

# COD DIGESTION UNIT



For determining the chemical oxygen demand, e.g. in accordance with DIN 38409/German standard method H41. Digestion in aluminium heating block with precise temperature control.

Heating up samples to 148 °C in less than 10 minutes. Tried and tested C. Gerhardt technology, with automatic temperature/time control and motorised multi-level console for automatically raising and lowering the sample frame and water condenser.

Available with various fittings.

**Scope of delivery** Complete System, including

Digestion tubes

Condenser

Temperature-controller

Instruction manual

## COD DIGESTION UNIT automatic (with Lift)

Type	CSB8A	CSB20A
<b>TECHNICAL DATA</b>		
Heating places	8	20
Size of tube [ml]	250	250
Temperature max. [°C]	430	430
Programs	9 <sup>1)</sup>	9 <sup>1)</sup>
Nominal wattage [W]	1160	2360
Dimensions W / D / H [mm]	470 / 415 / 800 <sup>2)</sup>	470 / 530 / 800 <sup>2)</sup>
Weight [kg]	31	45
Nominal voltage [VAC]	230 / 115	230 / 115
Frequency [Hz]	50 - 60 <sup>3)</sup>	50 - 60 <sup>3)</sup>
<b>DELIVERS</b>		
KJELDATHERM-block	1 x (12-0003)	1 x (12-0007)
Insert rack EB-A for tubes	1 x (12-0710)	1 x (12-0722)
Motorlift console EBL-C	1 x (12-0265)	1 x (12-0265)
Insert rack for condensers	1 x (12-0249)	1 x (12-0250)
CSB/SMA digestion tubes KMG, 250 ml (with KS40)	8 x (12-0321)	20 x (12-0321)
CSB/SMA condensers SMK (with KS40)	8 x (12-0322)	20 x (12-0322)
Temperature-time controller TZ	1 x	1 x
<b>ORDER INFORMATION</b>		
Version 230 V	12-0061	12-0073
Version 115 V	12-0214	12-0432

1) Each program is available with 9 different heating steps that have programmable times and heating capacities

2) Height in lower lift position, in upper lift position + 100 mm

3) Version 115 V only 60 Hz



**COD DIGESTION UNIT Manual (without Lift)**

Type	CSB8M	CSB20M
<b>TECHNICAL DATA</b>		
Heating places	8	20
Size of tube [ml]	250	250
Temperature max. [°C]	430	430
Nominal wattage [W]	1000	2200
Dimensions W / D / H [mm]	415 / 415 / 1150	470 / 530 / 1150
Weight [kg]	15	24
Nominal voltage [VAC]	230 / 115	230 / 115
Frequency [Hz]	50 - 60	50 - 60
<b>DELIVERS</b>		
KJELDATHERM-Digestion block	1 x (12-0003)	1 x (12-0007)
Insert rack EB-M for tubes	1 x (12-0711)	1 x (12-0723)
CSB/SMA digestion tubes SMG8, 250 ml (with NS29)	8 x (12-0315)	20 x (12-0315)
CSB/SMA condensers SML (with NS29)	8 x (12-0318)	20 x (12-0318)
Temperature-Controller	1 x	1 x
<b>ORDER INFORMATION</b>		
Version 230 V (with controller TR)	12-0060	12-0072
Version 230 V (with controller TZ)	12-0424	12-0427
Version 115 V (with controller TR) <sup>1)</sup>	12-0434	12-0433

1) Version 115 V only available in combination with TZ-controller.

**TZ - CONTROL UNIT**


Order No.	Type	Description
12-0011	TZ	Programmable temperature time controller for all KJELDATHERM-systems: - 9 programs with 9 program steps - accuracy < 0,5 % in the upper temperature range - Nominal voltage: 230 VAC, 50 - 60 Hz - Dimensions: W 85 / D 240 / H 255 mm - Temperature range: RT - 430 °C
12-0378	TZ	Programmable temperature time controller Identical to 12-0011, but as <b>version 115 VAC, 60 Hz</b>

**TR - TEMPERATURE CONTROLLER**


Order No.	Type	Description
12-0010	TR	Electronic temperature controller for manual KJELDATHERM-systems: - accuracy < 1,0 % in the upper temperature range - Nominal voltage: 230 VAC, 50 - 60 Hz - Dimensions: W 85 / D 150 / H 155 mm - Temperature range: RT - 430 °C

**Accessories**

Order No.	Description
12-0321	COD/SMA tube SMG, 250ml, with KS40, 4 pcs (for automatic COD units)
12-0322	COD/SMA water condenser SMK, ball condenser, with KS40
12-0320	Cooling trap SMF, acc. to DIN, with NS29
12-0315	COD/SMA tube SMG8, 250ml, with NS29, 4 pcs (for manual COD units)
12-0318	COD air condenser SML, with NS 29, 750 mm long
10-0088	Water jet pump WSP
12-0057	TURBOSOG-scrubber unit TUR/K, with preseparator

More accessories and consumables on request.

Presented by:

