

# **OVERVIEW**

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## **FUTURA Electric access chambers**

FUTURA Electric access chambers are developed in consultation with the market to achieve the best possible solution during the planning and installation phases.

FUTURA Electric access chambers are made of PP reinforced with glass fibre (GRP), making them the strongest on the market.

FUTURA Electric access chambers are composed of 150 mm sections that can be clicked together to achieve the desired dimensions and depth.

The standard dimensions can be seen on the following pages, but we also produce to customer specifications.

Sectional construction means considerable flexibility and reliable supply.

FUTURA Electric access chambers are tested up to 600 Kn (60 tons) horizontally and vertically by the Danish Technological Institute.

FUTURA Electric access chambers have also undergone static testing for track-bearing chambers by Danish consultant engineers COWI A/S.

FUTURA Electric access chambers fulfil all requirements and have been approved by Banedanmark.

FUTURA Electric access chambers and cable channels are eco-friendly in terms of manufacture, transport and installation compared to materials such as concrete.

Test results and certificates can be supplied upon request to our Sales Office.

Installation guides are also available from our Sales Office.

FUTURA manhole covers in composite materials or cast iron, for 1.5 - 12.5 and 40 tons loads, all available in standard dimensions – see pages 3 - 11 for more details.

FUTURA Multi cable channels with 4 channels, bends and Multi Connects for connecting of cable channels are also available – see page 12.

FUTURA reinforcement rings, drill collars and metal steps for Electric access chambers – see pages 13 and 14

















## Electric access chambers 450x450

Availbe with various types of covers. See below.

The covers determine the maximum traffic load an Electric access chambers can withstand.

FUTURA Electric access chambers and cable channels are eco-friendly in terms of manufacture, transport and installation compared to materials such as concrete.

#### Covers come in 2 materials:

- Composite (lightweight and easy to handle)
- Cast iron (rustic appearance, supplied untreated for the sake of the environment)

### An Electric access chambers consists of:

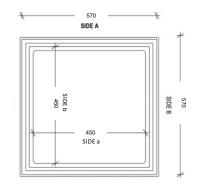
- Base section
- Middle sections (depending on height required)
- Cover (variable weight tolerance and materials from 1.5T to 40T)











Item number	Description	Inner dimensions a x b (mm)	Outer dimensions a x b (mm)	Height (mm)	Weight (kg)	Load tolerance
192121 445	Base section 450x450	450 x 450	570 x 570	150	7,6	40T
192122 445	Middle section 450x450	450 x 450	570 x 570	150	6,2	40T
197878445	1,5T Composite cover 450x450	450 x 450	610 x 610	40	14	1,5T
197878448	12,5T Composite cover 450x450	450 x 450	610 x 610	40	18	12,5T
197878449	40T Composite cover 450x450	450 x 450	610 x 610	40	20	40T
197878446	12.5T Cast iron cover 450x450	450 x 450	530 x 530	42	30	12,5T
197878447	40T Cast iron cover 450x450	450 x 450	550 x 550	100	38	40T

FUTURA Reinforcement rings – See page 13





### Electric access chambers 600x450

Availbe with various types of covers. See below.

The covers determine the maximum traffic load an Electric access chambers can withstand.

FUTURA Electric access chambers and cable channels are eco-friendly in terms of manufacture, transport and installation compared to materials such as concrete.

Covers come in 2 materials:

- Composite (lightweight and easy to handle)
- Cast iron (rustic appearance, supplied untreated for the sake of the environment)

An Electric access chambers consists of:

- Base section
- Middle sections (depending on height required)
- Cover (variable weight tolerance and materials from 1.5T to 40T)





ltem number	Description	Inner dimensions a x b (mm)	Outer dimensions a x b (mm)	Height (mm)	Weight (kg)	Load tolerance
192121064	Base section 600x450	600 x 450	720 x 570	150	8,8	40T
192122645	Middle section 600x450	600 x 450	720 x 570	150	7	40T
197878645	1.5T Composite cover 600x450	600 x 450	760 x 560	40	16	1,5T
197878644	12.5T Composite cover 600x450	600 x 450	710 x 560	40	17	12,5T
197878648	40T Composite cover 600X450	600 x 450	710 x 560	40	21	40T
197878646	12.5T Cast iron cover 600x450	600 x 450	660 x 510	42	25	12,5T
197878647	40T Cast iron cover	600 x 450	680 x 550	100	53	40T

FUTURA Reinforcement rings - See page 13





### Electric access chambers 600x600

Availbe with various types of covers. See below.

The covers determine the maximum traffic load an Electric access chambers can withstand.

FUTURA Electric access chambers and cable channels are eco-friendly in terms of manufacture, transport and installation compared to materials such as concrete.

#### Covers come in 2 materials:

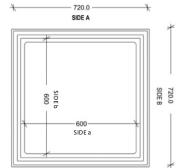
- Composite (lightweight and easy to handle)
- Cast iron (rustic appearance, supplied untreated for the sake of the environment)

### An Electric access chambers consists of:

- Base section
- Middle sections (depending on height required)
- Cover (variable weight tolerance and materials from 1.5T to 40T)







ltem number	Description	Inner dimensions a x b (mm)	Outer dimensions a x b (mm)	Height (mm)	Weight (kg)	Load tolerance
192122 600	Base section 600x600	600 x 600	720 x 720	150	9,4	40T
192121 600	Middle section 600x600	600 x 600	720 x 720	150	7	40T
197878 600	1.5T Composite cover 600x600	600 x 600	680 x 680	40	16	1,5T
197878 603	12.5T Composite cover 600x600	600 x 600	680 x 680	40	20	12,5T
197878 605	40T Composite cover 600x600	600 x 600	680 x 680	40	25	40T
197878 601	12.5T Cast iron cover 600x600	600 x 600	675 x 675	42	48	12,5T
197878 602	40T Cast iron cover 600x600	600 x 600	680 x 680	100	59	40T

FUTURA Reinforcement rings – See page 13





## Electric access chambers 750x600

Availbe with various types of covers. See below.

The covers determine the maximum traffic load an Electric access chambers can withstand.

FUTURA Electric access chambers and cable channels are eco-friendly in terms of manufacture, transport and installation compared to materials such as concrete.

#### Covers come in 2 materials:

- Composite (lightweight and easy to handle)
- Cast iron (rustic appearance, supplied untreated for the sake of the environment)

### An Electric access chambers consists of:

- Base section
- Middle sections (depending on height required)
- Cover (variable weight tolerance and materials from 1.5T to 40T)





Item number	Description	Inner dimensions a x b (mm)	Outer dimensions a x b (mm)	Height (mm)	Weight (kg)	Load tolerance
192121760	Base section 750x600	750 x 600	870 x 720	150	11,8	40T
1921 <b>2</b> 760	Middle section 750x600	750 x 600	870 x 720	150	8,8	40T
197878702	12.5T Cast iron cover 750x600	750 x 600	825 x 675	50	75	12,5T
197878 704	25T Cast iron cover 750x600	750 x 600	825 x 675	50	80	25T
197878703	40T Cast iron cover 750x600	750 x 600	880 x 720	100	89	40T

FUTURA Reinforcement rings - See page 13





### Electric access chambers 750x750

Availbe with various types of covers. See below.

The covers determine the maximum traffic load an Electric access chambers can withstand.

FUTURA Electric access chambers and cable channels are eco-friendly in terms of manufacture, transport and installation compared to materials such as concrete.

#### Covers come in 2 materials:

- Composite (lightweight and easy to handle)
- Cast iron (rustic appearance, supplied untreated for the sake of the environment)

### An Electric access chambers consists of:

- Base section
- Middle sections (depending on height required)
- Cover (variable weight tolerance and materials from 1.5T to 40T)





Item number	Description	Inner dimensions a x b (mm)	Outer dimensions a x b (mm)	Height (mm)	Weight (kg)	Load tolerance
192121 077	Base section 750x750	750 x 750	870 x 870	150	13,7	40T
192122 750	Middle section 750x750	750 x 750	870 x 870	150	9,9	40T
197878075	1.5T Composite cover 750x750	750 x 750	910 x 910	40	39	1,5T
197878752	12.5T Composite cover 750x750	750 x 750	910 x 910	40	44	12,5T
197878751	40T Composite cover 750x750	750 x 750	910 x 910	40	53	40T
197878750	12.5T Cast iron cover 750x750	750 x 750	830 x 830	50	91	12,5T
197878753	40T Cast iron cover I 750x750	750 x 750	890 x 890	100	95	40T

FUTURA Reinforcement rings – See page 13





### Electric access chambers 900x600

Availbe with various types of covers. See below.

The covers determine the maximum traffic load an Electric access chambers can withstand.

FUTURA Electric access chambers and cable channels are eco-friendly in terms of manufacture, transport and installation compared to materials such as concrete.

#### Covers come in 2 materials:

- Composite (lightweight and easy to handle)
- Cast iron (rustic appearance, supplied untreated for the sake of the environment)

### An Electric access chambers consists of:

- Base section
- Middle sections (depending on height required)
- Cover (variable weight tolerance and materials from 1.5T to 40T)





Item number	Description	Inner dimensions a x b (mm)	Outer dimensions a x b (mm)	Height (mm)	Weight (kg)	Load tolerance
192121 960	Base section 900x600	900 x 600	1020 x 720	150	13,3	40T
192122 960	Middle section 900x600	900 x 600	1020 x 720	150	9,7	40T
197878 960	1.5T Composite cover 900x600	900 x 600	1000 x 710	40	34	1,5T
197878961	12.5T Composite cover 900x600	900 x 600	1000 x 710	40	38	12,5T
197878 965	40T Composite cover 900x600	900 x 600	1000 x 710	40	49	40T
197878 964	12.5T Cast iron cover 900x600	900 x 600	975 x 675	50	72	12,5T
197878 962	40T Cast iron cover 900x600	900 x 600	1040 x 740	100	104	40T

FUTURA Reinforcement rings – See page 13





### Electric access chambers 900x900

Availbe with various types of covers. See below.

The covers determine the maximum traffic load an Electric access chambers can withstand.

FUTURA Electric access chambers and cable channels are eco-friendly in terms of manufacture, transport and installation compared to materials such as concrete.

#### Covers come in 2 materials:

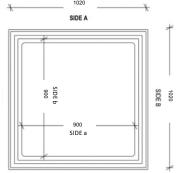
- Composite (lightweight and easy to handle)
- Cast iron (rustic appearance, supplied untreated for the sake of the environment)

### An Electric access chambers consists of:

- Base section
- Middle sections (depending on height required)
- Cover (variable weight tolerance and materials from 1.5T to 40T)







Item number	Description	Inner dimensions a x b (mm)	Outer dimensions a x b (mm)	Height (mm)	Weight (kg)	Load tolerance
192121 900	Base section 900x900	900 x 900	1020 x 1020	150	16,9	40T
192122 900	Middle section 900x900	900 x 900	1020 x 1020	150	11,5	40T
197878 900	1.5T Composite cover 900x900	900 x 900	1010 x 1010	40	43	1,5T
197878 903	12.5T Composite cover 900x900	900 x 900	1010 x 1010	40	56	12,5T
197878 906	40T Composite cover 900x900	900 x 900	1010 x 1010	40	66	40T
197878901	12.5T Cast iron cover 900x900	900 x 900	980 x 980	50	74	12,5T
197878 902	40T Cast iron cover 900x900	900 x 900	1060 x 1060	100	108	40Т

FUTURA Reinforcement rings - See page 13





### Electric access chambers 1200x600

Availbe with various types of covers. See below.

The covers determine the maximum traffic load an Electric access chambers can withstand.

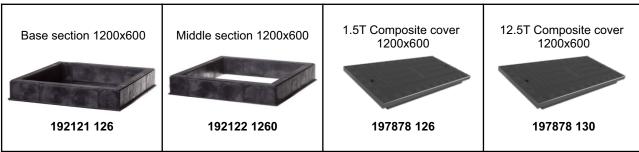
FUTURA Electric access chambers and cable channels are eco-friendly in terms of manufacture, transport and installation compared to materials such as concrete.

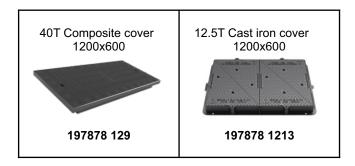
Covers come in 2 materials:

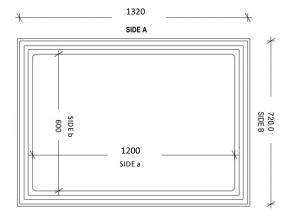
- Composite (lightweight and easy to handle)
- Cast iron (rustic appearance, supplied untreated for the sake of the environment)

An Electric access chambers consists of:

- Base section
- Middle sections (depending on height required)
- Cover (variable weight tolerance and materials from 1.5T to 40T)







Item number	Description	Inner dimensions a x b (mm)	Outer dimensions a x b (mm)	Height (mm)	Weight (kg)	Load tolerance
192121126	Base section 1200x600	1200 x 600	1320 x 720	150	16,3	40T
192122 1260	Middle section 1200x600	1200 x 600	1320 x 720	150	11,5	40T
197878 126	1.5T Composite cover 1200x600	1200 x 600	1430 x 740	40	63	1,5T
197878 130	12.5T Composite cover 1200x600	1200 x 600	1430 x 740	40	68	12,5T
197878129	40T Composite cover 1200X600	1200 x 600	1430 x 740	40	77	40T
1978781213	12.5T Cast iron cover 1200x600	1200 x 600	1430 x 740	50	80	12,5T

FUTURA Reinforcement rings - See page 13





### Electric access chambers 1200x1200

Availbe with various types of covers. See below.

The covers determine the maximum traffic load an Electric access chambers can withstand.

FUTURA Electric access chambers and cable channels are eco-friendly in terms of manufacture, transport and installation compared to materials such as concrete.

Covers come in 2 materials:

- Composite (lightweight and easy to handle)
- Cast iron (rustic appearance, supplied untreated for the sake of the environment)

An Electric access chambers consists of:

- Base section
- Middle sections (depending on height required)
- Cover (variable weight tolerance and materials from 1.5T to 40T)





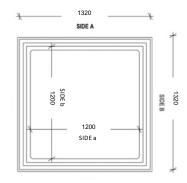
12.5T Cast iron cover 1200x1200



197878 1214

40T Cast iron cover 1200x1200



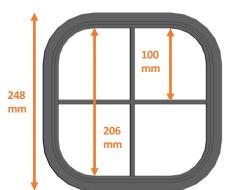


ltem number	Description	Inner dimensions a x b (mm)	Outer dimensions a x b (mm)	Height (mm)	Weight (kg)	Load tolerance
192121 1122	Base section 1200x1200	1200 x 1200	1320 x 1320	150	24,9	40T
192122 1212	Middle section 1200x1200	1200 x 1200	1320 x 1320	150	15,2	40T
197878 1122	1.5T Composite cover 1200x1200	1200 x 1200	1440 x 1440	40	104	1,5T
1978781216	12.5T Composite cover 1200x1200	1200 x 1200	1440 x 1440	100	215	12,5T
1978781217	40T Composite cover 1200x1200	1200 x 1200	1440 x 1440	100	320	40T
197878 1214	12.5T Cast iron cover 1200x1200	1200 x 1200	1580 x 1580	50	350	12,5T
1978781215	40T Cast iron cover 1200x1200	1200 x 1200	1580 x 1580	100	378	40T

FUTURA Reinforcement rings – See page 13



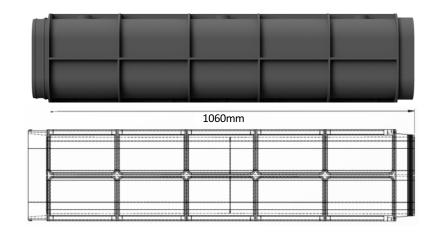


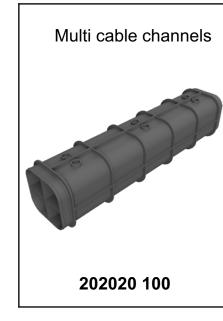


## **FUTURA Multi cable channels**

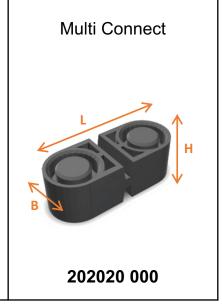
Cable channels, bends and joints

- Made of HDPE materials.
- Strong and easy to handle.
- Corrosion-resistant.
- Easy and fast installation.
- Joints used to assemble cable channels.









Item number	Description	Length (mm)	Width (mm)	Hight (mm)	Weight (kg)
202020 100	Multi cable channels	1060	248	240	8
202020 015	Multi cable channels – 15° bend	440	248	240	3
202020 000	Multi Connect	123	50	40	0,1

FUTURA Reinforcement rings – See page 13



## **FUTURA Reinforcement Rings**

### Made of corrosion-resistant glass fibre-reinforced polyester (GFRP)

In some instances, FUTURA reinforcement rings are required to stabilise the chamber and to protect pipe penetrations from extreme vertical loads.

### Examples:

- Chambers with large dimensions
- Deep chambers
- Chambers located close to railway tracks, tram tracks and areas with heavy traffic

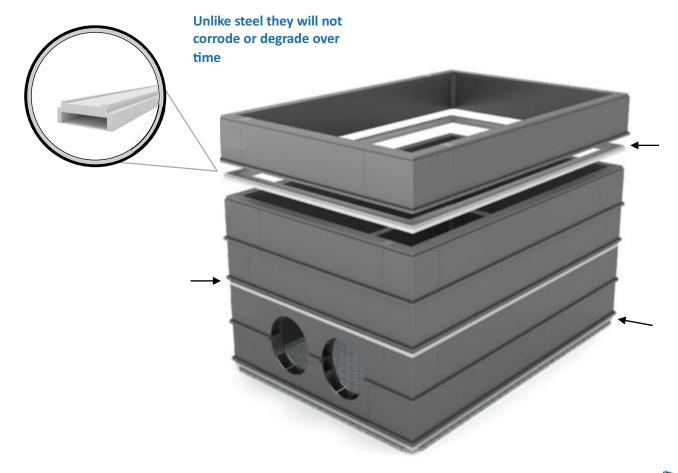
### Contact us for more details and advice - Tel.: +45 7022 7018

FUTURA reinforcement rings for all chamber dimensions.

FUTURA reinforcement rings are easy to install between individual chamber sections (see illustration at foot of page).

FUTURA reinforcement rings have a clearly different colour compared to chamber sections to avoid them being drilled for pipe penetrations.

FUTURA reinforcement rings can also be used to level out/adjust small differences in level.





## **FUTURA Drill Collars**

### **Drilling holes for pipe penetrations**

- Drilling holes for pipe penetrations is performed using a cup drill and jigsaw..
- We recommend drilling with light pressure and a slight rocking movement of the drill.
- Holes can be drilled anywhere in the chamber sides, EXCEPT:
- Minimum 40 mm between holes.
- Minimum 120 mm from the chamber's exterior.
- Never drill in the reinforcement rings.
- The joints between frame modules can be drilled.

### Fitting collars in chambers

- Rubber collars must be fitted in drilled holes before pipes can be inserted into the chamber
- Rubber collars can be fitted without glue.
- A lubricant can be helpful applied to the inside of the collar before the pipe is inserted in the chamber.



## **FUTURA Metal Steps**

### **Metal steps**

If a chamber is so high that steps are needed, the solution is simple.

• Steps can be ordered direct from the supplier.





