

# Inžinerinių techniniai duomenys



CLAUDIUS PETERS

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BEGA, Cement Terminal Klaipėda

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## 2 Claudius Peters Storage Silo CC

Cemento talpos

With converted cone

Technical Data:

Material to be stored:

cement

Max. temperature of material:

max. 140 °C

Interior silo diameter:

12.5 m

Interior aeration bottom diameter:

5.2 m

Total silo height:

27 m

Filling level, effective:

25 m

Silo content, effective:

3300 t

Silo feeding capacity:

200 t / h

Silo discharge capacity:

max. 200 t / h

### 2.1 Level measuring equipment for the silo

Technical Data:

Level limit switch

Type of protection:

IP 66

Ambient temperature:

-40 up to +80 °C

Process temperature:

-50 up to +230 °C

Continuous level measurement

Type of protection:

IP 65

Ambient temperature:

-40 up to +80 °C

Process temperature:

-40 up to +200 °C

Scope of Supply:

1 Level limit switch, capacitive

CP

consisting of:

- robust housing
- flange for various size
- electronic insert

1 Continuous level measurement, radar

CP

consisting of:

- transmitter
- antenna
- flange with positioner
- protection cover

### 2.2 Fluidization System for the Aeration of the CC Silo Bottom

Aeratorius

Technical Data:

Number of rotary piston blowers

1

Required motor power

6.6 kW

Nominal motor power

7.5 kW

Motor speed

3000 rpm

Protection type / insulation class

IP 55 / F

Compressed air temperature

97 °C



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Sound level			
without sound-absorbing hood	triukšmo lygis	91	dB(A)
with sound-absorbing hood		65	dB(A)
all Technical Data at 20 °C and 1.0 bar			
Distance between blowers and air distribution manifold:		max. 20	m
Scope of Supply:			
1	Claudius Peters CC-Silo bottom D = 5.200 mm		WD/CS
1	CC - Claudius Peters aeration system consisting of: - Set of Aeroslides, size 2-200 incl. fastening elements, sealing - 4 Shut-off flaps, pneumatic operated acc to suppliers standard, incl. terminal box, Namur-solenoid valve and micro limit switches - 6 ball cocks - 1 pressure gauge - 1 shut-off flap with el/pn. drive for blow out function - Set of system labelling		CP
1	Rotary Piston Blower in compact design consisting of: - Motor - Belt drive - Belt pulley at motor side - Maintenance indicator - Pressure gauge - Sound-absorbing hood for motor and blower for installation inside (forced aeration by impeller mounted on blower shaft) - Motor assembly - Without oil filling		CP
1	Set of Pipes on silo bottom and between blower and CC Silo Bottom (max. 20 m) consisting of: - Piping - Fastening elements - Flanges - Screws - Gaskets - Supports		TD/CS



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### 3 Dedusting filter system for storage silo

FILTRAI

#### Technical Data:

#### Preliminary Technical Data at 20 °C, 1 bar

Dust air quantity without final flush	approx.	5850	m <sup>3</sup> /h
Dust air quantity with final flush	approx.	11050	m <sup>3</sup> /h
Dust content at filter inlet	approx.	50	g/m <sup>3</sup>
Dust residue at filter outlet	approx.	20	mg/m <sup>3</sup>
Filter surface		88	m <sup>2</sup>
Nominal motor power fan:		15	kW
Motor speed:		3000	min-1
Protection type / Insulation class:		IP 55 / F	

#### Technical Description:

Filter with fully-automatic scavenging mechanism for the filter bags including control unit.

#### Scope of Supply:

1	Filter casing for bin mounted filter	WD/CS
1	Filter head	CP
1	Fan with motor	CP
	Including:	
	- Exhaust air fan	
	- Motor with impeller mounted on motor shaft	
	- Silencer	
1	By-pass flap for fan, weight loaded	CP
Req.	Stairs, ladders	WD/CS
Req.	pipework incl. flanges, screws, gaskets, mountings and pipe supports	TD/CS
1	Pressure compensating flap	CP



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**5 Pneumatic conveying for ship loading with Claudius Peters Pump type X**

Technical Data for conveying line until ship side:

Conveying distance:	max. 162	m
Included height difference:	7	m
Number of 90° bends	5	pieces
Pipe dimensions	323.9 x 7.1	mm

Technical Data for ship CEMGULF:

Conveying length on board:	max. 36	m
Depth from upper deck to quay	max. 9	m
	min. 7	m
Quay height	unknown	
Number of 90° bends	4	pieces
Pipe dimensions on board	343 x 8.0	mm
Designed capacity:	max. 170	t / h

Technical Data for ship CEMSEA:

Conveying length on board:	max. 36	m
Depth from upper deck to quay	max. 9	m
	min. 7	m
Quay height	unknown	
Number of 90° bends	2	pieces
Pipe dimensions on board	323.9 x 7.1	mm
Designed capacity:	max. 165	t / h

The conveying line from silo will end at ship side at a height of 6.0 m

**5.1 Claudius Peters Pump type X Siurblys**

Power requirement at coupling:	min. 134	kW
Screw speed:	980	min <sup>-1</sup>
Type of motor construction:	B3	
Nominal motor output:	160	kW
Motor speed:	1000	min <sup>-1</sup>
Protection type / insulation class:	IP 55 / F	
Efficiency class:	IE2	
Exhaust gas quantity surge bin:	450	Am <sup>3</sup> / h
Measuring surface sound pressure level (A); (+/- 2dB)	76	dB (*) triukšmo lygis
(*) measured acc. to DIN EN ISO 3744 under free field conditions		





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### 5.3 Screw Compressor

KOMPRESSORI

#### Technical Data:

Compressors necessary for operation

2 Pc

Required motor power:

min. 163 kW

Nominal motor power:

200 kW

Motor speed:

3,000 min<sup>-1</sup>

Efficiency class:

IE2

Protection type / insulation class:

IP 55 / F

Compressed air temperature:

155 °C

Sound level without sound-absorbing hood:

105 dB(A)

Sound level with sound-absorbing hood:

84 dB(A)

all Technical Data at 20 °C and 1 bar

#### Scope of Supply:

2

Screw Compressor

CP

in compact design and air-cooled for oil-free compression

each consisting of:

- Base frame for compressor and motor with integrated suction silencer
- flexible machine feet with fastening screws
- Suction filter
- flexible coupling with coupling guard
- Safety valve
- Check valve
- Pressure silencer
- Oil mist separator for oil chamber relief (0.37 kW, 230 / 400 V, 50 Hz)
- Axial compensator (pressure side) -
- Sound absorbing hood for motor and compressor for installation indoor

2

Motor, 200 kW, type B3

CP

20 m

Piping between compressors and X-pump, DN 200  
incl. flanges, bolts, gaskets, mountings and pipe supports

TD/CS