

## NFPA 70E Requirements

The National Fire Protection Association (NFPA) published the latest edition of the NFPA 70E Standard (Standard for Electrical Safety Requirements for Employee Workplaces) in 2009. The revised version requires employees to wear flame resistant (FR) protective clothing that meets the requirements of ASTM F1506 wherever there is possible exposure to an electric arc flash. It requires employers to perform a flash hazard analysis to determine the flash protection boundary distance. The standard is designed to protect employees working inside these flash protection boundaries by requiring protective clothing for corresponding Hazard/Risk Category that has an arc thermal performance value (ATPV) of at least the value listed in the “Protective Clothing Characteristics” section of the standard (see table above). The vast majority of major companies in the U.S. have some employees who work on or near energized electrical conductors or circuit parts. In addition, the Department of Energy has required that federal and contractor employees comply with NFPA 70E and the 2002 National Electric Code (NEC) references the NFPA 70E standard. Finally, OSHA considers the NFPA 70E standard a “recognized industry practice.”

**When incident energy exceeds 40 cal/cm<sup>2</sup> at the working distance, greater emphasis than normal should be placed on de-energizing before working on or near the exposed electrical conductors or circuit parts.**



From Clothing to Insulated Tools to ARC Suppression Blankets we have everything you need to meet the NFPA 70E Standard and OSHA 29 1910.269 Regulations. The NFPA 70E Standard and OSHA Regulations have been established to protect workers from electrical shock and arc flash hazards. For example, the NFPA 70E Standard specifies areas in which arc flash protection is required for workers. All personnel within the defined boundaries must wear specified protective equipment, even on circuits as low as 50 volts. The NFPA 70E Standard and OSHA Regulations **MUST** be met, and OEL has made it easy and affordable for you to meet and exceed them.

**OEL is Protecting the American Worker**

8 - 20 cal/cm<sup>2</sup>

## OEL's ARC Flash Protection Coveralls

8 cal/cm<sup>2</sup> to 20 cal/cm<sup>2</sup> ATPV ratings  
Made from arc flash resistant, Indura Ultra Soft®  
Sewn with Nomex® thread  
Full cut with set in sleeves  
FR hook and pile front closure  
30" inseam, Expansion back  
2-ply Nomex® wristlets  
Hook and pile cuff opening  
Meet current ASTM F1506 and NFPA 70E standards.  
Sizes M, L, XL, 2XL, and 3XL available from stock  
Other sizes available by special order  
Colors: Orange, Navy (special order)

Indura® Ultra Soft® Coverall  
Orange  
AFW 080-FC-(size)  
Category 2  
8 cal/cm<sup>2</sup>

Indura® Ultra Soft®  
Orange Coverall  
AFW 017-FC-(size)  
Category 2  
12 cal/cm<sup>2</sup>

Indura® Ultra Soft®  
Orange Coverall  
AFW 018-FC-(size)  
Category 2  
20 cal/cm<sup>2</sup>



OEL ARCWEAR ARC FLASH PROTECTION HOODS ARE SIZED ONE SIZE FITS ALL.

## Sizing Chart

PRODUCT: COAT 8 cal/cm<sup>2</sup> - 20 cal/cm<sup>2</sup> 50"

Measurements in inches/cm (minimum allowed)			
SIZE	A	B	C
Small	42/107	26/66	32/81
Medium	46/117	26/66	32/81
Large	50/127	28/71	32/81
xlarge	54/137	28/71	32/81
2xLarge	58/147	28/71	32/81
3xLarge	62/158	28/71	32/81
4xLarge	66/168	28/71	32/81
5xLarge	70/178	28.5/72	32/81
6xLarge	74/188	29/74	32/81

PRODUCT: COAT 25 cal/cm<sup>2</sup> - 55 cal/cm<sup>2</sup> 50"

Measurements in inches/cm (minimum allowed)			
SIZE	A	B	C
Small	42/107	26/66	32/81
Medium	46/117	26/66	32/81
Large	50/127	28/71	32/81
xlarge	54/137	28/71	32/81
2xLarge	58/147	29/74	32/81
3xLarge	62/158	29/74	32/81
4xLarge	66/168	29/74	32/81
5xLarge	70/178	29/74	32/81
6xLarge	74/188	30/76	32/81

PRODUCT: JACKET 32"

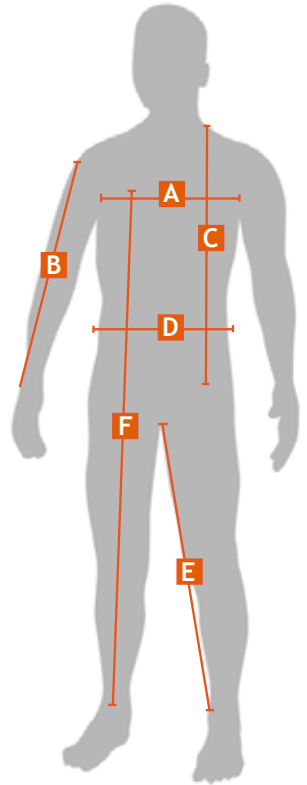
Measurements in inches/cm (minimum allowed)			
SIZE	A	B	C
Small	48/122	27.5/70	46/117
Medium	52/132	28/71	46/117
Large	54/137	28/71	46/117
xlarge	58/147	28.5/72	48/122
2xLarge	62/158	29/74	48/122
3xLarge	66/168	29/74	48/122
4xLarge	70/178	29.5/75	48/122
5xLarge	74/188	30/76	48/122
6xLarge	78/198	30/76	48/122

PRODUCT: BIB OVERALL

Measurements in inches/cm (minimum allowed)			
SIZE	D	E	F
Small	30/76	28/71	56/142
Medium	34/86	29/74	56/142
Large	38/96	30/76	56/142
xlarge	42/107	30/76	56/142
2xLarge	46/117	30/76	56/142
3xLarge	50/127	30/76	56/142
4xLarge	54/137	30/76	56/142
5xLarge	58/147	30/76	56/142
6xLarge	62/158	30/76	56/142

PRODUCT: COVERALL

Measurements in inches/cm (minimum allowed)				
SIZE	A	B	D	E
Small	40/102	34/86	36/91	29/24
Medium	44/112	34/86	40/102	30/76
Large	48/122	36/91	44/112	31/79
xlarge	52/132	36/91	48/122	31/79
2xLarge	56/142	37/94	52/132	31/79
3xLarge	60/152	37/94	56/142	31/79
4xLarge	64/163	40/102	60/152	31/79
5xLarge	68/173	40/102	64/163	31/79
6xLarge	72/183	40/102	68/173	31/79



- A Chest - Measure across front from underarm to underarm
- B Sleeve - Measure from top shoulder seam out to end of cuff
- C Length - Measure from back of neck down to hem

- D Waist - Measure from waist side seam to side seam (flares open)
- E Inseam - Measure from mid crotch down to leg hem
- F Length - Measure from top of bib down to pant hem

## Protection Clothing

### Quality Guaranteed

OEL uses INDURA® Ultra Soft® and INDURA® brand flame resistant (FR) protective clothing fabrics which are guaranteed flame resistant for the life of the garment. The advanced INDURA® Ultra Soft® provides excellent protection from electric arc flash (for NFPA 70E, ASTM F1506 and OSHA 1910.269 compliance), flash fire (for NFPA 2112 and CGSB 155.20 compliance), molten ferrous metal splash and welding exposures.

This excellent protection is coupled with the soft breathable comfort of cotton and by engineering 12% high tenacity nylon in the face of the fabric, INDURA® Ultra Soft® is designed to wear at least 75% longer than all cotton, which leads to an excellent value equation. This superior balance of protection, comfort and value offers end-users with an excellent option to FR synthetic fabric such as Nomex IIIA.

### Material Weights

#### MATERIAL WEIGHT FOR ATPV RATINGS

ATPV Rating cal/cm <sup>2</sup>	Material Weight oz./yd <sup>2</sup>
8	7 oz./yd <sup>2</sup> (237 g/m <sup>2</sup> )
12	9 oz./yd <sup>2</sup> (305 g/m <sup>2</sup> )
20	13 oz./yd <sup>2</sup> (441 g/m <sup>2</sup> )
31	2 layers - 9 oz./yd <sup>2</sup> (305 g/m <sup>2</sup> ) & 7oz./yd <sup>2</sup> (237 g/m <sup>2</sup> )
40	2 layers - 13 oz./yd <sup>2</sup> (441 g/m <sup>2</sup> ) & 5.5 oz./yd <sup>2</sup> (186 g/m <sup>2</sup> )
55	2 layers - 13 oz./yd <sup>2</sup> (441 g/m <sup>2</sup> ) & 13 oz./yd <sup>2</sup>