

# Transfero T\_



**Pressure maintenance system  
with pumps**

For systems up to 10 MW

*Engineering  
GREAT Solutions*

# Transfero T\_

Transfero T\_ is a precision pressure maintenance device up to 10 MW with pumps for heating, solar and chilled water systems. Its use is particularly recommended where high performance, compact design and precision are required. In the medium performance range with tight budgets, they can also be used as combination devices with integrated degassing and water make-up.

## Key features

- > **BrainCube control**  
Self-optimising with memory function.
- > **Dynaflex operation**  
Elastic, speed-controlled operation (T, TP, TV, TPV). 2 pressure accumulator vessels for optimum pressure maintenance (TPV...P).
- > **Fillsafe water make-up monitoring**  
With possibility to control water make-up through a Pleno P.



## Technical description – Control unit TecBox

### Applications:

Heating, solar and chilled water systems. For systems according to EN 12828, solar systems according to EN 12976, ENV 12977 with on-site excess temperature protection in case of power blackout.

### Media:

Non-aggressive and non-toxic system media. Addition of antifreeze agent up to 50%.

### Pressure:

Min. admissible pressure, PSmin: 0 bar  
Max. admissible pressure, PS: see Articles

### Temperature:

Max. admissible temperature, TS: 70°C  
Min. admissible temperature, TSmin: 0°C  
Max. admissible ambient temperature, TU: 40°C  
Min. admissible ambient temperature, TUmin: 5°C  
Max. admissible temperature for water make-up, TW: 30°C (TP, TPV, TPV...P)

### Accuracy:

Precision pressure maintenance  $\pm 0,2$  bar.

### Supply voltage:

230 V/50 Hz (T, TP, TV, TPV) and 60 Hz (TPV)  
3x400/50 or 3x400/60 (TPV...P), see Articles.

### Enclosure class:

IP 54 according to EN 60529

### Material:

Main materials include steel, brass and bronze.

### Transportation and storing:

In frostless, dry places.

### Approvals:

CE-tested according to the requirements of the European Directives PED/DEP 97/23/EC, 2004/108/EC, 2006/95/EC.

## Technical description – Expansion vessels

### Applications:

Only together with Control unit TecBox.  
See *Applications* under Technical description - Control unit TecBox.  
Media:  
Non-aggressive and non-toxic system media.  
Addition of antifreeze agent up to 50%.

### Pressure:

Min. admissible pressure, PSmin: 0 bar  
Max. admissible pressure, PS: 2 bar

### Temperature:

Max admissible temperature, TS: 120°C  
Min. admissible temperature, TSmin:  
-10°C  
Max. admissible bag temperature, TB:  
70°C  
Min. admissible bag temperature, TBmin:  
5°C

### Material:

Steel. Color beryllium.  
Airproof butyl bag according to EN 13831 and IMI Pneumatex internal standard.

### Transportation and storing:

In frostless, dry places.

### Approvals:

CE design-tested according to PED/DEP 97/23/EC.

### Warranty:

Transfero TU, TU...E: 5-year warranty for the vessel.  
Transfero TG, TG...E: 5-year warranty for the airproof butyl bag.

## Function, Equipment, Features

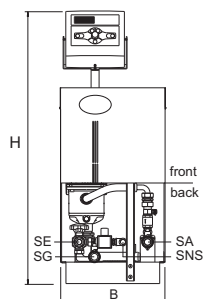
### TecBox

- BrainCube control. Self-optimising with memory function.
- Dynaflex operation. Elastic, speed-controlled operation (T, TP, TV, TPV). 2 pressure accumulator vessels for optimum pressure maintenance (TPV...P).
- Fillsafe water make-up monitoring with possibility to control water make-up through a Pleno P (T, TV). With contact water meter and a break tank type AB according to EN 1717, SVGW-tested (TP, TPV, TPV...P).
- Oxystop degassing of the system and make-up water under partial vacuum (TV, TPV).
- Protected isolating valves to the system.
- Variable installation next to the primary vessel.
- High quality metal cover (T, TP, TV, TPV, TPV...P) with handles (T, TP, TV, TPV).
- Including convoluted stainless steel hoses with seals for the connection of the primary vessel.

### Expansion vessels

- Bag can be vented at the top, condensate drain at the bottom.
- Sinus ring for upright assembly (TU, TU...E). Feet for upright assembly (TG, TG...E).
- Airproof butyl bag (TU, TU...E, TG, TG...E), exchangeable (TG, TG...E).
- Endoscopic inspection opening for internal inspections (TU, TU...E). Two flange openings for internal inspections (TG, TG...E).

## Control unit TecBox, Transfero T



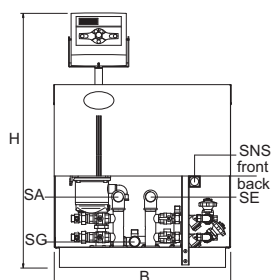
### Transfero T .1

Precision pressure maintenance  $\pm 0,2$  bar. 1 pump. 1 spill valve. Variable installation in front of or next to the primary vessel.

Connections: in (SE) Rp1, out (SA) Rp1, water make-up (SNS) Rp1/2, vessel (SG) R1.

Type	B	H	T	m [kg]	Pel [kW]	SPL [dB(A)]	EAN	Article No
<b>8 bar (PS)</b>								
T 4.1	390	1000	490	29	0,6	55	7640148631259	811 1050
T 6.1	390	1000	490	33	1,1	55	7640148631266	811 1051
<b>10 bar (PS)</b>								
T 8.1	500	1000	490	40	1,5	55	7640148631273	811 1052
T 10.1	500	1000	490	42	1,5	55	7640148631280	811 1053

T = Depth of the device



### Transfero T .2

Precision pressure maintenance  $\pm 0,2$  bar. 2 pumps. 2 spill valves. Switching is time and load dependant. Variable installation next to the primary vessel.

Connections: in (SE) Rp1 1/4, out (SA) Rp1 1/4, water make-up (SNS) Rp1/2, vessel (SG) R1 1/4.

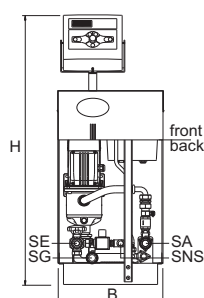
Type	B	H	T	m [kg]	Pel [kW]	SPL [dB(A)]	EAN	Article No
<b>8 bar (PS)</b>								
T 4.2	700	1000	400	49	1,1	55	7640148631297	811 1070
T 6.2	700	1000	400	57	2,2	55	7640148631303	811 1071
<b>10 bar (PS)</b>								
T 8.2	800	1000	500	77	3	55	7640148631310	811 1072
T 10.2	800	1000	500	79	3	55	7640148631327	811 1073

T = Depth of the device

**Accessories for control modules:** Communication module. Master-Slave.

**Accessories for pressure maintenance:** Intermediate vessel. Datasheet Accessories.

## Control unit TecBox, Transfero TP



### Transfero TP .1

Precision pressure maintenance  $\pm 0,2$  bar. Water make-up.

1 pump. 1 spill valve. Variable installation in front of or next to the primary vessel.

Connections: in (SE) Rp1, out (SA) Rp1, water make-up (SNS) G1/2, vessel (SG) R1.

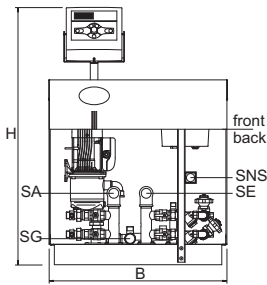
Type	B	H	T	m [kg]	Pel [kW]	SPL [dB(A)]	EAN	Article No
<b>8 bar (PS)</b>								
TP 4.1	390	1000	490	32	0,6	55	7640148631334	811 1060
TP 6.1	390	1000	490	36	1,1	55	7640148631341	811 1061
<b>10 bar (PS)</b>								
TP 8.1	500	1000	490	43	1,5	55	7640148631358	811 1062
TP 10.1	500	1000	490	45	1,5	55	7640148631365	811 1063

T = Depth of the device

### Transfero TP .2

Precision pressure maintenance  $\pm 0,2$  bar. Water make-up.

2 pumps. 2 spill valves. Switching is time and load dependant. Variable installation next to the primary vessel.  
Connections: in (SE) Rp1 1/4, out (SA) Rp1 1/4, water make-up (SNS) G1/2, vessel (SG) R1 1/4.



Type	B	H	T	m [kg]	Pel [kW]	SPL [dB(A)]	EAN	Article No
<b>8 bar (PS)</b>								
TP 4.2	700	1000	400	52	1,1	55	7640148631372	811 1080
TP 6.2	700	1000	400	60	2,2	55	7640148631389	811 1081
<b>10 bar (PS)</b>								
TP 8.2	800	1000	500	80	3	55	7640148631396	811 1082
TP 10.2	800	1000	500	82	3	55	7640148631402	811 1083

T = Depth of the device

**Accessories for control modules:** Communication module. Master-Slave.

**Accessories for pressure maintenance:** Intermediate vessel. Datasheet Accessories.

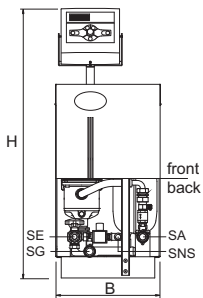
## Control unit TecBox, Transfero TV

### Transfero TV .1

Precision pressure maintenance  $\pm 0,2$  bar. Degassing.

1 pump. 1 spill valve. Variable installation in front of or next to the primary vessel.

Connections: in (SE) Rp1, out (SA) Rp1, water make-up (SNS) Rp1/2, vessel (SG) R1.



Type	B	H	T	m [kg]	Pel [kW]	SPL [dB(A)]	EAN	Article No
<b>8 bar (PS)</b>								
TV 4.1	390	1000	490	32	0,6	55	7640148631419	811 1000
TV 6.1	390	1000	490	36	1,1	55	7640148631426	811 1001
<b>10 bar (PS)</b>								
TV 8.1	500	1000	490	43	1,5	55	7640148631433	811 1002
TV 10.1	500	1000	490	45	1,5	55	7640148631440	811 1003

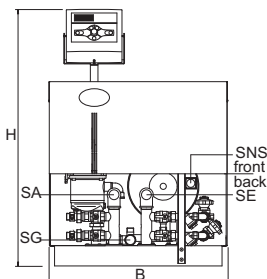
T = Depth of the device

### Transfero TV .2

Precision pressure maintenance  $\pm 0,2$  bar. Degassing.

2 pumps. 2 spill valves. Switching is time and load dependant. Variable installation next to the primary vessel.

Connections: in (SE) Rp1 1/4, out (SA) Rp1 1/4, water make-up (SNS) Rp1/2, vessel (SG) R1 1/4.

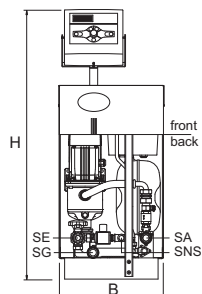


Type	B	H	T	m [kg]	Pel [kW]	SPL [dB(A)]	EAN	Article No
<b>8 bar (PS)</b>								
TV 4.2	700	1000	400	52	1,1	55	7640148631457	811 1030
TV 6.2	700	1000	400	61	2,2	55	7640148631464	811 1031
<b>10 bar (PS)</b>								
TV 8.2	800	1000	500	80	3	55	7640148631471	811 1032
TV 10.2	800	1000	500	82	3	55	7640148631488	811 1033

T = Depth of the device

**Accessories for control modules:** Communication module. Master-Slave.

## Control unit TecBox, Transfero TPV



### Transfero TPV .1

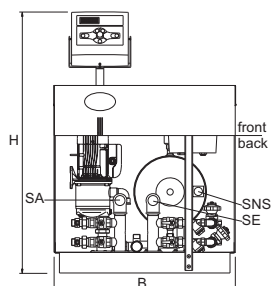
Precision pressure maintenance  $\pm 0,2$  bar. Water make-up. Degassing.  
 1 pump. 1 spill valve. Variable installation in front of or next to the primary vessel.  
 Connections: in (SE) Rp1, out (SA) Rp1, water make-up (SNS) G1/2, vessel (SG) R1.

Type	B	H	T	m [kg]	Pel [kW]	SPL [dB(A)]	EAN	Article No
<b>8 bar (PS)</b>								
TPV 4.1	390	1000	490	35	0,6	55	7640148631495	811 1010
TPV 4.1 60 Hz	390	1000	490	35	0,6	55		874 1263
TPV 6.1	390	1000	490	39	1,1	55	7640148631501	811 1011
TPV 6.1 60 Hz	390	1000	490	39	1,1	55		874 1264
<b>10 bar (PS)</b>								
TPV 8.1	500	1000	490	46	1,5	55	7640148631518	811 1012
TPV 10.1	500	1000	490	48	1,5	55	7640148631525	811 1013

T = Depth of the device

### Transfero TPV .2

Precision pressure maintenance  $\pm 0,2$  bar. Water make-up. Degassing.  
 2 pumps. 2 spill valves. Switching is time and load dependant. Variable installation next to the primary vessel.  
 Connections: in (SE) Rp1 1/4, out (SA) Rp1 1/4, water make-up (SNS) G1/2, vessel (SG) R1 1/4.

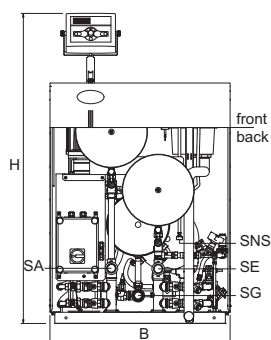


Type	B	H	T	m [kg]	Pel [kW]	SPL [dB(A)]	EAN	Article No
<b>8 bar (PS)</b>								
TPV 4.2	700	1000	400	54	1,1	55	7640148631532	811 1040
TPV 4.2 60 Hz	700	1000	400	54	1,1	55		874 1265
TPV 6.2	700	1000	400	62	2,2	55	7640148631549	811 1041
TPV 6.2 60 Hz	700	1000	400	62	2,2	55		874 1266
<b>10 bar (PS)</b>								
TPV 8.2	800	1000	500	82	3	55	7640148631556	811 1042
TPV 10.2	800	1000	500	84	3	55	7640148631563	811 1043

T = Depth of the device

**Accessories for control modules:** Communication module. Master-Slave.

## Control unit TecBox, Transfero TPV...P



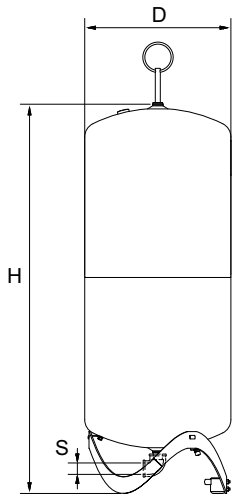
### Transfero TPV .2 P

Precision pressure maintenance  $\pm 0,2$  bar. Water make-up. Degassing.  
 2 pressure accumulator vessels for optimum pressure maintenance.  
 2 pumps. 2 spill valves. Switching is time and load dependant.  
 Connections: in (SE) Rp1 1/4, out (SA) Rp1 1/4, water make-up (SNS) G1/2, vessel (SG) R1 1/4.

Type	B	H	T	m [kg]	Pel [kW]	U [V/Hz]	SPL [dB(A)]	EAN	Article No
<b>16 bar (PS)</b>									
TPV 19.2 P	900	1300	900	139	6,0	3x400/50	<70	7640148631570	811 1045
TPV 19.2-60 P	900	1300	900	145	7,6	3x400/60	<70	7640148631587	811 1095

T = Depth of the device

## Expansion vessels, Transfero TU/TU...E



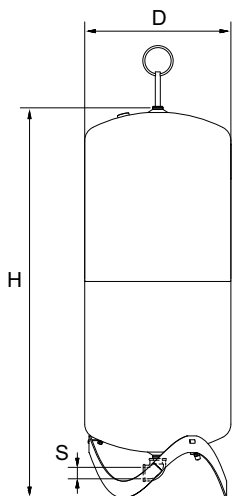
### Transfero TU

Primary vessel. Measuring foot for content measurement.

Including assembly kit for the water-side connection with 2 bar safety valve and ball valve for fast draining.

Type	VN [l]	D	H	m	S	SW	EAN	Article No
<b>2 bar (PS)</b>								
TU 200	200	500	1335	36	R1 1/4	G3/4	7640148631594	713 1000
TU 300	300	560	1469	41	R1 1/4	G3/4	7640148631600	713 1001
TU 400	400	620	1528	58	R1 1/4	G3/4	7640148631617	713 1002
TU 500	500	680	1623	68	R1 1/4	G3/4	7640148631624	713 1003
TU 600	600	740	1633	78	R1 1/4	G3/4	7640148631631	713 1004
TU 800	800	740	2127	99	R1 1/4	G3/4	7640148631648	713 1005

VN = Nominal volume



### Transfero TU...E

Secondary vessel.

Including assembly kit for the water-side connection, flexible hose and lock shield valve with ball valve for fast draining.

Type	VN [l]	D	H	m	S	SW	EAN	Article No
TU 200 E	200	500	1335	35	R1 1/4	G3/4	7640148631655	713 2000
TU 300 E	300	560	1469	40	R1 1/4	G3/4	7640148631662	713 2001
TU 400 E	400	620	1528	57	R1 1/4	G3/4	7640148631679	713 2002
TU 500 E	500	680	1623	67	R1 1/4	G3/4	7640148631686	713 2003
TU 600 E	600	740	1633	75	R1 1/4	G3/4	7640148631693	713 2004
TU 800 E	800	740	2127	98	R1 1/4	G3/4	7640148631709	713 2005

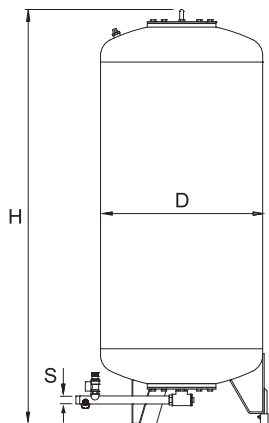
VN = Nominal volume

## Expansion vessels, Transfero TG/TG...E

### Transfero TG

Primary vessel. Measuring foot for content measurement.

Including assembly kit for the water-side connection with 2 bar safety valve and ball valve for fast draining.



Type *	VN [l]	D	H**	m [kg]	S	SW	EAN	Article No
<b>2 bar (PS)</b>								
TG 1000	1000	850	2191	280	R1 1/4	G3/4	7640148631716	713 1006
TG 1500	1500	1016	2340	360	R1 1/4	G3/4	7640148631723	713 1007
TG 2000	2000	1016	2839	640	R1 1/4	G3/4	7640148631730	713 1012
TG 3000	3000	1300	2940	800	R1 1/4	G3/4	7640148631747	713 1009
TG 4000	4000	1300	3585	910	R1 1/4	G3/4	7640148631754	713 1010
TG 5000	5000	1300	4230	1010	R1 1/4	G3/4	7640148631761	713 1011

VN = Nominal volume

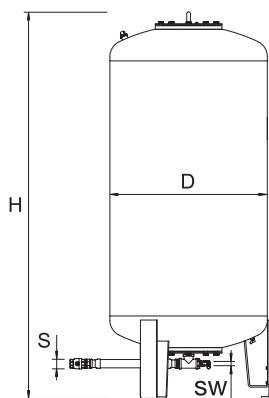
\*) Special vessel upon request.

\*\*) Tolerance 0 /-100.

### Transfero TG...E

Secondary vessel.

Including flexible hose for the water-side connection and lock shield valve with ball valve for fast draining.



Type *	VN [l]	D	H**	m [kg]	S	SW	EAN	Article No
<b>2 bar (PS)</b>								
TG 1000 E	1000	850	2191	280	G1 1/4	G3/4	7640148631778	713 2006
TG 1500 E	1500	1016	2340	360	G1 1/4	G3/4	7640148631785	713 2007
TG 2000 E	2000	1016	2839	640	G1 1/4	G3/4	7640148631792	713 2012
TG 3000 E	3000	1300	2940	800	G1 1/4	G3/4	7640148631808	713 2009
TG 4000 E	4000	1300	3585	910	G1 1/4	G3/4	7640148631815	713 2010
TG 5000 E	5000	1300	4230	1010	G1 1/4	G3/4	7640148631822	713 2011

VN = Nominal volume

\*) Special vessel upon request.

\*\*) Tolerance 0 /-100.



## Accessories for control modules

### Communication module for BrainCube control

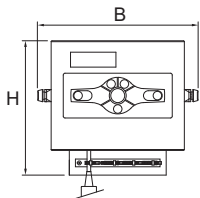
Max. admissible ambient temperature, TU: 40°C

Enclosure class: IP 54

Supply voltage: 230 V/50 Hz

### ComCube DCD

RS 485 interface for communicating with BrainCube, 6 digital inputs for the use of external volt free signals (NO), 9 volt free digital outputs, freely programmable; all outputs can be inverted. Wall mounted, fixing elements for cable management.

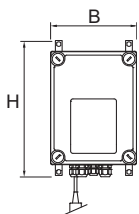


Type	B	H	T	m [kg]	PA [kW]	EAN	Article No
DCD	270	230	260	0,5	0,1	7640148638715	814 1000

T = Depth of the device

### ComCube DCA

2 separated analogue outputs 4-20 mA for connection to BMS, isolation voltage 2.5 kVAC. All cabling inside the casing, wall mounted.



Type	B	H	T	m [kg]	PA [kW]	EAN	Article No
DCA	190	260	180	0,5	0,1	7640148638739	814 1010

T = Depth of the device

### Software expansion

Usage options as Master / Slave, parallel, expanded capacity or 100% redundancy.

Remote switching of Master / Slave possible.

Cabeling on site, commissioning by IMI Pneumatex Service.

### Master-Slave DMS 2

Parallel operation of 2 Transfero T\_

Including assembly kit with 1 safety valve for protection of the maximum pressure at Transfero TU, TU...E and TG, TG...E expansion vessels.

Type	EAN	Article No
DMS 2 T	7640148638760	814 1021

### Master-Slave DMS 3

Parallel operation of 3 Transfero T\_

Including assembly kit with 2 safety valves for protection of the maximum pressure at Transfero TU, TU...E and TG, TG...E expansion vessels.

Type	EAN	Article No
DMS 3 T	7640148638784	814 1026

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**Master-Slave DMS 4**

Parallel operation of 4 Transfero T\_

Including assembly kit with 3 safety valves for protection of the maximum pressure at Transfero TU, TU...E and TG, TG...E expansion vessels.

Type	EAN	Article No
DMS 4 T	7640148638807	814 1031

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**Additional information:****System design:** Datasheet *Planning and calculation*. Calculation: Software *HySelect***Abbreviations and terminology:** Datasheet *Planning and calculation*.



