



Chi nesi sche Versi on -

robatherm
the air handling company

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robatherm GmbH + Co. KG
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89331 Burgau
Germany

www.robatherm.com

06 / 2017

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(CW- DK)

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robot herm

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robot herm

robot herm



ATEX

ATEX

ATEX

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X

VI 2050

3

HRS

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DIN EN 1886

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robatherm



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ATEX

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EN 1127-1

ATEX



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DIN EN 60204 VDE 0113

15

(VDE 0113)

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DIN EN ISO 12100

100 /

robatherm



当在爆炸危险区执行维护和清洁工作之时，仅可使用符合 EN 1127-1 的适当的工具来预防出现火花。必须穿戴 TRBS 2153 所述导电鞋以防人员受静电所伤。

VI 6022 .

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pH 7 9



ATEX

RKI, VAH DGKH.



AIEX

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AIEX

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仅使用适当的，且经过批准的卸载和运输单位吊索设备（绳索，链条，吊装带）卸货及运输，且根据 BGV D6 只将此等设备固定到吊耳或运输回路处。

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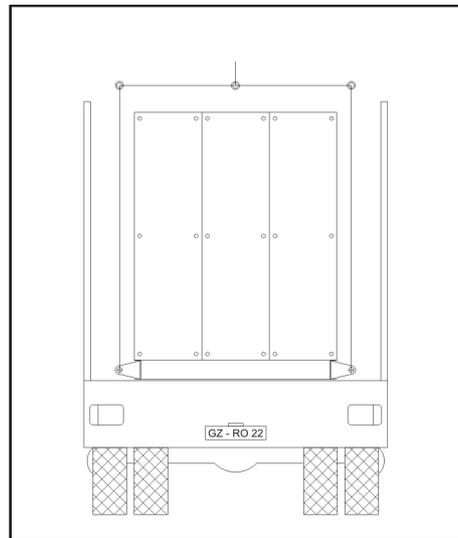
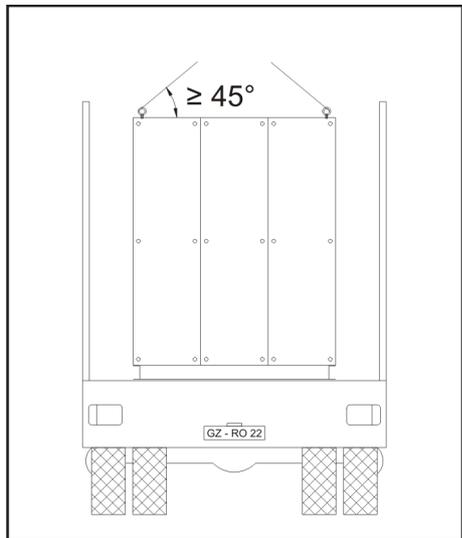
45°

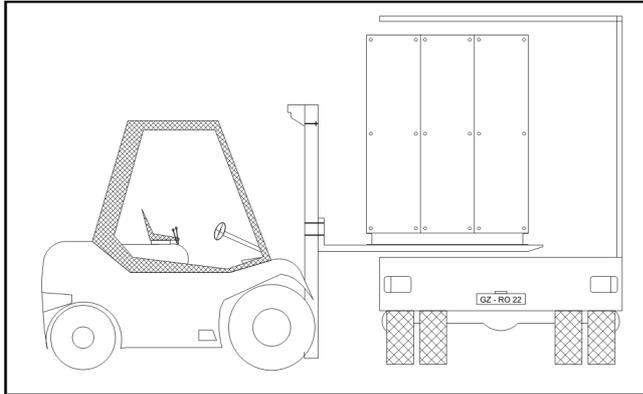
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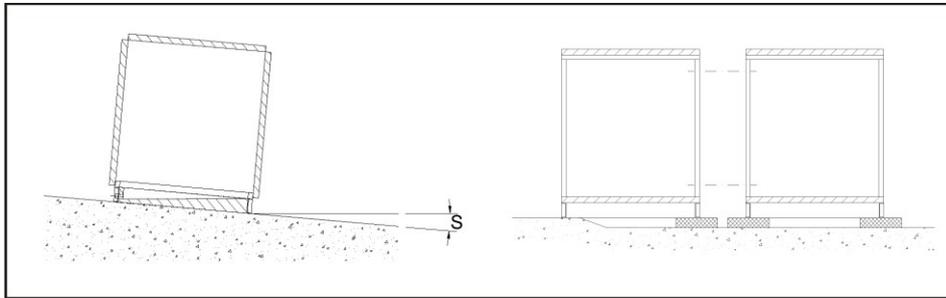
robot herm

robot herm

VI 3803

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s = 0,5



1/1000

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24

2,5

robot herm

VI 2050

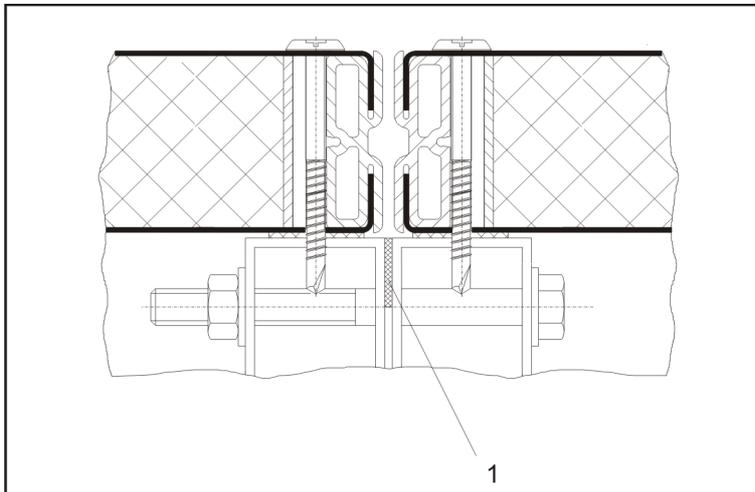
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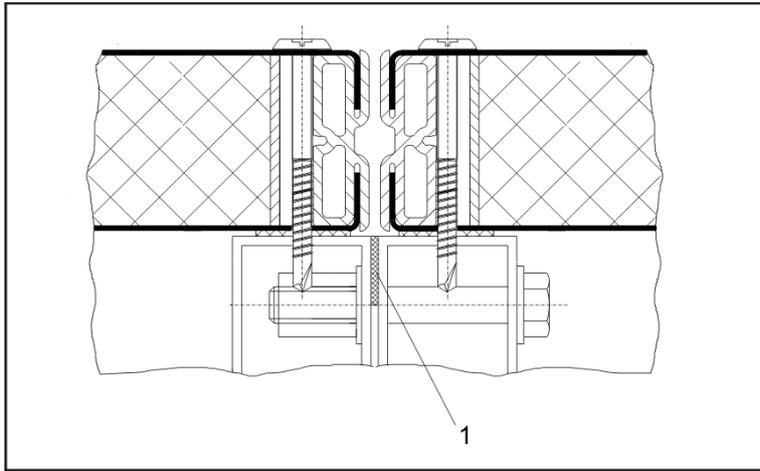
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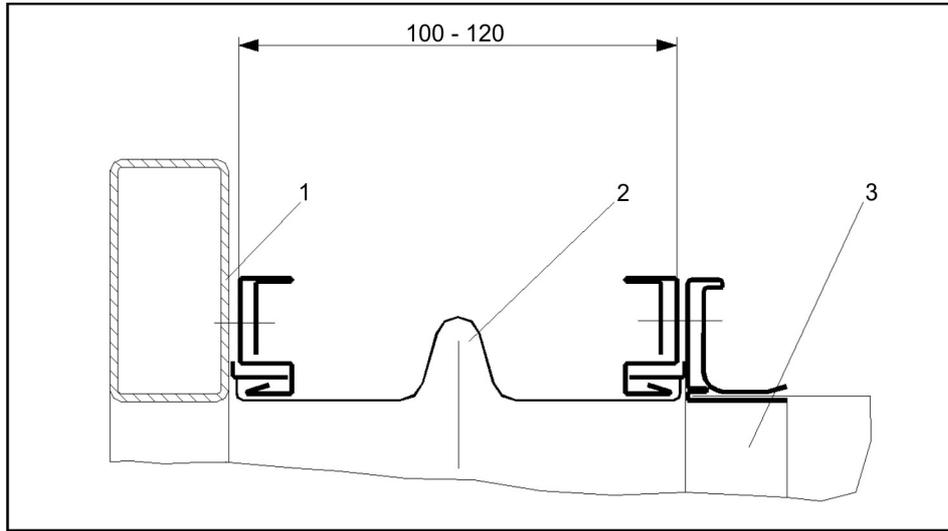
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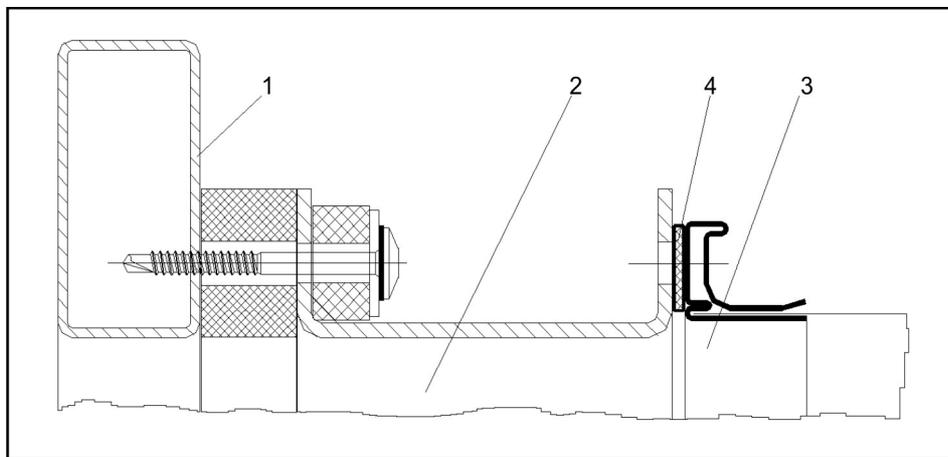
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120



1 - , 2 - , 3 -

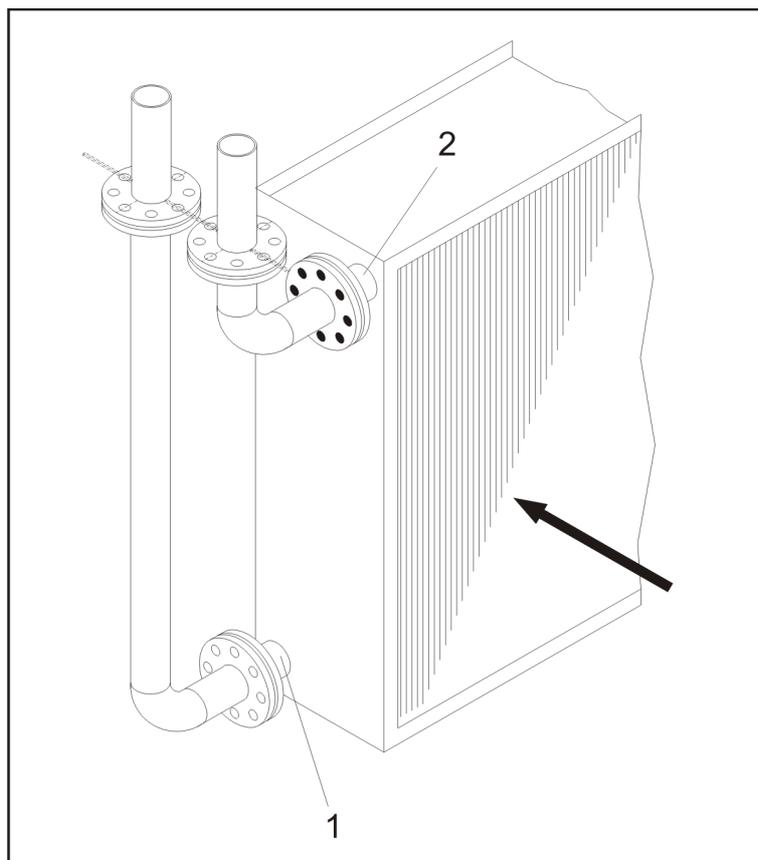


1 - , 2 - , 3 - , 4 -



ALEX

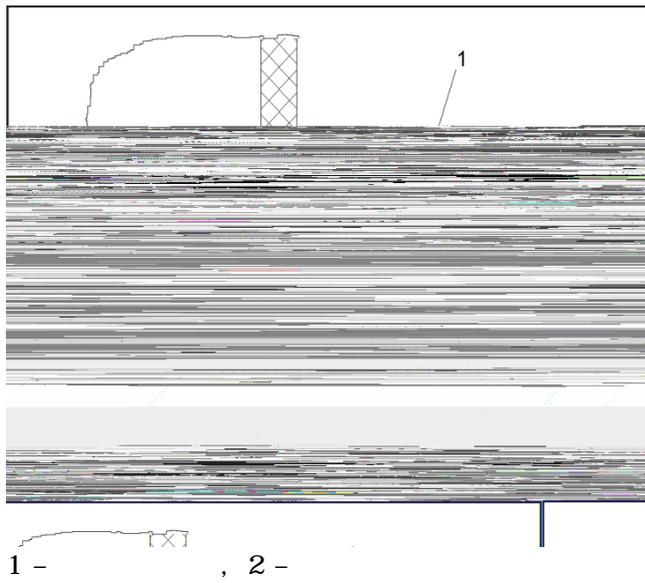
DIN VDE 0185



1 - , 2 - -



()



$$H \text{ (mm)} = p/10$$
$$H \text{ (mm)} = p \times Q,075$$

$$H \text{ (mm)} = 35 \text{ mm}$$

$$H \text{ (mm)} = (p/10) + 50$$

$$p = \quad \text{Pa} \quad (\quad)$$



IP 65

DIN

46200).

DIN EN 60204 VDE 0113
DIN EN 60204 10

BGV A3 § 5 1A

- DIN EN 60204 VDE 0113
-
- PIC
- 3
-



AIEX PIC

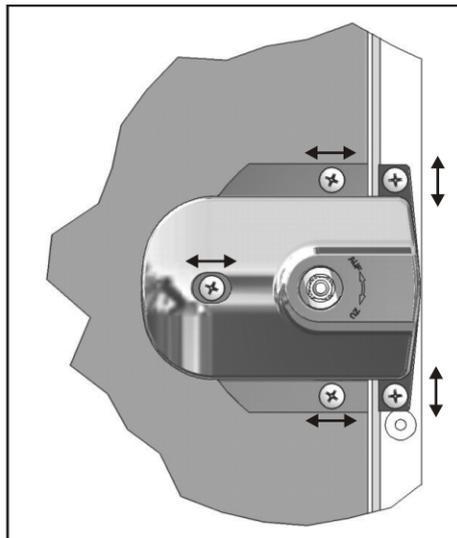
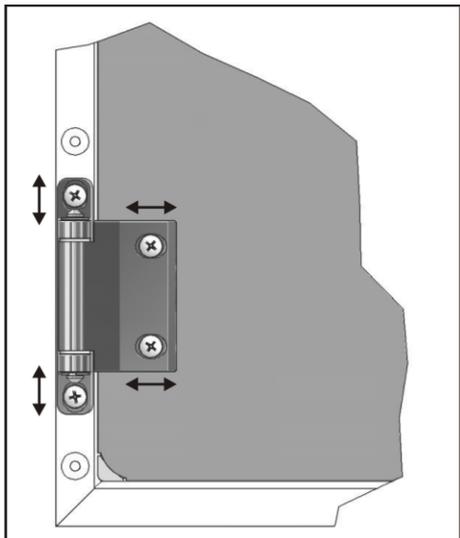




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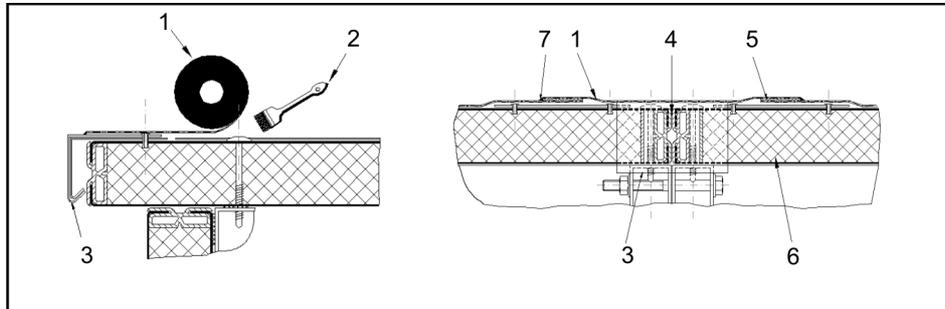
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PVC

PVC



1 - ; 2 - ; 3 - ; 4 - ;
 5 - ; 6 - ; 7 -

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-

+10 <+10

3 4 ,

-
- 100mm
- , (1)
5 10 5
 - PVC (7)
- PVC
 -



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DIN EN ISO 12100



ATEX



robot herm

90°

ALEX



3



DN EN ISO 12100

-

- 检查风阀的功能，以及污染、损坏和腐蚀情况
- 检查保护装置的有效性

-

- 清理风阀，纠正任何损害和腐蚀情况

-

- 检查固定座以及联动的运动是否顺畅
- 检查调整

-

- 润滑黄铜轴承（塑料轴承不需要润滑）
- 润滑联动



3

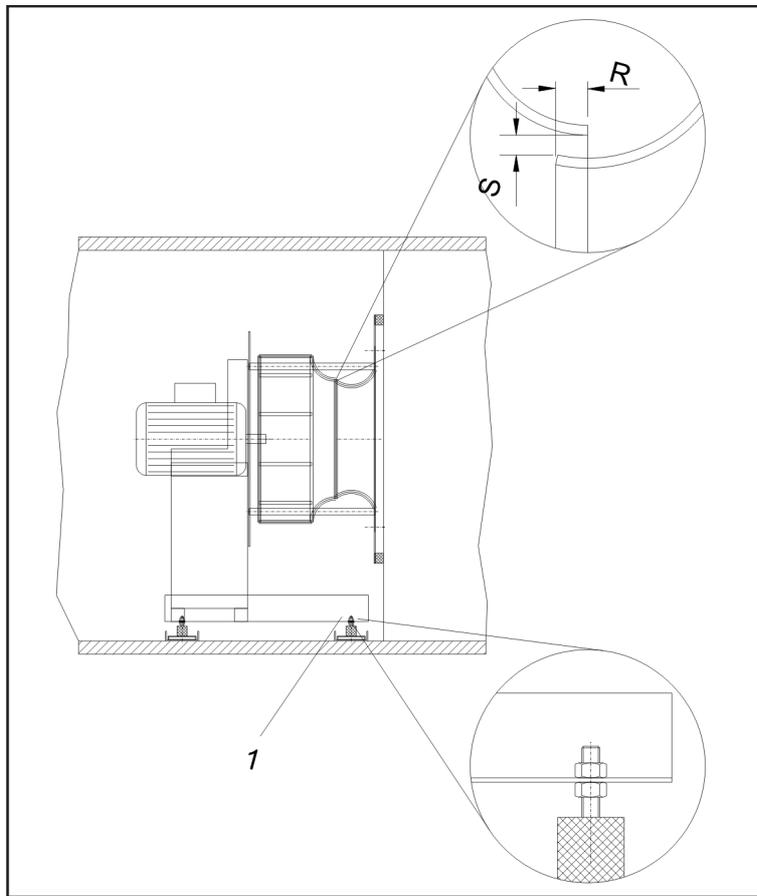


110



1

1%



1- / S - R -

- V
- 6
- $< 0.4^\circ$; / $< 7 \text{ mm/m}$
- 1 2
- V 6
-



VI 2056 DIN ISO 10816

15kW	K	0.7 mm/s	1.8 mm/s	4.5 mm/s
15kW	M	1.1 mm/s	2.8 mm/s	7.1 mm/s
	T	2.8 mm/s	7.1 mm/s	18 mm/s

ATEX

/

> 40 ° C

V

V

V



3

pH 7 9

-
- - 检查风机的卫生、污染、损坏、腐蚀和紧固情况；
 - 检查叶轮的不平衡和振动情况；必要时调整平衡；
 - 检查轴承的噪音、振动和热度；
 - 检查挠性连接有无泄漏；
 - 检查减震器的运行状况；
 - 检查防护装置的功能；
 - 检查导入叶片的控制功能；
 - 检查去水设备的运转状况；
 - 检查开式叶轮的间隙宽度（见第二页）；如有必要进行调整；
 - **防震接头**上的污染物和灰尘应用吸尘器去除，然后用湿抹布擦拭；

-
- **更换轴承**（不迟于理论使用寿命结束时）
- **油脂润滑轴承**。按照制造商的说明！
- **清洁风机**，纠正任何损坏和腐蚀，重新紧固连接件；

-
- 检查马达的污染、损坏、腐蚀、紧固、运转平稳性、热度和旋转方向；
- 检查轴承的噪音、振动和热度；
- **清洁马达**和纠正任何损坏和腐蚀；
- 测量张力、电流输入和**相位**对称；
- **接线盒**中的接线端子底座是否牢固；如需要进行重新上紧；
- 检查保护导体；必要时进行重新上紧或更换；
- 检查电缆导轨。必要时用吸尘器进行清洁，如需要并可用湿抹布擦拭；

-
- **更换轴承**（不迟于理论使用寿命结束时）
- **油脂润滑轴承**。按照制造商的说明！

-
- - 检查皮带传动的污染、损坏、磨损、张力和马达和分机皮带轮的对准情况（公差 $< 0,4^\circ$ ；直径.高度. $< 7 \text{ mm}$ ），检查运行和紧固情况（见扭矩设置）
 - 检查防护装置的损坏、紧固和运转情况；

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6

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- 按照制造商的说明！
- 检查传动离合器的运转、污染、损坏、腐蚀和紧固情况；
- 检查温度；

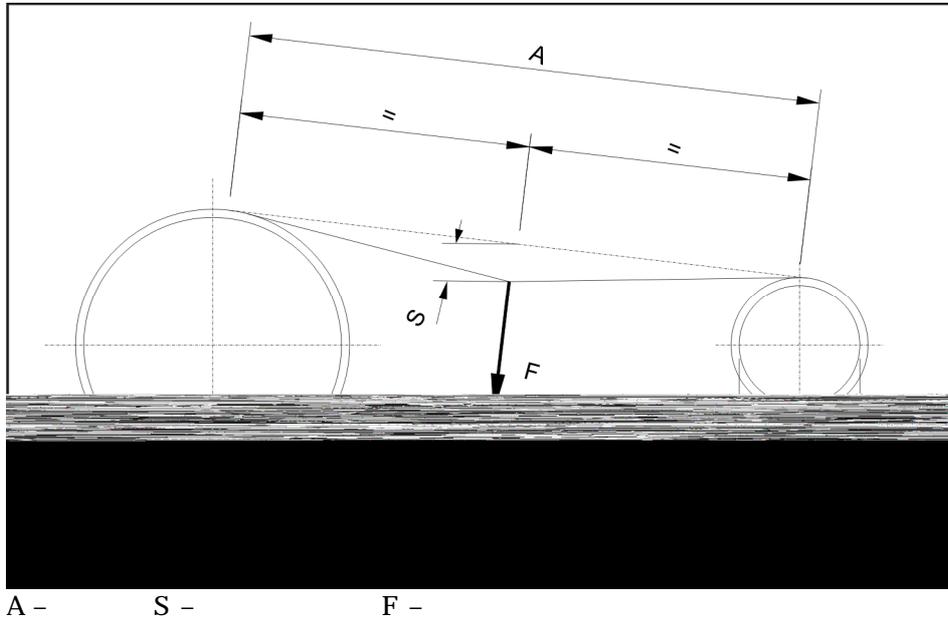
-
- 按照制造商的说明！
- 换油；
- 清洁传动离合器；

	1008 1108	1210 1215	1610 1615	2012 2017	2517 2525	3020 3030	3525 3535	4030 4040	4535 4545	5040 5050
[N]	6	20	20	30	50	90	115	170	190	270

V

DIN 7753 V

- A
- 16 S
- A
-
- F



DIN 7753 V

V

= 16 /

	[]	[]
SPZ	67 to 95 100 to 140	10 to 15 15 to 20
SPA	100 to 132 140 to 200 224 to 250	20 to 27 28 to 35 40 to 45
SPB	160 to 224 236 to 315	35 to 50 50 to 65
SPC	224 to 355 375 to 560	60 to 90 90 to 120



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- vailers
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ATEX

G1 - G4	150 Pa
M5 - M6, F7	200 Pa
F8 - F9	300 Pa
E10 - E12, H13	500 Pa

ATEX



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ATEX

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1.	12
2.	24

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ATEX



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EN 1127

VI 2035

VI 2035

VI 2035

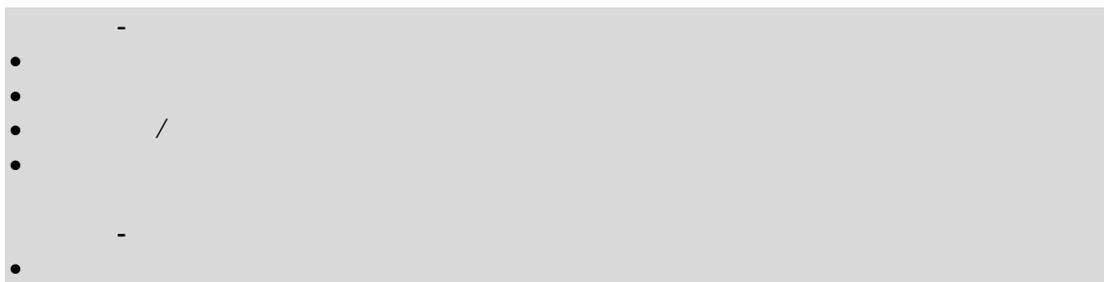
ALEX



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pH 7 9

50%

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Torx T25



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- 40 ° C
- : 70 ° C



robot herm

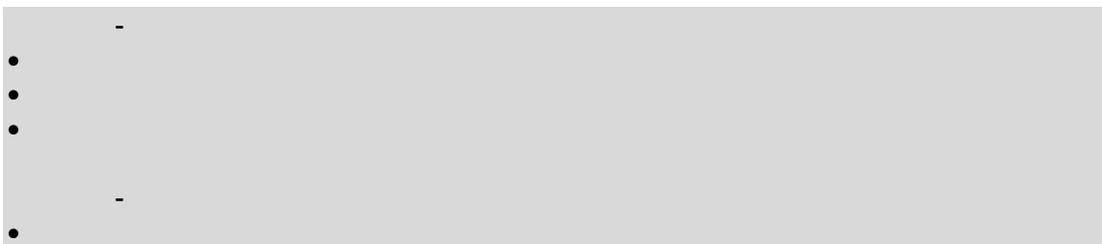
ATEX



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VI 2035

VI 2035 .

VI 2035

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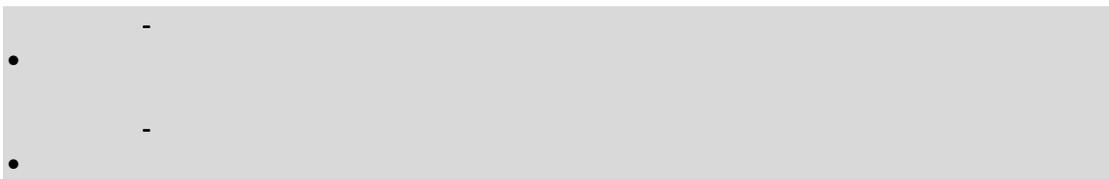
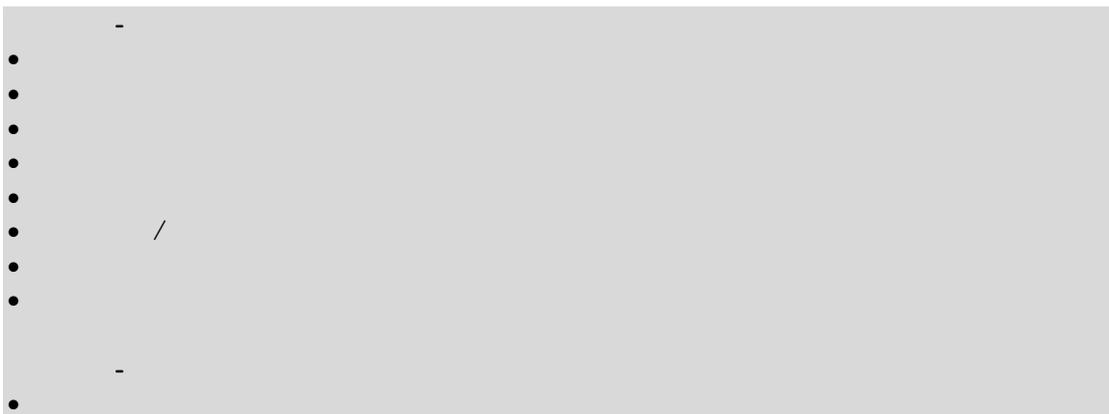
ALEX



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pH 7 9

50%

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Torx T25



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BGV D4

8

DIN 8960 R407C 0.31 kg/m³

TLV

R407C 1,000 ppm



500 EC

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DIN EN 378 BGR

BetrSichV § 15

§ 14

BetrSi chV





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V

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V

400

10rpm

10V

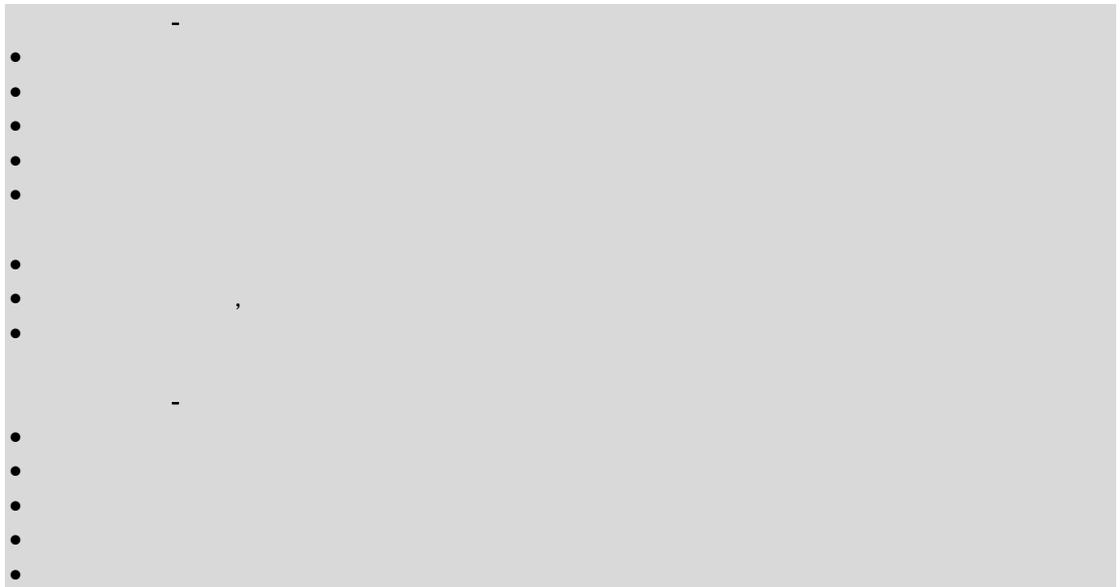


AIEX

AIEX



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1,000 Pa

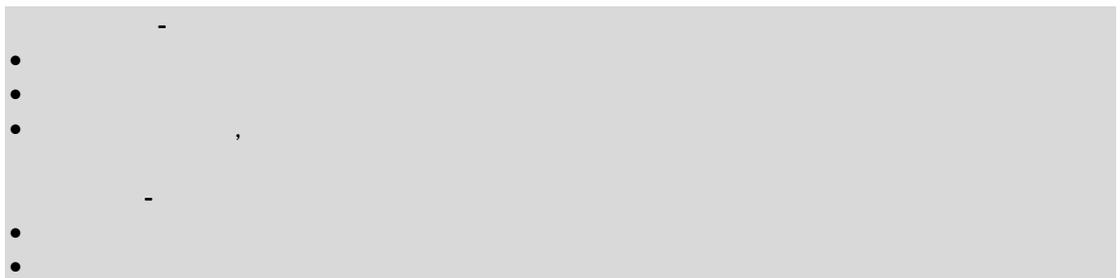


ATEX

ATEX



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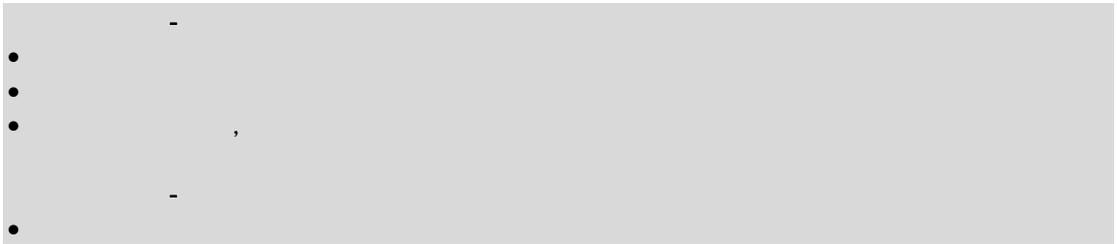


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ATEX



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pH 7 9



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LIQ -

robatherm

10 1/min

2V

10 1/h

10V

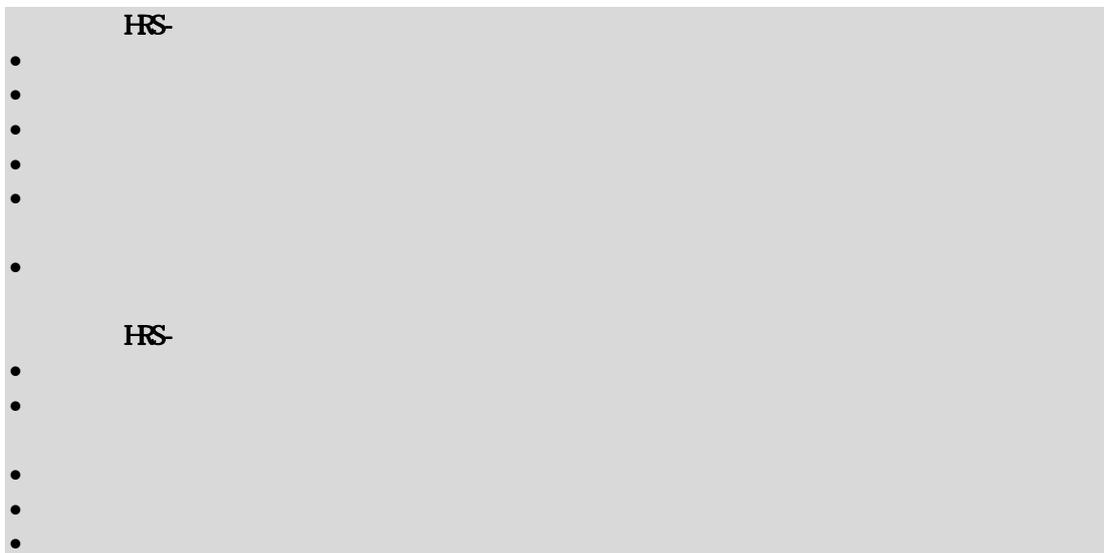


ATEX

ALEX



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3



(DIN 4794 DIN 4755 DVGW G600



DIN 4794



1 m/s,

150 cm

1m/ H

TRG,

-
-
-
- 70
- 40
- 10
- 2 60

QN

- :
- “ ” =40
- “ ” =70

100

-

60

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10

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- DIN 4794 .
- : 210 ° C (,
- : 150 ° C

ATV

1
2

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DIN 4794, DIN 4755 DVGW (G600

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• DVGW G600) DIN 4755 or

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CO₂



DVGW

DIN 4794

TRGI DVGW



60

robot herm

37

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(10)

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6 9 10 15 16

SIL

SIL

(3)

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+ 20
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- 20

180 250 Pa

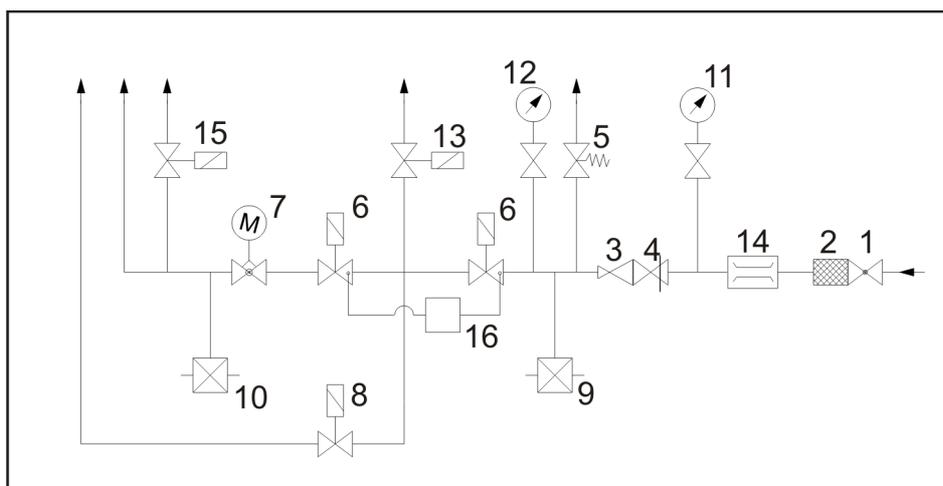
- 40

1
2

3



3



	ND*	ND**	F		
1	x	x	x		
2	x	x	x		
3	x	x	x		
4	-	x	o		p2 p2sol1;
5	-	x	o		p2 p2rated
6	x	x	x		
7	x	x	x		
8	x	x	x		
9	x	x	x		;
10	x	x	x		;
11	x	x	x		
12	o	o	o		
13	-	-	x		

14	o	o	o		
15	o	o	o		2
16	o	o	o		

* (< 0.1 bar)

** (> 0.1 - 4 bar)

X DIN TRG

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o

-
- 7 ° dH
- VI 6022, VI 3803, DI NENI 3053

VI 3803

($\mu\text{S}/\text{cm}$) ($\mu\text{S}/\text{cm}$)	< 1.000*	< 300	< 120**
(° dH)	< 4	< 4	< 4
(g/m ³)	< 180	< 180	< 180
(g/m ³)	< 150	< 100	< 100
pH	7 to 8.5	7 to 8.5	7 to 8.5
(KBE/ml)	< 1.000	< 100	< 10
(KBE/100ml)	< 100	< 100	< 100
	2 to 4	2 to 6***	2 to 8***

CBU =

*) 95%RH 800 $\mu\text{S}/\text{cm}$

**) ; ;

***) ; ;

- /

$$= x$$

$$= x - 1 /)$$

6 bar
3 bar



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pH 7-9

7 - 9).

10 20

1 /



20

10 20

0.3

3

38

38

W



38



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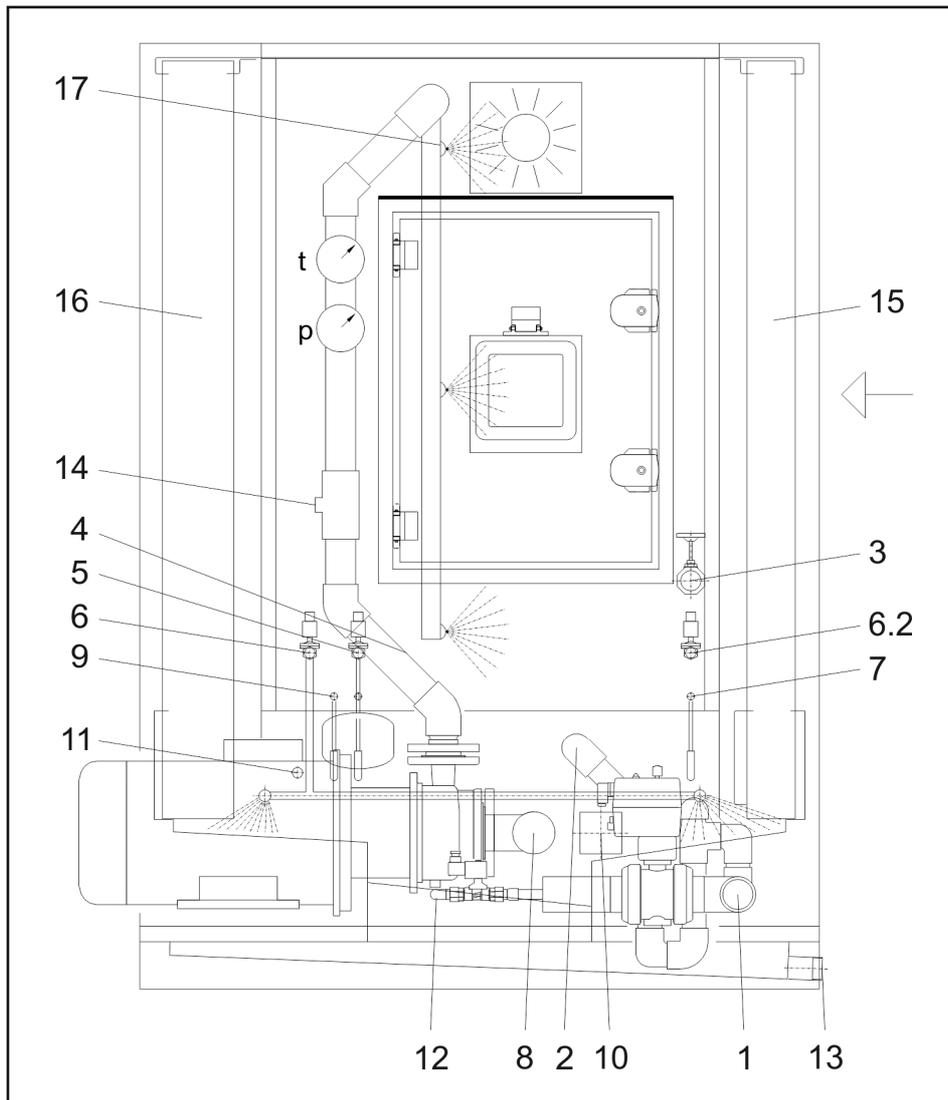
48



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|-----|------------------|-----|
| 1 | | 9 |
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| 4 | | 12 |
| 5 | | 13 |
| 6 | | 14 |
| 6.2 | 2 ($\geq T33$) | 15 |
| 7 | | 16 |
| 8 | | 17 |
| | | PTC |

EN 1717

1 13



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-) 20 μ S/cm 1° dH
- VI 6022, VI 3803, DIN EN 13053
- 2 8 bar
- EN 1717

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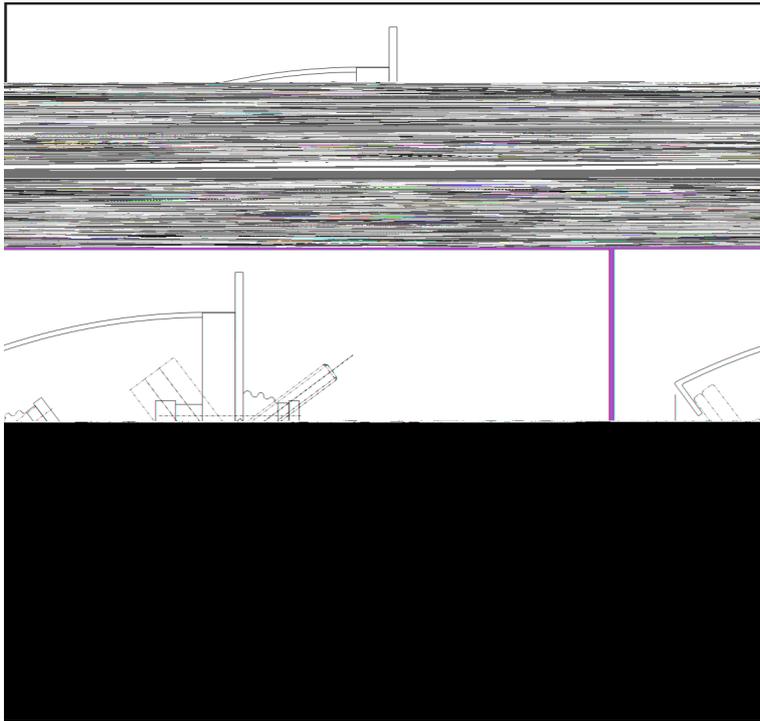
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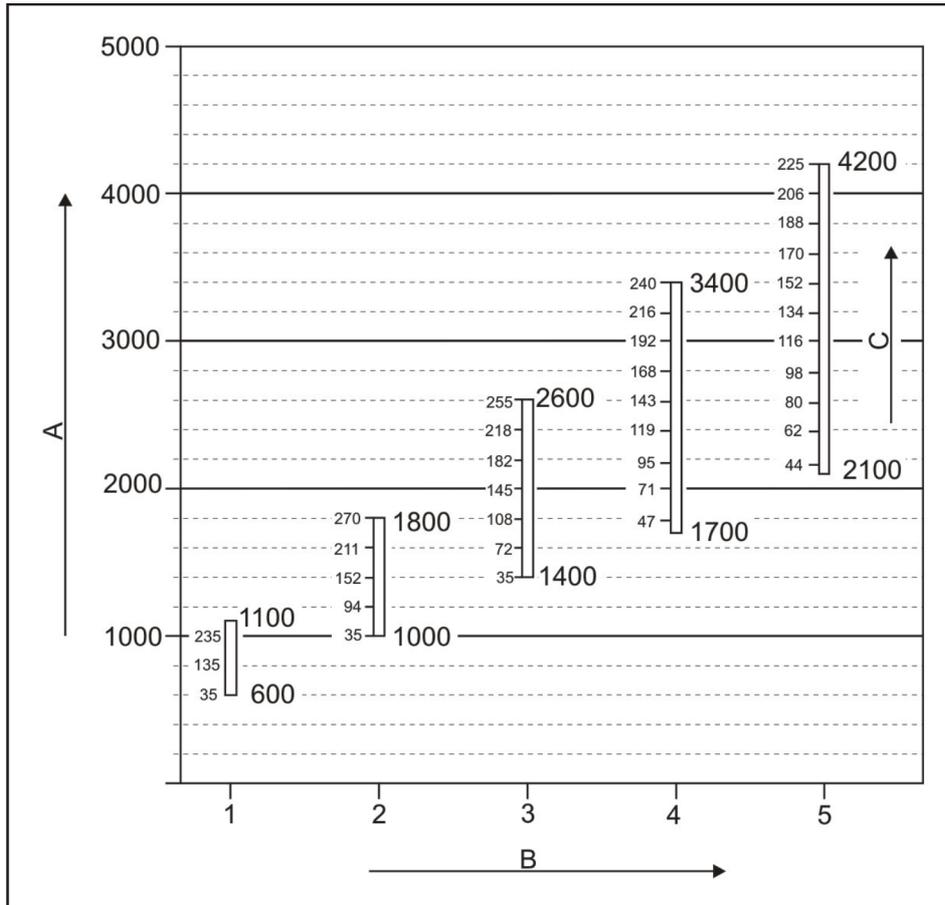


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DIN EN ISO 12100



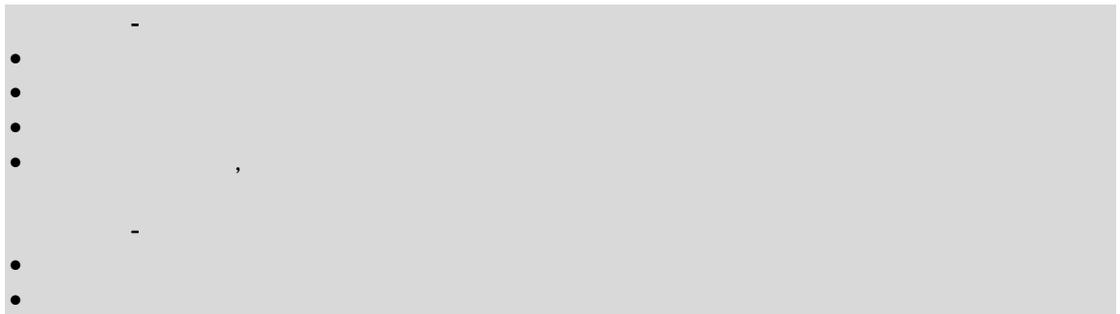


A)
 B ()
 C a- (mm)

; ATEX



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/ DC

SPS

; ATEX



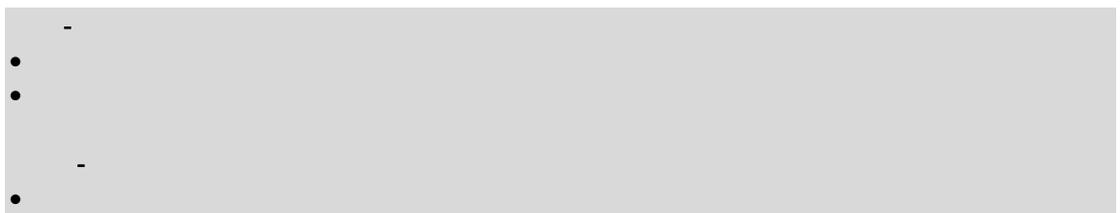
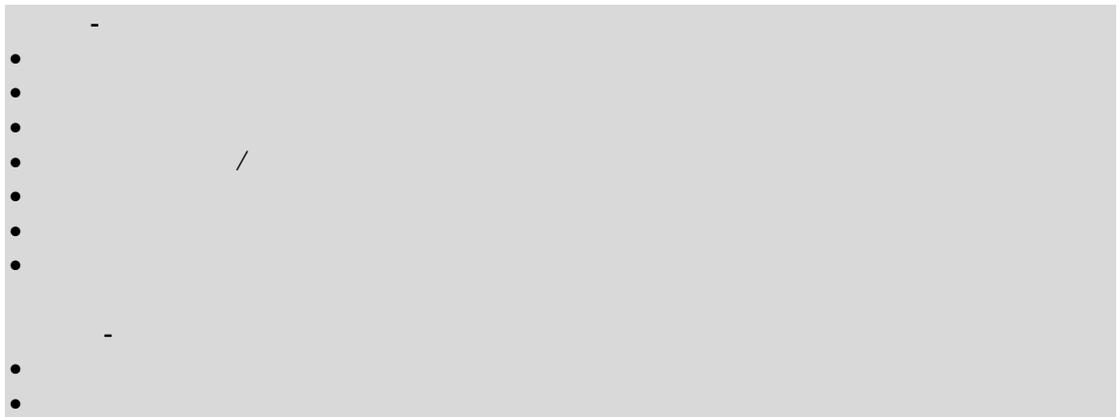
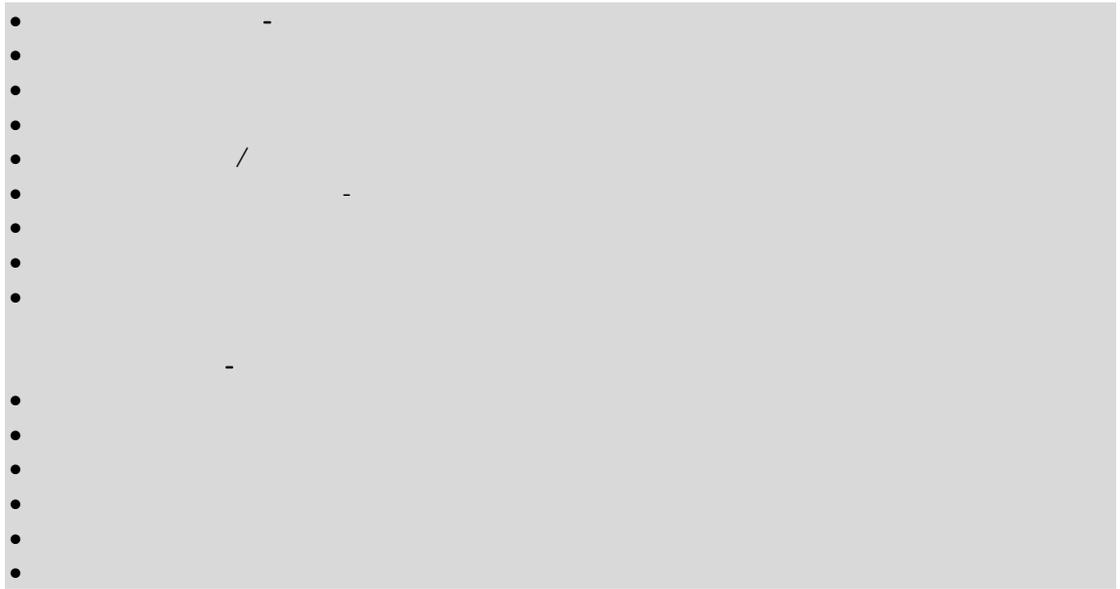
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EN 1127



HS

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VI 2035

VI 2035 .

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VI 2035

DIN 4753 1



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AIEX



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3



3

PVC

absorption material	30	combustion chamber	48 50
access door	16	temperature regulation	49
adiabatic humidification of extract air	43 59	combustion chamber damper	51
air duct	12	combustion chamber walls	49
air flow control	31	commissioning and maintenance work	53
air heater		compressor oil	40 41
electric-air heater	35	condensate	50
air humidifier	9	conductivity	58
air pressure gauge	35 53	connection	15
air washer	15	air duct	12
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baffles	73	heating and cooling water piping	13
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belt tension	26	contamination	29 42
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casing	4	coupled	19
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