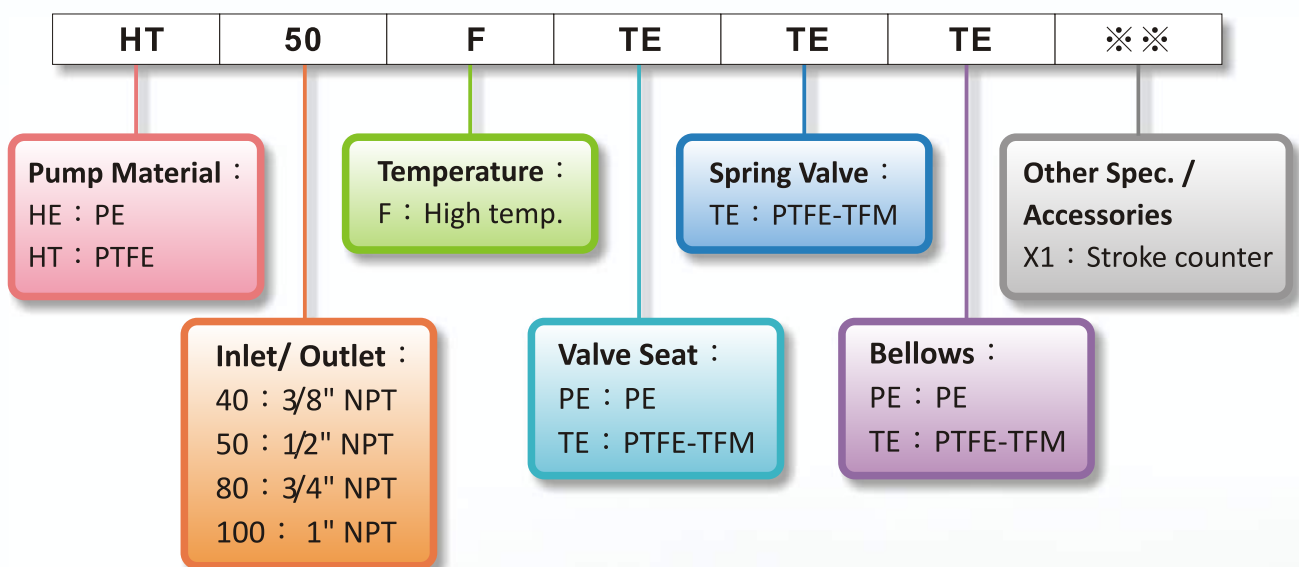


DINO Bellows Pumps



According to fulfill our long-term cooperated clients in semiconductor, PCB, LED, OPTO, PV, solar and other equipments application. DINO Technology Co., Ltd. collected our clients' need and started to R&D, use PTFE material for construction, no metal for our blueprint; assembly, test and packing in class 100 cleanroom, manufacture high purity, no pollution electronic-grade pump. After long time improvement and tested, we have confidence in our quality, performance and lifetime are better than other brands, while improved the disadvantage of other brands. We had applied and got 2 patents in 「separable air valve and run-dry resistant」 and approved by CE certificate. We completed the high standard request "high quality, competitive price, quick delivery, and good service" to fulfill our customers.

Model & Material Indicate



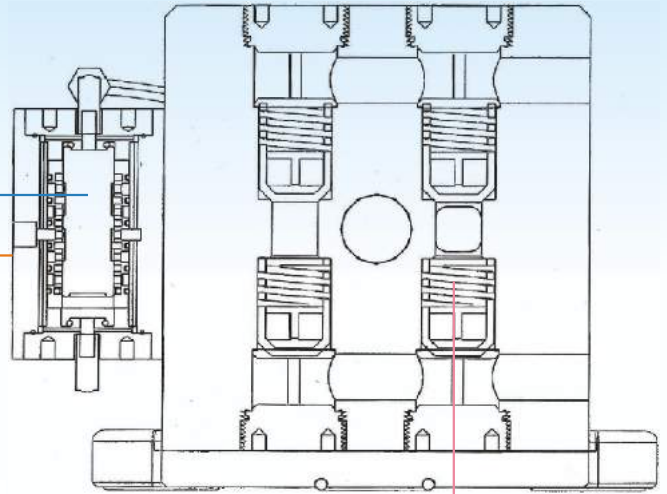
Advantage

- 3 kinds of series HE.HT.HT-F can fulfill different operating condition.
- No metal, oil free, no lubrication necessary.
- Max. Temperature can up to 200°C.
- Can run dry 30 minutes.
- Patent air valve: CERAMIC shuttle shaft, high anti-abrasion, no thermal expansion and contraction doubt.
- Wetted parts manufactured by pure TEFLON, high temperature- resistance, chemical-resistance and clean.
- 1bar low start air pressure, reduce air consumption and prolong pump's life .
- Assembly, test and packing in Class 100 cleanroom.
- Pump design by special thread, can stand high pressure operation.
- Longevity, PTFE-TPM bellows with high anti-abrasion coefficient and better ductility, can operate over 100,000,000~200,000,000 times.

■ Feature

CERAMIC Shuttle Shaft

Air valve constructed by high anti-abrasion CERAMIC shuttle shaft and Viton-PTFE O ring make perfect air tightness and accurate to control air system. CERAMIC shuttle shaft no thermal expansion and contraction doubt.



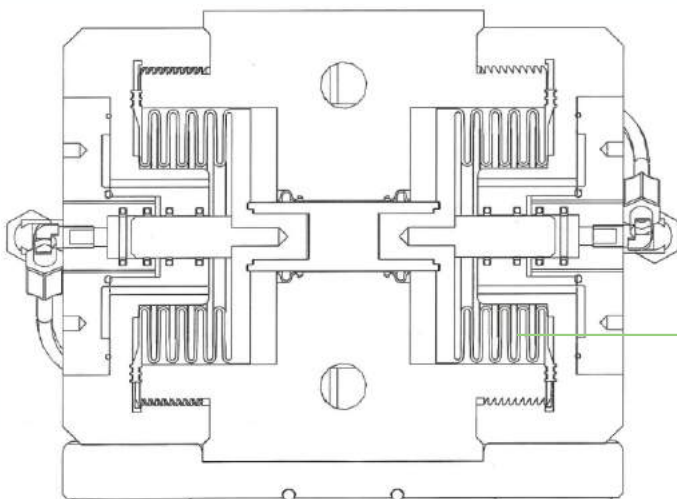
Patent Air Valve

High density PE manufactured, no metal spare parts combination; better air tightness, low air consumption, no air clogged in low air supply; separable air valve can adjust according to installation space.



PTFE-TFM Spring Valve

Better elasticity, ductility, and non-deformation; can transfer liquid without horizontal installation; inner fluted design, flat contact for better tightness and self-priming; protecting bellows damage cause by back pressure.



PTFE-TFM Bellows

Manufactured by high purity and high density PTFE, better anti-abrasion and ductility. 8mm thick shielding in the front of the bellows to reduce damage by sharp particle; long life, can reach over 100,000,000~200,000,000 times.



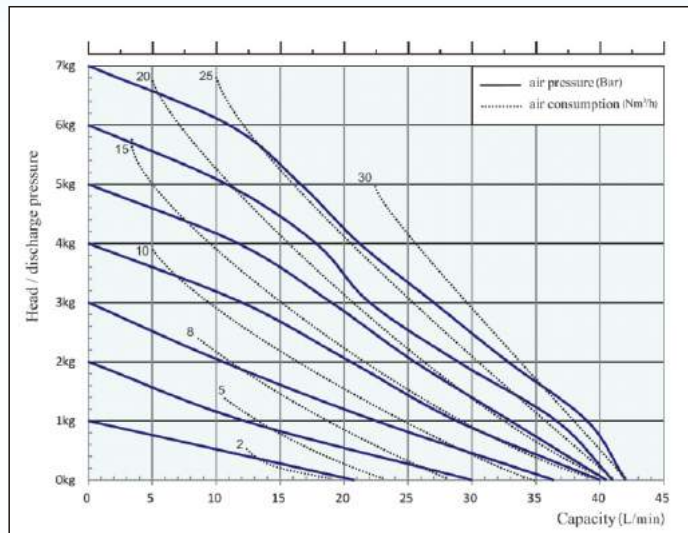
3/8" HE40, HT40, HT-F40



Technical Data

Inlet / Outlet (NPT)	3 / 8"
Air connection (NPT)	1 / 4"
Max. capacity (LPM)	42
Operating pressure (Bar)	1 - 7
Max. temperature PE	70°C
PTFE	130°C
High-temp.PTFE	200°C
Max. particle	0.5mm
Per cycle (L)	0.075
Suction lift, dry	2mwc
Suction lift, wet	5mwc
Weight PE	8.6kgs
PTFE	8.6kgs
High-temp.PTFE	10.8kgs

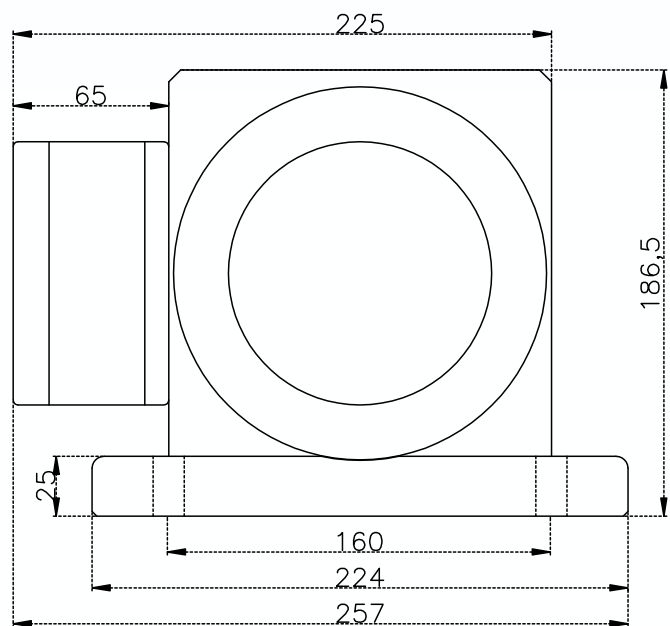
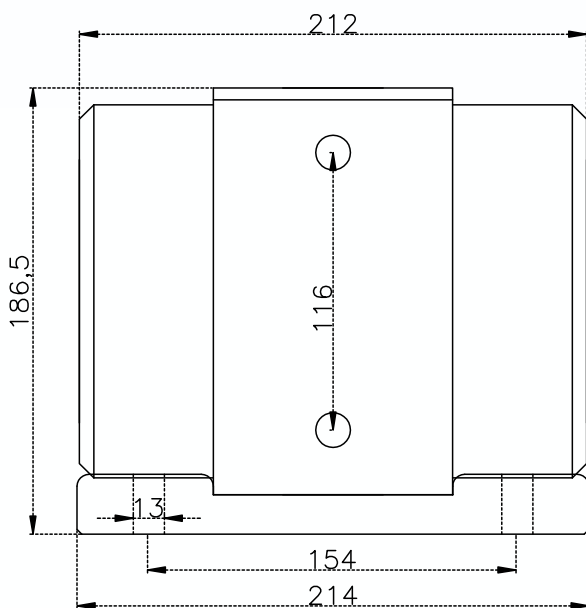
Performance Curve



※Test condition: In room temperature pure water, fully open inlet and outlet valve.

※Performance curves may vary $\pm 10\%$ based on applications.

Outline Dimension



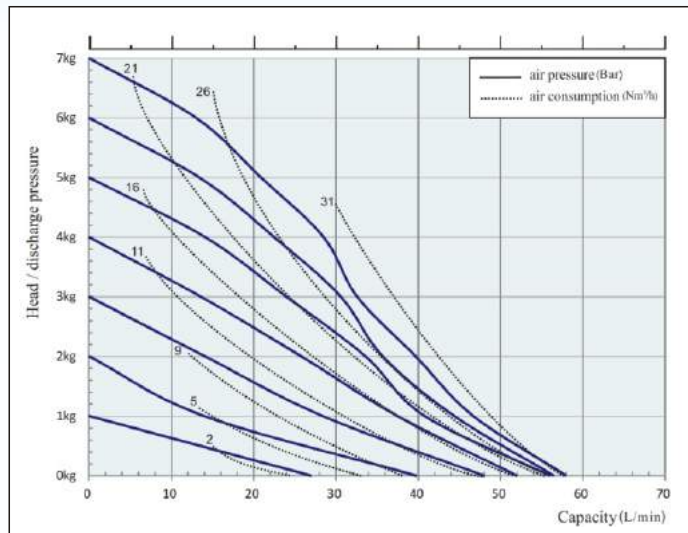
1/2" HE50, HT50, HT-F50



Technical Data

Inlet / Outlet (NPT)	1 / 2"
Air connection (NPT)	1 / 4"
Max. capacity (LPM)	56
Operating pressure (Bar)	1 - 7
Max. temperature PE	70°C
PTFE	130°C
High-temp.PTFE	200°C
Max. particle	0.5mm
Per cycle (L)	0.094
Suction lift, dry	2mwc
Suction lift, wet	5mwc
Weight PE	8.6kgs
PTFE	8.6kgs
High-temp.PTFE	10.8kgs

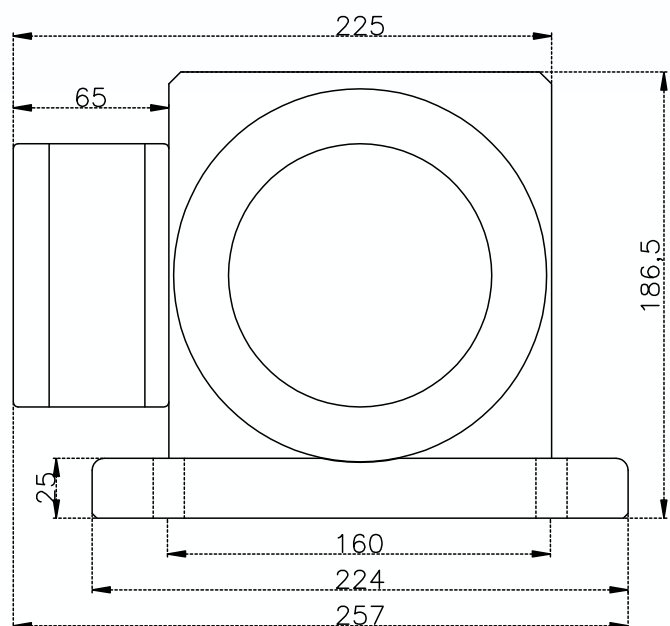
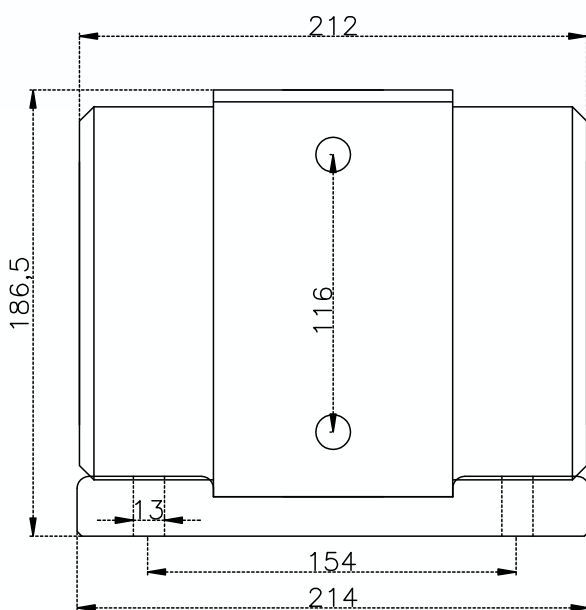
Performance Curve



※Test condition: In room temperature pure water, fully open inlet and outlet valve.

※Performance curves may vary $\pm 10\%$ based on applications.

Outline Dimension



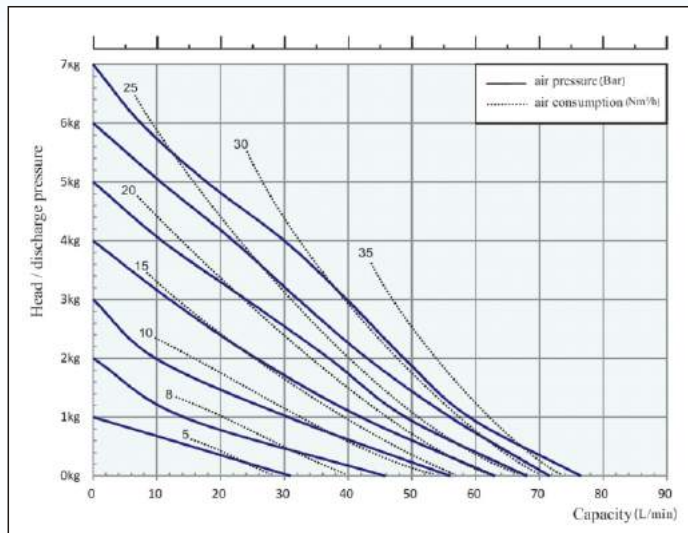
3/4" HE80, HT80, HT-F80



Technical Data

Inlet / Outlet (NPT)	3 / 4"
Air connection (NPT)	1 / 4"
Max. capacity (LPM)	78
Operating pressure (Bar)	1 - 7
Max. temperature PE	70°C
PTFE	130°C
High-temp.PTFE	200°C
Max. particle	0.5mm
Per cycle (L)	0.022
Suction lift, dry	2mwc
Suction lift, wet	5mwc
Weight PE	12.5kgs
PTFE	12.5kgs
High-temp.PTFE	15.4kgs

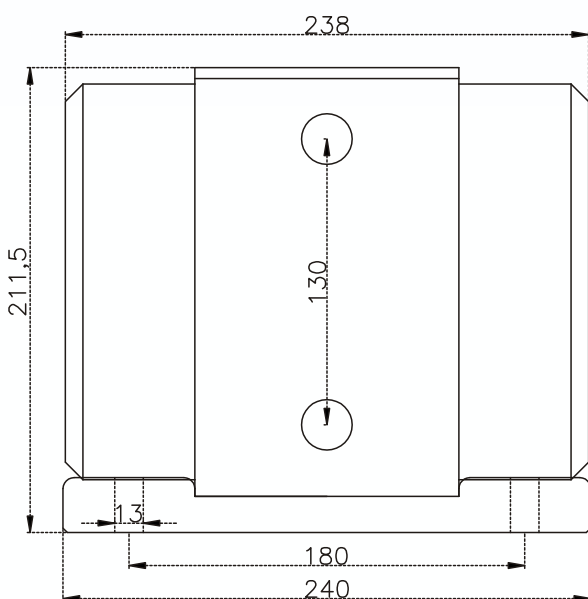
Performance Curve



※Test condition: In room temperature pure water, fully open inlet and outlet valve.

※Performance curves may vary ±10% based on applications.

Outline Dimension



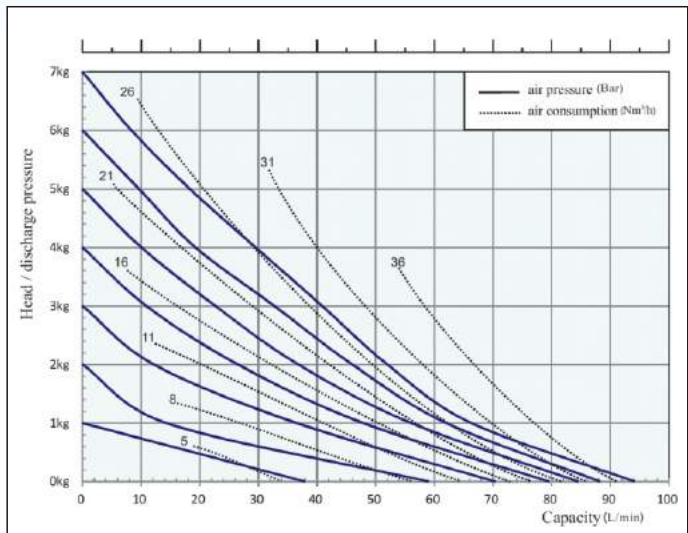
1" HE100, HT100, HT-F100



Technical Data

Inlet / Outlet (NPT)	1"
Air connection (NPT)	1 / 4"
Max. capacity (LPM)	94
Operating pressure (Bar)	1 - 7
Max. temperature PE	70°C
PTFE	130°C
High-temp.PTFE	200°C
Max. particle	0.5mm
Per cycle (L)	0.026
Suction lift, dry	2mwc
Suction lift, wet	5mwc
Weight PE	12.5kgs
PTFE	12.5kgs
High-temp.PTFE	15.4kgs

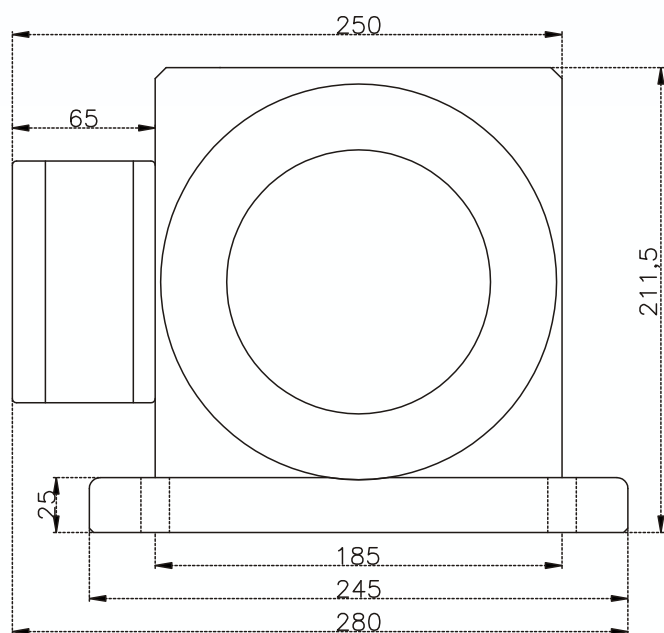
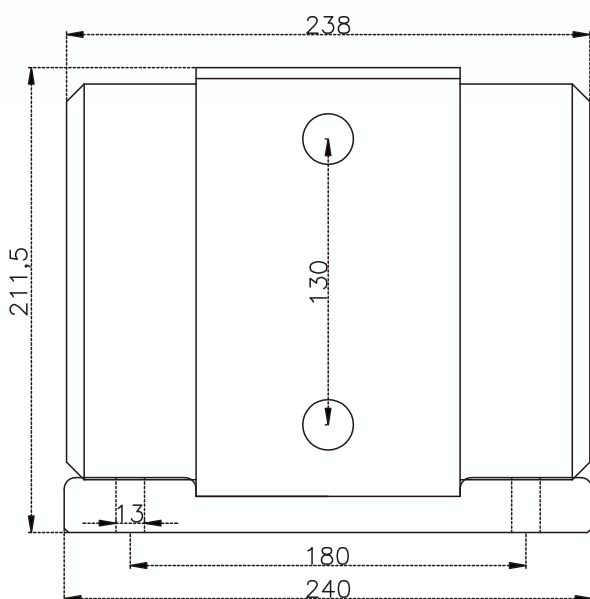
Performance Curve



※Test condition: In room temperature pure water, fully open inlet and outlet valve.

※Performance curves may vary ±10% based on applications.

Outline Dimension



Optional Accessories



Pulsation Dampener

No metal, directly install on the pump, auto-adjustable for efficient decrease pulsation to smooth flow speed. Each size have suitable damper.



Stroke Counter

Directly install in air valve; a sensor can detect differential pressure in air valve and monitor if any change in operating. If reached respective value, stroke counter will output signal for next processing or shut down pump through solenoid valve.

Class 100 Clean Room



CE Certificate



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