

WRS

DOSING PUMP BROCHURE

Engineered to precision



W R S S . R . L .

WRS S.R.L.

**DRIVEN BY A SPIRIT OF INNOVATION
IN BOTH MANAGEMENT AND PRODUCT DEVELOPMENT**

COMPANY PROFILE

Since inception, WRS has been engaged in manufacturing, supplying and exporting a broad array of dosing pumps and many others. All our products are designed and developed by specialized professionals, who are aware of the growing desires as well as preferences of clients. Moreover, our company has achieved proficiency in the respected domain, as we have years of experience. The dosing pumps offered by us are based on specific market requirements and the latest technology.

We have taken our organization to the pinnacle of success and achievements by executing all our business operations under the skilled guiding principles of our honorable management team. Their sound business knowledge, administrative qualities, marketing skills and years of industrial experience has enabled us providing the best solutions to customers and satisfying their rising expectations in the best possible way.

As ideal equipment for fluid precision dosing, metering pump is widely used in various fields, including pharmaceuticals, food, beverage, and petrochemical. It can deal with high corrosive, toxic, high-viscosity and high-pressure processes. After more than half-century practical application

and technical improvement, dosing pump has entered into the high growth period. As pump professionals, WRS recognize that meeting our customers' needs by providing quality products and value-added services, so that we remain a dependable and cost-effective source, is key to both our and our customers' success.

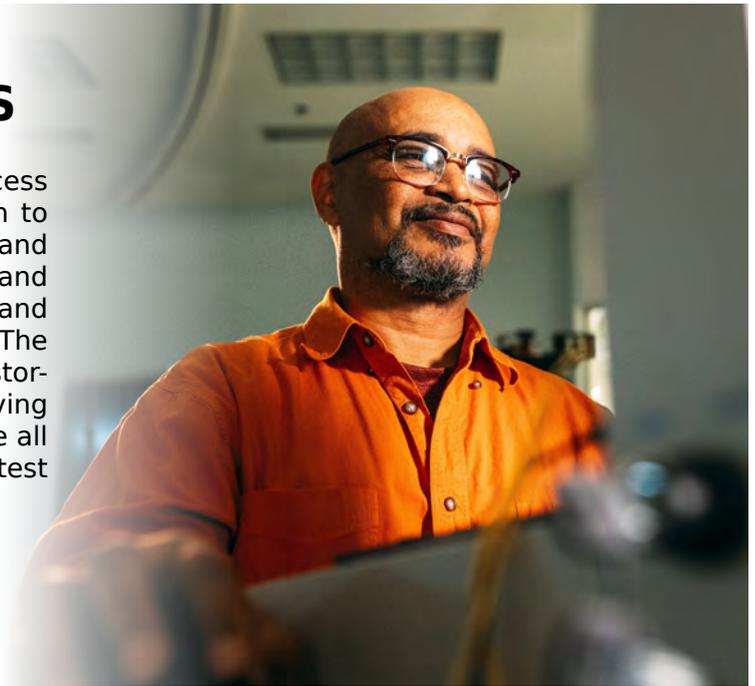
We have strengthened ourselves with a sophisticated and advanced facility of infrastructure, which spread over a wide landmass and is installed with all required facilities. Our infrastructure sprawls across a wide landmass therefore; we have made its categorization properly into several departments like production, sales and marketing, research and development, warehousing and packaging, logistics and many others. We upgrade our facility on a timely basis, in order to remain in compliance with the latest market tendency.

**“WORLDWIDE
RELIABLE
SIMPLE”**



WE BELIEVE IN QUALITY FOR LONG TERM SUCCESS

The R&D strategy is our blueprint for success in the years ahead. It describes how we plan to advance innovative technologies that users and payers will value. It prioritizes the targets and technologies that WRS finds most promising and identifies ways to maximize productivity. The strategy is inspired, in part, by new and historic breakthroughs in the industry. WRS is moving quickly and boldly into a new digital era where all our products shall be able to comply to the latest software and online innovation.



INDUSTRY



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PRODUCT OVERVIEW

PICOL SERIES

SIMPLE GENERAL USAGE DOSING PUMPS



MODEL ML

Flowrate: 1~20 L/H
Pressure: 10~1.5 bar
Solenoid Driven



MODEL MLS

Flowrate: 1~20 L/H
Pressure: 10~1.5 bar
Solenoid Driven

EIGNAL SERIES

DIGITAL MULTI-SIGNAL DOSING PUMPS



MODEL EML

Flowrate: 1~20 L/H
Pressure: 10~1.5 bar
Solenoid Driven



MODEL EMG

Flowrate: 15~150 L/H
Pressure: 10~5 bar
Stepper Motor Driven

STRUST SERIES

HEAVY DUTY DOSING PUMPS



MODEL MG

Flowrate: 15~150 L/H
Pressure: 10~3 bar
Motor Driven



MODEL MA

Flowrate: 15~500 L/H
Pressure: 10~5 bar
Motor Driven



MODEL MB

Flowrate: 250~1800 L/H
Pressure: 10~3 bar
Motor Driven

HOW TO SELECT A DOSING PUMP ?

STEP 01

Flow Rate/Discharge Pressure:

Dosing pumps should never be oversized. A dosing pump should be sized so that the maximum expected flow rate is 85% to 90% of the pump's capacity, which will leave room for additional capacity, if needed. The minimum capacity should never be less than 10% of the pump capacity to maintain accuracy. And the pump rated pressure shall be higher than the operating pressure.



Pump Assembly

STEP 02

Materials of Construction:

Dosing pumps are available in a variety of materials, most commonly PVC, PVDF and SS316L. When selecting a dosing pump's materials of construction, the corrosion, erosion and solvent action of the chemical must be taken into consideration. The effects of erosion must also be considered when the chemical takes the form of an abrasive slurry.



Pump Inspection

STEP 03

Dimension & Connections:

Knowing the dimension is crucial. Other than installation, user should allow enough space for maintenance and services. Connection fittings must be installed at the pump's suction and discharge ports in order to more easily facilitate maintenance procedures. Generally, hose compression fittings, unions, flanges are commonly used for chemical dosing pumps.



Testing Bay

STEP 04

Method of Control:

The operator must know how the pump will be used, either manual continuous operation, on/off operation of operation that is governed by a process signal. WRS dosing pumps allow user to select either full manual control on the pump or control remotely via 4-20mA/pulse signal. For MA/MB series, additional actuator or VFD control is compatible.



Packing & Storage

PICOL SERIES

MODEL ML/MLS

Small size, general use dosing pump

FEATURES

- Anti-corrosion materials.
- High accuracy and consistent dosing.
- Electromagnetic compatibility PCB board prevents solenoid interrupt its performance.
- Water & heat resistant PCB board.
- Double ball design check valve for both inlet and outlet, increasing its discharge accuracy.
- Manual flow control at both running and idle mode.
- Comes with accessories, including PE tube, foot valve, weight, injection valve, safety valve.

Display

LED display for flowrate % and settings.

Inlet & outlet

Double Ball design check valve for both inlet and outlet. Ensuring dosing accuracy.

Pump head

Anti Corrossion material
-PVC
-PVDF
-SS316



Power Supply

Universal power supply port for both 220V and 110V

Signal Control Port

Allowing pump to operate with pulse/4-20mA signal. (Only available for MLS Series)

Control Button

Simple three button design for Start/stop, operation and pump settings.



ML SERIES



MLS SERIES

All ML and MLS series comes with below accseories:

**MLS series comes with additional signal cable.*



- Hose
- Hose Weight
- Foot Valve
- Injection Valve
- Function Valve



Additional 4-20mA cable for MLS model.

MODEL ML/MLS



Corrosion
Resistance
Pump Head



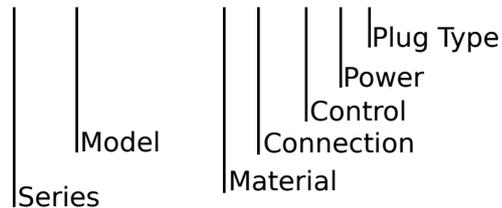
MODEL ML



MODEL MLS

MODEL ML & MLS LEGEND

ML XXXX/XX/XXX



SERIES

ML = Manual
MLS = Signal

MATERIAL

P = PVC
F = PVDF
S = SS316
X = Special

CONNECTION

R = Standard
X = Special

PLUG TYPE

C = China
E = Europe
A = America
G = England
I = AU/NZ/TW
N = None
X = Special

POWER

1 = 220V
2 = 110V

CONTROL

0 = Manual
1 = 4-20mA
2 = Pulse

*For [MODEL] please refer to model selection table on the right page.

For example, user's required flowrate is 10 L/H with the pressure 2 Bar. The material is PVC and required only manual control. User may select model ML0012/PR/01. This will be selecting the pump with the rated flowrate of 12 L/H at 3 Bar, PVC pump head material, standard 5/8 Hose Compression Fitting, manual control and compatible for 220V power supply.

GENERAL PARAMETERS:

Flowrate	1 ~ 20 L/H
Pressure	10 ~ 1.5 Bar
Number of pump head	1
Flow adjustment	Frequency adjustment
Flowrate display	Digital display
suction lift	2 Meters
IP Rating	IP 65
Inlet/Outlet check valve type	Double valve ball design
Accuracy	2%
Weight	Gross: 3.2kg Net: 4.2kg
Driver	Internal solenoid driven
Power	28 Watt
Ambient temp. range	-15°C ~ 60°C
Viscosity range	0.3~100cps

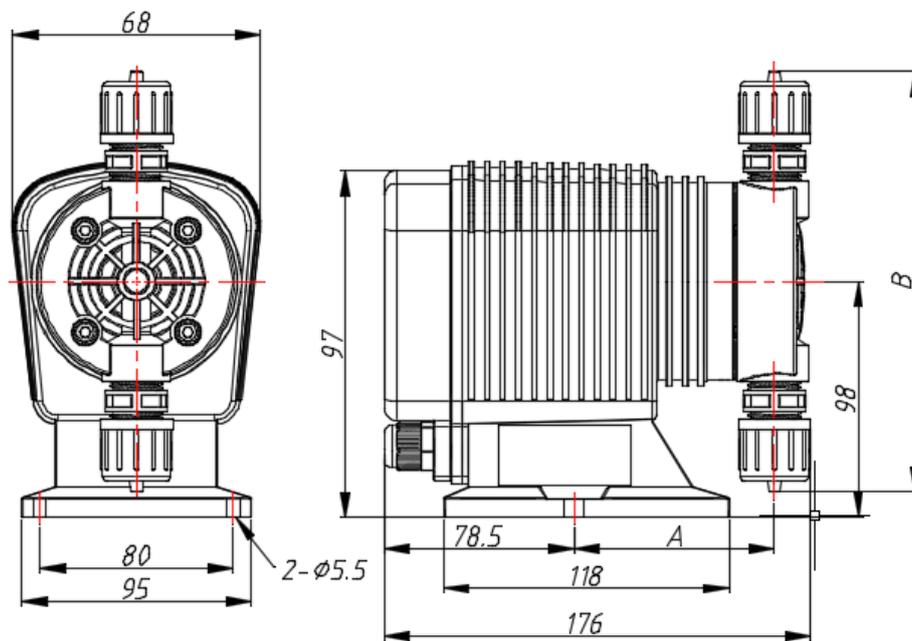
LIQUID END MATERIAL TABLE:

Material Code	Pump Head	Diaphragm	Inlet & Outlet Check Valve			
			Body	Seat	Ball	Seal
P	PVC	PTFE Composite	PVC	PVC	Ceramic	FKM/EPDM
F	PVDF	PTFE Composite	PVDF	PVDF	Ceramic	FKM/EPDM
S	SS316	PTFE Composite	SS316	SS316	SS316	FKM/EPDM

MODEL SELECTION TABLE:

Model	Flowrate (L/H)	Pressure (Bar)	Stroke per min (min-1)	Standard Connection Method		
	50/60 Hz			PVC	PVDF	SS316
ML(S)0001	1	10	80	5/8 Hose Compression Fitting		
ML(S)0002	2	10	140			
ML(S)0004	4	8	180			
ML(S)0005	5	5	140			
ML(S)0008	8	4	170			
ML(S)0010	10	3	130			
ML(S)0012	12	3	150			
ML(S)0015	15	2	160			
ML(S)0020	20	1.5	180			

DIMENSION:



All dimension units are in mm.

MATERIAL	A	B	C
PVC	176	18	175
PVDF	176	18	175
SS316	172	17	158

EIGNAL SERIES **MODEL EML**

Smart, multi-function dosing pump

FEATURES

- Multi functional chemical dosing pump with advanced microprocessor control board.
- Bigger LED Screen display of instant flowrate and accumulated flowrate.
- Water & heat resistant PCB board. Electromagnetic compatibility PCB board prevents solenoid interrupt its performance.
- External 4-20mA control function.
- Multiply & divide capability for pulse signal.
- RS485 communication to single or multiple pumps.
- Direct control from level indicator for start/stop function.

Display

Large LED display. More pumping information can be shown.

Inlet & outlet

Double Ball design check valve for both inlet and outlet. Ensuring dosing accuracy.

Pump head

Anti Corrosion material
-PVC
-PVDF
-SS316



Power Supply

Universal power supply port for both 220V and 110V

Signal Control Port

All EML models are comes with a signal port. Allowing user to control the pump remotely via 4-20mA, Pulse or RS485. External level indicator can be connected directly to the pump.

Control Button

Simple three button design for Start/stop, operation and pump settings.

All EML series comes with below accseories:

- Hose
- Hose Weight
- Foot Valve
- Injection Valve
- Function Valve
- Signal Port



MODEL EML



Corrosion resistance pump head



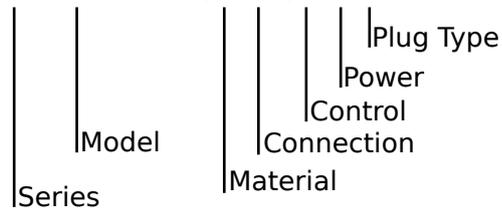
Large display and simple control



Multi signal control
- 4-20mA
- Pulse
- RS485

MODEL EML LEGEND

EML XXXX/XX/XXX



SERIES

ML = Manual
MLS = Signal

POWER

1 = 220V
2 = 110V

MATERIAL

P = PVC
F = PVDF
S = SS316
X = Special

CONNECTION

R = Standard
X = Special

CONTROL

0 = Manual
1 = 4-20mA
2 = Pulse

PLUG TYPE

C = China
E = Europe
A = America
G = England
I = AU/NZ/TW
N = None
X = Special

For example, user's required flowrate is 7 L/H with the pressure 4 Bar. The material is PVC and required a 4-20mA control. User may select model EML0805/PR/11. This will be selecting the pump with the rated flowrate of 8 L/H at 5 Bar, PVC pump head material, standard 5/8 Hose Compression Fitting, 4-20mA control and compatible for 220V power supply.

GENERAL PARAMETERS:

Flowrate	1 ~ 20 L/H
Pressure	10 ~ 1.0 Bar
Number of pump head	1
Flow adjustment	Frequency adjustment
Flowrate display	Digital display
suction lift	2 Meters
IP Rating	IP 65
Inlet/Outlet check valve type	Double valve ball design
Accuracy	2%
Weight	Gross: 3.2kg Net: 4.2kg
Driver	Internal solenoid driven
Power	28 Watt
Ambient temp. range	-15°C ~ 60°C
Viscosity range	0.3~100cps

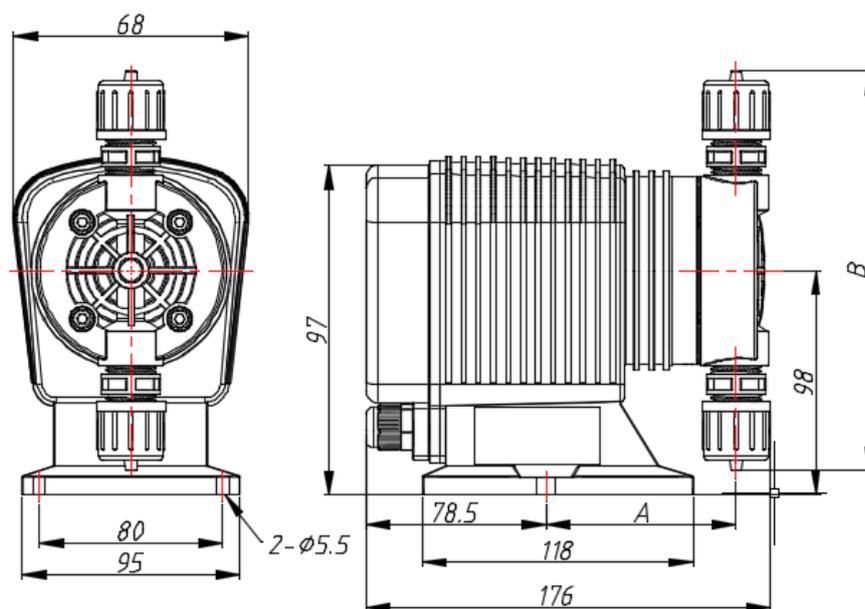
LIQUID END MATERIAL TABLE:

Material Code	Pump Head	Diaphragm	Inlet & Outlet Check Valve			
			Body	Seat	Ball	Seal
P	PVC	PTFE Composite	PVC	PVC	Ceramic	FKM/EPDM
F	PVDF	PTFE Composite	PVDF	PVDF	Ceramic	FKM/EPDM
S	SS316	PTFE Composite	SS316	SS316	SS316	FKM/EPDM

MODEL SELECTION TABLE:

Model	Flowrate (L/H)	Pressure (Bar)	Stroke per min (min-1)	Standard Connection Method		
	50/60 Hz			PVC	PVDF	SS316
EML0001	1	10	80	5/8 PE Hose Compression Fitting		
EML0002	2	10	140			
EML0004	4	8	180			
EML0005	5	5	140			
EML0008	8	4	170			
EML0010	10	3	130			
EML0012	12	3	150			
EML0015	15	2	160			
EML0020	20	1.5	180			

DIMENSION:



All dimension units are in mm.

MATERIAL	A	B	C
PVC	176	18	175
PVDF	176	18	175
SS316	172	17	158

EIGNAL SERIES **MODEL EMG**

Smart, multi-function dosing pump

FEATURES

- Multi functional chemical dosing pump with advanced microprocessor control board.
- Full touch screen ability for simple control.
- Fully manual mode.
- Pulse control function.
- Current 4-20mA signal control function.
- Timer based dosing function.
- Batch cycle function.
- Level control function.
- External start & stop function.
- RS485 control function.

Inlet & outlet

Double ball check valve for low flowrate model, single ball check valve for large flowrate model, ensure it discharge accuracy.

Pump head

Anti Corrosion material
-PVDF
-SS316

Touch Screen Display

Large touch screen display. More information to be shown, and more convenient to control.



Internal Stepper Motor

High precision stepper motor used for all EMG models. Improving dosing accuracy.

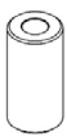
Signal Control Port

All EMG models are comes with multiple signal port. Allowing user to control the pump via 0-5V, 4-20mA, Pulse, RS485 and modbus control. External level indicator can be connected directly to the pump.

All models comes with one 2 meters long signal cable. Additionally for model EMG0025 and below which have the hose compression fittings for both inlet and outlet, it shall come with standard accessories as shown below. *Not available for model EMG0040 and above.



Tubing



Weight



Injection Valve



Foot Valve

MODEL EMG



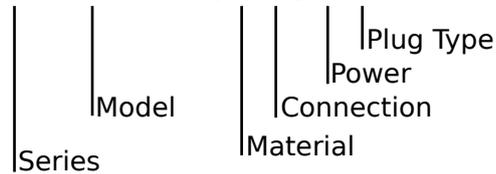
Corrosion resistance pump head



Touch screen control

MODEL EMG LEGEND

EMG XXXX/XX/XX



MATERIAL

F = PVDF
S = SS316
X = Special

CONNECTION

R = Standard
X = Special

POWER

1 = 220V
X = Special

PLUG TYPE

C = China
E = Europe
A = America
G = England
I = AU/NZ/TW
N = None
X = Special

*For [MODEL] please refer to model selection table on the right page.

For example, user's required flowrate is 30 L/H with the pressure 6 Bar. The material is PVDF. User may select model EMG0040/FR/1E. This will be selecting the pump with the rated flowrate of 40 L/H at 10 Bar, PVDF pump head material, standard 6*9 Hose Compression Fitting and compatible for 220V power supply.

GENERAL PARAMETERS:

Flowrate	Up to 150 L/H
Pressure	10 ~ 5.0 Bar
Number of pump head	1
Control variant	Full Manual 0-5V voltage signal 4-20mA current signal RS485 signal Cycle, timer, volumn based control
Flowrate display	Digital display
suction lift	2 Meters
IP Rating	IP 65
nlet/Outlet check valve type (Model 40 L/H and below)	Double valve ball design
nlet/Outlet check valve type (Model 60 L/H and below)	Single valve ball design
Accuracy	1% at 30~100% flowrate
Signal cable length	2 Meters
Weight	Net Weight 5.5kg , Gross Weight 6.5kg
Driver	Internal stepper motor
Power	80 Watt
Ambient temp. range	-15°C ~ 60°C
Viscosity range	Up to 500cps

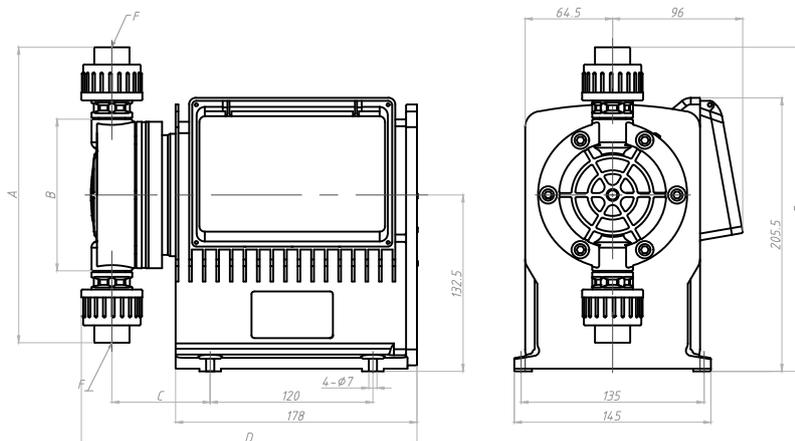
LIQUID END MATERIAL TABLE:

Material Code	Pump Head	Diaphragm	Inlet & Outlet Check Valve			
			Body	Seat	Ball	Seal
F	PVDF	PTFE Composite	PVDF	PVDF	Ceramic	FKM/EPDM
S	SS316	PTFE Composite	SS316	SS316	Ceramic	FKM/EPDM

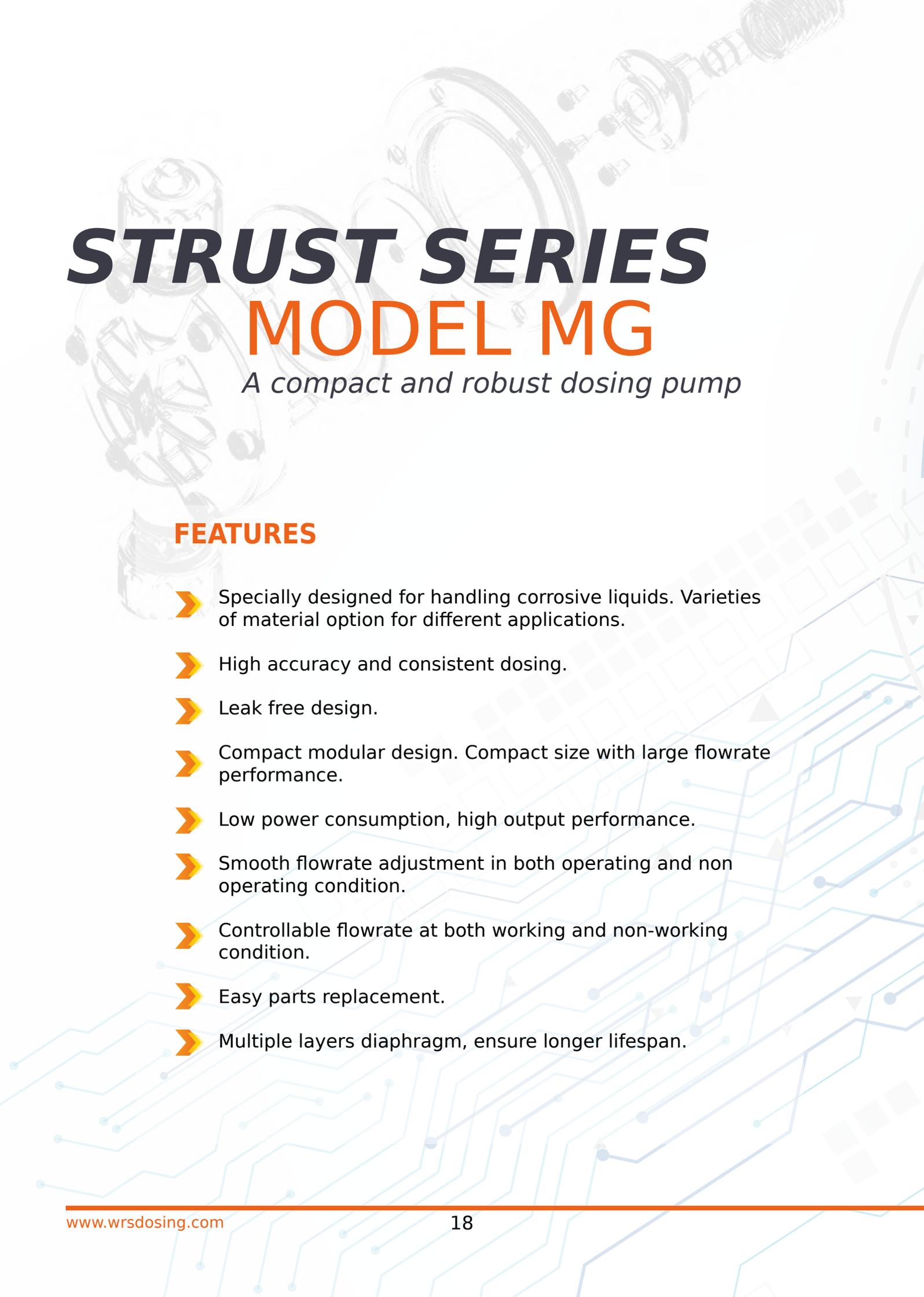
MODEL SELECTION TABLE:

Model	Flowrate (L/H)	Pressure (Bar)	Stroke / min (Min -1)	Standard Connection Method	
	50/60 Hz			PVDF	SS316
EMG0015	15	10	144	6*9 PE hose compression fitting	8x14 SS Weld Union
EMG0025	25				
EMG0040	40				
EMG0060	60	7		RC 1/2" Inner Thread	10x16 SS Weld Union
EMG0080	80				
EMG0100	100				
EMG0120	120				
EMG0150	150	5	180		

DIMENSION:



Model	Material	A	B	C	D	E	F
EMG0015 ~ 0025	PVDF	220	90	70.5	245.5	242.5	6*9 PE Hose Compression Fitting
EMG0040	PVDF	220	90	70.5	245.5	242.5	RC 1/2" Inner Thread
EMG0015-0040	SS316	230	90	73.5	242.5	247.5	8*14 Weld Union
EMG0060 ~0150	PVDF	234	110	72.5	247.5	249.5	RC1/2" Inner Thread
	SS316	256	110	72.5	247.5	260.5	10*16 Weld Union



STRUST SERIES

MODEL MG

A compact and robust dosing pump

FEATURES

- Specially designed for handling corrosive liquids. Varieties of material option for different applications.
- High accuracy and consistent dosing.
- Leak free design.
- Compact modular design. Compact size with large flowrate performance.
- Low power consumption, high output performance.
- Smooth flowrate adjustment in both operating and non operating condition.
- Controllable flowrate at both working and non-working condition.
- Easy parts replacement.
- Multiple layers diaphragm, ensure longer lifespan.

Motor

Compact and silence, low speed motor. Specially designed for dosing pump applications

Inlet & Outlet

Double ball check valve for low flow-rate model, single ball check valve for large flowrate model, ensure it discharge accuracy.

Knob Lock

Allow user to lock the flowrate after adjusting from the knob.



Compact Casing

Robust and sturdy aluminum body allow the pump to be installed in tight space yet maintain its performance despite the vibration from the stroke.

Flowrate Adjustment Knob

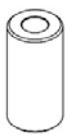
Allow user to adjust the flowrate from 10 ~100% of the rated flowrate

For model MG0040 and below which have the hose compression fittings for both inlet and outlet, it shall come with standard accessories as shown below.

*Not available for model MG0060 and above.



Tubing



Weight



Injection Valve



Foot Valve

MODEL MG



PVC Material



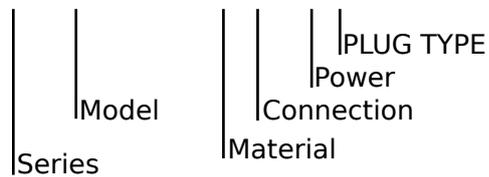
PVDF Material



SS316 Material

MODEL MG LEGEND

MG XXXX/XX/XX



MATERIAL	CONNECTION	MOTOR	PLUG TYPE
P = PVC	R = Hose compression fitting	1 = 380V Motor	C = China
F = PVDF	Q = Glue union	2 = 220V Motor	E = Europe
S = SS316	S = Stainless steel union		A = America
X = Special	P = RC inner thread		G = England
	X = Special		I = AU/NZ/TW
			N = None
			X = Special

*For [MODEL] please refer to model selection table on the right page.
* For [CONNECTION] selection, some selection are only meant for certain material.
Please advise your supplier for more information.

LIQUID END MATERIAL TABLE:

Material Code	Pump Head	Diaphragm	Inlet & Outlet Check Valve			
			Body	Seat	Ball	Seal
P	PVC	PTFE Composite	PVC	PVC	Ceramic	FKM/EPDM
F	PVDF	PTFE Composite	PVDF	PVDF	Ceramic	FKM/EPDM
S	SS316	PTFE Composite	SS316	SS316	SS316	FKM/EPDM

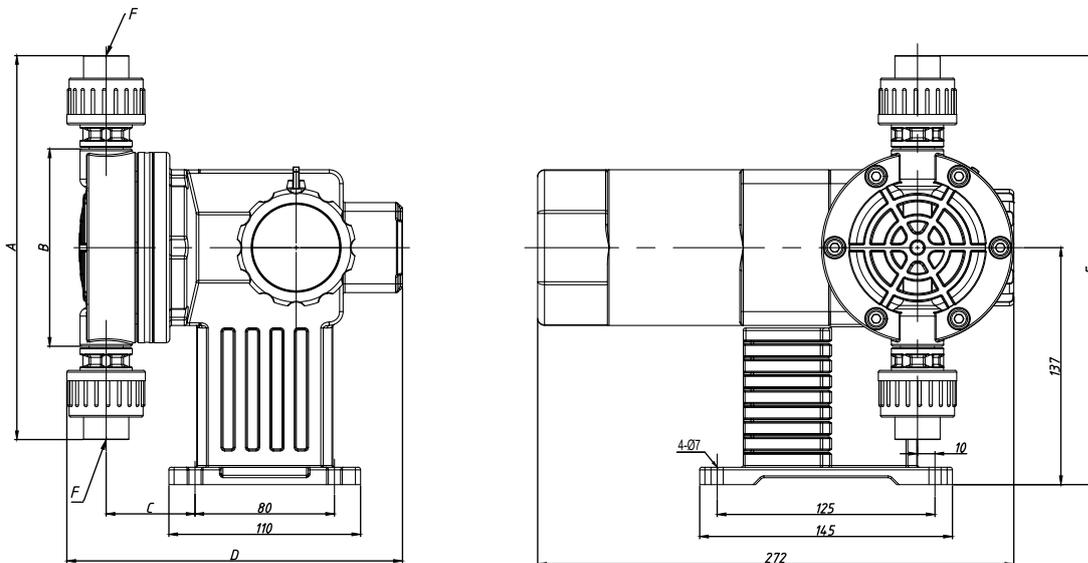
GENERAL PARAMETERS:

Florwate	15 ~ 150 L/H
Pressure	10 ~ 4 Bar
Number of pump head	1
Flow adjustment	Stroke length adjustment
Flowrate display	Analog display
suction lift	2 Meters
IP Rating	IP 55
Inlet/Outlet check valve type (Model 40 L/H and below)	Double valve ball design
Inlet/Outlet check valve type (Model 60 L/H and above)	Single valve ball design
Accuracy	1%
Weight	Gross: 8.5kg Net: 9.5kg
Driver	Motor driven
Power	60 Watt
Ambient temp. range	-15°C ~ 60°C
Viscosity range	0.3~1000cps

MODEL SELECTION TABLE:

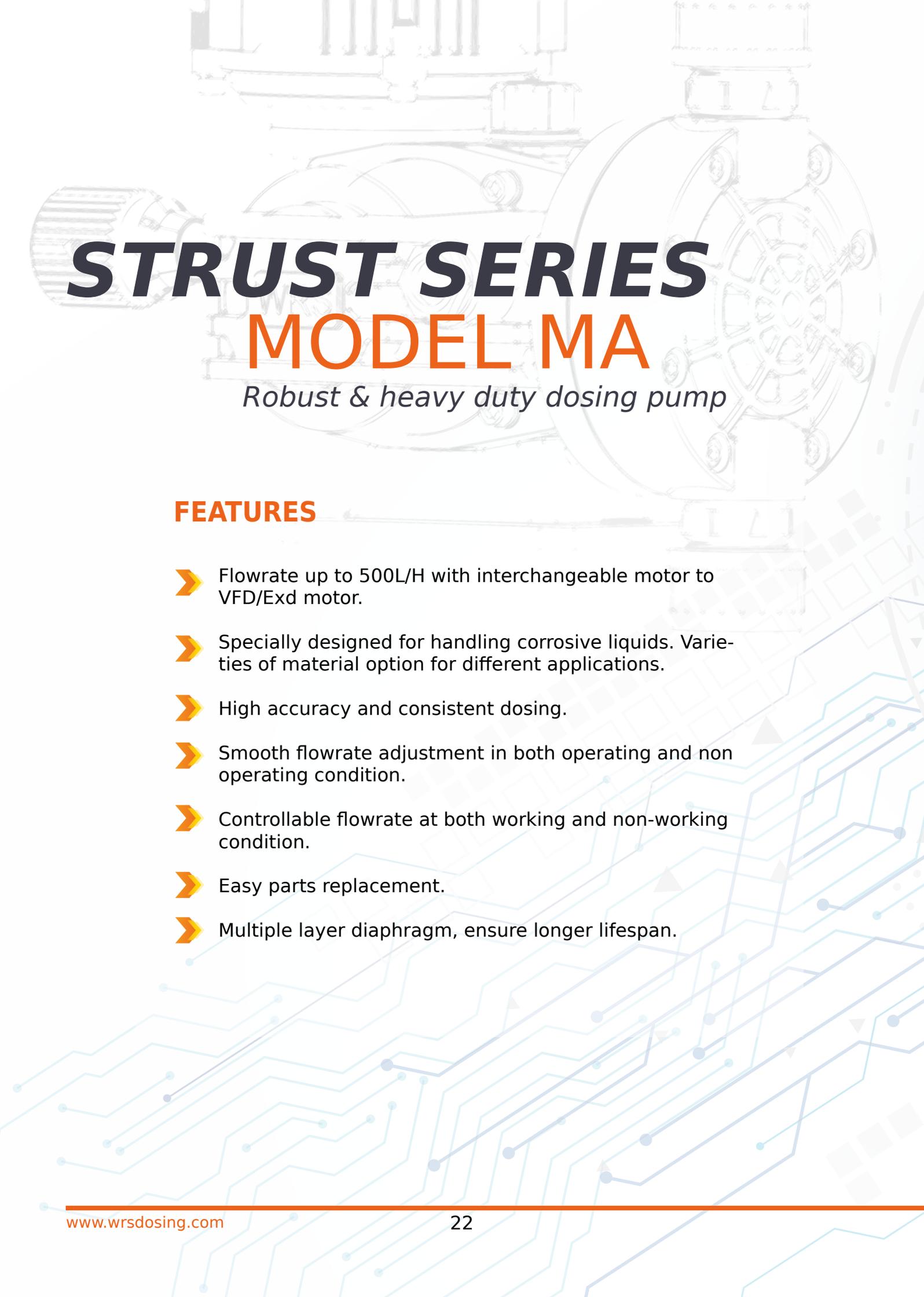
Model	Flowrate (L/H)		Pressure (Bar)	Stroke per min (min-1)	Standard Connection Method		
	50Hz	60Hz			PVC	PVDF	SS316
MG0015	15	18	10	130	6x9 Hose Compression Fitting	RC 1/2" Inner Thread	8x14 SS Weld Union
MG0025	25	30	10	86			
MG0040	40	48	7	130			
MG0060	60	72	6	86	DN15 PVC Glue Union		10x16 SS Weld Union
MG0080	80	96	5	86			
MG0100	100	120	4	130			
MG0120	120	144	4	130			
MG0150	150	180	3	130			

DIMENSION:



All dimension units are in mm.

Model	Material	A	B	C	D	E
MG0015 ~ 0040	PVC	188	90	50	183	225
	PVDF	220	90	50	191	247
	SS316	230	90	52	187	252
MG0060 ~ 0150	PVC	222	110	52	193	248
	PVDF	234	110	52	193	254
	SS316	256	110	51	192	265

A technical line drawing of a dosing pump, showing various components like the motor, diaphragm, and piping. The drawing is rendered in a light grey color, serving as a background for the text.

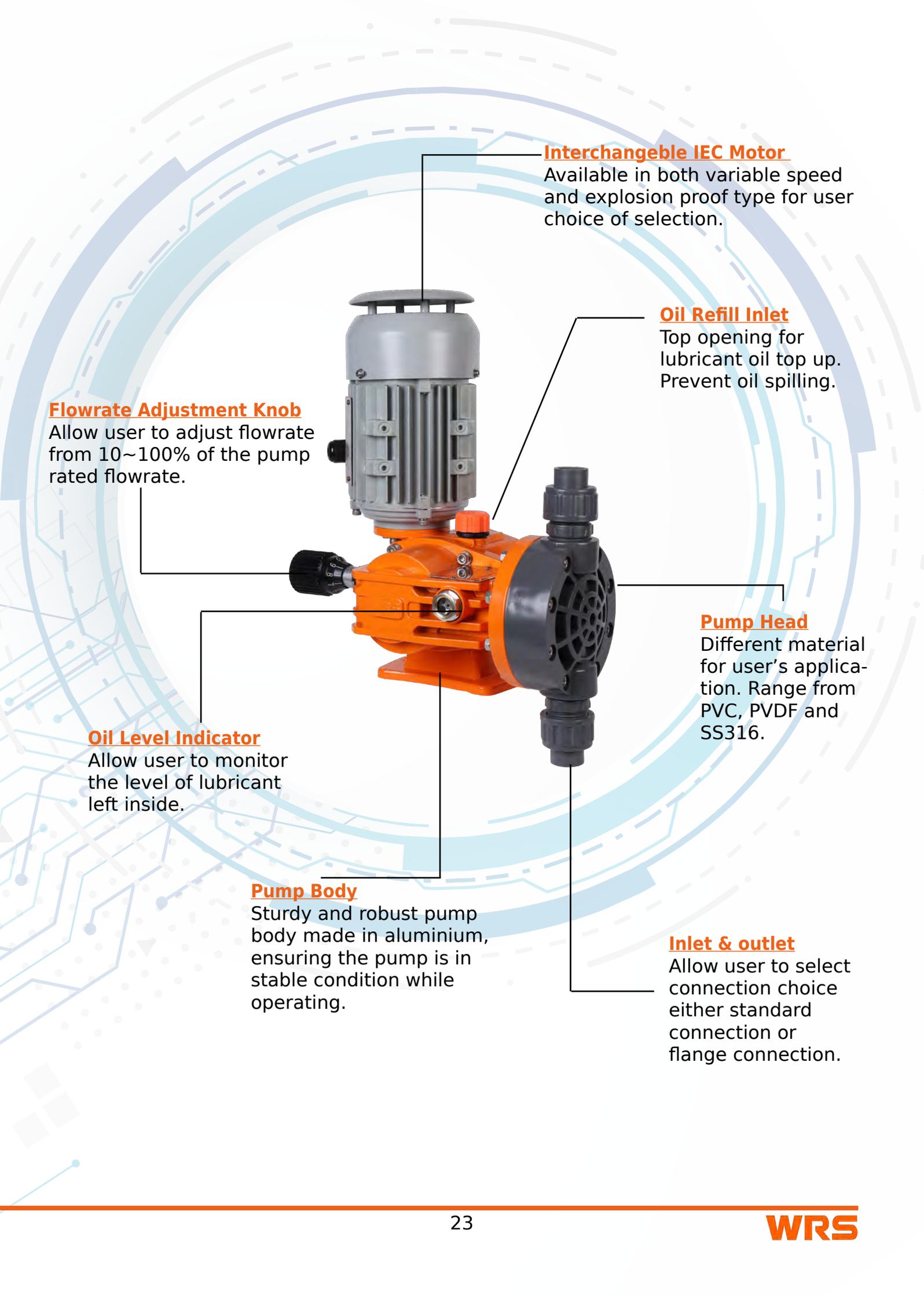
STRUST SERIES

MODEL MA

Robust & heavy duty dosing pump

FEATURES

- Flowrate up to 500L/H with interchangeable motor to VFD/Exd motor.
- Specially designed for handling corrosive liquids. Varieties of material option for different applications.
- High accuracy and consistent dosing.
- Smooth flowrate adjustment in both operating and non operating condition.
- Controllable flowrate at both working and non-working condition.
- Easy parts replacement.
- Multiple layer diaphragm, ensure longer lifespan.



Interchangeable IEC Motor

Available in both variable speed and explosion proof type for user choice of selection.

Oil Refill Inlet

Top opening for lubricant oil top up. Prevent oil spilling.

Flowrate Adjustment Knob

Allow user to adjust flowrate from 10~100% of the pump rated flowrate.

Pump Head

Different material for user's application. Range from PVC, PVDF and SS316.

Oil Level Indicator

Allow user to monitor the level of lubricant left inside.

Pump Body

Sturdy and robust pump body made in aluminium, ensuring the pump is in stable condition while operating.

Inlet & outlet

Allow user to select connection choice either standard connection or flange connection.

MODEL MA



PVC Material



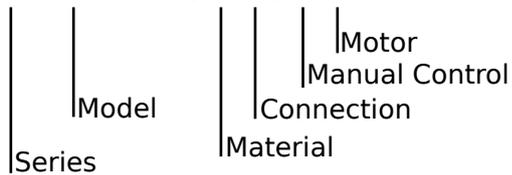
PVDF Material



SS316L Material

MODEL MA LEGEND

MA XXXX/XX/OX



MATERIAL	CONNECTION	CONTROL	MOTOR
P = PVC	R =Hose compression fitting	0 = Manual	0 = No motor
F = PVDF	Q = Glue union		1 = IEC Standard
S = SS316	S = Stainless steel union		2 = IEC variable frequency motor
X = Special	P = RC inner thread		3 = IEC Exd
	X = Special		4 = IEC VF + Exd
			5 = Special

*For [MODEL] please refer to model selection table on the right page.
 * For [CONNECTION] selection, some selection are only meant for certain material.
 Please advise your supplier for more information.

LIQUID END MATERIAL TABLE:

Material Code	Pump Head	Diaphragm	Inlet & Outlet Check Valve			
			Body	Seat	Ball	Seal
P	PVC	PTFE Composite	PVC	PVC	Ceramic	FKM/EPDM
F	PVDF	PTFE Composite	PVDF	PVDF	Ceramic	FKM/EPDM
S	SS316	PTFE Composite	SS316	SS316	SS316	FKM/EPDM

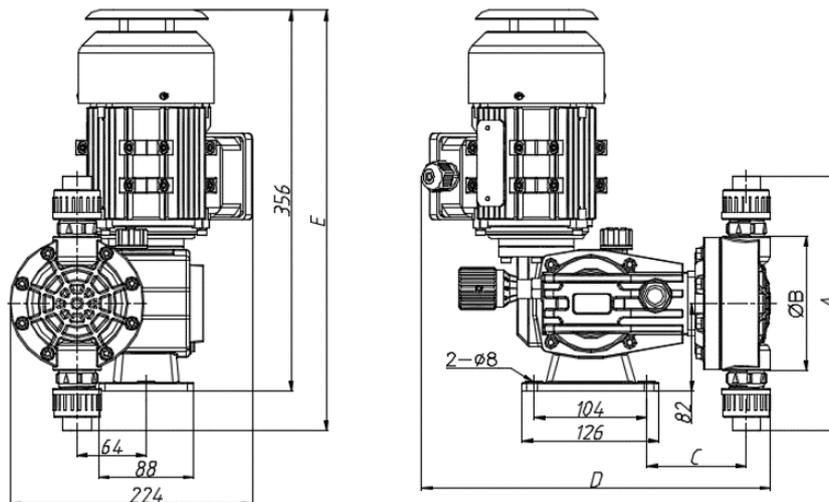
GENERAL PARAMETERS:

Florwate	15 ~ 500 L/H
Pressure	10 ~ 5 Bar
Number of pump head	1
Flow adjustment	Stroke length adjustment. Digital control is available with addons.
Flowrate display	Analog display
suction lift	2 Meters
IP Rating	IP 55
Inlet/Outlet check valve type	Single valve ball design
Accuracy	2%
Weight	Gross: 12kg Net: 15kg
Driver	Interchangable IEC Motor
Power	0.25 ~ 0.37kW
Ambient temp. range	-15°C ~ 60°C
Viscosity range	0.3~1000cps

MODEL SELECTION TABLE:

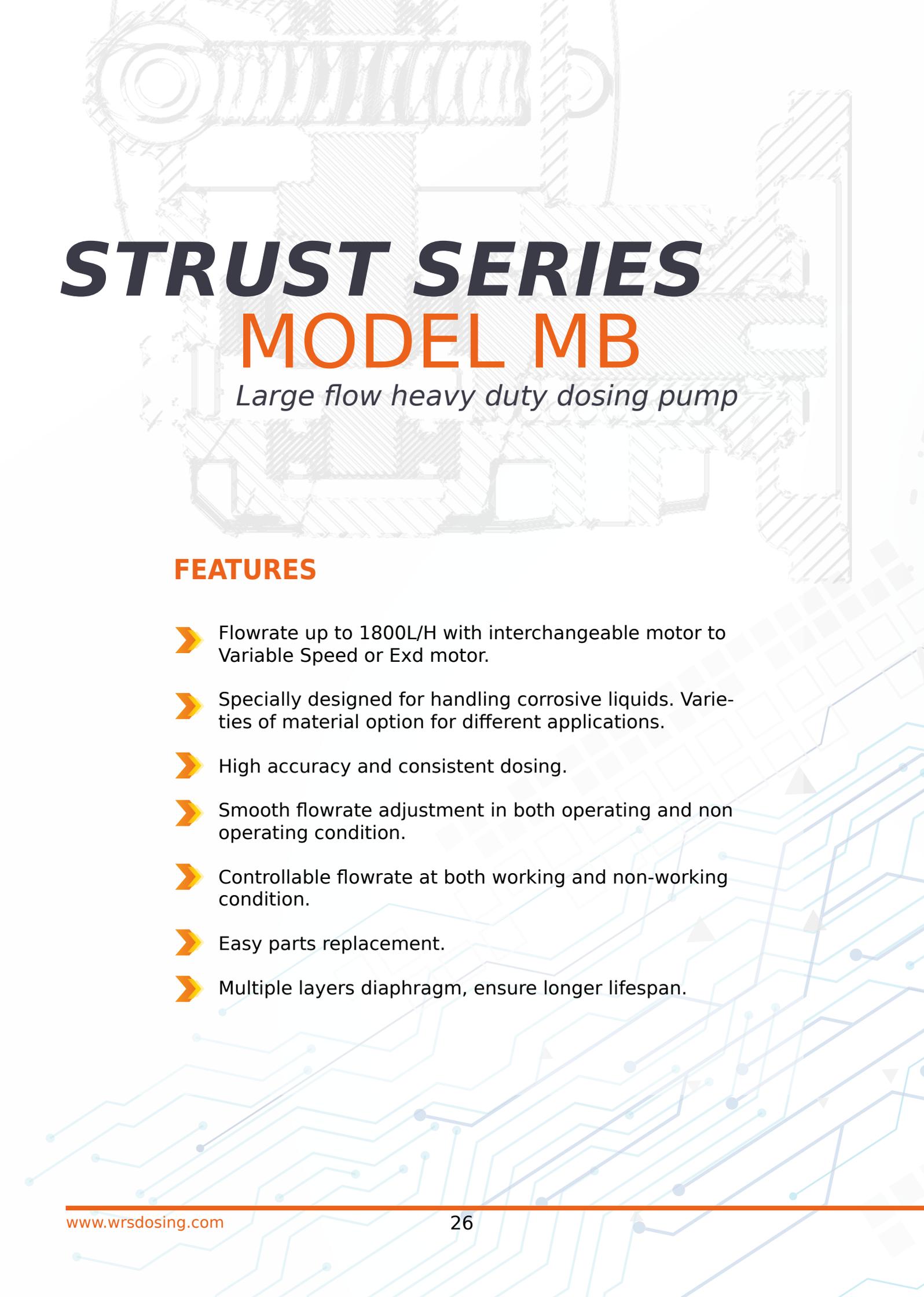
Model	Flowrate (L/H)		Pressure (Bar)	Power (kW)	Stroke per min (min-1)	Standard Connection Method			
	50Hz	60Hz				PVC	PVDF	SS316	
MA0010	12	14	8	0.25	48	6*9 Hose Compression Fitting	RC 1/2" Inner Thread	8*14 Weld Union	
MA0020	20	24			48				
MA0030	30	36			96				
MA0040	40	48	6		48	DN15 PVC Glue Union		RC 1/2" Inner Thread	10*16 Weld Union
MA0060	60	72			48				
MA0080	80	96			96				
MA0120	120	144	5		96		DN15 PVC Glue Union	RC 3/4" Inner Thread	15*22 Weld Union
MA0180	180	216			96				
MA0250	250	300			96				
MA0320	320	384	0.37		144	DN15 PVC Glue Union		RC 3/4" Inner Thread	15*22 Weld Union
MA0400	400	480			144				
MA0500	500	600			144				

DIMENSION:



All dimension units are in mm.

Model	Material	A	B	C	D	E
MA0010 ~ 0030	PVC	176	90	84	303	362
	PVDF	220	90	84	307	384
	SS316	230	90	86	310	390
MA0040 ~ 0120	PVC	238	124	92	320	393
	PVDF	203	124	94	325	375
	SS316	270	124	86	310	410
MA0180 ~ 0320	PVC	256	140	92	320	402
	PVDF	223	140	96	327	390
	SS316	300	140	94	320	425
MA0400 ~ 0500	PVC	256	140	92	320	402
	PVDF	232	140	96	327	390
	SS316	300	140	93	320	425



STRUST SERIES

MODEL MB

Large flow heavy duty dosing pump

FEATURES

- Flowrate up to 1800L/H with interchangeable motor to Variable Speed or Exd motor.
- Specially designed for handling corrosive liquids. Varieties of material option for different applications.
- High accuracy and consistent dosing.
- Smooth flowrate adjustment in both operating and non operating condition.
- Controllable flowrate at both working and non-working condition.
- Easy parts replacement.
- Multiple layers diaphragm, ensure longer lifespan.

Interchangeable IEC Motor

Available in both variable speed and explosion proof type for user choice of selection.

Knob Lock

Allow user to lock the flowrate after adjusting from the knob.

Flowrate Adjustment Knob

Allow user to adjust flowrate from 10~100% of the pump rated flowrate.

Pump Body

Sturdy and robust pump body made in aluminium, ensuring the pump is in stable condition while operating.

Inlet & Outlet

Allow user to select connection choice either standard connection or flange connection.

Pump Head

Different material for different application. Range from PVC, PVDF and SS316.

Oil Refill Inlet

Top opening for lubricant oil top up. Prevent oil spilling.



MODEL MB



PVC Material



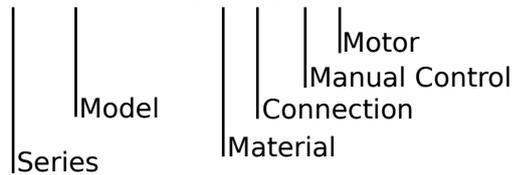
PVDF Material



SS316L Material

MODEL MB LEGEND

MB XXXX/XX/OX



MATERIAL

P = PVC
F = PVDF
S = SS316
X = Special

CONNECTION

R = Hose compression fitting
Q = Glue union
S = Stainless steel union
P = RC inner thread
X = Special

CONTROL

0 = Manual

MOTOR

0 = No motor
1 = IEC Standard
2 = IEC variable frequency motor
3 = IEC Exd
4 = IEC VF + Exd
5 = Special

*For [MODEL] please refer to model selection table on the right page.

* For [CONNECTION] selection, some selection are only meant for certain material. Please advise your supplier for more information.

LIQUID END MATERIAL TABLE:

Material Code	Pump Head	Diaphragm	Inlet & Outlet Check Valve			
			Body	Seat	Ball	Seal
P	PVC	PTFE Composite	PVC	PVC	Ceramic	FKM/EPDM
F	PVDF	PTFE Composite	PVDF	PVDF	Ceramic	FKM/EPDM
S	SS316	PTFE Composite	SS316	SS316	SS316	FKM/EPDM

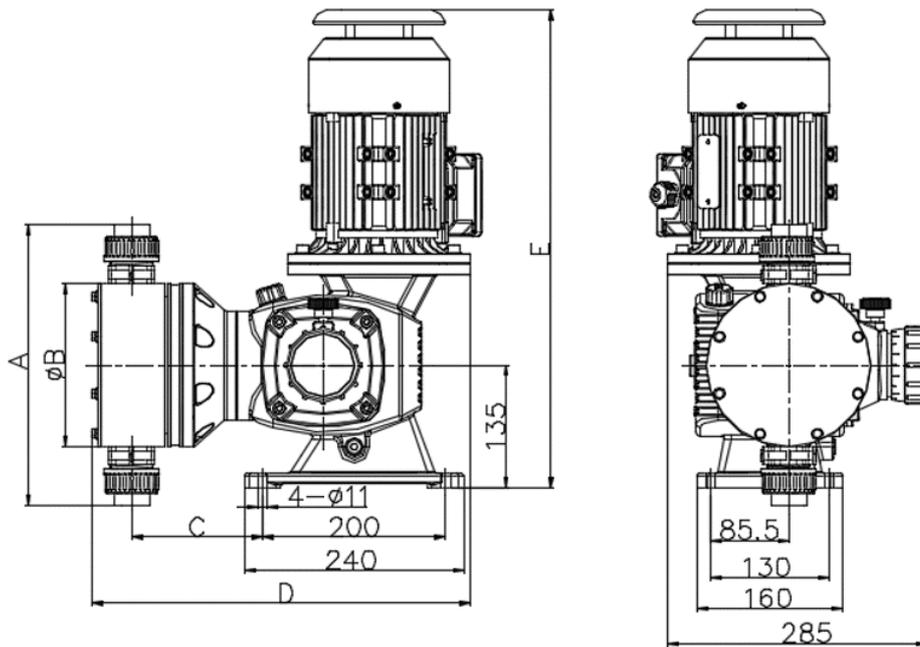
GENERAL PARAMETERS:

Florwate	250 ~ 1800 L/H
Pressure	10 ~3 Bar
Number of pump head	1
Flow adjustment	Stroke length adjustment. Digital control is available with addons.
Flowrate display	Analog display
suction lift	2 Meters
IP Rating	IP 55
Inlet/Outlet check valve type	Single valve ball design
Accuracy	2%
Weight	Gross: 34kg Net: 37kg
Driver	Interchangeable IEC motor
Power	0.75kW ~ 1.1kW
Ambient temp. range	-15°C ~ 60°C
Viscosity range	0.3~1000cps

MODEL SELECTION TABLE:

Model	Flowrate (L/H)		Pressure (Bar)	Power (kW)	Stroke per min (min-1)	Standard Connection Method		
	50Hz	60Hz				PVC	PVDF	SS316
MB0250	250	300	10		48	DN25 Glue Union	RC 1" Inner Thread	
MB0320	320	380	10		48			
MB0500	500	600	10		96			
MB0680	680	800	7		96			
MB0760	760	900	5		144			
MB1000	1000	1160	4		144			
MB1200	1200	1400	4		96	DN40 Glue Union	RC 1 1/2" Inner Thread	
MB1600	1600	1900	3		144			
MB1800	1800	2160	3		144			

DIMENSION:



All dimension units are in mm.

Model	Material	A	B	C	D	E
MB0250 ~ 1000	PVC	31-	180	143	416	525
	PVDF	273	180	144	414	525
	SS316	280	180	135	390	525
MB1200 ~ 1800	PVC	410	220	153	431	560
	PVDF	342	220	150	437	560
	SS316	368	220	139	401	560

SYSTEM ACCESSORIES

Applications

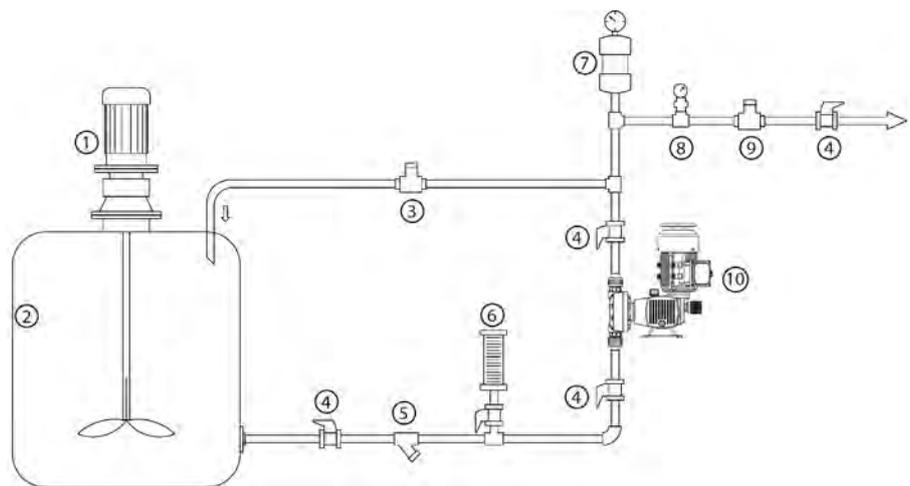


There are many different types of dosing pump accessories. Some of these accessories include: back pressure control valves, calibration cylinders, pulsation dampeners, strainers, inline pressure relief valves, foot valves, and injection valves. Each component is designed to provide improved metering pump performance, and each accomplishes this goal in different ways. Back pressure control valves help maintain constant pressure at the discharge point which in turn maintains a constant fluid discharge. Calibration cylinders also allow for more optimal metering pump operation. Many dosing pumps are originally calibrated under controlled conditions, and it is unlikely that these conditions are maintained in the diverse applications for dosing pumps. It is ideal to calibrate each application individually to provide optimal dispensing accuracy. Calibration cylinders allow operators to check the accuracy of metering pumps and adjust dispensing rates as needed. The multitude of other metering pump accessories provide additional benefits mostly focused on improving liquid dispensing accuracy, but also for improved safety and cost savings. WRS also manufacture accessories as listed below:

- Back Pressure Valve
- Pressure Safety Valve
- Y-Strainer
- Pulsation Dampener
- Venturi
- In-Line Mixer
- Pressure Gauge
- Calibration Column
- Air Relief Valve
- Actuated Valve
- Rotameter

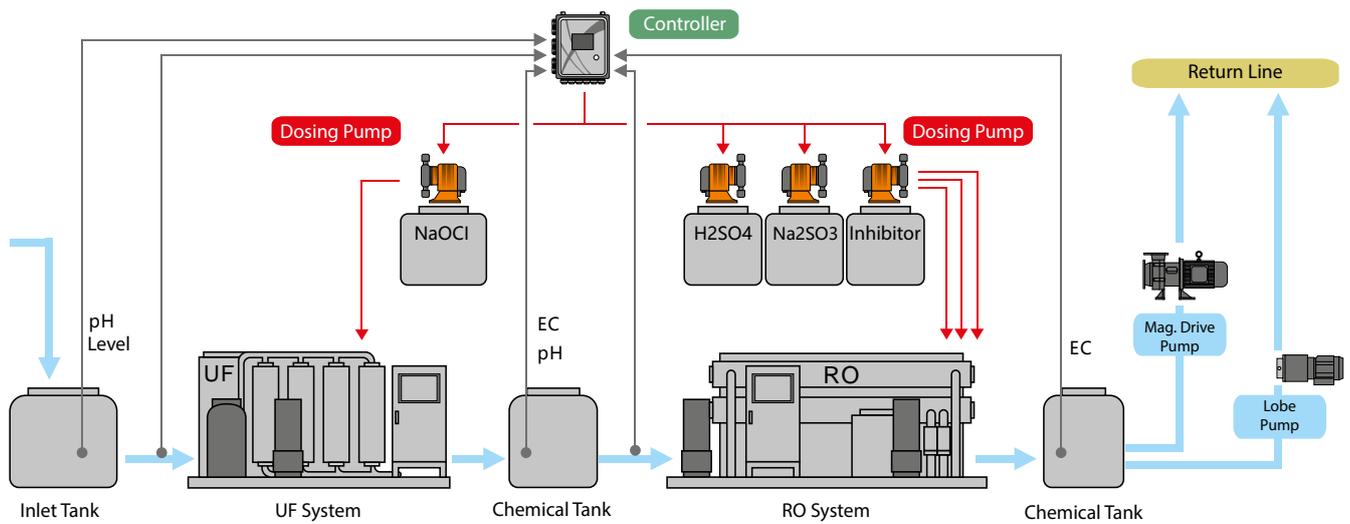


TYPICAL DOSING SYSTEM SETUP

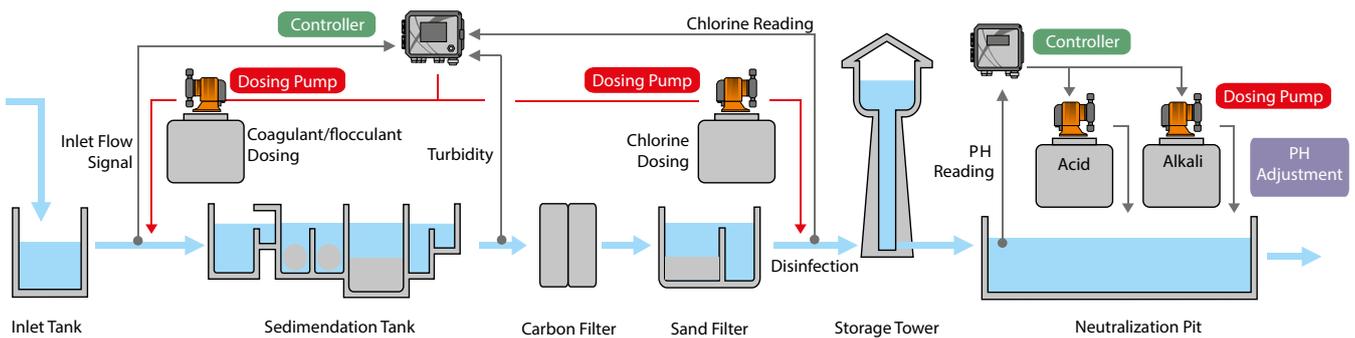


- | | |
|--------------------------|------------------------|
| 1. Agitator | 6. Calibration Column |
| 2. Tank | 7. Pulsation Dampener |
| 3. Pressure Safety Valve | 8. Pressure Gauge |
| 4. Ball Valve | 9. Back Pressure Valve |
| 5. Y-Strainer | 10. Dosing Pump |

RECIRCULATING WASTEWATER TREATMENT SYSTEM



WASTEWATER TREATMENT PLANT



“

WRS priority is providing the market expertise you need by delivering tomorrow’s innovative fluid and material transfer solutions today. WRS continues to build superior products to meet our customers’ toughest dosing pump applications. WRS consistently delivers the most reliable, comprehensive range of metering pumps on the market today. Our professional and experienced research and development team continues to make huge strides in innovation for the future.

”



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