Report P000320518

Test report

Zypho SA
Tower Plaza I, Via Eng. Edgar Cardoso 23, 5º H
4400-676 Vila Nova de Gaia, PORTUGAL

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Report number. ..... :	P000320518
Project number. ..... :	P000320518
Date of issue ..... :	15-02-2024
Total number of pages..... :	7 (excluding appendices)
Testing laboratory ..... :	KIWA Nederland B.V.
Testing location/address..... :	Wilmersdorf 50, 7327 AC Apeldoorn, The Netherlands
Applicant's name ..... :	Zypho SA
Address ..... :	4400-676 Vila Nova de Gaia, Portugal
Scope ..... :	Testing of Shower Heat Recovery Units regarding the requirements as derived from the below mentioned Test specifications.
Test specifications	
Standards ..... :	NTA8800:2023 Energy performance of buildings – Determination method
Non-standard test method .. :	N.A.
Test item description ..... :	Shower Heat Recovery Units
Manufacturer ..... :	Zypho SA
Trade Mark ..... :	Zypho
Model/Type reference..... :	SLIM 50 DW, PiPe 55 DW, PiPe 60 DW (a full overview can be found in chapter 2: Description of the product)
Test item number(s) ..... :	10278, 10383, 10384
Date receipt of test item(s) . :	18-09-2023, 01-12-2023, 01-12-2023
Date(s) of testing ..... :	19-09-2023, 04-12-2023 up to 06-12-2023
Remarks ..... :	N.A.
Summary ..... :	Complies with the requirements as far as identified in the attached test- and result sheets.
Tested by (name + signature) ..... :	T. Rouweler 
Approved by (name + signature) ..... :	J.B. Schulte 

1 Summary of testing

On request of Zypho SA the items as mentioned under Test item description are tested according to the Test specifications (see page 3 of this report).

The Shower Heat Recovery Units PiPe 55 DW, PiPe 60 DW and SLIM 50 DW have been delivered by Zypho SA to Kiwa Nederland B.V.
The appliances have been installed to the test installation by Kiwa according the installation instructions. The Shower Heat Recovery Unit have been tested according to the criteria in annex U of the NTA 8800.

The DHW flow resistance over the Shower Heat Recovery Unit has been measured by fitting a pressure sensor on the tap water inlet and tap water outlet of the Shower Heat Recovery Unit. The differential pressure during tap water flow between these 2 pressure sensors is caused by flow resistance of the Shower Heat Recovery Unit.

During the project the appliance names of the models below has been changed. The temporary names have been used throughout the test results. The temporary and final type names are as follows:

Final type name:	Name (also) used in report:
SLIM 50 DW	Slim DW50
PiPe 55 DW	PiPe DW 55 and PiPe DW 50 (1,25m)
PiPe 60 DW	PiPe DW 60

The following declarations have been issued:

Declaration number:	SHRU:	Content declaration:
305181/01	SLIM 50 DW	Efficiencies 5,8 l/min, 9.2 l/min,12.5 l/min
305182/01	PiPe 55 DW	Efficiencies 5,8 l/min, 9.2 l/min,12.5 l/min
305183/01	PiPe 60 DW	Efficiencies 5,8 l/min, 9.2 l/min,12.5 l/min

See appendix 1 for a summary of the detailed test results.
Appendix 2 holds photographs of the devices under test and complete test results.
Technical drawings of the tested units have been added as appendix 3.
Installation manuals of the units can be found under appendix 4.

The test results are only applicable for the samples under test and does not pass a judgment on other products supplied by the manufacturer.

Based on the product(s) information the test plan is not subject to any special interpretations or modifications.

2 Description of the product

Name of the Supplier	**:**	Zypho SA
Trade name	**:**	Zypho
Appliance type	**:**	Shower Heat Recovery Unit

Appliance description
The shower heat recovery unit is an appliance that recovers heat from the shower's waste water. The heat of the waste water is used to preheat the incoming cold water. Because of this, less energy from the heater is required.

3 Report history

Report number..... :	P000320518
Project number ..... :	P000320518
Author. ..... :	Rouweth
Description..... :	Initial report

4 Appendices

Appendix 1.	:	Summary of test results
Appendix 2.	:	Pictures of devices under test Complete test results
Appendix 3.	:	Drawings
Appendix 4.	:	Installation manuals

End of report

Appendix 1

Summary of SHRU measurements

Manufacturer: Zypho
Type: SLIM 50 DW
Kiwa sample.nr: 10278
serial number: pt

Measurement:	file:	flow resistance (bar):	measured efficiency (%):
5.8 l/min; 47 l, Class 2 of NTA 8800	230919C_CW21	0,20	52,5
5.8 l/min; 47 l, Class 2 of NTA 8800	230919C_CW23	0,20	52,7
5.8 l/min; 47 l, Class 2 of NTA 8800	230919C_CW24	0,20	52,7
average of 3 measurements:		**0,20**	**52,6**

Measurement:	file:	flow resistance (bar):	measured efficiency (%):
9.2 l/min; 73l, Class 3 of NTA 8800	230919B_CW32	0,47	51,1
9.2 l/min; 73l, Class 3 of NTA 8800	230919B_CW34	0,47	51,3
9.2 l/min; 73l, Class 3 of NTA 8800	230919B_CW35	0,47	51,1
average of 3 measurements:		**0,47**	**51,2**

Measurement:	file:	flow resistance (bar):	measured efficiency (%):
12.5 l/min; 100l, Class 4,5,6 of NTA 8800	230919A_CW43	0,81	46,4
12.5 l/min; 100l, Class 4,5,6 of NTA 8800	230919A_CW44	0,81	46,5
12.5 l/min; 100l, Class 4,5,6 of NTA 8800	230919A_CW45	0,81	46,6
average of 3 measurements:		**0,81**	**46,5**

Summary of SHRU measurements

Manufacturer:	Zypho
Type:	PiPe 55 DW
Kiwa sample.nr:	10383
serial number:	5843AA23

Measurement:	file:	flow resistance (bar):	measured efficiency (%):
5.8 l/min; 47 l, Class 2 of NTA 8800	231204F_CW23	0.10	53.7
5.8 l/min; 47 l, Class 2 of NTA 8800	231204F_CW24	0.10	53.8
5.8 l/min; 47 l, Class 2 of NTA 8800	231204F_CW25	0.10	53.9
average of 3 measurements:		**0.10**	**53.8**

Measurement:	file:	flow resistance (bar):	measured efficiency (%):
9.2 l/min; 73l, Class 3 of NTA 8800	231204B_CW32	0.23	47.3
9.2 l/min; 73l, Class 3 of NTA 8800	231204B_CW33	0.23	47.3
9.2 l/min; 73l, Class 3 of NTA 8800	231204B_CW35	0.23	47.4
average of 3 measurements:		**0.23**	**47.3**

Measurement:	file:	flow resistance (bar):	measured efficiency (%):
12.5 l/min; 100l, Class 4,5,6 of NTA 8800	231204A_CW43	0.40	41.6
12.5 l/min; 100l, Class 4,5,6 of NTA 8800	231204A_CW44	0.40	41.6
12.5 l/min; 100l, Class 4,5,6 of NTA 8800	231204A_CW45	0.40	41.7
average of 3 measurements:		**0.40**	**41.6**

STEADY STATE EFFICIENCIES ARE IDENTICAL TO ABOVE MENTIONED EFFICIENCIES.

Summary of SHRU measurements

Manufacturer:	Zypho
Type:	PiPe 60 DW
Kiwa sample.nr:	10384
serial number:	5772AA23

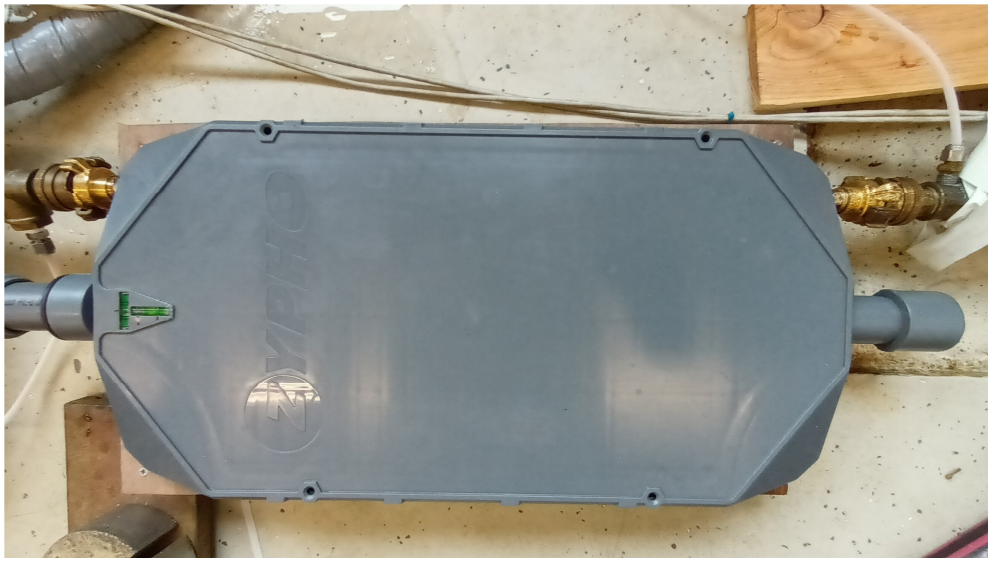
Measurement:	file:	flow resistance (bar):	measured efficiency (%):
5.8 l/min; 47 l, Class 2 of NTA 8800	231206C_CW22	0.04	57.8
5.8 l/min; 47 l, Class 2 of NTA 8800	231206C_CW23	0.04	57.8
5.8 l/min; 47 l, Class 2 of NTA 8800	231206C_CW24	0.04	57.7
average of 3 measurements:		**0.04**	**57.8**

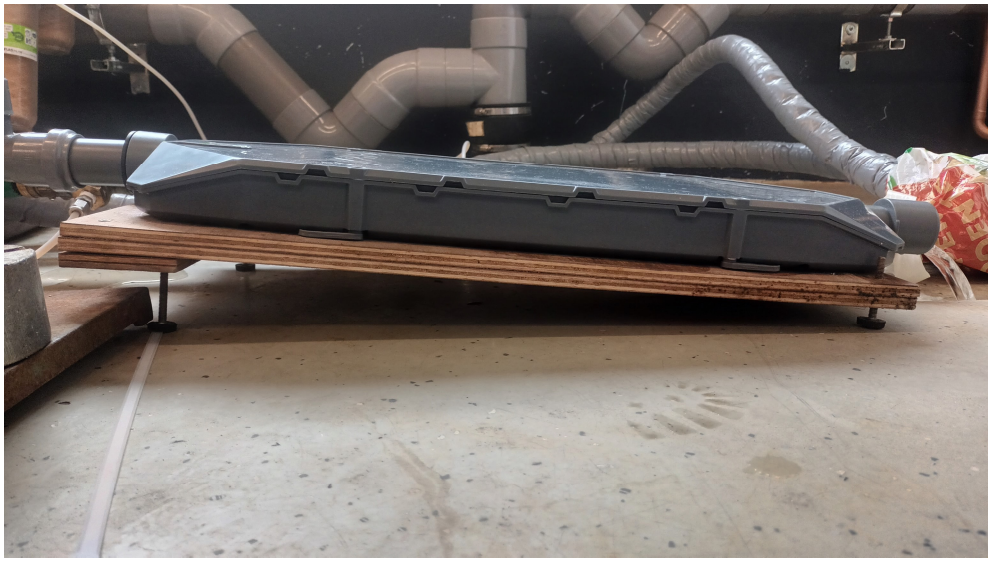
Measurement:	file:	flow resistance (bar):	measured efficiency (%):
9.2 l/min; 73l, Class 3 of NTA 8800	231206a_CW33	0.09	49.4
9.2 l/min; 73l, Class 3 of NTA 8800	231206a_CW34	0.09	49.4
9.2 l/min; 73l, Class 3 of NTA 8800	231206a_CW35	0.09	49.8
average of 3 measurements:		**0.09**	**49.5**

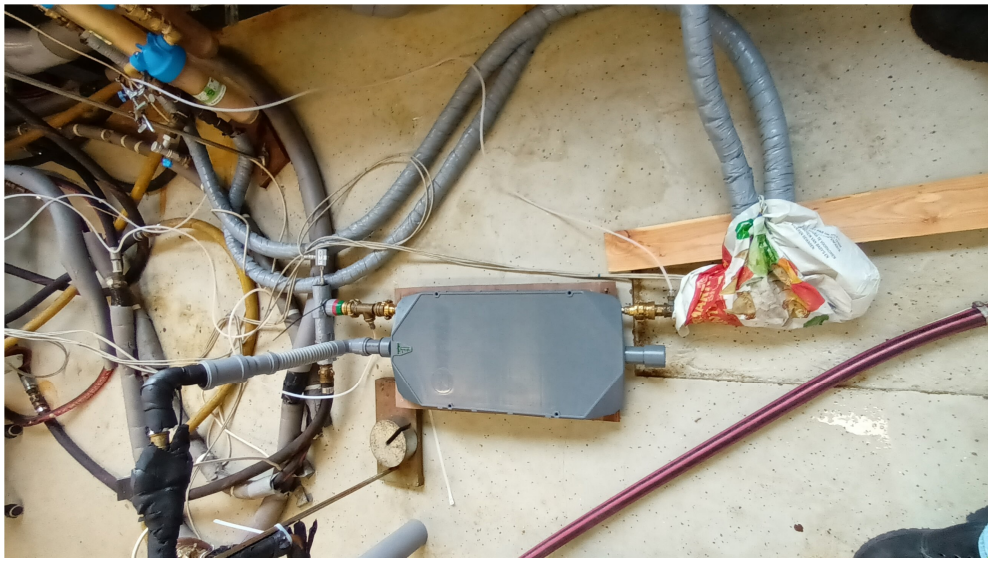
Measurement:	file:	flow resistance (bar):	measured efficiency (%):
12.5 l/min; 100l, Class 4,5,6 of NTA 8800	231205A_CW42	0.15	46.8
12.5 l/min; 100l, Class 4,5,6 of NTA 8800	231205A_CW44	0.14	46.9
12.5 l/min; 100l, Class 4,5,6 of NTA 8800	231205A_CW45	0.15	46.8
average of 3 measurements:		**0.14**	**46.8**

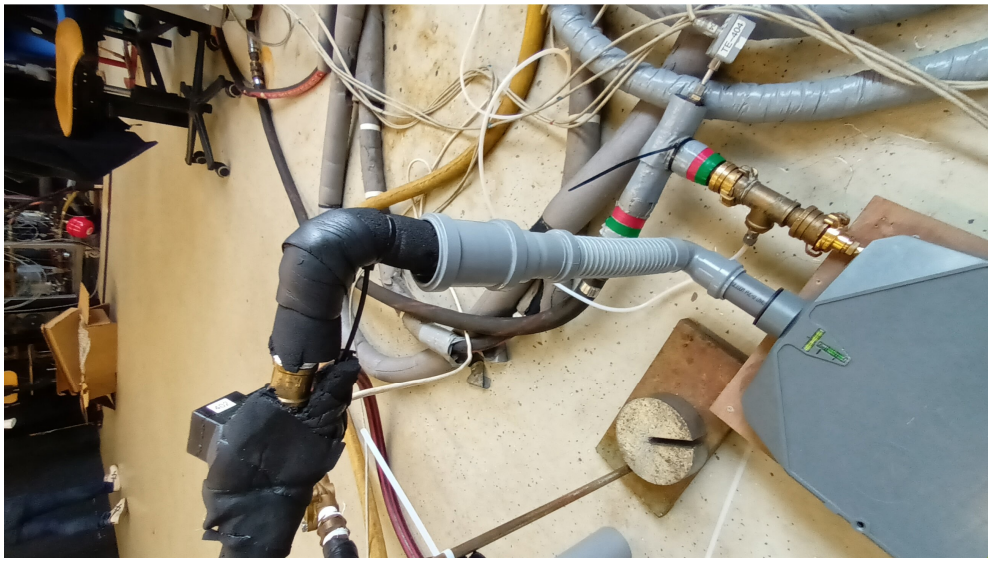
Measurement:	file:	flow resistance (bar):	measured efficiency (%):
5.8 l/min steady state	231206C_CW21_STEADY-STATE	0.04	59.6
9,2 l/min steady state	231206A_CW31_STEADY-STATE	0.09	50.4
12,5 l/min steady state	231205A_CW41_STEADY-STATE	0.15	47.4

Appendix 2










ZYPHO
Ref: ZYPI55D2200
Heat Exchanger
Material: Stainless steel
Type: Double-walled
Max. working pressure: 6bar
Serial n° :
5843AA23
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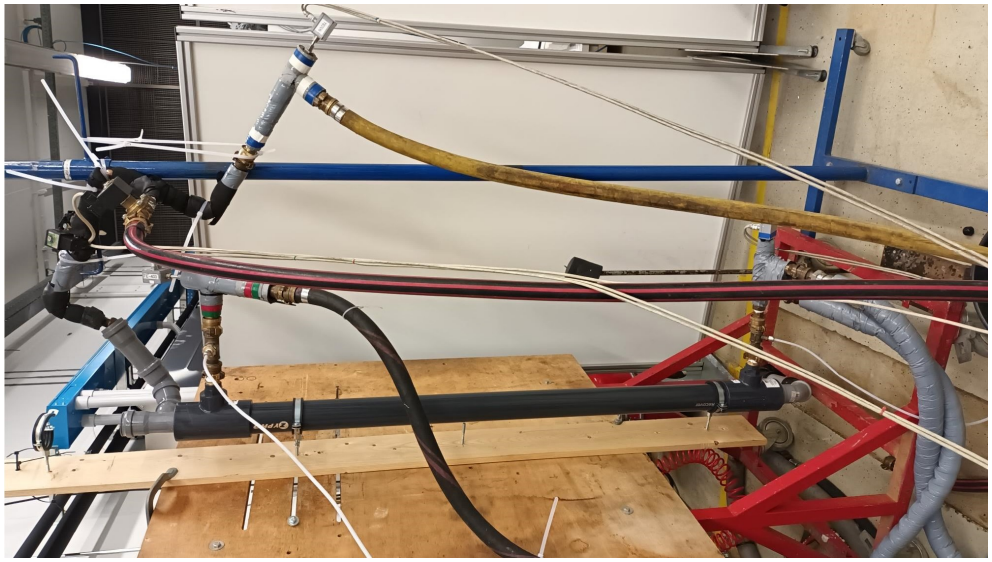
+351 210 991 351 - b2b@zypho.pt
www.zypho.pt




ZYPHO
Ref: ZYPI60D2200
Heat Exchanger
Material: Stainless steel
Type: Double-walled
Max. working pressure: 6bar
Serial n° :
5772AA23
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ZYPHO

SHRU NTA8800

Shower Heat Recovery Unit

Project nr: P000320518
Report nr:
D:\RMIDATA\Zypho\230919A_CW43

Installation: ETR-H7
Test engineer: Rouweler

Manufacturer: Zypho
Year of manufacture: 2023

Model: Slim DW50
Serial No.: 10278

GENERAL DATA

Software	DWTW.VEE
Version	T0.88d_Gd.evelopment\VEE\GeneralLib_I1.42_H1.25_F0.14_EP0.15_FL0.35_CP0.28(12/06/2014)
Type of measurement	Tapping cycle
According to	NTA8800 annex U
Data file	D:\RMIDATA\Zypho\230919A_CW43.TPM
Comment	

MEASUREMENT PROGRAM

Tap profile	D:\RMI\Tap_Patterns\DWTW\dwtw4epg_12.3.tpt
Maximum deviation	3
Measuring point requested energy	Tapping point
Measurement started	19/Sep/2023 11:18
Measurement ended	19/Sep/2023 11:26

MEASUREMENT DATA

Tambient (Avg)	T_a	[°C]	20.76
Atmospheric pressure (Avg)	p_a	[mbar]	1007.1
Tdomestic-in (Avg)	T_{dom-in}	[°C]	10.06
Tdomestic-out (Avg)	$T_{dom-out}$	[°C]	24.14
Tshower (Avg)	T_{shower}	[°C]	40.28
Twaste (Avg)	T_{waste}	[°C]	47.84
Flow (Avg)	q_v	[litres/min]	12.4
Volume total	V	[litres]	100.2
Quseful (device)	Q_{H2O_dev}	[kJ]	5829.5
Quseful (tapping point)	Q_{H2O_tap}	[kJ]	12557.3
Delta pressure	p	[bar]	0.811
Efficency water (tapping point)	η_{H2O}	[%]	46.4

t-start [sec]	t-end [sec]	Flow [l/min]	Volume [litres]	T_{dom-in} [°C]	$T_{dom-out}$ [°C]	$T_{tap-point}$ [°C]	Q_{useful} [kJ]	Q_{loss} [kJ]	$Q_{usefull}$ dev [kJ]	Q_{loss} dev [kJ]	$T_{required}$ Achieved
0	485	12.38	100.16	10.06	24.14	24.14	12557.3	0.0	5829.5	0.0	N

SHRU NTA8800

Shower Heat Recovery Unit

Project nr: P000320518
Report nr:
D:\RMIDATA\Zypho\230919A_CW44

Installation: ETR-H7
Test engineer: Rouweler

Manufacturer: Zypho
Year of manufacture: 2023

Model: Slim DW50
Serial No.: 10278

GENERAL DATA

Software	DWTW.VEE
Version	T0.88d_Gd.evelopment\VEE\GeneralLib_I1.42_H1.25_F0.14_EP0.15_FL0.35_CP0.28(12/06/2014)
Type of measurement	Tapping cycle
According to	NTA8800 annex U
Data file	D:\RMIDATA\Zypho\230919A_CW44.TPM
Comment	

MEASUREMENT PROGRAM

Tap profile	D:\RMI\Tap_Patterns\DWTW\dwtw4epg_12.3.tpt
Maximum deviation	3
Measuring point requested energy	Tapping point
Measurement started	19/Sep/2023 11:31
Measurement ended	19/Sep/2023 11:39

MEASUREMENT DATA

Tambient (Avg)	T_a	[°C]	20.84
Atmospheric pressure (Avg)	p_a	[mbar]	1007.0
Tdomestic-in (Avg)	T_{dom-in}	[°C]	10.06
Tdomestic-out (Avg)	$T_{dom-out}$	[°C]	23.88
Tshower (Avg)	T_{shower}	[°C]	39.67
Twaste (Avg)	T_{waste}	[°C]	47.73
Flow (Avg)	q_v	[litres/min]	12.4
Volume total	V	[litres]	102.1
Quseful (device)	Q_{H2O_dev}	[kJ]	5835.7
Quseful (tapping point)	Q_{H2O_tap}	[kJ]	12542.8
Delta pressure	p	[bar]	0.812
Efficency water (tapping point)	η_{H2O}	[%]	46.5

t-start [sec]	t-end [sec]	Flow [l/min]	Volume [litres]	T_{dom-in} [°C]	$T_{dom-out}$ [°C]	$T_{tap-point}$ [°C]	Q_{useful} [kJ]	Q_{loss} [kJ]	$Q_{usefull}$ dev [kJ]	Q_{loss} dev [kJ]	$T_{required}$ Achieved
0	494	12.40	102.07	10.06	23.88	23.88	12542.8	0.0	5835.7	0.0	N

SHRU NTA8800

Shower Heat Recovery Unit

Project nr: P000320518
Report nr:
D:\RMIDATA\Zypho\230919A_CW45

Installation: ETR-H7
Test engineer: Rouweler

Manufacturer: Zypho
Year of manufacture: 2023

Model: Slim DW50
Serial No.: 10278

GENERAL DATA

Software	DWTW.VEE
Version	T0.88d_Gd.evelopment\VEE\GeneralLib_I1.42_H1.25_F0.14_EP0.15_FL0.35_CP0.28(12/06/2014)
Type of measurement	Tapping cycle
According to	NTA8800 annex U
Data file	D:\RMIDATA\Zypho\230919A_CW45.TPM
Comment	

MEASUREMENT PROGRAM

Tap profile	D:\RMI\Tap_Patterns\DWTW\dwtw4epg_12.3.tpt
Maximum deviation	3
Measuring point requested energy	Tapping point
Measurement started	19/Sep/2023 11:42
Measurement ended	19/Sep/2023 11:50

MEASUREMENT DATA

Tambient (Avg)	T_a	[°C]	20.82
Atmospheric pressure (Avg)	p_a	[mbar]	1007.0
Tdomestic-in (Avg)	T_{dom-in}	[°C]	10.00
Tdomestic-out (Avg)	$T_{dom-out}$	[°C]	24.00
Tshower (Avg)	T_{shower}	[°C]	39.91
Twaste (Avg)	T_{waste}	[°C]	47.91
Flow (Avg)	q_v	[litres/min]	12.4
Volume total	V	[litres]	101.2
Quseful (device)	Q_{H2O_dev}	[kJ]	5854.9
Quseful (tapping point)	Q_{H2O_tap}	[kJ]	12557.3
Delta pressure	p	[bar]	0.812
Efficency water (tapping point)	η_{H2O}	[%]	46.6

t-start [sec]	t-end [sec]	Flow [l/min]	Volume [litres]	T_{dom-in} [°C]	$T_{dom-out}$ [°C]	$T_{tap-point}$ [°C]	Q_{useful} [kJ]	Q_{loss} [kJ]	$Q_{usefull}$ dev [kJ]	Q_{loss} dev [kJ]	$T_{required}$ Achieved
0	489	12.41	101.15	10.00	24.00	24.00	12557.3	0.0	5854.9	0.0	N

SHRU NTA8800

Shower Heat Recovery Unit

Project nr: P000320518
Report nr:
D:\RMIDATA\Zypho\230919B_CW32

Installation: ETR-H7
Test engineer: Rouweler

Manufacturer: Zypho
Year of manufacture: 2023

Model: Slim DW50
Serial No.: 10278

GENERAL DATA

Software	DWTW.VEE
Version	T0.88d_Gd.evelopment\VEE\GeneralLib_I1.42_H1.25_F0.14_EP0.15_FL0.35_CP0.28(12/06/2014)
Type of measurement	Tapping cycle
According to	NTA8800 annex U
Data file	D:\RMIDATA\Zypho\230919B_CW32.TPM
Comment	

MEASUREMENT PROGRAM

Tap profile	D:\RMI\Tap_Patterns\DWTW\DWTW3epg.tpt
Maximum deviation	3
Measuring point requested energy	Tapping point
Measurement started	19/Sep/2023 12:10
Measurement ended	19/Sep/2023 12:18

MEASUREMENT DATA

Tambient (Avg)	T_a	[°C]	20.94
Atmospheric pressure (Avg)	p_a	[mbar]	1006.9
Tdomestic-in (Avg)	T_{dom-in}	[°C]	10.05
Tdomestic-out (Avg)	$T_{dom-out}$	[°C]	25.41
Tshower (Avg)	T_{shower}	[°C]	39.90
Twaste (Avg)	T_{waste}	[°C]	50.10
Flow (Avg)	q_v	[litres/min]	9.2
Volume total	V	[litres]	74.1
Quseful (device)	Q_{H2O_dev}	[kJ]	4690.2
Quseful (tapping point)	Q_{H2O_tap}	[kJ]	9182.3
Delta pressure	p	[bar]	0.473
Efficency water (tapping point)	η_{H2O}	[%]	51.1

t-start [sec]	t-end [sec]	Flow [l/min]	Volume [litres]	T_{dom-in} [°C]	$T_{dom-out}$ [°C]	$T_{tap-point}$ [°C]	Q_{useful} [kJ]	Q_{loss} [kJ]	$Q_{usefull}$ dev [kJ]	Q_{loss} dev [kJ]	$T_{required}$ Achieved
0	482	9.22	74.11	10.05	25.41	25.41	9182.3	0.0	4690.2	0.0	N

SHRU NTA8800

Shower Heat Recovery Unit

Project nr: P000320518
Report nr:
D:\RMIDATA\Zypho\230919B_CW34

Installation: ETR-H7
Test engineer: Rouweler

Manufacturer: Zypho
Year of manufacture: 2023

Model: Slim DW50
Serial No.: 10278

GENERAL DATA

Software	DWTW.VEE
Version	T0.88d_Gd.evelopment\VEE\GeneralLib_I1.42_H1.25_F0.14_EP0.15_FL0.35_CP0.28(12/06/2014)
Type of measurement	Tapping cycle
According to	NTA8800 annex U
Data file	D:\RMIDATA\Zypho\230919B_CW34.TPM
Comment	

MEASUREMENT PROGRAM

Tap profile	D:\RMI\Tap_Patterns\DWTW\DWTW3epg.tpt
Maximum deviation	3
Measuring point requested energy	Tapping point
Measurement started	19/Sep/2023 13:09
Measurement ended	19/Sep/2023 13:17

MEASUREMENT DATA

Tambient (Avg)	T_a	[°C]	21.04
Atmospheric pressure (Avg)	p_a	[mbar]	1006.3
Tdomestic-in (Avg)	T_{dom-in}	[°C]	9.96
Tdomestic-out (Avg)	$T_{dom-out}$	[°C]	25.81
Tshower (Avg)	T_{shower}	[°C]	40.72
Twaste (Avg)	T_{waste}	[°C]	50.49
Flow (Avg)	q_v	[litres/min]	9.2
Volume total	V	[litres]	71.9
Quseful (device)	Q_{H2O_dev}	[kJ]	4704.6
Quseful (tapping point)	Q_{H2O_tap}	[kJ]	9176.8
Delta pressure	p	[bar]	0.469
Efficency water (tapping point)	η_{H2O}	[%]	51.3

t-start [sec]	t-end [sec]	Flow [l/min]	Volume [litres]	T_{dom-in} [°C]	$T_{dom-out}$ [°C]	$T_{tap-point}$ [°C]	Q_{useful} [kJ]	Q_{loss} [kJ]	$Q_{usefull}$ dev [kJ]	Q_{loss} dev [kJ]	$T_{required}$ Achieved
0	468	9.21	71.91	9.96	25.81	25.81	9176.8	0.0	4704.6	0.0	N

SHRU NTA8800

Shower Heat Recovery Unit

Project nr: P000320518
Report nr:
D:\RMIDATA\Zypho\230919B_CW35

Installation: ETR-H7
Test engineer: Rouweler

Manufacturer: Zypho
Year of manufacture: 2023

Model: Slim DW50
Serial No.: 10278

GENERAL DATA

Software	DWTW.VEE
Version	T0.88d_Gd.evelopment\VEE\GeneralLib_I1.42_H1.25_F0.14_EP0.15_FL0.35_CP0.28(12/06/2014)
Type of measurement	Tapping cycle
According to	NTA8800 annex U
Data file	D:\RMIDATA\Zypho\230919B_CW35.TPM
Comment	

MEASUREMENT PROGRAM

Tap profile	D:\RMI\Tap_Patterns\DWTW\DWTW3epg.tpt
Maximum deviation	3
Measuring point requested energy	Tapping point
Measurement started	19/Sep/2023 13:19
Measurement ended	19/Sep/2023 13:27

MEASUREMENT DATA

Tambient (Avg)	T_a	[°C]	21.17
Atmospheric pressure (Avg)	p_a	[mbar]	1006.2
Tdomestic-in (Avg)	T_{dom-in}	[°C]	9.95
Tdomestic-out (Avg)	$T_{dom-out}$	[°C]	25.53
Tshower (Avg)	T_{shower}	[°C]	40.23
Twaste (Avg)	T_{waste}	[°C]	50.34
Flow (Avg)	q_v	[litres/min]	9.2
Volume total	V	[litres]	73.0
Quseful (device)	Q_{H2O_dev}	[kJ]	4692.7
Quseful (tapping point)	Q_{H2O_tap}	[kJ]	9175.5
Delta pressure	p	[bar]	0.473
Efficency water (tapping point)	η_{H2O}	[%]	51.1

t-start [sec]	t-end [sec]	Flow [l/min]	Volume [litres]	T_{dom-in} [°C]	$T_{dom-out}$ [°C]	$T_{tap-point}$ [°C]	Q_{useful} [kJ]	Q_{loss} [kJ]	$Q_{usefull}$ dev [kJ]	Q_{loss} dev [kJ]	$T_{required}$ Achieved
0	476	9.21	73.04	9.95	25.53	25.53	9175.5	0.0	4692.7	0.0	N

SHRU NTA8800

Shower Heat Recovery Unit

Project nr: P000320518
Report nr:
D:\RMIDATA\Zypho\230919C_CW21

Installation: ETR-H7
Test engineer: Rouweler

Manufacturer: Zypho
Year of manufacture: 2023

Model: Slim DW50
Serial No.: 10275

GENERAL DATA

Software	DWTW.VEE
Version	T0.88d_Gd.evelopment\VEE\GeneralLib_I1.42_H1.25_F0.14_EP0.15_FL0.35_CP0.28(12/06/2014)
Type of measurement	Tapping cycle
According to	NTA8800 annex U
Data file	D:\RMIDATA\Zypho\230919C_CW21.TPM
Comment	

MEASUREMENT PROGRAM

Tap profile	D:\RMI\Tap_Patterns\DWTW\DWTW2epg.tpt
Maximum deviation	3
Measuring point requested energy	Tapping point
Measurement started	19/Sep/2023 14:01
Measurement ended	19/Sep/2023 14:09

MEASUREMENT DATA

Tambient (Avg)	T_a	[°C]	21.02
Atmospheric pressure (Avg)	p_a	[mbar]	1006.2
Tdomestic-in (Avg)	T_{dom-in}	[°C]	10.05
Tdomestic-out (Avg)	$T_{dom-out}$	[°C]	26.11
Tshower (Avg)	T_{shower}	[°C]	40.29
Twaste (Avg)	T_{waste}	[°C]	55.00
Flow (Avg)	q_v	[litres/min]	5.7
Volume total	V	[litres]	47.1
Quseful (device)	Q_{H2O_dev}	[kJ]	3102.7
Quseful (tapping point)	Q_{H2O_tap}	[kJ]	5905.3
Delta pressure	p	[bar]	0.197
Efficency water (tapping point)	η_{H2O}	[%]	52.5

t-start [sec]	t-end [sec]	Flow [l/min]	Volume [litres]	T_{dom-in} [°C]	$T_{dom-out}$ [°C]	$T_{tap-point}$ [°C]	Q_{useful} [kJ]	Q_{loss} [kJ]	$Q_{usefull}$ dev [kJ]	Q_{loss} dev [kJ]	$T_{required}$ Achieved
0	497	5.68	47.05	10.05	26.11	26.11	5905.3	0.0	3102.7	0.0	N

SHRU NTA8800

Shower Heat Recovery Unit

Project nr: P000320518
Report nr:
D:\RMIDATA\Zypho\230919C_CW23

Installation: ETR-H7
Test engineer: Rouweler

Manufacturer: Zypho
Year of manufacture: 2023

Model: Slim DW50
Serial No.: 10275

GENERAL DATA

Software	DWTW.VEE
Version	T0.88d_Gd.evelopment\VEE\GeneralLib_I1.42_H1.25_F0.14_EP0.15_FL0.35_CP0.28(12/06/2014)
Type of measurement	Tapping cycle
According to	NTA8800 annex U
Data file	D:\RMIDATA\Zypho\230919C_CW23.TPM
Comment	

MEASUREMENT PROGRAM

Tap profile	D:\RMI\Tap_Patterns\DWTW\DWTW2epg.tpt
Maximum deviation	3
Measuring point requested energy	Tapping point
Measurement started	19/Sep/2023 14:24
Measurement ended	19/Sep/2023 14:33

MEASUREMENT DATA

Tambient (Avg)	T_a	[°C]	20.93
Atmospheric pressure (Avg)	p_a	[mbar]	1006.1
Tdomestic-in (Avg)	T_{dom-in}	[°C]	10.07
Tdomestic-out (Avg)	$T_{dom-out}$	[°C]	25.83
Tshower (Avg)	T_{shower}	[°C]	39.72
Twaste (Avg)	T_{waste}	[°C]	54.35
Flow (Avg)	q_v	[litres/min]	5.7
Volume total	V	[litres]	47.9
Quseful (device)	Q_{H2O_dev}	[kJ]	3107.2
Quseful (tapping point)	Q_{H2O_tap}	[kJ]	5894.3
Delta pressure	p	[bar]	0.195
Efficency water (tapping point)	η_{H2O}	[%]	52.7

t-start [sec]	t-end [sec]	Flow [l/min]	Volume [litres]	T_{dom-in} [°C]	$T_{dom-out}$ [°C]	$T_{tap-point}$ [°C]	Q_{useful} [kJ]	Q_{loss} [kJ]	$Q_{usefull}$ dev [kJ]	Q_{loss} dev [kJ]	$T_{required}$ Achieved
0	507	5.67	47.92	10.07	25.83	25.83	5894.3	0.0	3107.2	0.0	N

SHRU NTA8800

Shower Heat Recovery Unit

Project nr: P000320518
Report nr:
D:\RMIDATA\Zypho\230919C_CW24

Installation: ETR-H7
Test engineer: Rouweler

Manufacturer: Zypho
Year of manufacture: 2023

Model: Slim DW50
Serial No.: 10275

GENERAL DATA

Software	DWTW.VEE
Version	T0.88d_Gd.evelopment\VEE\GeneralLib_I1.42_H1.25_F0.14_EP0.15_FL0.35_CP0.28(12/06/2014)
Type of measurement	Tapping cycle
According to	NTA8800 annex U
Data file	D:\RMIDATA\Zypho\230919C_CW24.TPM
Comment	

MEASUREMENT PROGRAM

Tap profile	D:\RMI\Tap_Patterns\DWTW\DWTW2epg.tpt
Maximum deviation	3
Measuring point requested energy	Tapping point
Measurement started	19/Sep/2023 14:35
Measurement ended	19/Sep/2023 14:43

MEASUREMENT DATA

Tambient (Avg)	T_a	[°C]	20.91
Atmospheric pressure (Avg)	p_a	[mbar]	1006.1
Tdomestic-in (Avg)	T_{dom-in}	[°C]	10.01
Tdomestic-out (Avg)	$T_{dom-out}$	[°C]	25.99
Tshower (Avg)	T_{shower}	[°C]	40.10
Twaste (Avg)	T_{waste}	[°C]	54.31
Flow (Avg)	q_v	[litres/min]	5.7
Volume total	V	[litres]	47.2
Quseful (device)	Q_{H2O_dev}	[kJ]	3105.9
Quseful (tapping point)	Q_{H2O_tap}	[kJ]	5898.4
Delta pressure	p	[bar]	0.195
Efficency water (tapping point)	η_{H2O}	[%]	52.7

t-start [sec]	t-end [sec]	Flow [l/min]	Volume [litres]	T_{dom-in} [°C]	$T_{dom-out}$ [°C]	$T_{tap-point}$ [°C]	Q_{useful} [kJ]	Q_{loss} [kJ]	$Q_{usefull}$ dev [kJ]	Q_{loss} dev [kJ]	$T_{required}$ Achieved
0	500	5.67	47.24	10.01	25.99	25.99	5898.4	0.0	3105.9	0.0	N

SHRU NTA8800

Shower Heat Recovery Unit

Project nr: P000320518
Report nr:
D:\RMIDATA\Zypho\10383\231204A_CW43

Installation: ETR-H7
Test engineer: Rouweler

Manufacturer: Zypho
Year of manufacture: 2023

Model: Pipe DW 50 (1,25m)
Serial No.: kiwanr: 10383

GENERAL DATA

Software	DWTW.VEE
Version	T0.88d_Gd.evelopment\VEE\GeneralLib_I1.42_H1.25_F0.14_EP0.15_FL0.35_CP0.28(12/06/2014)
Type of measurement	Tapping cycle
According to	NTA8800 annex U
Data file	D:\RMIDATA\Zypho\10383\231204A_CW43.TPM
Comment	

MEASUREMENT PROGRAM

Tap profile	D:\RMI\Tap_Patterns\DWTW\dwtw4epg_12.3.tpt
Maximum deviation	3
Measuring point requested energy	Tapping point
Measurement started	04/Dec/2023 14:28
Measurement ended	04/Dec/2023 14:36

MEASUREMENT DATA

Tambient (Avg)	T_a	[°C]	19.25
Atmospheric pressure (Avg)	p_a	[mbar]	1003.4
Tdomestic-in (Avg)	T_{dom-in}	[°C]	9.79
Tdomestic-out (Avg)	$T_{dom-out}$	[°C]	22.36
Tshower (Avg)	T_{shower}	[°C]	40.03
Twaste (Avg)	T_{waste}	[°C]	49.56
Flow (Avg)	q_v	[litres/min]	12.4
Volume total	V	[litres]	100.2
Quseful (device)	Q_{H2O_dev}	[kJ]	5225.3
Quseful (tapping point)	Q_{H2O_tap}	[kJ]	12575.9
Delta pressure	p	[bar]	0.401
Efficency water (tapping point)	η_{H2O}	[%]	41.6

t-start [sec]	t-end [sec]	Flow [l/min]	Volume [litres]	T_{dom-in} [°C]	$T_{dom-out}$ [°C]	$T_{tap-point}$ [°C]	Q_{useful} [kJ]	Q_{loss} [kJ]	$Q_{usefull}$ dev [kJ]	Q_{loss} dev [kJ]	$T_{required}$ Achieved
0	485	12.40	100.23	9.79	22.36	22.36	12575.9	0.0	5225.3	0.0	N

SHRU NTA8800

Shower Heat Recovery Unit

Project nr: P000320518
Report nr:
D:\RMIDATA\Zypho\10383\231204A_CW44

Installation: ETR-H7
Test engineer: Rouweler

Manufacturer: Zypho
Year of manufacture: 2023

Model: Pipe DW 50 (1,25m)
Serial No.: kiwanr: 10383

GENERAL DATA

Software	DWTW.VEE
Version	T0.88d_Gd.evelopment\VEE\GeneralLib_I1.42_H1.25_F0.14_EP0.15_FL0.35_CP0.28(12/06/2014)
Type of measurement	Tapping cycle
According to	NTA8800 annex U
Data file	D:\RMIDATA\Zypho\10383\231204A_CW44.TPM
Comment	

MEASUREMENT PROGRAM

Tap profile	D:\RMI\Tap_Patterns\DWTW\dwtw4epg_12.3.tpt
Maximum deviation	3
Measuring point requested energy	Tapping point
Measurement started	04/Dec/2023 14:38
Measurement ended	04/Dec/2023 14:46

MEASUREMENT DATA

Tambient (Avg)	T_a	[°C]	19.19
Atmospheric pressure (Avg)	p_a	[mbar]	1003.2
Tdomestic-in (Avg)	T_{dom-in}	[°C]	9.89
Tdomestic-out (Avg)	$T_{dom-out}$	[°C]	22.44
Tshower (Avg)	T_{shower}	[°C]	40.03
Twaste (Avg)	T_{waste}	[°C]	49.63
Flow (Avg)	q_v	[litres/min]	12.4
Volume total	V	[litres]	100.3
Quseful (device)	Q_{H2O_dev}	[kJ]	5221.5
Quseful (tapping point)	Q_{H2O_tap}	[kJ]	12544.7
Delta pressure	p	[bar]	0.400
Efficency water (tapping point)	η_{H2O}	[%]	41.6

t-start [sec]	t-end [sec]	Flow [l/min]	Volume [litres]	T_{dom-in} [°C]	$T_{dom-out}$ [°C]	$T_{tap-point}$ [°C]	Q_{useful} [kJ]	Q_{loss} [kJ]	$Q_{usefull}$ dev [kJ]	Q_{loss} dev [kJ]	$T_{required}$ Achieved
0	485	12.41	100.30	9.89	22.44	22.44	12544.7	0.0	5221.5	0.0	N

SHRU NTA8800

Shower Heat Recovery Unit

Project nr: P000320518
Report nr:
D:\RMIDATA\Zypho\10383\231204A_CW45

Installation: ETR-H7
Test engineer: Rouweler

Manufacturer: Zypho
Year of manufacture: 2023

Model: Pipe DW 50 (1,25m)
Serial No.: kiwanr: 10383

GENERAL DATA

Software	DWTW.VEE
Version	T0.88d_Gd.evelopment\VEE\GeneralLib_I1.42_H1.25_F0.14_EP0.15_FL0.35_CP0.28(12/06/2014)
Type of measurement	Tapping cycle
According to	NTA8800 annex U
Data file	D:\RMIDATA\Zypho\10383\231204A_CW45.TPM
Comment	

MEASUREMENT PROGRAM

Tap profile	D:\RMI\Tap_Patterns\DWTW\dwtw4epg_12.3.tpt
Maximum deviation	3
Measuring point requested energy	Tapping point
Measurement started	04/Dec/2023 14:48
Measurement ended	04/Dec/2023 14:56

MEASUREMENT DATA

Tambient (Avg)	T_a	[°C]	19.27
Atmospheric pressure (Avg)	p_a	[mbar]	1003.0
Tdomestic-in (Avg)	T_{dom-in}	[°C]	9.97
Tdomestic-out (Avg)	$T_{dom-out}$	[°C]	22.51
Tshower (Avg)	T_{shower}	[°C]	40.03
Twaste (Avg)	T_{waste}	[°C]	49.71
Flow (Avg)	q_v	[litres/min]	12.4
Volume total	V	[litres]	100.6
Quseful (device)	Q_{H2O_dev}	[kJ]	5228.5
Quseful (tapping point)	Q_{H2O_tap}	[kJ]	12542.8
Delta pressure	p	[bar]	0.400
Efficency water (tapping point)	η_{H2O}	[%]	41.7

Shower Heat Recovery Unit

t-start [sec]	t-end [sec]	Flow [l/min]	Volume [litres]	T_{dom-in} [°C]	$T_{dom-out}$ [°C]	$T_{tap-point}$ [°C]	Q_{useful} [kJ]	Q_{loss} [kJ]	$Q_{usefull}$ dev [kJ]	Q_{loss} dev [kJ]	$T_{required}$ Achieved
0	486	12.41	100.57	9.97	22.51	22.51	12542.8	0.0	5228.5	0.0	N

SHRU NTA8800

Shower Heat Recovery Unit

Project nr: P000320518
Report nr:
D:\RMIDATA\Zypho\10383\CW3\231204B_CW32

Installation: ETR-H7
Test engineer: Rouweler

Manufacturer: Zypho
Year of manufacture: 2023

Model: PiPe DW 55
Serial No.: kiwanr: 10383

GENERAL DATA

Software	DWTW.VEE
Version	T0.88d_Gd.evelopment\VEE\GeneralLib_I1.42_H1.25_F0.14_EP0.15_FL0.35_CP0.28(12/06/2014)
Type of measurement	Tapping cycle
According to	NTA8800 annex U
Data file	D:\RMIDATA\Zypho\10383\CW3\231204B_CW32.TPM
Comment	

MEASUREMENT PROGRAM

Tap profile	D:\RMI\Tap_Patterns\DWTW\DWTW3epg.tpt
Maximum deviation	3
Measuring point requested energy	Tapping point
Measurement started	04/Dec/2023 15:22
Measurement ended	04/Dec/2023 15:30

MEASUREMENT DATA

Tambient (Avg)	T_a	[°C]	19.24
Atmospheric pressure (Avg)	p_a	[mbar]	1002.6
Tdomestic-in (Avg)	T_{dom-in}	[°C]	9.85
Tdomestic-out (Avg)	$T_{dom-out}$	[°C]	24.13
Tshower (Avg)	T_{shower}	[°C]	40.02
Twaste (Avg)	T_{waste}	[°C]	57.85
Flow (Avg)	q_v	[litres/min]	9.1
Volume total	V	[litres]	73.3
Quseful (device)	Q_{H2O_dev}	[kJ]	4339.4
Quseful (tapping point)	Q_{H2O_tap}	[kJ]	9172.4
Delta pressure	p	[bar]	0.228
Efficency water (tapping point)	η_{H2O}	[%]	47.3

t-start [sec]	t-end [sec]	Flow [l/min]	Volume [litres]	T_{dom-in} [°C]	$T_{dom-out}$ [°C]	$T_{tap-point}$ [°C]	Q_{useful} [kJ]	Q_{loss} [kJ]	$Q_{usefull}$ dev [kJ]	Q_{loss} dev [kJ]	$T_{required}$ Achieved
0	482	9.11	73.26	9.85	24.13	24.13	9172.4	0.0	4339.4	0.0	N

SHRU NTA8800

Shower Heat Recovery Unit

Project nr: P000320518
Report nr:
D:\RMIDATA\Zypho\10383\CW3\231204B_CW33

Installation: ETR-H7
Test engineer: Rouweler

Manufacturer: Zypho
Year of manufacture: 2023

Model: PiPe DW 55
Serial No.: kiwanr: 10383

GENERAL DATA

Software	DWTW.VEE
Version	T0.88d_Gd.evelopment\VEE\GeneralLib_I1.42_H1.25_F0.14_EP0.15_FL0.35_CP0.28(12/06/2014)
Type of measurement	Tapping cycle
According to	NTA8800 annex U
Data file	D:\RMIDATA\Zypho\10383\CW3\231204B_CW33.TPM
Comment	

MEASUREMENT PROGRAM

Tap profile	D:\RMI\Tap_Patterns\DWTW\DWTW3epg.tpt
Maximum deviation	3
Measuring point requested energy	Tapping point
Measurement started	04/Dec/2023 15:32
Measurement ended	04/Dec/2023 15:40

MEASUREMENT DATA

Tambient (Avg)	T_a	[°C]	19.29
Atmospheric pressure (Avg)	p_a	[mbar]	1002.5
Tdomestic-in (Avg)	T_{dom-in}	[°C]	9.88
Tdomestic-out (Avg)	$T_{dom-out}$	[°C]	24.15
Tshower (Avg)	T_{shower}	[°C]	40.01
Twaste (Avg)	T_{waste}	[°C]	57.84
Flow (Avg)	q_v	[litres/min]	9.1
Volume total	V	[litres]	73.4
Quseful (device)	Q_{H2O_dev}	[kJ]	4345.6
Quseful (tapping point)	Q_{H2O_tap}	[kJ]	9182.1
Delta pressure	p	[bar]	0.228
Efficency water (tapping point)	η_{H2O}	[%]	47.3

t-start [sec]	t-end [sec]	Flow [l/min]	Volume [litres]	T_{dom-in} [°C]	$T_{dom-out}$ [°C]	$T_{tap-point}$ [°C]	Q_{useful} [kJ]	Q_{loss} [kJ]	$Q_{usefull}$ dev [kJ]	Q_{loss} dev [kJ]	$T_{required}$ Achieved
0	483	9.11	73.44	9.88	24.15	24.15	9182.1	0.0	4345.6	0.0	N

SHRU NTA8800

Shower Heat Recovery Unit

Project nr: P000320518
Report nr:
D:\RMIDATA\Zypho\10383\CW3\231204B_CW35

Installation: ETR-H7
Test engineer: Rouweler

Manufacturer: Zypho
Year of manufacture: 2023

Model: PiPe DW 55
Serial No.: kiwanr: 10383

GENERAL DATA

Software	DWTW.VEE
Version	T0.88d_Gd.evelopment\VEE\GeneralLib_I1.42_H1.25_F0.14_EP0.15_FL0.35_CP0.28(12/06/2014)
Type of measurement	Tapping cycle
According to	NTA8800 annex U
Data file	D:\RMIDATA\Zypho\10383\CW3\231204B_CW35.TPM
Comment	

MEASUREMENT PROGRAM

Tap profile	D:\RMI\Tap_Patterns\DWTW\DWTW3epg.tpt
Maximum deviation	3
Measuring point requested energy	Tapping point
Measurement started	04/Dec/2023 15:52
Measurement ended	04/Dec/2023 16:01

MEASUREMENT DATA

Tambient (Avg)	T_a	[°C]	19.26
Atmospheric pressure (Avg)	p_a	[mbar]	1002.4
Tdomestic-in (Avg)	T_{dom-in}	[°C]	10.02
Tdomestic-out (Avg)	$T_{dom-out}$	[°C]	24.23
Tshower (Avg)	T_{shower}	[°C]	40.01
Twaste (Avg)	T_{waste}	[°C]	57.92
Flow (Avg)	q_v	[litres/min]	9.1
Volume total	V	[litres]	73.7
Quseful (device)	Q_{H2O_dev}	[kJ]	4341.1
Quseful (tapping point)	Q_{H2O_tap}	[kJ]	9165.3
Delta pressure	p	[bar]	0.228
Efficency water (tapping point)	η_{H2O}	[%]	47.4

t-start [sec]	t-end [sec]	Flow [l/min]	Volume [litres]	T_{dom-in} [°C]	$T_{dom-out}$ [°C]	$T_{tap-point}$ [°C]	Q_{useful} [kJ]	Q_{loss} [kJ]	$Q_{usefull}$ dev [kJ]	Q_{loss} dev [kJ]	$T_{required}$ Achieved
0	485	9.11	73.65	10.02	24.23	24.23	9165.3	0.0	4341.1	0.0	N

SHRU NTA8800

Shower Heat Recovery Unit

Project nr: P000320518
Report nr:
D:\RMIDATA\Zypho\10383\CW2\231204C_CW22

Installation: ETR-H7
Test engineer: Rouweler

Manufacturer: Zypho
Year of manufacture: 2023

Model: PiPe DW 55
Serial No.: kiwanr: 10383

GENERAL DATA

Software	DWTW.VEE
Version	T0.88d_Gd.evelopment\VEE\GeneralLib_I1.42_H1.25_F0.14_EP0.15_FL0.35_CP0.28(12/06/2014)
Type of measurement	Tapping cycle
According to	NTA8800 annex U
Data file	D:\RMIDATA\Zypho\10383\CW2\231204C_CW22.TPM
Comment	

MEASUREMENT PROGRAM

Tap profile	D:\RMI\Tap_Patterns\DWTW\DWTW2epg.tpt
Maximum deviation	3
Measuring point requested energy	Tapping point
Measurement started	04/Dec/2023 16:25
Measurement ended	04/Dec/2023 16:34

MEASUREMENT DATA

Tambient (Avg)	T_a	[°C]	19.43
Atmospheric pressure (Avg)	p_a	[mbar]	1002.0
Tdomestic-in (Avg)	T_{dom-in}	[°C]	10.13
Tdomestic-out (Avg)	$T_{dom-out}$	[°C]	26.10
Tshower (Avg)	T_{shower}	[°C]	40.00
Twaste (Avg)	T_{waste}	[°C]	61.99
Flow (Avg)	q_v	[litres/min]	5.6
Volume total	V	[litres]	47.6
Quseful (device)	Q_{H2O_dev}	[kJ]	3153.8
Quseful (tapping point)	Q_{H2O_tap}	[kJ]	5901.9
Delta pressure	p	[bar]	0.099
Efficency water (tapping point)	η_{H2O}	[%]	53.4

t-start [sec]	t-end [sec]	Flow [l/min]	Volume [litres]	T_{dom-in} [°C]	$T_{dom-out}$ [°C]	$T_{tap-point}$ [°C]	Q_{useful} [kJ]	Q_{loss} [kJ]	$Q_{usefull}$ dev [kJ]	Q_{loss} dev [kJ]	$T_{required}$ Achieved
0	506	5.65	47.61	10.13	26.10	26.10	5901.9	0.0	3153.8	0.0	N

SHRU NTA8800

Shower Heat Recovery Unit

Project nr: P000320518
Report nr:
D:\RMIDATA\Zypho\10383\CW2\231204C_CW23

Installation: ETR-H7
Test engineer: Rouweler

Manufacturer: Zypho
Year of manufacture: 2023

Model: PiPe DW 55
Serial No.: kiwanr: 10383

GENERAL DATA

Software	DWTW.VEE
Version	T0.88d_Gd.evelopment\VEE\GeneralLib_I1.42_H1.25_F0.14_EP0.15_FL0.35_CP0.28(12/06/2014)
Type of measurement	Tapping cycle
According to	NTA8800 annex U
Data file	D:\RMIDATA\Zypho\10383\CW2\231204C_CW23.TPM
Comment	

MEASUREMENT PROGRAM

Tap profile	D:\RMI\Tap_Patterns\DWTW\DWTW2epg.tpt
Maximum deviation	3
Measuring point requested energy	Tapping point
Measurement started	04/Dec/2023 16:36
Measurement ended	04/Dec/2023 16:45

MEASUREMENT DATA

Tambient (Avg)	T_a	[°C]	19.46
Atmospheric pressure (Avg)	p_a	[mbar]	1002.0
Tdomestic-in (Avg)	T_{dom-in}	[°C]	10.10
Tdomestic-out (Avg)	$T_{dom-out}$	[°C]	26.16
Tshower (Avg)	T_{shower}	[°C]	39.99
Twaste (Avg)	T_{waste}	[°C]	63.19
Flow (Avg)	q_v	[litres/min]	5.6
Volume total	V	[litres]	47.6
Quseful (device)	Q_{H2O_dev}	[kJ]	3170.3
Quseful (tapping point)	Q_{H2O_tap}	[kJ]	5905.8
Delta pressure	p	[bar]	0.100
Efficency water (tapping point)	η_{H2O}	[%]	53.7

t-start [sec]	t-end [sec]	Flow [l/min]	Volume [litres]	T_{dom-in} [°C]	$T_{dom-out}$ [°C]	$T_{tap-point}$ [°C]	Q_{useful} [kJ]	Q_{loss} [kJ]	$Q_{usefull}$ dev [kJ]	Q_{loss} dev [kJ]	$T_{required}$ Achieved
0	506	5.65	47.60	10.10	26.16	26.16	5905.8	0.0	3170.3	0.0	N

SHRU NTA8800

Shower Heat Recovery Unit

Project nr: P000320518
Report nr:
D:\RMIDATA\Zypho\10383\CW2\231204C_CW24

Installation: ETR-H7
Test engineer: Rouweler

Manufacturer: Zypho
Year of manufacture: 2023

Model: PiPe DW 55
Serial No.: kiwanr: 10383

GENERAL DATA

Software	DWTW.VEE
Version	T0.88d_Gd.evelopment\VEE\GeneralLib_I1.42_H1.25_F0.14_EP0.15_FL0.35_CP0.28(12/06/2014)
Type of measurement	Tapping cycle
According to	NTA8800 annex U
Data file	D:\RMIDATA\Zypho\10383\CW2\231204C_CW24.TPM
Comment	

MEASUREMENT PROGRAM

Tap profile	D:\RMI\Tap_Patterns\DWTW\DWTW2epg.tpt
Maximum deviation	3
Measuring point requested energy	Tapping point
Measurement started	04/Dec/2023 16:47
Measurement ended	04/Dec/2023 16:55

MEASUREMENT DATA

Tambient (Avg)	T_a	[°C]	19.40
Atmospheric pressure (Avg)	p_a	[mbar]	1001.9
Tdomestic-in (Avg)	T_{dom-in}	[°C]	10.12
Tdomestic-out (Avg)	$T_{dom-out}$	[°C]	26.21
Tshower (Avg)	T_{shower}	[°C]	40.00
Twaste (Avg)	T_{waste}	[°C]	62.57
Flow (Avg)	q_v	[litres/min]	5.6
Volume total	V	[litres]	47.6
Quseful (device)	Q_{H2O_dev}	[kJ]	3178.0
Quseful (tapping point)	Q_{H2O_tap}	[kJ]	5905.2
Delta pressure	p	[bar]	0.099
Efficency water (tapping point)	η_{H2O}	[%]	53.8

Shower Heat Recovery Unit

t-start [sec]	t-end [sec]	Flow [l/min]	Volume [litres]	T_{dom-in} [°C]	$T_{dom-out}$ [°C]	$T_{tap-point}$ [°C]	Q_{useful} [kJ]	Q_{loss} [kJ]	$Q_{usefull}$ dev [kJ]	Q_{loss} dev [kJ]	$T_{required}$ Achieved
0	506	5.65	47.63	10.12	26.21	26.21	5905.2	0.0	3178.0	0.0	N

SHRU NTA8800

Shower Heat Recovery Unit

Project nr: P000320518
Report nr:
D:\RMIDATA\Zypho\10384\CW4\231205A_CW42

Installation: ETR-H7
Test engineer: Rouweler

Manufacturer: Zypho
Year of manufacture: 2023

Model: PiPe DW 60
Serial No.: 10384

GENERAL DATA

Software	DWTW.VEE
Version	T0.88d_Gd.evelopment\VEE\GeneralLib_I1.42_H1.25_F0.14_EP0.15_FL0.35_CP0.28(12/06/2014)
Type of measurement	Tapping cycle
According to	NTA8800 annex U
Data file	D:\RMIDATA\Zypho\10384\CW4\231205A_CW42.TPM
Comment	

MEASUREMENT PROGRAM

Tap profile	D:\RMI\Tap_Patterns\DWTW\dwtw4epg_12.3.tpt
Maximum deviation	3
Measuring point requested energy	Tapping point
Measurement started	05/Dec/2023 16:37
Measurement ended	05/Dec/2023 16:45

MEASUREMENT DATA

Tambient (Avg)	T_a	[°C]	19.28
Atmospheric pressure (Avg)	p_a	[mbar]	1003.6
Tdomestic-in (Avg)	T_{dom-in}	[°C]	9.97
Tdomestic-out (Avg)	$T_{dom-out}$	[°C]	24.03
Tshower (Avg)	T_{shower}	[°C]	40.03
Twaste (Avg)	T_{waste}	[°C]	50.40
Flow (Avg)	q_v	[litres/min]	12.4
Volume total	V	[litres]	100.6
Quseful (device)	Q_{H2O_dev}	[kJ]	5871.4
Quseful (tapping point)	Q_{H2O_tap}	[kJ]	12541.0
Delta pressure	p	[bar]	0.145
Efficency water (tapping point)	η_{H2O}	[%]	46.8

t-start [sec]	t-end [sec]	Flow [l/min]	Volume [litres]	T_{dom-in} [°C]	$T_{dom-out}$ [°C]	$T_{tap-point}$ [°C]	Q_{useful} [kJ]	Q_{loss} [kJ]	$Q_{usefull}$ dev [kJ]	Q_{loss} dev [kJ]	$T_{required}$ Achieved
0	486	12.41	100.56	9.97	24.03	24.03	12541.0	0.0	5871.4	0.0	N

SHRU NTA8800

Shower Heat Recovery Unit

Project nr: P000320518
Report nr:
D:\RMIDATA\Zypho\10384\CW4\231205A_CW44

Installation: ETR-H7
Test engineer: Rouweler

Manufacturer: Zypho
Year of manufacture: 2023

Model: PiPe DW 60
Serial No.: 10384

GENERAL DATA

Software	DWTW.VEE
Version	T0.88d_Gd.evelopment\VEE\GeneralLib_I1.42_H1.25_F0.14_EP0.15_FL0.35_CP0.28(12/06/2014)
Type of measurement	Tapping cycle
According to	NTA8800 annex U
Data file	D:\RMIDATA\Zypho\10384\CW4\231205A_CW44.TPM
Comment	

MEASUREMENT PROGRAM

Tap profile	D:\RMI\Tap_Patterns\DWTW\dwtw4epg_12.3.tpt
Maximum deviation	3
Measuring point requested energy	Tapping point
Measurement started	05/Dec/2023 16:58
Measurement ended	05/Dec/2023 17:06

MEASUREMENT DATA

Tambient (Avg)	T_a	[°C]	19.14
Atmospheric pressure (Avg)	p_a	[mbar]	1004.0
Tdomestic-in (Avg)	T_{dom-in}	[°C]	10.09
Tdomestic-out (Avg)	$T_{dom-out}$	[°C]	24.10
Tshower (Avg)	T_{shower}	[°C]	40.03
Twaste (Avg)	T_{waste}	[°C]	50.39
Flow (Avg)	q_v	[litres/min]	12.4
Volume total	V	[litres]	101.1
Quseful (device)	Q_{H2O_dev}	[kJ]	5883.0
Quseful (tapping point)	Q_{H2O_tap}	[kJ]	12556.9
Delta pressure	p	[bar]	0.144
Efficency water (tapping point)	η_{H2O}	[%]	46.9

t-start [sec]	t-end [sec]	Flow [l/min]	Volume [litres]	T_{dom-in} [°C]	$T_{dom-out}$ [°C]	$T_{tap-point}$ [°C]	Q_{useful} [kJ]	Q_{loss} [kJ]	$Q_{usefull}$ dev [kJ]	Q_{loss} dev [kJ]	$T_{required}$ Achieved
0	489	12.41	101.10	10.09	24.10	24.10	12556.9	0.0	5883.0	0.0	N

SHRU NTA8800

Shower Heat Recovery Unit

Project nr: P000320518
Report nr:
D:\RMIDATA\Zypho\10384\CW4\231205A_CW45

Installation: ETR-H7
Test engineer: Rouweler

Manufacturer: Zypho
Year of manufacture: 2023

Model: PiPe DW 60
Serial No.: 10384

GENERAL DATA

Software	DWTW.VEE
Version	T0.88d_Gd.evelopment\VEE\GeneralLib_I1.42_H1.25_F0.14_EP0.15_FL0.35_CP0.28(12/06/2014)
Type of measurement	Tapping cycle
According to	NTA8800 annex U
Data file	D:\RMIDATA\Zypho\10384\CW4\231205A_CW45.TPM
Comment	

MEASUREMENT PROGRAM

Tap profile	D:\RMI\Tap_Patterns\DWTW\dwtw4epg_12.3.tpt
Maximum deviation	3
Measuring point requested energy	Tapping point
Measurement started	05/Dec/2023 17:08
Measurement ended	05/Dec/2023 17:16

MEASUREMENT DATA

Tambient (Avg)	T_a	[°C]	19.16
Atmospheric pressure (Avg)	p_a	[mbar]	1004.0
Tdomestic-in (Avg)	T_{dom-in}	[°C]	9.83
Tdomestic-out (Avg)	$T_{dom-out}$	[°C]	23.94
Tshower (Avg)	T_{shower}	[°C]	40.03
Twaste (Avg)	T_{waste}	[°C]	50.33
Flow (Avg)	q_v	[litres/min]	12.4
Volume total	V	[litres]	100.4
Quseful (device)	Q_{H2O_dev}	[kJ]	5883.9
Quseful (tapping point)	Q_{H2O_tap}	[kJ]	12578.6
Delta pressure	p	[bar]	0.145
Efficency water (tapping point)	η_{H2O}	[%]	46.8

t-start [sec]	t-end [sec]	Flow [l/min]	Volume [litres]	T_{dom-in} [°C]	$T_{dom-out}$ [°C]	$T_{tap-point}$ [°C]	Q_{useful} [kJ]	Q_{loss} [kJ]	$Q_{usefull}$ dev [kJ]	Q_{loss} dev [kJ]	$T_{required}$ Achieved
0	485	12.41	100.39	9.83	23.94	23.94	12578.6	0.0	5883.9	0.0	N

SHRU NTA8800

Shower Heat Recovery Unit

Project nr: P000320518
Report nr:
D:\RMIDATA\Zypho\10384\CW3\231206A_CW33

Installation: ETR-H7
Test engineer: Rouweler

Manufacturer: Zypho
Year of manufacture: 2023

Model: PiPe DW 60
Serial No.: 10384

GENERAL DATA

Software	DWTW.VEE
Version	T0.88d_Gd.evelopment\VEE\GeneralLib_I1.42_H1.25_F0.14_EP0.15_FL0.35_CP0.28(12/06/2014)
Type of measurement	Tapping cycle
According to	NTA8800 annex U
Data file	D:\RMIDATA\Zypho\10384\CW3\231206A_CW33.TPM
Comment	

MEASUREMENT PROGRAM

Tap profile	D:\RMI\Tap_Patterns\DWTW\DWTW3epg.tpt
Maximum deviation	3
Measuring point requested energy	Tapping point
Measurement started	06/Dec/2023 10:22
Measurement ended	06/Dec/2023 10:30

MEASUREMENT DATA

Tambient (Avg)	T_a	[°C]	19.83
Atmospheric pressure (Avg)	p_a	[mbar]	1012.3
Tdomestic-in (Avg)	T_{dom-in}	[°C]	10.02
Tdomestic-out (Avg)	$T_{dom-out}$	[°C]	24.82
Tshower (Avg)	T_{shower}	[°C]	40.00
Twaste (Avg)	T_{waste}	[°C]	52.12
Flow (Avg)	q_v	[litres/min]	9.1
Volume total	V	[litres]	73.6
Quseful (device)	Q_{H2O_dev}	[kJ]	4521.9
Quseful (tapping point)	Q_{H2O_tap}	[kJ]	9154.6
Delta pressure	p	[bar]	0.085
Efficency water (tapping point)	η_{H2O}	[%]	49.4

t-start [sec]	t-end [sec]	Flow [l/min]	Volume [litres]	T_{dom-in} [°C]	$T_{dom-out}$ [°C]	$T_{tap-point}$ [°C]	Q_{useful} [kJ]	Q_{loss} [kJ]	$Q_{usefull}$ dev [kJ]	Q_{loss} dev [kJ]	$T_{required}$ Achieved
0	484	9.12	73.59	10.02	24.82	24.82	9154.6	0.0	4521.9	0.0	N

SHRU NTA8800

Shower Heat Recovery Unit

Project nr: P000320518
Report nr:
D:\RMIDATA\Zypho\10384\CW3\231206A_CW34

Installation: ETR-H7
Test engineer: Rouweler

Manufacturer: Zypho
Year of manufacture: 2023

Model: PiPe DW 60
Serial No.: 10384

GENERAL DATA

Software	DWTW.VEE
Version	T0.88d_Gd.evelopment\VEE\GeneralLib_I1.42_H1.25_F0.14_EP0.15_FL0.35_CP0.28(12/06/2014)
Type of measurement	Tapping cycle
According to	NTA8800 annex U
Data file	D:\RMIDATA\Zypho\10384\CW3\231206A_CW34.TPM
Comment	

MEASUREMENT PROGRAM

Tap profile	D:\RMI\Tap_Patterns\DWTW\DWTW3epg.tpt
Maximum deviation	3
Measuring point requested energy	Tapping point
Measurement started	06/Dec/2023 10:32
Measurement ended	06/Dec/2023 10:40

MEASUREMENT DATA

Tambient (Avg)	T_a	[°C]	19.67
Atmospheric pressure (Avg)	p_a	[mbar]	1012.4
Tdomestic-in (Avg)	T_{dom-in}	[°C]	10.08
Tdomestic-out (Avg)	$T_{dom-out}$	[°C]	24.96
Tshower (Avg)	T_{shower}	[°C]	40.00
Twaste (Avg)	T_{waste}	[°C]	52.12
Flow (Avg)	q_v	[litres/min]	9.1
Volume total	V	[litres]	73.9
Quseful (device)	Q_{H2O_dev}	[kJ]	4565.4
Quseful (tapping point)	Q_{H2O_tap}	[kJ]	9171.0
Delta pressure	p	[bar]	0.085
Efficency water (tapping point)	η_{H2O}	[%]	49.8

Shower Heat Recovery Unit

t-start [sec]	t-end [sec]	Flow [l/min]	Volume [litres]	T_{dom-in} [°C]	$T_{dom-out}$ [°C]	$T_{tap-point}$ [°C]	Q_{useful} [kJ]	Q_{loss} [kJ]	$Q_{usefull}$ dev [kJ]	Q_{loss} dev [kJ]	$T_{required}$ Achieved
0	486	9.11	73.86	10.08	24.96	24.96	9171.0	0.0	4565.4	0.0	N

SHRU NTA8800

Shower Heat Recovery Unit

Project nr: P000320518
Report nr:
D:\RMIDATA\Zypho\10384\CW3\231206A_CW35

Installation: ETR-H7
Test engineer: Rouweler

Manufacturer: Zypho
Year of manufacture: 2023

Model: PiPe DW 60
Serial No.: 10384

GENERAL DATA

Software	DWTW.VEE
Version	T0.88d_Gd.evelopment\VEE\GeneralLib_I1.42_H1.25_F0.14_EP0.15_FL0.35_CP0.28(12/06/2014)
Type of measurement	Tapping cycle
According to	NTA8800 annex U
Data file	D:\RMIDATA\Zypho\10384\CW3\231206A_CW35.TPM
Comment	

MEASUREMENT PROGRAM

Tap profile	D:\RMI\Tap_Patterns\DWTW\DWTW3epg.tpt
Maximum deviation	3
Measuring point requested energy	Tapping point
Measurement started	06/Dec/2023 10:43
Measurement ended	06/Dec/2023 10:51

MEASUREMENT DATA

Tambient (Avg)	T_a	[°C]	19.36
Atmospheric pressure (Avg)	p_a	[mbar]	1012.5
Tdomestic-in (Avg)	T_{dom-in}	[°C]	10.13
Tdomestic-out (Avg)	$T_{dom-out}$	[°C]	24.87
Tshower (Avg)	T_{shower}	[°C]	40.00
Twaste (Avg)	T_{waste}	[°C]	52.08
Flow (Avg)	q_v	[litres/min]	9.1
Volume total	V	[litres]	74.0
Quseful (device)	Q_{H2O_dev}	[kJ]	4529.6
Quseful (tapping point)	Q_{H2O_tap}	[kJ]	9170.2
Delta pressure	p	[bar]	0.085
Efficency water (tapping point)	η_{H2O}	[%]	49.4

t-start [sec]	t-end [sec]	Flow [l/min]	Volume [litres]	T_{dom-in} [°C]	$T_{dom-out}$ [°C]	$T_{tap-point}$ [°C]	Q_{useful} [kJ]	Q_{loss} [kJ]	$Q_{usefull}$ dev [kJ]	Q_{loss} dev [kJ]	$T_{required}$ Achieved
0	487	9.11	73.99	10.13	24.87	24.87	9170.2	0.0	4529.6	0.0	N

SHRU NTA8800

Shower Heat Recovery Unit

Project nr: P000320518
Report nr:
D:\RMIDATA\Zypho\10384\CW2\231206C_CW22

Installation: ETR-H7
Test engineer: Rouweler

Manufacturer: Zypho
Year of manufacture: 2023

Model: PiPe DW 60
Serial No.: 10384

GENERAL DATA

Software	DWTW.VEE
Version	T0.88d_Gd.evelopment\VEE\GeneralLib_I1.42_H1.25_F0.14_EP0.15_FL0.35_CP0.28(12/06/2014)
Type of measurement	Tapping cycle
According to	NTA8800 annex U
Data file	D:\RMIDATA\Zypho\10384\CW2\231206C_CW22.TPM
Comment	

MEASUREMENT PROGRAM

Tap profile	D:\RMI\Tap_Patterns\DWTW\DWTW2epg.tpt
Maximum deviation	3
Measuring point requested energy	Tapping point
Measurement started	06/Dec/2023 11:19
Measurement ended	06/Dec/2023 11:28

MEASUREMENT DATA

Tambient (Avg)	T_a	[°C]	19.61
Atmospheric pressure (Avg)	p_a	[mbar]	1012.5
Tdomestic-in (Avg)	T_{dom-in}	[°C]	10.07
Tdomestic-out (Avg)	$T_{dom-out}$	[°C]	27.34
Tshower (Avg)	T_{shower}	[°C]	39.97
Twaste (Avg)	T_{waste}	[°C]	52.01
Flow (Avg)	q_v	[litres/min]	5.6
Volume total	V	[litres]	47.6
Quseful (device)	Q_{H2O_dev}	[kJ]	3410.1
Quseful (tapping point)	Q_{H2O_tap}	[kJ]	5899.9
Delta pressure	p	[bar]	0.040
Efficency water (tapping point)	η_{H2O}	[%]	57.8

t-start [sec]	t-end [sec]	Flow [l/min]	Volume [litres]	T_{dom-in} [°C]	$T_{dom-out}$ [°C]	$T_{tap-point}$ [°C]	Q_{useful} [kJ]	Q_{loss} [kJ]	$Q_{usefull}$ dev [kJ]	Q_{loss} dev [kJ]	$T_{required}$ Achieved
0	505	5.65	47.56	10.07	27.34	27.34	5899.9	0.0	3410.1	0.0	N

SHRU NTA8800

Shower Heat Recovery Unit

Project nr: P000320518
Report nr:
D:\RMIDATA\Zypho\10384\CW2\231206C_CW23

Installation: ETR-H7
Test engineer: Rouweler

Manufacturer: Zypho
Year of manufacture: 2023

Model: PiPe DW 60
Serial No.: 10384

GENERAL DATA

Software	DWTW.VEE
Version	T0.88d_Gd.evelopment\VEE\GeneralLib_I1.42_H1.25_F0.14_EP0.15_FL0.35_CP0.28(12/06/2014)
Type of measurement	Tapping cycle
According to	NTA8800 annex U
Data file	D:\RMIDATA\Zypho\10384\CW2\231206C_CW23.TPM
Comment	

MEASUREMENT PROGRAM

Tap profile	D:\RMI\Tap_Patterns\DWTW\DWTW2epg.tpt
Maximum deviation	3
Measuring point requested energy	Tapping point
Measurement started	06/Dec/2023 11:30
Measurement ended	06/Dec/2023 11:38

MEASUREMENT DATA

Tambient (Avg)	T_a	[°C]	19.69
Atmospheric pressure (Avg)	p_a	[mbar]	1012.4
Tdomestic-in (Avg)	T_{dom-in}	[°C]	10.10
Tdomestic-out (Avg)	$T_{dom-out}$	[°C]	27.37
Tshower (Avg)	T_{shower}	[°C]	40.00
Twaste (Avg)	T_{waste}	[°C]	52.04
Flow (Avg)	q_v	[litres/min]	5.6
Volume total	V	[litres]	47.5
Quseful (device)	Q_{H2O_dev}	[kJ]	3408.5
Quseful (tapping point)	Q_{H2O_tap}	[kJ]	5897.1
Delta pressure	p	[bar]	0.040
Efficency water (tapping point)	η_{H2O}	[%]	57.8

t-start [sec]	t-end [sec]	Flow [l/min]	Volume [litres]	T_{dom-in} [°C]	$T_{dom-out}$ [°C]	$T_{tap-point}$ [°C]	Q_{useful} [kJ]	Q_{loss} [kJ]	$Q_{usefull}$ dev [kJ]	Q_{loss} dev [kJ]	$T_{required}$ Achieved
0	505	5.65	47.53	10.10	27.37	27.37	5897.1	0.0	3408.5	0.0	N

SHRU NTA8800

Shower Heat Recovery Unit

Project nr: P000320518
Report nr:
D:\RMIDATA\Zypho\10384\CW2\231206C_CW24

Installation: ETR-H7
Test engineer: Rouweler

Manufacturer: Zypho
Year of manufacture: 2023

Model: PiPe DW 60
Serial No.: 10384

GENERAL DATA

Software	DWTW.VEE
Version	T0.88d_Gd.evelopment\VEE\GeneralLib_I1.42_H1.25_F0.14_EP0.15_FL0.35_CP0.28(12/06/2014)
Type of measurement	Tapping cycle
According to	NTA8800 annex U
Data file	D:\RMIDATA\Zypho\10384\CW2\231206C_CW24.TPM
Comment	

MEASUREMENT PROGRAM

Tap profile	D:\RMI\Tap_Patterns\DWTW\DWTW2epg.tpt
Maximum deviation	3
Measuring point requested energy	Tapping point
Measurement started	06/Dec/2023 11:41
Measurement ended	06/Dec/2023 11:49

MEASUREMENT DATA

Tambient (Avg)	T_a	[°C]	19.71
Atmospheric pressure (Avg)	p_a	[mbar]	1012.5
Tdomestic-in (Avg)	T_{dom-in}	[°C]	10.13
Tdomestic-out (Avg)	$T_{dom-out}$	[°C]	27.37
Tshower (Avg)	T_{shower}	[°C]	40.00
Twaste (Avg)	T_{waste}	[°C]	52.05
Flow (Avg)	q_v	[litres/min]	5.6
Volume total	V	[litres]	47.7
Quseful (device)	Q_{H2O_dev}	[kJ]	3413.3
Quseful (tapping point)	Q_{H2O_tap}	[kJ]	5911.0
Delta pressure	p	[bar]	0.040
Efficency water (tapping point)	η_{H2O}	[%]	57.7

t-start [sec]	t-end [sec]	Flow [l/min]	Volume [litres]	T_{dom-in} [°C]	$T_{dom-out}$ [°C]	$T_{tap-point}$ [°C]	Q_{useful} [kJ]	Q_{loss} [kJ]	$Q_{usefull}$ dev [kJ]	Q_{loss} dev [kJ]	$T_{required}$ Achieved
0	507	5.65	47.69	10.13	27.37	27.37	5911.0	0.0	3413.3	0.0	N

SHRU NTA8800

Shower Heat Recovery Unit

Project nr: P000320518
Report nr:
D:\RMIDATA\Zypho\10384\CW4\231205A_CW41

Installation: ETR-H7
Test engineer: Rouweler

Manufacturer: Zypho
Year of manufacture: 2023

Model: PiPe DW 60
Serial No.: 10384

GENERAL DATA

Software	DWTW.VEE
Version	T0.88d_Gd.evelopment\VEE\GeneralLib_I1.42_H1.25_F0.14_EP0.15_FL0.35_CP0.28(12/06/2014)
Type of measurement	Tapping cycle
According to	NTA8800 annex U
Data file	D:\RMIDATA\Zypho\10384\CW4\231205A_CW41.TPM
Comment	

MEASUREMENT PROGRAM

Tap profile	D:\RMI\Tap_Patterns\DWTW\dwtw4epg_12.3.tpt
Maximum deviation	3
Measuring point requested energy	Tapping point
Measurement started	05/Dec/2023 16:27
Measurement ended	05/Dec/2023 16:35

MEASUREMENT DATA

Tambient (Avg)	T_a	[°C]	19.32
Atmospheric pressure (Avg)	p_a	[mbar]	1003.4
Tdomestic-in (Avg)	T_{dom-in}	[°C]	9.93
Tdomestic-out (Avg)	$T_{dom-out}$	[°C]	24.12
Tshower (Avg)	T_{shower}	[°C]	39.90
Twaste (Avg)	T_{waste}	[°C]	52.17
Flow (Avg)	q_v	[litres/min]	12.4
Volume total	V	[litres]	101.1
Quseful (device)	Q_{H2O_dev}	[kJ]	5954.3
Quseful (tapping point)	Q_{H2O_tap}	[kJ]	12573.3
Delta pressure	p	[bar]	0.145
Efficency water (tapping point)	η_{H2O}	[%]	47.4

t-start [sec]	t-end [sec]	Flow [l/min]	Volume [litres]	T_{dom-in} [°C]	$T_{dom-out}$ [°C]	$T_{tap-point}$ [°C]	Q_{useful} [kJ]	Q_{loss} [kJ]	$Q_{usefull}$ dev [kJ]	Q_{loss} dev [kJ]	$T_{required}$ Achieved
0	489	12.41	101.10	9.93	24.12	24.12	12573.3	0.0	5954.3	0.0	N

SHRU NTA8800

Shower Heat Recovery Unit

Project nr: P000320518
Report nr:
D:\RMIDATA\Zypho\10384\CW3\231206A_CW31

Installation: ETR-H7
Test engineer: Rouweler

Manufacturer: Zypho
Year of manufacture: 2023

Model: PiPe DW 60
Serial No.: 10384

GENERAL DATA

Software	DWTW.VEE
Version	T0.88d_Gd.evelopment\VEE\GeneralLib_I1.42_H1.25_F0.14_EP0.15_FL0.35_CP0.28(12/06/2014)
Type of measurement	Tapping cycle
According to	NTA8800 annex U
Data file	D:\RMIDATA\Zypho\10384\CW3\231206A_CW31.TPM
Comment	

MEASUREMENT PROGRAM

Tap profile	D:\RMI\Tap_Patterns\DWTW\DWTW3epg.tpt
Maximum deviation	3
Measuring point requested energy	Tapping point
Measurement started	06/Dec/2023 10:01
Measurement ended	06/Dec/2023 10:10

MEASUREMENT DATA

Tambient (Avg)	T_a	[°C]	19.60
Atmospheric pressure (Avg)	p_a	[mbar]	1012.0
Tdomestic-in (Avg)	T_{dom-in}	[°C]	9.95
Tdomestic-out (Avg)	$T_{dom-out}$	[°C]	24.94
Tshower (Avg)	T_{shower}	[°C]	39.72
Twaste (Avg)	T_{waste}	[°C]	52.21
Flow (Avg)	q_v	[litres/min]	9.1
Volume total	V	[litres]	74.2
Quseful (device)	Q_{H2O_dev}	[kJ]	4614.9
Quseful (tapping point)	Q_{H2O_tap}	[kJ]	9164.7
Delta pressure	p	[bar]	0.086
Efficency water (tapping point)	η_{H2O}	[%]	50.4

t-start [sec]	t-end [sec]	Flow [l/min]	Volume [litres]	T_{dom-in} [°C]	$T_{dom-out}$ [°C]	$T_{tap-point}$ [°C]	Q_{useful} [kJ]	Q_{loss} [kJ]	$Q_{usefull}$ dev [kJ]	Q_{loss} dev [kJ]	$T_{required}$ Achieved
0	489	9.11	74.20	9.95	24.94	24.94	9164.7	0.0	4614.9	0.0	N

SHRU NTA8800

Shower Heat Recovery Unit

Project nr: P000320518
Report nr:
D:\RMIDATA\Zypho\10384\CW2\231206C_CW21

Installation: ETR-H7
Test engineer: Rouweler

Manufacturer: Zypho
Year of manufacture: 2023

Model: PiPe DW 60
Serial No.: 10384

GENERAL DATA

Software	DWTW.VEE
Version	T0.88d_Gd.evelopment\VEE\GeneralLib_I1.42_H1.25_F0.14_EP0.15_FL0.35_CP0.28(12/06/2014)
Type of measurement	Tapping cycle
According to	NTA8800 annex U
Data file	D:\RMIDATA\Zypho\10384\CW2\231206C_CW21.TPM
Comment	

MEASUREMENT PROGRAM

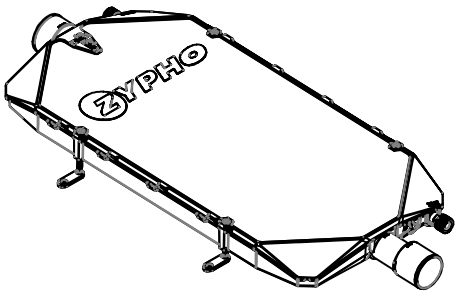
Tap profile	D:\RMI\Tap_Patterns\DWTW\DWTW2epg.tpt
Maximum deviation	3
Measuring point requested energy	Tapping point
Measurement started	06/Dec/2023 11:09
Measurement ended	06/Dec/2023 11:17

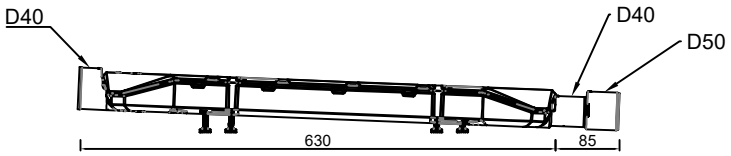
MEASUREMENT DATA

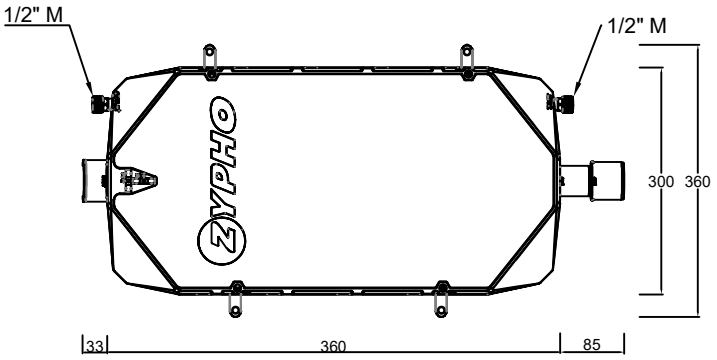
Tambient (Avg)	T_a	[°C]	19.59
Atmospheric pressure (Avg)	p_a	[mbar]	1012.6
Tdomestic-in (Avg)	T_{dom-in}	[°C]	10.11
Tdomestic-out (Avg)	$T_{dom-out}$	[°C]	27.74
Tshower (Avg)	T_{shower}	[°C]	39.67
Twaste (Avg)	T_{waste}	[°C]	52.13
Flow (Avg)	q_v	[litres/min]	5.6
Volume total	V	[litres]	48.1
Quseful (device)	Q_{H2O_dev}	[kJ]	3520.6
Quseful (tapping point)	Q_{H2O_tap}	[kJ]	5902.9
Delta pressure	p	[bar]	0.040
Efficency water (tapping point)	η_{H2O}	[%]	59.6

t-start [sec]	t-end [sec]	Flow [l/min]	Volume [litres]	T_{dom-in} [°C]	$T_{dom-out}$ [°C]	$T_{tap-point}$ [°C]	Q_{useful} [kJ]	Q_{loss} [kJ]	$Q_{usefull}$ dev [kJ]	Q_{loss} dev [kJ]	$T_{required}$ Achieved
0	511	5.65	48.12	10.11	27.74	27.74	5902.9	0.0	3520.6	0.0	N

Appendix 3





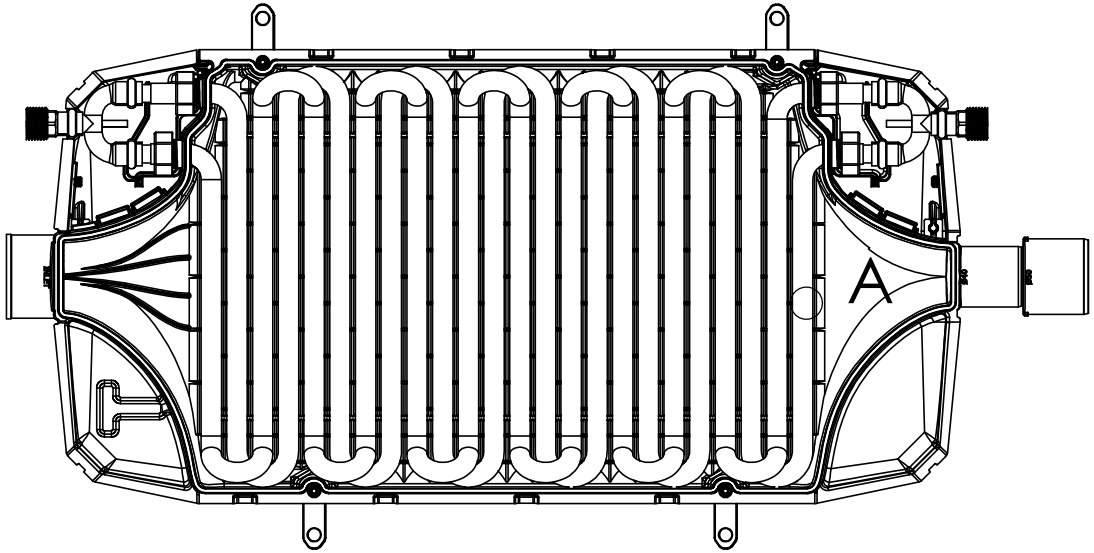


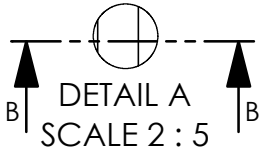
ZYPHO Shower Drain Heat Recovery		Empresa / Company: Zypho, S.A.	
		Projeto / Project: Zypho Slim	
Escala / Scale: 1:10	Tolerância / Tolerance: +/- 2%	Descrição / Description: Technical drawing	
		Desenhador / Designer: João Manuel Rego	Data / Date: 31/08/23 — Desenho nº / Drawing nr.: MG_DTEN0823V1
			Formato / Size: A4 — Unidades / Units: mm

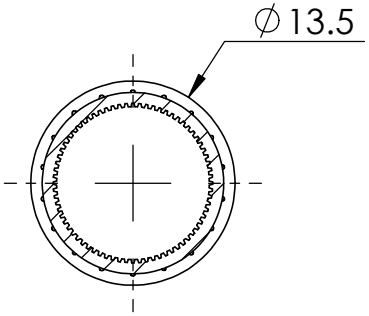
REVISION HISTORY

REFERENCE	REV	DESCRIPTION	DATE	APPROVED

Zypho Slim 50 - Inner Features







SECTION B-B
SCALE 2:1

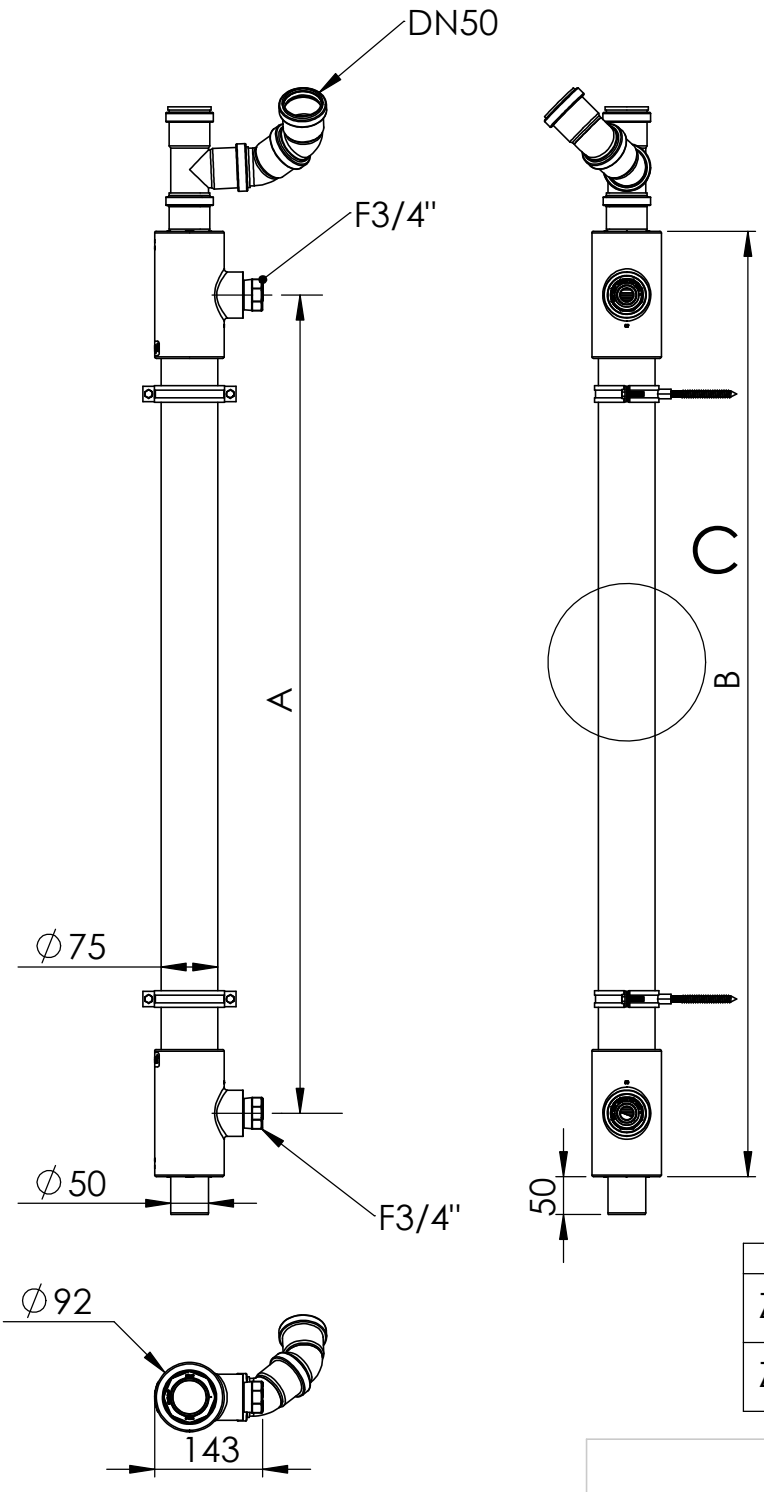
ZYPHO
Shower Drain Heat Recovery

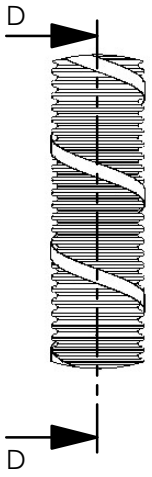
GENERAL TOLERANCES FOR DIMENSIONS
WITHOUT INDIVIDUAL INDICATION
ISO 2768 - mK

NAME: Zypho Slim 50 - Inner Features

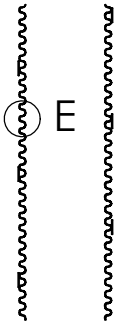
APPROVALS		DATE	REFERENCE NO	
DESIGNED	João Manuel Rego	29/11/2023	DRAWING NO	
CHECKED	João Manuel Rego	29/11/2023	REVISION NO	
APPROVED	José Meliço	29/11/2023	SCALE	1:5

REVISION HISTORY				
REFERENCE	REV	DESCRIPTION	DATE	APPROVED
ZYPI**GDTP00	1.2	Zypho PiPe DW	10/02/2023	José Meliço

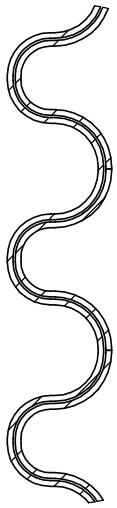




DETAIL C
SCALE 1 : 5



SECTION D-D
SCALE 1 : 5



DETAIL E
SCALE 3 : 1

	A	B
Zypho PiPe DW 55	1082	1250
Zypho PiPe DW 60	1432	1600

GENERAL TOLERANCES FOR DIMENSIONS WITHOUT INDIVIDUAL INDICATION
ISO 2768 - mK

NAME
Zypho PiPe DW

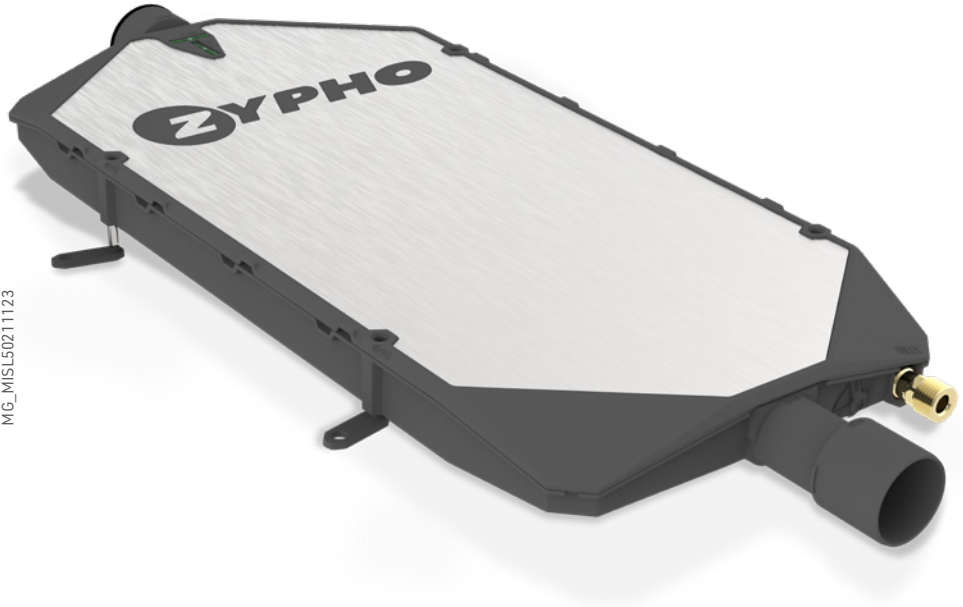
[mm]	APPROVALS		DATE	REFERENCE NO	ZYPI**GDTP00
	DESIGNED	João Rego	10/02/2023	DRAWING NO	ZYPI**GDTP00_1
	CHECKED	João Rego	10/02/2023	REVISION NO	1.2
	APPROVED	José Meliço	10/02/2023	SCALE	1:10

Appendix 4

IMPORTANT
IMPORTANTE
WICHTIG
WAŻNY
BELANGRIJK

ZYPHO®
Shower Drain Heat Recovery

- INSTALLATION MANUAL
- MANUAL DE INSTALAÇÃO
- MANUAL DE INSTALACIÓN
- INSTALLATION MANUEL
- INSTALLATIONSANLEITUNG
- INSTRUKCJA INSTALACJI
- INSTALLATIEHANDLEIDING



MG_MISL50211123

WWW.ZYPHO.PT
+351 210991351
B2B@ALIAXIS.COM

Slim50

SHOWER VALVE	ZYSL50GDTPSV
BATH VALVE	ZYSL50GDTPBV
SQUARE DRAIN 10CM	ZYSL50GDTPL1
LINEAR DRAIN 70|80|90CM	ZYSL50GDTPL7 | ZYSL50GDTPL8 | ZYSL50GDTPL9

TECHNICAL DATA

Before proceeding to assembly, please make sure all the following conditions are verified

- Max. water pressure endured: 6 bar
- Recommended flow rate: 12,5L/min
- Maximum flow rate: 25,0 L/min
- Max. water temperature: 60°C
- Min. height clearance: 90mm

INSTALLATION INSTRUCTIONS

Zypho® S|im Heat Exchangers are provided as a complete bundle.
Please check the content of the package for completeness and integrity before proceeding.
Should any deviations be noted, please consult your supplier and do not start the assembly. You must never alter or modify the provided components by Zypho®. For a proper installation, please use these components only.
Before the freshwater connection a non-return valve and a shut-off valve should be installed (type EA). Before the preheated water connection a shut-off valve should be installed (type EA).

We recommend the use of a thermostatic shower mixer.
NON-COMPLIANCE WITH THESE RECOMMENDATIONS FOR INSTALLATION AND USE MAY VOID ANY WARRANTY.

SAFETY

Zypho® S|im Heat Exchangers are double walled, according to European regulation EN 1717 ("Protection against pollution of potable water in water installations and general requirements of devices to prevent pollution").
We test all Zypho® units in our factory before shipping. The main water circuit is pressurized up to 6 bar to ensure that there are no leaks or defects.

MAINTENANCE

Zypho® S|im Heat Exchangers have been designed to require minimal maintenance efforts.
They must be installed with the shower drain provided. Periodic cleaning is recommended to optimise energy exchange. Use a non-corrosive drain cleaner or a water jet. We recommend our water jet brush ZYMN00000J1.

INSTALLATION CONFIGURATION OPTIONS P. 6
COMPONENTS AND DIMENSIONS P. 7
INSTALLATION GUIDE P. 8-11

UK IMPORTANT REMARKS

INSTALLATION

The preheated water supply inline of the ZYPHO S|im must be insulated in accordance with the requirements of the 'Building Services Compliance Guide'.
Pipework between the WWHRS preheated water outlet and the water heater and /or shower cold water inlet(s) (depending on installation configuration) must be labelled to indicate that no other services can be interconnected.
System A: Installation configuration 1
System B: Installation configuration 2
System C: Installation configuration 3
Energy Saving Performance Recognised by SAP
The successful operation of the ZYPHO S|im which is a Waste Water Heat Recovery System (WWHRS) – Instantaneous Shower Heat Recovery Device, depends entirely upon the adherence to these instructions. Additionally, for new-build dwellings within the UK, recognition of the system's energy saving performance within the National Calculation Methodology (NCM) for the energy rating of dwellings, known as the Standard Assessment Procedure (SAP) requires that these instructions are complied with in conjunction with a system design checklist and an installation checklist and certificate of installation, supplied with this document and available at: www.ncm-pcdb.org.uk/sap.

The system should be installed by a suitably qualified plumber, with system design consideration being equally important to a correct installation. For recognition of the ZYPHO S|im within SAP, a system design checklist and an installation checklist and certificate of installation should be completed and signed, with copies kept for the home user pack (home owner), the installer, and sent to ZYPHO at the post or e-mail address shown below. Building Control Officers may also request a copy. For the purpose of system identification of product data without SAP, the product will have an NCM (SAP) Identifier label permanently fixed to the unit, whereby the 'model qualifier' states 'refer to installation certificate, if unknown assume System B'. A second NCM (SAP) Identifier label is also supplied and must be affixed to a nearby boiler or service cupboard (the label must be visible for inspection without disassembly of nearby products or systems) and the 'model qualifier' states 'System A, System B or System C delete as appropriate'.
Not sending back the completed and signed system design checklist, the installation checklist and certificate of installation to ZYPHO will invalidate the guarantee.

Address: Tower Plaza I, Via Eng. Edgar Cardoso 23, 5º H
4400-676 Vila Nova de Gaia, PORTUGAL
E-mail: b2b@aliaxis.com

DADOS TÉCNICOS

Antes de proceder à instalação, por favor certifique-se que todas as condições seguintes se verificam:

- Pressão da água máxima: 6 bar
- Caudal recomendado: 12,5L/min
- Caudal máximo: 25,0 L/min
- Temperatura da água máxima: 60ºC
- Altura mínima necessária: 90mm

AVISOS DE MONTAGEM

Os Recuperadores de Calor Zypho® são fornecidos num pack completo. Por favor, verifique se todas as peças se encontram na embalagem. Caso haja alguma anomalia, consulte o seu fornecedor e não inicie a montagem.
Nunca deverá alterar ou modificar qualquer dos componentes fornecidos pela Zypho®. Para uma instalação correta, use apenas estes componentes.
Antes da ligação de entrada da água fria da rede, deverá ser instalada uma válvula de seccionamento e de antirretorno (tipo EA). Antes da ligação de saída da água pré-aquecida, deverá ser instalada uma válvula de antirretorno (tipo EA).
Sugerimos a utilização de torneira de duche termostática.

A NÃO CONFORMIDADE COM ESTAS RECOMENDAÇÕES DE INSTALAÇÃO E USO PODE ANULAR QUALQUER GARANTIA.

SEGURANÇA

Os Recuperadores de Calor Zypho® S|im têm parede dupla, em conformidade com a regulação europeia EN 1717 ("Proteção contra a poluição de água potável nas instalaçõeshidráulicas e requisitos gerais dos dispositivos aptos a prevenir a poluição por refluxo").
Todos os Zypho® são testados na nossa fábrica antes da sua expedição. O circuito de água principal é pressurizado até 9 bar para garantir que não há fugas ou defeitos.

MANUTENÇÃO

Os Recuperadores de Calor Zypho® S|im foram desenhados de forma a requerer esforços de manutenção mínimos. Devem ser instalados com a válvula fornecida. Recomenda-se uma limpeza periódica para otimizar a eficiência. Use um desentupidor de canos não corrosivo ou um jato de água. Recomendamos a nossa escova de jato de água ZYMN00000J1.

OPÇÕES DE CONFIGURAÇÃO DE INSTALAÇÃO **P. 6**
COMPONENTES E DIMENSÕES **P. 7**
GUIA DE INSTALAÇÃO **P. 8-11**

DATOS TÉCNICOS

Antes de empezar la instalación, por favor garantizar que las condiciones siguientes están verificadas:

- Presión máxima soportada: 6 bar
- Caudal recomendado: 12,5L/min
- Caudal máximo: 25,0 L/min
- Temperatura máxima del agua: 60ºC
- Altura mínima libre: 90 mm

INDICACIONES PARA EL MONTAJE

Los recuperadores de calor Zypho® S|im son vendidos como un conjunto completo. Por favor verificar si el contenido del embalaje esta completo antes de avanzar. Si falta algo, por favor consultar su proveedor y NO empiece el montaje.
Jamás debe cambiar los componentes enviados con el Zypho®.
Antes de conectar el agua fría de la red, deberá instalarse una válvula de aislamiento y antirretorno (tipo EA).
Antes de conectar el agua precalentada, deberá instalarse una válvula de antirretorno (tipo EA).
Sugerimos la utilización de un grifo termostático.

EL NO CUMPLIMENTO DE ESTAS RECOMENDACIONES DE INSTALACIÓN Y USO PUEDEN INVALIDAR NUESTRA GARANTIA.

SEGURIDAD

Los recuperadores de calor Zypho® S|im tiene pared doble, de acuerdo con la regulación europea EN 1717 ("protección contra la polución del agua potable en instalaciones sanitarias e de los requisitos generales de los equipamientos para prevenir polución").
Testamos todos los Zypho® en fabrica antes de expedición. El circuito de agua interno es presurizado hasta 6 bar para garantizar que no hay defectos o fugas de agua.

MANUTENCIÓN

Los recuperadores de calor Zypho® S|im fueran concebidos para necesitar de una manutención mínima. Tienen que ser instalados con la válvula que incorpora el sistema. Se recomienda una limpieza periodica para optimizar la eficiencia. Use un limpiador de cañerías no corrosivo o un jato de agua. Recomendamos nuestra escobilla jato de agua ZYMN00000J1.

OPCIONES DE CONFIGURACIÓN **P. 6**
COMPONENTES Y DIMENSIONES **P. 7**
GUÍA DE INSTALACIÓN **P. 8-11**

INFORMATIONS TECHNIQUES

Avant de poursuivre l'assemblage, veuillez confirmer si toutes les conditions sont vérifiées:

- Pression max. de l'eau prise en charge: 6 bar
- Débit de l'eau maximum: 12,5L/min
- Débit de l'eau recommandé: 25,0 L/min
- Température max. de l'eau: 60°C;
- Hauteur disponible minimum: 90mm

INSTRUCTIONS POUR LE MONTAGE

Zypho® S|im Échangeurs de Chaleur sont fournis dans un emballage complet. Veuillez vérifier que le contenu de l'emballage est complet avant de poursuivre. Au cas où vous trouverez quelques anomalies, veuillez contacter votre fournisseur et ne pas procéder à l'assemblage.
Vous ne devrez jamais altérer ou modifier les composants fournis par Zypho®. Pour une installation plus adéquate, n'utilisez jamais que ces components.
Avant de connecter à l'eau froide, on doit installer une valve de sécurité et une soupape d'arrêt (type EA).
Avant de connecter à l'eau préchauffée, on doit installer une valve de soupape d'arrêt (type EA). On suggère l'utilisation d'un robinet de douche thermostatique.

TOUTE GARANTIE POURRA ÊTRE ANNULÉE AU CAS OÙ L'ASSEMBLAGE ET L'UTILISATION NE SOIENT PAS D'ACCORD AVEC CES RECOMMANDATIONS.

SECURITÉ

Zypho® S|im Échangeurs de Chaleur ont une paroi double, selon la réglementation Européenne EN 1717 ("Protection contre la pollution de l'eau potable dans les installations d'eau et exigences générales d'appareils pour prévenir la pollution").
Toutes les unités Zypho® sont testées dans nos usines avant d'être expédiées. Le circuit d'eau principal est pressurisé jusqu'à 6 bar afin d'assurer qu'il n'y aura aucune fuite ou défaut.

MAINTENANCE

Les Zypho® S|im Heat Exchangers ont été conçus pour ne nécessiter qu'un minimum d'entretien. Ils devront être installés avec l'évacuation de la douche fournie. On recommande un nettoyage périodique afin d'optimiser l'échange d'énergie. Utilisez un produit de nettoyage non-corrosif ou un jet d'eau. Nous recommandons notre brosse de jet d'eau ZYMN00000J1.

OPTIONS DE CONFIGURATION D'INST P. 6
COMPOSANTS ET DIMENSIONS P. 7
GUIDE D'INSTALLATION P. 8-11

TECHNISCHE DATEN

Bevor Sie mit der Montage beginnen, stellen Sie bitte sicher, dass alle folgenden Bedingungen geprüft wurden

- Max. zulässiger Wasserdruck: 6 bar
- Empfohlene Durchflussmenge: 12,5L/min
- Maximale Durchflussmenge: 25,0 L/min
- Max. Wassertemperatur: 60°C;
- Min. Höhenfreiheit: 90mm

MONTAGEHINWEISE

Zypho® S|im Wärmetauscher werden als komplettes Paket angeboten. Bitte überprüfen Sie den Inhalt des Pakets auf Vollständigkeit und Integrität, bevor Sie fortfahren. Sollten Abweichungen festgestellt werden, wenden Sie sich bitte an Ihren Lieferanten und beginnen Sie nicht mit der Montage.
Sie dürfen die von Zypho® gelieferten Komponenten niemals verändern oder modifS|imeren. Verwenden Sie bitte für eine ordnungsgemäße Installation ausschließlich diese Komponenten.
Vor dem Frischwasseranschluss sollten ein Rückschlagventil und ein Absperrventil eingebaut werden (Typ EA).
Vor dem Anschluss für vorgewärmtes Wasser sollten ein Absperrventil eingebaut werden (Typ EA)
Wir empfehlen die Verwendung eines thermostatischen Duschmischers.

BEI NICHTBEACHTUNG DIESER EMPFEHLUNGEN FÜR DIE INSTALLATION UND DEN GEBRAUCH KANN JEDE GEWÄHRLEISTUNG ERLÖSCHEN.

SICHERHEIT

Zypho® S|im Wärmetauscher sind doppelwandig, entsprechend der europäischen Vorschrift EN 1717 ("Schutz des Trinkwassers vor Verunreinigungen in Trinkwasser- Installationen und allgemeine Anforderungen an Sicherungseinrichtungen zur Verhütung von Trinkwasserverunreinigungen durch Rückfließen").
Wir testen vor dem Versand alle Zypho®-Einheiten in unserem Werk. Der Hauptwasserkreislauf wird mit einem Druck von bis zu 6 bar beaufschlagt, um sicherzustellen, dass keine Leckagen oder Defekte auftreten.

WARTUNG UND PFLEGE

Die Zypho® S|im Wärmetauscher wurden so konstruiert, dass sie nur minimalen Wartungsaufwand erfordern. Sie müssen mit dem vorgesehenen Duschabfluss installiert werden. Eine regelmäßige Reinigung wird empfohlen, um den Energieaustausch zu optimieren. Verwenden Sie einen nichtkorrosiven Abflussreiniger oder einen Wasserstrahl. Wir empfehlen unsere Wasserstrahlbürste ZYMN00000J1.

INSTALLATIONSKONFIGURATIONSOP P. 6
KOMPONENTEN UND ABMESSUNGEN P. 7
INSTALLATIONSANLEITUNG P. 8-11

DANE TECHNICZNE

Przed przystapieniem do montazu nalezy upewnic sie, ze wszystkie ponizsze warunki zostały zweryfikowane
- Maksymalne dopuszczalne cisnienie wody: 6 barów
- Zalecana wielkosc przepływu: 12,5L/min
- Maksymalna wielkosc przepływu: 25,0 L/min
- Maksymalna temperatura wody: 60°C
- Minimalny przeswit na wysokosci: 90mm

INSTRUKCJE INSTALACJI

Wymienniki ciepła Zypho® S|im sa dostarczane jako kompletny pakiet. Przed montazem prosze sprawdzic zawartosc pakietu pod katem kompletnosci i integralnosci. W przypadku zauwazenia jakichkolwiek nieprawidłowosci, nalezy skonsultowac sie z dostawca i nie rozpoczynac montazu.
Nigdy nie wolno zmieniac ani modyfikowac elementów dostarczanych przez firme Zypho®. Do prawidłowego montazu nalezy uzywac wyłacznie tych elementów.
Przed podłaczeniem wody czystej nalezy zainstalowac zawór zwrotny i zawór odcinajacy (typu EA). Przed podłaczeniem podgrzaną wodę nalezy zainstalowac zawór odcinajacy (typu EA).
Zalecamy zastosowanie termostatycznej baterii prysznicowej.
NIEPRZESTRZEGANIE ZALECEN DOTYCZACYCH INSTALACJI I UZYTKOWANIA MOZE SPOWODOWAC UTRATE WSZELKICH GWARANCJI.

BEZPIECZENSTWO

Wymienniki ciepła Zypho® S|im sa dwuscienne, zgodnie z europejska norma EN 1717 ("Ochrona przed zanieczyszczeniami wody pitnej w instalacjach wodnych oraz ogólne wymagania dotyczace urzadzen zapobiegajacych zanieczyszczeniom"). Przed wysyłka testujemy wszystkie urzadzenia Zypho® w naszej fabryce. Główny obieg wody jest pod cisnieniem do 9 barów, aby upewnic sie, ze nie ma zadnych przecieków ani usterek.

KONSERWACJA

Wymienniki ciepła Zypho® S|im zostały zaprojektowane tak, aby wymagały minimalnych nakładów na konserwacje. Musza byc zainstalowane z dostarczonym odpływem prysznicowym. W celu optymalizacji wymiany energii zalecane jest okresowe czyszczenie. Nalezy uzywac niekorodujacego srodka czyszczacego do odpływu lub strumienia wody. Polecamy szczotke wodna ZYMN00000J1.

OPCJE KONFIGURACJI INSTALACJI **P. 6**
KOMPONENTY I WYMIARY **P. 7**
INSTRUKCJA INSTALACJI **P. 8-11**

TECHNISCHE DATA

Voordat u tot montage overgaat, dient u na te gaan of aan alle volgende voorwaarden is voldaan:
- Getolereerde max. waterdruk: 6 bar
- Aanbevolen stroomsnelheid: 12,5L/min
- Max. stroomsnelheid: 25,0 L/min
- Max. watertemperatuur: 60 °C
- Min. vrije hoogte: 90mm

INSTALLATIE INSTRUCTIES

Zypho® S|im Warmtewisselaars worden als een compleet pakket geleverd. Controleer a.u.b. of de inhoud van de verpakking compleet en heel is, voordat u verdergaat. Raadpleeg in geval van afwijkingen uw leverancier en begin niet met het monteren.
U mag de door Zypho® geleverde onderdelen nooit veranderen of wijzigen. Gebruik voor een correcte installatie uitsluitend deze onderdelen.
Voordat u vers water aansluit, moeten er een terugslagklep en een afsluitklep (type EA) worden aangebracht.
Voordat u voorverwarmd water aansluit, moeten er een afsluitklep (type EA) worden aangebracht.
Wij suggereren een thermostaatkraan.
HET NIET OPVOLGEN VAN DEZE INSTALLATIE- EN GEBRUIKSAANBEVELINGEN KAN DE GARANTIE DOEN VERVALLEN.

VEILIGHEID

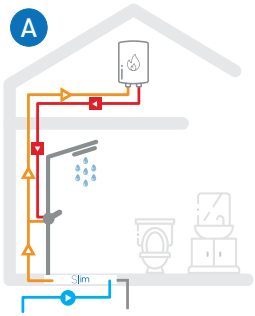
Zypho® S|im Warmtewisselaars zijn dubbelwandig, overeenkomstig de Europese verordening EN 1717 ("Bescherming tegen verontreiniging van drinkwater in waterinstallaties en algemene eisen voor inrichtingen ter voorkoming van verontreiniging").
Al onze Zypho®-units worden voor verzending in onze fabriek getest. De druk van het hoofdwatercircuit wordt opgevoerd tot 6 bar om ervoor te zorgen dat er geen lekken of defecten zijn.

ONDERHOUD

Zypho® S|im Heat Exchangers zijn ontworpen voor minimaal onderhoud. Ze moeten met de bijgeleverde doucheafvoer worden geïnstalleerd. Voor een optimale energie-uitwisseling is periodieke reiniging is aanbevolen. Gebruik een niet-corrosief afvoerreinigingsmiddel of een waterstraal. Wij raden waterstraalborstel ZYMN00000J1 aan.

INSTALLATIE CONFIGURATIE OPTIES **P. 6**
COMPONENTEN EN AFMETINGEN **P. 7**
INSTALLATIE GIDS **P. 8-11**

EN	Hot water		Preheated water		Cold water
PT	Água quente		Água pré-aquecida		Água fria
ES	Agua caliente		Agua precalentada		Agua fría
FR	Eau chaude		Eau préchauffée		Eau froide
DE	Heisses wasser		Vorgewärmtes wasser		Kaltes wasser
PL	Gorąca woda		Woda podgrzewana		Zimna woda
NL	Heet water		Voorverwarmd water		Koud water



EN The preheated water is transferred to the tap and the boiler. The most efficient configuration.

PT A água pré aquecida é enviada para a torneira e para o termoacumulador/cilindro. A configuração mais eficiente.

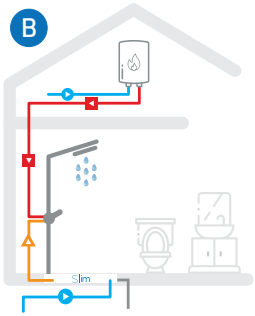
ES El agua precalentada va para el grifo y para el calentador de agua. La configuración mas eficiente.

FR De L'eau préchauffée est ainsi dirigée vers le robinet mélangeur et le chauffe-eau.

DE Das vorgewärmte Wasser wird zum Wasserhahn und zum Boiler geleitet. Die effizienteste Konfiguration.

PL Podgrzana woda kierowana jest do kranu i bojlera. Najbardziej wydajna konfiguracja.

NL Het voorverwarmde water wordt naar de kraan en de boiler geleid. De meest efficiënte configuratie.



EN The preheated water is transferred to the tap only.

PT A água pré aquecida é enviada apenas para a torneira

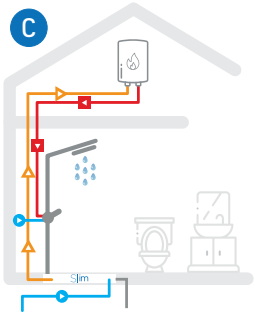
ES El agua precalentada va sólo para el grifo

FR De L'eau préchauffée est dirigée vers le robinet mélangeur

DE Das vorgewärmte Wasser wird zum Wasserhahn geleitet.

PL Podgrzana woda jest przekazywana tylko do baterii.

NL Het voorverwarmde water wordt alleen naar de kraan geleid.



EN The preheated water is transferred to the boiler only.

PT A água pré aquecida é enviada apenas para o termoacumulador/ cilindro

ES El agua precalentada va sólo para el calentador de agua

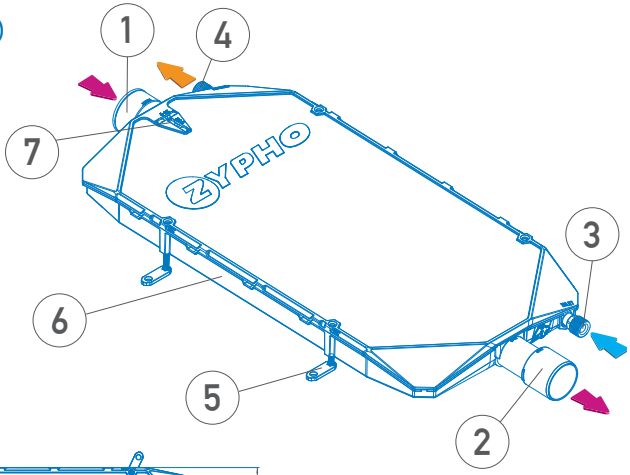
FR De L'eau préchauffée est dirigée vers le chauffe-eau

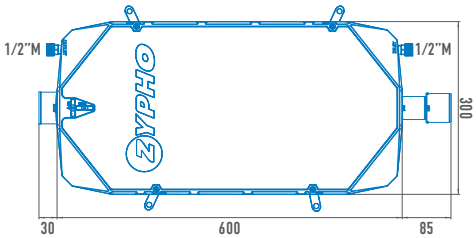
DE Das vorgewärmte Wasser wird zum Kessel geleitet.

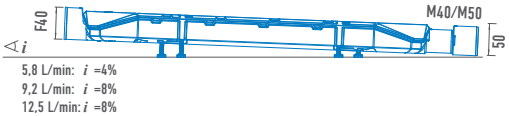
PL Podgrzana woda jest przekazywana tylko do kotła.

NL Het voorverwarmde water wordt alleen naar de boiler overgebracht.

Slim50







1	Shower water in	Rubber F40 mm
2	Shower water out	M40/M50
3	Cold water in	Gunmetal Input M1/2" Connector
4	Pre-heated water out	Gunmetal Output M1/2" Connector
5	Adjustable feet	4
6	Body	PP

1	Entrada água do duche	Borracha F40 mm
2	Saída água do duche	M40/M50
3	Água fria	Conetor entrada Bronze 1/2"
4	Água pré-aquecida	Conetor saída Bronze 1/2"
5	Pés ajustáveis	4
6	Corpo	PP

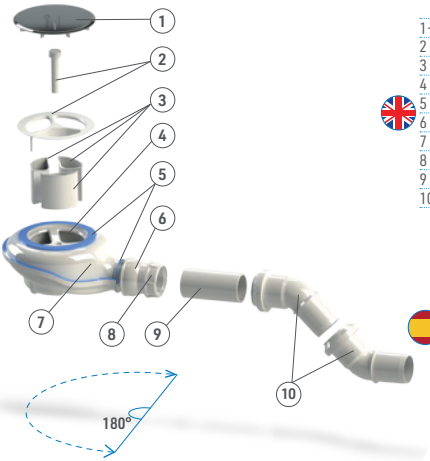
1	Entrada de agua de ducha	Goma F40 mm
2	Salida de agua de ducha	M40/M50
3	Agua fría	Conector entrada en Bronce M1/2"
4	Agua precalentada	Conector salida en Bronce M1/2"
5	Pies ajustables	4
6	Cuerpo	PP

1	Entree d'eau de douche	Caoutchouc F40mm
2	Sortie d'eau de douche	M40/M50
3	Eau froide	Connecteur d'entrée bronze M1/2"
4	Eau préchauffée	Connecteur de sortie en bronze M1/2"
5	Pieds réglables	4
6	Corps	PP

1	Duschwassereinlass	Gummi F40mm
2	Duschwasserausgang	M40/M50
3	Kaltes wasser	Rotguss-Eingang M1/2"-Anschluss
4	vorgewärmtes wasser	Rotguss-Ausgabe M1/2"-Anschluss
5	Einstellbare Füße	4
6	Körper	PP

1	wlot wody prysznicowej	Gumowa F40 mm
2	Wylot wody z prysznicu	M40/M50
3	Zimna woda	Złącze wejściowe rewolwerowego M1/2
4	Woda podgrzewana	Złącze wyjściowe rewolwerowego M1/2
5	Regulowane nóżki	4
6	Korpus	PP

1	Douchewater in	Rubberen F40 mm
2	Douche water uit	M40/M50
3	Koud water	Geschutbronzen M1/2" inlaatconnector
4	Voorverwarmd water	Geschutbronzen M1/2" uitlaatconnector
5	Verstelbare voeten	4
6	Behuizing	PP



1 - Standard 90 ABS chromed cover
2 - PA (polyamide) highly reinforced fiberglass
3 - PP high performance triple filter
4 - Brush free entry access for cleaning
5 - Thermoplastic elastomer (TPE)
6 - ABS rotative fitting
7 - PP drain siphon EN 274 50 mm water seal
8 - PP threaded fitting
9 - PVC D40 connection pipe
10 - PVC D40 45° Elbow

1 - Tampa cromada 90 em ABS
2- Fibra de vidro reforço extra
3- Filtro triplo PP alto desempenho
4- Acesso livre para escova de limpeza
5 - Elastómero termoplástico
6 - Conexão rotativa em ABS
7 - Sifão PP com vedação EN 274 50mm
8 - Conexão roscada PP
9 - Tubo conexão PVC D40
10 - Curva PVC D40 45°

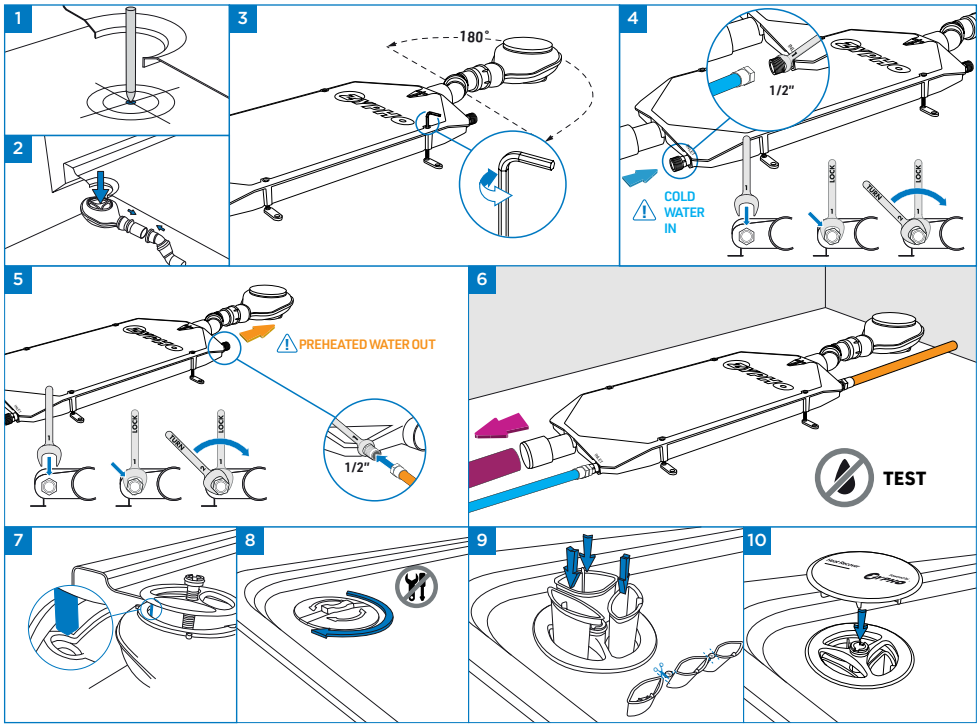
1 - Embellecedor cromado estándar 90 ABS
2 - Fibra de vidrio altamente reforzada PA (poliamida)
3 - Filtro PP triple de alto rendimiento
4 - Acceso libre para cepillo de limpieza
5 - Elastómero termoplástico (TPE)
6 - Accesorio rotativo ABS
7 - Sifón PP con Sello EN 274 50mm
8 - Conexión roscada PP
9 - Tubo conexión PVC D40
10 - Codo PVC D40 45°

1 - Couvercle chromé ABS standard 90
2 - Fibre de verre PA (polyamide) hautement renforcée
3 - Filtre triple PP d'haute performance
4 - Accès pour le brosse de nettoyage
5 - Élastomère thermoplastique (TPE)
6 - Raccord rotatif ABS
7 - Joint d'eau de 50mm du siphon de vidange en PP EN 274
8 - Raccord fileté en PP
9 - Tuyau de raccordement en PVC D40
10 - Coude 45° en PVC D40

1 - Standard 90 ABS verchromte Abdeckung
2 - Hochverstärkte PA (Polyamid) Glasfaser3
3 - PP-Hochleistungs-Dreifachfilter
4 - Bürstenfreier Zugang für die Reinigung
5 - Thermoplastisches Elastomer (TPE)
6 - ABS-Drehanschluss
7 - PP-Abfluss-Siphon EN 274 50 mm Wasserdichtung
8 - PP-Gewindeanschlussv
9 - PVC D40 Verbindungsrohr
10 - PVC D40 45°-Winkel

1 - Pokrywa chromowana ABS Standardowa 90
2 - PA (poliamid) wzmocniony włóknem szklanym
3 - PP wysokowydajny filtr potrójny
4 - Otwór rewizyjny
5 - Elastomer termoplastyczny (TPE)
6 - Złącze obrotowe ABS
7 - Syfon odpływowy PP EN 274 50 mm wodoszczelny
8 - Złącze gwintowane PP
9 - Rura połączeniowa PVC D40
10 - Kolanko PVC D40 45°

1 - Standaard 90 ABS verchroomde afdekplaat
2 - PA (polyamide) hoogversterkte glasvezel
3 - PP driedubbele oogrendementsfilter
4 - Borstelvrije toegang voor reiniging
5 - Thermoplastisch elastomeer (TPE)
6 - ABS draaiende wartel
7 - PP afvoersifon EN 274 50 mm waterslot
8 - PP wartelmoer
9 - PVC D40 Verbindingsbuis
10 - PVC D40 45° Elleboog



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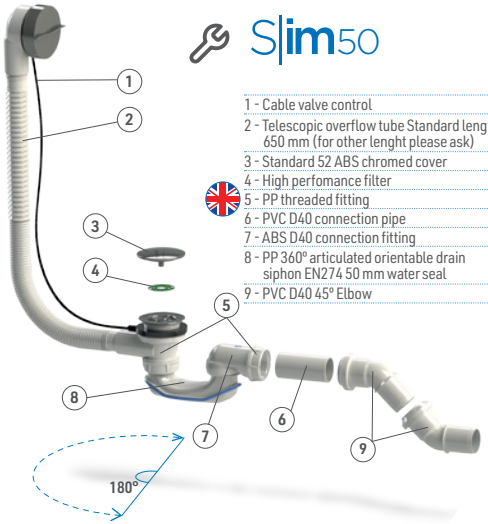
BATHTUB



1 - Cable valve control
2 - Telescopic overflow tube Standard length: 650 mm (for other lenght please ask)
3 - Standard 52 ABS chromed cover
4 - High perfomance filter
5 - PP threaded fitting
6 - PVC D40 connection pipe
7 - ABS D40 connection fitting
8 - PP 360° articulated orientable drain siphon EN274 50 mm water seal
9 - PVC D40 45° Elbow

1 - Cabo controlo de válvula
2 - Tubo overflow telescópico 650mm (possibilidade de outros comprimentos)
3 - Tampa cromada 52 em ABS
4 - Filtro de alto desempenho
5 - Conexão roscada PP
6 - Tubo conexão PVC D40
7 - Conetor ABS D40
8 - Sifão 360° articulado orientável em PP com vedação EN 274 50mm
9 - Curva PVC D40 45°

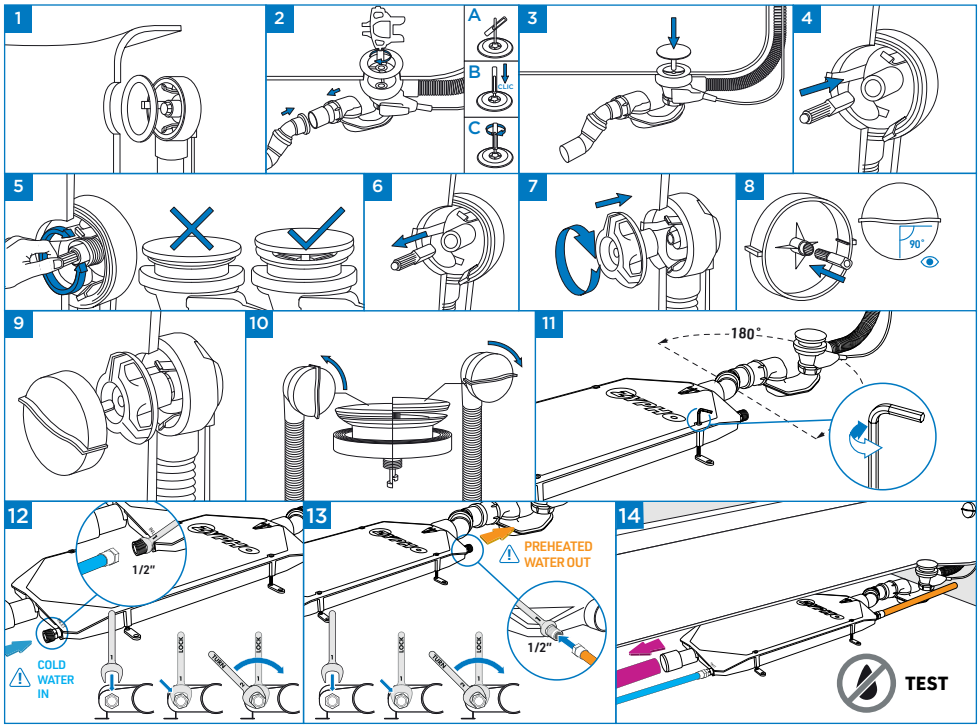
1 - Cable de control de válvula
2 - Tubo de rebose telescópico 650 mm (posibilidad de otras medidas)
3 - Cubierta cromada estándar 52 ABS
4 - Filtro de alto rendimiento
5- Conexión roscado PP
6 - Tubo conexión PVC D40
7 - Conexión ABS D40
8 - Sifón 360° articulado orientable en PP com Sello EN 274 50mm
9 - Codo PVC D40 45°

1 - Commande par câble de la valve
2 - Tube de débordement télescopique Longueur standard: 650 mm (pour d'autres longueurs, veuillez demander)
3 - Couvercle standard chromé ABS 52
4 - Filtre d'haute performance
5- Raccord fileté en PP
6 - Tuyau de raccordement en PVC D40
7 - Accessoire de connexion ABS D40
8 - Siphon de vidange articulé PP 360° en joint étanche EN274 50 mm
9 - Coude 45° en PVC D40

1 - Kabel-Ventilsteuerung
2- Teleskopisches Überlaufrohr Standardlänge: 650 mm (für andere Längen bitte anfragen)
3 - Standard 52 ABS verchromte Abdeckung
4 - Hochleistungsfähiger Filter
5 - PP-Gewindeanschlussv
6 - PVC D40 Verbindungsrohr
7 - ABS D40-Anschlussstück
8 - PP 360° schwenkbarer, ausrichtbarer Ablaufsiphon EN274 50 mm Wasserdichtung
9 - PVC D40 45°-Winkel

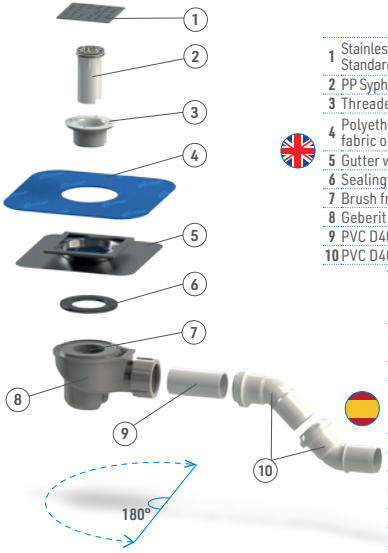
1 - Sterowanie zaworem kablowym
2 - Teleskopowa rura przelewowa Długość standardowa: 650 mm (dla innych długości proszę pytać)
3 - Pokrywa chromowana ABS Standardowa 90
4 - Filtr wysokowydajny
5 - Złącze gwintowane PP
6 - Rura połączeniowa PVC D40
7 - Osprzęt przyłączeniowy ABS D40
8 - Wpust podłogowy zasyfonowany 360° PP EN274 50 mm wodoszczelny
9 - Kolanko PVC D40 45°

1 - Ventielcontrole d.m.v. kabel
2 - Telescopische overloopbuis Standaardlengte: 650 mm (raadpleeg ons voor andere lengtes)
3 - Standaard 52 ABS verchroomde afdekplaat
4 - Hoogrendementsfilter
5 - PP wartelmoer
6 - PVC D40 Verbindingsbuis
7 - ABS D40 aansluitstuk
8 - PP 360° gelede, oriënteerbare afvoersifon EN274 50 mm waterslot
9 - PVC D40 45° Elleboog



Slim50

SQUARE DRAIN



1. Stainless steel cover with top high performance filter Standard length: 100x100 mm(for other lenght please ask)
2. PP Syphon tube with stainless steel filter incorporate
3. Threaded ring
4. Polyethylene film coated with a special non-woven fabric on both sides sealing membrane
5. Gutter with an insulating collar
6. Sealing ring
7. Brush free entry access for cleaning
8. Geberit drain siphon EN 274 50 mm water seal
9. PVC D40 connection pipe
10. PVC D40 45° Elbow

1. Tapa de acero inoxidable con filtro lateral de alto rendimiento, longitud estándar: 100x100mm (posibilidad de otras medidas)
2. Tubo de sifón PP con filtro de acero inoxidable incorporado
3. Anillo roscado
4. Membrana de sello en película de polietileno ecubierta con una tela especial no tejida en ambos lados
5. Canal con aletas
6. Anillo de sello
7. Acceso libre para cepillo de limpieza
8. Sifón Geberit EN 274 con 50mm sello de agua
9. Tubo conexión PVC D40
10. Codo PVC D40 45°

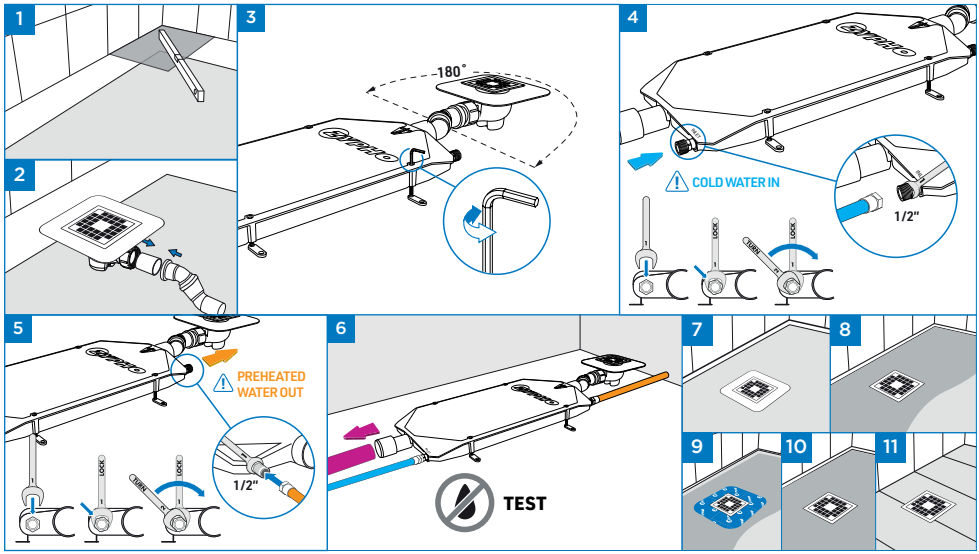
1. Tampa Inox com filtro lateral de alto desempenho, medidas standard: 100x100mm (possibilidade de outras medidas)
2. Tubo sifão PP com filtro inox incorporado
3. Anel roscado
4. Membrana de vedação em polietileno revestido de tecido não tecido especial em ambos os lados
5. Calha com abas
6. Anel de vedação
7. Acesso livre para escova de limpeza
8. Sifão Geberit EN 274 com 50mm guarda de água
9. Tubo conexão PVC D40
10. Curva PVC D40 45°

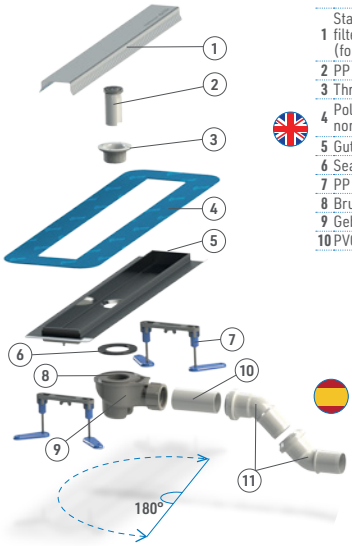
1. Edelstahldeckel mit seitlichem Hochleistungsfilter Standardlänge: 100x100 mm (für andere Längen bitte anfragen)
2. PP-Siphonrohr mit integriertem Edelstahlfilte
3. Gewindering
4. Beidseitig mit einem speziellen Vliesstoff beschichteter Polyäthylenfilm
5. Dachrinne mit Isolierkragen izolacyjnym
6. Dichtungsring
7. Bürstenfreier Zugang für die Reinigung
8. Geberit-Abfluss-Siphon EN 274 50 mm Wasserdichtung
9. PVC D40 Verbindungsrohr
10. PVC D40 45°-Winkel

1. Couvercle en acier inoxydable avec filtre latéral d'haute performance, dimension standard: 100x100mm (pour d'autres longueurs, veuillez demander)
2. Tube siphon en PP avec filtre en acier inoxydable incorporé
3. Bague filetée
4. Film en polyéthylène enduit d'un tissu spécial non tissé sur les deux faces de la membrane d'étanchéité
5. Gouttière avec un col isolant Isolierkragen
6. Bague d'étanchéité
7. Accès pour le brosse de nettoyage
8. Joint d'eau 50 mm avec un siphon de vidange Geberit EN 274
9. Tuyau de raccordement en PVC D40
10. Coude 45° en PVC D40

1. Pokrywa ze stali nierdzewnej z bocznym filtrem wysokowydajnym Długość standardowa: 100x100 mm (w przypadku innych długości proszę pytać)
2. Rura syfonowa PP z wbudowanym filtrem ze stali nierdzewnej
3. Pierścień gwintowany
4. Folia polietylenowa pokryta obustronnie specjalną włókninową membraną uszczelniając
5. Rynna z kołnierzem izolacyjnym
6. Pierścień uszczelniający
7. Otwór rewizyjny
8. Syfon odpływowy Geberit EN 274 50 mm wodoszczelny
9. Rura połączeniowa PVC D40
10. Kolanko PVC D40 45°

1. Roestvrijstalen afdekplaat met zijdelingse hoogrendementsfilter Standaardlengte: 100x100mm (raadpleeg ons voor andere lengtes)
2. PP Sifonbuis met ingebouwde roestvrijstalen filter
3. Schroefdraadring
4. Dichtingsmembraan van polyethyleenfolie, aan beide kanten gecoat met een speciale niet-geweven stof
5. Goot met een isolerende kraag
6. Dichtingsring
7. Borstelvrije toegang voor reiniging
8. Geberit afvoersifon EN 274 50 mm waterslot
9. PVC D40 Verbindingsbuis
10. PVC D40 45° Elleboog





1 Stainless steel cover with side high performance filter Standard length: 700/800/900 mm (for other lenght please ask)
2 PP Syphon tube with stainless steel filter incorporate
3 Threaded ring
4 Polyethylene film coated with a special non-woven fabric on both sides sealing membrane
5 Gutter with an insulating collar
6 Sealing ring
7 PP and PC feet for height adjustment and levelling
8 Brush free entry access for cleaning
9 Geberit drain siphon EN 274 50 mm water seal
10 PVC D40 connection pipe

1 Tapa de acero inoxidable con filtro lateral de alto rendimiento, longitud estándar: 700/800/900 mm (posibilidad de otras medidas)
2 Tubo de sifón PP con filtro de acero inoxidable incorporado
3 Anillo roscado
4 Membrana de sello en película de polietileno ecubierta con una tela especial no tejida en ambos lados
5 Canal con aletas
6 Anillo de sello
7 Pies de PP y PC para ajuste de altura y nivelación
8 Acceso libre para cepillo de limpieza
9 Sifón Geberit EN 274 con 50mm sello de agua
10 Tubo conexión PVC D40

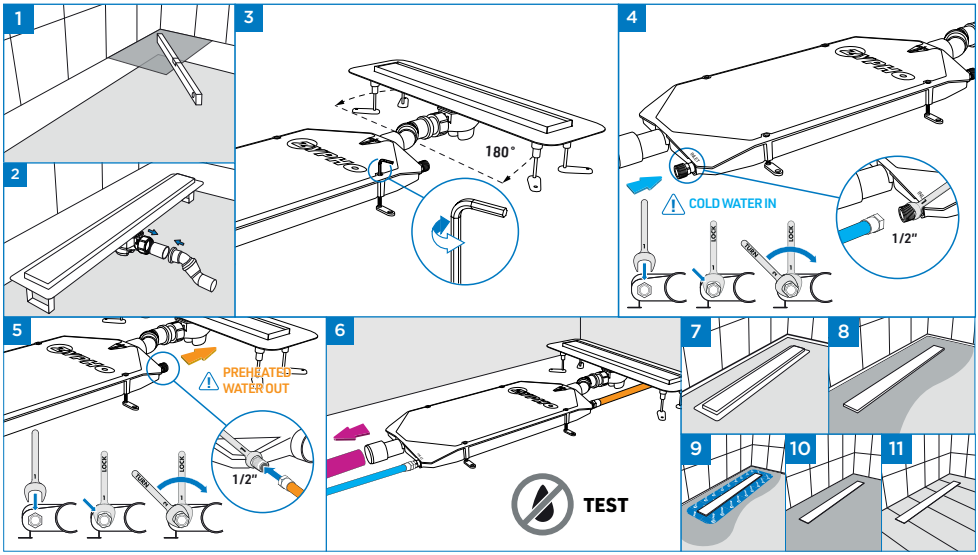
1 Tampa Inox com filtro lateral de alto desempenho, medidas standard: 700/800/900mm (possibilidade de outras medidas)
2 Tubo sifão PP com filtro inox incorporado
3 Anel roscado
4 Membrana de vedação em polietileno revestido de tecido não tecido especial em ambos os lados
5 Calha com abas
6 Anel de vedação
7 Pés em PP e PC para ajuste e nivelamento da altura
8 Acesso livre para escova de limpeza
9 Sifão Geberit EN 274 com 50mm guarda de água
10 Tubo conexão PVC D40

1 Couvercle en acier inoxydable avec filtre latéral d'haute performance, dimension standard: 700/800/900 mm (pour d'autres longueurs, veuillez demander)
2 Tube siphon en PP avec filtre en acier inoxydable incorporé
3 Bague filetée
4 Film en polyéthylène enduit d'un tissu spécial non tissé sur les deux faces de la membrane d'étanchéité
5 Gouttière avec un col isolant Isolierkragen
6 Bague d'étanchéité
7 Pieds en PP et PC pour le réglage et le nivellement de la hauteur
8 Accès pour le brosse de nettoyage
9 Joint d'eau 50 mm avec un siphon de vidange Geberit EN 274
10 Tuyau de raccordement en PVC D40

1 Edelstahldeckel mit seitlichem Hochleistungs-filter Standardlänge: 700/800/900 mm (für andere Längen bitte anfragen)
2 PP-Siphonrohr mit integriertem Edelstahlfilte
3 Gewindering
4 Beidseitig mit einem speziellen Vliesstoff beschichteter Polyäthylenfilm
5 Dachrinne mit Isolierkragen izolacyjnym
6 Dichtungsring
7 PP- und PC-Füße für Höheneinstellung und Nivellierung
8 Bürstenfreier Zugang für die Reinigung
9 Geberit-Abfluss-Siphon EN 274 50 mm Wasserdichtung
10 PVC D40 Verbindungsrohr

1 Pokrywa ze stali nierdzewnej z bocznym filtrem wysokowydajnym Długość standardowa: 700/800/900 mm (w przypadku innych długości proszę pytać)
2 Rura syfonowa PP z wbudowanym filtrem ze stali nierdzewnej
3 Pierścień gwintowany
4 Folia polietylenowa pokryta obustronnie specjalną włókninową membraną uszczelniając
5 Rynna z kołnierzem izolacyjnym
6 Pierścień uszczelniający
7 Nóżki z PP i PC do regulacji wysokości i poziomowania
8 Otwór rewizyjny
9 Syfon odpływowy Geberit EN 274 50 mm wodoszczelny
10 Rura połączeniowa PVC D40

1 Roestvrijstalen afdekplaat met zijdelingse hoogrendementsfilter Standaardlengte: 700/800/900 mm (raadpleeg ons voor andere lengtes)
2 PP Sifonbuis met ingebouwde roestvrijstalen filter
3 Schroefdraadring
4 Dichtingsmembraan van polyethyleenfolie, aan beide kanten gecoat met een speciale niet-geweven stof
5 Goot met een isolerende kraag
6 Dichtingsring
7 PP en PC voeten voor hoogteverstelling en nivellering
8 Borstelvrije toegang voor reiniging
9 Geberit afvoersifon EN 274 50 mm waterslot
10 PVC D40 Verbindingsbuis



ZYPHO®
Shower Drain Heat Recovery

WWW.ZYPHO.PT
+351 210991351
B2B@ALIAXIS.COM

aliaxis

IMPORTANT
IMPORTANTE
WICHTIG
WAŻNY
BELANGRIJK

ZYPHO®
Shower drain heat Recovery

- INSTALLATION MANUAL
- MANUAL DE INSTALAÇÃO
- MANUAL DE INSTALACIÓN
- INSTALLATION MANUEL
- INSTALLATIONSANLEITUNG
- INSTRUKCJA INSTALACJI
- INSTALLATIEHANDLEIDING

PiPe DW
55|60|65

ZYPI55GDTP00 | ZYPI60GDTP00ZYPI65GDTP00

WWW.ZYPHO.PT
+351 210991351
B2B@ZYPHO.PT

MG_MIU201123_ZYPI55|60|65GDTP00

TECHNICAL DATA

Before proceeding to assembly, please make sure all the following conditions are verified

- Max. mains water pressure endured : 6 bar;
- Recommended flow rate: <12,5 L/min;
- Maximum flow rate: 25,0 L/min;
- Max. water temperature: 60ºC
- Min. height clearance: PiPe height +400mm.

INSTALLATION INSTRUCTIONS

Please check the content of the package for completeness and integrity before proceeding. Should any deviations be noted, please consult your supplier and do not start the assembly. You must never alter or modify the provided components by Zypho®. For a proper installation, please use these components only.
It is recommended that the PiPe is installed in a location where all parts of the unit are accessible and routine maintenance such as cleaning can be carried out with reasonable ease. PiPe should be mounted vertically both from frontside as from the side.
It is essential to install a trap downstream of the Zypho. As such, there is no need to install another trap under the shower tray as installing two traps could lead to flow / noise issues in certain instances.
Before the freshwater connection a non-return valve and a shut-off valve should be installed.
Do not thermally insulate the PiPe. It is required that the distance from the shower to the PiPe is kept to within 3 meters to reduce any heat losses and ensure good efficiency is maintained.
We recommend the use of a thermostatic shower mixer.
Failure to PiPe INSTALLATION CONFIGURATION OPTIONS will invalidate the guarantee and may have an adverse effect on its efficiency.
NON-COMPLIANCE WITH THESE RECOMMENDATIONS FOR INSTALLATION AND USE MAY VOID ANY WARRANTY.

SAFETY

We test all Zypho® units in our factory before shipping. The main water circuit is pressurized up to 9 bar to ensure that there are no leaks or defects.

MAINTENANCE

Zypho® PiPe Heat Exchangers have been designed to require minimal maintenance efforts. Periodic cleaning is recommended to optimise energy exchange. Use a non-corrosive drain cleaner or a water jet. We recommend water jet brush ZYMN00000J1.

INSTALLATION CONFIGURATION OPTIONS P. 6
COMPONENTS AND DIMENSIONS P. 7
ONLY FOR UK INSTALLATION
INSTALLATION GUIDE P. 8, 9

UK IMPORTANT REMARKS

INSTALLATION

The preheated water supply inline of the ZYPHO PiPe must be insulated in accordance with the requirements of the 'Building Services Compliance Guide'. Pipework between the WWHRS preheated water outlet and the water heater and /or shower cold water inlet(s) (depending on installation configuration) must be labelled to indicate that no other services can be interconnected.
It is essential that a trap is installed downstream of the ZYPHO PiPe and that NO trap is installed directly underneath the shower.
System A: Installation configuration 1
System B: Installation configuration 2
System C: Installation configuration 3
Energy Saving Performance Recognised by SAP
The successful operation of the ZYPHO PiPe which is a Waste Water Heat Recovery System (WWHRS) – Instantaneous
Shower Heat Recovery Device, depends entirely upon the adherence to these instructions. Additionally, for new-build dwellings within the UK,
recognition of the system's energy saving performance within the National Calculation Methodology (NCM) for the energy rating of dwellings,
known as the Standard Assessment Procedure (SAP) requires that these instructions are complied with in conjunction with a system design checklist and an installation checklist and certificate of installation, supplied with this document and available at: www.ncm-pcdb.org.uk/sap.
The system should be installed by a suitably qualified plumber, with system design consideration being equally important to a correct installation.
For recognition of the ZYPHO PiPe within SAP, a system design checklist and an installation checklist and certificate of installation should be
completed and signed, with copies kept for the home user pack (home owner), the installer, and sent to ZYPHO at the post or e-mail address shown below.
Building Control Officers may also request a copy. For the purpose of system identification of product data without SAP, the product will have an
NCM (SAP) Identifier label permanently fixed to the unit, whereby the 'model qualifier' states 'refer to installation certificate, if unknown assume
System B'. Asecond NCM (SAP) Identifier label is also supplied and must be affixed to a nearby boiler or service cupboard (the label must be visible
for inspection without disassembly of nearby products or systems) and the 'model qualifier' states 'System A, System B or System C delete as appropriate'.
Not sending back the completed and signed system design checklist, the installation checklist and certificate of installation to ZYPHO will invalidate the guarantee.

Address: Tower Plaza I, Via Eng. Edgar Cardoso 23, 5º H
4400-676 Vila Nova de Gaia, PORTUGAL
E-mail: b2b@aliaxis.com

DADOS TÉCNICOS

Antes de proceder à instalação, por favor certifique-se que todas as condições seguintes se verificam:

- Pressão da água máxima: 6 bar
- Caudal recomendado: <12.5 L/min;
- Caudal máximo: 25.0 L/min;
- Temperatura da água máxima: 60°C;
- Altura mínima necessária: Altura do PiPe +400mm.

AVISOS DE MONTAGEM

Por favor, verifique se todas as peças se encontram na embalagem. Caso haja alguma anomalia, consulte o seu fornecedor e não inicie a montagem.
Nunca deverá alterar ou modificar qualquer dos componentes fornecidos pela Zypho®. Para uma instalação correta, use apenas estes componentes.
Recomenda-se que o PiPe seja instalado num local onde todas as partes da unidade sejam acessíveis e que a manutenção de rotina, como a limpeza, possa ser realizada com razoável facilidade. O PiPe deverá ser instalado na vertical de ambos os lados. Antes da ligação de entrada da água fria da rede, deverá ser instalada uma válvula de seccionamento e de antirretorno (tipo EA).
Não isole termicamente o PiPe.
É necessário que a distância da base do chuveiro ao PiPe não seja superior a 3 metros para reduzir as perdas de calor e garantir uma boa eficiência.
Sugerimos a utilização de torneira de duche termostática.

A não conformidade com as OPÇÕES DE CONFIGURAÇÃO DA INSTALAÇÃO invalidará a garantia e poderá ter um efeito adverso na sua eficiência.

A NÃO CONFORMIDADE COM ESTAS RECOMENDAÇÕES DE INSTALAÇÃO E USO PODE ANULAR QUALQUER GARANTIA.

SEGURANÇA

Todos os Zypho® são testados na nossa fábrica antes da sua expedição. O circuito de água principal é pressurizado até 9 bar para garantir que não há fugas ou defeitos.

MANUTENÇÃO

Os Recuperadores de Calor Zypho® PiPe foram desenhados de forma a requerer esforços de manutenção mínimos. Devem ser instalados com a válvula fornecida.
Recomenda-se uma limpeza periódica para otimizar a eficiência.
Use um desentupidor de canos não corrosivo ou um jato de água. Recomendamos a escova de jato de água ZYMN00000J1.

OPÇÕES DE CONFIGURAÇÃO DE INSTALAÇÃO **P. 6**
COMPONENTES E DIMENSÕES **P. 7**
APENAS PARA INSTALAÇÃO NO REINO UNIDO
GUIA DE INSTALAÇÃO **P. 8, 9**

DATOS TÉCNICOS

Antes de empezar la instalación, por favor garantizar que las condiciones siguientes están verificadas

- Presión máxima soportada: 6 bar;
- Caudal recomendado: <12.5L/min
- Caudal máximo: 25.0L/min
- Temperatura máxima del agua : 60°C;
- Altura mínima libre: Altura de lo PiPe + 40mm.

INDICACIONES PARA EL MONTAJE

Por favor verificar si el contenido del embalaje esta completo antes de avanzar. Si falta algo, por favor consultar su proveedor y NO empiece el montaje.
Jamás debe cambiar los componentes enviados con el Zypho®.
Recomendamos que el PiPe sea instalado de forma a que todas las partes estén accesibles para posibles rutinas de manutención, como limpieza, de forma simple.
PiPe debe montarse verticalmente tanto desde el lado frontal como lateral.
Antes de conectar el agua fría de la red, deberá instalarse una válvula de aislamiento y antirretorno (tipo EA).
No aísle térmicamente el PiPe.
La distancia desde el plato de ducha al PiPe debe mantenerse dentro de los 3 metros para reducir las pérdidas de calor y garantizar una buena eficiencia.
Sugerimos la utilización de un grifo termostático.

El incumplimiento de las OPCIONES DE CONFIGURACIÓN DE INSTALACIÓN del PiPe invalidará la garantía y puede tener un efecto adverso sobre su eficiencia.

EL NO CUMPLIMENTO DE ESTAS RECOMENDACIONES DE INSTALACIÓN Y USO PUEDEN INVALIDAR NUESTRA GARANTIA.

SEGURIDAD

Testamos todos los Zypho® en fabrica antes de expedición. El circuito de agua interno es presurizado hasta 9 bar para garantizar que no hay defectos o fugas de agua.

MANUTENCIÓN

Los recuperadores de calor Zypho® PiPe fueran concebidos para necesitar de una manutención mínima. Tienen que ser instalados con la válvula que incorpora el sistema. Se recomienda una limpieza periodica para optimizar la eficiencia. Use un limpiador de cañerías no corrosivo o un jato de agua. Recomendamos escobilla jato de agua ZYMN00000J1.

OPCIONES DE CONFIGURACIÓN **P. 6**
COMPONENTES Y DIMENSIONES **P. 7**
SOLO PARA LA INSTALACIÓN EN EL REINO UNIDO
GUÍA DE INSTALACIÓN **P. 8, 9**

INFORMATIONS TECHNIQUES

Avant de poursuivre l'assemblage, veuillez confirmer si toutes les conditions sont vérifiées:

- Pression max. de l'eau prise en charge: 6 bar;
- Débit de l'eau recommandé: <12,5 L/min ;
- Débit de l'eau maximum: 25,0 L/min;
- Température max. de l'eau: 60°C;
- Hauteur disponible min.: Hauteur du PiPe + 40mm.

INSTRUCTIONS POUR LE MONTAGE

Veuillez vérifier que le contenu de l'emballage est complet avant de poursuivre. Au cas où vous trouverez quelques anomalies, veuillez contacter votre fournisseur et ne pas procéder à l'assemblage.
Vous ne devrez jamais altérer ou modifier les composants fournis par Zypho®. Pour une installation plus adéquate, n'utilisez jamais que ces composants.
On recommande que le PiPe soit installé dans un endroit où toutes les parties de l'unité soient accessibles et que la maintenance de routine, tel que le nettoyage, puisse être réalisé avec une facilité raisonnable.
Le PiPe devra être monté verticalement soit sur le front soit sur le côté.
Avant de connecter à l'eau froide, on doit installer une valve de sécurité et une soupape d'arrêt (type EA).
Ne pas isoler thermiquement le PiPe.
Il faut que la distance de la base de la douche au PiPe ne soit pas supérieure à 3 m afin de réduire les pertes de chaleur et de garantir une bonne efficacité.
On suggère l'utilisation d'un robinet de douche thermostatique.

Au cas où il y a des non-conformités avec les OPTIONS DE CONFIGURATION DE L'INSTALLATION, la garantie ne sera pas valable et pourra avoir un effet contraire dans son efficacité

TOUTE GARANTIE POURRA ÊTRE ANNULÉE AU CAS OÙ L'ASSEMBLAGE ET L'UTILISATION NE SOIENT PAS D'ACCORD AVEC CES RECOMMANDATIONS.

SECURITÉ

Toutes les unités Zypho® sont testées dans nos usines avant d'être expédiées. Le circuit d'eau principal est pressurisé jusqu'à 9 bar afin d'assurer qu'il n'y aura aucune fuite ou défaut.

ENTRETIEN

Les Zypho® PiPe Heat Exchangers ont été conçus pour ne nécessiter qu'un minimum d'entretien. Ils devront être installés avec l'évacuation de la douche fournie.
On recommande un nettoyage périodique afin d'optimiser l'échange d'énergie. Utilisez un produit de nettoyage non-corrosif ou un jet d'eau. Nous recommandons brosse de jet d'eau ZYMN00000J1.

OPTIONS DE CONFIGURATION D'INST P. 6
COMPOSANTS ET DIMENSIONS P. 7
JUSTE POUR L'INSTALLATION AU ROYAUME-UNI
GUIDE D'INSTALLATION P. 8, 9

TECHNISCHE DATEN

Bevor Sie mit der Montage beginnen, stellen Sie bitte sicher, dass alle folgenden Bedingungen geprüft wurden

- Max. zulässiger Wasserdruck: 6 bar;
- Empfohlene Durchflussmenge: <12,5 L/min;
- Maximale Durchflussmenge: 25,0 L/min;
- Max. Wassertemperatur: 60°C;
- Min. Freiraum in der Höhe: PiPe Größe + 40 mm.

MONTAGEHINWEISE

Bitte überprüfen Sie den Inhalt des Pakets auf Vollständigkeit und Integrität, bevor Sie fortfahren. Sollten Abweichungen festgestellt werden, wenden Sie sich bitte an Ihren Lieferanten und beginnen Sie nicht mit der Montage.
Sie dürfen die von Zypho® gelieferten Komponenten niemals verändern oder modifizieren. Verwenden Sie bitte für eine ordnungsgemäße Installation ausschließlich diese Komponenten.
Es wird empfohlen, PiPe an einer Stelle Ort zu installieren, an der alle Teile der Einheit zugänglich sind und routinemäßige Wartungsarbeiten, wie z.B. Reinigung, mit angemessener Leichtigkeit durchgeführt werden können.
PiPe sollte vertikal sowohl von der Vorderseite als auch von der Seite montiert werden. Vor dem Frischwasseranschluss sollten ein Rückschlagventil und ein Absperrventil eingebaut werden (Typ EA). PiPe darf nicht thermisch isoliert werden.
Es ist erforderlich, dass der Abstand von der Dusche zum PiPe innerhalb von 3 Metern gehalten wird, um Wärmeverluste zu reduzieren und einen guten Wirkungsgrad zu gewährleisten.

Wir empfehlen die Verwendung eines thermostatischen Duschmischers.
Die Nichtbeachtung der INSTALLATIONSKONFIGURATIONSOPTIONEN von PiPe führt zum Erlöschen der Garantie und kann sich negativ auf die Wirksamkeit auswirken.

BEI NICHTBEACHTUNG DIESER EMPFEHLUNGEN FÜR DIE INSTALLATION UND DEN GEBRAUCH KANN JEDE GEWÄHRLEISTUNG ERLÖSCHEN.

SICHERHEIT

Wir testen vor dem Versand alle Zypho®-Einheiten in unserem Werk. Der Hauptwasserkreislauf wird mit einem Druck von bis zu 9 bar beaufschlagt, um sicherzustellen, dass keine Leckagen oder Defekte auftreten.

WARTUNG UND PFLEGE

Die Zypho® PiPe Wärmetauscher wurden so konstruiert, dass sie nur minimalen Wartungsaufwand erfordern. Sie müssen mit dem vorgesehenen Duschabfluss installiert werden. Eine regelmäßige Reinigung wird empfohlen, um den Energieaustausch zu optimieren. Verwenden Sie einen nichtkorrosiven Abflussreiniger oder einen Wasserstrahl. Wir empfehlen Wasserstrahl, Abflussreiniger mit der Referenz ZYMN00000J1.

INSTALLATIONSKONFIGURATIONSOP P. 6
KOMPONENTEN UND ABMESSUNGEN P. 7
NUR FÜR DIE INSTALLATION IN GROSSBRITANNIEN
INSTALLATIONSANLEITUNG P. 8, 9

DANE TECHNICZNE

Przed przystapieniem do montazu nalezy upewnic sie, ze wszystkie ponizsze warunki zostały
- Zweryfikowane Maks. dopuszczalne cisnienie wody w sieci: 6 barów;
- Zalecane natezenie przepływu: <12,5 l/min;
- Maksymalne natezenie przepływu: 25,0 l/min;
- Maksymalna temperatura wody: 60°C;
- Min. wysokosc przeswitu: Wysokość PiPe + 40mm.

INSTRUKCJE INSTALACJI

Przed montazem prosze sprawdzic zawartosc pakietu pod katem kompletnosci i integralnosci. W przypadku zauwazenia jakichkolwiek nieprawidłowosci, nalezy skonsultowac sie z dostawca i nie rozpoczynac montazu.
Nigdy nie wolno zmieniac ani modyfikowac elementów dostarczanych przez firme Zypho®.
Do prawidłowego montazu nalezy uzywac wyłacznie tych elementów.
Zaleca sie, aby PiPe był instalowany w miejscu, w którym wszystkie czesci urzadzenia sa dostepne, a rutynowa konserwacja, taka jak czyszczenie, moze byc przeprowadzana z łatwoscia.
PiPe powinna byc montowana pionowo zarówno od przodu, jak i z boku. Przed podłaczeniem wody czystej nalezy zainstalowac zawór zwrotny i zawór odcinajacy (typu EA). Nie nalezy izolowac termicznie PiPe. Wymagane jest, aby odległosc od prysznica do PiPe była nie wieksza niz 3 metry, aby zmniejszyc straty ciepła i zapewnic dobra wydajnosc.
Zalecamy zastosowanie termostatycznej baterii prysznicowej.

Niezastosowanie sie do OPCJI KONFIGURACJI INSTALACJI PiPe uniewaznia gwarancje i moze miec negatywny wpływ na jej wydajnosc.

NIEPRZESTRZEGANIE ZALECEN DOTYCZACYCH INSTALACJI I UZYTKOWANIA MOZE SPOWODOWAC UTRATE WSZELKICH GWARANCJI.

BEZPIECZENSTWO

Przed wysyłka testujemy wszystkie urzadzenia Zypho® w naszej fabryce.
Główny obieg wody jest pod cisnieniem do 9 barów, aby upewnic sie, ze nie ma zadnych przecieków ani usterek.

KONSERWACJA

Wymienniki ciepła Zypho® PiPe zostały zaprojektowane tak, aby wymagały minimalnych nakładów na konserwacje. Musza byc zainstalowane z dostarczonym odpływem prysznicowym. W celu optymalizacji wymiany energii zalecane jest okresowe czyszczenie.
Nalezy uzywac niekorodujacego srodka czyszczacego do odpływu lub strumienia wody. Polecamy szczotke wodna ZYMN00000J1.

OPCJE KONFIGURACJI INSTALACJI **P. 6**
KOMPONENTY I WYMIARY **P. 7**
TYLKO DO INSTALACJI W WIELKIEJ BRYTANII
INSTRUKCJA INSTALACJI **P. 8, 9**

TECHNISCHE DATA

Voordat u tot montage overgaat, dient u na te gaan of aan alle volgende voorwaarden is voldaan
- Getolereerde max. waterdruk: 6 bar;
- Aanbevolen stroomsnelheid: < 12,5 L/min;
- Max. stroomsnelheid: 25,0 L/min;
- Max. watertemperatuur: 60 °C;
- Min. vrije hoogte: PiPe hoogte + 40 mm.

INSTALLATIE INSTRUCTIES

Controleer a.u.b. of de inhoud van de verpakking compleet en heel is, voordat u verdergaat. Raadpleeg in geval van afwijkingen uw leverancier en begin niet met het monteren. U mag de door Zypho® geleverde onderdelen nooit veranderen of wijzigen. Gebruik voor een correcte installatie uitsluitend deze onderdelen.
Het wordt aanbevolen om de PiPe te installeren op een plek waar alle onderdelen van de unit toegankelijk zijn en routinematig onderhoud, zoals reiniging, redelijk gemakkelijk kan worden gepleegd. De PiPe moet zowel aan de voorals aan de zijkant verticaal worden gemonteerd.
Voordat u vers water aansluit, moeten er een terugslagklep en een afsluitklep (type EA) worden aangebracht.
Isoleer de PiPe niet thermisch.
De afstand van de douchebak tot de PiPe mag niet groter zijn dan 3 meter om warmteverlies te verminderen en een optimale efficiëntie te waarborgen. Wij suggereren een thermostaatkraan.
Het niet-naleven van de INSTALLATIECONFIGURATIEMOGELIJKHEDEN maakt de garantie ongeldig en kan een nadelige invloed op de efficiëntie hebben.
HET NIET OPVOLGEN VAN DEZE INSTALLATIE- EN GEBRUIKSAANBEVELINGEN KAN DE GARANTIE DOEN VERVALLEN.

VEILIGHEID

Al onze Zypho®units worden voor verzending in onze fabriek getest.
De druk van het hoofdwatercircuit wordt opgevoerd tot 9 bar om ervoor te zorgen dat er geen lekken of defecten zijn.

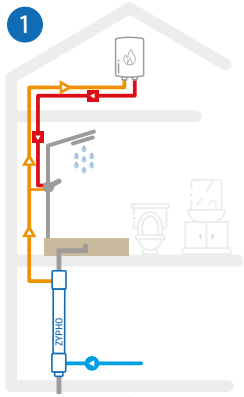
ONDERHOUD

Zypho® PiPe Heat Exchangers zijn ontworpen voor minimaal onderhoud. Ze moeten met de bijgeleverde doucheafvoer worden geïnstalleerd. Voor een optimale energie-uitwisseling is periodieke reiniging is aanbevolen. Gebruik een niet-corrosief afvoerreinigingsmiddel of een waterstraal. Wij raden waterstraalborstel ZYMN00000J1 aan.

INSTALLATIE CONFIGURATIE OPTIES **P. 6**
COMPONENTEN EN AFMETINGEN **P. 7**
ALLEEN VOOR INSTALLATIE IN HET VK
INSTALLATIE GIDS **P. 8, 9**

	Hot water		Preheated water		Cold water
EN	Hot water		Preheated water		Cold water
PT	Água quente		Água pré-aquecida		Água fria
ES	Agua caliente		Agua precalentada		Agua fría
FR	Eau chaude		Eau préchauffée		Eau froide
DE	Heisses wasser		Vorgewärmtes wasser		Kaltes wasser
PL	Gorąca woda		Woda podgrzewana		Zimna woda
NL	Heet water		Voorverwarmd water		Koud water

1



EN The preheated water is transferred to the tap and the boiler.
The most efficient configuration.

PT A água pré aquecida é enviada para a torneira e para o termoacumulador/ cilindro. A configuração mais eficiente.

ES El agua precalentada va para el grifo y para el calentador de agua.
La configuración mas eficiente.

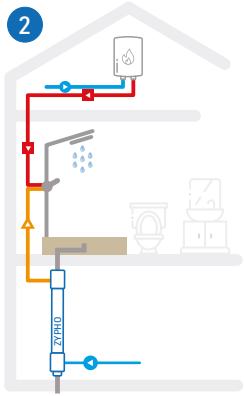
FR De L'eau préchauffée est ainsi dirigée vers le mitigeur et le chauffe-eau.

DE Das vorgewärmte Wasser wird nur zum Wasserhahn geleitet.

PL Podgrzana woda jest przekazywana tylko do baterii.

NL Het voorverwarmde water wordt alleen naar de kraan overgebracht.

2



EN The preheated water is transferred to the tap only.

PT A água pré aquecida é enviada apenas para a torneira

ES El agua precalentada va sólo para el grifo

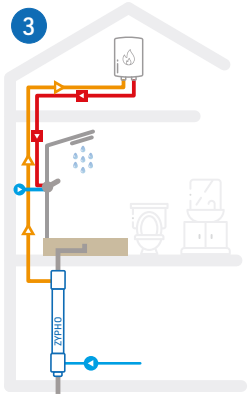
FR De L'eau préchauffée est dirigée vers le mitigeur

DE Das vorgewärmte Wasser wird nur zum Wasserhahn geleitet.

PL Podgrzana woda jest przekazywana tylko do baterii.

NL Het voorverwarmde water wordt alleen naar de kraan overgebracht.

3



EN The preheated water is transferred to the boiler only.

PT A água pré aquecida é enviada apenas para o termoacumulador/ cilindro

ES El agua precalentada va sólo para el calentador de agua

FR El agua precalentada va sólo para el calentador de agua

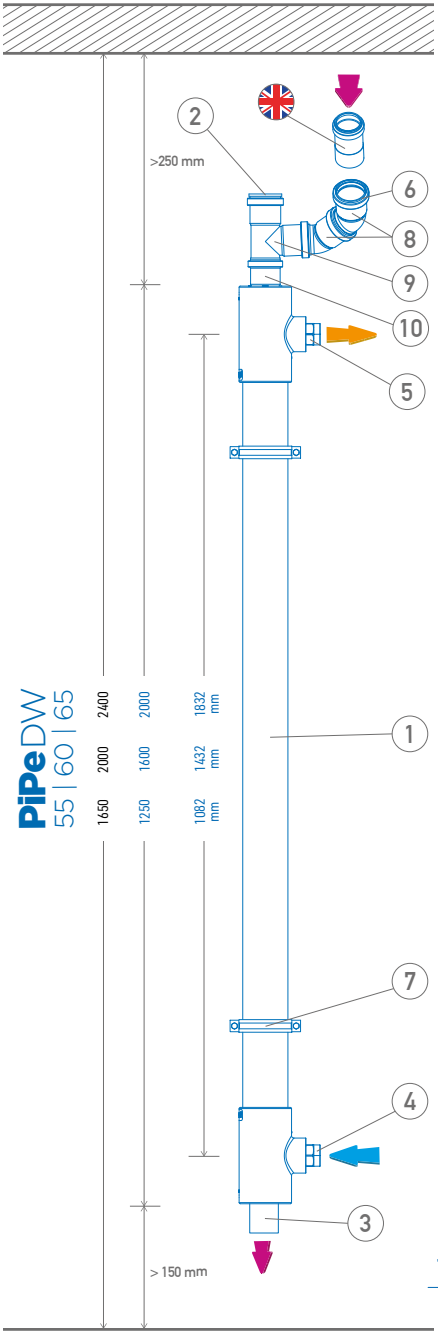
DE Das vorgewärmte Wasser wird nur zum Kessel geleitet.

PL Podgrzana woda jest przekazywana tylko do kotła.

NL Het voorverwarmde water wordt alleen naar de boiler overgebracht.

PiPeDW 55|60|65

		MAT	COD	DIMEN
1	EN Product body PT Corpo do produto ES Cuerpo del producto FR Corps du produit DE Produkt-körper PL Korpus produktu NL Productbehuizing	Stainless steel Aço inoxidável Acero inoxidable Acier inoxydable Edelstahl Stal nierdzewna Roestvrij staal	-	Ø80 mm
2	EN Cleaning access PT Acesso de limpeza ES Accès au nettoyage FR Acceso de limpieza DE Zugang reinigen PL Czyszczak NL Reinigingstoegang	PVC	F	Ø50 mm
3	EN Shower water out PT Saída água do duche ES Salida de agua de ducha FR Sortie d'eau de douche DE Duschwasserausgang PL Wylot wody z prysznicu NL Douche water uit	PVC	M	Ø50 mm
4	EN Cold water in PT Água fria ES Agua fría FR Eau froide DE Kaltes wasser PL Zimna woda NL Koud water	PVC/BRASS	F	¾" ½"
5	EN Pre-heated water out PT Água pré-aquecida ES Agua precalentada FR Eau préchauffée DE vorgewärmtes wasser PL Woda podgrzewana NL Voorverwarmd water	PVC/BRASS	F	¾" ½"
6	EN Shower water in PT Entrada água do duche ES Entrada de agua de ducha FR Entree d'eau de douche DE Duschwassereinlass PL wlot wody prysznicowej NL Douchewater In	PVC	-	-
7	EN Fixing clamp PT Abraçadeira de fixação ES Abrazadera de fijación FR Pince de fixation DE Befestigungsklemme PL Uchwyt mocujacy NL Bevestigingskle	Metal / Rubber Metal / Borracha Metal / caucho Métal / Caoutchouc Metall / Gummi Metal / Guma Metaal/ Rubber	-	-
8	EN 45° Elbow PT Curva 45° ES Codo 45° FR Coude 45° DE 45° Winkel PL Kolanko 45° NL Bocht 45°	PVC	M/F	Ø50 mm
9	EN 90° Tee PT T 90° ES T 90° FR T 90° DE 90° T-Stück PL Koszulka 90° NL 90° T-stuk	PVC	M/F	Ø50 mm
10	EN Leak detector PT Detector de fugas ES Detector de fugas FR Détecteur de fuite DE Lecksucher PL Wykrywacz nieszczelności NL Lek detector	PVC	M/F	Ø50 mm
	EN Adapter PT Adaptador ES Adaptador FR Adaptateur DE Adapter PL Adapter NL Adapter	PVC	M/F	Ø50 mm Ø43 mm



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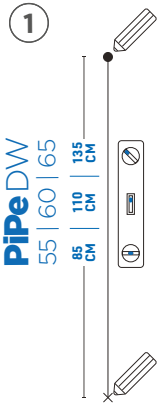
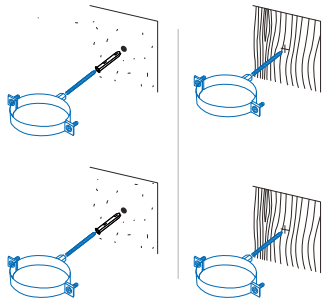

PiPeDW
55 | 60 | 65
85 CM
110 CM
135 CM

2



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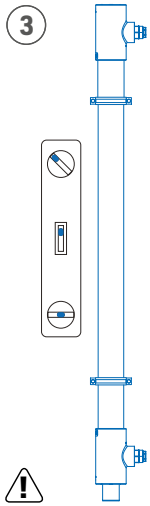

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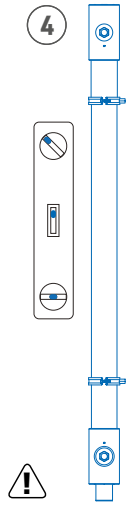

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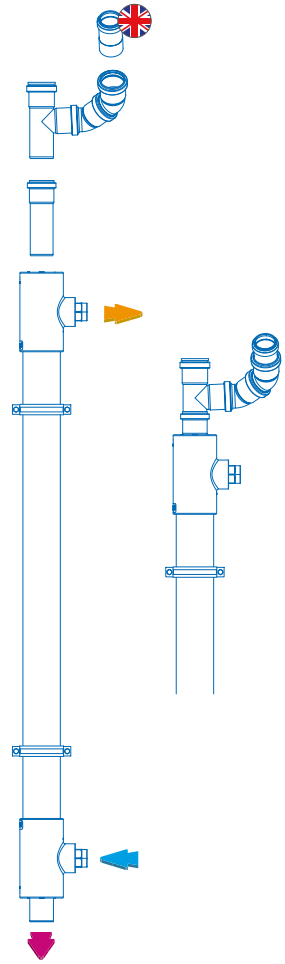

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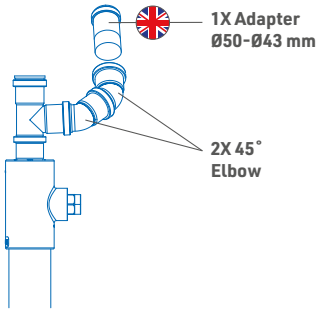
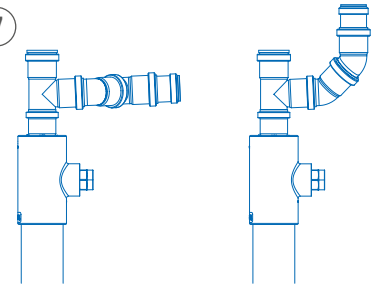

1X Adapter
Ø50-Ø43 mm
2X 45°
Elbow

7



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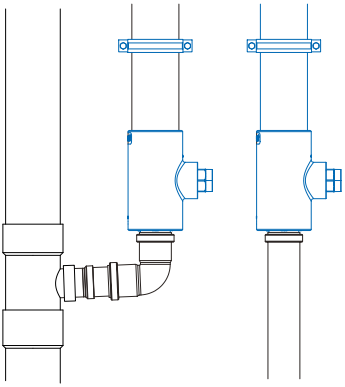
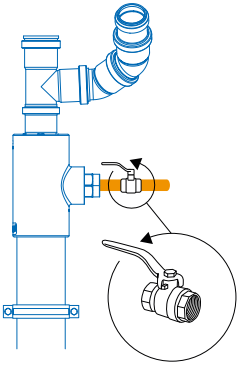
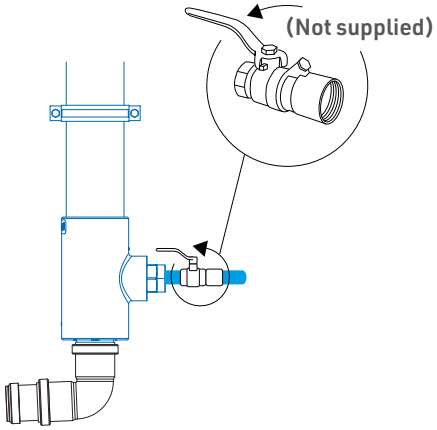


9

Shut-off valve



10 **Shut-off valve & Non-return valve type EA**



11

TEST

ZYPHO®
Shower drain heat Recovery

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