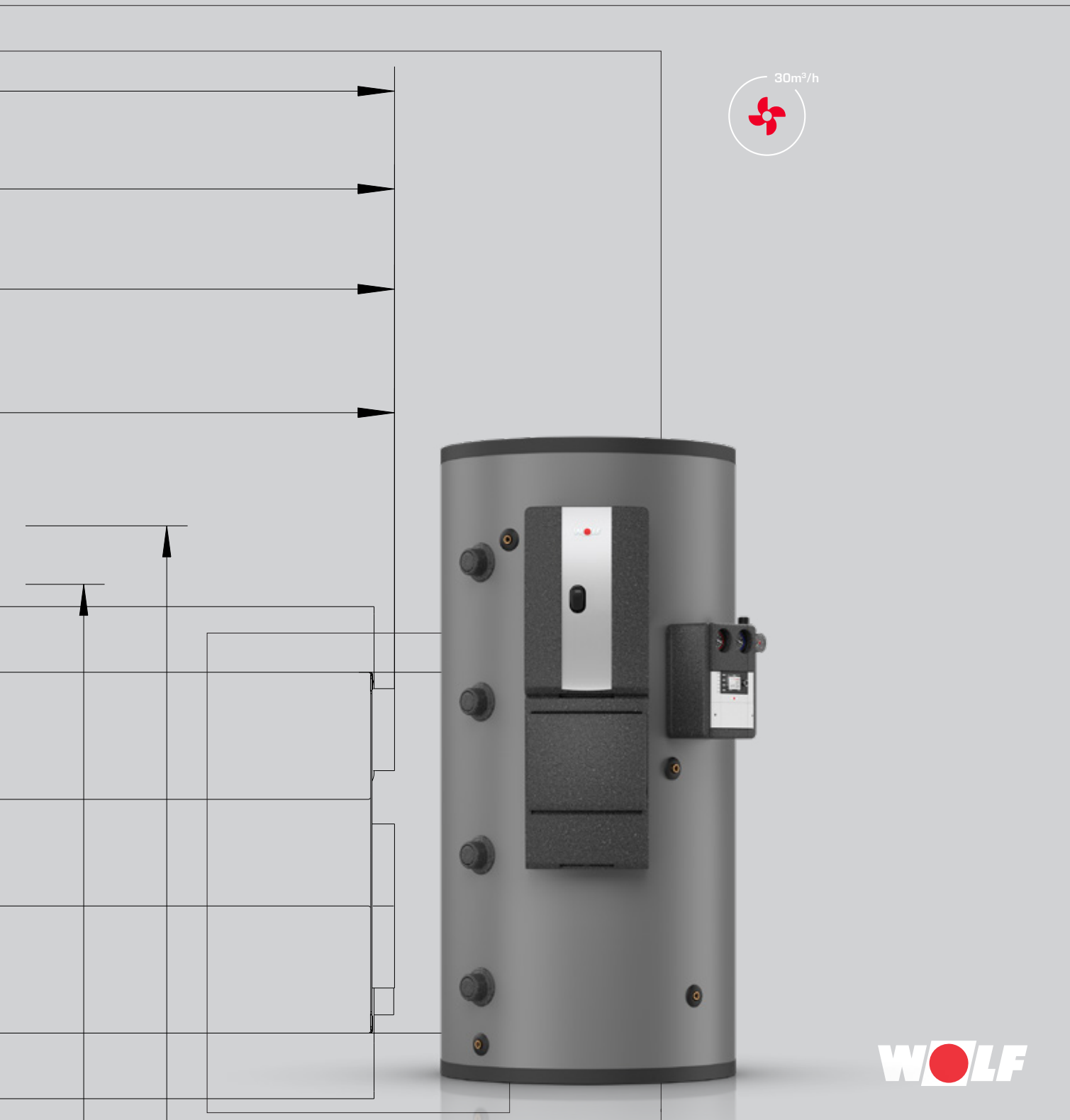
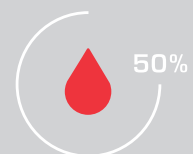
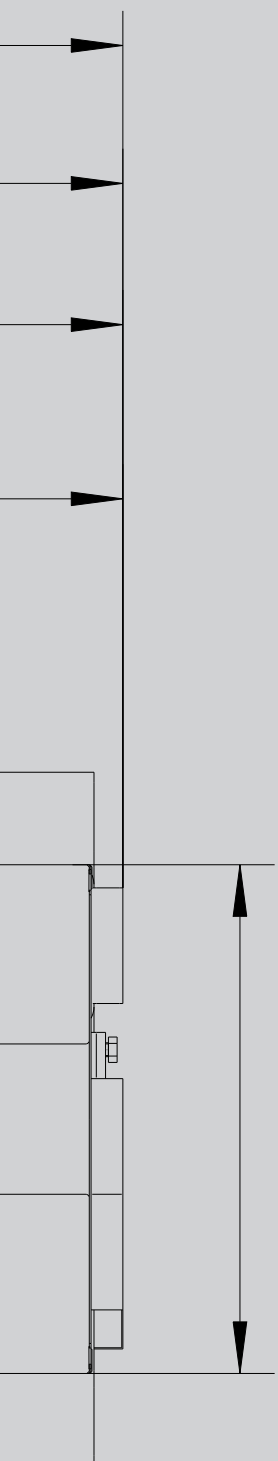


# WOLF CYLINDER SYSTEMS



**WOLF**



## THE EXTENSIVE EQUIPMENT RANGE

offered by system supplier WOLF provides ideal solutions for commercial and industrial buildings, new build and modernisation projects alike. The range of WOLF control units can meet any requirement for heating convenience. All equipment is easy to operate, highly energy efficient and reliable.

Solar thermal systems can be swiftly integrated into existing systems.

WOLF equipment is easy and quick to install and maintain.

<b>STRATIFICATION BUFFER CYLINDERS</b>	<b>BSP, BSP-SL, BSP-B, BSP-W, BSP-W-SL, BSP-W-B</b>	<b>04</b>
	<b>ACCESSORIES</b>	<b>05</b>
	<b>SPECIFICATION</b>	<b>07</b>
<b>BUFFER CYLINDERS</b>	<b>BSH</b>	<b>09</b>
	<b>SPECIFICATION</b>	<b>10</b>
	<b>SPU-2-W, SPU-2 (plus) UP TO 1500 LITRES</b>	<b>11</b>
	<b>SPECIFICATION</b>	<b>12</b>
	<b>SPU-2 2000 UP TO 5000 LITRES</b>	<b>14</b>
	<b>SPECIFICATION</b>	<b>15</b>
<b>FRESHWATER MODULES</b>	<b>FWS-2, FWS-2 CASCADE</b>	<b>16</b>
	<b>SPECIFICATION</b>	<b>17</b>
	<b>FWS-2 max</b>	<b>18</b>
	<b>SPECIFICATION</b>	<b>19</b>
<b>SOLAR DHW CYLINDERS</b>	<b>SEM-1, SEM-2, SEM-1W</b>	<b>20</b>
	<b>ACCESSORIES</b>	<b>21</b>
	<b>SPECIFICATION</b>	<b>22</b>
<b>DHW CYLINDERS</b>	<b>SE-2</b>	<b>24</b>
	<b>ACCESSORIES</b>	<b>25</b>
	<b>SPECIFICATION</b>	<b>26</b>
	<b>SEW-1, SEW-2</b>	<b>27</b>
	<b>SPECIFICATION</b>	<b>28</b>
<b>NOTES</b>		<b>29</b>

# BSP STRATIFICATION BUFFER CYLINDERS

**Stratification separators** stabilise the temperature layers inside the cylinder and improve the solar yield significantly

**Hydraulic components**, such as the freshwater module, 2 circuits with mixer and solar pump assembly, can be mounted on the cylinder itself or on the wall

**Highest possible solar yields**, as the cylinder can be heated up to 95 °C without risk of scaling or scalding

**Space saving** steel stratification buffer cylinder with quality certificate

**Hygienic DHW heating** with a powerful FWS-2-60/FWS-2-80 freshwater module with high efficiency pump [EEI < 0.20]

**Push-fit connections enable DHW circulation set** to be retrofitted; control via time switch, thermostat or by opening the tap

Single cylinder system for the **lowest heat losses**

**As option** with 2 mixing circuit assemblies for high and low temperature circuits

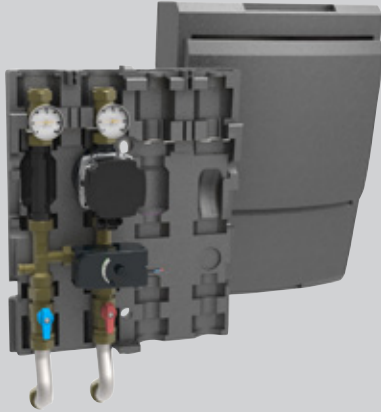
**Affordable** solution for central heating backup

**5 year statutory warranty** on the floorstanding cylinder; 2 years on electrical and moving parts

**Thermal insulation** removable for easier transport into the installation room

**11 BENEFITS OF THE WOLF STRATIFICATION BUFFER CYLINDER**  
 BSP, BSP-B, BSP-SL BSP-W, BSP-W-B, BSP-W-SL

	Freshwater module	FWS-2-60	FWS-2-80
Solar indirect coil			
<b>2 solar indirect coils</b>		BSP-SL-1000	BSP-W-SL-1000
<b>1 solar indirect coil</b>		BSP-800/1000	BSP-W-1000
<b>0 solar indirect coils</b>		BSP-1000 B	BSP-W-1000 B



#### **BSP LOW TEMPERATURE MIXING CIRCUIT ASSEMBLY**

For direct mounting on the BSP / BSP-SL / BSP-B stratification buffer cylinders

Consisting of:

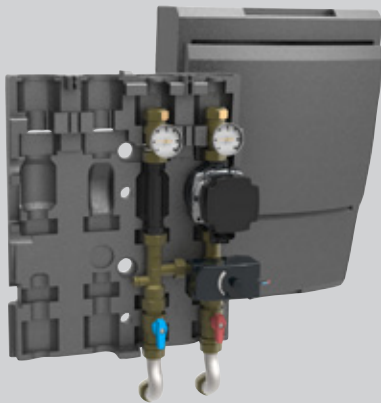
DN15-70 high efficiency pump [EEI < 0.20], self-regulating, fitted mixer motor [230 V/110 s], progressive 3-way mixer DN20 kvs=8.0, 2 ball valves in the flow and 2 in the return for servicing without draining the buffer or heating system, integrated gravity brake to prevent incorrect circulation, thermometer, well designed EPP thermal insulation shells.

Connections at top with flat gaskets G1 AG and 22 mm diameter locking ring bottom with flat gaskets G1 AG with stainless steel corrugated hoses kvs=4.5

$\Delta p=150$  mbar at  $V=1700$  l/h

at  $\Delta t$  10 K up to 20 kW

at  $\Delta t$  20 K up to 40 kW



#### **BSP HIGH TEMPERATURE MIXING CIRCUIT ASSEMBLY**

For direct mounting on the BSP / BSP-SL / BSP-B stratification buffer cylinders

Consisting of:

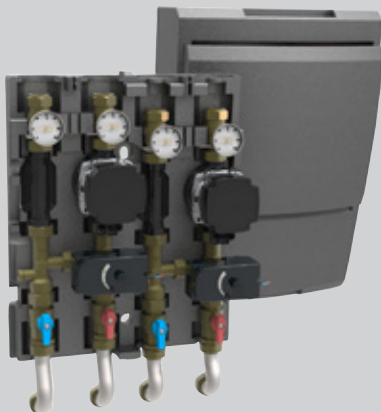
DN15-70 high efficiency pump [EEI < 0.20], self-regulating, fitted mixer motor [230 V/110 s], progressive 3-way mixer DN20 kvs=8.0, 2 ball valves in the flow and 2 in the return for servicing without draining the buffer or heating system, integrated gravity brake to prevent incorrect circulation, thermometer, well designed EPP thermal insulation shells.

Connections at top with flat gaskets G1 AG and 22 mm diameter locking ring bottom with flat gaskets G1 AG with stainless steel corrugated hoses kvs=4.5

$\Delta p=150$  mbar at  $V=1700$  l/h

at  $\Delta t$  10 K up to 20 kW

at  $\Delta t$  20 K up to 40 kW



#### **BSP LOW AND HIGH TEMPERATURE MIXING CIRCUIT ASSEMBLY**

For direct mounting on the BSP / BSP-SL / BSP-B stratification buffer cylinders

Consisting of:

Two DN15-70 high efficiency pumps [EEI < 0.20], self-regulating, two fitted mixer motors [230 V/110 s], two progressive 3-way mixers DN20 kvs=8.0, 2 ball valves in the flow and 2 in the return for servicing without draining the buffer or heating system, two integrated gravity brakes to prevent incorrect circulation, thermometer, well designed EPP thermal insulation shells.

Connections at top with flat gaskets G1 AG and 22 mm diameter locking ring bottom with flat gaskets G1 AG with stainless steel corrugated hoses kvs=4.5

$\Delta p=150$  mbar at  $V=1700$  l/h

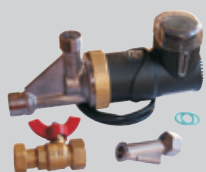
at  $\Delta t$  10 K up to 20 kW

at  $\Delta t$  20 K up to 40 kW

## STRATIFICATION BUFFER CYLINDERS

### ACCESSORIES

BSP / BSP-SL / BSP-B / BSP-W / BSP-W-SL / BSP-W-B



#### ZP-3 DHW CIRCULATION PUMP KIT TO EXTEND THE FWS-2-60 AND FWS-2-80 FRESHWATER MODULES

Consisting of:  
High efficiency DHW circulation pump, with thermostat shutdown and time switch, ball valve and offset fitting (activation from draw-off point or by means of integrated time switch)



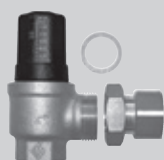
#### COVER FOR BSP HEATING CIRCUIT CONNECTIONS



#### SOLAR CONNECTION KIT FOR SOLAR PUMP ASSEMBLY 10

For direct mounting on the BSP / BSP-W stratification buffer cylinder

Consisting of:  
Thermally insulated connection lines and fixing materials



#### DIFFERENTIAL PRESSURE OVERFLOW VALVE, RIGHT ANGLE VERSION 1"

To DHW cascade with 2 BSP stratification buffer cylinders

Incl. threaded connection and flat gasket

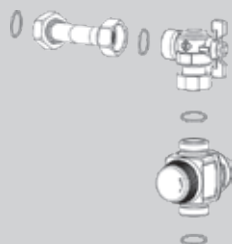
Setting range: 50-500 mbar (values directly visible)



#### MOTORISED VALVE

For return temperature raising for central heating backup

DN25 1", 230 V



#### RETURN STRATIFICATION SET BSP | FWS-2

Consisting of: Changeover valve, right-angle valve and pipework for installation in the FWS-2

The accessory set enables the temperature-dependent stratification of the return flow of the fresh water station FWS-2 into the stratification buffer cylinder BSP.

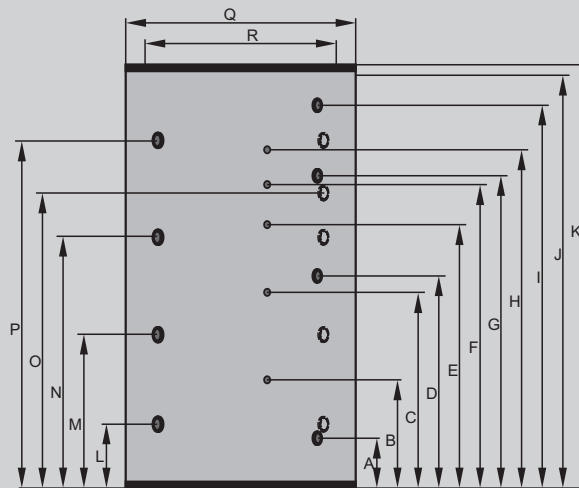
The set is recommended in particular for systems with circulation mode.

It further improves the stratification in the cylinder. The return is run into the middle or lower part of the cylinder depending on the set temperature.

The set is also easy to integrate into the fresh water station FWS-2.

The pipework between the fresh water station FWS-2 and the stratification buffer cylinder BSP is installed on-site.

**STRATIFICATION BUFFER CYLINDERS**  
**SPECIFICATION**  
**BSP / BSP-SL / BSP-B**

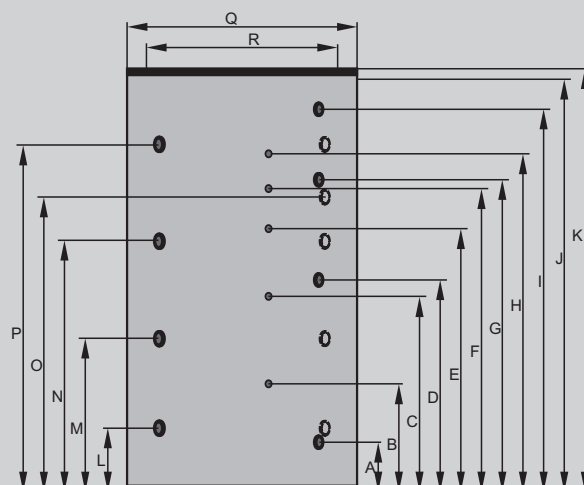


TYPE	BSP	800	1000	1000 B	-
	BSP-SL	-	-	-	1000
Cylinder capacity	litres	785	915	915	900
Standby heat loss	kWh/24 h	3.18	3.22	3.22	3.22
Solar return (lower indirect coil)	A mm	230	230	-	230
Solar sensor (lower indirect coil)	B mm	490	550	-	550
Changeover valve sensor	C mm	800	950	-	950
Solar flow (lower indirect coil)	D mm	910	1030	-	1030
Common sensor	E mm	1200	1350	1350	1350
Cylinder sensor	F mm	1350	1510	1510	1510
Solar return (upper indirect coil)	G mm	-	-	-	1443
Solar sensor (upper indirect coil)	H mm	-	-	-	1610
Solar flow (upper indirect coil)	I mm	-	-	-	1780
Total height excl. thermal insulation	J mm	1755	2040	2040	2040
Total height incl. thermal insulation	K mm	1825	2110	2110	2110
Connection	L mm	260	310	310	310
Connection	M mm	630	745	745	745
Connection	N mm	1030	1250	1250	1250
Connection	O mm	-	1430	1430	1430
Connection	P mm	1430	1710	1710	1710
Diameter incl. thermal insulation	Q mm	1000	1000	1000	1000
Diameter excl. thermal insulation	R mm	790	790	790	790
Height when tilted, excl. thermal insulation	mm	1788	2068	2068	2068
Solar flow / return	G	1"	1"	-	1"
Connection	G (fem.)	1½"	1½"	1½"	1½"
Sensor (4 pce), internal diameter (for BSP-SL/BSP-W-SL: 5 pce)	mm	10	10	10	10
Solar internal indirect coil surface area, lower / upper coil	m²	2.5 / -	3.0 / -	-	3.0/1.9
Solar internal indirect coil capacity, lower / upper coil	litres	16.5 / -	19.8 / -	-	19.8/11.0
Max. operating pressure, cylinder	bar	3	3	3	3
Max. operating pressure, indirect coil	bar	6	6	-	6
Max. operating temperature, cylinder	°C	95	95	95	95
Weight	kg	171	194	194	215

# STRATIFICATION BUFFER CYLINDERS

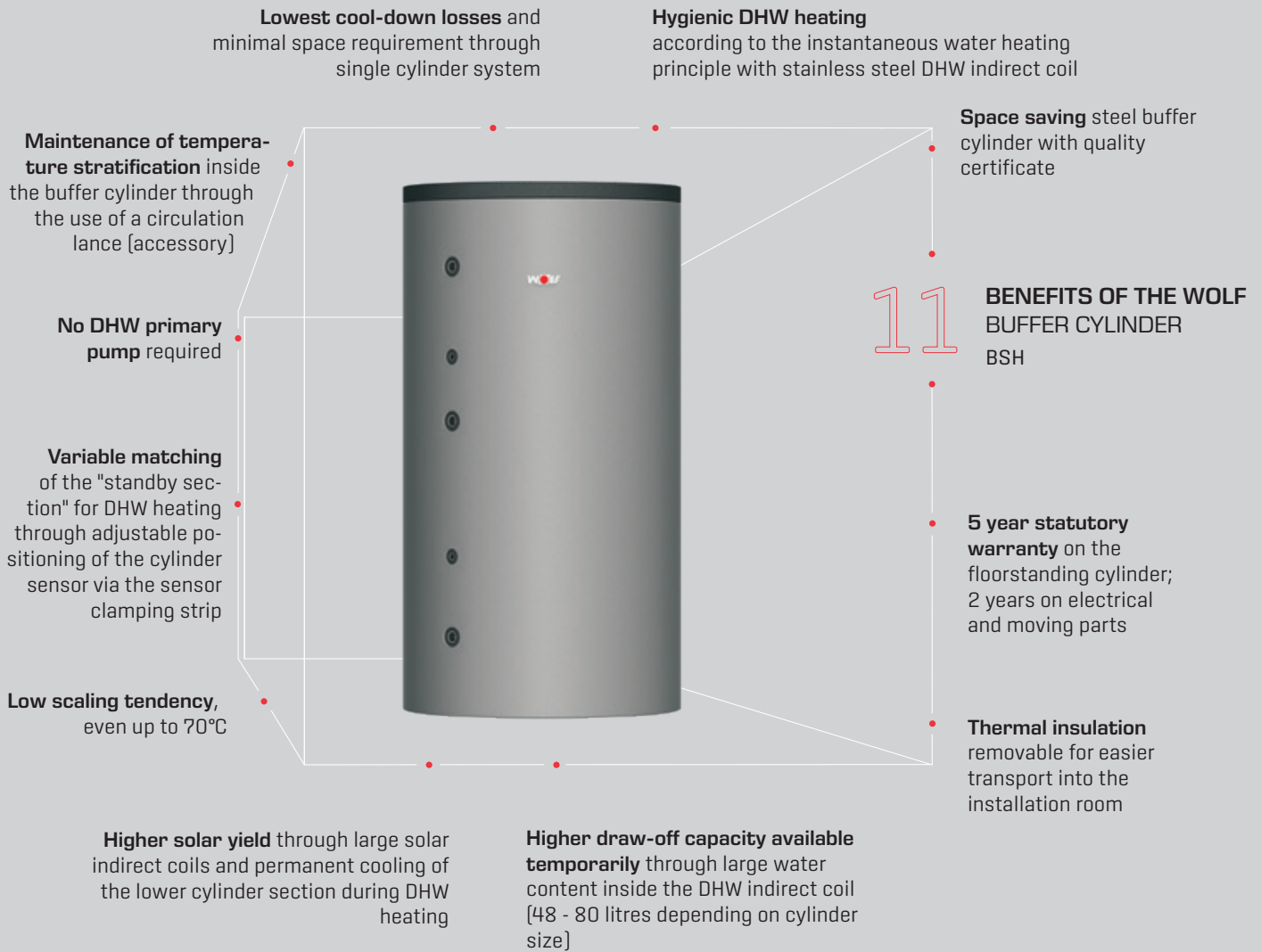
## SPECIFICATION

### BSP-W / BSP-W-SL / BSP-W-B



TYPE	BSP-W	1000	1000 B	-
	BSP-W-SL	-	-	1000
Cylinder capacity	litres	915	915	900
Standby heat loss	kWh/24 h	3.22	3.22	3.22
Solar return (lower indirect coil)	A mm	230	-	230
Solar sensor (lower indirect coil)	B mm	550	-	550
Changeover valve sensor	C mm	950	-	950
Solar flow (lower indirect coil)	D mm	1030	-	1030
Common sensor	E mm	1350	1350	1350
Cylinder sensor	F mm	1510	1510	1510
Solar return (upper indirect coil)	G mm	-	-	1443
Solar sensor (upper indirect coil)	H mm	-	-	1610
Solar flow (upper indirect coil)	I mm	-	-	1780
Total height excl. thermal insulation	J mm	2040	2040	2040
Total height incl. thermal insulation	K mm	2110	2110	2110
Connection	L mm	310	310	310
Connection	M mm	745	745	745
Connection	N mm	1250	1250	1250
Connection	O mm	1430	1430	1430
Connection	P mm	1710	1710	1710
Diameter incl. thermal insulation	Q mm	1000	1000	1000
Diameter excl. thermal insulation	R mm	790	790	790
Height when tilted, excl. thermal insulation	mm	2068	2068	2068
Solar flow / return	G	1"	-	1"
Connection	G (fem.)	1 ½"	1 ½"	1 ½"
Sensor (4 pce), internal diameter (for BSP-SL/BSP-W-SL: 5 pce)	mm	10	10	10
Solar internal indirect coil surface area, lower / upper coil	m <sup>2</sup>	3.0 / -	-	3.0/1.9
Solar internal indirect coil capacity, lower / upper coil	litres	19.8 / -	-	19.8/11.0
Max. operating pressure, cylinder	bar	3	3	3
Max. operating pressure, indirect coil	bar	6	-	6
Max. operating temperature, cylinder	°C	95	95	95
Weight	kg	194	194	215

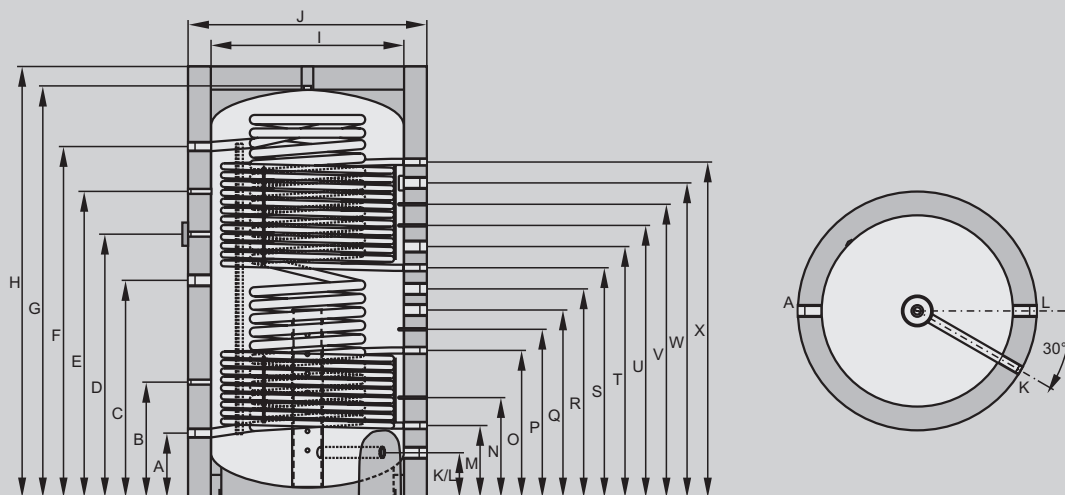




# BUFFER CYLINDERS

## SPECIFICATION

### BSH-500/800/1000/1500/2000

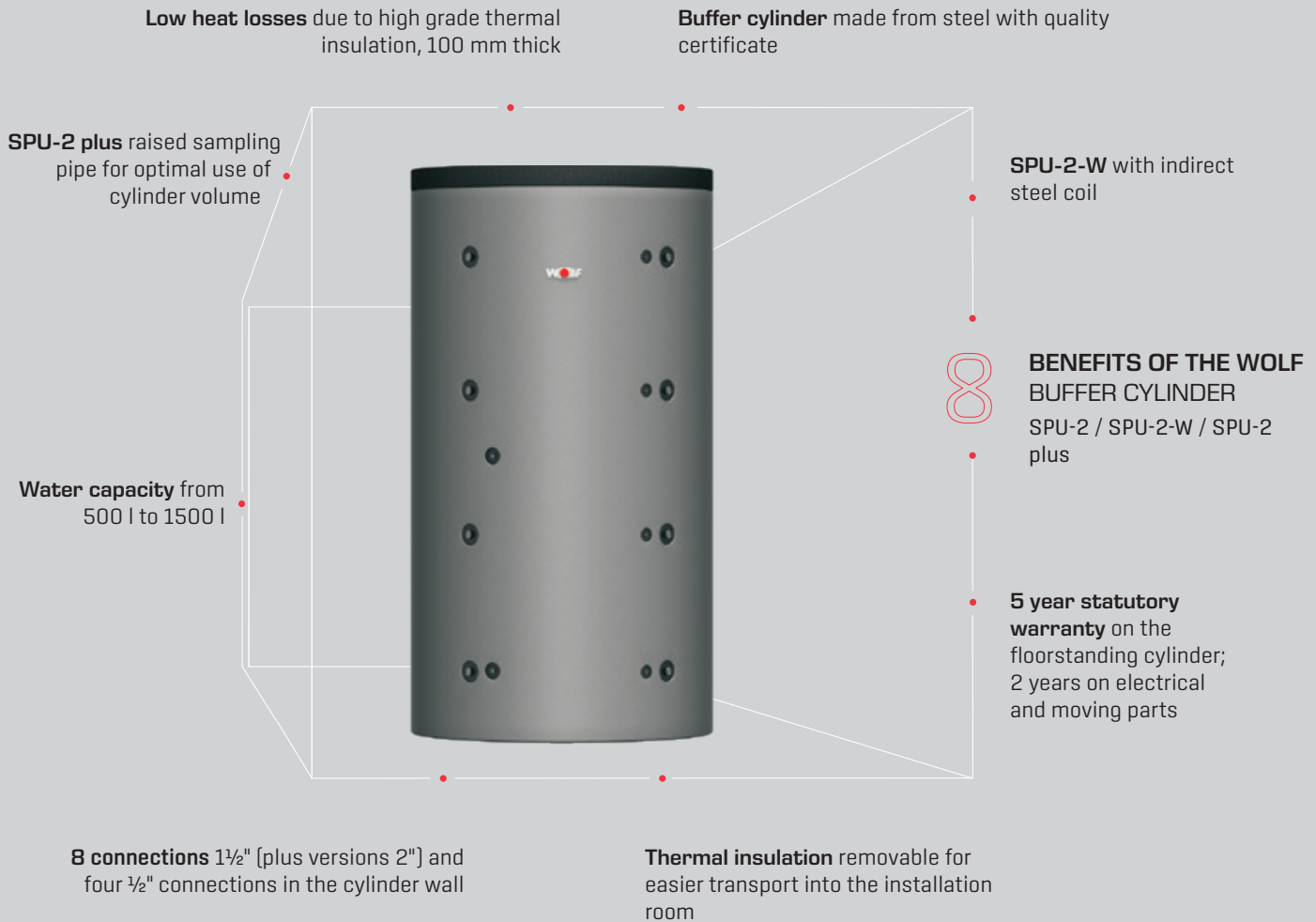


TYPE	BSH	500	800	1000	1500	2000
Energy efficiency class <sup>2)</sup>	A+ → F	<b>B</b>	-	-	-	-
Total cylinder capacity	litres	495	800	900	1500	1965
Standby heat loss	kWh/24 h	1.9	2.32	2.4	3.03	3.6
DHW capacity	litres	48	60	60	70	80
Continuous cylinder output <sup>1)</sup>	kW - l/h	24 - 594	38 - 940	50 - 1200	75 - 1848	100 - 2515
Output factor <sup>1)</sup>	N <sub>L</sub>	2.1	4.3	5.4	6.5	7.6
Cold water connection	A mm	240	270	270	335	350
Thermometer / sensor	B mm	440	570	580	600	750
Electric booster heater	C mm	820	920	1130	1130	1210
Thermometer	D mm	1150	1290	1500	1500	1470
Thermometer / sensor	E mm	-	-	-	-	1730
DHW connection	F mm	1420	1580	1760	1825	1950
Height excl. thermal insulation / air vent valve	G mm	1650	1840	2020	2150	2290
Height incl. thermal insulation	H mm	1730	1940	2120	2250	2390
Diameter excl. thermal insulation	I mm	650	790	790	1000	1100
Diameter incl. thermal insulation	J mm	850	1030	1030	1240	1340
Stratification return / connection	K / L mm	150	170	170	235	250
Solar return, bottom	M mm	280	310	310	375	390
Sensor well, solar cylinder sensor, bottom	N mm	490	465	495	520	630
Solar flow, bottom	O mm	700	670	730	765	870
Sensor well, buffer sensor	P mm	800	770	840	875	970
Connection	Q mm	910	870	950	975	1080
Connection	R mm	1020	980	1060	1085	1190
Solar return, top	S mm	-	1090	1210	1195	1300
Connection	T mm	-	-	-	1305	1410
Sensor well, tank sensor	U mm	1150	1190	1330	1415	1520
Sensor well, solar cylinder sensor, top	V mm	-	1290	1450	1525	1640
Connection	W mm	1400	1390	1520	1635	1760
Solar flow, top	X mm	-	1500	1680	1745	1870
Height when tilted, excl. thermal insulation	mm	1750	1950	2125	2290	2450
Height when tilted, incl. thermal insulation	mm	1930	2200	2360	2575	2745
Solar flow / solar return / vent	G (fem.)	1"	1"	1"	1"	1"
Cold water / DHW connection	G (fem.)	1¼"	1¼"	1¼"	1¼"	1¼"
Thermometer / sensor	G (fem.)	½"	½"	½"	½"	½"
Connections Q, R, T, W and C	G (fem.)	1½"	1½"	1½"	1½"	1½"
Stratification return / connection L	G (fem.)	1¼"	1½"	1½"	1½"	1½"
Sensor well, internal diameter	mm	10	10	10	10	10
Solar indirect coil surface area, bottom / top	m <sup>2</sup>	2.3 / -	3.0/2.0	3.0/3.0	3.0/3.5	5.5/4.2
Solar indirect coil content, bottom / top	litres	9.8 / -	12.1/7.7	12.1/12.1	15.0/20.2	22.7/18.4
DHW indirect coil surface area	m <sup>2</sup>	5.6	7.1	7.1	8.2	9.4
Max. operating pressure, DHW / solar	bar	10	10	10	10	10
Max. operating pressure, heating water	bar	3	3	3	3	3
Max. operating temperature	°C	95	95	95	95	95
Weight	kg	135	220	245	365	405

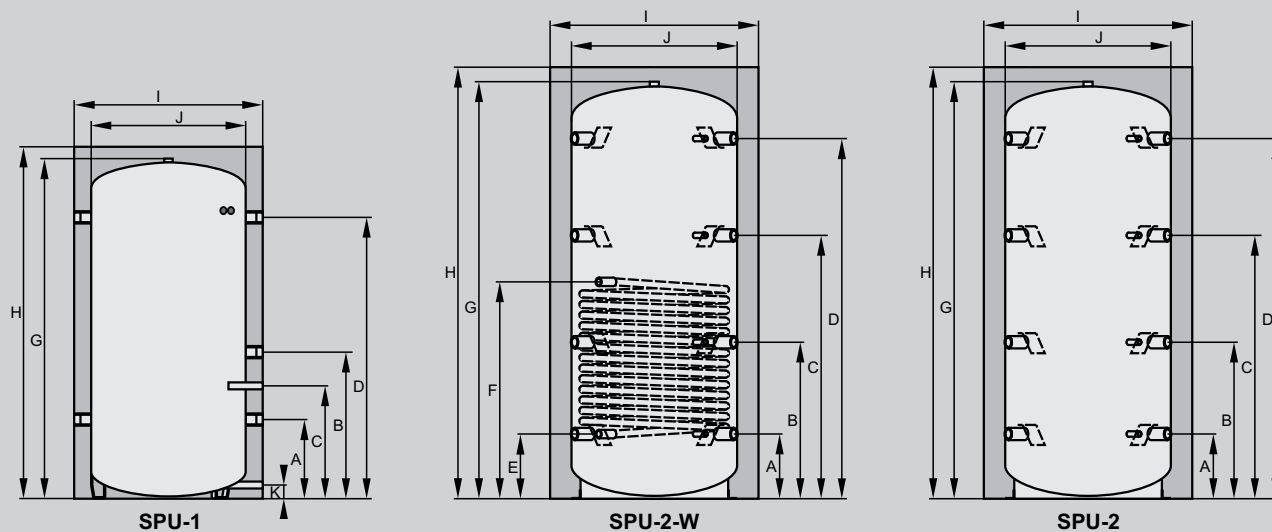
<sup>1)</sup> 10/45°C (DHW temp.), 70°C (buffer temp.)

<sup>2)</sup> Energy class according to Ecodesign Directive for cylinders ≤ 500 litres

**BUFFER CYLINDERS**  
**SPU-2-500/800/1000/1500**  
**SPU-2-W-500/800/1000/1500**  
**SPU-2-800/1000/1500 plus**



**BUFFER CYLINDERS**  
**SPECIFICATION**  
**SPU-1-200**  
**SPU-2-500/800/1000/1500**  
**SPU-2-W-500/800/1000/1500**

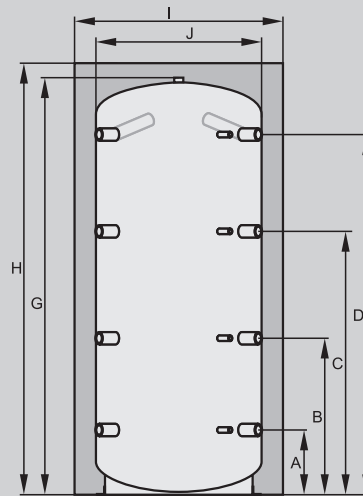


TYPE	SPU-1	200	-	-	-	-
	SPU-2[-W]	-	500	800	1000	1500
Energy efficiency class <sup>1)</sup>	A+ → F	C	C	-	-	-
Cylinder capacity						
SPU-1	litres	200	-	-	-	-
SPU-2-W	litres	-	480	780	960	1500
SPU-2	litres	-	490	795	980	1530
Standby heat loss						
SPU-1	kWh/24 h	1.55	-	-	-	-
SPU-2[-W]	kWh/24 h	-	2.03	2.59	3.02	3.67
Connection / thermometer / sensor strip	A mm	256	220	260	310	380
Connection / thermometer / sensor strip	B mm	460	620	630	745	825
Sensor well	C mm	358	-	-	-	-
Connection / thermometer / sensor strip	C mm	-	1010	1030	1250	1350
Connection / thermometer / sensor strip	D mm	910	1390	1430	1710	1760
Indirect coil return *	E mm	-	220	260	310	375
Indirect coil flow *	F mm	-	715	845	1030	1175
Height excl. thermal insulation / air vent valve	G mm	-	1640	1700	2050	2150
Height incl. thermal insulation	H mm	1140	1725	1785	2135	2235
Diameter incl. thermal insulation	I mm	610	850	990	990	1200
Diameter excl. thermal insulation	J mm	-	650	790	790	1000
Drain	K mm	85	-	-	-	-
Height when tilted, incl. thermal insulation	mm	1310	1910	2050	2360	2540
Height when tilted, excl. thermal insulation	mm	-	1670	1750	2090	2270
Connections [5 pce]	G [fem.]	1½"	-	-	-	-
Connections [8 pce]	G [fem.]	-	1½"	1½"	1½"	1½"
Sensor well	G [fem.]	½"	-	-	-	-
Thermometer [4 pce]	G [fem.]	-	½"	½"	½"	½"
Venting	G [fem.]	1"	1½"	1½"	1½"	1½"
Drain	G [fem.]	½"	-	-	-	-
Indirect coil connection *	G [fem.]	-	1"	1"	1"	1"
Indirect coil area *	m²	-	1.8	2.4	3	3.6
Indirect coil *	litres	-	11	15	19	22
Max. operating pressure primary * / secondary	bar	- / 3	10/3	10/3	10/3	10/3
Max. operating temperature primary * / secondary	°C	- / 95	110/95	110/95	110/95	110/95
Weight						
SPU-1	kg	48	-	-	-	-
SPU-2-W	kg	-	113	133	149	256
SPU-2	kg	-	87	109	130	205

\* Only for SPU-2-W

<sup>1)</sup> Energy class according to Ecodesign Directive for cylinders ≤ 500 litres

**BUFFER CYLINDERS**  
**SPECIFICATION**  
**SPU-2-800/1000/1500 plus**



TYPE	SPU-2	800 plus	1000 plus	1500 plus
Cylinder capacity				
SPU-2 plus	litres	795	980	1530
Standby heat loss	kWh/24 h	2.59	3.02	3.67
Connection / thermometer / sensor strip	A mm	260	310	380
Connection / thermometer / sensor strip	B mm	630	745	825
Connection / thermometer / sensor strip	C mm	1030	1250	1350
Connection / thermometer / sensor strip	D mm	1430	1710	1760
Height excl. thermal insulation / air vent valve	G mm	1700	2050	2150
Height incl. thermal insulation	H mm	1785	2135	2235
Diameter incl. thermal insulation	I mm	990	990	1200
Diameter excl. thermal insulation	J mm	790	790	1000
Height when tilted, incl. thermal insulation	mm	2050	2360	2540
Height when tilted, excl. thermal insulation	mm	1750	2090	2270
Connections [8 pce]	Rp	2"	2"	2"
Thermometer [4 pce]	Rp	½"	½"	½"
Venting	Rp	1½"	1½"	1½"
Max. operating pressure / secondary	bar	3	3	3
Max. operating temperature / secondary	°C	95	95	95
Weight	kg	112	133	210

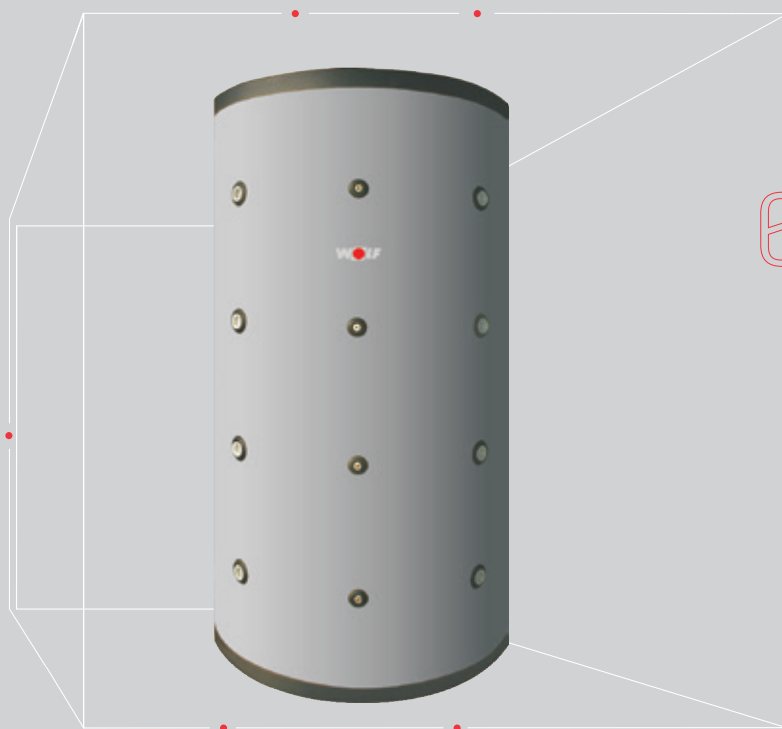
# BUFFER CYLINDERS

## SPU-2-2000/3000/4000/5000

**Low heat losses** due to high grade thermal insulation, 100 mm thick

**Buffer cylinder** made from steel with quality certificate

**Water capacity** from 200 l to 5000 l



6

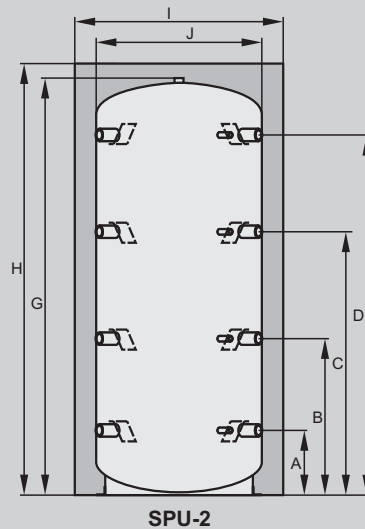
**BENEFITS OF THE WOLF  
BUFFER CYLINDER  
SPU-2**

**5 year statutory  
warranty** on the  
floorstanding cylinder;  
2 years on electrical  
and moving parts

**8 connections** 2" and 4 thermometer  
connections 1/2" in the cylinder wall

**Thermal insulation** removable for  
easier transport into the installation  
room

**BUFFER CYLINDERS**  
**SPECIFICATION**  
**SPU-2-2000/3000/4000/5000**



TYPE	SPU-2	2000	3000	4000	5000
Cylinder capacity	litres	1950	2700	3950	4950
Standby heat loss	kWh/24 h	4.28	-	-	-
Connection / thermometer / sensor strip	A mm	395	435	490	510
Connection / thermometer / sensor strip	B mm	950	995	1050	1135
Connection / thermometer / sensor strip	C mm	1510	1555	1610	1760
Connection / thermometer / sensor strip	D mm	2070	2115	2170	2390
Height excl. thermal insulation / air vent valve	G mm	2400	2480	2590	2830
Height incl. thermal insulation	H mm	2480	2560	2670	2910
Diameter incl. thermal insulation	I mm	1300	1450	1700	1800
Diameter excl. thermal insulation	J mm	1100	1250	1500	1600
Height when tilted, incl. thermal insulation	mm	2800	2950	3150	3400
Height when tilted, excl. thermal insulation	mm	2550	2650	2850	3100
Connections [8 pce]	G (fem.)	2"	2"	2"	2"
Thermometer [4 pce]	G (fem.)	½"	½"	½"	½"
Venting	G (fem.)	1¼"	1¼"	1¼"	1¼"
Max. operating pressure primary / secondary	bar	- / 3	- / 3	- / 3	- / 3
Max. operating temperature primary / secondary	°C	- / 95	- / 95	- / 95	- / 95
Weight	kg	253	298	486	603

**FRESHWATER MODULE**  
**WITH HIGH EFFICIENCY PUMPS (EEI ≤ 0.20)**  
**FWS-2-60**  
**FWS-2-80 (CASCADE)**

**Can be mounted on the wall or cylinder (SPU-2) without the need for expensive accessories**

**High DHW convenience** due to readjustment (FWS-2-80: electronic, FWS-2-60: thermostatic)

**Electronically controlled,** only the temperature needs to be selected

**Infinitely variable output** adjustment thanks to a variable speed pump

**Highly efficient** DHW circulation pump can be integrated as an accessory

**12 BENEFITS OF THE WOLF FRESHWATER MODULES**  
 FWS-2-60 FWS-2-80 FWS-2-80x2/x3/x4

**Fully pre-assembled** with well-designed thermal insulation

**Scale prevention** through admixture in the primary circuit

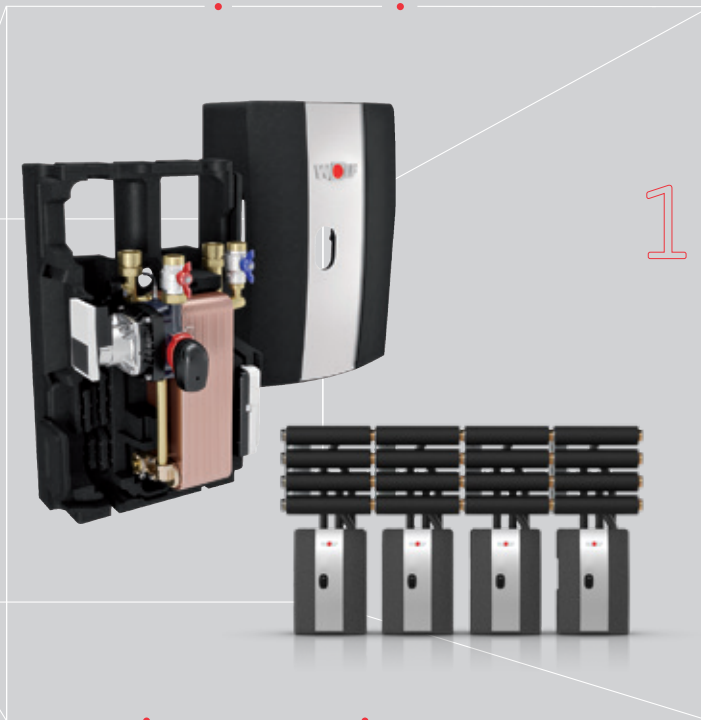
**Preconfigured** cascade sets of up to 4 units (FWS-2-80)

**FWS-2-80** incl. taps on the DHW side of the heat exchanger

**FWS-2-80** incl. pasteurisation function

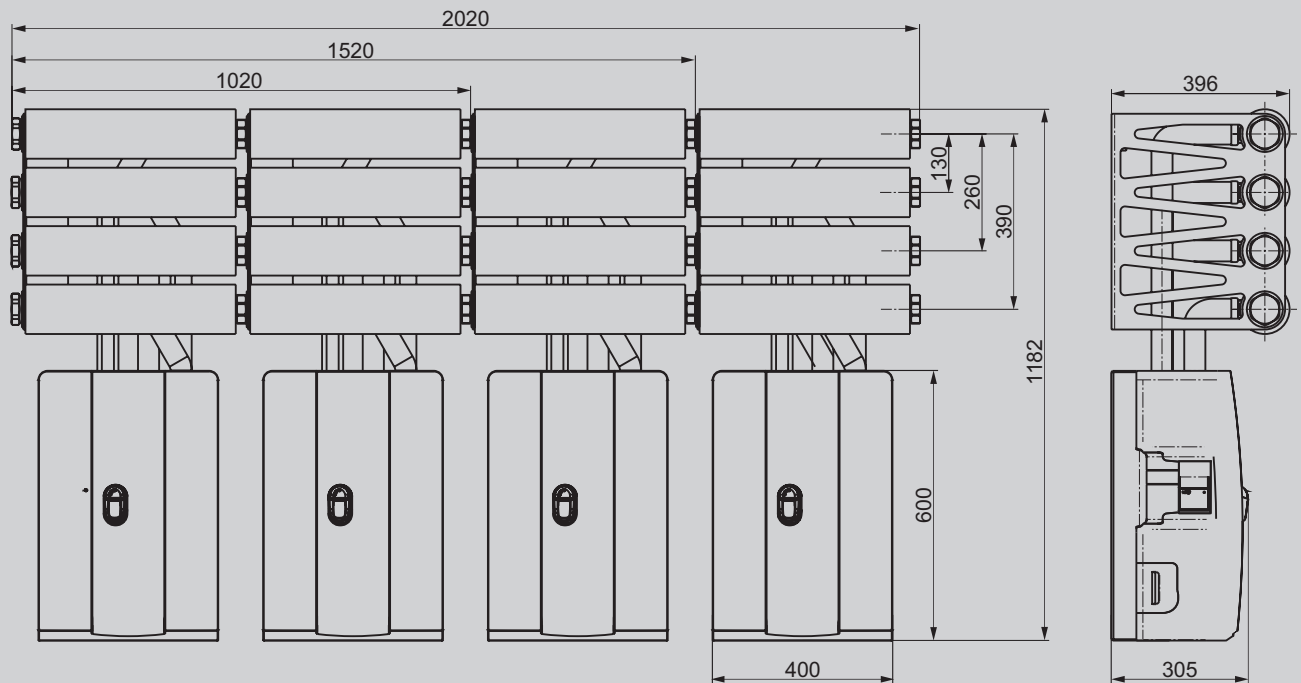
**Cascade sets** comprising freshwater modules, cascade controller, cascade valves, DN50 piping and hygiene set

**Well insulated** cascade piping





**FRESHWATER MODULE  
SPECIFICATION  
FWS-2-60  
FWS-2-80 (CASCADE)**



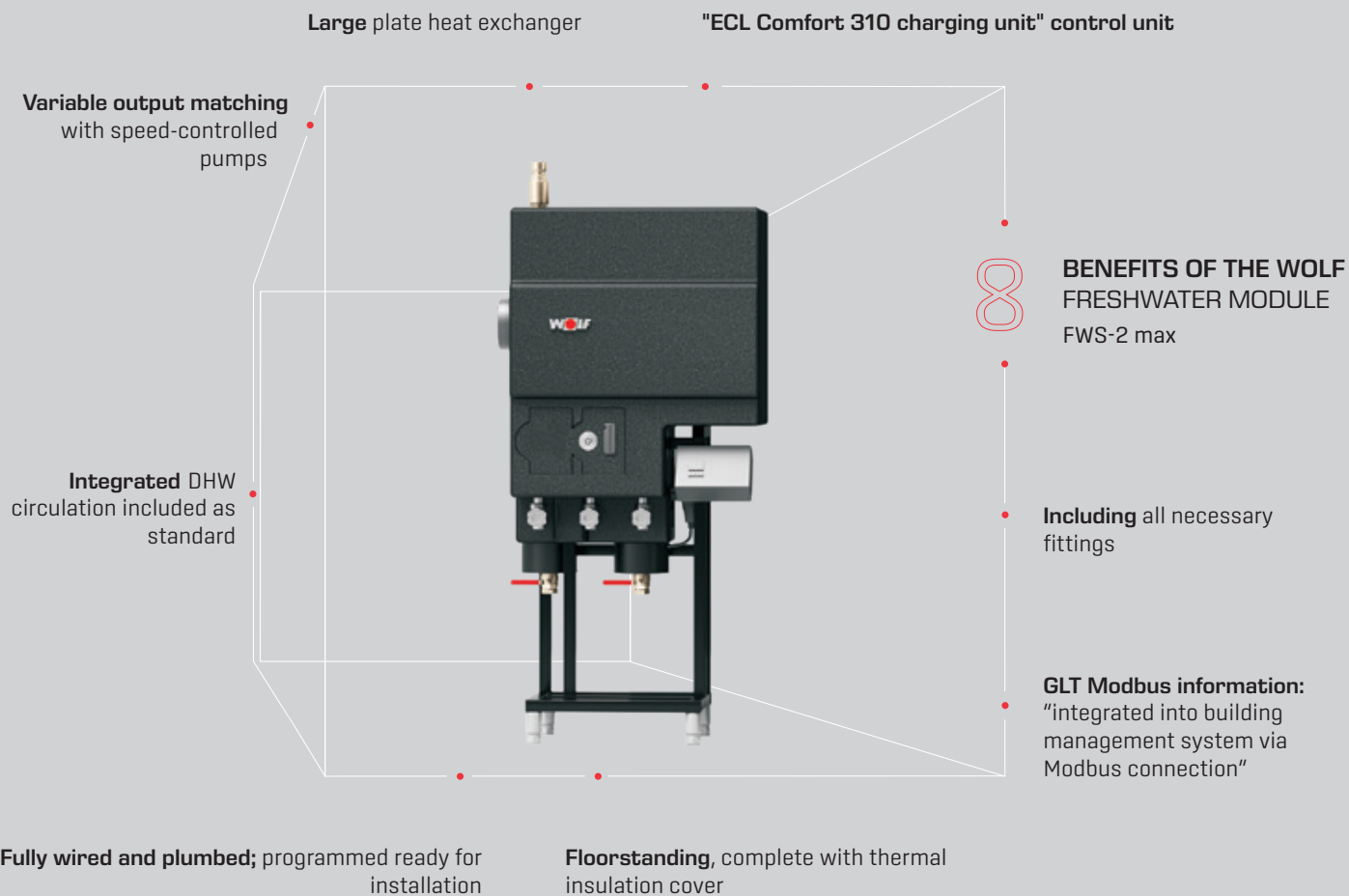
Freshwater module		FWS-2-60	FWS-2-80
Output factor	$N_L$	2.5	8.5
DHW output	l/min	15*	27
70 °C buffer flow, 10/60 °C cold water/DHW	l/min	25*	40
65 °C buffer flow, 10/45 °C cold water/DHW	l/min	-	25
50 °C buffer flow, 10/45 °C cold water/DHW	l/min	-	25
Max. heating operating pressure	bar	3	3
Max. water operating pressure	bar	10	10
Max. operating temperature	°C	95	95
Power consumption	W	45	48
Weight	kg	17	20
Electrical connection		230V / 50Hz	230V / 50Hz

\* With thermostat factory-set to 3.25

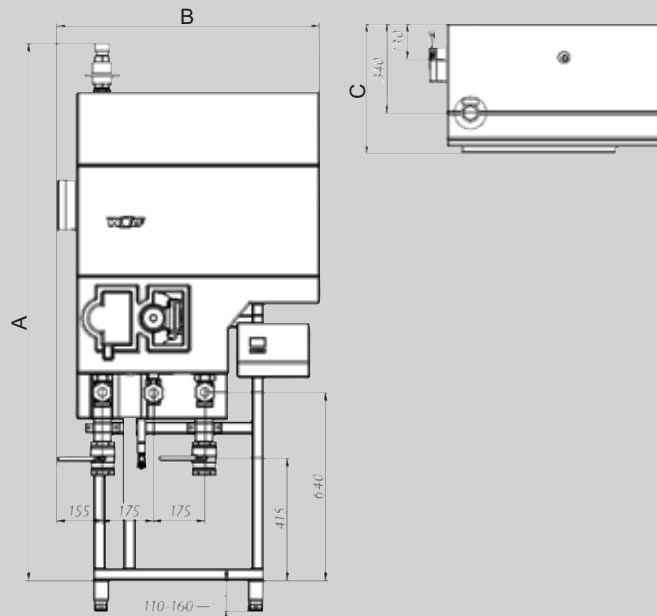
TYPE	FWS-2-80	x2	x3	x4
Rated output	kW	174	268	330
Output factor	$N_L$	27	54	75
Cold water / DHW connection	G	2"	2"	2"
Heating flow / return	G	2"	2"	2"
Temperatures primary flow / secondary cold water/DHW	°C	70 / 10/60	70 / 10/60	70 / 10/60
Continuous output, secondary at 60 °C	l/min	50	77	95
Max. permiss. op. pressure, primary	bar	3	3	3
Max. permiss. op. pressure, secondary	bar	10	10	10
Power consumption	W	97	145	193
Electrical connection		230V / 50Hz	230V / 50Hz	230V / 50Hz

## FWS-2 max FRESHWATER MODULE

WITH HIGH EFFICIENCY PUMP (EEI < 0.23) FOR HYGIENIC DHW HEATING WITH WITH BUFFER CYLINDER



**FRESHWATER MODULE  
SPECIFICATION  
FWS-2/140/350/455 max**



TYPE	FWS-2 max	140	350	455
Rated output	kW	140	350	455
Output factor	N <sub>L</sub>	18	81	119
Height	A* mm	1890	1962	1962
Width	B mm	847	935	935
Depth	C mm	488	488	488
Cold water / DHW connection	G	1¼" A	1½" A	1¾" A
Circulation	G	1¼" A	1¼" A	1¼" A
Heating flow / return	Rp	1¼"	1½"	2"
Temperatures primary flow / secondary cold water/DHW	°C	70 / 10/60	70 / 10/60	70 / 10/60
Amount of heating water, primary	m <sup>3</sup> /h	2.4	6.3	8
Continuous output, secondary at 60 °C	l/min	40	100	130
Pressure drop, primary / secondary	mbar	85/120	214/330	161/390
Pump residual head, primary**	mbar	520	726	726
Max. DHW circulation flow rate	m <sup>3</sup> /h	2.4	3.4	3.4
Pressure drop, DHW circulation	mbar	39	79	116
Max. permiss. op. pressure, primary / secondary	bar	10/10	10/10	10/10
Max. permiss. op. temp., primary / secondary	°C	90/90	90/90	90/90
Max. power consumption	W	187	410	410
Total weight (empty)	kg	79	91	101
Electrical connection		230 V / 50 Hz		

\*for plinth height of 130 mm  
\*\*for pump setting max. = 100%

**SOLAR DHW CYLINDERS**  
**SEM-1-500/750/1000**  
**SEM-2-300/400**  
**SEM-1W-360**

**Low heat losses** due to high grade rigid PUR foam or polyester fleece thermal insulation below the foil jacket of the cylinder

**Solar DHW cylinder** made from steel with quality certificate, two-layer enamel coating and two smooth tube indirect coils

**Large indirect coil surface areas** ensure a short heat-up time and a high continuous DHW output

**Solar pump assembly** can be fitted directly to the SEM-2 solar DHW cylinder

**Connection** for an electric booster heater

**10 BENEFITS OF THE WOLF SOLAR DHW CYLINDER SEM-1 / SEM-2 SEM-1W**

**Side flange** for additional indirect coil and easy maintenance

**5 year statutory warranty** on the floorstanding cylinder; 2 years on electrical and moving parts

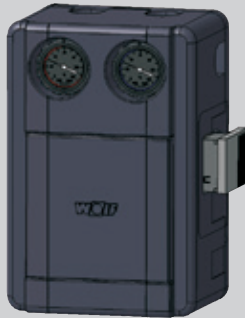
**SEM-1W** optimised for heat pumps

**Optimised diameter/height ratio** for good temperature stratification

**Cylinder interior and indirect coils** protected against corrosion by a two-layer enamel coating and sacrificial magnesium anode



**SOLAR DHW CYLINDERS  
ACCESSORIES  
SEM-1-500/750/1000  
SEM-2-300/400  
SEM-1W-360**



**SOLAR PUMP ASSEMBLY 10**

Consisting of:

**High efficiency pump (EEI < 0.20), variably adjustable** and fully wired with cable, ball valves with thermometer in flow and return, gravity brakes in flow and return, 6 bar safety valve, 0-10 bar pressure gauge, drain and fill valve, air separator and manual air vent valve, wall retainer and installation material

Dimensions HxWxD: 375 x 400 [250] x 190 mm, well designed EPP thermal insulation shells, resistant up to 130 °C

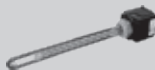
**Solar pump assembly 10**

Suitable for up to 10 solar collectors with 50 l Throughput per hour and collector [subject to system sizing].

Flow regulation 2 to 15 l/min.

Connection: 18 mm locking ring fitting

**Note:** SM1-2 and SM2-2 solar modules can be integrated into pump assembly



**SOLAR CONNECTION KIT**

For solar pump assembly 10 for direct installation on the SEM-2 DHW solar cylinder

**ELECTRIC BOOSTER HEATER 2 KW/230 V/50 HZ / 4.5 & 6 KW/400 V/50 HZ.**

Integrated cylinder thermostat and high limit safety cut-out. Frost protection is assured. The cylinder water temperature can be adjusted either up to 60 °C or up to 80 °C.

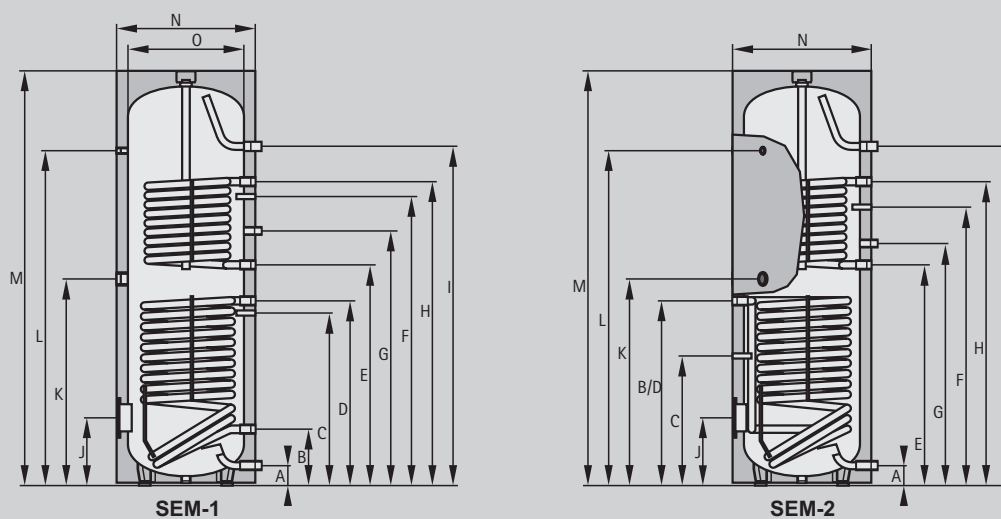
**HIGH EFFICIENCY CHARGING PUMP (EEI < 0.23)**



**IMPRESSED CURRENT ANODE**

For enamelled cylinder

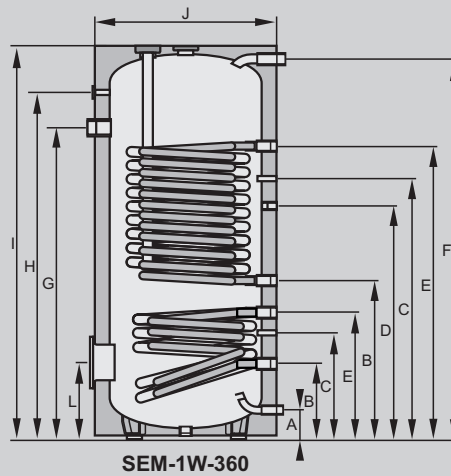
**SOLAR DHW CYLINDERS**  
**SPECIFICATION**  
**SEM-1-500/750/1000**  
**SEM-2-300/400**



TYPE	SEM-1	-	-	500	750	1000
	SEM-2	300	400	-	-	-
Energy efficiency class <sup>1)</sup>	A+ → F	C	C	C	-	-
Cylinder capacity	litres	285	385	500	750	935
Standby heat loss	kWh/24 h	1.92	2.41	2.44	2.73	3.2
Continuous cylinder output 80/60-10/45 °C (heating)	kW - l/h	20 - 490	20 - 490	20 - 490	50 - 1200	50 - 1200
Output factor (heating)	N <sub>L</sub>	2.3	4.8	6	13.5	18
Cold water connection	A mm	90	55	99	220	220
Return, solar	B mm	815	874	305	345	345
Cylinder sensor, solar	C mm	506	416	586	603	603
Flow, solar	D mm	815	874	865	920	975
Heating return	E mm	974	987	985	1025	1340
Heating cylinder sensor	F mm	1154	1204	1160	1185	1500
Circulation	G mm	1077	1092	1195	1290	1605
Heating feed	H mm	1334	1335	1335	1475	1790
DHW connection	I mm	1728	1586	1451	1590	1940
Flange (bottom)	J mm	324	275	335	384	384
Electric booster heater	K mm	887	915	949	970	1145
Thermometer	L mm	1504	1416	1404	1460	1810
Total height	M mm	1794	1651	1780	1850	2200
Diameter incl. thermal insulation	N mm	600	701	850	1000	1000
Diameter excl. thermal insulation	O mm	-	-	-	800	800
Height when tilted, incl. thermal insulation	mm	1898	1820	1935	2030	2350
Primary heating water	bar/°C	10/110	10/110	10/110	10/110	10/110
Secondary DHW	bar/°C	10/95	10/95	10/95	10/95	10/95
Internal flange diameter	mm	114	114	114	114	114
Cold water connection	G (male)	1"	1"	1"	1¼"	1¼"
Heating flow / return	G (fem.)	1"	1"	1"	1¼"	1¼"
Solar flow / return	G (male)	¾"	¾"	1"*	1¼"*	1¼"*
Circulation	G (male)	¾"	¾"	¾"	1"	1"
DHW connection	G (male)	1"	1"	1"	1¼"	1¼"
Electric booster heater	G (fem.)	1½"	1½"	1½"	1½"	1½"
Thermometer	G (fem.)	½"	½"	½"	½"	½"
Indirect coil surface area, heating / solar	m <sup>2</sup>	1.0/1.6	1.2/1.8	1.0/1.8	1.5/2.1	1.5/2.4
Indirect coil capacity, heating / solar	litres	5.8/9.4	7.0/13.0	6.1/11.5	9.2/13.5	9.2/14.5
Weight	kg	130	159	182	290	350

\*G (fem.)  
<sup>1)</sup> Energy class according to Ecodesign Directive for cylinders ≤ 500 litres

**SOLAR DHW CYLINDERS**  
**SPECIFICATION**  
**SEM-1W-360**



TYPE	SEM-1W	360
Energy efficiency class <sup>1)</sup>	A+ → F	<b>C</b>
Cylinder capacity	litres	365
Standby heat loss	kWh/24 h	2.04
Continuous cylinder output, tv 80/60 °C - tww 10/45 °C	kW - l/h	90/2210
Output factor (heating)	N <sub>L60</sub>	3.0
Output factor (heating)	N <sub>L50</sub>	1.6
Heat-up time 14kW - 10-50 °C	Min.	71
Cold water connection	A mm	55
Return, heating / solar	B mm	606/221
Cylinder sensor, heating / solar	C mm	965/385
Circulation	D mm	860
Flow, heating / solar	E mm	1146/470
DHW connection	F mm	1526
Electric booster heater (opt.)	G mm	1210
Thermometer connection	H mm	1355
Total height	I mm	1630
Diameter incl. insulation	J mm	705
Service flange	L mm	276
Height when tilted	mm	1740
Primary heating water	bar/°C	10/110
Secondary DHW	bar/°C	10/95
Internal flange diameter	mm	DN 110
Cold water connection	G (male)	1"
Return, heating / solar	G (male)	1¼"
Circulation	G (male)	¾"
Flow, heating / solar	G (male)	1¼"
DHW connection	G (male)	1"
Protective anode	G (fem.)	1¼"
Electric booster heater	G (fem.)	1½"
Sensor well, cylinder sensor (mounted)	G (fem.)	20x2
Thermometer	G (fem.)	½"
Indirect coil surface area, heating / solar	m <sup>2</sup>	3.2/1.3
Indirect coil capacity, heating / solar	litres	27/11
Weight	kg	182

<sup>1)</sup> Energy class according to Ecodesign Directive for cylinders ≤ 500 litres

## DHW CYLINDERS SE-2

**Low heat losses** due to high grade rigid PUR foam thermal insulation below the foil jacket of the cylinder

**DHW cylinder** made from steel with quality certificate, two-layer enamel coating and one smooth tube indirect coil

**Inspection and cleaning apertures** for easy maintenance

**Optimised diameter/height ratio** for good temperature stratification

**Connection** for an electric booster heater



**BENEFITS OF THE WOLF  
DHW CYLINDER  
SE-2**

**5 year statutory warranty** on the floorstanding cylinder; 2 years on electrical and moving parts

**Cylinder interior and indirect coils** protected against corrosion by a two-layer enamel coating and a sacrificial magnesium anode (SE-2-750 with impressed current anode)

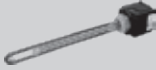
**Large, low-lying internal indirect coil** for short heat-up times and a high continuous DHW output





**SP-1 FROST THERMOSTAT**

Incl. sensor well (to be mounted in the return)



**ELECTRIC BOOSTER HEATER 2 KW/230 V/50 HZ / 4.5 & 6 KW/400 V/50 HZ.**

Integrated cylinder thermostat and high limit safety cut-out. Frost protection is assured. The cylinder water temperature can be adjusted either up to 60 °C or up to 80 °C.



**HIGH EFFICIENCY PRIMARY PUMP (EEI < 0.23)**



**IMPRESSED CURRENT ANODE**

For enamelled cylinder



**CYLINDER TEMPERATURE SENSOR**

With round blue plug



**TEMPERATURE SENSOR (NTC 5K, Ø 6 MM) LOOSE**

can be used as a cylinder, central unit and supply air temperature sensor for WOLF WRS system



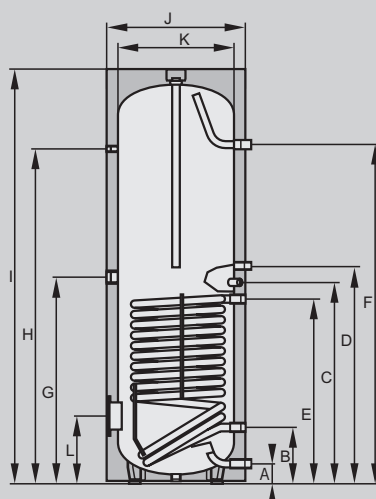
**LIFTING SLINGS**

Consisting of 2 tension belts each with two support loops

# DHW CYLINDERS

## SPECIFICATION

### SE-2-150/200/300/400/500/750



TYPE	SE-2	150	200	300	400	500	750
Energy efficiency class <sup>1)</sup>	A+ → F	<b>B</b>	<b>B</b>	<b>C</b>	<b>C</b>	<b>C</b>	-
Cylinder capacity	litres	140	195	285	380	485	750
Standby heat loss	kWh/24 h	1.17	1.36	2.19	2.45	2.72	2.66
Continuous cylinder output 80/60-10/45 °C	kW - l/h	28 - 700	28 - 700	40 - 1000	45 - 1100	53 - 1300	60 - 1500
Output factor	N <sub>L</sub>	2.0	3.5	7.5	11.0	15.0	24.0
Cold water connection	A mm	90	90	85	85	85	120
Heating return	B mm	255	255	263	320	370	380
Heating cylinder sensor	C mm	603	720	898	960	1010	1156
Circulation	D mm	665	800	983	1000	1095	860
Heating feed	E mm	730	650	818	880	930	1025
DHW connection	F mm	930	1194	1523	1525	1500	1580
Electric booster heater	G mm	550	685	983	1000	1095	1080
Thermometer	H mm	760	1024	1507	1521	1498	1485
Total height	I mm	996	1260	1755	1800	1806	1982
Diameter incl. thermal insulation	J mm	600	600	600	670	750	990
Diameter excl. thermal insulation	K mm	-	-	-	-	-	790
Flange (bottom)	L mm	325	325	305	345	370	415
Height when tilted, incl. thermal insulation	mm	1150	1350	1860	1925	1960	1940
Primary heating water	bar/°C	10/110	10/110	10/110	10/110	10/110	10/110
Secondary DHW	bar/°C	10/95	10/95	10/95	10/95	10/95	10/95
Internal flange diameter	mm	110	110	120	120	120	178
Cold water connection	G (male)	1"	1"	1"	1"	1"	1½"
Heating return	G (fem.)	1"	1"	1"	1"	1"	1¼"
Circulation	G (male)	¾"	¾"	¾"	¾"	¾"	¾"
Heating feed	G (fem.)	1"	1"	1"	1"	1"	1¼"
DHW connection	G (male)	1"	1"	1"	1"	1"	1½"
Electric booster heater	G (fem.)	1½"	1½"	1½"	1½"	1½"	1½"
Thermometer	G (fem.)	½"	½"	½"	½"	½"	½"
Indirect coil surface area	m <sup>2</sup>	1.0	1.0	1.4	1.8	2.0	2.7
Indirect coil content	litres	6.8	6.8	8.9	11.5	12.6	22.5
Weight	kg	53	65	115	145	160	260

\*R(AG)

<sup>1)</sup> Energy class according to Ecodesign Directive for cylinders ≤ 500 litres

**Smooth tube indirect coil** for short heat-up times  
and convenient DHW heating

**Low heat losses** due to  
high grade rigid PUR foam  
thermal insulation below  
the foil jacket of the  
cylinder

**Inspection and clean-  
ing apertures** for easy  
maintenance



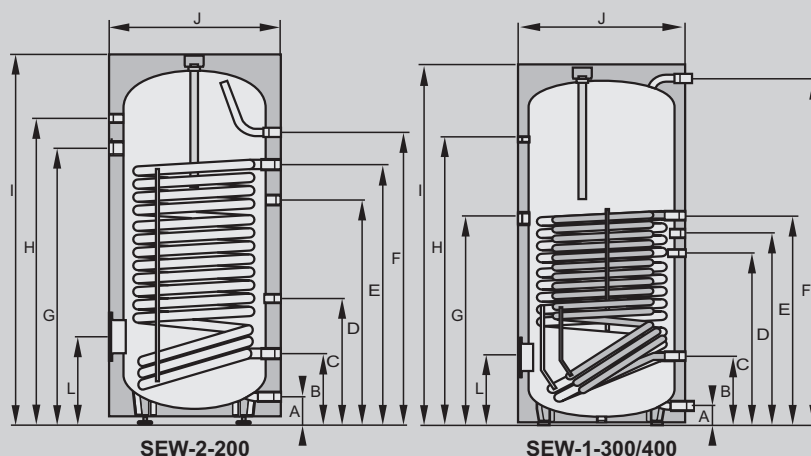
5

**BENEFITS OF THE WOLF  
DHW CYLINDER**  
SEW-1-300/400 SEW-2-200

**5 year statutory  
warranty** on the  
floorstanding cylinder;  
2 years on electrical  
and moving parts

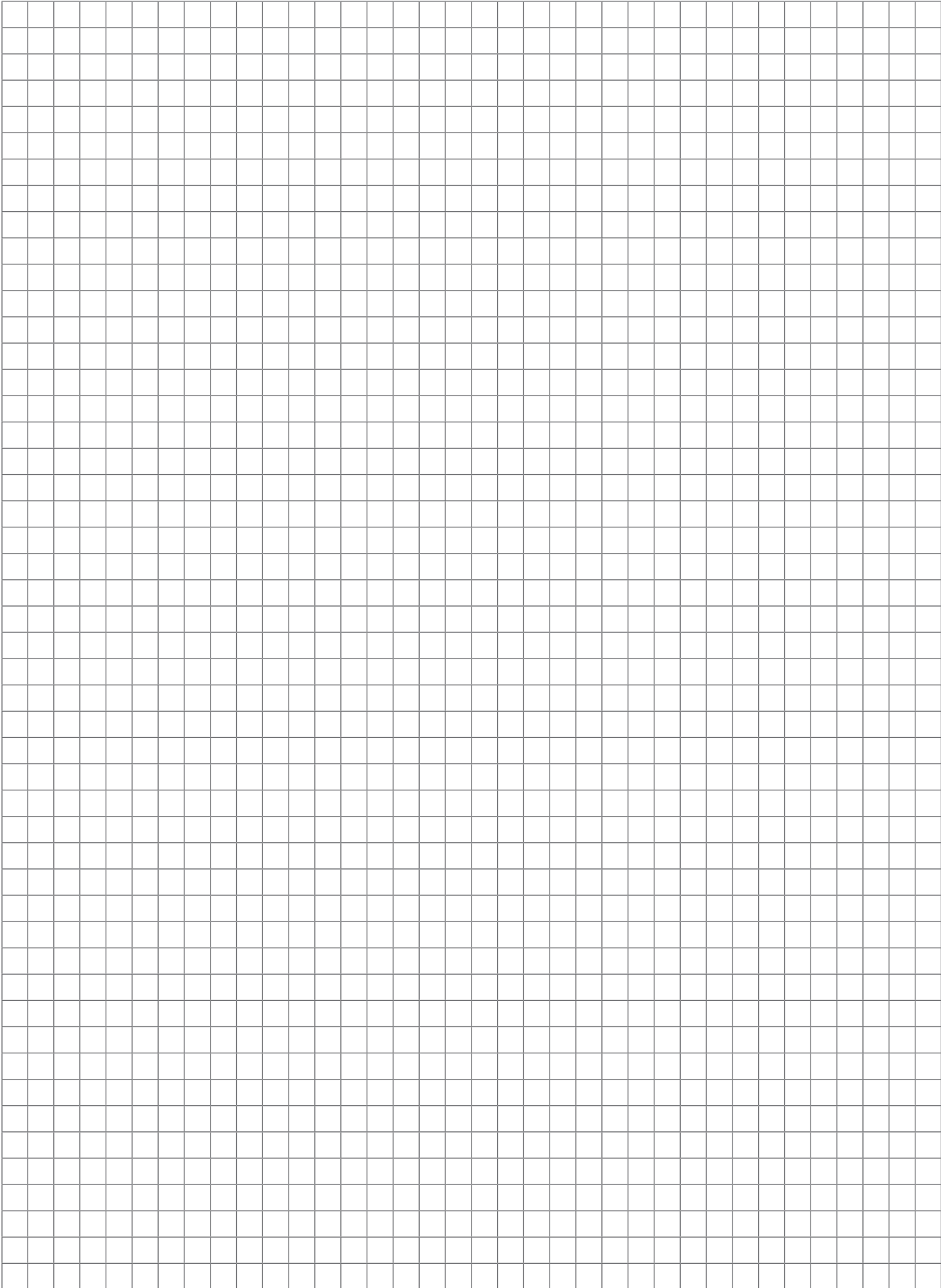
**The interior of the cylinder** is protected  
against corrosion by a special enamel coating  
and sacrificial magnesium anode

# DHW CYLINDERS SPECIFICATION SEW-1-300/400 SEW-2-200

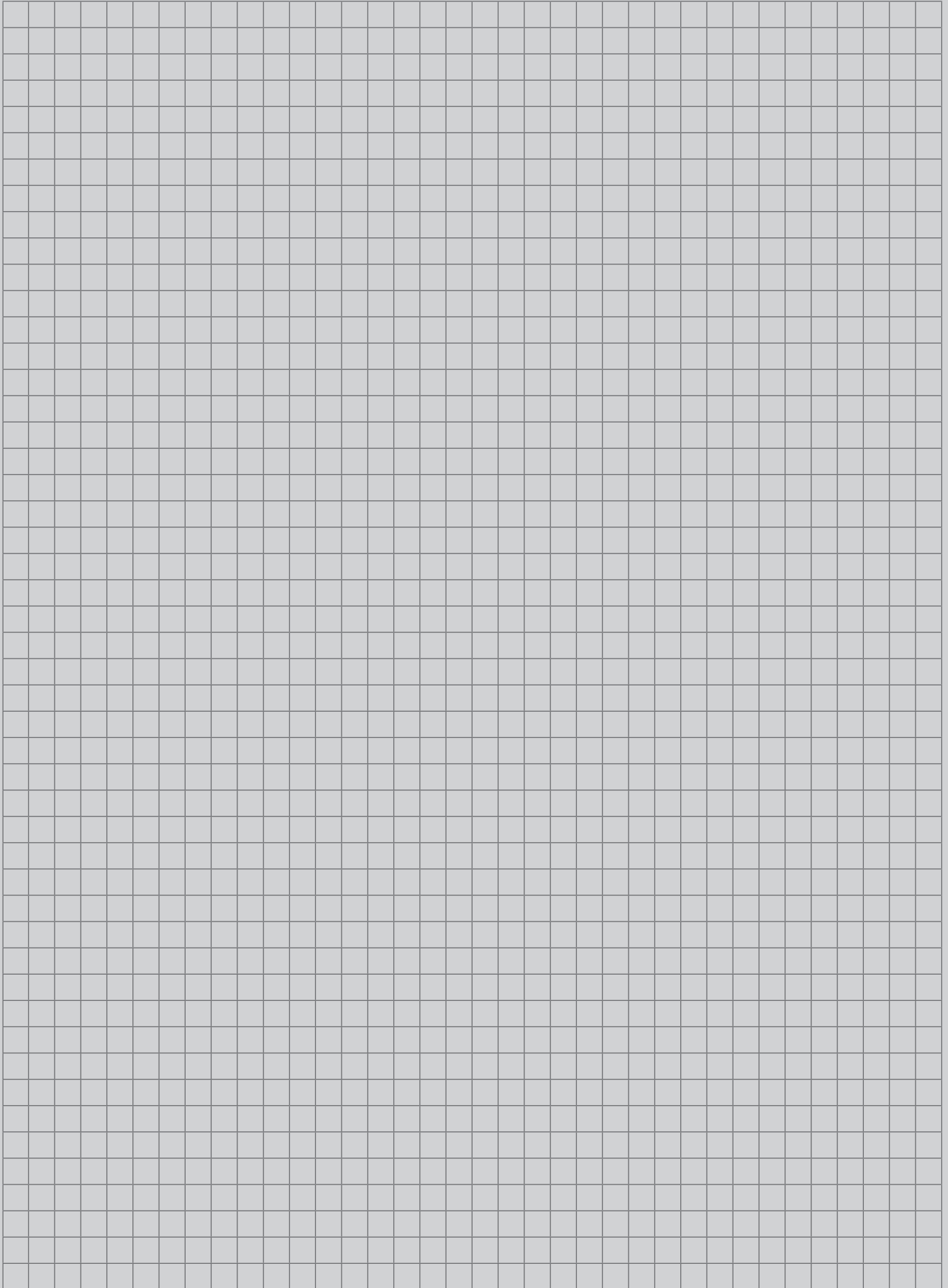


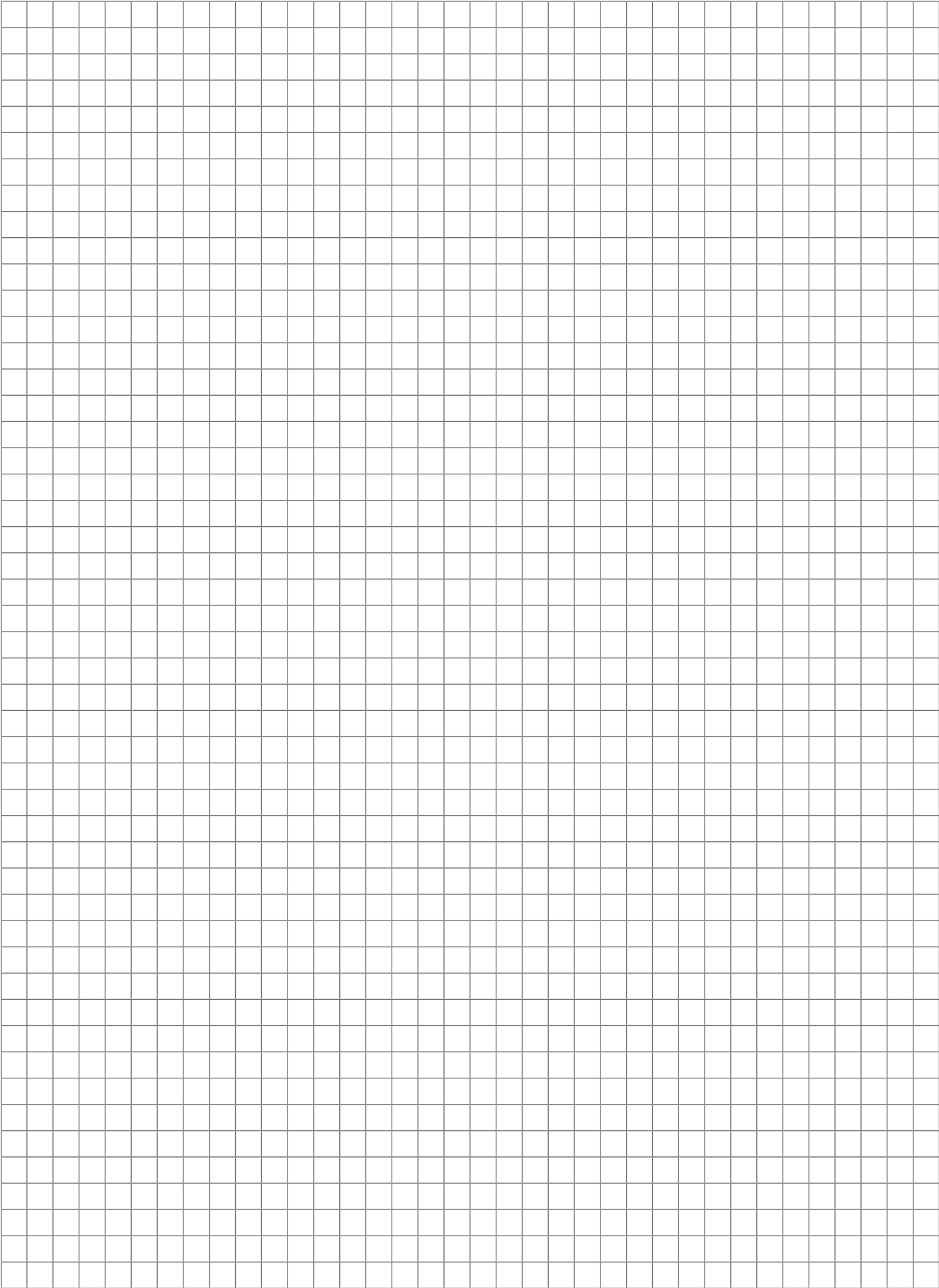
TYPE	SEW-1	-	300	400
	SEW-2	200	-	-
Energy efficiency class <sup>1)</sup>	A+ → F	<b>C</b>	<b>C</b>	<b>C</b>
Cylinder capacity	litres	190	280	360
Standby heat loss	kWh/24 h	1.55	1.70	2.10
Continuous cylinder output, tv 80/60 °C - tww 10/45 °C	kW - l/h	20/490	90/2210	125/3070
Output factor (heating)	N <sub>L60</sub>	3.0	7.0	10.0
Output factor (heating)	N <sub>L50</sub>	1.6	3.5	5.0
Heat-up time 14kW - 10-50 °C	Min.	60	58	75
Cold water connection	A mm	95	55	55
Return, heating / solar	B mm	245	222/-	222/-
Cylinder sensor, heating / solar	C mm	435	656/-	791/-
Circulation	D mm	780	786	921
Flow, heating / solar	E mm	905	886/-	1156/-
DHW connection	F mm	1015	1229	1586
Electric booster heater (opt.)	G mm	960	912	1174
Thermometer connection	H mm	1065	1069	1426
Total height	I mm	1290	1310	1660
Diameter incl. insulation	J mm	605	705	705
Service flange	L mm	302	277	277
Height when tilted	mm	1410	1485	1805
Primary heating water	bar/°C	10/110	10/110	10/110
Secondary DHW	bar/°C	10/95	10/95	10/95
Internal flange diameter	mm	DN 110	DN 110	DN 110
Cold water connection	G [male]	1"	1¼"	1¼"
Return, heating / solar	G [male]	1"	1¼"	1¼"
Circulation	G [male]	¾"	¾"	¾"
Flow, heating / solar	G [male]	1¼"	1¼"	1¼"
DHW connection	G [male]	1"	1¼"	1¼"
Protective anode	G [fem.]	1½"	1¼"	1¼"
Electric booster heater	G [fem.]	1½"	1½"	1½"
Sensor well, cylinder sensor (mounted)	G [fem.]	½"	½"	½"
Thermometer	G [fem.]	½"	½"	½"
Indirect coil surface area, heating / solar	m <sup>2</sup>	2.0 / -	3.5 / -	5.1 / -
Indirect coil capacity, heating / solar	litres	112 / -	22 / -	34 / -
Weight	kg	75	134	185

<sup>1)</sup> Energy class according to Ecodesign Directive for cylinders ≤ 500 litres



## NOTES





Dealer address

WOLF GMBH / POSTFACH 1380 / D-84048 MAINBURG / TEL. +49.0. 87 51 74- 0 / FAX +49.0.87 51 74- 16 00 / WWW.WOLF.EU

