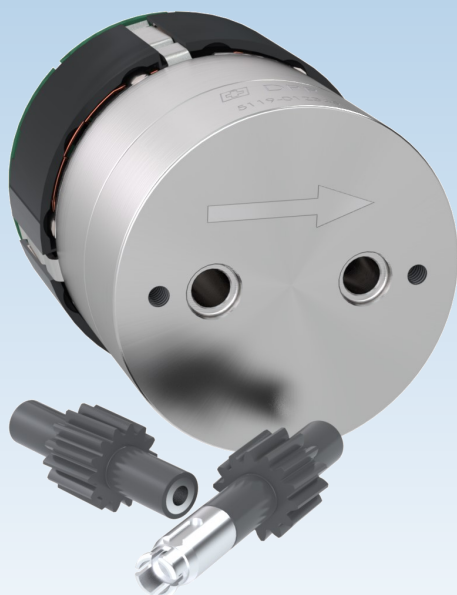


# SILENCER SERIES GEAR PUMPS



The Silencer series is everything a gear pump should be: durable, leak-free, reliable, chemically inert and quiet.

Multiple port options simplify plumbing and reduce installed cost. A variety of gear options provide flow rates from 50ml/min to 6500ml/min. The magnetic drive eliminates the stand-alone motor, associated bearings and seals, and results in a simplified, leak-free, long life pump. High-quality wetted materials withstand a wide range of aggressive chemicals. Multiple motor options provide the perfect solution for any application.

## The Silencer Series - Engineering Your Flow.

- › Life Science Analytical – Diagnostics
- › Bulk & Sample Fluid Transfer
- › Dialysis Degas and Dialysate
- › Fully Automated Coffee Machines
- › Continuous Ink Jet Printing
- › Industrial Cooling

## Benefits



**Low Noise:** Thanks to intelligent design and precision components, our pumps are the quietest of their kind. This makes them unbeatable when it's important to have peace and quiet.



**Long Life:** DPP pumps are all characterized by their robustness and performance. Wear and tear is at its lowest, and their smart designs ensure a sustainable reduction of operating costs.



**100% Outgoing Test:** Before any pump leaves our factory, it is stringently and extensively tested in accordance with its specifications. Our customers receive detailed test reports, to confirm performance.



**Chemically Resistant:** Our pumps are made from materials resistant to a wide range of aggressive chemicals, operating reliably and precisely in even the harshest environments.



**Low Pressure Pulsation:** Thanks to their smart drives and innovative helical gear design, our pumps ensure extremely smooth fluid delivery with almost no pressure pulsation.



**No Shaft Seals:** DPP gear pumps are hermetically sealed instead of using conventional shaft seals. This means low maintenance for you and your customers, a long service life and the highest degree of productivity.

## Specifications\*

### Performance

Max. continuous pressure:	14 bar
Max. intermittent pressure:	15 bar
Max. static case pressure:	18 bar
Flow Rate	(see pages 4-6)
Inlet:	Self-priming
Fluid viscosity range:	0.3 - 1000 cps

### Temperature

Fluid temperature range:	0-95°C
Ambient air temp. range:	0-80°C
Relative humidity range:	0-95% non-condensing

### Construction

Metal components:	316L stainless steel
Gears:	PEEK
O-ring options:	EPDM, Silicone, FKM, Nitrile
Inlet/Outlet:	1/4" & 6mm Push Connect, 1/8"-NPT, 1/4"-NPT, G1/8, G1/4, 1/4"-28 UNF, Manifold
Marking:	Permanent laser-mark identification for 100% traceability

\*Performance values are limits and cannot all happen simultaneously.  
Please contact your sales engineer for further technical information and customized options.

Contact Tel.:  
Contact E-Mail:

Switzerland: +41 44 866 72 72  
switzerland@dpp.swiss

USA: +1 209 365 0405  
usa@dpp.swiss

China: +86 21 64958516  
china@dpp.swiss

Page 1/6



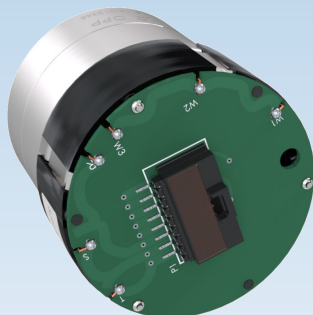
Engineering Your Flow

Product Datasheet

## Motor Options



### 12 & 25W Basic BLDC

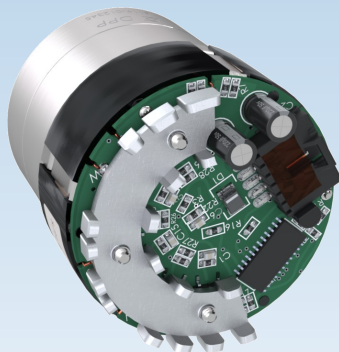


Centralize controls away from the pump onto an OEM circuit board. This gives the customer maximum flexibility and may reduce overall costs.

#### Specifications

Supply Voltage:	24 vdc
Rotation:	Bi-directional
Control Options:	Customer provided
Max. Current:	2 amps
Feedback:	Hall sensors
IP Rating:	Parylene-C splash protection
Electrical Connection:	Board-mounted connector, flying leads or custom
Total Pump Mass:	0.45 to 0.85 kg

### 12 & 25W Smart BLDC

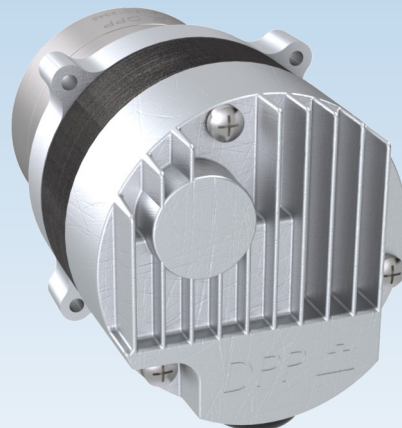


On board control simplifies electronics for the customer. Supply 24 vdc power and a 0-5 vdc control and let the pump do the rest.

#### Specifications

Supply Voltage:	24 vdc
Rotation:	Bi-directional
Control Options:	0-5 vdc PWM Potentiometer
Max. Current:	1.6 amps
Feedback:	Tachometer
IP Rating:	Parylene-C splash protection
Electrical Connection:	Board-mounted connector, flying leads or custom
Total Pump Mass:	0.50 to 0.90 kg

### 35 & 65W Advanced



Our most advanced motor offers numerous control options including RS-485 digital communication. Delivered power options of 35 and 65W in a compact design rivals any stator option on the market.

#### Specifications

Supply Voltage:	24 vdc
Rotation:	Bi-directional
Control Options:	0-5 vdc PWM RS-485 Digital Pre-programmed
Max. Current:	2.0 amps (35W) 3.5 amps (65W)
Feedback:	Tachometer Digital: Speed & Current
IP Rating:	IP55
Electrical Connection:	Flying leads or custom termination
Total Pump Mass:	0.80 to 1.30 kg

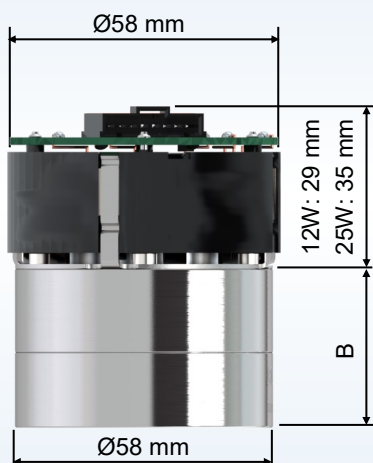
## Pump Sizes

Various pump displacements are easily achieved by changing the gear width or tooth profile, all while maintaining the same envelope diameter. Performance values are limits and cannot all happen simultaneously. See flow curves for more information.

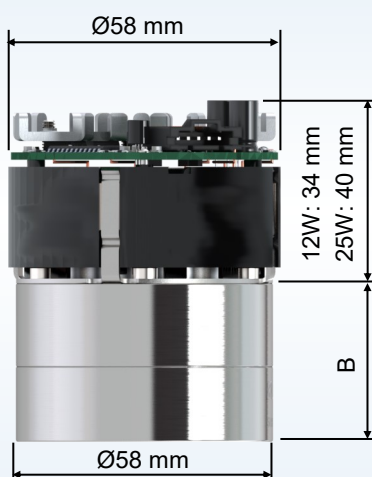
	Silencer 250	Silencer 500	Silencer 1000	Silencer 1500	Silencer 2000	Silencer 3000	Silencer 4000
Maximum Flow Rate (ml/min)	340	700	1600	2200	3900	5400	6400
Maximum Pressure (bar)	15	15	15	11	9	7	5
Pump Body Height "B" (mm)	19	19	23	35	35	38	38

## Dimensional Outline

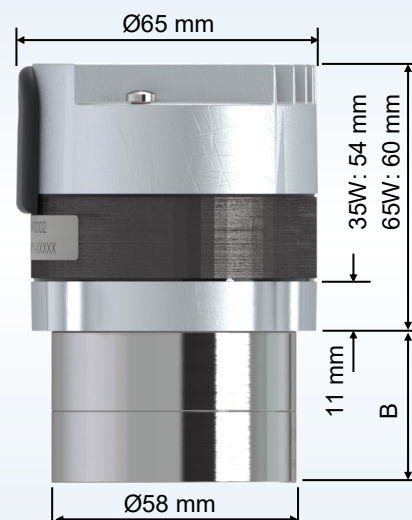
**Basic BLDC**



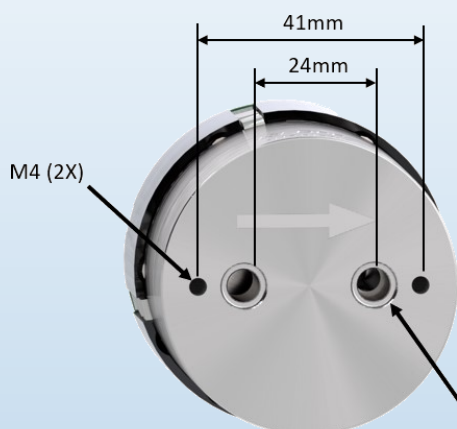
**Smart BLDC**



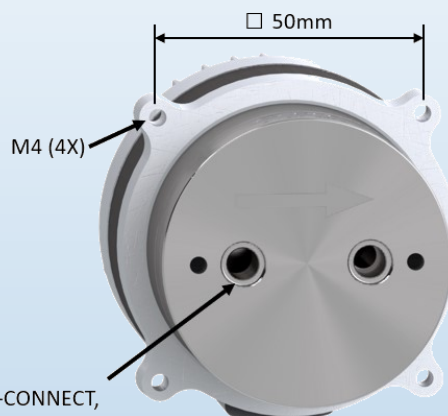
**Advanced BLDC**



**Basic & Smart BLDC**



**Advanced BLDC**



1/4" & 6mm PUSH-CONNECT,  
1/8"-NPT, 1/4"-NPT, G1/8,  
G1/4, 1/4-28UNF, MANIFOLD



3D models available at [www.dpp.swiss](http://www.dpp.swiss)

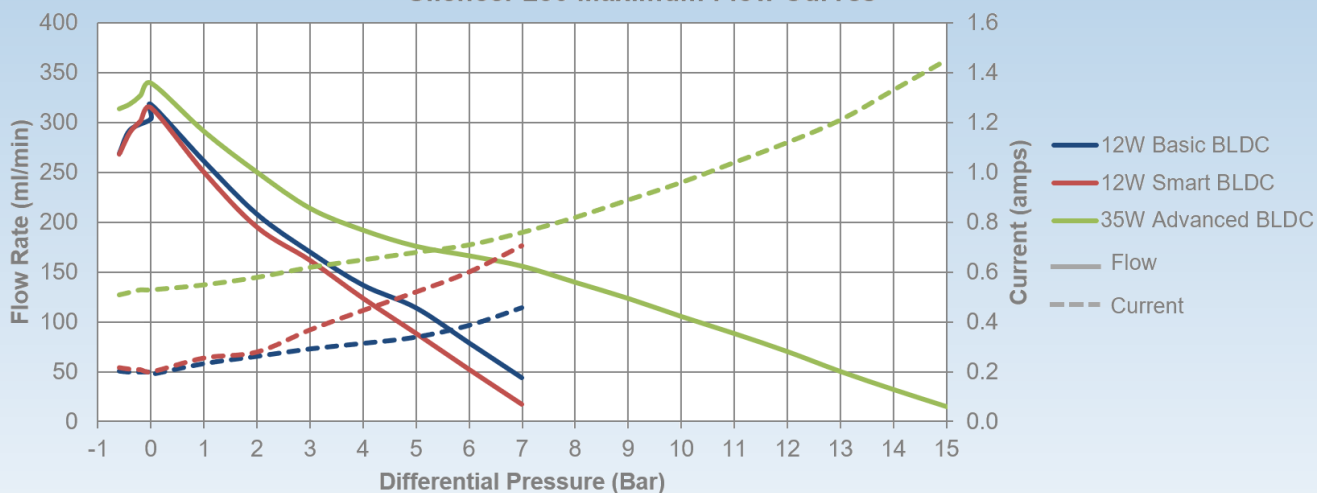
## Performance

Data represents performance pumping water at room temperature



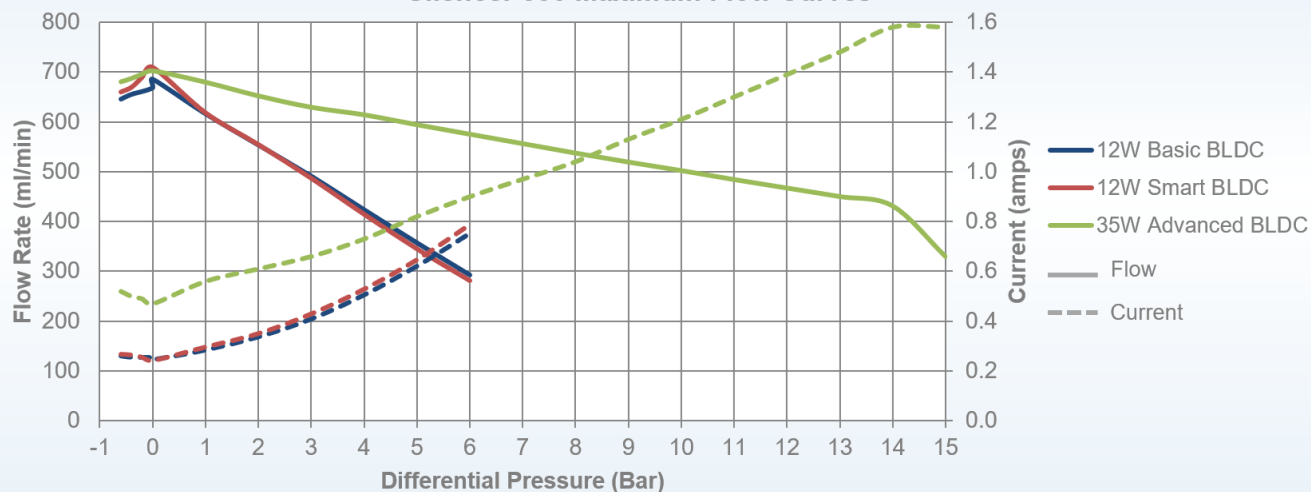
### Silencer 250

Silencer 250 Maximum Flow Curves



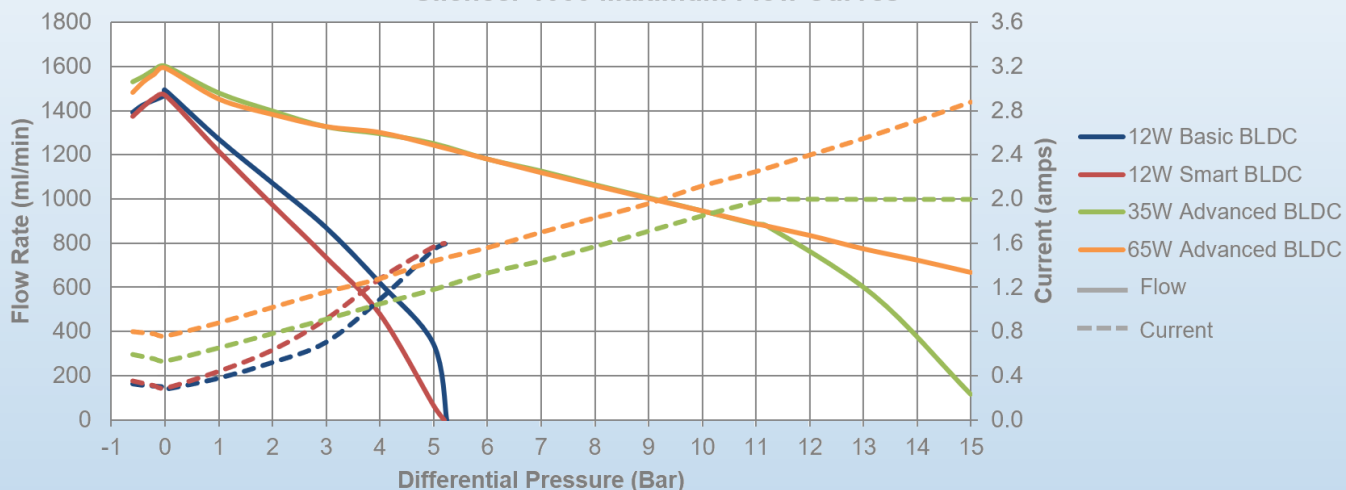
### Silencer 500

Silencer 500 Maximum Flow Curves



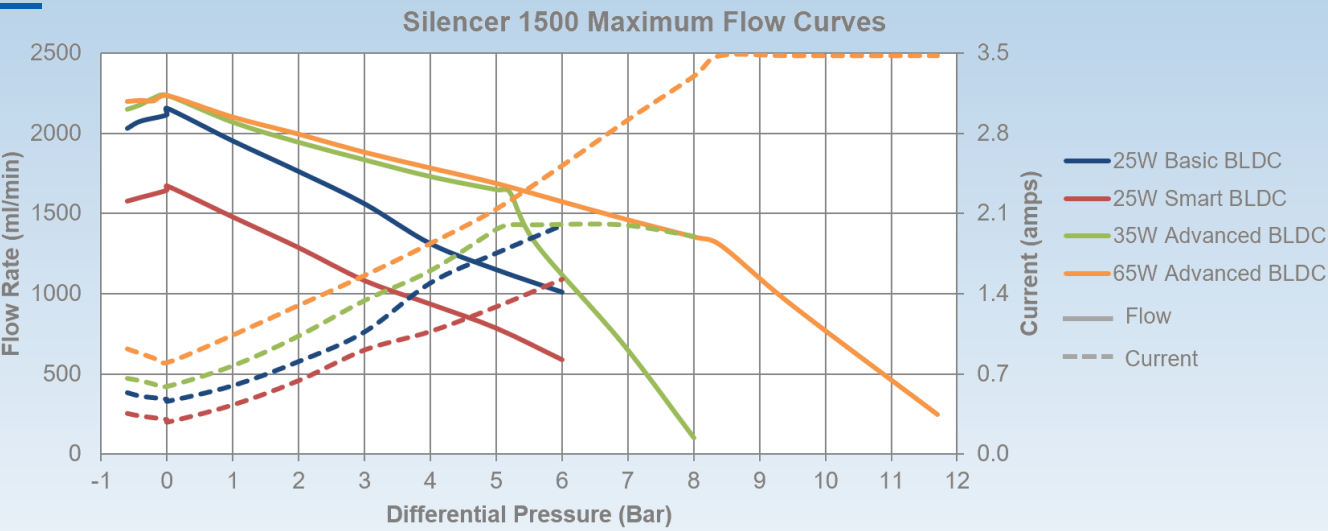
### Silencer 1000

Silencer 1000 Maximum Flow Curves

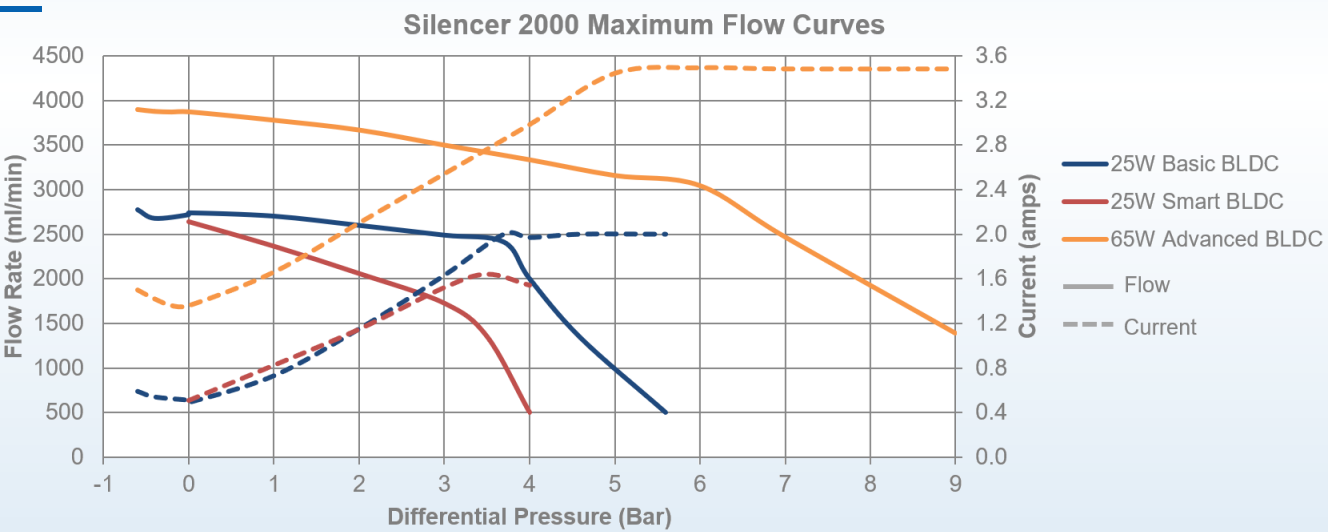




Silencer 1500



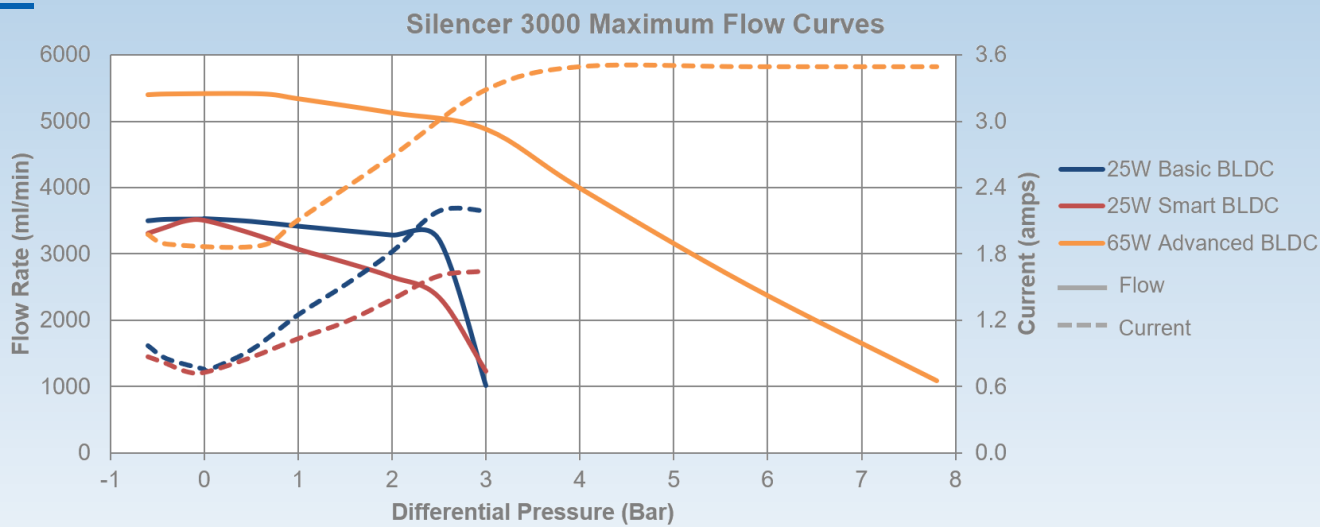
Silencer 2000



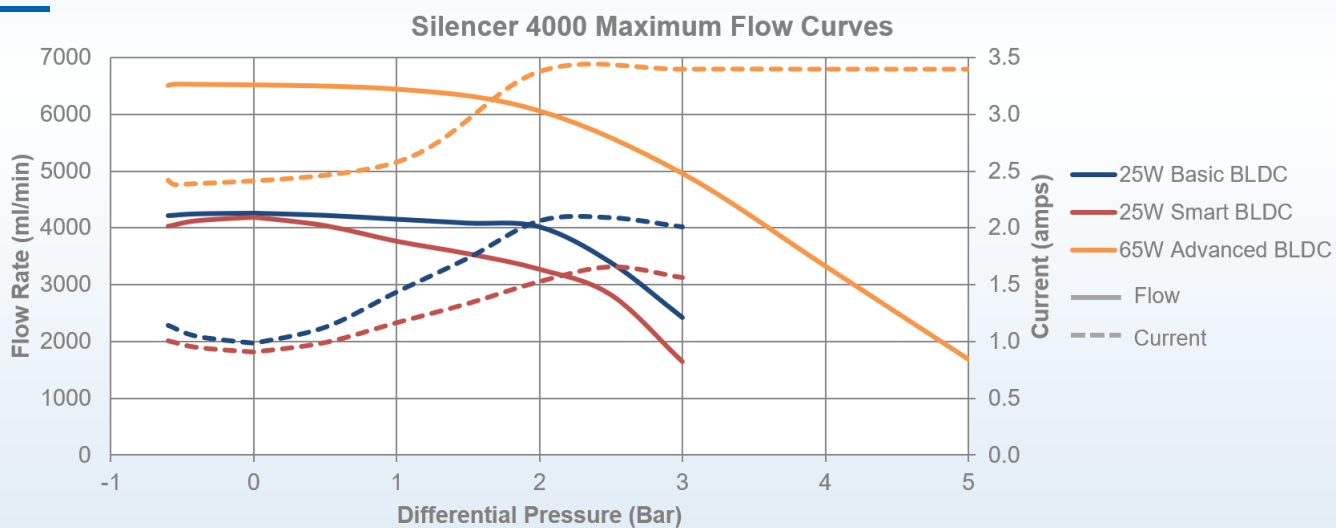
Performance All performance data pumping water at room temperature



Silencer 3000



Silencer 4000



DPP is certified to ISO 9001 and operates a clean-room according to ISO Class 7. All pumps are customized; the information given represents one of the possibilities.

None of the information supplied by Diener Precision Pumps constitutes a warranty regarding product performance or use. Any information regarding performance or use is only offered as a suggestion for investigation for use, based upon Diener Precision Pump's or other customers' experience. DPP makes no warranties, expressed or implied, concerning the suitability or fitness of any of its products for any particular purpose. It is the responsibility of the customer to determine that the product is safe, lawful and technically suitable for the intended use. The disclosure of information herein is not a license to operate under, or a recommendation to infringe upon any patents. All new DPP product developments are tested and confirmed according to the «ROHS Directive».