system for continuous production of high quality body lotion.



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