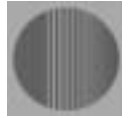


Technical Data

Part No. and prices: see Price List



File in:
Vitotec 1 Manual, Index 15

Vitocell-H 100

Type CHA

Horizontal domestic hot water cylinder constructed from steel, with Ceraprotect enamel finish



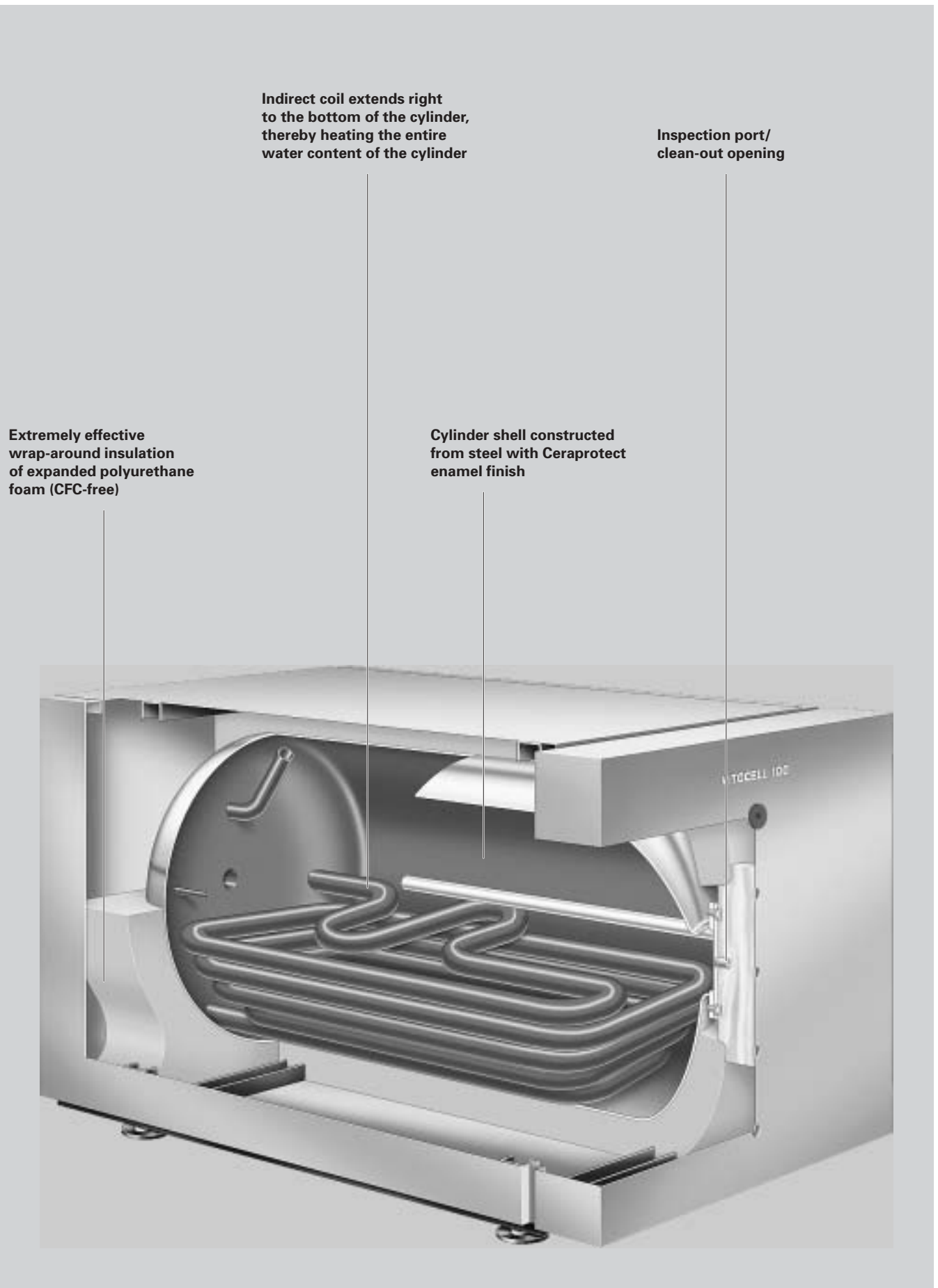
Certificated in accordance with DIN ISO 9001
Certificate Reg. No. 12 100 5581

VITOCELL-H 100

The floor-standing solution for a cost-efficient domestic hot water supply. The Vitocell 100 is available in both horizontal and vertical designs, the vertical version offering storage capacities of up to 1000 litres.

The benefits at a glance

- Corrosion-protected steel cylinder shell with Ceraprotect enamel finish. Magnesium anode provides additional cathodic protection. External current anode available as an accessory.
- Indirect coil extends right to the bottom of the cylinder, thereby heating the entire water content.
- Extremely convenient domestic hot water supply assured through fast, uniform heating via generously sized heat exchange surfaces.
- Heat losses minimized by highly effective wrap-around insulation (CFC-free).



Technical data

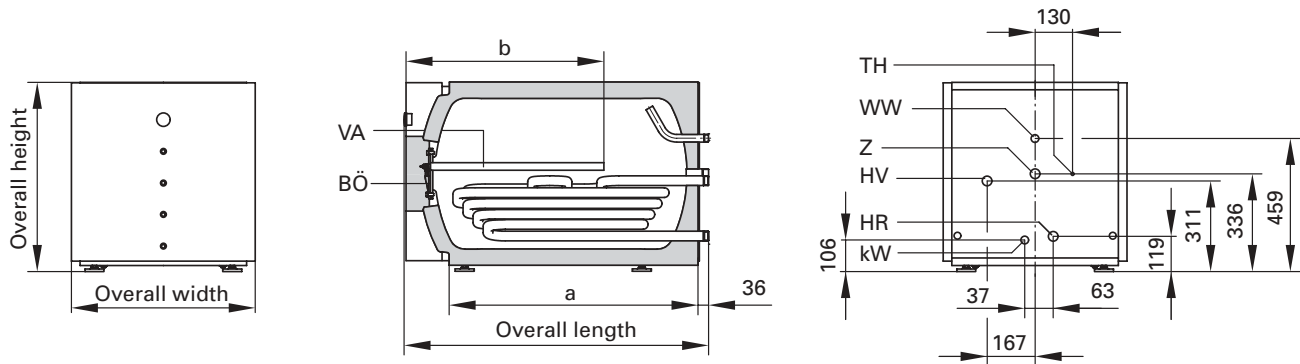
Technical data

DIN Reg. No. applied for

For domestic hot water applications in conjunction with boilers		Suitable for heating systems with		
		<ul style="list-style-type: none"> ■ heating water flow temperature up to 110 °C ■ domestic hot water temperature up to 95 °C ■ operating pressure on primary water side up to 10 bar ■ operating pressure on secondary water side up to 10 bar 		
Storage capacity	ltr	130	160	200
Recovery capability *1 with a temperature rise of the domestic hot water from 10 to 45 °C and heating water flow temperature of at the heating water flow rate stated below	90 °C kW	28	33	42
	ltr/h	688	810	1032
	80 °C kW	23	28	32
	ltr/h	565	688	786
	70 °C kW	19	22	26
	ltr/h	466	540	638
	60 °C kW	14	16	18
	ltr/h	344	393	442
Recovery capability *1 with a temperature rise of the domestic hot water from 10 to 60 °C and heating water flow temperature of at the heating water flow rate stated below	90 °C kW	27	32	38
	ltr/h	464	550	653
	80 °C kW	20	24	29
	ltr/h	344	412	498
	70 °C kW	14	17	19
	ltr/h	241	292	326
Heating water flow rate for the recovery capabilities stated	m ³ /h	3.0	3.0	3.0
Standby energy loss *2	kWh/24 h	1.3	1.4	1.5
Overall dimensions				
Overall length	mm	907	1052	1216
Overall width	mm	640	640	640
Overall height	mm	660	660	660
Weight DHW cylinder with insulation	kg	90	103	116
Heating water content	ltr	5.5	7	8
Heat exchange surface area	m ²	0.8	1	1.2
Connections				
Heating water flow and return	Ø" (male thread)	1	1	1
Cold water, hot water	Ø" (male thread)	¾	¾	¾
Pressure and temperature relief valve	Ø" (male thread)	1	1	1

*1For details of the recovery capability with other heating water flow rates, please refer to the Technical Guide for the Vitocell. When planning for the recovery capability as stated or calculated, allow for the corresponding circulation pump. The stated recovery capability is only achieved when the rated output of the boiler is equal to or greater than the recovery capability.

*2Measured values to DIN 4753-8. The values are based on a room temperature of +20 °C and a domestic hot water temperature of 65 °C and can vary by 5 %.



Dimensions

Storage capacity	litres	130	160	200
a	mm	721	866	1030
b*1	mm	200	250	300

*1 Minimum wall clearance required for installing/disassembling the magnesium sacrificial anode.

Legend

- BÖ Inspection and clean-out opening
- HR Heating water return
- HV Heating water flow
- KW Cold water
- TH Sensor well for cylinder temperature sensor or temperature regulator
- VA Magnesium sacrificial anode
- WW Hot water
- Z Pressure and temperature relief valve

Technical data

Performance factor N_L to DIN 4708

Cylinder storage temperature*1 =
cold water inlet temperature +50 K $_{-0}^{+5}K$

Capacity per cylinder	litr	130	160	200
Heating water flow temperature	Performance factor N_L*1			
	90 °C	1.3	2.2	3.5
	80 °C	1.3	2.2	3.5
	70 °C	1.1	1.6	2.5

Short-time recovery capability (10 minutes)

Based on performance factor N_L
Domestic hot water rise from 10 to 45 °C

Capacity per cylinder	litr	130	160	200
Heating water flow temperature	Short-time recovery capability (litr/10 min)			
	90 °C	159	199	246
	80 °C	159	199	246
	70 °C	148	173	210

Max. domestic hot water drawing rate (over 10-minute period)

Based on performance factor N_L
With reheating
Domestic hot water rise from 10 to 45 °C

Capacity per cylinder	litr	130	160	200
Heating water flow temperature	Max. drawing rate (litr/min)			
	90 °C	16	20	24
	80 °C	16	20	24
	70 °C	15	17	21

Domestic hot water drawing capability

Storage cylinder contents heated to 60 °C
Without reheating

Capacity per cylinder	litr	130	160	200
Domestic hot water drawing rate	litr/min	10	10	10
Domestic hot water drawing capability	litr	100	145	180
Water with $t = 60$ °C (constant)				

Heating time

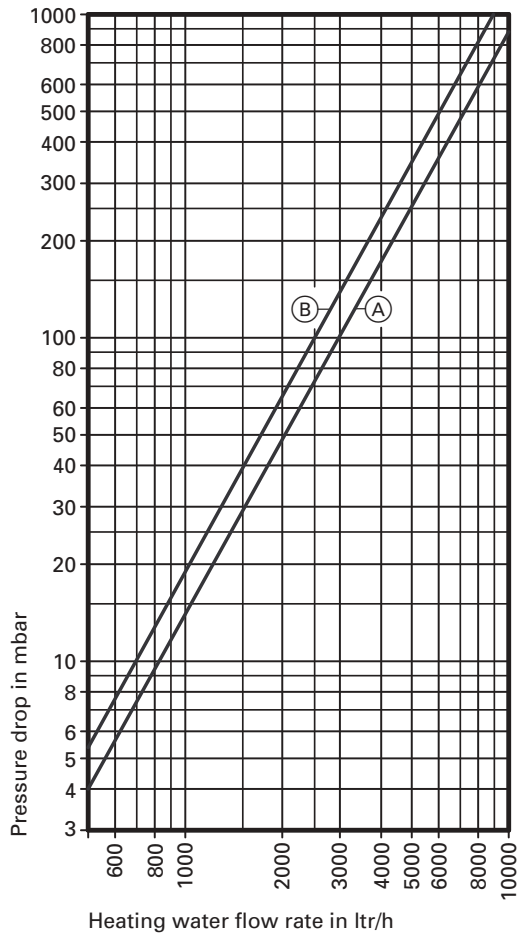
The stated heating times are achieved when the maximum recovery capability of the domestic hot water cylinder is made available at the respective flow temperature and with a domestic hot water rise from 10 to 60 °C.

Capacity per cylinder	litr	130	160	200
Heating water flow temperature	Heating time (minutes)			
	90 °C	20	19	18
	80 °C	25	26	25
	70 °C	34	34	32

*1The performance factor N_L varies according to the cylinder storage temperature T_{dhw} .

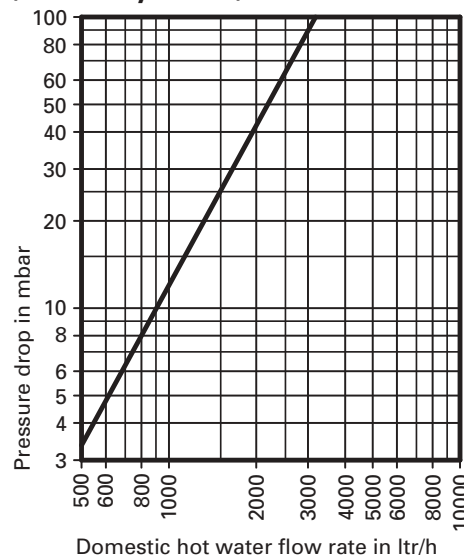
Guide values: $T_{dhw} = 60$ °C $\rightarrow 1.0 \times N_L$
 $T_{dhw} = 55$ °C $\rightarrow 0.75 \times N_L$
 $T_{dhw} = 50$ °C $\rightarrow 0.55 \times N_L$
 $T_{dhw} = 45$ °C $\rightarrow 0.3 \times N_L$.

Pressure drop on heating water side (primary circuit)



- Ⓐ 130 litres storage capacity
 Ⓑ 160 and 200 litres storage capacity

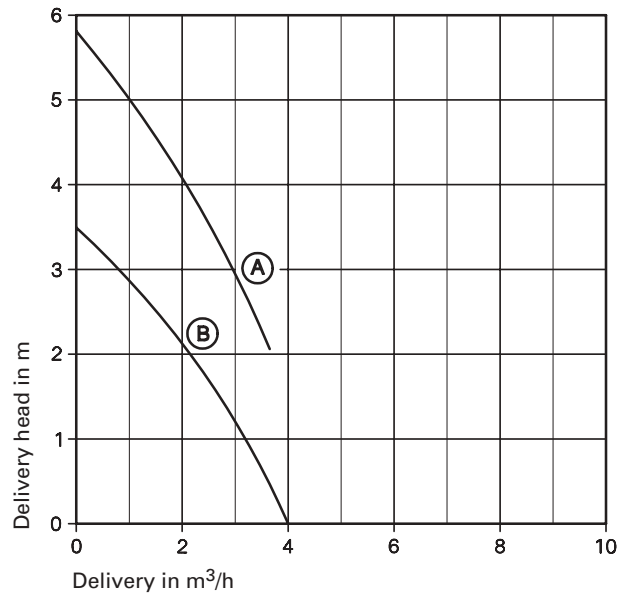
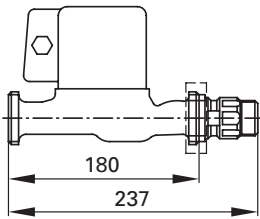
Pressure drop on domestic hot water side (secondary circuit)



Circulation pump for heating the cylinder Standard delivery

Circulation pump for heating the cylinder

Part No.		7339 467	7339 468
Pump type		UP 25-40	VIRS 30/6-1
Voltage	V~	230	230
Rated current	A	0.3	0.63
Capacitor	μF	2.5	3.6
Power consumption	W	55-65	110-140
Connection	Ø" (fem. thread)	1	1¼
Connecting cable	m	4.7	4.7



- Ⓐ Part No. 7339 468
- Ⓑ Part No. 7339 467

Standard delivery

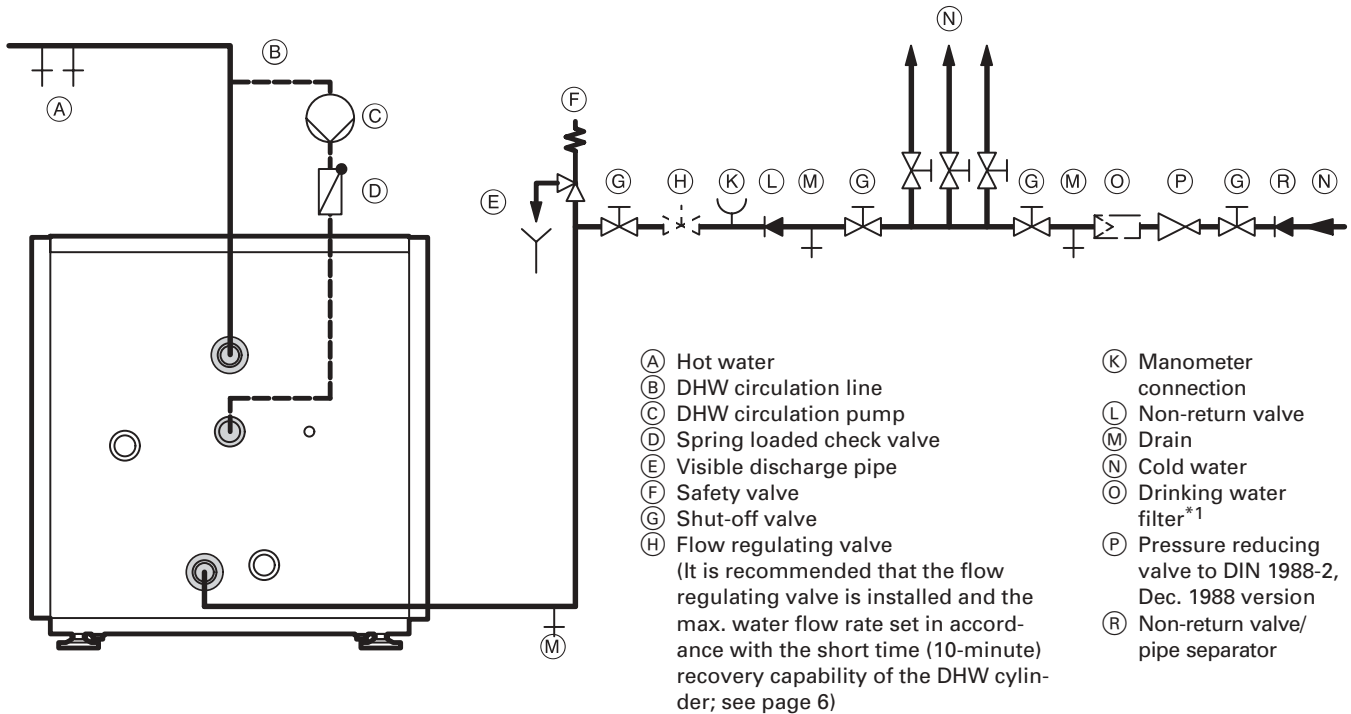
Domestic hot water cylinder constructed from steel, with Ceraprotect enamel finish, with fitted insulation comprising expanded polyurethane foam with

- sensor well welded in for cylinder temperature sensor or temperature regulator
- built-in magnesium sacrificial anode
- adjustable feet screwed in.

Epoxy resin coated sheet steel casing in a Vitosilver finish.

Notes on planning

Domestic hot water connections (connection to DIN 1988)



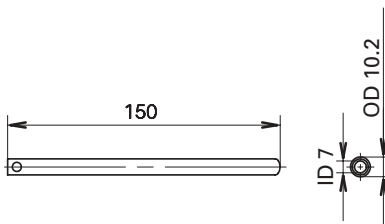
The safety valve must be installed.

Recommendation: Install the safety valve above the top edge of the cylinder to protect it from dirt, limescale and high temperatures. Furthermore, the cylinder does not need to be drained before work can be carried out on the safety valve.

*¹According to DIN 1988-2, a drinking water filter must be installed in systems with metal piping. We recommend that a drinking water filter should be installed in systems with plastic piping to prevent dirt from being introduced into the domestic hot water system.

Sensor well

The sensor well is welded in the domestic hot water cylinder.



Warranty

Our warranty for domestic hot water cylinders states that the water heated should be of drinking water quality and that any water treatment equipment in use functions correctly.

Heat exchange surfaces

The corrosion-resistant, protected heat exchange surfaces (domestic hot water/heat transfer medium) correspond to Type C in accordance with DIN 1988-2.

Vitocell-H 100 domestic hot water cylinder positioned under the boiler

Please note that only the boiler/cylinder combinations stated in the Price List are possible.

Subject to technical modifications!

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