JBEP Series: Pre-drilled Fiberglass Reinforced Polyester Junction Boxes – Increased Safety

Pre-drilled Junction Box without Terminals

Pre-drilled Junction Box Equipped with Terminals

Compliance Data:

ATEX - IECEx:

Zone 1 & 2, 21 & 22	ATEX	II 2 GD	IECEx	CE
Ex e II; Ex eia IIC; Ex eib IIC	T6 to T5	Ex tD A21	T75°C to T95°C	IP66 – IK10

Operating Temperatures:

-55°C to 60°C (CSPe Type)
-40°C to 55°C (CAe Type)

Junction Boxes & Enclosures

JBEP Series: Pre-drilled Fiberglass Reinforced Polyester Junction Boxes – Increased Safety

Zone 1 & 2 – 21 & 22
Ⓔx II 2 GD
ATEX / IECEx
IP66 – IK10

Applications:

- Terminal junction boxes designed to facilitate electrical connections in hazardous areas.
- Designed for use in Zone 1 or 2 areas, where flammable gases or vapors are present either continuously or intermittently.
- Ideal for wet or corrosive atmospheres.
- Petroleum, chemical, refineries and other industrial process facilities.
- Designed for use in Zone 21 or 22 areas, where flammable dusts are present either continuously or intermittently.
- Food processing, dairy, brewing, silos and other facilities.

Features:

- Static resistant black fiberglass reinforced polyester enclosure.
- Operating temperature -55°C to +60°C (CSPe type) and -40°C to +55°C (CAe type).
- For use only with Ex certified terminal blocks.
- Stainless steel hardware.
- Yellow laminated plastic label with black lettering.
- Factory drilled and equipped.

Standard Materials:

- Enclosure is static resistant carbon filled fiberglass reinforced polyester (FRP).
- Stainless steel hardware.

Options:

- For use with other equipment than Ex terminal blocks, see section ECEP series enclosures and controls.

Catalog Number Logic:

JBEP	XX	XX	XX	XX
Series ATEX / IEC Certified: JB = Junction Box E = Increased Safety I = Intrinsic Safety P = Polyester	Dimensions Length (mm): 12 = 120 17 = 170 21 = 210 23 = 230 32 = 320 42 = 425 57 = 575	Dimensions Width (mm): 12 = 120 20 = 200	Dimensions Depth (mm): 09 = 91 15 = 150	Options: D1 = 5 x M20 D2 = 4 x M20 + 1 x M25 D3 = 7 x M20 + 1 x M25 D5 = 7 x M20 + 1 x M25 D6 = 12 x M20 + 1 x M32 D7 = 19 x M20 + 1 x M32 D8 = 27 x M20 + 1 x M40 P-- = Unarmored Cable A-- = Armored Cable L-- = Lead Sheath Armored Cable E = Earth Continuity Brass Plate # = Customized Enclosure

#: 6 Digit number will be assigned at time of order placement.

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Junction Boxes & Enclosures

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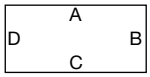
Zone 1 & 2 – 21 & 22
Ⓔx II 2 GD
ATEX / IECEx
IP66 – IK10

Ordering Information:

Factory Drilled Ex e II Polyester Junction Boxes Fitted with:

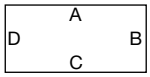
One horizontal symmetrical zinc plated rail.
For use with EX terminals only (not supplied).
Yellow laminated plastic label with black lettering.
Internal earth terminal.
Cable glands and plugs ordered separately.



Type	Dimension L x W x D (mm)	Rail Length Capacity (mm)	Clearance Holes Per Side A	B	C	D	Weight (kg)	Volume (dm^3)	Catalog Number	Old Catalog Number
CSPe1	120 x 120 x 91	62	1 x M20	1 x M20	2 x M20	1 x M20	0.8	4	**JBEP 121209 D1**	–
CSPe2	170 x 120 x 91	112	–	1 x M20	2 x M20 1 x M25	1 x M20	1	4	**JBEP 171209 D2**	–
CSPe3	230 x 120 x 91	172	–	2 x M20	3 x M20 1 x M25	2 x M20	1.2	4	**JBEP 231209 D3**	–

Factory Drilled Exe II Instrumentation Polyester Junction Boxes Fitted with:

Yellow laminated plastic label with black lettering.
Set of two insulated side supports (096115).
One horizontal symmetrical zinc plated rail.
For use with Ex terminals only (not supplied).
Also available for use with copper bar 12 x 2 mm or 12 x 4 mm.
2 x 10 mm^2 internal earth terminals.
Cable glands and plugs ordered separately.



Type	Dimension L x W x D (mm)	Cable	Rail Length Capacity (mm)	Threaded Holes Side C		Weight (kg)	Volume (dm^3)	Catalog Number	Old Catalog Number
CAe1	215 x 200 x 150	7 Pairs	105	1 x M25	7 x M20	3.4	16	**JBEP 212015 D5**	096005
CAe2	320 x 200 x 150	12 Pairs	206	1 x M32	12 x M20	4.2	23	**JBEP 322015 D6**	096006
CAe3	425 x 200 x 150	19 Pairs	310	1 x M32	19 x M20	5.2	26	**JBEP 422015 D7**	096007
CAe4	575 x 200 x 150	27 Pairs	315	1 x M40(1)	27 x M20	6.8	33	**JBEP 572015 D8**	096008

(1) – clearance hole

Factory Assembled Ex Terminal Block for Junction Boxes Shown Above:

Screwed/screwed terminal block fitted with continuity shield.

For Junction Boxes	Cable	Terminals 0.5/2.5 mm^2 Qty.	Continuity Shield Qty.	Weight (kg)	Volume (dm^3)	Catalog Number
215 x 200 x 150	7 Pairs	14	7	0.3	0.5	096039
320 x 200 x 150	12 Pairs	24	12	0.4	1.1	096041
425 x 200 x 150	19 Pairs	38	19	0.5	1.3	096043
575 x 200 x 150	27 Pairs	54	27	0.6	1.7	096044

Zone 1 & 2 – 21 & 22
Ex II 2 GD
ATEX / IECEx
IP66 – IK10

Ordering Information – Continued:

Factory Drilled and Equipped with Terminals Ex e II Polyester Junction Boxes for Instrumentation Applications with Unarmored Cables Fitted with:

Horizontal beige terminal block.
Copper bar with cable clamps or continuity shields.
Yellow laminated plastic label with black lettering.
M16 to M32 threaded entries.
M40 to M50 clearance holes.
Cable glands and plugs ordered separately.

Unarmored cables

Type	For Cable U1000 R02V	Terminal Block 0.5/2.5 mm² Qty.	Earth Terminal 0.5/2.5 mm² Qty.	Copper Bar 10 x 3 mm Qty.	Cable Clamp 0.5/2.5 mm² Qty.	Multi-cable Cable Entry Qty. 1	Single Cable Entries M20 Qty.	Catalog Number
CAe1	07G1.5	7	1	1	5	M20	3	**JBEP 212015 P01**
CAe1	12G1.5	12	1	1	8	M25	6	**JBEP 212015 P02**
CAe2	19G1.5	19	1	1	11	M25	9	**JBEP 322015 P03**
CAe2	24G1.5	24	1	1	14	M32	12	**JBEP 322015 P04**
CAe2	27G1.5	27	1	1	15	M32	13	**JBEP 322015 P05**
CAe3	37G1.5	37	1	1	20	M32	18	**JBEP 422015 P06**
CAe1	07G2.5	7	1	1	5	M20	3	**JBEP 212015 P07**
CAe1	12G2.5	12	1	1	8	M25	6	**JBEP 212015 P08**
CAe2	19G2.5	19	1	1	11	M32	9	**JBEP 322015 P09**
CAe2	24G2.5	24	1	1	14	M32	12	**JBEP 322015 P10**
CAe2	27G2.5	27	1	1	15	M32	13	**JBEP 322015 P11**
CAe3	37G2.5	37	1	1	20	M40	18	**JBEP 422015 P12**

Type	For Cable EGSF	Terminal Block 0.5/2.5 mm² Qty.	Continuity Shield Qty.	Multi-cable Cable Entry Qty. 1	Single Cable Entries M16 Qty.	Catalog Number
CAe1	07IP05	14	7	M20	7	**JBEP 212015 P21**
CAe1	07IT05	21	7	M20	7	**JBEP 212015 P22**
CAe2	12IP05	24	12	M25	12	**JBEP 322015 P23**
CAe2	12IT05	36	12	M25	12	**JBEP 322015 P24**
CAe3	19IP05	38	19	M32	19	**JBEP 422015 P25**
CAe4	27IP05	54	27	M32	27	**JBEP 572015 P26**
CAe1	07IP09	14	7	M25	7	**JBEP 212015 P27**
CAe1	07IT09	21	7	M25	7	**JBEP 212015 P28**
CAe2	12IP09	24	12	M32	12	**JBEP 322015 P29**
CAe2	12IT09	36	12	M32	12	**JBEP 322015 P30**
CAe3	19IP09	38	19	M32	19	**JBEP 422015 P31**
CAe4	27IP09	54	27	M40	27	**JBEP 572015 P32**

Type	For Cable EISF	Terminal Block 0.5/2.5 mm² Qty.	Continuity Shield Qty.	Multi-cable Cable Entry Qty. 1	Single Cable Entries M16 Qty.	Catalog Number
CAe1	07IP05	15	8	M25	7	**JBEP 212015 P41**
CAe1	07IT05	22	8	M32	7	**JBEP 212015 P42**
CAe2	12IP05	25	13	M32	12	**JBEP 322015 P43**
CAe2	12IT05	37	13	M32	12	**JBEP 322015 P44**
CAe3	19IP05	39	20	M40	19	**JBEP 422015 P45**
CAe4	27IP05	55	28	M40	27	**JBEP 572015 P46**
CAe1	07IP09	15	8	M32	7	**JBEP 212015 P47**
CAe1	07IT09	22	8	M32	7	**JBEP 212015 P48**
CAe2	12IP09	25	13	M40	12	**JBEP 322015 P49**
CAe2	12IT09	37	13	M40	12	**JBEP 322015 P50**
CAe3	19IP09	29	20	M50	19	**JBEP 422015 P51**
CAe4	27IP09	55	28	M50	27	**JBEP 572015 P52**

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Zone 1 & 2 – 21 & 22
Ⓔx II 2 GD
ATEX / IECEx
IP66 – IK10

Ordering Information – Continued:

Factory Drilled and Equipped with Terminals Ex e II Polyester Junction Boxes for Instrumentation Applications with Armored Cables Fitted with:

Horizontal beige terminal block.
Copper bar with cable clamps or continuity shields.
Yellow laminated plastic label with black lettering.
Earth continuity brass plate.
M8 external earth crossing terminal.
M20 to M32 threaded entries. M40 to M50 clearance holes.
Cable glands and plugs ordered separately.

Armored cables

Type	For Cable U1000 RVFV	Terminal Block 0.5/2.5 mm² Qty.	Earth Terminal 0.5/2.5 mm² Qty.	Copper Bar 10 x 3 mm Qty.	Cable Clamp 0.5/2.5 mm² Qty.	Multi-cable Cable Entry Qty. 1	Single Cable Entries M20 Qty.	Catalog Number
CAe1	07G1.5	7	1	1	5	M20	3	JBEP 212015 A01E
CAe1	12G1.5	12	1	1	8	M20	6	JBEP 212015 A02E
CAe2	19G1.5	19	1	1	11	M25	9	JBEP 322015 A03E
CAe2	24G1.5	24	1	1	14	M25	12	JBEP 322015 A04E
CAe2	27G1.5	27	1	1	15	M25	13	JBEP 322015 A05E
CAe3	37G1.5	37	1	1	20	M32	18	JBEP 422015 A06E
CAe1	07G2.5	7	1	1	5	M20	3	JBEP 212015 A07E
CAe1	12G2.5	12	1	1	8	M25	6	JBEP 212015 A08E
CAe2	19G2.5	19	1	1	11	M25	9	JBEP 322015 A09E
CAe2	24G2.5	24	1	1	14	M32	12	JBEP 322015 A10E
CAe2	27G2.5	27	1	1	15	M32	13	JBEP 322015 A11E
CAe3	37G2.5	37	1	1	20	M32	18	JBEP 422015 A12E

Type	For Cable EGFA	Terminal Block 0.5/2.5 mm² Qty.	Continuity Shield Qty.	Multi-cable Cable Entry Qty. 1	Single Cable Entries M16 Qty.	Catalog Number
CAe1	07IP05	14	7	M20	7	JBEP 212015 A21E
CAe1	07IT05	21	7	M20	7	JBEP 212015 A22E
CAe2	12IP05	24	12	M25	12	JBEP 322015 A23E
CAe2	12IT05	36	12	M25	12	JBEP 322015 A24E
CAe3	19IP05	38	19	M25	19	JBEP 422015 A25E
CAe4	27IP05	54	27	M32	27	JBEP 572015 A26E
CAe1	07IP09	14	7	M25	7	JBEP 212015 A27E
CAe1	07IT09	21	7	M25	7	JBEP 212015 A28E
CAe2	12IP09	24	12	M25	12	JBEP 322015 A29E
CAe2	12IT09	36	12	M32	12	JBEP 322015 A30E
CAe3	19IP09	38	19	M32	19	JBEP 422015 A31E
CAe4	27IP09	54	27	M40	27	JBEP 572015 A32E

Type	For Cable EIFA	Terminal Block 0.5/2.5 mm² Qty.	Continuity Shield Qty.	Multi-cable Cable Entry Qty. 1	Single Cable Entries M16 Qty.	Catalog Number
CAe1	07IP05	15	8	M25	7	JBEP 212015 A41E
CAe1	07IT05	22	8	M25	7	JBEP 212015 A42E
CAe2	12IP05	25	13	M32	12	JBEP 322015 A43E
CAe2	12IT05	37	13	M32	12	JBEP 322015 A44E
CAe3	19IP05	39	20	M32	19	JBEP 422015 A45E
CAe4	27IP05	55	28	M40	27	JBEP 572015 A46E
CAe1	07IP09	15	8	M32	7	JBEP 212015 A47E
CAe1	07IT09	22	8	M32	7	JBEP 212015 A48E
CAe2	12IP09	25	13	M40	12	JBEP 322015 A49E
CAe2	12IT09	37	13	M40	12	JBEP 322015 A50E
CAe3	19IP09	39	20	M40	19	JBEP 422015 A51E
CAe4	27IP09	55	28	M50	27	JBEP 572015 A52E

Zone 1 & 2 – 21 & 22
Ⓔx II 2 GD
ATEX / IECEx
IP66 – IK10

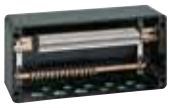
Ordering Information – Continued:

Factory Drilled and Equipped with Terminals Ex e II Polyester Junction Boxes for Instrumentation Applications with Lead Sheath Armored Cables Fitted with:

Horizontal beige terminal block.
Copper bar with cable clamps or continuity shields.
Yellow laminated plastic label with black lettering.
Earth continuity brass plate.
M8 external earth crossing terminal.
M20 to M32 threaded entries.
M40 to M50 clearance holes.
Cable glands and plugs ordered separately.

Armored Cables

With lead sheath



Type	For Cable U1000 RGPFV	Terminal Block 0.5/2.5 mm² Qty.	Earth Terminal 0.5/2.5 mm² Qty.	Copper Bar 10 x 3 mm Qty.	Cable Clamp 0.5/2.5 mm² Qty.	Multi-cable Cable Entry Qty. 1	Single Cable Entries M20 Qty.	Catalog Number
CAe1	07 x 1.5	7	1	1	5	M20	3	JBEP 212015 L01E
CAe1	12 x 1.5	12	1	1	8	M25	6	JBEP 212015 L02E
CAe2	19 x 1.5	19	1	1	11	M25	9	JBEP 322015 L03E
CAe2	24 x 1.5	24	1	1	14	M32	12	JBEP 322015 L04E
CAe2	27 x 1.5	27	1	1	15	M32	13	JBEP 322015 L05E
CAe3	37 x 1.5	37	1	1	20	M32	18	JBEP 422015 L06E
CAe1	07 x 2.5	7	1	1	5	M20	3	JBEP 212015 L07E
CAe1	12 x 2.5	12	1	1	8	M25	6	JBEP 212015 L08E
CAe2	19 x 2.5	19	1	1	11	M32	9	JBEP 322015 L09E
CAe2	24 x 2.5	24	1	1	14	M32	12	JBEP 322015 L10E
CAe2	27 x 2.5	27	1	1	15	M32	13	JBEP 322015 L11E
CAe3	37 x 2.5	37	1	1	20	M40	18	JBEP 422015 L12E

Type	For Cable EGPF	Terminal Block 0.5/2.5 mm² Qty.	Continuity Shield Qty.	Multi-cable Cable Entry Qty. 1	Single Cable Entries M20 Qty.	Catalog Number
CAe1	07IP05	14	7	M20	7	JBEP 212015 L21E
CAe1	07IT05	21	7	M20	7	JBEP 212015 L22E
CAe2	12IP05	24	12	M25	12	JBEP 322015 L23E
CAe2	12IT05	36	12	M25	12	JBEP 322015 L24E
CAe3	19IP05	38	19	M25	19	JBEP 422015 L25E
CAe4	27IP05	54	27	M32	27	JBEP 572015 L26E
CAe1	07IP09	14	7	M25	7	JBEP 212015 L27E
CAe1	07IT09	21	7	M25	7	JBEP 212015 L28E
CAe2	12IP09	24	12	M32	12	JBEP 322015 L29E
CAe2	12IT09	36	12	M32	12	JBEP 322015 L30E
CAe3	19IP09	38	19	M40	19	JBEP 422015 L31E
CAe4	27IP09	54	27	M40	27	JBEP 572015 L32E

Type	For Cable EIPF	Terminal Block 0.5/2.5 mm² Qty.	Continuity Shield Qty.	Multi-cable Cable Entry Qty. 1	Single Cable Entries M20 Qty.	Catalog Number
CAe1	07IP05	15	8	M25	7	JBEP 212015 L41E
CAe1	07IT05	22	8	M32	7	JBEP 212015 L42E
CAe2	12IP05	25	13	M32	12	JBEP 322015 L43E
CAe2	12IT05	37	13	M32	12	JBEP 322015 L44E
CAe3	19IP05	39	20	M40	19	JBEP 422015 L45E
CAe4	27IP05	55	28	M50	27	JBEP 572015 L46E
CAe1	07IP09	15	8	M32	7	JBEP 212015 L47E
CAe1	07IT09	22	8	M32	7	JBEP 212015 L48E
CAe2	12IP09	25	13	M40	12	JBEP 322015 L49E
CAe2	12IT09	37	13	M40	12	JBEP 322015 L50E
CAe3	19IP09	39	20	M50	19	JBEP 422015 L51E
CAe4	27IP09	55	28	M50	27	JBEP 572015 L52E

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Junction Boxes & Enclosures

JBEP Series: Pre-drilled Fiberglass Reinforced Polyester Junction Boxes – Increased Safety

Zone 1 & 2 – 21 & 22
Ⓔx II 2 GD
ATEX / IECEx
IP66 – IK10

Technical Data:

Defining maximum terminal block quantity according to power dissipation:
Junction boxes used for instrumentation applications carry very low current levels. Therefore there is no risk of overheating whatever the number of terminals inside the box.

For applications other than instrumentation, the following tables allow you to define your junction box depending on the number of terminals and the maximum authorized current being carried.

T Rating: T6		Type		
		CSPe1	CSPe2	CSPe3
		120 x 120 x 91 mm	120 x 170 x 91 mm	120 x 230 x 91 mm
2.5 mm²	Qty.	12	22	33
	I max.	15 A	13 A	12 A
4 mm²	Qty.	10	18	28
	I max.	20 A	19 A	16 A
6 mm²	Qty.	7	14	21
	I max.	32 A	27 A	24 A
10 mm²	Qty.	4	6	8
	I max.	50 A	50 A	50 A

T Rating: T6 @ Ta +40°C T5 @ Ta +55°C		Type			
		CAe1	CAe2	CAe3	CAe4
		200 x 215 x 150 mm	200 x 320 x 150 mm	200 x 425 x 150 mm	200 x 575 x 150 mm
2.5 mm²	Qty.	20	21	23	29
	I max.	16 A	16 A	16 A	14 A
4 mm²	Qty.	19	20	23	33
	I max.	20 A	20 A	20 A	16 A
6 mm²	Qty.	12	13	14	18
	I max.	32 A	32 A	32 A	28 A
10 mm²	Qty.	10	11	18	22
	I max.	40 A	40 A	32 A	28 A
16 mm²	Qty.	8	10	13	15
	I max.	28 A	27 A	25 A	26 A
25 mm²	Qty.	8	8	10	10
	I max.	67 A	73 A	69 A	70 A
35 mm²	Qty.	8	8	10	10
	I max.	79 A	86 A	80 A	80 A

For other terminal block configurations, please consult our guide G0002 available online at: www.egsatx.com

Compliances:

Hazardous Area	Gas	Dust
Certification Type	CSPe	
Zones	1–2	21–22
Conforming to ATEX 94/9/CE	CE 0081 Ⓔx II 2 G	CE 0081 Ⓔx II2 D
Symbol of Protection ATEX	Ex e II Ex eia IIC Ex eib IIC	Ex tD A21
Symbol of Protection IEC		
T Rating	T6	NA
Surface Temperature	NA	T75°C
Ambient Temperature	-55°C to +60°C	
CE Declaration of Conformity	50284	
ATEX Certificate	LCIE 09 ATEX 3032X	
IECEx Certificate	IECEx LCI 09.0016X	
Other Certifications	GOST	
Index of Protection (solid and liquid)	IP66	
Impact resistance (shock)	IK10	

Hazardous Area	Gas	Dust
Certification Type	CAe	
Zones	1–2	21–22
Conforming to ATEX 94/9/CE	CE 0081 Ⓔx II 2 G	CE 0081 Ⓔx II2 D
Symbol of Protection ATEX	Ex e II Ex eia IIC Ex eib IIC	Ex tD A21
Symbol of Protection IEC		
T Rating	T6 for Ta ≤ +40°C T5 for +40°C < Ta ≤ +55°C	NA
Surface Temperature	NA	T80°C to T95°C
Ambient Temperature	-40°C to +55°C	
CE Declaration of Conformity	50235	
ATEX Certificate	LCIE 02 ATEX 6248X	
IECEx Certificate	IECEx LCI 04.0016	
Other Certifications	GOST	
Index of Protection (solid and liquid)	IP66	
Impact resistance (shock)	IK10	

Standards:

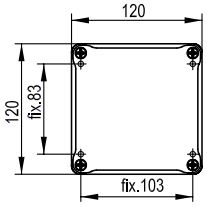
Ex Standards	EN / IEC 60079-0; 60079-7; 60079-11; 61241-0; 61241-1; 61241-11
Product Standards	–
EMC Standards	–
Other Standards	EN / IEC 60529 (IP); 62262 (IK)

Junction Boxes & Enclosures

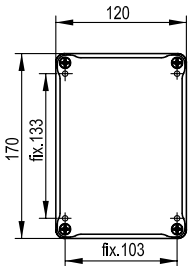
JBEP Series: Pre-drilled Fiberglass Reinforced Polyester Junction Boxes – Increased Safety

Zone 1 & 2 – 21 & 22
Ⓔx II 2 GD
ATEX / IECEx
IP66 – IK10

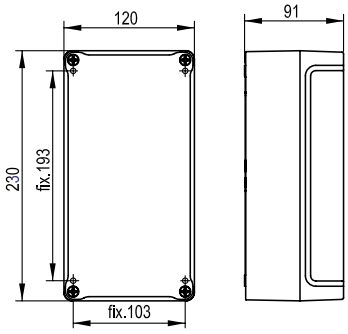
Dimensions (mm):



CSPe1



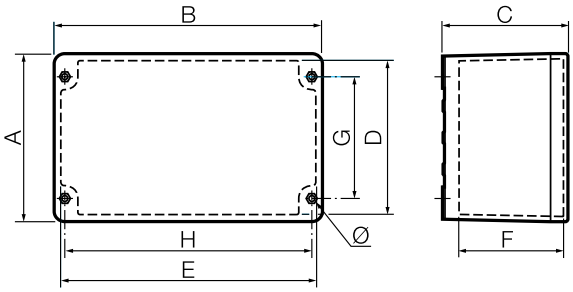
CSPe2



CSPe3

Fixing details: four holes Ø5

CAe1 to CAe4



Type	External Dimensions A	B	C	Internal Dimensions D	E	F	Fixings G	H	Thick	Ø
CAe1	200	215	150	185	200	125	146	189	6	7
CAe2	200	320	150	185	305	125	146	294	6	7
CAe3	200	425	150	185	410	125	146	399	6	7
CAe4	200	575	150	185	560	125	146	548	6	7

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