



DIGITAL DOSING™ up to 20 l/h

The difference is digital

The DDI range was created because dosing is precision work. But it need not be hard work. These compact units combine perfect precision with a user interface that lets you set the dosing rate you want directly on the unit – without spending time on complicated calculations beforehand. The DDI is an excellent addition to the well-proven DME range.

The DDI AR: Taking diaphragm dosing pumps to the next level

The DDI AR series is the backbone of the overall DDI range. Its innovative drive technology combines a powerful stepper motor with integrated contact signal control to bring you smoother, more accurate dosing. The user interface gives you a full range of options for customising the dosing process.

The DDI AM: Three-in-one dosing

The DDI AM models have all of the overall DDI benefits and bring you three-in-one dosing: it doses, measures, and regulates all by itself. It eliminates the need for additional equipment by combining precision dosing, continuous flow measurement, and setpoint monitoring in a single unit.

Does the hard work for you

The DDI range eliminates the need for extensive calculation work associated with other dosing equipment. You won't need to work out how many strokes per minute are necessary to give you the desired dosing rate – simply enter the figure you want in the user interface, and the DDI does the work for you.

Smooth dosing through variable speed

The DDI never rushes things. It has an ingenious stepper motor that extends the discharge phase throughout the full period between suction phases. In other words, it automatically adjusts the dosing speed to provide the right amount of additive at all times. No jerky movements here – just smooth, even dosing.

Full stroke length at all times

The DDI does not pull punches: it uses a full stroke length every time, thereby eliminating potential disruptive factors such as gas build-up. Rather than adjusting the stroke length by shortening it to suit dosing demand, the DDI carefully times each full stroke to ensure even concentrations of additive in your media.

Turndown ratio 1:100

The DDI range is designed to give you superior flexibility and accuracy with as few product variants as possible. That is why you can adjust dosing rates within a 1:100 scale without any loss of dosing accuracy: the DDI series can dose additive in quantities down to 0.025 l/h with perfect precision – and evidence of this precision can be provided at any time while the pump is running.

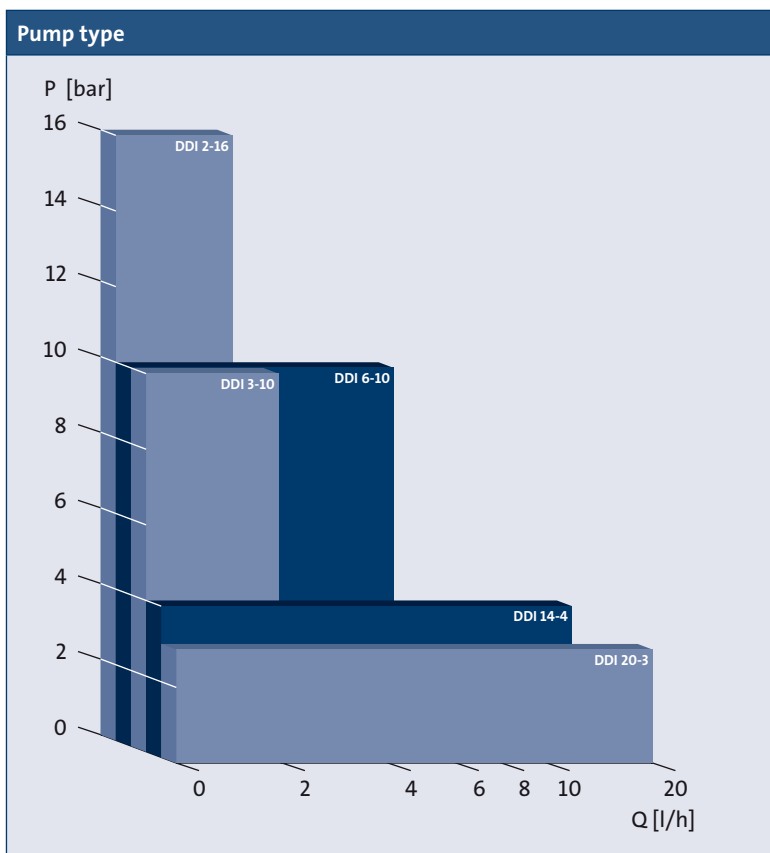
Reliable dosing of viscous liquids

When you wish to dose viscous liquids, many conventional dosing pumps struggle to maintain reliability. By contrast, the DDI series has a special Slow Mode function which decelerates the suction stroke, thereby maintaining reliable dosing.

Technical Specifications

DDI	Max. capacity (l/h)	Max. pressure (bar)	Freq. 50Hz (spm)	Stroke volume	Voltage	Accuracy		Max. suction lift	Turndown ratio
						Flow	Linearity		
DDI 2-16	2.2	16	180	0.276	1 x 110 V - 240 V, 50/60 Hz	+/- 1,5%	4 m	1:100	
DDI 3-10	2.5	10	180	0.276					
DDI 6-10	5.5	10	180	0.587					
DDI 14-4	13.8	4	180	1.26					
DDI 20-3	20	3	180	1.95					

Performance range



- Application areas**
- > Treatment of industrial and municipal water
 - > Industrial cleaning
 - > Carwashes
 - > Paper production/paper finishing
 - > Optical technology and chip production
 - > Chemical industry
 - > CIP cleaning and disinfection (dairies, breweries, etc.)
 - > Galvanic industry and surface treatment
 - > Air conditioning/cooling towers



DIGITAL DOSING™ up to 48 l/h

The DME series of high-precision diaphragm pumps are the cornerstone of the highly successful Digital Dosing™ series. They were the first to combine high-precision dosing with unprecedented user-friendliness, and they remain the best in the business today.

The DME 2.5 ml/h – 48 l/h series uses stepper-motor technology in an entirely new way. The variable-speed motor remains in contact with the diaphragm throughout the entire discharge/suction cycle, controlling its speed at all times. This ensures a much greater level of control compared to traditional dosing pumps.

User-friendly dosing

The Digital Dosing™ range eliminates the need for complicated calculations associated with other dosing equipment. In effect, the simple user interface lets you be your own dosing specialist, using a minimal number of buttons to give access to an impressive range of control features.

Variable speed for smooth dosing

The ingenious stepper motor runs continually, ensuring that the discharge phase extends throughout the full period between suction phases. This gives a better, more even mix. The motor automatically adjusts the dosing speed to provide the right amount of additive at all times.

Full stroke length at all times

The pumps use a full stroke length every time, thereby removing a number of potentially disruptive factors such as gas build-up. The stroke speed is carefully adjusted to ensure even concentrations of additive in your media.



Turndown ratio 1:1000

The Digital Dosing™ range is designed to give you superior flexibility and accuracy with a minimal number of pump variants. With a turndown ratio of 1:1000, the DME range will remain accurate even when dosing in very small amounts.

Anti-cavitation

The variable speed of the DME pumps facilitates a unique anti-cavitation function for high-viscosity liquids. This function gives you slower suction speed (70% of the maximum speed), thereby ensuring optimal priming and pumping of even the most difficult liquids.

Calibration

With Digital Dosing™, calibration is easier and faster than ever. Simply place a graduated glass under the pump and activate the calibration program. The pump will perform 100 strokes and indicate how much it theoretically has pumped. Adjust the figure by entering the correct numbers if necessary. After this dosage can be adjusted without re-calibrating the pump.

14 different languages

As the only Digital Dosing™ range in the world, the DME pumps have 14 different language versions, making it perfect for integration in products aimed at a worldwide market.

Counter

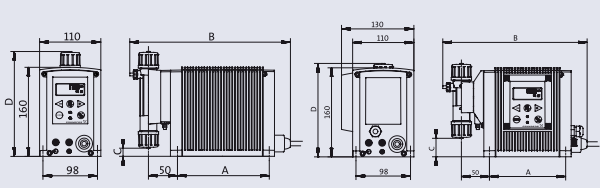
The built-in counter function gives you easy access to information about the accumulated number of strokes, accumulated operating hours and flow, as well as the total number of times the pump is switched on.

Several material variants

The DME pump heads are available in several different materials to suit your situation: stainless steel, PVDF, and polypropylene for an environmentally friendly and cost-efficient alternative.

Dimensions (mm)

	DME 2	DME 8	DME 12	DME 19	DME 48
A		137		192	
B		239		194	
C		36		15	
D		168		188	



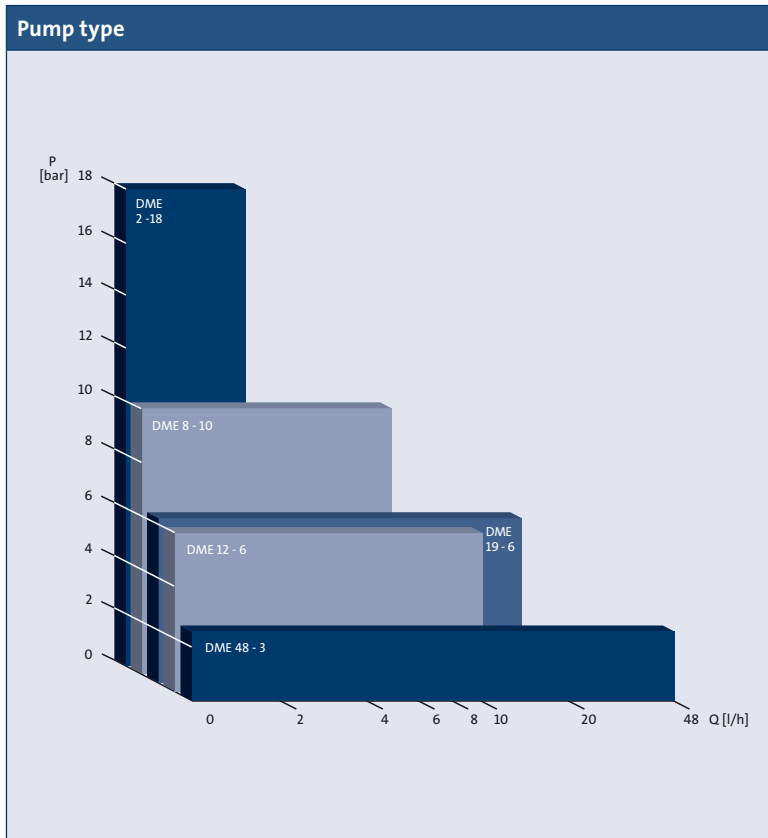
Product range and performance data DME 2.5 ml/h - 48 l/h

Pump type		DME 2-18	DME 8-10	DME 12-6	DME 19-6	DME 48-3
Capacity at max. pressure	[l/h]	2.5	7.5	12	18.5	48
Max. pressure	[bar]	18	10	6	6.2	2.6
Setting range		1:1000	1:1000	1:1000	1:1000	1:1000

Stroke frequency	[min ⁻¹]	180				
Suction lift	[m]	6				
Viscosity*	[mPa]	500				100
Power supply	[V], [Hz]	1×100-240, 50-60 Hz				
Accuracy	[%]	±1% repeatability				

*Spring-loaded valves

Performance range



Additional features

Pulse

The pump is dosing according to an external pulse signal, e.g. from an external watermeter.

Analog

The pump is dosing according to an external analog signal. The dosage is proportional to the input value in mA.

Timer

Integrated timer function, which enables the pump to dose a specific entered batch at maximum capacity according to the timer settings.

Batch

The pump doses a specific entered batch at maximum set capacity when receiving an external pulse signal.

Lock

Control panel lock to prevent maloperation.



DIGITAL DOSING™ up to 150 l/h

By popular demand, we have applied innovative technology to expand the Digital Dosing™ pump range, allowing it to handle liquids in much larger quantities. With just two models the new DME range can cover the range from 75 ml/h to 150 l/h. Perfect for large water and wastewater treatment plants, textile industries, pulp and paper industries, and many other demanding applications, the new, large DME pumps bring the benefits of Digital Dosing™ to a new circle of users worldwide.

Familiar Digital Dosing™ benefits

The 60 – 150 l/h pump range has all the benefits of the highly acclaimed smaller Digital Dosing™ range, making exact dosing easier than ever.

Easy-to-use digital user interface

The simple display allows everyone to be their own dosing specialist. With just a few buttons, you can navigate the straightforward menus to use the impressive range of standard control features – including pulse, analog, timer, batch, and anti-cavitation control – as well as simple calibration and much more.

Turndown ratio 1:800

With a turndown ratio ten times better than that of traditional equipment, the large Digital Dosing™ pumps give you greater flexibility and accuracy than ever. Only two pump sizes cover the range from 75 ml/h – 150 l/h.

Full stroke length at all times

Grundfos AllDOS is the only pump manufacturer to use a full stroke length every time. The strokes are carefully timed, ensuring even concentration in the system and optimal priming throughout the entire operating range.

Brushless DC motor ensures full control

The ingenious design of the large Digital Dosing™ pumps eliminates the need for a servo motor/frequency converter and ensures smooth and gentle dosing.

Anti-cavitation

Turndown of the suction stroke to 75%, 50% or 25% of the maximum speed ensuring optimal priming and displacement of even the most difficult liquids.

Fieldbus communication available

Available with Profibus interface to supply performance data and status information for quality control, preventive maintenance and future reference.

Overload protection

Built-in overload protection monitors pump counter pressure and protects against exceptionally high pressure loads.

Switch-mode power supply

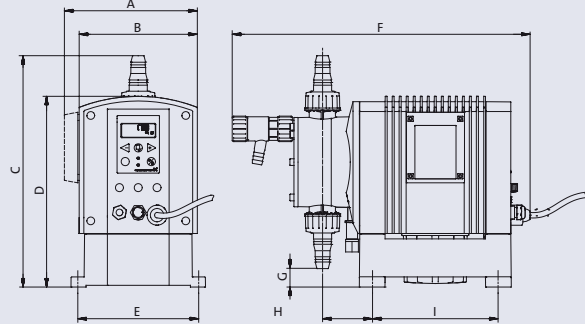
The switch-mode power supply ensures that the Digital Dosing™ pumps can be used worldwide within the 100–240VAC – 50/60Hz range.

Several material variants

The DME pump heads are available in stainless steel, PVDF, and environmentally friendly, cost-efficient polypropylene.

Dimensions (mm)

	DME 60-10	DME 150-4
A	198	198
B	176	176
C	331	345
D	284	284
E	180	180
F	444	444
G	41	28
H	74	74
I	187	187

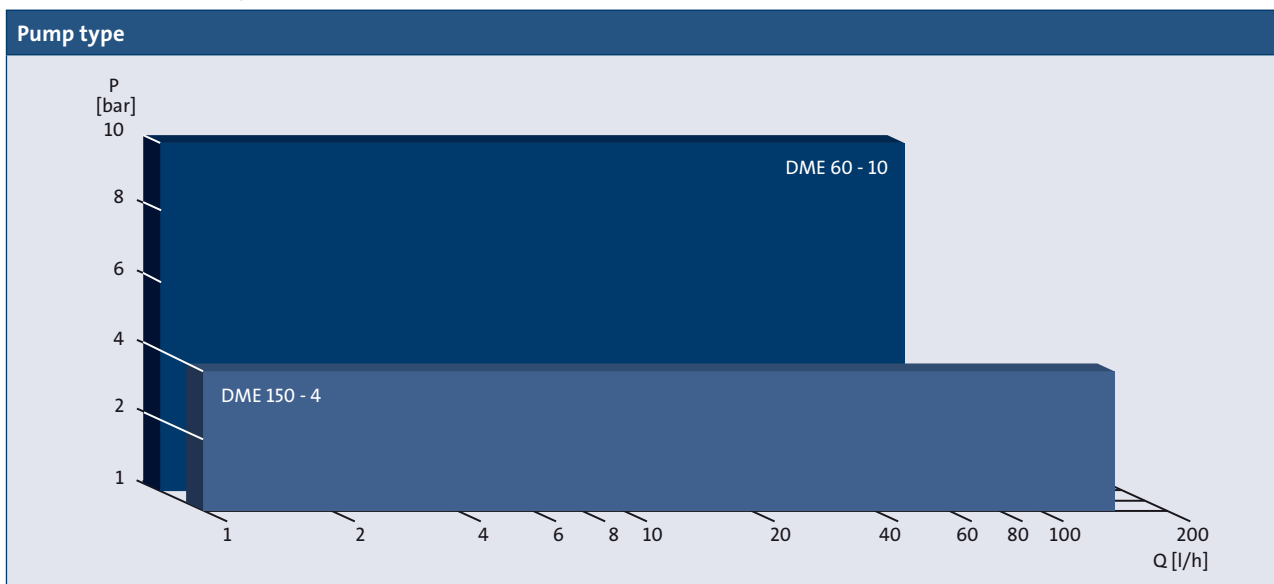


Product range and performance data

Pump type		DME 60-10	DME 150-4
Max. capacity at max. pressure	[l/h]	60	150
Min. capacity	[l/h]	0.075	0.188
Max. pressure	[bar]	10	4
Setting range		1:800	
Stroke frequency	[min ⁻¹]	160	
Power supply	[V], [Hz]	1×100-240V, 50-60 Hz	
Accuracy	[%]	±1% repeatability	
Pumphead material		PP, PVDF, stainless steel	
Suction lift	[m]	4	
Viscosity*	[mPa]	3000 at 50% capacity	

* Spring-loaded valves

Performance range





DIGITAL DOSING™ up to 940 l/h

By popular demand, we have applied innovative technology to expand the Digital Dosing™ pump range, allowing it to handle liquids in much larger quantities. With just two models the new DME range can cover the range from 0.47 l/h to 940 l/h. Perfect for large water and wastewater treatment plants, textile industries, pulp and paper industries, and many other demanding applications, the new, large DME pumps bring the benefits of Digital Dosing™ to a new circle of users worldwide.

Familiar Digital Dosing™ benefits

The DME375 – DME940 l/h pump range has all the benefits of the highly acclaimed smaller Digital Dosing™ range, making exact dosing easier than ever.

Easy-to-use digital user interface

The simple display allows everyone to be their own dosing specialist. With just a few buttons, you can navigate the straightforward menus to use the impressive range of standard control features – including pulse, analog, timer, batch, and anti-cavitation control – as well as simple calibration and much more.

Turndown ratio 1:800

With a turndown ratio ten times better than that of traditional equipment, the large Digital Dosing™ pumps give you greater flexibility and accuracy than ever. Only two pump sizes cover the range from 0.47 l/h - 940 l/h.

Full stroke length at all times

Grundfos AllDOS is the only pump manufacturer to use a full stroke length every time. The strokes are carefully timed, ensuring even concentration in the system and optimal priming throughout the entire operating range.

Brushless DC motor ensures full control

The ingenious design of the large Digital Dosing™ pumps eliminates the need for a servo motor/frequency converter and ensures smooth and gentle dosing.

Anti-cavitation

Turndown of the suction stroke to 75%, 50% or 25% of the maximum speed ensuring optimal priming and displacement of even the most difficult liquids.

Fieldbus communication available

Available with Profibus interface to supply performance data and status information for quality control, preventive maintenance and future reference.

Overload protection

Built-in overload protection monitors pump counter pressure and protects against exceptionally high pressure loads.

Switch-mode power supply

The switch-mode power supply ensures that Digital Dosing™ pumps can be used worldwide within the 100–240VAC – 50/60Hz range.

Several material variants

The DME pump heads are available in stainless steel, PVDF, and environmentally friendly, cost-efficient polypropylene.

Dimensions (mm)

	DME 375-10	DME 940-4	
A	238	238	
B	218	218	
C	471	496	
D	364	364	
E	230	230	
F	543	543	
G	31	6	
H	95	95	
I	246	246	

Product range and performance data

Pump type		DME 375-10	DME 940-4
Max. capacity at max. pressure	[l/h]	376	940
Min. capacity	[l/h]	0.47	1.18
Max. pressure	[bar]	10	4
Setting range		1:800	
Stroke frequency	[min ⁻¹]	160	
Power supply	[V], [Hz]	1×100-240V, 50-60 Hz	
Accuracy	[%]	±1% repeatability	
Pumphead material		PP, PVDF, Stainless Steel	
Suction lift	[m]	4	
Viscosity*	[mPa]	3000 at 50% capacity	

*Spring-loaded valves

Performance range

