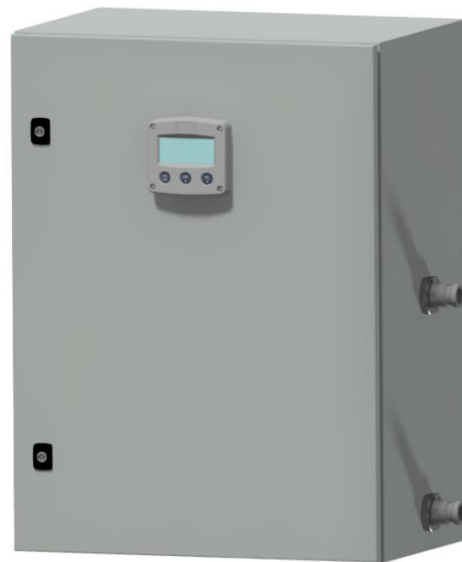


Tapflo Pneumatic (PWDU) & Electronic (EWDU) Wall Mount Decanting Units



PWDU w/ External Control



EWDU w/ External Control

Overview

Tapflo UK are proud to announce the release of their NEW Pneumatic & Electronic Wall Mount Decanting Units. These modular systems provide Plug-and-Play Batching Solutions, all in 1 box. Simply locate the unit at it's desired area of operation, connect up the pneumatic / electrical supply & fluid connections and batch away!

Each system can be internally fitted with either our T50 (½") or T100 (1") Air Operated Diaphragm Pump in HDPE / PTFE or full PTFE materials. Internal hosing / pipework & fittings can also be individually catered to match almost any process fluid being dispensed to ensure near universal chemical resistance. Both systems are also fitted with internally fitted Protective Shrouds to stop any incidental fluid leaks spraying the enclosure door & damaging internal components.

Fluid Inlet & Outlet Connections can be positioned to suit different installation and useage requirements, e.g. Suction on the underside of the Enclosure to facilitate pumping from small containers such as 25 Litre Jerry Cans or located on either side of the enclose when pumping from Bulk Storage Containers such as IBCs. Connection types can also be catered to suit individual requirements. CAM Locks are typically employed to facilitate easy and quick connection / disconnection from the system. Twin Inlets or Outlets can also be employed when pumping from or to different sources. Automated Valves are also available on request to provide a more automated / unmanned batching solution.

Both systems can also be specified with optional Pulsation Dampeners to reduce pulsating flow and provide more accurate and laminar flow delivery.

Each variant also features either a Pneumatic or Electronic Safety Cut Off Switch to remove power from the system when the enclosure door is opened to increase safety for both the Operator and the Environment.

Typical Applications

- Semi-Automated Batching & Filling Applications from Bulk Storage / Mixing Containers to smaller Vessels or direct to process
- Galvanisation Treatment Plants & Surface Treatment
- Precious Metal Plating
- Paints & Varnishes
- Vape Production & Mixing Applications (Vegetable Glycerine & Propylene Glycol)
- Batching & Dispensing of Water Treatment Chemicals such as Sodium Hypochlorite, Sulphuric Acid, Ferric Chloride, Phosphoric Acid & Nitric Acid
- Food & Beverage – Batching of CIP Chemicals such as Sodium Hydroxide for cleaning of pipes and other food process equipment
- Dosing of Additives & Chemicals in Detergent Processing & Manufacturing
- Almost any Dosing / Batching application where physical decanting of the process fluid is a risk to the operator & environment!

Optional Accessories & Features

- Bespoke & Standardised Day Tanks
- Mixers – Electronic & Pneumatic
- Bespoke Suction & Discharge Hose Assemblies
- Bespoke Bunded Storage Solutions
- Contactless IBC / Plastic Container Level Control, Monitoring & Dry-Run Protection
- Remote Start / Stop Controllers
- PLC / I-O Interfaces
- Data Logging Modules
- Diaphragm Rupture Detection & Protection
- Noise Reduction / Insulation
- Automated Valves
- ATEX Rated Systems
- Food Grade / Hygienic Systems
- Not covered it, just ask, we are the home of bespoke and customised solutions!



Dual Bunded Day Tank in PE



*ATEX Rated PWDU w/
External Control*

PWDU System Overview



PWDU w/ External Control



PWDU w/ Internal Control

The PWDU Pneumatic variant features our renowned TPUK-BP Pneumatic Batch Controller, which can be either internally or externally mounted to the enclosure. The Controller records the number of strokes generated by the pump as a series of low pressure pulses from the air exhaust of the pump. The pump is stopped once a number of pre-set strokes have been achieved, thus controlling the volume of product dispensed by the pump.

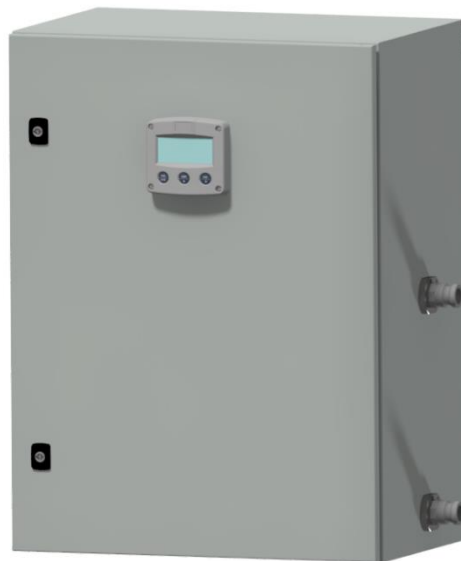


The Mechanical Display of the controller features the Pre-Set number of strokes to achieve as well as a running "live" Actual number of strokes being pumped during operation. A Start / Stop Push / Pull Valve is also included to initiate the Batch as well as Stop mid-batch or manually run the system (for priming or manual transfer). The Display, Controls and inner working parts of the controller are contained within an IP65 Rated Enclosure and Inspection Window to enable use in wash down & chemical environments. Plastic Push-Fit Fittings are employed in lieu of metal ones to improve both aesthetics and prevent against corrosion. The Inspection Window is also fitted with 2 x Locking Screws to provide protection from tampering.

PWDU Common Standard Features & Options

- Fitted with either a T50 (½") or T100 (1") Air Operated Diaphragm Pump in HDPE or PTFE Construction
- Fully pneumatic control with single Ø8mm (T50) or Ø10mm (T100) air connection
- ½" (T50) or 1" (T100) camlock fluid connections for suction & discharge pipework
- Integrated filter regulator with on/off pneumatic valve for pump actuation and pressure control
- Needle valve integrated onto pump air supply for adjustment of flow rate
- Safety cut off switch to remove power from the system when the door is opened
- Protective shroud to stop fluid leaks spraying the door & internal components
- Compact Mild Steel Enclosure w/ Hinged Door & Mounting Kit - 500 x 400 x 300 mm (for T50 pump size) & 800 x 600 x 400 mm (for T100 pump size) – Stainless Steel AISI 304 Enclosures are available on request
- Stainless Steel AISI 316 Internal Pipework & Fittings as standard – PP / PVC / PVDF options are available on request
- Suction & Discharge Hose Assemblies are made to suit individual site requirements
- Bespoke or Standard Suction Lances in PP / PVDF / AISI 316 are available on request
- Optional Active Pulsation Dampeners are available on request
- Internal & External Batch Controller variants available for fixed batch sizes and adjustable batch sizes respectively
- Internal Batch Controller variant has Start & Stop Buttons on the exterior of the panel to actuate the system.
- External Batch Controller variant has the Controller mounted to the front of the enclosure to allow for the batch size to be adjusted.

EWDU System Overview



EWDU w/ External Control

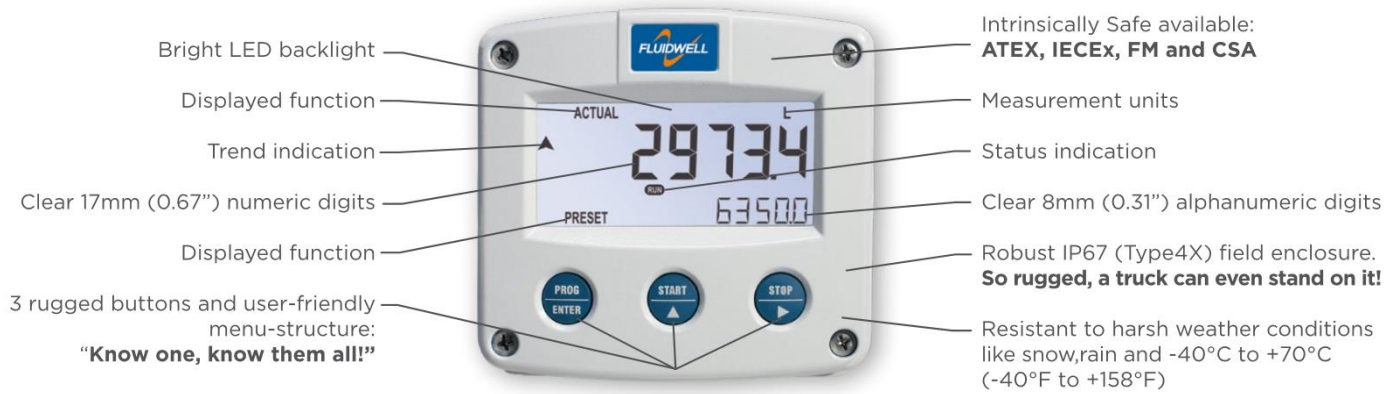
The EWDU Electronic variant features an F030 Electronic Batch Controller w/ One Stage Control, which can be either internally or externally mounted to the enclosure. The operator can easily enter a batch quantity or execute repeating batches. During the batch, the preset value is displayed as well as the batched (or remaining) quantity and the units of measurement. The automatic self-learning overrun correction will ensure an accurate batch every time. On-screen engineering units are easily configured from a comprehensive selection. Once the preset batch quantity has been reached the controller will automatically cut the air supply to the pump and stop the batching process.



The Controller takes feedback from an internally mounted Oval Gear Flow Meter with an accuracy of +/-0.5% that is available either in AISI 316 or PPS with suitably rated Elastomers to the fluid in question. Each pulse from the flow meter represents a certain amount of fluid displaced through the meter, known as the K-Factor. The Controller counts & converts these pulses for volumetric or mass flow measurement.

The display has large 17mm (0.67") and 8mm (0.31") digits which are used to display the batched quantity and the preset value simultaneously. On-screen engineering units are easily configured from a comprehensive menu. A seven digit resettable "day total" is available as well as an eleven digit non-resettable accumulated total. All are backed-up in EEPROM memory every minute. A smart display update function achieves a readable display even at -40°C / -40°F.

All configuration settings are accessed via a simple operator menu which can be password protected. Each setting is clearly indicated with an alphanumerical description, which avoids confusing abbreviations. All settings are safely stored in EEPROM memory in the event of sudden power failure. Backup of running totals is made every minute. Data retention is at least 10 years.



All info at a glance



Easy to install



Easy to program



Know one know them all!



Reliable



User-friendly

EWDU Common Standard Features & Options

- Fitted with either a T50 (½") or T100 (1") Air Operated Diaphragm Pump in HDPE or PTFE Construction
- Pneumatic control with single Ø8mm (T50) or Ø10mm (T100) air connection
- Electronic oval gear flow meter w/ +/- 0.5% accuracy
- Electronic batch controller with the possibility for remote start of the batch controller for wider site control – optional M12 connector on the side of the panel
- 230V power supply required – system supplied as standard with 5m of cable with blue 3 pin mennekes plug
- ½" (T50) or 1" (T100) camlock fluid connections for suction & discharge pipework
- Integrated filter regulator with electronic on/off pneumatic valve for pump actuation and pressure control
- Needle valve integrated onto pump air supply for adjustment of flow rate
- Safety cut off switch to remove power from the system when the door is opened
- Protective shroud to stop fluid leaks spraying the door & internal components
- Segmented electrical & Pneumatic zones within the panel
- Compact Mild Steel Enclosure w/ Hinged Door & Mounting Kit - 500 x 400 x 300 mm (for T50 pump size) & 800 x 600 x 400 mm (for T100 pump size) – Stainless Steel AISI 304 Enclosures are available on request
- Stainless Steel AISI 316 Internal Pipework & Fittings as standard – PP / PVC / PVDF options are available on request
- Leak detection sensor can be added as an optional extra
- Suction & Discharge Hose Assemblies are made to suit individual site requirements
- Bespoke or Standard Suction Lances in PP / PVDF / AISI 316 are available on request
- Optional Active Pulsation Dampeners are available on request

T50 & T100 Specifications



Polyethylene (PE HD) has a superior wear resistance which is 6 – 7 times better than for polypropylene (PP). This fact makes the pump suitable for handling abrasive slurries etc. PE is resistant to most kind of aggressive chemicals such as concentrated acids and alkalis. Maximum liquid temperature is 70°C.

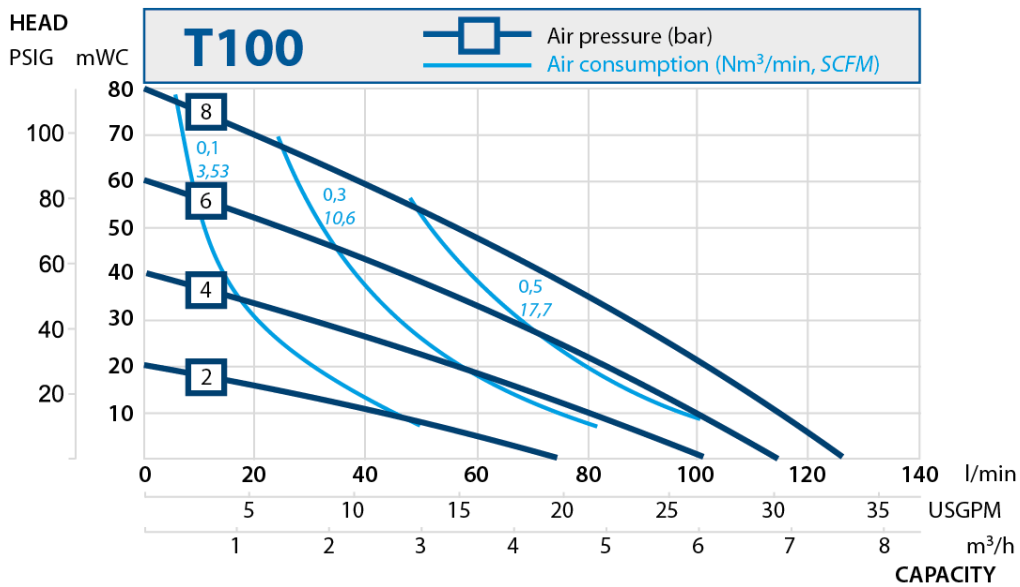
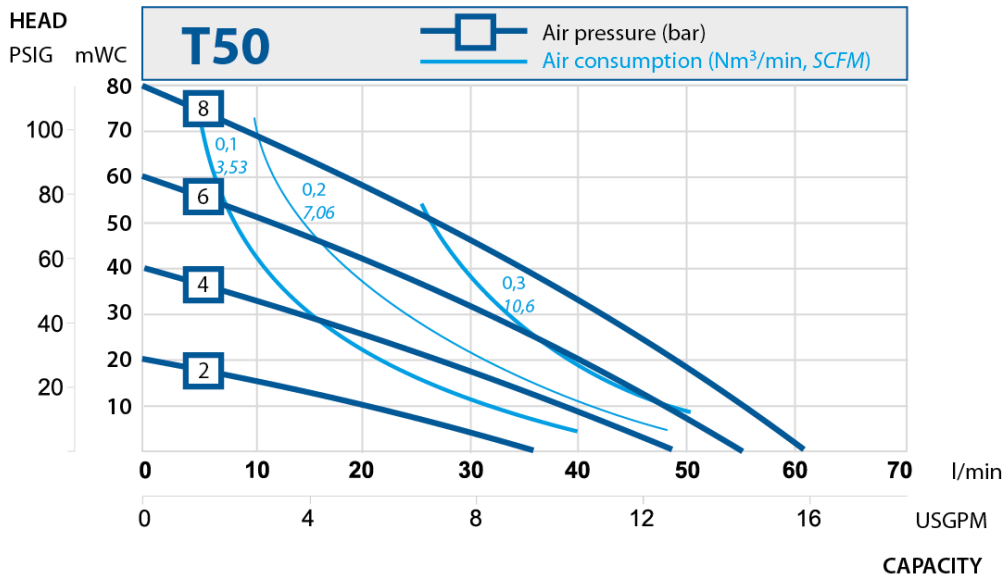
Tapflo uses different grades of PE depending on the part. For valve seats and ball stoppers, which are most vulnerable to wear - UHMW PE1000 is used for best mechanical strength and abrasion resistance.

Identification		
Model No	T50 PTT	T100 PTT
Description	½" Air Operated Diaphragm Pump in PE (HD)	1" Air Operated Diaphragm Pump in PE (HD)

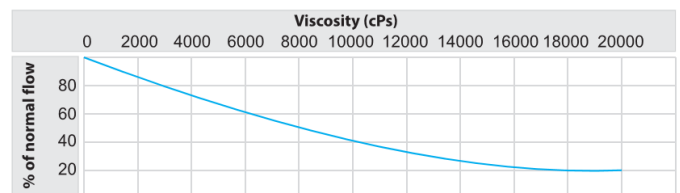
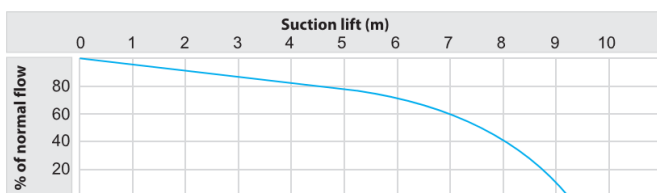
Materials and specifications		
Part description and part No	Material description	Material description
Housings (wetted, pos 11)	PE HD (polyethylene)	PE HD (polyethylene)
In/outlets (wetted, pos 13)	PE HD (polyethylene)	PE HD (polyethylene)
Diaphragms (wetted, pos 15)	PTFE TFM 1705	PTFE TFM 1705
In/outlet o-rings	FEP / FKM	FEP / FKM
Valve balls (wetted, pos 23)	Virgin PTFE	Virgin PTFE
Valve seats (wetted, pos 20, 21)	PE HD (polyethylene)	PE HD (polyethylene)
Centre block (not wetted)	PP (polypropylene)	PP (polypropylene)
Air valve (not wetted)	Brass/NBR	Brass/NBR

General Data		
Inlet Connection	½" BSP F	1" BSP F
Outlet Connection	½" BSP F	1" BSP F
Air Connection	¼" BSP F	¼" BSP F
Max Capacity	60 l/min	125 l/min
Displacement	116 ml/stroke	305 ml/stroke
Max Discharge Pressure	8 Bar	8 Bar
Max Air Pressure	8 Bar	8 Bar
Suction Lift (Dry / Wet)	2.4 / 9 m	3.5 / 9 m
Solids Passage	4 mm ø	6 mm ø
Temperature Range	-20°C...+70°C	-20°C...+70°C
Weight	5.5 Kg	10 Kg
ATEX Details	On Request	On Request
Noise Data	<80 dB(A)	<80 dB(A)

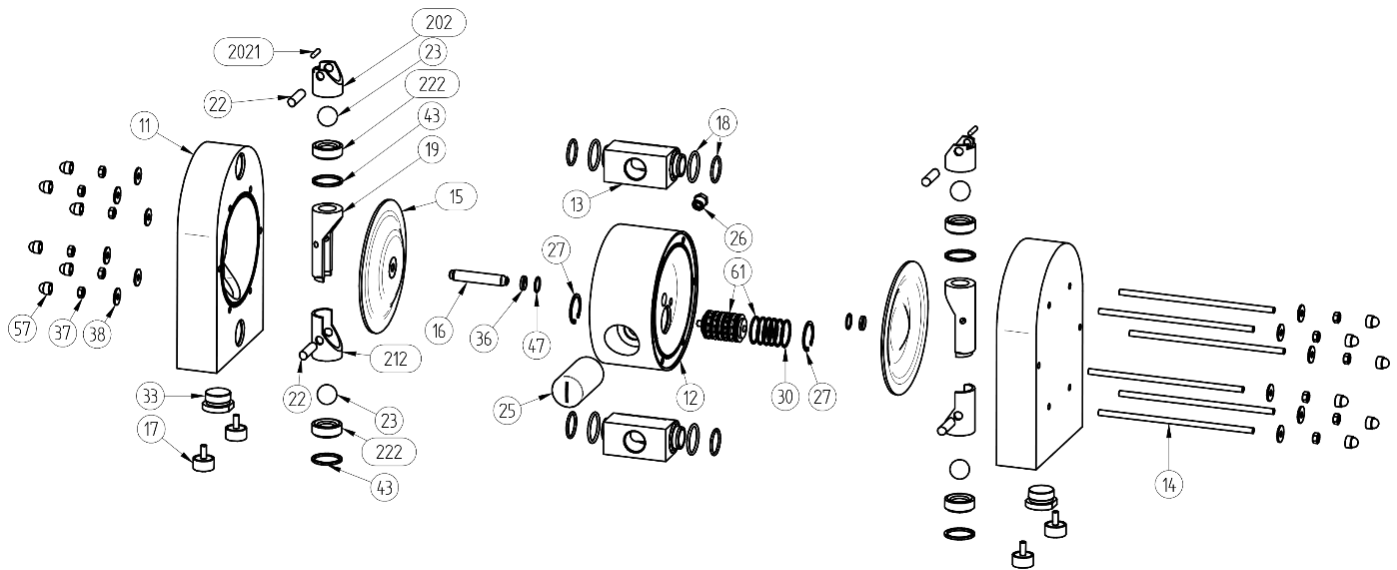
Performance Curves



Capacity Changes due to Suction Lift & Viscosity



Exploded View & Parts List



Pos.	Qty	Description	Material	KIT LIQ	KIT AIR	KIT VAL
11	2	Housing	PE, PTFE			
12	1	Centre block	PP			
13	2	In/Outlet	PE, PTFE			
14	6	Pin screw	A4-80			
15	2	Diaphragm	EPDM, PTFE, NBR, FKM*	x		
16	1	Diaphragm shaft	AISI 304L		x	
17	4	Rubber foot	NBR			
18	4	O-ring set (in/outlet)	PTFE/EPDM, EPDM, FKM, NBR, FEP/FKM***	x	x	
19	2	Spacer sleeve	PE, PTFE			x
202	2	Upper sleeve	PE, PTFE, AISI 316L			x
2021	2	Blocking pin	PTFE, PE**			x
212	2	Lower sleeve	PE, PTFE, AISI 316L			x
22	4	Valve ball stop	PE1000, PTFE, PU, AISI 316L			x
222	4	Valve seat	PE1000, PTFE, PU, AISI 316L			x
23	4	Valve ball	EPDM, PTFE, NBR, FKM, AISI 316L, PU or ceramic	x		
25	1	Muffler	Acetal/felt		x	
26	1	Air intake adapter	Brass			
27	2	Circlip	Cr3 coated steel			
30	6	O-ring	NBR (standard), EPDM, FKM			
33	2	Plug	PE, PTFE			
36	2	Centerblock seal	PE		x	
37	12	Nut	A4-70			
38	12	Washer	A4-70			
43	4	O-ring (valve seat)	EPDM, PTFE, NBR, FKM	x		
47	2*/4**	O-ring (back up for 36)	NBR (standard), EPDM, FKM		x	
57	12	Nut cover	PP			
61	1	Air valve complete	Body: brass (standard), AISI 316L or PET, O-rings: NBR (standard), EPDM or FKM		x	

* = T50 only

** = T100 only

*** = FEP/FKM standard on pumps with PTFE diaphragms from serial No 1106 FEP/FKM O-rings do not fit on older in/outlets. Older pumps have PTFE/ EPDM in std.

Design Features & Benefits

Few components and a simple design are common for all Tapflo pumps. The pumps are compact, easy and quick to maintain, keeping your service costs and process down time to a minimum.

Flexible installations

The connections may be rotated 180°. Simply turn the connections to fit your piping system. BSP and NPT threaded connections as standard, AISI 316L optional material or other connection types are available as an option. AISI 316 or other connections types are also available.

Solid and strong

The pump body is machined from solid PE or PTFE. The robust design will stand against mechanical forces as well as aggressive chemicals.



Low air consumption

The air distribution system is designed to ensure the shortest possible airflow path and eliminate dead volumes. This results in high efficiency and low air consumption.

Chemical design

The compound diaphragm has a completely smooth liquid side surface and with no metal in contact with the pumped liquid. Ideal for a safe chemical handling.