

Sanitary series pumps

Hygienic design - made from electropolished stainless steel AISI 316L to meet the requirements in hygienic installations.



The Tapflo sanitary series is particularly designed to meet the requirements of the food, beverage, pharmaceutical and cosmetic industries.

Lubrication free air distribution system, maintenance free ball check valve system and total visual inspection of the wetted parts are some of the major features for this pump series.

The materials used on certain models comply with the FDA guidelines.

Models with extra fine surface finish Ra 0.8 and Ra 0.5 are available upon request.

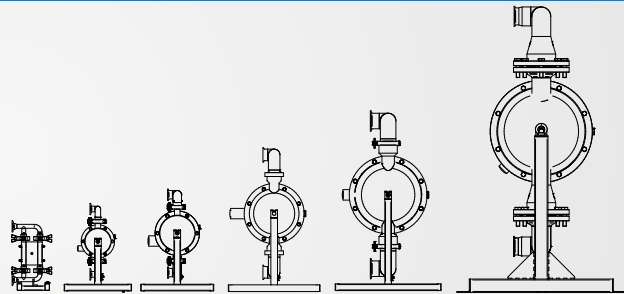


EN 10204



The sanitary pump range

- » T30 - 28 l/min, 1"
- » T80 - 78 l/min, 1"
- » T125 - 155 l/min, 1 1/2"
- » T225 - 330 l/min, 2"
- » T425 - 570 l/min, 2 1/2"
- » T825 - 820 l/min, 3"



Typical applications

Sector	Example of applications
» Dairy products	Milk, cream, yogurt, cream cheese, melted cheese
» Grossery	Ketchup, mayonnaise, tomato products, mustard
» Beverages	Flavours, colouring, fruit juice
» Bakery	Dough, ingredients
» Brewery	Beer, flavours, colouring, wort
» Hygiene	Soap, toothpaste, shampoo
» Cosmetics	Cream, alcohol, perfume

The sanitary design

Made to be clean

Quick dismantling

The clamp system ensures rapid dismantling without any tools.

Pollution free air valve

The sealing system is lubrication free, always keeping your product and environment free from oil contamination.

Plain surface

The sandwich diaphragm has a completely plain surface, which eliminates bacteria growth problems. The diaphragm is available in food grade materials - PTFE or white EPDM.

Superior finish

Both liquid side and outside is electropolished*, to obtain superior finish and hygiene. Special surface finish may be done according to your requirements.

* T825 is glass blasted

■ Easy draining

Drain the pump by turning the pump in its support (T80-T825)

Our design allows for total visual inspection of the wetted parts. There are no hidden areas where bacteria can grow. The manifold clamps and the housing screws are simply removed for complete disassembly and cleaning. The pump is also designed for cleaning and sterilization in place – C.I.P. and S.I.P. After such operations, the pump is easily turned in its support for drainage.



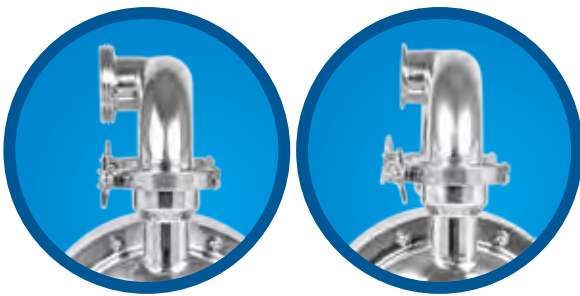
Special versions



Heating jacket

The heating jacket is used when the pumped product has to maintain a specific temperature, high or low, throughout the process. A heating or cooling medium is continuously circulated in the heating jacket. The jacket is covering all the wetted parts of the pump.

» Available on all sanitary series pumps



Variety of connection types

The pump is supplied as standard with ISO TC clamp connections. However, the pump may be equipped with almost any type of connection used in the hygienic field – DIN clamps, SMS milk, RJT, DIN aseptic to mention a few.



Flap valves for big solids

Flap valves are available for the sanitary pumps, ideal in applications with bigger size and delicate solids.

The gentle pumping principle will maintain solids without any destruction.

Models available with flap valves:

- » T225 (50 mm solids max)
- » T425 (50 mm solids max)
- » T825 (100 mm solids max)



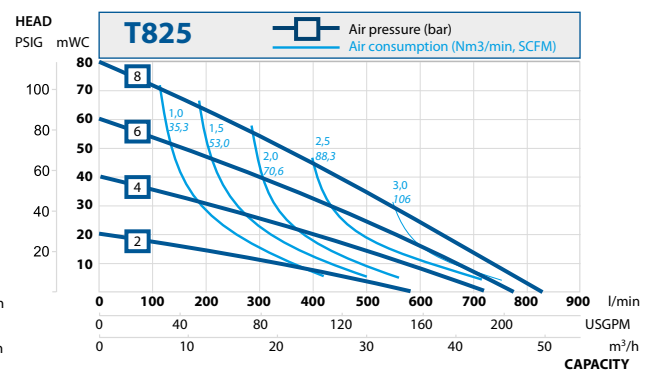
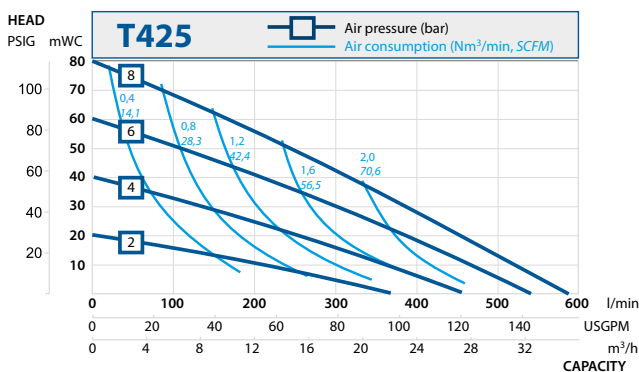
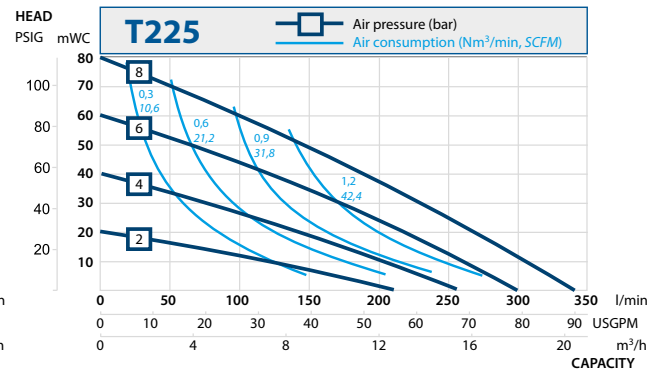
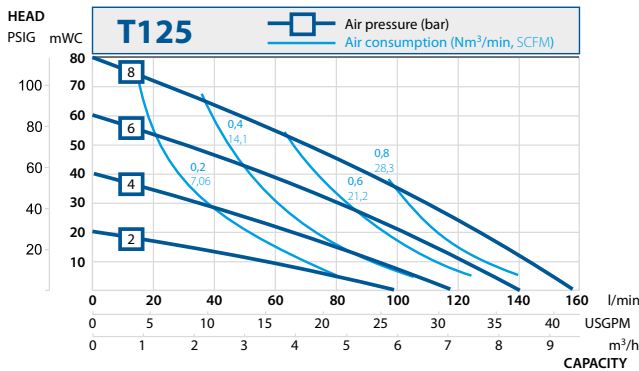
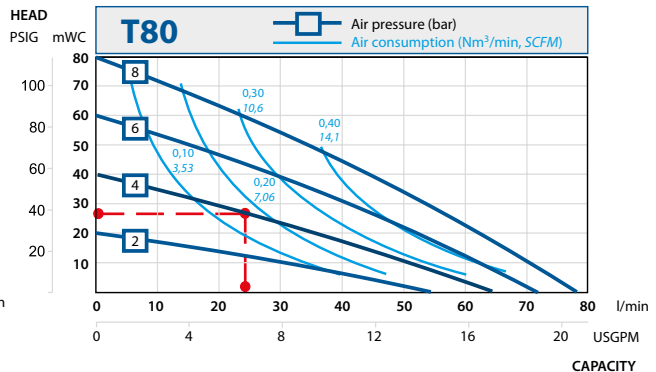
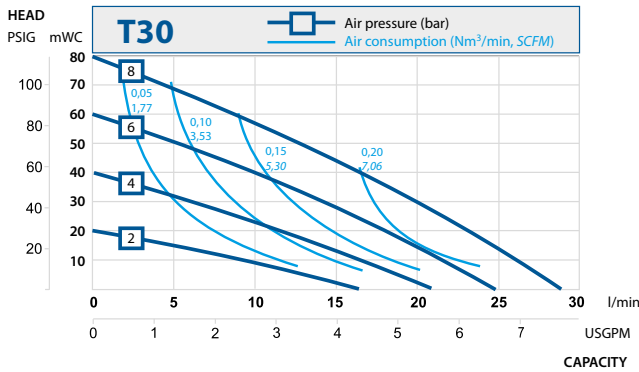
Performance curves

The performance curves are based on water at 20°C. Other circumstances might change the performance. See below how the capacity will change at different viscosities and suction lifts. These curves are valid for all sanitary pumps.

Example see the red line

A flow of 30 liter/minute is desired.

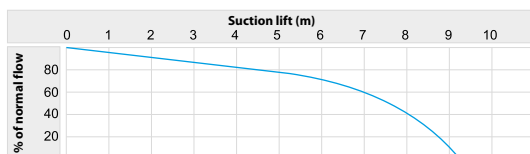
The discharge head is calculated to 25 mWC. We choose a T80. It requires an air pressure of 4 bar and will consume approximately 0.20 Nm³ air per minute.



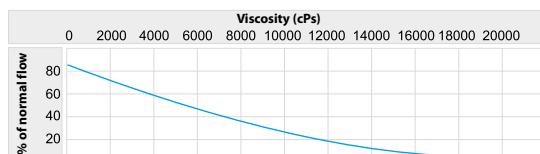
Recommended flow is half of the the max flow, i.e. recommended flow for a T80 is 40 l/min (10.6 US gpm).

Capacity changes

Capacity changes at different suction lifts



Capacity changes at different viscosities

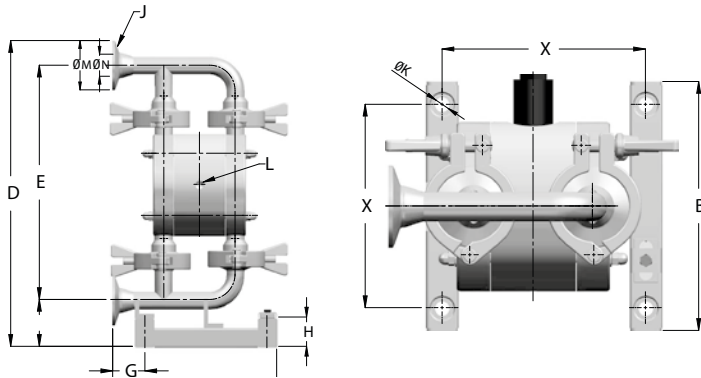


Changes reserved without notice

Dimensions

Dimensions for sanitary series

Dimensions in mm (where other is not indicated)
 Dimensions in inch (where other is not indicated)



Dim	Pump size						
	30	80	125	225	425	825	
A	160	290	290	360	440	760	
	6.30	11.4	11.4	14.2	17.3	29.92	
B	230	295	320	420	485	750	
	9.06	11.6	12.6	16.5	19.1	29.53	
D	302	396	445	639	840	1306	
	11.9	15.6	17.5	25.2	33.1	51.42	
E	241	297	349	514	698	1034.5	
	9.49	11.7	13.7	20.2	27.5	40.73	
G	25	14	14	14	14	25	
	0.98	0.6	0.6	0.6	0.6	0.98	
I	48	73	71	86	97	206.5	
	1.89	2.9	2.8	3.4	3.8	8.13	
J	TC ¹	1"	1"	1 1/2"	2"	2 1/2"	3"
	DIN ²	DN25	DN25	DN40	DN50	DN65	DN80
	SMS ³	-	25	38	51	63.5	80
	RJT	3/4"	1"	1 1/2"	2 1/2"	3"	3 1/2"
K	9	9	9	9	9	25	
	0.4	0.4	0.4	0.4	0.4	0.98	
L	1/8"	1/4"	1/4"	1/2"	1/2"	1/2"	
	1/8	1/4	1/4	1/2	1/2	1/2	
ØM*	50.5	50.5	50.5	64	91	91	
	2.0	2.0	2.0	2.5	3.6	3.58	
ØN*	22.6	22.6	35.6	48.6	66.8	72.9	
	0.9	0.9	1.4	1.9	2.6	2.87	

- * = Dimensions for standard clamp connections only
- 1 = Clamp connections/pipes according to SMS3017/ ISO2037 (T425)
- 2 = Threaded connections according to DIN 11851
- 3 = Threaded connections according to SMS 1145

General dimensions only, ask us for detailed drawings. Flap valve pumps are not shown here, ask us for drawings.

Technical data

Technical data	Pump size					
	30	80	125	225	425	825
Max capacity (l/min) / (US gpm)	28 / 7.4	78 / 20.6	155 / 41	330 / 87	570 / 150	820 / 216
*Volume per stroke (ml) / (cu in)	70 / 4.3	87.5 / 5.34	300 / 18.3	933 / 56.9	2300/140.3	5000
Max discharge pressure (bar) / (psi)	8 / 116	8 / 116	8 / 116	8 / 116	8 / 116	8 / 116
Max air pressure (bar) / (psi)	8 / 116	8 / 116	8 / 116	8 / 116	8 / 116	8 / 116
**Max suction lift dry (m) / (Ft)	1.5 / 4.9	3 / 9.8	4 / 13	4 / 13	4 / 13	4 / 13
Max suction lift wet (m) / (Ft)	8 / 26	8 / 26	9 / 29.5	9 / 29.5	9 / 29.5	9 / 29.5
Max size of solids (ø in mm) / (in)	3 / 0.12	4 / 0.16	6 / 0.24	10 / 0.39	15 / 0.59	27mm / 1.06
Max temperature (°C) / (°F)	110 / 230	110 / 230	110 / 230	110 / 230	110 / 230	110 / 230
Weight (kg) / (lb)	4 / 9	8 / 18	11 / 24	21 / 46	35 / 77	133
Wetted metal details	Stainless steel AISI 316L					
Centre block (not wetted)	PP					
Diaphragms	PTFE, PTFE 1705B, PTFE with white back, EPDM, white EPDM, NBR					PTFE (FDA) EPDM (FDA)
Valve balls	PTFE, EPDM, NBR, AISI 316, PU, Ceramic					
Air valve	Brass / NBR or optional AISI 316L / FKM					
Sealings (wetted)	PTFE or EPDM					
Housing pin screws	Stainless steel AISI 316					
Diaphragm shaft	Stainless steel AISI 316					

- * = The value is based on pumps with EPDM diaphragms. Pumps with PTFE diaphragms have about 15% less volume.
- ** = This is max value with stainless steel valve balls, other valve ball materials may reduce the suction. Please consult us.

Pump code

The pump code details the specification, maximum capacity and materials of the major components

Tapflo diaphragm pump

Max capacity (l/min)

Material of wetted metal parts:

S = stainless steel AISI 316L

T **J** **80** **S** **T** **T** **-7SV**

Special executions*:

Basic options:

- B = Backup diaphragm system
- D = Drum pump
- J = Pump with heating jacket
- X = ATEX approved, group II, cat 2

Material of diaphragms:

- B = PTFE 1705B (solvents)
- E = EPDM
- W = White food grade EPDM
- N = NBR (nitrile rubber)
- T = PTFE
- Z = PTFE with white back

Material of valve balls:

- E = EPDM
- N = NBR (nitrile)
- T = PTFE
- S = AISI 316L
- P = PU (polyurethane)
- K = Ceramic

- 3 = Optional connections
- 4 = Backup diaphragm system configuration
- 5 = Other special executions*
- 6 = Optional material centerblock
- 7 = Optional material air valve
- 8 = Optional material pos 18 seals
- 9 = Optional material housing screws
- 14 = Optional pump feet

* = Ask us for complete pump code with all available options and executions. Changes reserved without notice