

# PUMPS WITH BUILT-ON DAMPENERS

2021 | 1



## » All about your flow™

*We began our journey in 1980 in Kungälv, a small town on the Swedish west coast, as a family company with an ambition to one day become a global player on the pump market.*

Since the foundation, we have taken pride in delivering a wealth of knowledge and passion for pumps to the industry, whilst supplying a wide range of premium products for various industrial applications.

Over the years, the company has developed into a global Tapflo Group with branches and distributors present in nearly every region of the world.

One thing did not change - we are still a family company.

Our solutions are designed and manufactured in Europe and distributed globally to offer the best service and flow solutions to our customers for a variety of applications.

Our values, Commitment, Quality and Simplicity are reflected both in our product and business approach.



**For fast and flexible service and high-quality products readily available worldwide, choose Tapflo.**

## Quality commitment

At Tapflo we are simply committed to quality. As a result, our production standards, as well as products quality, comply with various globally recognised certification and quality control standards. The Tapflo manufacturing process is certified according to ISO 9001:2015, confirming that our processes are appropriate, effective, customer-focused and continuously improved.



## Tapflo values

Our culture is concluded in Our values

### Commitment

We are different from our competitors because of our willingness to exceed the customers' expectations, move fast and be flexible. Our culture is based on the spirit of togetherness, enthusiasm and integrity. We come from all over the world but we share the same values and we respect each other. We are committed.

### Quality

We understand that the quality in our work is never better than the weakest link, that's why we focus on every small detail. We share a common passion for continuously finding more efficient and effective ways to provide value to our customers. As a manufacturer we have control of the complete process both in terms of our products and the way we operate internally. That is why we manufacture the highest quality pumps in our segment.

### Simplicity

We have a saying, "Simple is art" which means we try to find smooth and uncomplicated solutions in everything. By keeping it simple we can focus on the essential, like designing uncomplicated pumps with few components. For us it is a key to success; strive to simplify what is complex.

# Tapflo pumps with integrated pulsation dampener

If you are looking for an effective way to eliminate pressure variations on the pump discharge and you have limited space in your installation or wants a simpler installation, the built-on dampener is an ideal solution for Tapflo diaphragm pumps.

The TK/TEK series provides all the advantages of using a standard Tapflo diaphragm pump with a DT dampener, but in a compact way.

The dampener housing is also the pump manifold so you do not have to worry about connecting the dampener to the pump. This solution does not affect the pump flow and improves the dampening effect as it is assembled inline. DTK is designed to convert AODD & EODD into pulsation- free pumps when installed and connected to compressed air, interchanging the regular outlet manifold.

## TK series - for AODD pumps (plastic and aluminium)

- » Available for Tapflo plastic AODD pumps in sizes: TRK20, TK50, TK100, TK200 and their ATEX compliant versions.
- » Available for Tapflo aluminium AODD pumps in sizes: TXK25 A/X, TXK70 A/X, TXK120 A/X, TXK220 A/X, TXK420 A/X.
- » Since the dampener block is made of solid aluminium the TK series for aluminium AODD pumps are rated ATEX as standard.

## TEK series - for EODD pumps (plastic and aluminium)

- » Available for Tapflo plastic EODD pumps in sizes: TEK50, TEK100, TEK200.
- » Available for Tapflo aluminium EODD pumps in sizes: TEK70 A, TEK120 A, TEK220 A and their ATEX compliant versions.

## SET series - extension of TK pumps

- » Available for Tapflo pumps in sizes: T400 T, T400 P, T800 P and stainless steel.
- » Stainless steel frame available for larger pump models.
- » Available in both vertical and horizontal arrangements.



EN 10204



Certificates may vary depending on material execution of particular product.

## Features

- ✓ Protection against pulsation for all kinds of instruments in your piping system.
- ✓ Minimized vibrations and water hammer effects.
- ✓ For each pump size - same size of diaphragm is used in pulsation dampener.
- ✓ No piping or additional connections are required – the pump and dampener come pre-connected, just plug in the air and start the unit.
- ✓ Compact and ready to use integrated set of a Tapflo AOOD pump and DT pulsation dampener.
- ✓ Built-on dampener can be implemented on existing pumps, just by replacing pump outlet with DTK pulsation dampener.

Example:

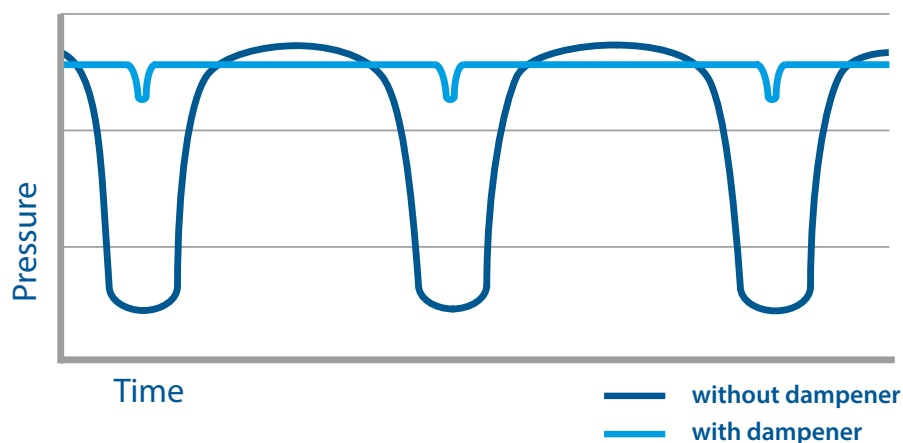
ATEX compliant PTFE pump + ATEX rated DTK pulsation dampener = ATEX compliant PTFE TK pump:



**TX100 TTT + DTKX 100 TT = TXK100 TTT**

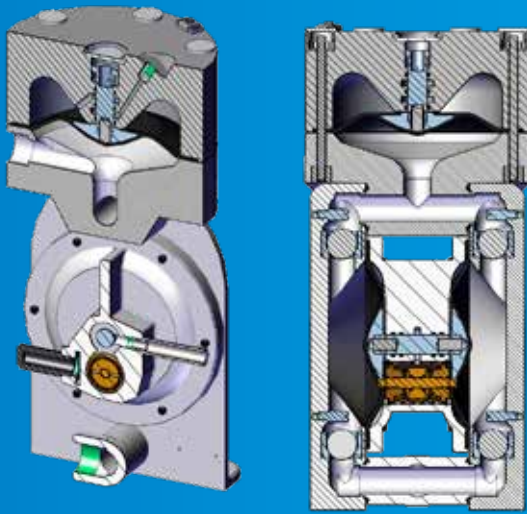
## The dampening effect

The pressure variation in a discharge line with and without a pulsation dampener.





## Air supply to the dampener



For best dampening effect it is important that the pulsation dampener is supplied with the same air pressure as the pump.

Lack of air supply or supplying dampener with lower pressure makes dampener diaphragm unbalanced thus shortening its lifetime.

## Did you know?



Tapflo DTK pulsation dampeners, unlike other available on the market, are designed in a way that provides fully in-line operation.

This, together with diaphragm of the same size as in the pump, results in a smoother flow and better cleanability of the whole unit. DT pulsation dampener is fully in-line, to obtain the best possible dampening effect.



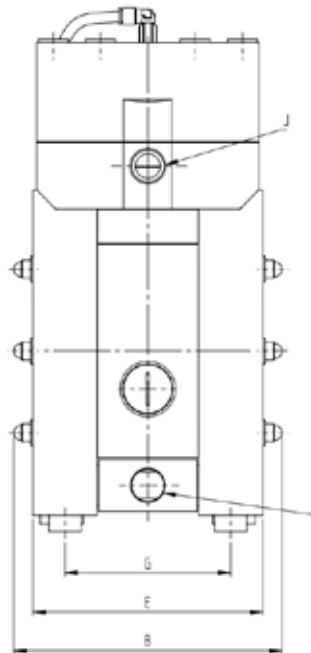
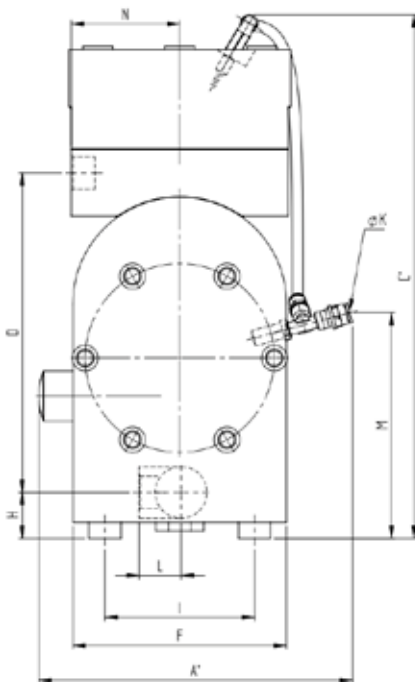
# TK series – plastic air operated pumps

» Available for Tapflo plastic AODD pumps in sizes:

- TRK20
- TK50
- TK100
- TK200
- and their ATEX compliant versions.



**PE & PTFE TK pumps general dimensions:**



Dim	TRK20	TK50	TK100	TK200
A*	182	234	293	417
B	134	190	252	344
B**	154	202	256	352
C*	279	377	491	678
D	158	223	300	413
E	114	162	216	311
F	105	150	200	270
G	84	130	156	255
H	23	35	43	68
I	75	116	140	210
J	3/8"	1/2"	1"	1 1/2"
K	8	10	12	12
L	17	25	38	54
M	89	167	212	241
N	54	78	102	135

\* Max. dimensions may vary depending on push-in fitting type.

\*\* Dimensions for PTFE pumps

## Pump code

I.	II.	III.	IV.	V.	VI.
T	K	20	P	T	T

**I. T** = Tapflo diaphragm pump

**II. Basic options:**

B = Backup diaphragm system

D = Drum pump

F = Filter press pump

K = Pump with built-on dampener (TR20-T200)

R = Rod valve pump

V = AISI 316L valve seat / spacer

X = ATEX approved, group II, cat 2 (zone 1)

Y = High suction lift version

**III. Pump size:**

**IV. Material of wetted thermoplastic parts:**

P = PE (polyethylene)

T = PTFE

**V. Material of diaphragms:**

B = PTFE TFM 1705B (solvents)

E = EPDM

N = NBR (nitrile rubber)

T = PTFE

V = FKM

W = White (food grade) EPDM

Z = PTFE with white back (food grade)

**VI. Material of valve balls:**

E = EPDM

N = NBR (nitrile rubber)

T = PTFE

S = AISI 316 stainless steel

U = PU (polyurethane)

K = Ceramic

V = FKM

B = PTFE TFM 1635

Material of rod valves (TR9 and TR20 only)

T = PTFE

# TK series - aluminium air operated pumps

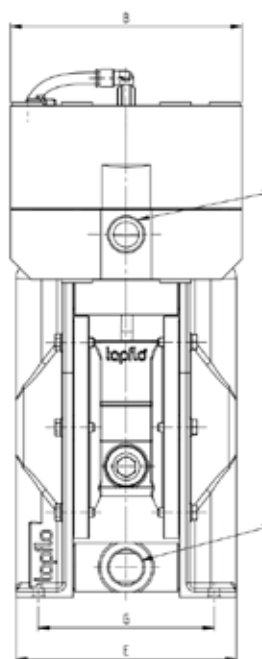
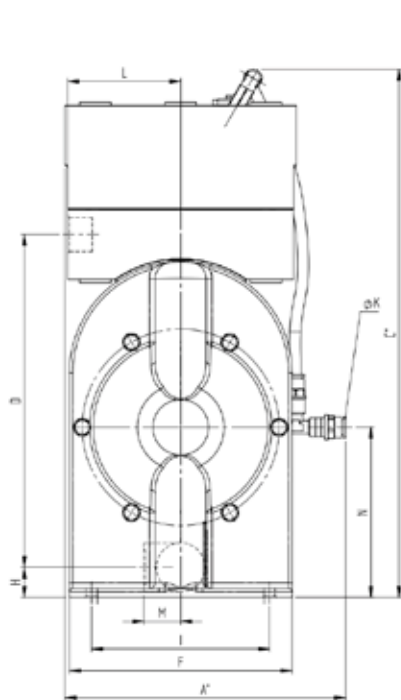
» Available for Tapflo metal AODD pumps in sizes:

- TXK25 A/X
- TXK70 A/X
- TXK120 A/X
- TXK220 A/X
- TXK420 A/X.

» Since the dampener block is made of solid aluminium the TK series for aluminium AODD pumps are rated ATEX as standard.



## Aluminium TXK pumps general dimensions:



Dim	TXK25 A	TXK70 A	TXK120 A	TXK220 A	TXK420 A
A*	180	230	252	365	420
B	110	158	208	277	360
C*	270	360	475	645	790
D	158	222	300	414	519
E	119	168	198	270	352
F	105	150	200	277	356
G	93	130	157	215	282
H	16	22	27	34	48
I	84	116	160	220	280
J	½"	¾"	1"	1 ½"	2"
K	8	10	12	14	14
L	54	78	102	135	176
M	19	29	33	45	57
N	82	117	153	207	274

\* Max. dimensions may vary depending on push-in fitting type.

## Pump code

I.	II.	III.	IV.	V.	VI.
T	XK	70	A	T	T

I. T = Tapflo diaphragm pump

II. Basic options:

B = Backup diaphragm system

D = Drum pump

F = Filter press pump

K = Pump with built-on dampener

L = Valve lift system (drain system)

P = Powder pump

X = ATEX approved, group II, cat 2 (zone1)

III. Pump size:

IV. Material of wetted metal parts:

A = Aluminium

X = PTFE coated aluminium

V. Material of diaphragms:

B = PTFE TFM 1705B (solvents)

E = EPDM

N = NBR (nitrile rubber)

T = PTFE

V = FKM

W = White (food grade) EPDM

Z = PTFE with white back (food grade)

VI. Material of valve balls:

B = PTFE TFM 1635

E = EPDM

N = NBR (nitrile rubber)

T = PTFE

S = AISI 316 stainless steel

P = PU (polyurethane)

K = Ceramic

V = FKM

# TEK series - plastic & aluminium electrically operated pumps

- » Available for Tapflo plastic EODD pumps in sizes:
  - TEK50
  - TEK100
  - TEK200
  - and their ATEX compliant versions.

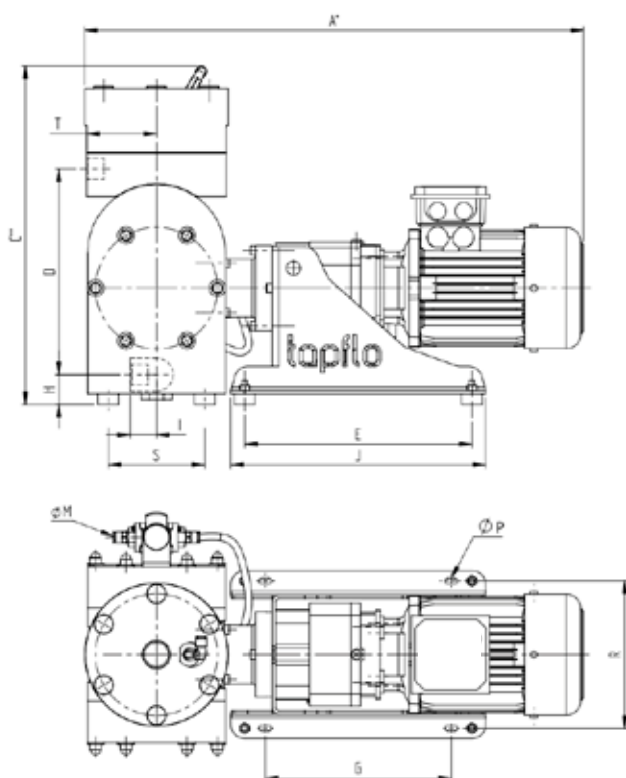
- » Available for Tapflo aluminium EODD pumps in sizes:
  - TEK70 A
  - TEK120 A
  - TEK220 A
  - and their ATEX compliant versions.



Electrically operated Tapflo diaphragm pumps provide flow with reduced pulsation when compared to typical air operated diaphragm pumps. In order to eliminate pulsation completely for applications where it is a must, TE pumps can also be fitted with pneumatic pulsation dampener.

Please check IOM manual carefully for air connection instructions.

## Plastic TEK pumps general dimensions:



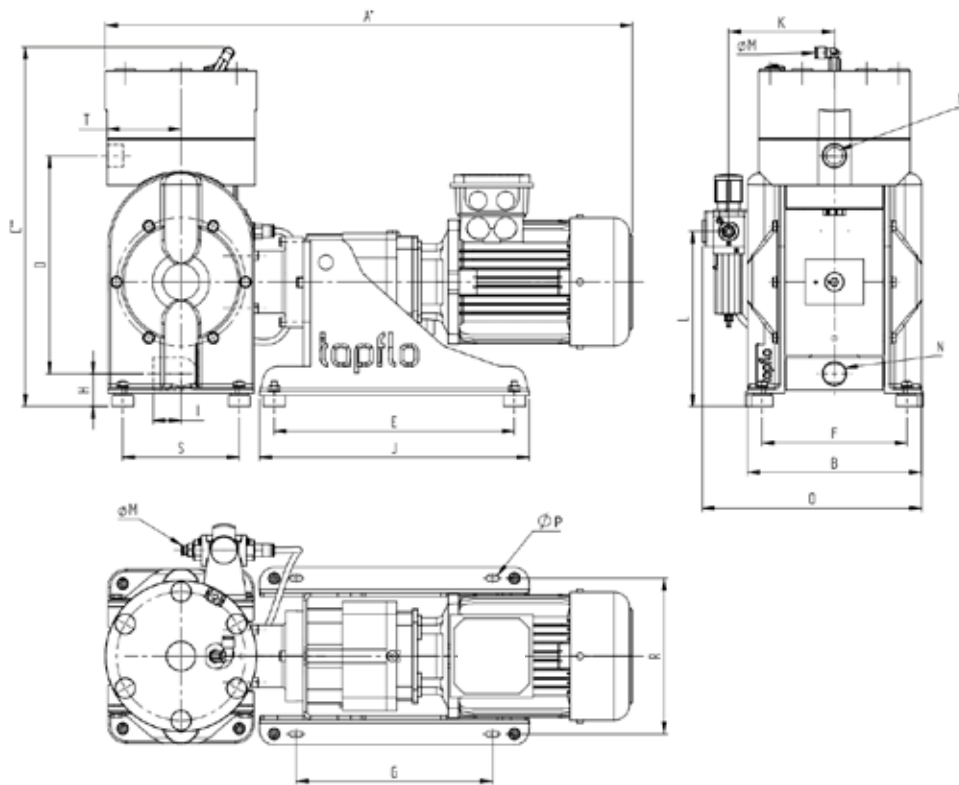
Dim	TEK50 P	TEK100 P	TEK200 P
A*	654	724	868
B	193	256	372
C**	384	492	678
D	223	300	413
E	290	330	360
F	161	196	312
G	230	270	300
H	38	45	69
I	25	38	54
J	330	370	400
K	154	171	228
L	160	163	279
M	8	8	8
N	1/2"	1"	1 1/2"
O	287	335	450
P	8,5 x 18,5	8,5 x 18,5	8,5 x 18,5
R	214	214	311
S	116	140	210
T	78	102	135

\* Max. length may vary depending on motor type.

\*\* Max. height may vary depending on push-in fitting type.



## Aluminium TEK pumps general dimensions:



Dim	TXEK70 A	TXEK120 A	TXEK220 A
A*	654	724	868
B	198	240	327
C**	384	494	679
D	222	300	414
E	290	330	360
F	160	200	271
G	230	270	300
H	38	45	68
I	29	38	45
J	330	370	400
K	132	145	194
L	180	241	346
M	8	8	8
N	¾"	1"	1 ½"
O	290	303	406
P	8,5 x 18,5	8,5 x 18,5	8,5 x 18,5
R	214	214	311
S	116	160	220
T	78	102	135

\* Max. length may vary depending on motor type.

\*\* Max. height may vary depending on push-in fitting type.

## Pump code

I.	II.	III.	IV.	V.	VI.	VII.	VIII.
TE	B	100	P	T	T	054	D

**I. TE** = Tapflo electric double diaphragm pump

**II. Basic options:**

B = Backup diaphragm pump

J = Heating jacket (sanitary series only)

K = Built-on dampener (plastic and aluminium pumps only)

L = Valve lifting system (metal series only)

X = ATEX approved, group II, cat 2 (zone 1)

Y = High lift valve seats (plastic series only)

**III. Pump size**

50; 100; 200 = Plastic series

70; 120; 220 = Metal series

**IV. Material of wetted metal parts:**

P = PE

T = PTFE

A = Aluminium

X = PTFE coated aluminium

**V. Material of diaphragms:**

E = EPDM

N = NBR (nitrile rubber)

T = PTFE

B = PTFE TFM 1705b

V = FKM

W = White EPDM

Z = PTFE with white EPDM back

**VI. Material of valve balls:**

E = EPDM

N = NBR (nitrile rubber)

T = PTFE

S = AISI 316 stainless steel

U = PU (polyurethane)

K = Ceramic

V = FKM

B = PTFE TFM 1635

P = PE1000

C = SiC

**VII. Motor power:**

T50:

074 = 0,75 kW

054 = 0,55 kW

024 = 0,25 kW

T100:

154 = 1,5 kW

114 = 1,1 kW

054 = 0,55 kW

T200:

304 = 3 kW

224 = 2,2 kW

114 = 1,1 kW

**VII. Motor options:**

M = Hygienic motor shroud

C = External motor cooling

D = Built-on frequency inverter

X2DE = II 2G Ex db eb IIC T4 Gb

P = Single phase motor

# SET series - extension of TK pumps



- » In case you need to equip a larger pump than T200 with a built-on dampener, this SET provides the solution. The stainless steel frame contains lifting lugs and serves as reinforcement plates for both the pump and dampener, making the whole set very stable and robust.



- » Sets of diaphragm pumps with pulsation dampeners are available in both vertical and horizontal arrangement.



- » Also available for T400 T, T400 P, T800 P and Stainless Steel pump series where TK option is not available.

# Product range

## Diaphragm pumps & accessories

**NEW**



**Electrically operated pumps**



**PE & PTFE pumps**



**Metal pumps**



**Pharmaceutical pumps**



**Sanitary pumps**



**TC Intelligent pumps**



**Powder pumps**



**TF Filter press pumps**

**NEW**



**Steinle filter press pumps**



**Aseptic pumps**

## Peristaltic Pumps



**Active pulsation dampeners**



**Systems & accessories**



**Trolleys**



**PT pumps**



**PTL pumps**

## Centrifugal pumps, filter units & accessories

**NEW**



**CTX centrifugal pumps**



**CTI & CTH centrifugal pumps**



**CTS self-priming centrifugal pumps**



**CTV vertical centrifugal pumps**



**CTP plastic centrifugal pumps**



**CTM magnetic drive centrifugal pumps**



**Trolleys**



**FT Filter units**

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## Tapflo products and services are available in 75 countries on 6 continents.

Tapflo is represented worldwide by own Tapflo Group Companies and carefully selected distributors assuring highest Tapflo service quality for our customers' convenience.

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