



## **$\alpha$ -Power Series Metering Pump**

*Hydraulically Actuated Diaphragm Liquid End*

## Technical Specification

- Flow rate: 1.6~326 L/h
- Max. discharge pressure: 160 Bar
- Turndown Ratio: 10:1
- Stability accuracy:  $\pm 1\%$
- Max. liquid temperature: 90°C
- Max. viscosity: up to 1200cP

## Typical Dosing Applications

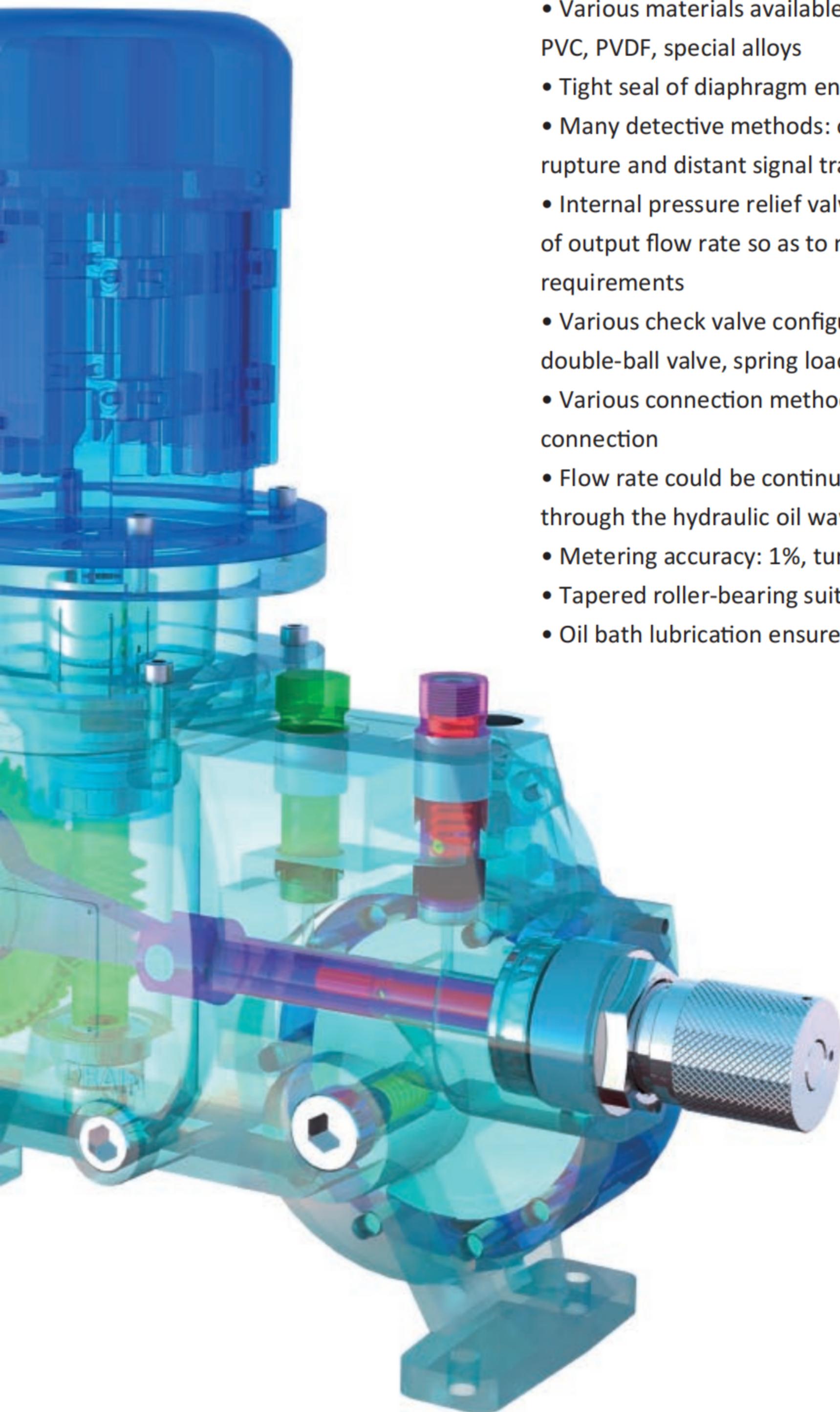
- Ammonia
- Hydrazine
- Scale inhibitor
- Water treatment additives
- Chemical process additives
- Oil industry additives
- Edible pigment and food flavor



## The Technical Features

- Designed for continuous delivery of various special mediums
- Various materials available for the pump head: 316SS, PVC, PVDF, special alloys
- Tight seal of diaphragm ensures no leakage
- Many detective methods: on-site signs of diaphragm rupture and distant signal transmission
- Internal pressure relief valve which ensures the stability of output flow rate so as to meet the accuracy requirements
- Various check valve configuration: single-ball valve, double-ball valve, spring loaded valve
- Various connection methods: threaded connection, flange connection
- Flow rate could be continuous adjusted from 0% to 100% through the hydraulic oil way control
- Metering accuracy: 1%, turndown ratio: 10:1
- Tapered roller-bearing suit high loads operation condition
- Oil bath lubrication ensures low wear and high reliability

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- High-efficiency worm gear and worm shaft decelerating mechanism works steadily with low noise
- Compact structure and small volume, suit limited installation space
- The design and manufacture complies with the API 675 standards



# $\alpha$ -Power Series Metering Pump Code

Frame Size	Plunger Diameter	Diaphragm	Check Valve	Pressure	Options
<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/>

Frame Size: *ET Drive Unit*  
*EV Drive Unit*

Plunger Diameter: *Plunger Diameter(mm)*

Diaphragm: *S - Single Diaphragm*  
*D - Double Diaphragm*

Check Valve: *V - Single Ball*  
*W - Double Ball*

Pressure: *Discharge Pressure(Bar)*



Diaphragm Rupture Detection



High Precision Check Valve

## Flow rate adjustment methods

**Manual adjustment:** change the stroke length through handwheel

- Adjust flow rate is available either during running or at standstill
- Minimum adjustment scale is 1%

**Electric actuated stroke controller:** receive external control signal to adjust the stroke length

- Power source: 220V-50Hz-single phase
- Input signal: 4-20mA simulated signal
- Output signal: 4-20mA/1-5V simulated signal, used for record display and control system

**Frequency conversion controller:** receive external control signal to adjust the stroke speed

- Power supply: 220V-50Hz-single phase or 380V-50Hz-three phase
- Input signal: 4-20mA simulated signal



Automatically Stroke Length Adjustment

# $\alpha$ -Power Series Data Sheet

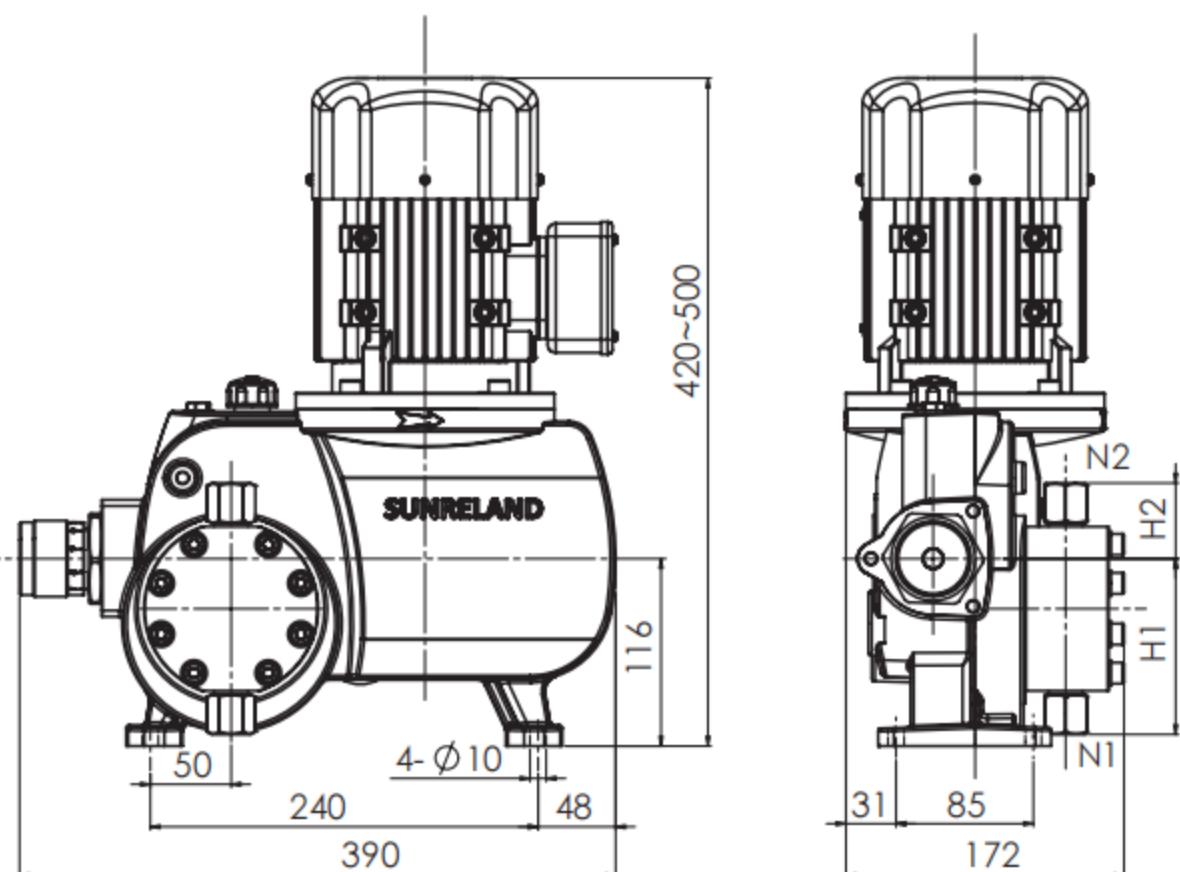
Frame Size : ET

Plunger mm	Speed spm	Flow rate L/h	Pressure bar	Connection
$\Phi 15$	47	2	125	Suction: NPT 1/2" F Horizontal
	72	3		
	110	5		
	144	7		
	175	8		
$\Phi 17$	47	4	106	Discharge: NPT 1/4" F Horizontal
	72	6		
	110	9		
	144	12		
	175	15		
$\Phi 19.5$	47	7	67	Suction: NPT 1/2" F Horizontal
	72	11		
	110	17		
	144	22		
	175	27		
$\Phi 23$	47	13	42	Discharge: NPT 1/4" F Horizontal
	72	19		
	110	29		
	144	38		
	175	47		
$\Phi 28$	47	22	25	
	72	33		
	110	51		
	144	66		
	175	81		

Frame Size: EV

Plunger mm	Speed spm	Flow rate L/h	Pressure bar	Connection
$\Phi 19$	47	11	160	Suction: NPT 1/2" F Horizontal
	72	16		
	106	24		
	145	33		
$\Phi 22$	47	18	105	Discharge: NPT 1/4" F Horizontal
	72	27		
	106	40		
	145	55		
$\Phi 26$	47	33	68	Suction: NPT 1/2" F Vertical
	72	51		
	106	75		
	145	103		
$\Phi 32$	47	64	41	Discharge: NPT 1/2" F Vertical
	72	98		
	106	144		
	145	197		
$\Phi 38$	47	105	25	
	72	161		
	106	237		
	145	325		





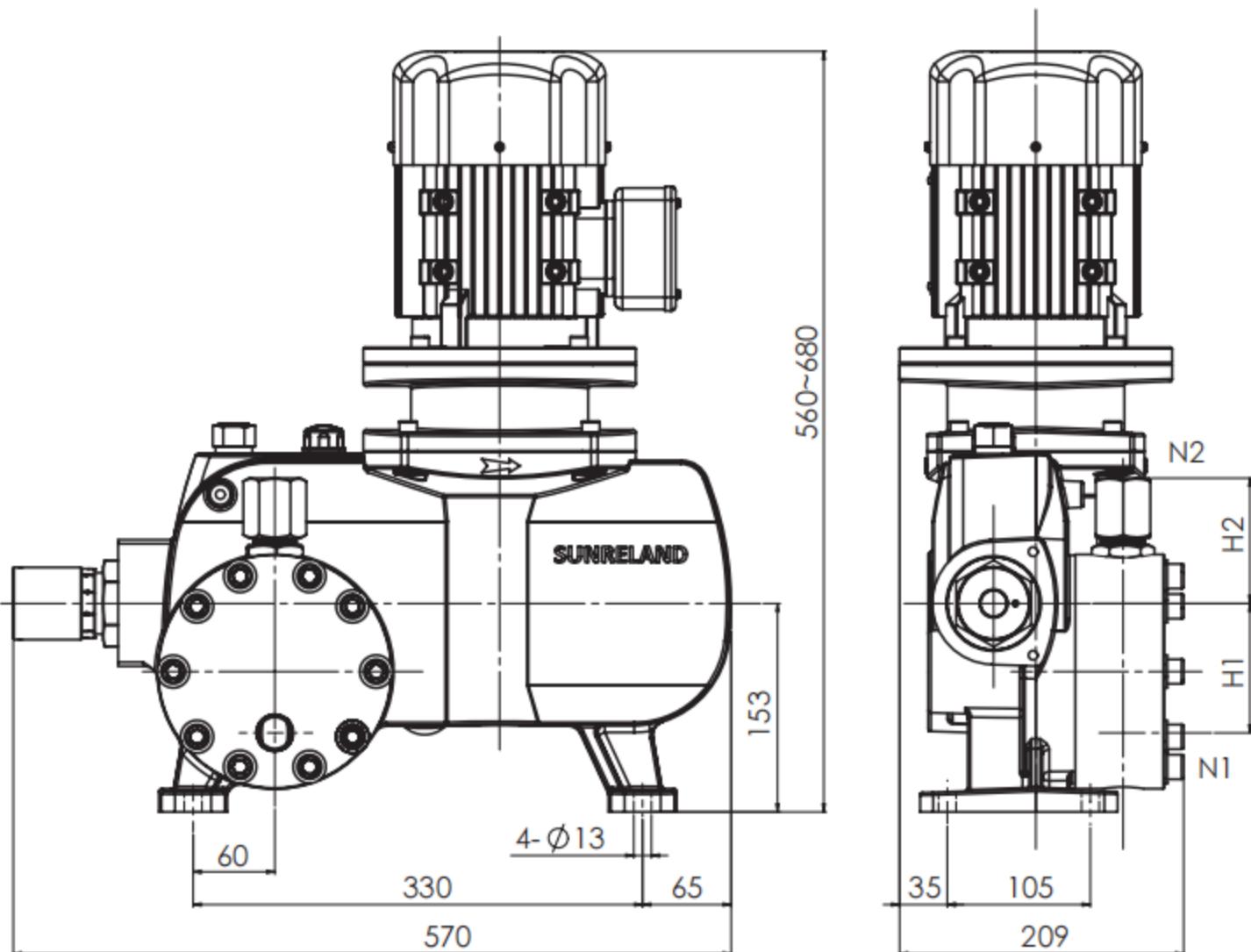
GA drawing of ET



**α-Flow Series Hydraulically Actuated Diaphragm Pump**  
Capacity up to 10000L/h Pressure Max. 700bar



**α-Dose Series Mechanically Actuated Diaphragm Pump**  
Capacity up to 5500L/h Pressure Max. 10bar



GA drawing of EV



Package System