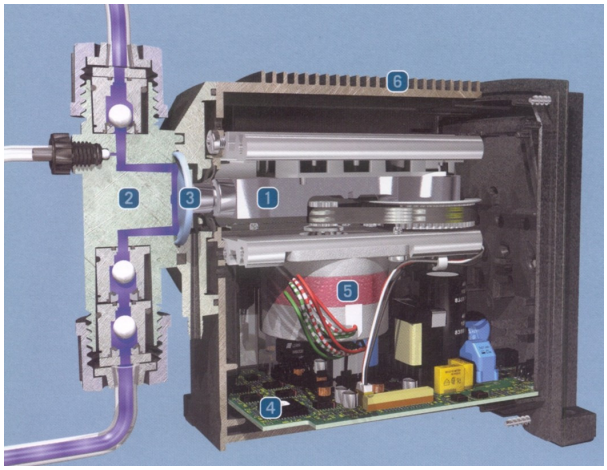
GRUNDFOS DOSING PUMPS

DIGITAL DOSING™ IS HERE

Now you no longer have to struggle for precision. Digital Dosing™ is here, and it has come to make your life easier. It's that simple, and it's from Grundfos. We are talking about true innovation. The principles are new, the methods are new, and the patents are pending! No more guesswork, no more hassle with setting the pump. The future of dosing technology has arrived.

Digital Dosing™ is made possible by a completely new drive principle in a diaphragm dosing pump. This is supplemented with direct electronic digital control from a pushbutton control panel which takes all the guesswork out of dosing. Digital Dosing™ means that when you set your pump to supply a specific dosage you will know that what you set is what you get. What Grundfos is bringing you here is not an improvement on existing pumps. It is an innovation in the very true sense of the word – a completely new standard. It will make your job a lot easier and your results a lot better. You will save time, and you will save money.

CUTTING EDGE TECHNOLOGY INSIDE



1. Drive Unit
The toothed belt drive unit and the crank mechanism control the action of the diaphragm at all times. The long life drive unit is maintenance free.
2. Dosing Head
The dosing head is designed with focus on user friendliness. A venting valve is standard on all pumps, and large union nuts facilitate assembly and access.
3. Diaphragm
The design of the PTFE coated diaphragm ensures long life.
4. Microprocessor Control
The microprocessor based control system translates operator settings into the correct pump output.
5. Stepper Motor
The stepper motor ensures full control of the diaphragm movement during both the suction and discharge phases.
6. Composite Housing
The IP65 rated housing is robust lightweight and highly resistant to chemicals.

IMPROVEMENTS DELIVERED BY DIGITAL DOSING™

1. Pressure peaks in the dosing head and discharge line are minimised.
2. Vibration caused by the sharp pulsation in traditional pumps is virtually eliminated.
3. The additive is discharged more evenly.

The DME series goes one step further with its variable speed stepper motor. The speed of the DME motor is variable so the discharge phase extends over the full period between suction phases. The result is a better more even mix. It also means that the suction phase can be extended using the unique anti cavitation function. The slower suction phase made possible in a Digital Dosing™ pump ensures correct intake of additive every time – even when dosing high viscosity liquids.

FIELDBUS THE FINAL TOUCH

A Grundfos pump can stand alone, or it can be connected to advanced process automation systems. With fieldbus communications (e.g. PROFIBUS), you're always well informed about plant status and in full control of your dosing system.

GRUNDFOS DME PUMPS

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TECHNICAL SPECIFICATIONS

Pump Type **DME**		**2**	**8**	**12**	**19**	**48**	**60**	**150**	**375**	**940**
Capacity at Max. Pressure (l/h)		2.5	7.5	12	18.5	48	60	150	375	940
Max. Pressure (bar)		18	10	6	6.2	2.6	10	4	10	4
Setting Range		1:1000					1:800			
Max. stroke frequency (min^{-1})		180			151		160			
Max. viscosity (mPa)		500*				100	3000**			
Suction lift (m)		6								
Repeatability (%)		1								
Power Supply (V) at 50/60 Hz		100~240								
Maximum Current (A)	at 100V	0.27			0.35		1.25		2.40	
	at 230V	0.16			0.26		0.67		1.00	

*200 mPa without spring-loaded valves. **100 mPa without spring-loaded valves.

APPLICATION AREAS

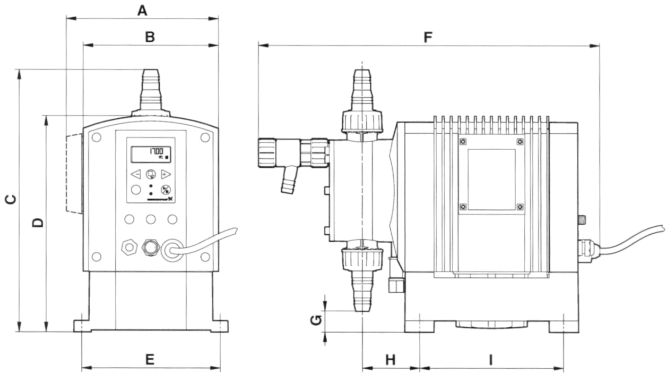
- Neutralisation chemicals
- Disinfection chemicals
- Coagulants
- Flocculants
- Corrosion inhibitors
- Biocides
- Acid cleaners
- Alkali cleaners
- Zinc Phosphating chemicals
- Chromating chemicals
- Lubricants
- pH adjustment chemicals
- Oxygen scavengers
- Detergents

WET END MATERIALS

Component	Standard	Alternative 1	Alternative 2
Diaphragm	PTFE coated EPDM		
Head	Polypropylene	PVDF	Stainless Steel 1.4401
Ball Valve	Ceramic	Stainless Steel 1.4401	Hastelloy C
Valve Seat	EPDM	VITON	
Seals	EPDM	VITON	

Any combination of the above materials is available. Other materials are available on request.

DIMENSIONS



DME	**2 8 12**	**19 48**	**60**	**150**	**375**	**940**
A (mm)	110	110	176	176	238	238
B (mm)	110	110	198	198	218	218
C (mm)	168	188	331	345	471	496
D (mm)	160	160	284	284	364	364
E (mm)	98	98	180	180	230	230
F (mm)	239	294	444	444	540	539
G (mm)	36	15	41	28	31	6
H (mm)	50	50	74	74	95	95
I (mm)	137	192	187	187	246	246

CONTROL OPTIONS

Standard pumps have an input for pulse control, an input for 4~20 mA analogue control, and an input for dual level control or external start/stop. An alarm relay output is available as an option. Bus communications are also available – Profibus (variant AP), or GENIbus (variant AG). These modules enable remote monitoring and setting via the bus system. The pump also has an internal timer which can be used to provide timed dosing. The digital display text can be set to English, German, French, Italian, Spanish, Portuguese, Dutch, Swedish, Finnish, Danish.

ORDERING

Astles Control Systems are distributors for the entire range of Grundfos dosing pumps. Please give us a call with your application details. We will be able to advise the best pump for your application together with price and delivery information.