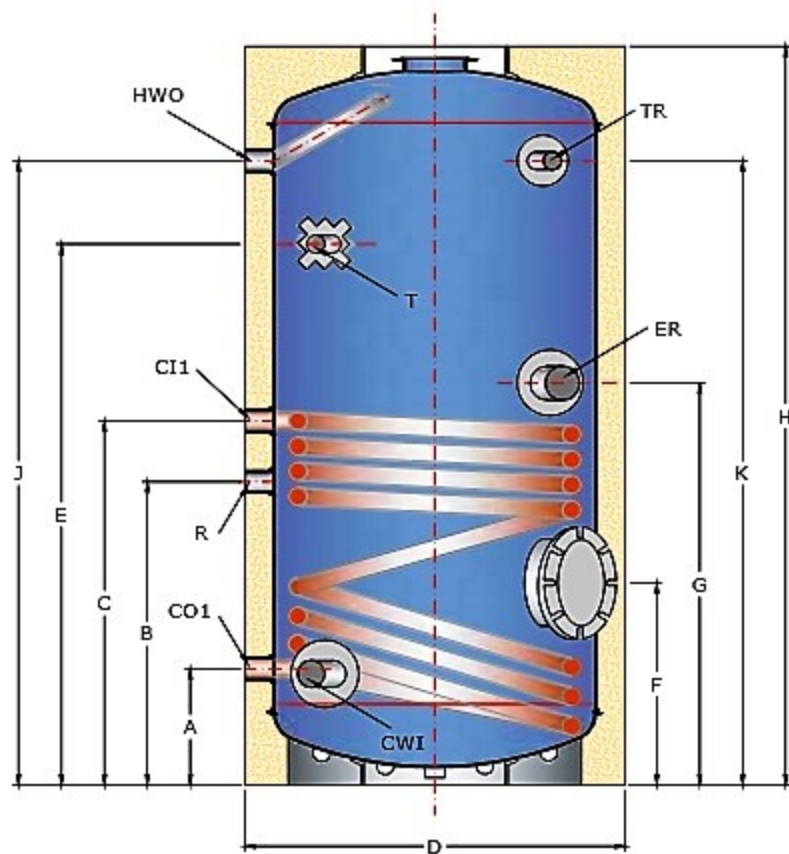


# TECHNICAL SPECIFICATIONS

## SINGLE COIL FLOOR STANDING BOILER



**Material:** Steel Sheet

**Welding:** Automatic Metal Welding

**Protection Coating:** High Quality Glass - Enamel and Protection Anode

**Maximum Working Pressure:** 10 bar

**Water Test Pressure:** 15 bar

**Maximum Operating Temperature:** 95°C

**Insulation:** Polyurethane foam of 55 mm thickness, density 52 kg/m<sup>3</sup>

**Coil:** Steel Tube

**Maximum Coil Test Pressure:** 25 bar

**Electric Heater:** Upon Request

**Flange Diameter:** Ø140 mm & Ø140 mm

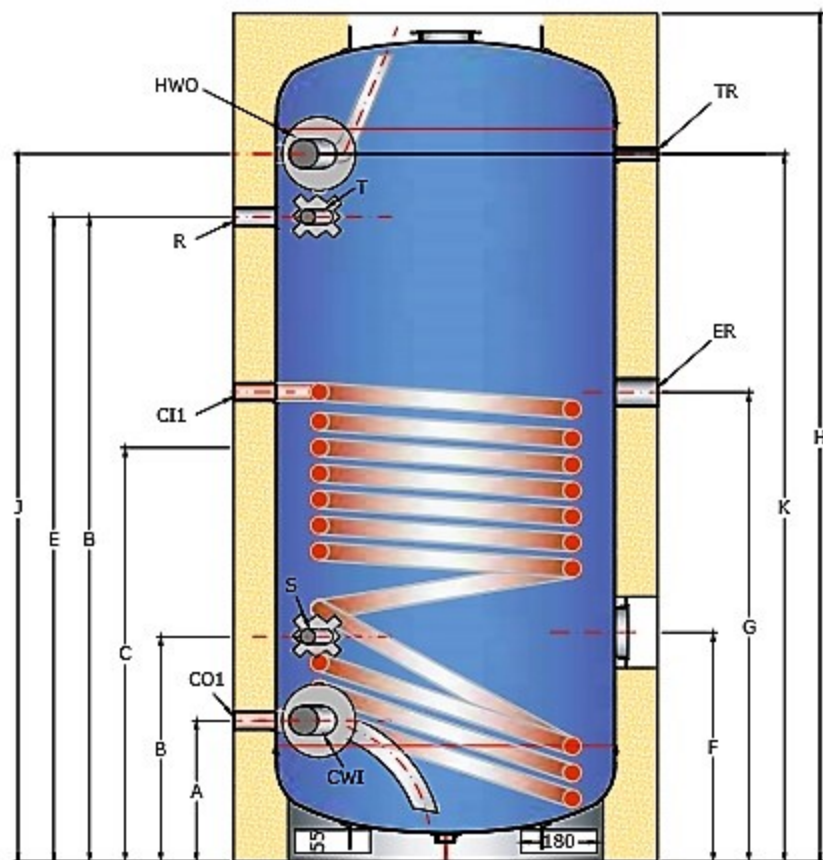
**External Cover:** Soft pvc, color of your choice

For all the boilers enamel and combination ones it is necessary to install an expansion vessel, a security valve and a protection anode for the hot domestic water.

	TYPE	150L	200L	300L	500L
	PART NUMBER	BLS1-C 150	BLS1-C 200	BLS1-C 300	BLS1-C 500
	Tank capacity (Liter)	139.3	196.4	277.7	455.2
	Coil capacity (L)	5	6.4	9.9	12.2
	Coil S1 inlet / outlet	1"	1"	1"	1"
	Coil S1 surface (m <sup>2</sup> )	0,78	0,986	1,55	1,92
	Recirculation	3/4"	3/4"	3/4"	1"
	Cold Water inlet	1"	1"	1"	1"
	Hot Water outlet	1"	1"	1"	1"
	Anode - Cleaning Flange	Ø140 & Ø140	Ø140 & Ø140	Ø140 & Ø140	Ø140 & Ø140
	To connect S1 to a boiler with 80°C and water 15/60°C (kW/l/h)	13,1 900	14,4 900	22,9 900	25,8 900
A	Cold water input CWI	245	245	240	195
J	Hot water outlet HWO	880	1170	1360	1355
C	Coil S1 Inlet	577	690	820	815
A	Coil S1 Outlet	245	235	220	205
B	Recirculation	465	545	620	615
F	Boiler cleaning hole	420	420	450	420
H	Total Height	1120	1400	1620	1700
E	Thermostat	668	1070	1140	1115
K	Thermometer	870	1160	1320	1310
G	Electrical Resistance socket	660	785	930	930
D	Diameter	Ø560	Ø 600	Ø 630	Ø 750
	Tilt height (mm)	1252,2	1502	1738,2	1785,2
	Operation Pressure / bar	10	10	10	10
	Weight (kg)	61	85	111	141

# TECHNICAL SPECIFICATIONS

## SINGLE COIL FLOOR STANDING BOILER



**Material:** Steel Sheet

**Welding:** Automatic Metal Welding

**Protection Coating:** High Quality Glass - Enamel and Protection Anode

**Maximum Working Pressure:** 10 bar

**Water Test Pressure:** 15 bar

**Maximum Operating Temperature:** 95°C

**Insulation:** Removable Soft polyurethane foam of 100 mm thickness

**Coil:** Steel Tube

**Electric Heater:** Upon Request

**Maximum Coil Test Pressure:** 25 bar

**Electric Heater:** Upon Request

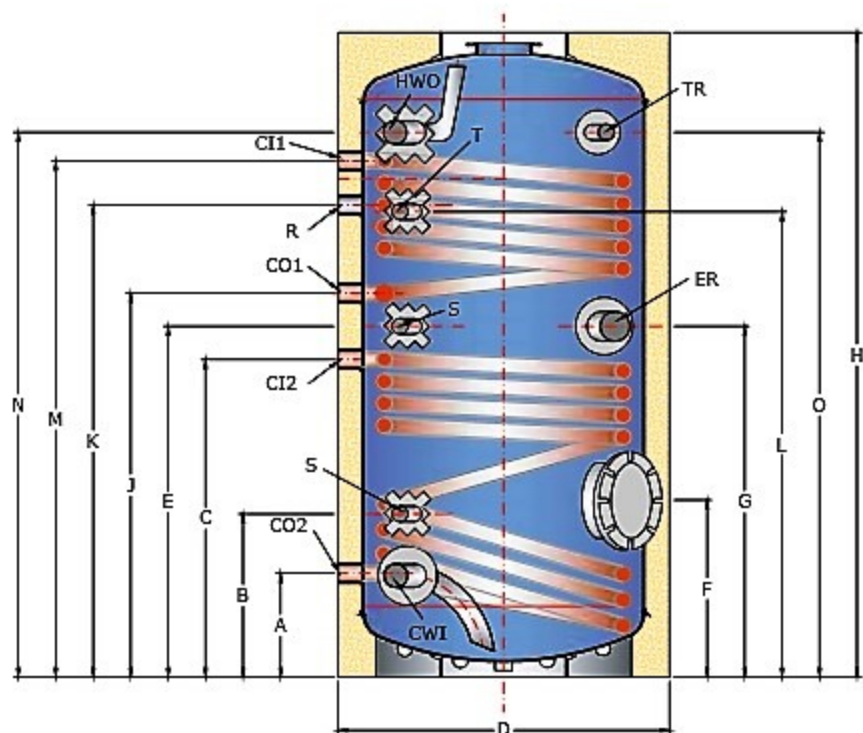
**Flange:** Diameter Ø170 mm & Ø170 mm

For all the boilers enamel and combination ones it is necessary to install an expansion vessel, a security valve and a protection anode for the hot domestic water.

	TYPE	750L	1000L
	PART NUMBER	BLS1-C 750	BLS1-C 1000
	Tank capacity (Liter)	757	881
	Coil capacity (L)	15,20	19,20
	Coil S1 inlet / outlet	1"	1"
	Coil S1 surface (m <sup>2</sup> )	2,39	3,02
	Recirculation	1"	1"
	Cold Water inlet	1 ½ "	1 ½ "
	Hot Water outlet	1 ½ "	1 ½ "
	Anode - Cleaning Flange	Ø170 & Ø170	Ø170 & Ø170
	To connect S1 to a boiler with 80°C and water 15/60°C (kW/l/h)	30,15 900	39,5 900
A	Cold water input CWI	305	280
J	Hot water outlet HWO	1435	1670
C	Coil S1 Inlet	955	1040
A	Coil S1 Outlet	305	265
B	Recirculation	1285	1470
F	Boiler cleaning hole	515	485
H	Total Height	1800	2000
E	Thermostat	1285	1480
K	Thermometer	1410	1670
G	Electrical Resistance socket	1040	1150
D	Diameter	Ø 1000	Ø 1000
	Tilt height (mm)	2059,1	2236,1
	Operation Pressure / bar	10	10
	Weight (kg)	228	243

# TECHNICAL SPECIFICATIONS

## DOUBLE COIL FLOOR STANDING BOILER



**Material:** Steel Sheet

**Welding:** Automatic Metal Welding

**Protection Coating:** High Quality Glass – Enamel and Protection Anode

**Maximum Working Pressure:** 15 bar

**Water Test Pressure:** 10 bar

**Maximum Operating Temperature:** 95°C

**Insulation:** Polyurethane Foam of 55 mm Thickness, Density 52 kg/m<sup>3</sup>

**Coil:** Steel tube

**Maximum Coil Test Pressure:** 25 bar

**Electric Heater:** Upon Request

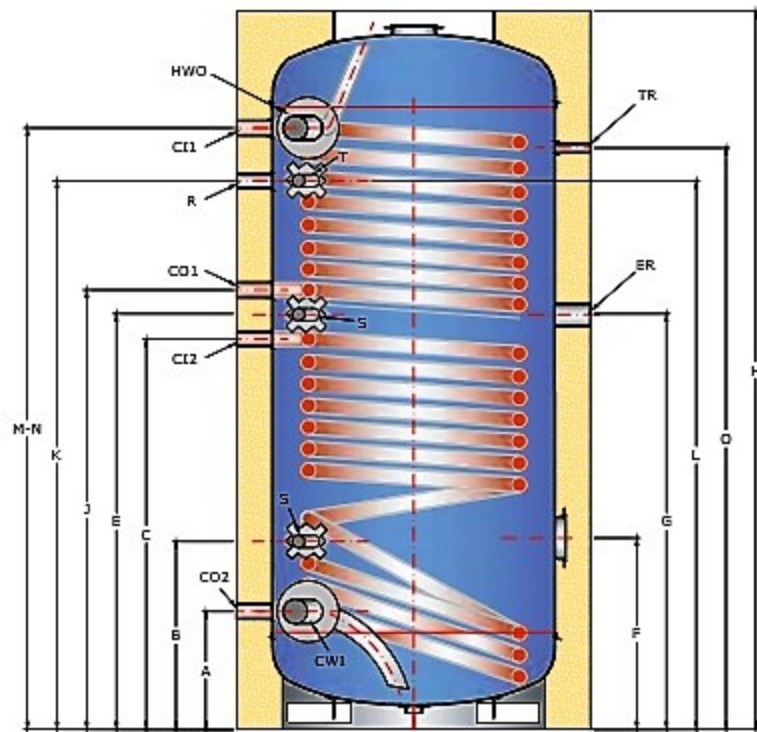
**Flange:** Diameter Ø 170 mm & Ø 140 mm

For all the boilers enamel and combination ones it is necessary to install an expansion vessel, a security valve and a protection anode for the hot domestic

	TYPE	150L	200L	300L	500L
	PART NUMBER	BLS2-C 150	BLS2-C 200	BLS2-C 300	BLS2-C 500
	Tank Capacity (Liter)	132.9	190	269.6	442.4
	Coil Capacity (L)	8	11.4	16.2	19.8
	Coil S1/S2 Inlet / Outlet	1"	1"	1"	1"
	Coil S1/S2 Surface m <sup>2</sup>	0,53/0,78	0,78/0,99	0,99/1,55	1,20/1,92
	Recirculation	3/4"	3/4"	3/4"	1"
	Cold Water Inlet	1"	1"	1"	1"
	Hot Water Outlet	1"	1"	1"	1"
	Anode - Cleaning Flange	Ø140 & Ø140	Ø140 & Ø140	Ø140 & Ø140	Ø140 & Ø140
	To connect S1 to a boiler with 80°C and water 15/60°C kW/l/h	10,4	13,6	16,4	19,2
	To connect S2 to a boiler with 80°C and water 15/60°C kW/l/h	13,1	14,4	22,9	25,8
A	Cold Water Input CWI	900	900	900	900
N	Hot Water Outlet HWO	235	235	245	195
J	Coil S1 Outlet	880	1155	1380	1370
A	Coil S2 Outlet	685	855	1050	985
M	Coil S1 Inlet	235	230	225	200
C	Coil S2 Inlet	880	1135	1350	1345
K	Recirculation	565	685	820	820
H	Total Height	780	1010	1245	1155
E	Sensor	1120	1400	1620	1700
G	Electrical Resistance Socket	628	775	930	900
B	Sensor	630	770	930	910
L	Thermostat	365	335	445	430
O	Thermometer	775	1063	1200	1130
D	Diameter	865	1155	1320	1290
	Tilt Height (mm)	Ø560	Ø600	Ø630	Ø750
F	Boiler Cleaning Hole	1252.2	1502	1738.2	1785.2
	Operation Pressure / bar	420	420	450	425
	Weight kg	10	10	10	10
		70	100	130	170

# TECHNICAL SPECIFICATIONS

## DOUBLE COIL FLOOR STANDING BOILER



**Material:** Steel Sheet

**Welding:** Automatic Metal Welding

**Protection Coating:** High Quality Glass - Enamel and Protection Anode

**Maximum Working Pressure:** 10 bar

Water Test Pressure: 15 bar

**Operating Temperature:** 95°C

**Insulation:** Removable Soft polyurethane foam of 100 mm thickness

**Coil:** Steel Tube

**Electric Heater:** Upon Request

**Flange:** Diameter Ø170 mm & Ø170 mm

For all the boilers enamel and combination ones it is necessary to install an expansion vessel, a security valve and a protection anode for the hot domestic water.

	TYPE	750L T.E.	1000L T.E.
	PART NUMBER	BLS2-C 750	BLS2-C 1000
	Tank Capacity (Liter)	747,10	865,40
	Coil Capacity (L)	23,80	31,70
	Coil S1/S2 Inlet / Outlet	1"	1"
	Coil S1/S2 Surface S1/S2 m <sup>2</sup>	1,35 / 2,39	1,97 / 3,02
	Recirculation	1"	1"
	Cold Water Inlet	1 ½ "	1 ½ "
	Hot Water Outlet	1 ½ "	1 ½ "
	Drainage	Ø170 & Ø170	Ø170 & Ø170
	Anode - Cleaning Flange	20,5 / 900	25,5 / 900
	To connect S1 to a boiler with 80°C and water 15/60°C kW/l/h	30,15 / 900	38,5 / 900
A	To connect S2 to a boiler with 80°C and water 15/60°C kW/l/h	305	290
N	Cold Water Input CWI	1435	1670
J	Hot Water Outlet HWO	1095	1230
A	Coil S1 Outlet	305	280
M	Coil S2 Outlet	1435	1679
C	Coil S1 Inlet	955	1055
K	Coil S2 Inlet	1285	1507
H	Recirculation	1800	2000
E	Total Height	1025	1142,5
G	Sensor	1025	1142,5
B	Electrical Resistance Socket	505	515
L	Sensor	1285	1507
O	Thermostat	1395	1675
D	Thermometer	Φ.1000	Φ.1000
	Diameter	2059.1	2236.1
F	Tilt Height (mm)	515	485
	Boiler Cleaning Hole	10	10
	Weight kg	250	276



# THERMAL PERFORMANCE OF STORAGE WATER HEATER BLS-2 150L (2 COIL HEAT EXCHANGERS) ACCORDING TO EN 12897:2006

At the tables below the efficiencies of the floor standing Boiler BLS-2 150L are presented, for several flow-rates. Table 1 concerns the upper heat exchanger, while Table 2 the lower.

Additionally, the thermal losses of the boiler and the thermal losses coefficient are shown at Table 3.

Upper heat exchanger surface: 0,53 m<sup>2</sup>

UPPER HEAT EXCHANGER FLOW-RATE	UPPER HEAT EXCHANGER EFFICIENCY
300 l/h	6,70 KW
400 l/h	8,35 KW
500 l/h	8,80 KW
900 l/h	10,40 KW

**TABLE 1:** Heat exchanger efficiency for Domestic Water heating from 15oC to 60oC.  
The temperature at the heat exchanger inlet is considered as 80oC. DHW capacity drawn-off 38%.

Lower heat exchanger surface: 0,78 m<sup>2</sup>

LOWER HEAT EXCHANGER FLOW-RATE	LOWER HEAT EXCHANGER EFFICIENCY
300 l/h	8,20 KW
400 l/h	9,30 KW
500 l/h	10,50 KW
900 l/h	13,10 KW

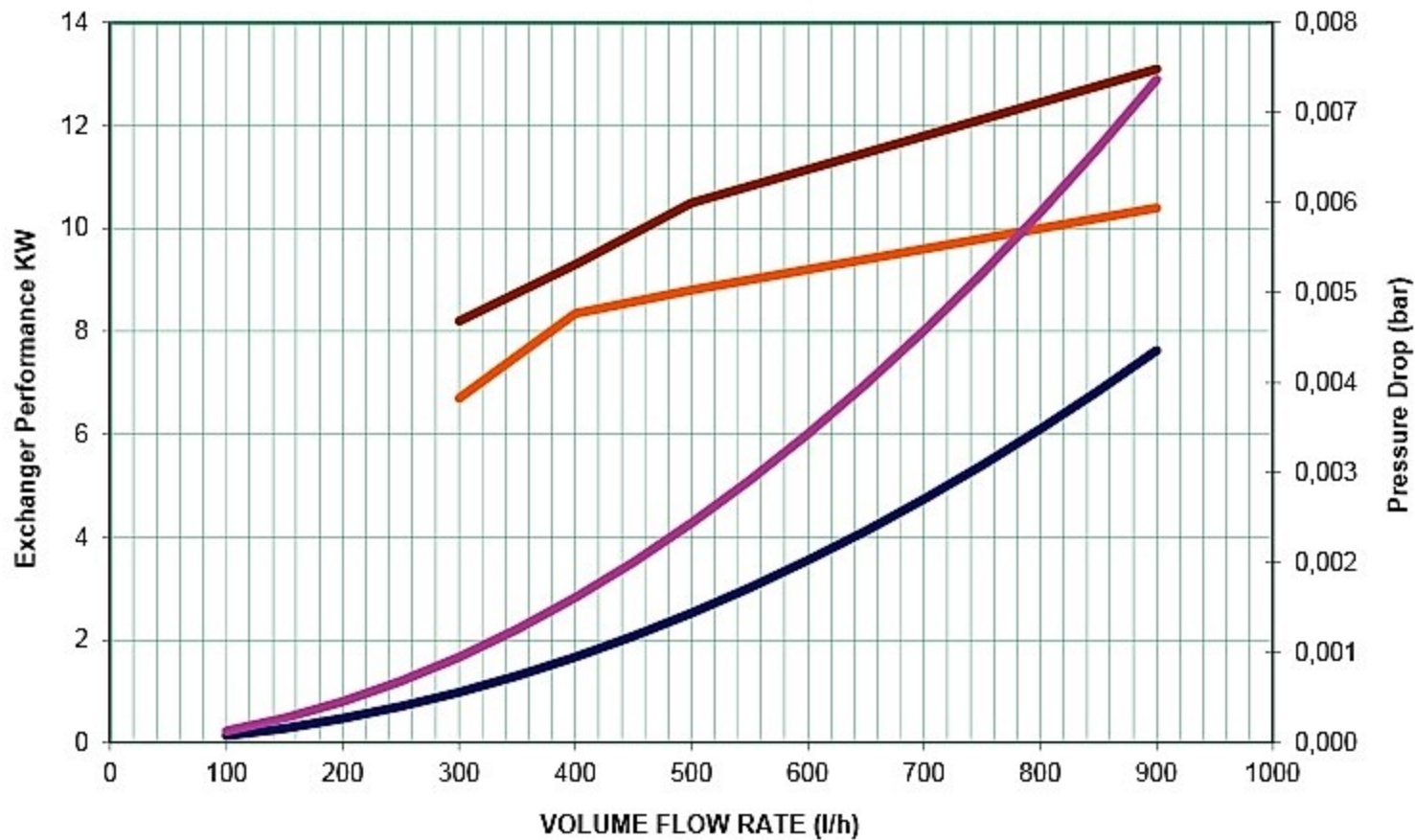
**TABLE 2:** Heat exchanger efficiency for Domestic Water heating from 15oC to 60oC.  
The temperature at the heat exchanger inlet is considered as 80oC. DHW capacity drawn-off 92%.

<b>STORAGE TANK HEAT LOSSES</b>	1,2 KWh/24h
<b>STORAGE TANK HEAT LOSSES COEFFICIENT</b>	2,1 W/K

**TABLE 3:** Thermal losses (according to EN 12897) and  
heat losses coefficient (according to ISO 9459-2 & EN 12976-2).

# EXCHANGER PRESSURE LOSS BLS-2 150L

BLS 150L- Exchanger performance curves - Pressure Drop



— Upper Exchanger Performance — Lower Exchanger Performance  
— Upper Exchanger Pressure Loss — Lower Exchanger Pressure Loss

# BLS-2 200L (2 COIL HEAT EXCHANGERS)

ACCORDING TO EN 12897:2006

At the tables below the efficiencies of the floor standing Boiler BLS-2 200L are presented, for several flow-rates. Table 1 concerns the upper heat exchanger, while Table 2 the lower.

Additionally, the thermal losses of the boiler and the thermal losses coefficient are shown at Table 3.

Upper heat exchanger surface: 0,78 m<sup>2</sup>

UPPER HEAT EXCHANGER FLOW-RATE	UPPER HEAT EXCHANGER EFFICIENCY
400 L/h	9,60 KW
700 L/h	12,00 KW
900 L/h	13,60 KW
1300 L/h	15,00 KW

TABLE 1: Heat exchanger efficiency for Domestic Water heating from 15<sub>o</sub>C to 60<sub>o</sub>C. The temperature at the heat exchanger inlet is considered as 80°C. DHW capacity drawn-off 38%.

Lower heat exchanger surface: 0,99 m<sup>2</sup>

LOWER HEAT EXCHANGER FLOW-RATE	LOWER HEAT EXCHANGER EFFICIENCY
400 L/h	10,20 KW
700 L/h	13,30 KW
900 L/h	14,40 KW
1300 L/h	17,70 KW

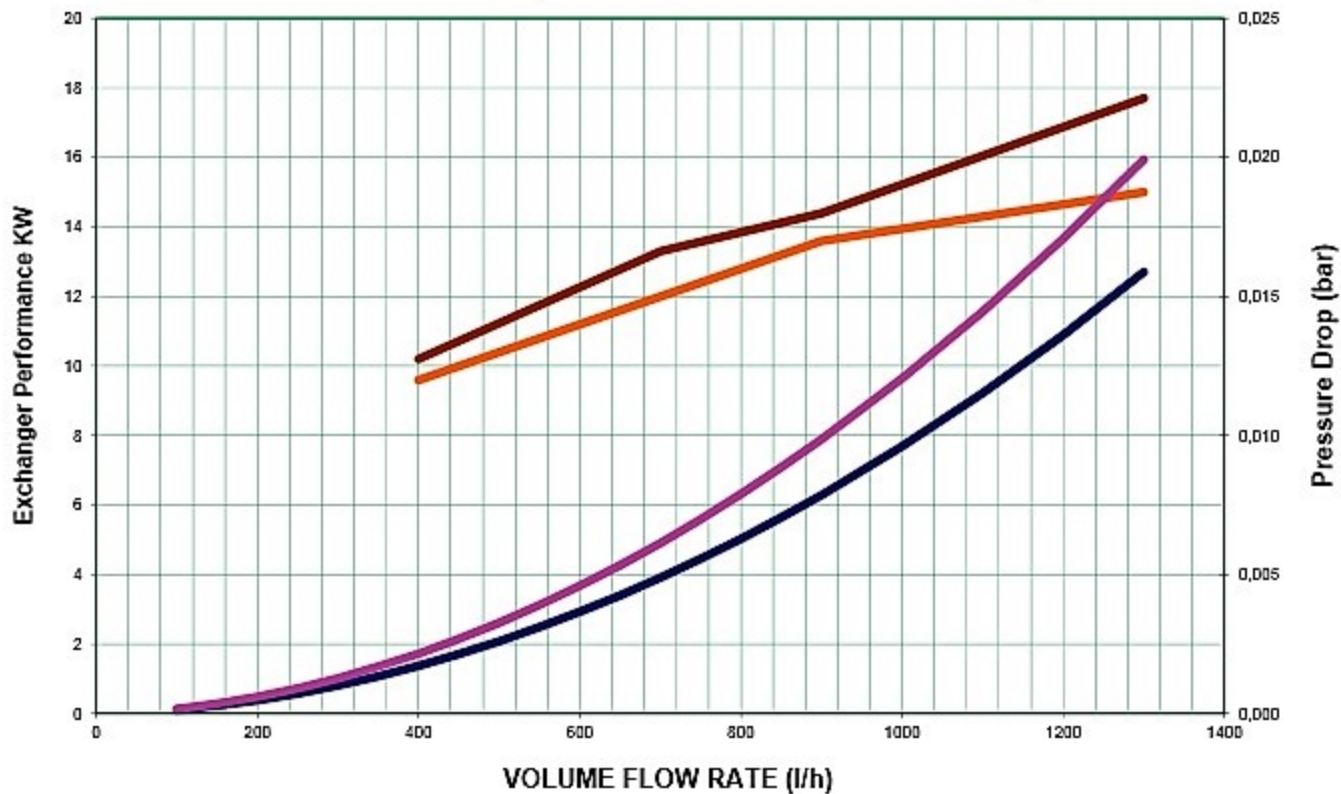
TABLE 2: Heat exchanger efficiency for Domestic Water heating from 15°C to 60°C. The temperature at the heat exchanger inlet is considered as 80°C. DHW capacity drawn-off 92%.

STORAGE TANK HEAT LOSSES	1,3 kWh/24h
STORAGE TANK HEAT LOSSES COEFFICIENT	2,2 W/K

TABLE 3: Thermal losses (according to EN 12897) and heat losses coefficient (according to ISO 9459-2 & EN 12976-2).

# EXCHANGER PRESSURE LOSS BLS-2 200L

## BLS 200L- Exchanger Performance Curves - Pressure Drop



- Upper Exchanger Performance
- Lower Exchanger Performance
- Upper Exchanger Pressure Loss
- Lower Exchanger Pressure Loss

# THERMAL PERFORMANCE OF STORAGE WATER HEATER BLS-2 300L (2 COIL HEAT EXCHANGERS)

ACCORDING TO EN 12897:2006

At the tables below the efficiencies of the floor standing Boiler BLS-2 300L are presented, for several flow-rates. Table 1 concerns the upper heat exchanger, while Table 2 the lower.

Additionally, the thermal losses of the boiler and the thermal losses coefficient are shown at Table 3.

Upper heat exchanger surface: 0,99 m<sup>2</sup>

UPPER HEAT EXCHANGER FLOW-RATE	UPPER HEAT EXCHANGER EFFICIENCY
600 L/h	13,60 KW
900 L/h	16,40 KW
1200 L/h	17,60 KW
1600 L/h	18,60 KW

TABLE 1: Heat exchanger efficiency for Domestic Water heating from 15°C to 60°C.  
The temperature at the heat exchanger inlet is considered as 80oC. DHW capacity drawn-off 35%.

Lower heat exchanger surface: 1,55 m<sup>2</sup>

LOWER HEAT EXCHANGER FLOW-RATE	LOWER HEAT EXCHANGER EFFICIENCY
600 L/h	18,20 KW
900 L/h	22,90 KW
1200 L/h	25,20 KW
1600 L/h	27,60 KW

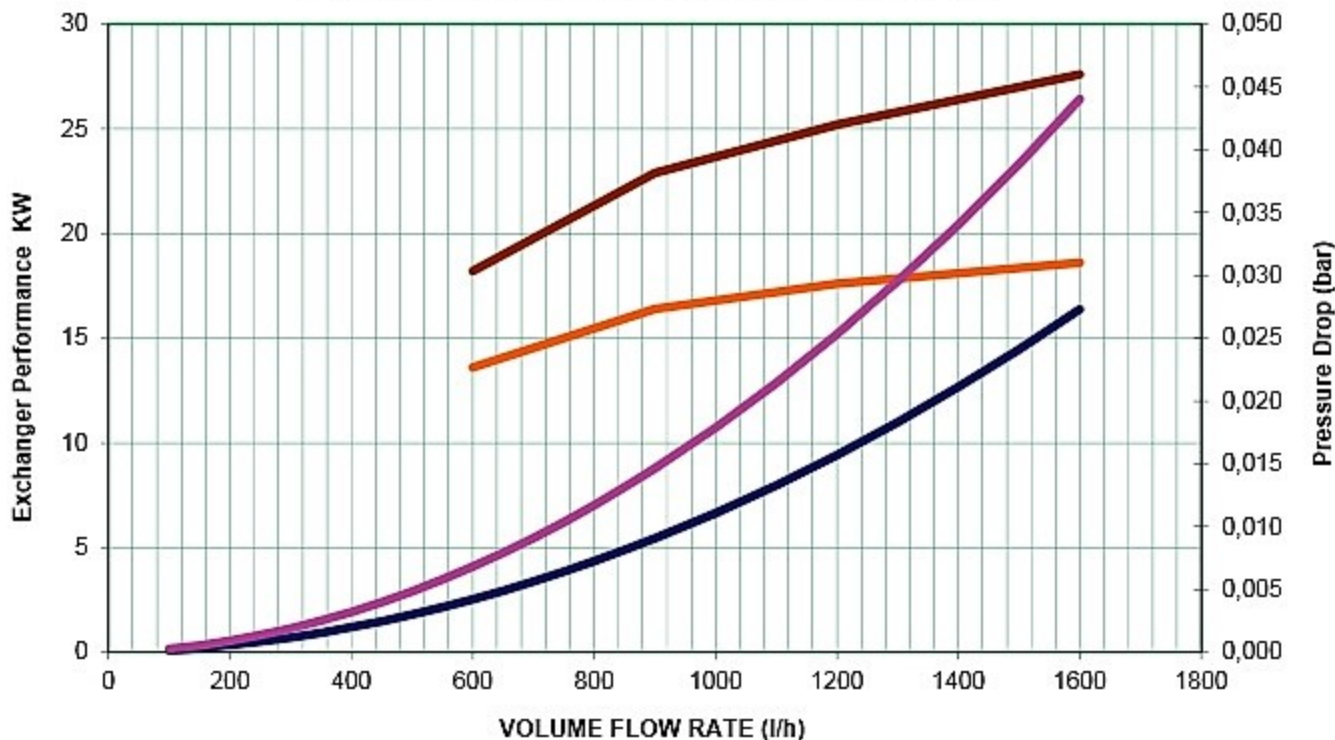
TABLE 2: Heat exchanger efficiency for Domestic Water heating from 15°C to 60°C.  
The temperature at the heat exchanger inlet is considered as 80oC. DHW capacity drawn-off 100%.

STORAGE TANK HEAT LOSSES	1,5 kWh/24h
STORAGE TANK HEAT LOSSES COEFFICIENT	2,4 W/K

TABLE 3: Thermal losses (according to EN 12897) and heat losses coefficient (according to ISO 9459-2 & EN 12976-2).

# EXCHANGER PRESSURE LOSS BLS-2 300L

BLS 300L- Exchanger Performance Curves – Pressure Drop



- Upper Exchanger Performance
- Lower Exchanger Performance
- Upper Exchanger Pressure Loss
- Lower Exchanger Pressure Loss

# THERMAL PERFORMANCE OF STORAGE WATER HEATER BLS-2 500L (2 COIL HEAT EXCHANGERS)

ACCORDING TO EN 12897:2006

At the tables below the efficiencies of the floor standing Boiler BLS-2 500L are presented, for several flow-rates. Table 1 concerns the upper heat exchanger, while Table 2 the lower.

Additionally, the thermal losses of the boiler and the thermal losses coefficient are shown at Table 3.

Upper heat exchanger surface: 1,20 m<sup>2</sup>

UPPER HEAT EXCHANGER FLOW-RATE	UPPER HEAT EXCHANGER EFFICIENCY
900 L/h	19,20 KW
1300 L/h	21,40 KW
1700 L/h	23,20 KW
2600 L/h	25,30 KW

TABLE 1: Heat exchanger efficiency for Domestic Water heating from 15°C to 60°C.  
The temperature at the heat exchanger inlet is considered as 80°C. DHW capacity drawn-off 38%.

Lower heat exchanger surface: 1,55 m<sup>2</sup>

LOWER HEAT EXCHANGER FLOW-RATE	LOWER HEAT EXCHANGER EFFICIENCY
900 L/h	25,80 KW
1300 L/h	30,25 KW
1700 L/h	33,90 KW
2600 L/h	37,60 KW

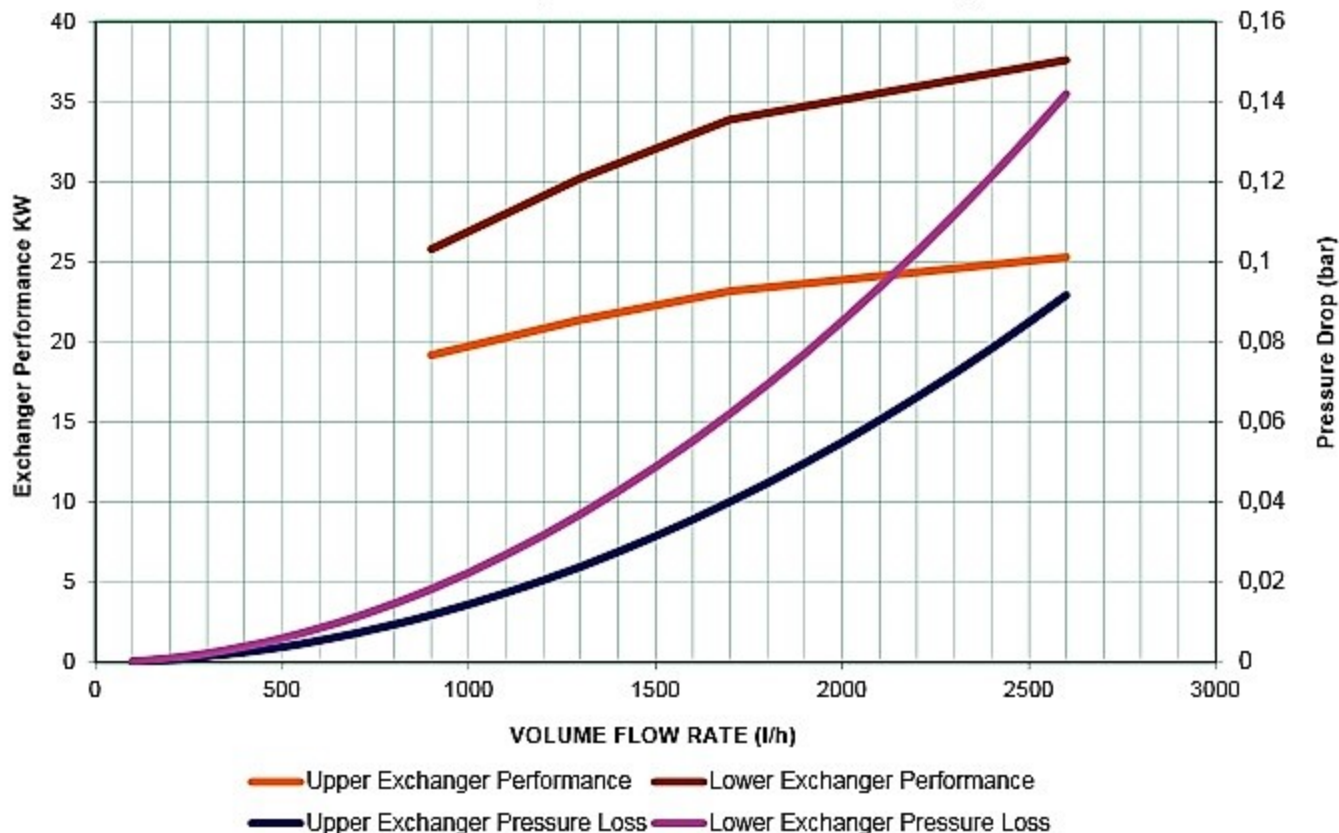
TABLE 2: Heat exchanger efficiency for Domestic Water heating from 15°C to 60°C.  
The temperature at the heat exchanger inlet is considered as 80°C. DHW capacity drawn-off 99%.

STORAGE TANK HEAT LOSSES	1,8 kWh/24h
STORAGE TANK HEAT LOSSES COEFFICIENT	2,8 W/K

TABLE 3: Thermal losses (according to EN 12897) and  
heat losses coefficient (according to ISO 9459-2 & EN 12976-2).

# EXCHANGER PRESSURE LOSS BLS-2 500L

BLS 500L- Exchanger Performance Curves – Pressure Drop





# THERMAL PERFORMANCE OF STORAGE WATER HEATER BLS-2 750L (2 COIL HEAT EXCHANGERS) ACCORDING TO EN 12897:2006

At the tables below the efficiencies of the floor standing Boiler BLS-2 750L are presented, for several flow-rates. Table 1 concerns the upper heat exchanger, while Table 2 the lower.

Additionally, the thermal losses of the boiler and the thermal losses coefficient are shown at Table 3.

Upper heat exchanger surface: 1,35 m<sup>2</sup>

UPPER HEAT EXCHANGER FLOW-RATE	UPPER HEAT EXCHANGER EFFICIENCY
900 L/h	20,50 KW
1600 L/h	24,85 KW
2600 L/h	27,80 KW
3900 L/h	30,45 KW

**TABLE 1** Heat exchanger efficiency for Domestic Water heating from 15oC to 60oC.  
The temperature at the heat exchanger inlet is considered as 80oC. DHW capacity drawn-off 38%.

Lower heat exchanger surface: 1,55 m<sup>2</sup>

LOWER HEAT EXCHANGER FLOW-RATE	LOWER HEAT EXCHANGER EFFICIENCY
900 L/h	30,15 KW
1600 L/h	39,20 KW
2600 L/h	46,10 KW
3900 L/h	51,10 KW

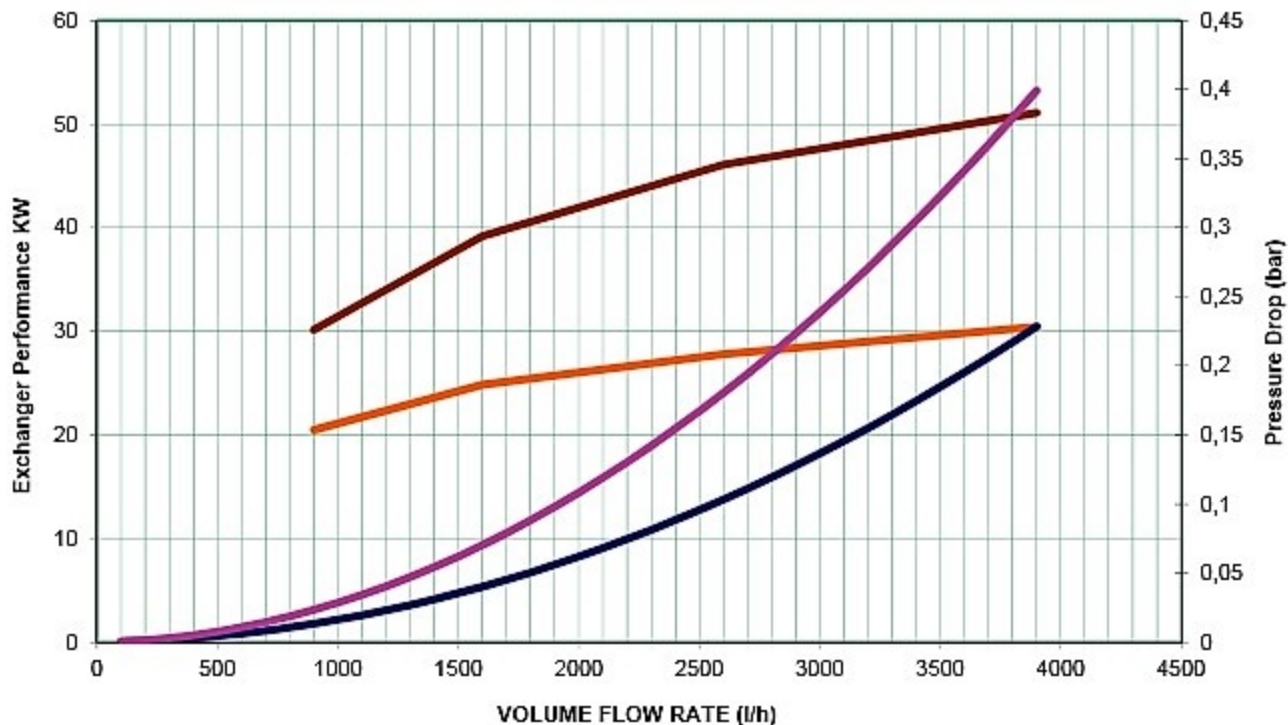
**TABLE 2:** Heat exchanger efficiency for Domestic Water heating from 15oC to 60oC.  
The temperature at the heat exchanger inlet is considered as 80oC. DHW capacity drawn-off 99%.

<b>STORAGE TANK HEAT LOSSES</b>	2,1 KWh/24h
<b>STORAGE TANK HEAT LOSSES COEFFICIENT</b>	3,3 W/K

**TABLE 3:** Thermal losses (according to EN 12897) and  
heat losses coefficient (according to ISO 9459-2 & EN 12976-2)

# EXCHANGER PRESSURE LOSS BLS-2 750L

BLS 750L- Exchanger Performance Curves – Pressure Drop



Upper Exchanger Performance Lower Exchanger Performance  
Upper Exchanger Pressure Loss Lower Exchanger Pressure Loss

# THERMAL PERFORMANCE OF STORAGE WATER HEATER BLS-2 1.000L (2 COIL HEAT EXCHANGERS)

ACCORDING TO EN 12897:2006

At the tables below the efficiencies of the floor standing Boiler BLS-2 1000L are presented, for several flow-rates. TABLE 1 concerns the upper heat exchanger, while Table 2 the lower.

Additionally, the thermal losses of the boiler and the thermal losses coefficient are shown at TABLE 3.

Upper heat exchanger surface: 1,97 m<sup>2</sup>

UPPER HEAT EXCHANGER FLOW-RATE	UPPER HEAT EXCHANGER EFFICIENCY
900 L/h	25,50 KW
2.000 L/h	34,70 KW
3.500 L/h	40,30 KW
5.000 L/h	43,80 KW

TABLE 1: Heat exchanger efficiency for Domestic Water heating from 15°C to 60°C. The temperature at the heat exchanger inlet is considered as 80°C. DHW capacity drawn-off 37%.

Lower heat exchanger surface: 3,02 m<sup>2</sup>

LOWER HEAT EXCHANGER FLOW-RATE	LOWER HEAT EXCHANGER EFFICIENCY
900 L/h	28,50 KW
2.000 L/h	48,20 KW
3.500 L/h	56,95 KW
5.000 L/h	62,60 KW

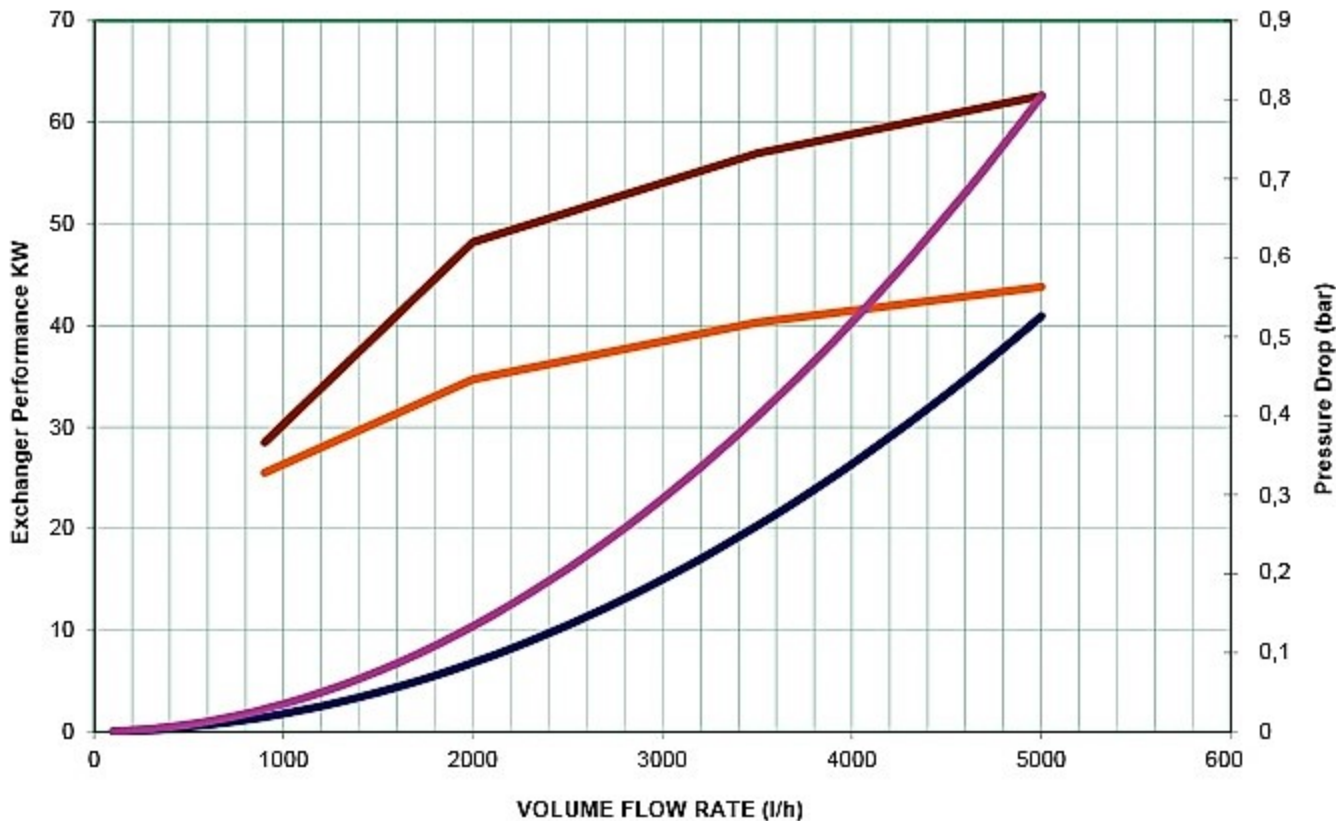
TABLE 2: Heat exchanger efficiency for Domestic Water heating from 15°C to 60°C. The temperature at the heat exchanger inlet is considered as 80°C. DHW capacity drawn-off 91%.

STORAGE TANK HEAT LOSSES	2,6 KWh/24h
STORAGE TANK HEAT LOSSES COEFFICIENT	3,8 W/K

TABLE 3: Thermal losses (according to EN 12897) and heat losses coefficient (according to ISO 9459-2 & EN 12976-2).

# EXCHANGER PRESSURE LOSS BLS-2 1000L

BLS 1000L- Exchanger Performance Curves – Pressure Drop



Upper Exchanger Performance Lower Exchanger Performance  
Upper Exchanger Pressure Loss Lower Exchanger Pressure Loss