



CLEANROOM CLOTHING CATALOGUE







CONTENTS

About our company 5

ESD Fabric - CR10 7

Washing Instructions 8

Warranty 8

COV Cleanroom coverall 11

COVH Cleanroom coverall with integrated hood 12

COA Cleanroom coats 13

JAC Cleanroom jacket and **TRU** trousers 14

FCH Cleanroom full cover hood 15

FMS Cleanroom face mask 16

STG Cleanroom shoes with textile gaiter 17

* The product and fabric colors appearing in the catalog may differ in color due to printing, so we do not take any responsibility. Ask our free fabric catalog! Furthermore, it is for any mistake (technical data, size, etc.), responsibility is not accepted by our company and reserves the right to make changes!

ABOUT OUR COMPANY

D és Tsa Bt. was established in 1996. It is a 100 % Hungarian owned company. Our company is specialized in manufacturing and distributing ESD and Soldering products. In our product range there are more than 25.000 different products. Our self-produced products exist on the market under our own brand name DLB:

- Cleanroom Garments
- ESD Garments
- ESD Entrance systems and test stations
- ESD Measurement instruments
- ESD Chairs
- ESD Floor mats and table mats

In the partner network of D és Tsa Bt. there are the leading multinational electronics manufacturing corporations, which look on our company as their strategic supplier partner on ESD and Soldering field. Our outstanding results could be thank to our highly professional readiness, flexibility and the high quality standards of our sales and production.

D és Tsa Bt. certified company on the basis of **EN ISO 9001:2008** quality management system.

D és Tsa Bt. provides different ESD services which prove our professionalism and made our position on the market even stronger:

- ESD Professional training
- ESD Audits and Revision
- ESD Certifications
- EPA Measuring of EPA areas
- ESD Laboratory tests
- ESD Consultation

We do all the ESD measurements and product certifications in our own, perfectly equipped ESD laboratories under controlled temperature and humidity.



We produce our ESD and Cleanroom Gaments according to the ESD and Cleanroom standards current at all times: IEC/TS 61340-4-9-2016 and ANSI/ESD STM2.1-2018. We provide a unique quality assurance of the production of the ESD and Cleanroom Garments, because this process starts at the arrival of the row materials which go under a thorough ESD, Cleanroom and me-
chanical testing. Of course, the complete ESD and Cleanroom clothing can leave our company only after ESD measurement and conformity.

We use the „tunnel seams” for our cleanroom garments which means all seams are internal enclosed with a strip and secured with an additional seam. This reduces the risk that a seam can open unnoticed allowing particles to escape.



All of our self-produced ESD Garments have the ESD certification, which will be marking with the following label according to the latest ESD standards:



The quality of our products and the reliability of our company have been successfully able to hold the international markets, which resulting in production capacity of more than 80 % of export sales.

You can meet with our company and with our products on the following International Trade Fairs: **PRODUCTRONICA** (Munchen, Germany), **SMT/HYBRID/PACKAGING** (Nurnberg, Germany), **A+A** (Düsseldorf, Germany).



Based on the feedbacks received from our partners, our slogan has become the following sentence:

„D É S T S A B T . O F F E R S N O T O N L Y P R O D U C T B U T C O O P E R A T I O N A S W E L L . . . ”

We hope our products and services can greatly assist your work in the present and in the future.



Dulay Balázs

Dulay Balázs
Owner and Strategy director

CLEANROOM FABRIC

CR10 FABRIC

FEATURES

- Static dissipative woven cleanroom fabric (carbon loaded yarns in 5 mm grid)
- For Cleanroom class 10 – 100 (ISO 4 – 5)
- **Composition:** 98% Polyester 2% Conductive fiber
- **Fabric Weight:** 110 g/m²
- **Thickness:** 0,16 mm
- **Finish:** Crease resists, cleanroom workwear
- **Resistance from point to point (Rp):** 10⁶ - 10⁷ Ohm
- **Charging time:** < 2 seconds
- Electrical properties maintained after more than 50 industrial washing according to IEC/TS 61340-4-9-2016 and ANSI/ESD STM2.1-2018
- Complies with IEC/TS 61340-4-9-2016 and ANSI/ESD STM2.1-2018
- Developed for industrial washing

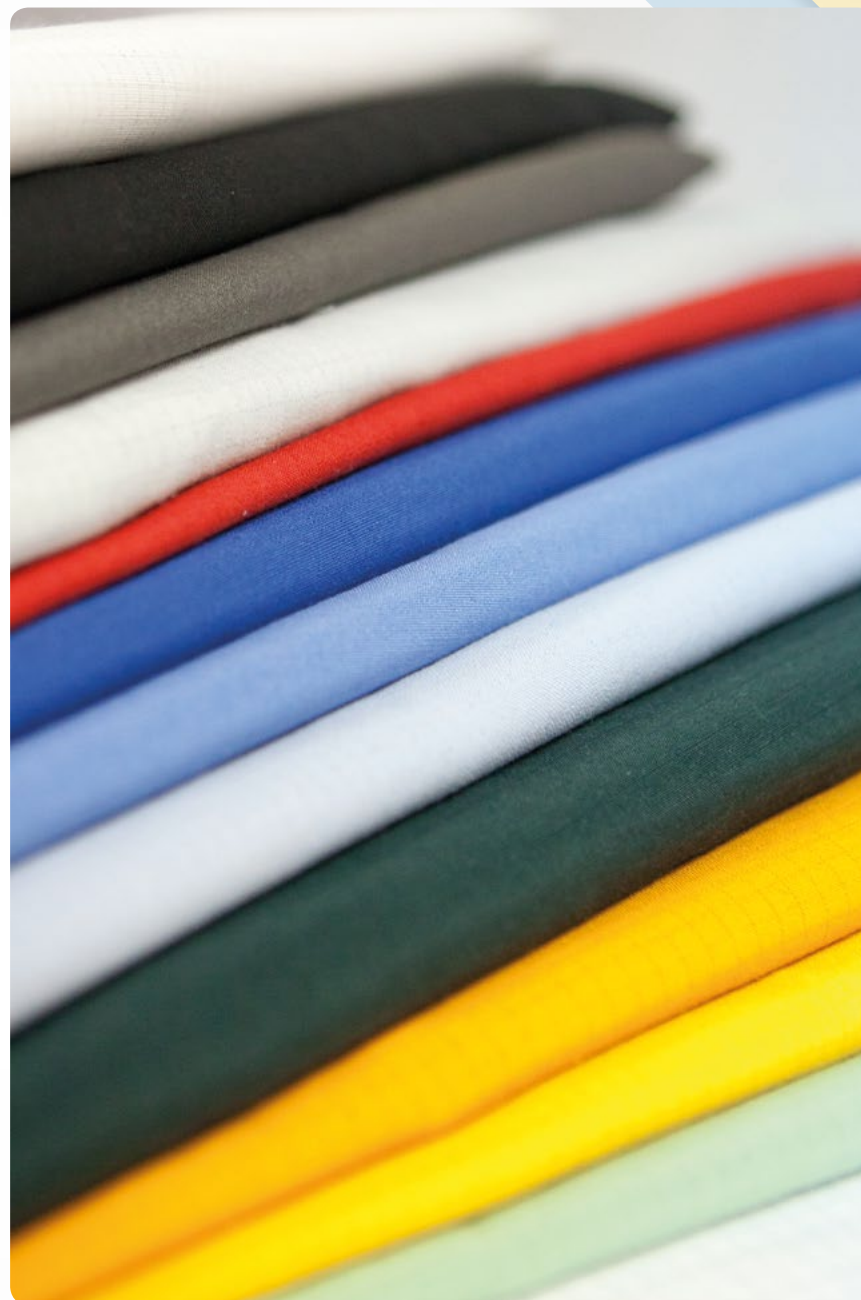
- Machine washable up to 40 °C
- Ironing at maximum 110 °C
- Do not use acid or alkali
- Do not bleach
- Tumble dry at low temperature

AVAILABLE COLOURS

White (W), Light Blue (LB)

W

LB



WASHING INSTRUCTIONS

Conductive carbon fibers used in ESD fabrics are very sensitive to high temperatures, alkalis, acids, rinses (softeners) and bleaches. Inadequate use may cause damage to carbon fibers and ESD clothing may lose or significantly deteriorate ESD parameters. Therefore, wash ESD clothing very carefully, in each case please follow the instructions:

- i** In order to preserve the long life of ESD clothings, please use industrial laundries who can provide controlled, documented washing procedures and environment!
- i** Washing in cold or not warmer than 40 °C (104 °F) lukewarm water with neutral liquid detergent!
- i** Do not use detergent containing bleach and fabric softener ingredient containing chlorine!
- i** Bleachers are forbidden! Use of alkalis, acids or fabric softeners is prohibited!
- i** Do not dry clean!
- i** Drying in the open air and / or at a temperature up to 50 °C (120 °F) or less!
- i** The ESD clothing does not require ironing but if absolutely necessary in that case the maximum temperature is 110 °C (230 °F) or lower!



WARRANTY

- !** The warranty is strictly valid under controlled and documented industrial laundry conditions, concern the fabric washing cycle as specified in the technical data's.
- !** The warranty is NOT valid if the washing process is made in a home environment!
- !** The warranty covers ESD parameters and possible sewing errors according to IEC/TS 61340-4-9-2016 and ANSI/ESD STM2.1-2018 standard issued only!
- !** The warranty is not cover the size and shrinkage differences within the tolerances given on the size cart!



CLEANROOM CLOTHING STYLES



COV

... 11

COV CLEANROOM COVERALL



COVH

... 12

**COVH CLEANROOM COVERALL
WITH INTEGRATED HOOD**



COA

... 13

COA CLEANROOM COATS



JAC

... 14

**JAC CLEANROOM JACKET
TRU CLEANROOM TROUSERS**



FCH

... 15

FCH CLEANROOM FULL COVER HOOD



FMS

... 16

FMS CLEANROOM FACE MASK



STG

... 17

**STG CLEANROOM SHOES
WITH TEXTILE GAITER**

COV CLEANROOM COVERALL

FEATURES

STANDARD DESIGN

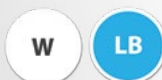
- Double covered zipper in the front
- Adjustable waistband inside
- Stand-up collar with push buttons
- Raglan arm shape
- Conductive knitted cuffs at arms and legs

OPTIONAL ACCESSORIES

- Chest, hip or bottom pockets
- Pen, identity card loops
- Company logos

AVAILABLE FABRICS AND COLOURS

CR10 FABRIC



ORDERING CODE

COV - **CR10** - **W** **L**
 style fabric colour size

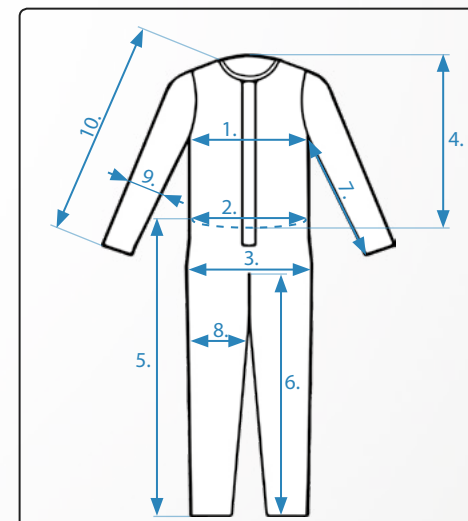
SIZE CHART (cm)

COV Cleanroom coverall		3XS	XXS	XS	S	M	L	XL	XXL	3XL	4XL
1.	Bust girth	113,5	119,0	125,5	131,5	135,5	143,0	151,5	155,0	160,0	166,0
2.	Waist girth	90,0	93,5	99,0	103,5	109,0	116,5	124,5	133,0	140,0	150,0
3.	Hip girth	106,0	111,0	114,0	119,0	122,0	128,0	136,0	150,0	155,0	162,0
4.	Length of back	51,0	54,0	55,0	55,5	58,0	60,0	62,0	64,5	70,0	75,0
5.	Length at the side	99,5	103,0	105,5	107,0	112,0	119,0	124,0	127,0	135,5	139,0
6.	Length of stride	70,5	73,5	75,0	77,0	79,0	86,0	91,0	94,5	100,0	103,0
7.	Sleeve-length downside	49,0	50,0	52,0	53,5	56,0	57,5	60,0	61,0	62,0	63,0
8.	Tigh girth	59,0	61,0	63,0	66,0	70,0	72,0	76,0	79,0	82,0	86,0
9.	Perimeter of upper arm	39,0	42,0	45,0	49,0	50,0	53,5	56,0	57,0	58,0	60,0
10.	Sleeve / sholder length upside	74,0	75,0	76,0	79,0	80,0	82,0	85,0	86,0	88,0	90,0

Size tolerance (Before washing): 3%; shrinkage by decontamination: 3-5%

Individual custom made ESD Clothing also available!

Certified clothing according to the 2018 ESD standard.
It's proved with the following tag.



COVH CLEANROOM COVERALL

WITH INTEGRATED HOOD

FEATURES

STANDARD DESIGN

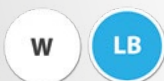
- Double covered zipper in the front
- Adjustable waistband inside
- Press buttons at throat
- Raglan arm shape
- Conductive knitted cuffs at arms and legs
- Open face
- Adjustable by press buttons at the back of hood
- Snap-fasteners for face-mask

OPTIONAL ACCESSORIES

- Chest, hip or bottom pockets
- Pen, identity card loops
- Company logos

AVAILABLE FABRICS AND COLOURS

CR10 FABRIC



ORDERING CODE

COVH - CR10 - W L
style fabric colour size

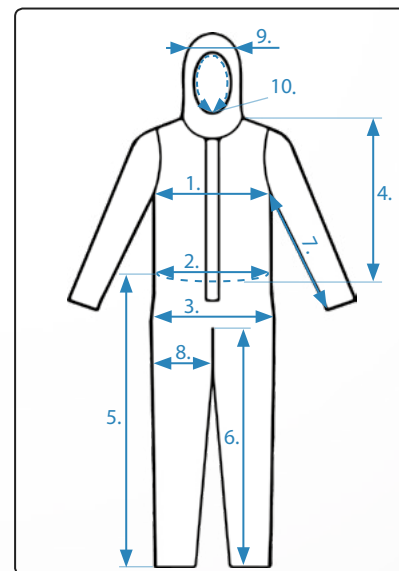
SIZE CHART (cm)

	COVH Cleanroom coverall	3XS	XXS	XS	S	M	L	XL	XXL	3XL	4XL
1.	Chest/bust measurement	113,5	119,0	125,5	131,5	135,5	143,0	151,5	155,0	160,0	166,0
2.	Waist measurement	90,0	93,5	99,0	103,5	109,0	116,5	124,5	133,0	140,0	150,0
3.	Bottom measurement	106,0	111,0	114,0	119,0	122,0	128,0	136,0	150,0	155,0	162,0
4.	Waist lenght (back)	49,0	52,0	53,0	53,5	56,0	58,0	60,0	62,5	68,0	71,0
5.	Length at the side	99,5	103,0	105,5	107,0	112,0	119,0	124,0	127,0	135,5	143,0
6.	Length of stride	70,5	73,5	75,0	77,0	79,0	86,0	91,0	94,5	100,0	103,0
7.	Lower lenght of arm	49,0	50,0	52,0	53,5	56,0	57,5	60,0	61,0	62,0	63,0
8.	Perimeter of upper leg	59,0	61,0	63,0	66,0	70,0	72,0	76,0	79,0	82,0	86,0
9.	Perimeter at height of forehead	60,0	60,0	60,0	61,0	63,0	65,0	68,0	71,0	74,0	77,0
10.	Perimeter face opening	76,0	77,0	78,0	80,0	82,0	84,0	86,0	88,0	90,0	92,0

Size tolerance (Before washing): 3%; shrinkage by decontamination: 3-5%

Individual custom made ESD Clothing also available!

Certified clothing according to the 2018 ESD standard.
It's proved with the following tag.



COA CLEANROOM COATS

FEATURES

STANDARD DESIGN

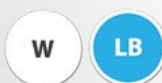
- Double covered zipper in the front
- Stand-up collar with push buttons
- Raglan arm shape
- Conductive knitted cuffs at arms
- Extra long gown

OPTIONAL ACCESSORIES

- Chest, hip or bottom pockets
- Adjustable waistband inside
- Pen, identity card loops
- Company logos

AVAILABLE FABRICS AND COLOURS

CR10 FABRIC



ORDERING CODE

COA - CR10 - W L
 style fabric colour size

Individual custom made ESD Clothing also available!

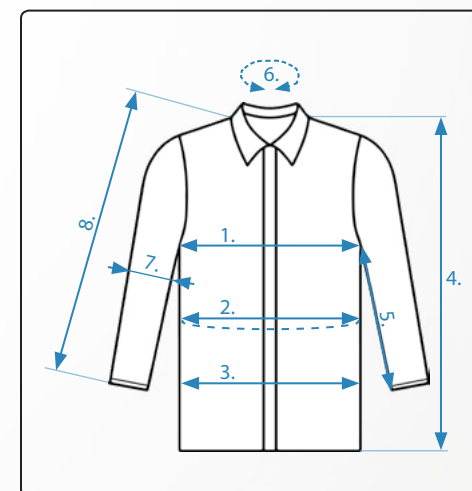
Certified clothing according to the 2018 ESD standard.
 It's proved with the following tag.



SIZE CHART (cm)

COA Cleanroom coats		3XS	XXS	XS	S	M	L	XL	XXL	3XL	4XL
1.	Chest/bust measurement	113,5	119,0	125,5	131,5	135,5	143,0	151,5	155,0	160,0	166,0
2.	Waist measurement	105,5	109,0	115,0	117,0	126,0	131,5	138,0	143,5	150,0	160,0
3.	Bottom measurement	113,0	117,0	121,0	123,5	131,0	140,5	145,5	150,0	155,0	162,0
4.	Length of back part	109,0	111,0	113,0	114,5	119,0	124,0	125,5	125,5	125,5	125,5
5.	Sleeve-length downside	49,0	50,0	52,0	53,5	56,0	57,5	60,0	61,0	61,0	63,0
6.	Perimeter of neck	39,0	40,5	41,5	43,0	44,0	45,5	51,0	52,0	54,0	55,0
7.	Perimeter of upper arm	41,0	44,0	46,5	49,0	50,5	53,0	56,0	57,0	58,5	61,5
8.	Sleeve / sholder length upside	73,0	75,0	77,0	80,0	82,5	83,5	86,0	87,5	88,0	90,5

Size tolerance (Before washing): 3%; shrinkage by decontamination: 3-5%



JAC CLEANROOM JACKET and TRU TROUSERS

JACKET FEATURES

STANDARD DESIGN

- Zipper in the front
- Stand-up collar with push buttons
- Raglan arm shape
- Conductive knitted cuffs at arms

OPTIONAL ACCESSORIES

- Chest, hip or bottom pockets
- Adjustable waistband inside
- Pen, identity card loops
- Company logos

ORDERING CODE

JAC - CR10 - W L
style fabric colour size

SIZE CHART (cm)

JAC Cleanroom jacket		3XS	XXS	XS	S	M	L	XL	XXL	3XL	4XL
1.	Chest/bust measurem	106,0	109,0	112,0	116,0	124,0	131,0	136,0	141,0	146,0	154,0
2.	Waist measurement	99,0	102,0	105,0	109,0	117,0	124,0	129,0	134,0	139,0	147,0
3.	Perim. of lower border	115,0	118,0	121,0	125,0	133,0	140,0	145,0	150,0	155,0	163,0
4.	Length of back part	73,5	75,5	78,5	81,5	85,5	88,0	90,0	92,5	94,0	94,0
5.	Lower length of arm	52,0	53,0	54,0	55,5	58,5	58,5	59,5	60,0	60,0	61,0
6.	Perimeter of neck	45,0	46,5	47,5	48,0	50,0	55,0	57,0	59,0	59,0	59,0
TRU Cleanroom trousers		3XS	XXS	XS	S	M	L	XL	XXL	3XL	4XL
1.	Waist perimeter gathered	75,0	78,0	80,0	83,0	87,0	90,0	99,0	103,0	107,0	114,0
2.	Waist perimeter stretched	98,0	102,0	104,0	108,0	113,0	116,0	128,0	133,0	138,0	146,0
3.	Bottom perimeter	108,0	111,0	114,0	118,0	120,0	123,0	133,0	138,0	143,0	149,0
4.	Length at the side	103,0	105,0	107,0	110,5	113,0	116,0	121,0	125,0	127,0	131,0
5.	Length of stride	74,0	75,5	78,0	80,0	82,0	84,5	88,0	90,0	92,0	94,0
6.	Thigh width	58,0	59,0	61,0	62,0	63,0	66,0	71,0	74,0	78,0	82,0

Size tolerance (Before washing): 3%; shrinkage by decontamination: 3-5%

TROUSERS FEATURES

STANDARD DESIGN

- Adjustable waistband
- Conductive knitted cuffs at the legs

OPTIONAL ACCESSORIES

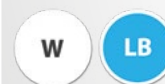
- Pockets
- Company logos

ORDERING CODE

TRU - CR10 - W L
style fabric colour size

AVAILABLE FABRICS AND COLOURS

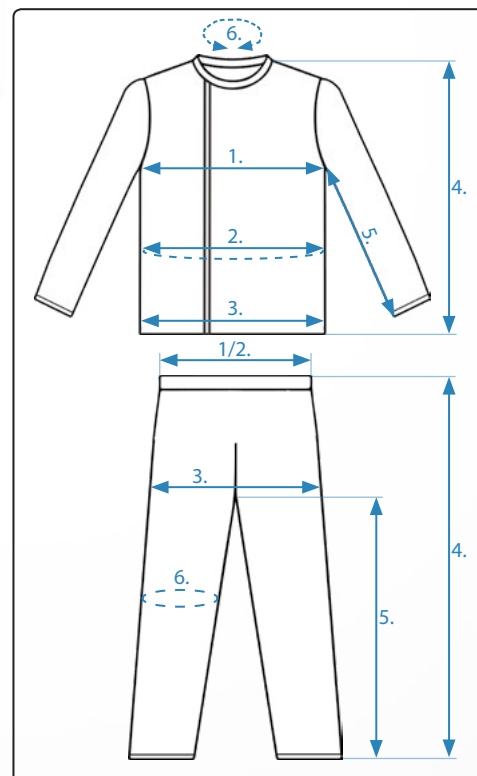
CR10 FABRIC



Certified clothing according to the 2018 ESD standard. It's proved with the following tag.



Individual custom made ESD Clothing also available!



FCH CLEANROOM FULL COVER HOOD

FEATURES

STANDARD DESIGN

- ▶ Spiral zipper front
- ▶ Flat top
- ▶ Adjustable by press buttons behind
- ▶ Open face
- ▶ Snap-fasteners for face-mask

AVAILABLE FABRICS AND COLOURS

CR10 FABRIC

W

LB

ORDERING CODE

FCH - CR10 - W L
 style fabric colour size

SIZE CHART (cm)

FCH Cleanroom full cover hood	XXS	XS	S	M	L	XL	XXL
E	235	245	260	260	285	285	285
H	130	140	150	160	170	170	170
A1	520	550	580	610	635	660	690
G	60	60	60	60	65	65	65
S	210	210	210	210	210	210	210

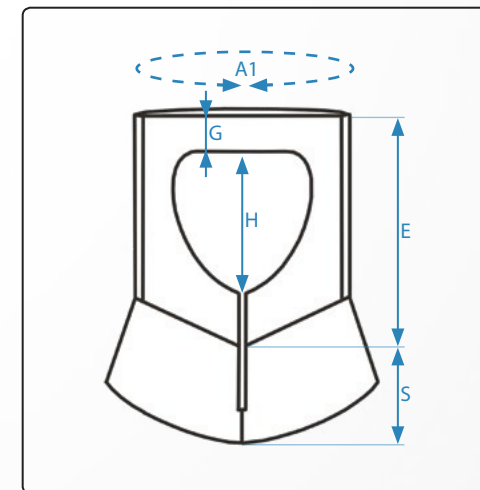
Size tolerance (Before washing): 3%; shrinkage by decontamination: 3-5%

OPTIONAL ACCESSORIES

- ▶ Company logos

Individual custom made ESD Clothing also available!

Certified clothing according to the 2018 ESD standard.
 It's proved with the following tag.



FMS CLEANROOM FACE MASK

FEATURES

STANDARD DESIGN

- Fastening on full cover hood with plastic press buttons

AVAILABLE FABRICS AND COLOURS

CR10 FABRIC

W

LB

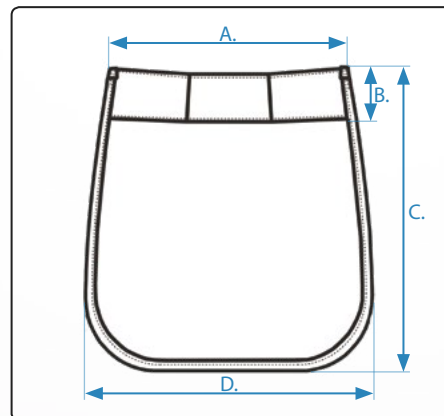
ORDERING CODE

FMS - CR10 - W L
 style fabric colour size

SIZE CHART (cm)

FMS cleanroom face mask	Size
A	250
B	60
C	310
D	300

Size tolerance (Before washing): 3%; shrinkage by decontamination: 3-5%



Individual custom made ESD Clothing also available!

Certified clothing according to the 2018 ESD standard.
 It's proved with the following tag.



STG CLEANROOM SHOES

WITH TEXTILE GAITER

FEATURES

FEATURES

- Zipper in the front
- Comfortable shoes
- Conductive soles
- Adjustable ribbon with velcro

AVAILABLE FABRICS AND COLOURS

CR10 FABRIC

W

ORDERING CODE

STG - CR10 - W 41

style fabric colour size

SIZE CHART (cm)

STG cleanroom shoes	36	37,5	38,5	40	41	42	43	44,5	45,5	46,5
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Size tolerance (Before washing): 2%





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