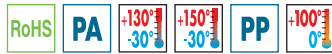


# M.443

ELESA original design



## Handles



### • Standard executions

- **M.443-CH:** glass-fibre reinforced polyamide based (PA) technopolymer, black, orange, grey and red colours, matte finish.  
Pass-through holes for cylindrical-head screws with hexagon socket.
- **M.443-N-CH:** glass-fibre reinforced polypropylene based (PP) technopolymer, black colour.  
Pass-through holes for cylindrical-head screws with hexagon socket.
- **M.443-SH:** glass-fibre reinforced polyamide based (PA) technopolymer, black colour.  
Pass-through holes for countersunk head screws.
- **M.443-EH:** glass-fibre reinforced polyamide based (PA) technopolymer, black colour.  
Pass-through holes for cylindrical-head screws with hexagon socket, hexagonal-head screws or standard lock nuts.
- **M.443 ESD:** glass-fibre reinforced polyamide based (PA) special conductive technopolymer. Resistant to solvents, oils, greases and other chemical agents.  $10^3 \Omega$  surface resistivity (ASTM D257 trial method),  $10^3 \Omega\text{cm}$  volume resistivity (ASTM D257 trial method).  
Pass-through holes for cylindrical-head screws with hexagon socket.
- **M.443 AE-V0:** glass-fibre reinforced polyamide based (PA) technopolymer certified self-extinguish UL-94 V0. Resistant to solvents, oils, greases and other chemical agents.  
Pass-through holes for cylindrical-head screws with hexagon socket.

### Features and applications

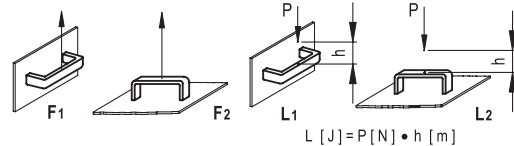
The special conductive technopolymer (ESD-C Electrostatic Discharge Conductive) prevents the accumulation of electrostatic charge. M.443-ESD handles are suitable for ESD PROTECTED AREA (EPA) where components which are susceptible to electrostatic discharges are to be handled with the minimum risk of damage. The indelibly printed mark (ESD-C) on the surface of the handle identifies the particular conductivity feature according to EN 100015/1 and IEC 61340-5-1.

### Technical data

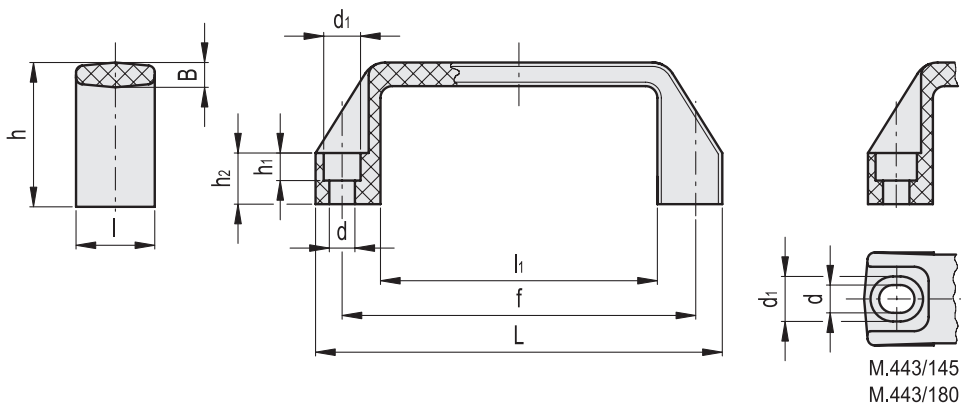
Tensile stress and impact strength: F1, F2, L1 and L2 values reported in the table are the result of breaking tests carried out with the appropriate dynamometric equipment under the test conditions shown in the figure with ambient temperature.

M.443 AE-V0: in long-term thermal ageing tests, with a maximum decrease in critical mechanical properties by 50%, the relative temperature index UL 746 B (RTI) was equal to 65.

The "V0" certification in accordance with UL-94 V (Underwriters Laboratories) indicates that on a plastic test sample with specific shape and dimensions, in the vertical position, the flame is extinguished within 10 seconds, without generating any incandescent drops.



### M.443-CH



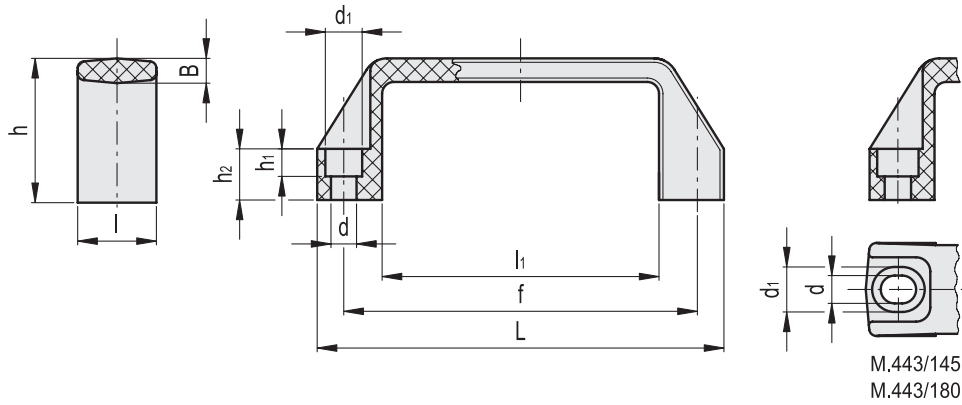
C9  
RAL9005
  C2  
RAL2004
  C31  
RAL7031
  C6  
RAL3000

### M.443-CH

Code	Description	L	f	d	d <sub>1</sub>	h	h <sub>1</sub>	h <sub>2</sub>	B	l	l <sub>1</sub>	F1 [N]	F2 [N]	L1 [J]	L2 [J]	
37001	M.443/110-CH-C9	109	93.5±0.5	6.5	10.5	38	7	13	6	21	74	3500	2500	15	8	26
37002	M.443/110-CH-C2	109	93.5±0.5	6.5	10.5	38	7	13	6	21	74	3500	2500	15	8	26
37004	M.443/110-CH-C31	109	93.5±0.5	6.5	10.5	38	7	13	6	21	74	3500	2500	15	8	26
37005	M.443/110-CH-C6	110	93.5±0.6	6.6	10.6	38	7	13	7	21	74	3500	2500	15	8	26
37111	M.443/140-6-CH-C9	137	117±1	6.5	10.5	41	6	15	7	26	93	4500	2500	20	13	44
37101	M.443/140-8-CH-C9	137	117±1	8.5	13.5	41	8.5	15	7	26	93	4500	2500	20	13	42
37102	M.443/140-8-CH-C2	137	117±1	8.5	13.5	41	8.5	15	7	26	93	4500	2500	20	13	42
37104	M.443/140-8-CH-C31	137	117±1	8.5	13.5	41	8.5	15	7	26	93	4500	2500	20	13	42
37105	M.443/140-8-CH-C6	137	117±1	8.5	13.5	41	8.5	15	7	26	93	4500	2500	20	13	42
37145	M.443/145-CH-C9	142	120÷122±1	8.5	13.5	41	8.5	15	7	26	100	3700	2500	25	14	44
37151	M.443/150-CH-C9	150	132±1	8.5	13.5	45	8.5	16	7	27	108	3500	2500	27	14	47
37152	M.443/150-CH-C2	150	132±1	8.5	13.5	45	8.5	16	7	27	108	3500	2500	27	14	47
37154	M.443/150-CH-C31	150	132±1	8.5	13.5	45	8.5	16	7	27	108	3500	2500	27	14	47
37155	M.443/150-CH-C6	151	132±2	8.6	13.6	46	8.6	17	8	27	108	3500	2500	27	14	47
37183	M.443/170-CH-C9	160	140±1	8.5	13.5	46	8.5	16	7	27	113	3400	2600	27	20	50
37184	M.443/170-CH-C2	160	140±1	8.5	13.5	46	8.5	16	7	27	113	3400	2600	27	20	50
37185	M.443/170-CH-C31	160	140±1	8.5	13.5	46	8.5	16	7	27	113	3400	2600	27	20	50
37191	M.443/180-CH-C9	172	149÷152±1	8.5	13.5	47	8.5	17	7	27	125	3000	2700	27	20	53
37192	M.443/180-CH-C2	172	149÷152±1	8.5	13.5	47	8.5	17	7	27	125	3000	2700	27	20	53
37193	M.443/180-CH-C31	172	149÷152±1	8.5	13.5	47	8.5	17	7	27	125	3000	2700	27	20	53
37241	M.443/190-CH-C9	179	160±1	8.5	13.5	50	8.5	17	7.5	28	132	3300	2700	29	20	60
37242	M.443/190-CH-C2	179	160±1	8.5	13.5	50	8.5	17	7.5	28	132	3300	2700	29	20	60
37244	M.443/190-CH-C31	179	160±1	8.5	13.5	50	8.5	17	7.5	28	132	3300	2700	29	20	60
37201	M.443/200-CH-C9	196	179±1	8.5	13.5	50	8.5	17	7.5	28	151	2800	2700	33	20	70
37202	M.443/200-CH-C2	196	179±1	8.5	13.5	50	8.5	17	7.5	28	151	2800	2700	33	20	70
37204	M.443/200-CH-C31	196	179±1	8.5	13.5	50	8.5	17	7.5	28	151	2800	2700	33	20	70
37205	M.443/200-CH-C6	196	179±1	8.5	13.5	50	8.5	17	7.5	28	151	2800	2700	33	20	70
37251	M.443/260-CH-C9	260	235±1	10.5	16.5	54	10.5	20	8.5	30	201	3200	3500	40	34	118
37252	M.443/260-CH-C2	260	235±1	10.5	16.5	54	10.5	20	8.5	30	201	3200	3500	40	34	118
37254	M.443/260-CH-C31	260	235±1	10.5	16.5	54	10.5	20	8.5	30	201	3200	3500	40	34	118

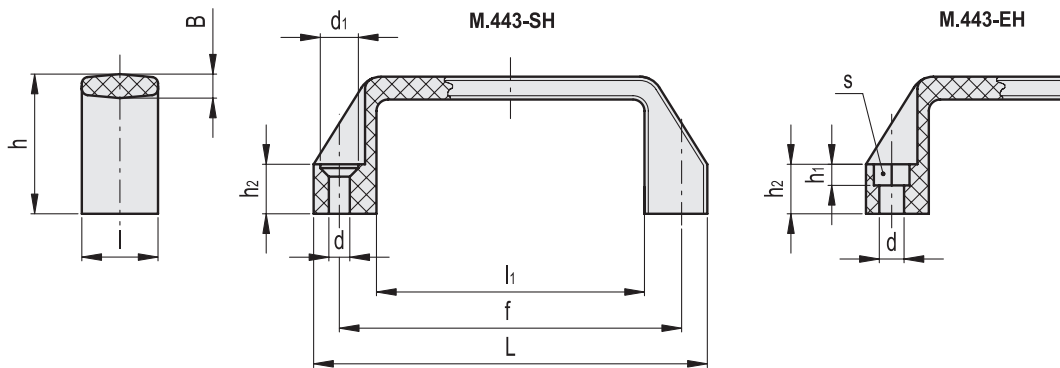


M.443-N-CH



M.443-N-CH

Code	Description	L	f	d	d <sub>1</sub>	h	h <sub>1</sub>	h <sub>2</sub>	B	l	l <sub>1</sub>	F1 [N]	F2 [N]	L1 [J]	L2 [J]	⚖
37031	M.443/110 N-CH	109	93.5±0.5	6.5	10.5	38	7	13	6	21	74	1700	1300	8	3	21
37132	M.443/140 6-N-CH	137	117±1	6.5	10.5	41	6	15	7	26	93	2000	1500	10	4	36
37131	M.443/140 8-N-CH	137	117±1	8.5	13.5	41	8.5	15	7	26	93	2000	1500	10	4	34
37143	M.443/145-6-N-CH	142	120÷122±1	6.5	13.5	41	8.5	15	7	26	100	1600	1500	12	5	37
37144	M.443/145 N-CH	142	120÷122±1	8.5	13.5	41	8.5	15	7	26	100	1600	1500	12	5	36
37181	M.443/150 N-CH	150	132±1	8.5	13.5	45	8.5	16	7	27	108	2000	1300	12	5	40
37186	M.443/170 N-CH	160	140±1	8.5	13.5	46	8.5	16	7	27	113	1800	1300	13	6	44
37196	M.443/180 N-CH	172	149÷152±1	8.5	13.5	47	8.5	17	7	27	125	1800	1300	14	7	46
37246	M.443/190 N-CH	179	160±1	8.5	13.5	50	8.5	17	7.5	28	132	1800	1300	15	7	54
37231	M.443/200 N-CH	196	179±1	8.5	13.5	50	8.5	17	7.5	28	151	1800	1300	16	8	62
37281	M.443/260 N-CH	260	235±1	10.5	16.5	54	10.5	20	8.5	30	201	1700	1700	17	11	92



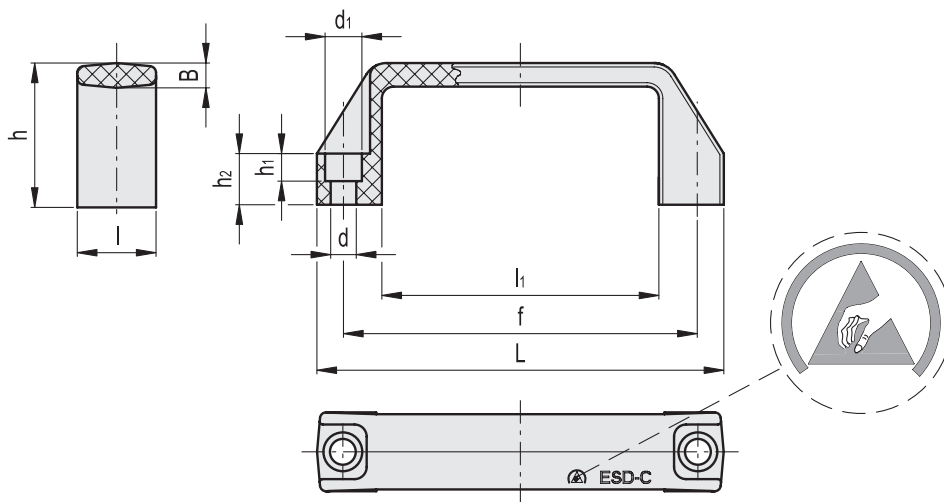
M.443-SH

Code	Description	L	f	d	d <sub>1</sub>	h	h <sub>1</sub>	h <sub>2</sub>	B	l	l <sub>1</sub>	F1 [N]	F2 [N]	L1 [J]	L2 [J]	⚖
37036	M.443/110-SH	109	93.5±0.5	5.5	10	38	13	13	6	21	74	2000	2200	16	6	24
37136	M.443/140-SH	137	117±1	6.5	12	41	15	15	7	26	93	2500	2300	17	7	44
37146	M.443/145-SH	142	122±1	6.5	12	41	15	15	7	26	100	3700	2500	25	14	45
37187	M.443/170-SH	160	140±1	6.5	12	46	16	16	7	27	113	3400	2600	27	20	64
37199	M.443/180-SH	172	150±1	6.5	12	47	17	17	7	27	125	3000	2600	27	15	54
37247	M.443/190-SH	179	160±1	6.5	12	50	17	17	7	28	132	3300	2700	29	20	70
37236	M.443/200-SH	196	179±1	6.5	12	50	17	17	7.5	28	151	2500	2400	22	15	72

M.443-EH

Code	Description	L	f	d	s	h	h <sub>1</sub>	h <sub>2</sub>	B	l	l <sub>1</sub>	F1 [N]	F2 [N]	L1 [J]	L2 [J]	⚖
37037	M.443/110-EH-5	109	93.5±0.5	5.5	8	38	6	13	6	21	74	3500	2500	15	8	27
37137	M.443/140-EH-6	137	117±1	6.5	10	41	6	15	7	26	93	4500	2500	20	13	44
37141	M.443/145-EH-6	142	122±1	6.5	10	41	6.5	15	7	26	100	3700	2500	25	14	45
37189	M.443/170-EH-6	160	140±1	6.5	10	46	6.5	16	7	27	113	3400	2600	27	20	51
37198	M.443/180-EH-6	172	150±1	6.5	10	47	6.5	17	7	27	125	3000	2600	27	15	54
37249	M.443/190-EH-6	179	160±1	6.5	10	50	6.5	17	7	28	132	3300	2700	29	20	57

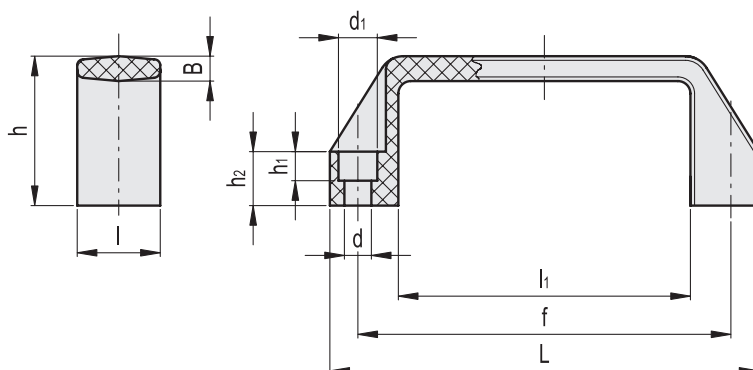
### M.443 ESD



### M.443 ESD

Code	Description	L	f	d	d <sub>1</sub>	h	h <sub>1</sub>	h <sub>2</sub>	B	l	l <sub>1</sub>	F1 [N]	F2 [N]	L1 [J]	L2 [J]	⚖
154601	M.443/110-CH-ESD-C	109	93.5±0.5	6.5	10.5	38	7	13	6	21	74	3500	2500	15	8	21
154611	M.443/140-8-CH-ESD-C	137	117±1	8.5	13.5	41	8.5	15	7	26	93	4500	2500	20	13	34

### M.443 AE-V0



### M.443 AE-V0

Code	Description	L	f	d	d <sub>1</sub>	h	h <sub>1</sub>	h <sub>2</sub>	B	l	l <sub>1</sub>	F1 [N]	F2 [N]	L1 [J]	L2 [J]	⚖
150001	M.443/110 AE-V0	109	93.5±0.5	6.5	10.5	38	7	13	6	21	74	1750	1700	9	5	28
150012	M.443/140-6 AE-V0	137	117±1	6.5	10.5	41	7	15	7	26	93	3500	2200	10	8	51
150011	M.443/140 AE-V0	137	117±1	8.5	13.5	41	8.5	15	7	26	93	3500	2200	10	8	50
150021	M.443/150 AE-V0	150	132±1	8.5	13.5	45	8.5	16	7	27	108	3000	1800	12	8	55
150031	M.443/200 AE-V0	196	179±1	8.5	13.5	50	8.5	17	7.5	28	151	1400	2100	20	13	80