

Flash Protection, Inc.



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Flash Protection, Inc.

...stands for the Full Protection Inside of the HAZ-CAT series arc flash Protection kits. Available in risk category 2 & 4 platforms.

- NFPA 70 E(2009) 130.3(B) prescribes the use of FR clothing & PPE “ where it has been determined that work will be performed within the Flash Protection Boundary...” and allows “As an alternative, the PPE requirements of 130.7 (C) (9) shall be permitted to be used in lieu of the detailed flash hazard analysis...”
- 130.7 (C) Personal Protective Equipment
 - (3) Head, Face, Neck & Chin Protection
 - (4) Eye Protection
 - (5) Body Protection
 - (6) Hand & Arm Protection
- Table 130.7(C)(9)(a) identifies Hazard/Risk Categories 0 through 4 & the requirements for voltage rated gloves and/or voltage rated tools.
- 103.7 (D)(1) prescribes the use of insulated tools “when working inside the Limited Approach Boundary of exposed live parts where tools might make accidental contact.
- Table 130.7(C)(11) identifies the minimum Arc Thermal Protective Value (ATPV) for Risk Categories:
 - 1= 4 cal/cm²
 - 2= 8 cal/cm²
 - 3= 25 cal/cm²
 - 4= 40 cal/cm²

The Haz-Cat series has it all in one package; head, face and eye protection, FR apparel, voltage rated gloves & voltage rated tools. We offer the Haz-Cat kits in category 2 & 4 platforms consistent with the “ Simplified, Two Category, FR Clothing System” of table H.1 in Annex of NFPA 70E (2009)

This is a cost effective means of addressing compliance for contractors who face varied risk categories and fro site maintenance with diverse electrical systems.



Troubleshooter set included in all Haz-Cat Series Kits



HC2-11CXL-0-10

Tool Pocket is loaded with 6 piece trouble-shooters kit. Includes pockets for additional tools & oversized pocket for storage of voltage meter.

Haz-Cat 2 Series Kits are available with the following arc rating & garment options:
8 cal - parka, coverall or lab coat
11 cal - parka, coverall, lab coat or jacket & bibs
20 cal - coverall or jacket & bibs

Our category 2 garments are made with Indura Ultra Soft™.

Voltage gloves for Haz-Cat 2 kits may be class 00 (500V) or class 0 (1000V). Available in sizes 8-12 (incl. 1/2 sizes).

Full flash hoods for your 2* applications are available in both 11 and 20 cal ratings.



HH-FS20A



All face shields supplied with Haz-Cat 2 kits have a 20 cal/cm2 rating. The 10 cal knit Nomex™ hood shown above may be used with our HH-FS20A to provide greater protection to the head, face and neck.



HC4-40XL-2-10-EXP

Haz-Cat 4 kits feature Arc-Flash suits in Indura UltraSoft™ or in a Kevlar™/Nomex™ blend.

Available in Arc ratings of :

- 40 cal
- 50 cal
- 65 cal

Voltage gloves for Haz-Cat 4 kits may be Class 0 (1000V) or Class 2 (17Kv) and are available in sizes 8-12 (includes ½ sizes)

Haz-Cat 4 kits have an expanded tool kit option which may be an addition to the basic troubleshooters kit.

The EXP kit is comprised of:
 3/8 dr. ratchet, 3" & 6" ext. bars,
 deep well sockets 3/8 - 13/16
 and hex bit sockets 1/4 - 1/2.
 Simply add EXP to the end of the
 kit part number.



Most of our Category 4 garments are available in a Nomex™/Kevlar™ blend. Although this is a more expensive material there is a significant advantage in the fabric weight. The 50 cal jacket pictured here has a lighter fabric weight than a 40 cal jacket made with Indura UltraSoft™. Please specify material preference when ordering.



Haz-Cat Series Kit Number Key:

HC2 - category 2 kit	20 - w/20 cal Arc Suit	S-3X - garment size
HC4 - category 4 kit	40 - w/40 cal Arc Suit	00-500V glove kit
8P - w/8 cal Parka	50 - w/50 cal Arc Suit	0-1000V glove kit
8C - w/8 cal Coverall	65 - w/65 cal Arc Suit	2- 17Kv glove kit
11P - w/ 11 cal Parka		8-12 - glove size
11C - w/ 11 cal Coverall		

Example: HC2-11CXL-0-10 means Haz-Cat 2 kit w/ 11 cal coverall, size XL, class 0 gloves, size 10



Our standard duffle kits are packaged in the duffle shown, which is essentially the same construction as the “Haz-Cat” bag, but without the external pouches.

Kits are available with the full range of garment types from 8 cal to 100 cal rating and may come with or without gloves. Kits with full arc flash suits (20 cal +) will include either coverall or bibs & jacket with the flash hood. Hard hat & safety glasses are included.



DK -20JBHXL-2-10

Kit numbering for our DK series is similar to the character system for the Haz-Cat series. The example for the kit shown here:

The DK prefix indicates packaging in a standard duffle.

The next character, 20, indicates the garment’s rating.

JBH indicates a Jacket, Bib & Hood ensemble.

XL indicates garment size.

2-10 indicates first the class, then the size for the glove kit.

If ordered without gloves, the part number simply changes to DK-20JBHXL.



Risk Category 2

Our Category 2 FR garments are made with Indura UltraSoft™ material.

PK8-(S-3X)	8 cal Parka w/hood
CV8-(S-3X)	8 cal Coverall
LC8-(S-3X)	8 cal Lab coat
PK11-(S-3X)	11 cal Parka w/hood
CV11-(S-3X)	11 cal Coverall
LC11-(S-3X)	11 cal Long Coat
JB11-(S-3X)	11 cal Jacket & Bibs
FH-11	11 cal Flash hood
CV20-(S-3X)	20 cal Coverall
JB20-(S-3X)	20 cal Jacket & Bibs
FH20	20 cal Flash hood
HH-FS20A	Hard Hat w/20 cal Face Shield

CV20XL w. FH20



11 cal Coverall



20 cal Jacket & Bib



8 cal Lab Coat





Risk Category 3 & 4

Our category 3 & 4 Arc-Flash Suits are available in either UltraSoft™ or Nomex™/Kevlar™. Specify material when ordering.

FS32-(S-3X) 32 cal Flash Suit, includes jacket, bibs & flash hood

FS40-(S-3X) 40 cal Flash Suit, includes jacket, bibs & flash hood

FS50-(S-3X) 50 cal Flash Suit, includes jacket, bibs & flash hood

FS50CV-(S-3X) 50 cal Flash Suit, includes w/ coverall & flash hood
(Nomex™/Kevlar™ only)

FS65-(S-3X) 65 cal Flash Suit, includes jacket, bibs & flash hood

32 cal Flash Suit



50 cal Flash Suit



65 cal Flash Suit



FAQ

What about laundering? Can I wash my suit at home?

Yes, your FR suits can be cleaned in a home washing machine, but with 2 precautions! The manufacturers of both types of FR fabric, Indura™ and Nomex™, advise that the garment should not be washed with detergents that have either A) chlorine bleach or B) softening agents added to them. If a garment is washed in one of these one time, there is probably no harm done, but with repeated washings this creates two problems. Chlorine, over time and repeated washings, can degrade the treatment of the fabric. The base ingredient in most fabric softeners is paraffin. Long term washing in this type of detergent creates deposit of paraffin on the fabric. Paraffin + Cotton = CANDLE: not a good thing for an FR garment

Do FR garments need to be re-tested?

Currently there are no requirements for periodic retesting of FR garments. FR garments should be inspected prior to each use to insure that there are no rips, tears, fraying or contamination with grease, oil or any combustible materials.

How long is FR treatment good for?

With proper care (i.e. proper laundering as detailed above) the treatment is guaranteed for the life of the garment. Task specific wear (arc flash suits) should be stored where they are protected from potential contamination when not in use. As with FR treated daily wear, even though they are not worn with the same frequency, the garments are more likely to be rendered unusable due to a fabric tear or some contamination long before any degradation of the chemical treatment.

What if my company has supplied FR treated uniforms? Can I get the required arc rating with a lesser rated garment?

Yes, the required arc rating may be achieved by layering. If, for example, workers have been supplied with FR treated uniforms that have an arc rating of 6 cal/cm², the addition of an 8 cal/cm² would then exceed level 2 requirements. The addition of a 20 cal/cm² coverall would meet level 3 requirements.



FPI Brings a new way to look at things! High Energy 45.8 Cal Arc Goggle & Balaclava System.

General Information:

FPI's High Energy Arc Goggle and Carbon X Balaclava combo provides:
An arc rating (ATPV) of 45.8 cal/cm² when tested in combination using the ASTM 2178 test method.

A lightweight, cost-effective alternative to beekeeper hoods.
Increased vision versus traditional beekeeper hoods.

Arc Goggle:

FPI's Arc Goggle is designed specifically to address the requirements of Arc Flash Protection. The optically correct hard coated outer lens has an anti-fog inner lens, baffled top and bottom vents. An elastic strap comfortably secures the goggle to the head and hard hat. Special strap adjusters allow the strap tension to be adjusted while wearing gloves.

FPI Part No. GL45.8



Hood includes an inner breathing chamber for increased airflow.



The Arc Goggle & Balaclava combination is ideal for utility workers needing face protection from an electrical arc. This easy-to-use protective system assures workers protection without limiting their ability to perform work.

27 CAL ARC GOGGLE AND BALACLAVA

Arc Goggle & Balaclava

The Paulson arc goggle in combination with the balaclava provides superior flexibility, outstanding visual light transmission (VLT) and exceptional comfort.

Arc Rating (ATPV) of 27 cal/cm² when tested in combination using the ASTM 2178 test method.

A lightweight, cost-effective alternative to face shields.
Increased breathability and range of vision versus traditional beekeeper hoods.

Our arc goggle features:

An optically correct, hard-coated outer lens

An anti-fog inner lens

Baffled top and bottom vents

A comfortable elastic strap that secures the goggle to the head and hard hat

Special strap adjusters allow the straps to be adjusted while wearing gloves.

FPI Part#: GL27

The balaclava features:

Two layers of knit Carbon / KEVLAR® with an arc rating (ATPV) of 27 cal/cm²

Slightly longer bib for additional arc protection

Contoured eyehole that can be worn over or under the nose.

FPI Part#: CKH27



Not Approved for NFPA 70E-2004



Knit Shirt

General Information

FR knit shirts are available in a variety of colors in smooth FR cotton jersey or interlock knits. Durable FR ribbed collars are standard.

Our best-selling classic T-shirt features:
 Your choice of long or short sleeves
 A variety of colors to choose from
 One left breast pocket
Turtlenecks and Mock Turtlenecks available also.
 Available in SM-5X



All Flash Protection Inc's FR knits feature:
 Breathable knits to keep you comfortable
 Generous sizing
 Comfortable single needle tape trims the neck seam

Item Number Material: LKS110.9(N,G,O)(SM-5X) 6.5 oz. Indura® Ultra Soft® in Navy, Gray or Orange (arc rating = 10.9 cal/cm²)

Polo Shirts

This distinguishing, collared polo shirt features
 Your choice of long or short sleeves
 A variety of colors to choose from
 One left breast pocket
 Two-button neck placket
 Some polos offered with contrasting navy collar
 Available in SM-5X



Item Number Material: PSI10.9(G,N,MB,O)(SM-5X) 6.5 oz. Indura Ultra Soft in Navy, Medium Blue, Gray or Orange (arc rating = 10.9 cal/cm²)
 PSFREMC5(N,LB,O)(SM-5X) 6.3 oz. FR EMC Jersey Knit in Navy, Light Blue or Orange (arc rating = 5 cal/cm²)
 PSPCFR11(N,G,K)(SM-5X) 6.3 oz. Pro C-FR Interlock Knit in Navy, Gray or Khaki (arc rating = 11 cal/cm²)

Henley Shirts:

This comfortable, casual henley shirt features
 Long sleeves
 A variety of colors to choose from
 One left breast pocket
 Crew-neck henley styling
 Three button neck placket
 Available in SM-5X



Item Number: HSI10.9(N,G,O)(SM-5X) 6.5 oz. Indura® Ultra Soft® in Navy, Gray or Orange (arc rating = 10.9 cal/cm²)
 HSFREMC5(N,LB,O)(SM-5X) 6.3 oz. FR EMC Jersey Knit in Navy, Light Blue or Orange (arc rating = 5 cal/cm²)
 HSPCFR11(N,LB,O)(SM-5X) 6.3 oz. Pro C-FR Interlock Knit in Navy, Gray or Khaki (arc rating = 11 cal/cm²)

FR SHIRT SIZE CHART:

	SM	MD	LG	XL	2X	3X	4X	5X
CHEST	34/36	38/40	42/44	46/48	50/52	54/56	58/60	62/64
NECK	14-14 1/2	15-15 1/2	16-16 1/2	17-17 1/2	18-18 1/2	19-19 1/2	20-20 1/2	21-21 1/2
ARM	28/30	32/34	36/38	40/42	44/46	48/50	52/54	56/58

Available in regular and tall sizes.



FR Pants

General Information:

The T30 pant features a covered-zipper fly closure, a non-metallic waist button closure and seven belt loops for a good fit. Two welted rear inset pockets and two front slash pockets are standard.

Item Number Material:

WPI11(30-50)(inseam) 9 oz. Navy Blue Indura® Ultra Soft® Trousers (ATPV = 11 cal/cm²)

WPI11B(30-50)(inseam) 11 oz. Brown Indura® Ultra Soft® Duck Trousers (ATPV = 13 cal/cm²)

WPNB12(30-50)(inseam) 8 oz. Navy Blue PROTERA™ Trousers (ATPV = 12 cal/cm²)

Available in 30 to 50 inch waist sizes and custom inseams (waist and inseams available in 2-inch increments).



FR Lined Jeans

General Information:

The FR lined jean is a comfortable Level 2 Indura® denim. The pant features large rear pockets with a convenient cell phone pocket on the side. Bartacks are in key stress areas for extended wear-life.

Item Number Material

WPDI18(30-50)(INSEAM) 14 oz. Denim Indura® Jean (ATPV =18 cal/cm²)

WPDI26RSIL(30-50)(INSEAM) 14 oz. Denim Indura® lined Jean w/7 oz. red sanded Indura® liner (ATPV =26.3 cal/cm²)



RF Long Underwear

General Information:

Flash Protection, Inc. offers Arc Flash Protection in FR Long Underwear. Made of flame-resistant waffle knit NOMEX® material for comfort and protection, the underwear top is available in a crew neck or mock turtleneck. Contact FPI for more information.

FPI's FR Long Underwear is available in:

FR waffle-knit NOMEX® material for comfort and protection
Comfortable Indura Ultrasoft in navy

All FPI's safety Apparel FR knits feature:

Breathable knits to keep you comfortable
Generous sizing
Comfortable single needle tape trims the neck seam





FR Fleeces and Outerwear

General Information

This classic fleece sweatshirt is available in a variety of styles and colors to suit your needs:

Available in crew neck, hooded or hooded with zipper styles

All hooded sweatshirts have two front slash pockets.

Hooded sweatshirt with zipper has plastic Vision® zipper (with FR tape) Long sleeves, a variety of colors to choose from.



Choose from the following fabrics and colors:

HSZFREMC18(N,O)(SM-5X) 10 oz. FR EMC Fleece in Navy or Orange (arc rating = 18 cal/cm²)

HSZFREMC25N(SM-5X) 14 oz. FR EMC Fleece in Navy (arc rating =25 cal/cm²)

HSZI11(N,O)(SM-5X) 11 oz. FR Indura Ultra Soft Fleece Hood Sweatshirt with zipper in Navy or Orange (arc rating=21cal/cm²)



Hooded sweatshirt without zipper, long sleeves and a variety of colors to choose from.

HS18(N,O)(SM-5X) 10 oz. FR EMC Fleece in Navy or Orange (arc rating = 18 cal/cm²)

HSFREMC25N(SM-5X) 14 oz. FR EMC Fleece in Navy (arc rating =25 cal/cm²)

HSI11(N,O)(SM-5X) 11 oz. FR Indura Ultra Soft Fleece Hood Sweatshirt in Navy or Orange (arc rating =21cal/cm²)

Crew Neck Sweatshirt:

CNSSFREMC18(N,O)(SM-5X) 10 oz. FR EMC Fleece in Navy or Orange (arc rating = 18 cal/cm²)

CNSSFREMC25N(SM-5X) 14 oz. FR EMC Fleece in Navy (arc rating =25 cal/cm²)

CNSSI11(N,O)(SM-5X) 11 oz. FR Indura Ultra Soft Fleece Hood Sweatshirt in Navy or Orange



Polar Fleece Lined Garments

General Information

The new FR Nomex® Polar Fleece garments allow you to dress lighter and stay warmer. The fleece provides less weight restriction, but at the same time offers fantastic warmth with the soft, comfortable and durable Nomex® Polar Fleece fabric. The fleece jackets are designed to allow for a full range of motion with a loose fit.

FPI offers many styles including our Half-Zip Vest style, Regular style with or without hood, and our Ultimate style. Features include: 24 cal/cm² (Ebt), 13 oz /lyd. black Nomex®, Extra long stand up collar, Large front pockets and attached hoods are available.



Our half-Zip constructed polar fleece provides warmth without the extra added weight. It's highly breathable and provides comfort in working environments without restricting movement.

Item #:

HZVB24(SM-5X)BLACK
HZV24NB(SM-5X) BLUE



Our regular polar fleece is popular for cold weather protection because it's insulated and dries quickly. The jacket has a full zipper front and a draw string hood for added protection.

Item #:

FJHZB24(SM-5X) BLACK
FJHZNB24(SM-5X) NAVY BLUE



Our ultimate polar fleece jacket is generous in all areas allowing a full range of motion. The fleece jacket is designed for any cold weather work environments. The multi-position zippered pockets help you keep your gear organized and safely secured.

Item #:

UFJZB24(SM-5X) BLACK
UFJZNB24(SM-5X) NAVY BLUE

Voltage Gloves



Flash Protection, Inc. supplies tested and date stamped voltage gloves in the following categories:

Class 00 Gloves (500V) VG00-(size)

Class 0 Gloves (1000V) VG0-(size)

Class 2 Gloves (17Kv) VG2-(size)

Sizes 8 -12, incl. 1/2 sizes, in stock

Also available in complete kit form, w/ leather protectors & storage bag.

Voltage Glove Kits

500V Glove Kit VGK - 00 (size)

1000V Glove Kit VGK-0-(size)

17Kv Glove Kit VGK-2-(size)

Glove retesting service is available & we can track your testing schedule for you. Call for details of our testing program.

Sizing of Rubber Gloves

To determine the proper size, measure the distance around the palm of the hand between the thumb and forefinger. Measurement equals glove size to the nearest whole or half.





TW 38-30150U



EXP Kit



BEK 9 Tool Kit

Pictured here is a sampling of some of our kit packages which are the more popular selections. While most tool kits are pretty basic, we have a full range of capabilities for kit platforms. If you have a bill of materials specified we can customize your kit and load it into any of a variety of packages.



TSK6 Tool Kit

The canvas products are most common, from durable pouches or roll ups to a custom belt clip pouch for a small troubleshooters kit. For station kits we can offer various sizes and grades of injection molded cases with die cut foam inserts. For economy in a larger set of tools we can also offer inexpensive blow molded cases with tray inserts.



TK-3

The packaging of your tools is important. If you use proper storage to protect your investment in voltage gloves, why wouldn't you also protect your investment in your voltage rated tools? We'll work with you to build the kit that is right for you!



EMK-30

38DR-SK22





Screwdrivers

1/8 x 3 Cabinet Tip SD	SD18CT3
1/8 x 6 Cabinet Tip SD	SD18CT6
3/16 x 4 Cabinet Tip SD	SD316CT4
3/16 x 6 Cabinet Tip SD	SD316CT6
1/4 x 6 Cabinet Tip SD	SD14CT6
1/4 x 2 Mech. Tip SD	SD14MT2
1/4 x 4 Mech. Tip SD	SD14MT4
5/16 x 6 Mech. Tip SD	SD516MT6
3/8 x 8 Mech. Tip SD	SD38MT8
3/8 x 10 Mech. Tip SD	SD38MT10
#1 x 3 Phillips SD	SD1P3
#2 x 4 Phillips SD	SD2P4
#2 x 8 Phillips SD	SD2P8
#2 x 2 Phillips SD	SD2P2
#3 x 6 Phillips SD	SD3P6

Nutdrivers

3/16 x 3 Nutdriver	ND316-3
1/4 x 3 Nutdriver	ND14-3
5/16 x 3 Nutdriver	ND516-3
11/32 x 3 Nutdriver	ND1132-3
3/8 x 3 Nutdriver	ND38-3
7/16 x 3 Nutdriver	ND716-3
1/2 x 3 Nutdriver	ND12-3
3/16 x 6 Nutdriver	ND316-6
1/4 x 6 Nutdriver	ND14-6
5/16 x 6 Nutdriver	ND516-6
11/32 x 6 Nutdriver	ND1132-6
3/8 x 6 Nutdriver	ND38-6
7/16 x 6 Nutdriver	ND716-6
1/2 x 6 Nutdriver	ND12-6



Metric sizes also available



- | | |
|-------------------------|-------|
| 7" Linemans Plier | LP7 |
| 8" Linemans Plier | LP8 |
| 9" Linemans Plier | LP9 |
| 9" Linemans w/crimper | LP9CR |
| 9" Utility Plier | UP9 |
| 9" Utility w/ bent nose | UP9-B |
| 6" Bent Nose Plier | BNP-6 |
| 6" Needle Nose Plier | NNP6 |
| 7" Needle Nose Plier | NNP7 |
| 8" Needle Nose Plier | NNP8 |
| 10" Water Pump Plier | WPP10 |
| 12" Water Pump Plier | WPP12 |
| 6" Slip Joint Plier | SJ6 |
| 8" Slip Joint Plier | SJ8 |



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|--------------------|-----|
| 6" Diagonal Cutter | DP6 |
| 7" Diagonal Plier | DP7 |
| 8" Diagonal Plier | DP8 |
| 9" Cable Cutter | CC9 |



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|---------------------|-------|
| 10" Crimper | CT-10 |
| 8" Stripper/Crimper | WS8 |
| 9" Stripper/Crimper | WS9 |

Ratchets, Sockets, Extensions



1/4" Drive

1/4 Drive Ratchet	RW14DR
1/4 x 3 Ext. bar	EXT14-3
1/4 x 6 Ext. bar	EXT14-6
1/4 Std Socket, 3/16	SS14-316
1/4 Std Socket, 7/32	SS14-732
1/4 Std Socket, 1/4	SS14-14
1/4 Std Socket, 9/32	SS14-932
1/4 Std Socket, 5/16	SS14-516
1/4 Std Socket, 11/32	SS14-1132
1/4 Std Socket, 3/8	SS14-38
1/4 Std Socket, 7/16	SS14-716
1/4 Std Socket, 1/2	SS14-12
1/4 Deep Socket, 3/16	SDW14-316
1/4 Deep Socket, 7/32	SDW14-732
1/4 Deep Socket, 1/4	SDW14-14
1/4 Deep Socket, 9/32	SDW14-932
1/4 Deep Socket, 5/16	SDW14-516
1/4 Deep Socket, 11/32	SDW14-1132
1/4 Deep Socket, 3/8	SDW14-38
1/4 Deep Socket, 7/16	SDW14-716
1/4 Deep Socket, 1/2	SDW14-12
1/4 Std Socket, 4mm	SS14-4M
1/4 Std Socket, 5mm	SS14-5M
1/4 Std Socket, 6mm	SS14-6M
1/4 Std Socket, 7mm	SS14-7M
1/4 Std Socket, 8mm	SS14-8M
1/4 Std Socket, 9mm	SS14-9M
1/4 Std Socket, 10mm	SS14-10M
1/4 Std Socket, 11mm	SS14-11M
1/4 Std Socket, 12mm	SS14-12M
1/4 Std Socket, 13mm	SS14-13M

3/8" Drive Ratchets, Sockets, Extensions

3/8 Dr. Ratchet	RW38DR
3/8 x 3 Ext. bar	EXT38-3
3/8 x 6 Ext. bar	EXT38-6
3/8 x 12 Ext. bar	EXT38-12

3/8F to 1/4M Adapter	38F14M
3/8F to 1/2M Adapter	38F12M

3/8 Std Socket, 1/4	SS38-14
3/8 Std Socket, 5/16	SS38-516
3/8 Std Socket, 3/8	SS38-38
3/8 Std Socket, 7/16	SS38-716
3/8 Std Socket, 1/2	SS38-12
3/8 Std Socket, 9/16	SS38-916
3/8 Std Socket, 5/8	SS38-58
3/8 Std Socket, 11/16	SS38-1116
3/8 Std Socket, 3/4	SS38-34
3/8 Std Socket, 13/16	SS38-1316
3/8 Std Socket, 7/8	SS38-78
3/8 Std Socket, 15/16	SS38-1516
3/8 Std Socket, 1	SS38-1

3/8 dr. Deep Socket, 3/8	SDW38-38
3/8 dr. Deep Socket, 7/16	SDW38-716
3/8 dr. Deep Socket, 1/2	SDW38-12
3/8 dr. Deep Socket, 9/16	SDW38-916
3/8 dr. Deep Socket, 5/8	SDW38-58
3/8 dr. Deep Socket, 11/16	SDW38-1116
3/8 dr. Deep Socket, 3/4	SDW38-34
3/8 dr. Deep Socket, 13/16	SDW38-1316
3/8 dr. Deep Socket, 7/8	SDW38-78
3/8 dr. Deep Socket, 15/16	SDW38-1516
3/8 dr. Deep Socket, 1	SDW38-1

Metric sizes available in sizes 7-32mm.





1/2" Drive Ratchets, Sockets, Extensions

1/2 Drive Ratchet	RW12DR	1/2 Deep Socket, 1/2	SDW12-12
1/2 x 5 Ext. bar	EXT12-5	1/2 Deep Socket, 9/16	SDW12-916
1/2 x 10 Ext. bar	EXT12-10	1/2 Deep Socket, 5/8	SDW12-58
1/2F to 3/8M Adapter	12F38M	1/2 Deep Socket, 11/16	SDW12-1116
		1/2 Deep Socket, 3/4	SDW12-34
1/2 Std. Socket, 3/8	SS12-38	1/2 Deep Socket, 13/16	SDW12-1316
1/2 Std. Socket, 7/16	SS12-716	1/2 Deep Socket, 7/8	SDW12-78
1/2 Std. Socket, 1/2	SS12-12	1/2 Deep Socket, 15/16	SDW12-1516
1/2 Std. Socket, 9/16	SS12-916	1/2 Deep Socket, 1	SDW12-1
1/2 Std. Socket, 5/8	SS12-58	1/2 Deep Socket, 1-1/16	SDW12-116
1/2 Std. Socket, 11/16	SS12-1116	1/2 Deep Socket, 1-1/8	SDW12-118
1/2 Std. Socket, 3/4	SS12-34		
1/2 Std. Socket, 13/16	SS12-1316	Metric sizes available 10-36mm.	
1/2 Std. Socket, 7/8	SS12-78		
1/2 Std. Socket, 15/16	SS12-1516	1/2 Hex Bit Socket, 3/8	HBS12-38
1/2 Std. Socket, 1	SS12-1	1/2 Hex Bit Socket, 7/16	HBS12-716
1/2 Std. Socket, 1-1/16	SS12-116	1/2 Hex Bit Socket, 1/2	HBS12-12
1/2 Std. Socket, 1-1/8	SS12-118	1/2 Hex Bit Socket, 9/16	HBS12-916
		1/2 Hex Bit Socket, 5/8	HBS12-58



Hex Keys

T-Hex, 1/8	THX-18	T-Hex, 2mm	THX-2M
T-Hex, 5/32	THX-532	T-Hex, 3mm	THX-3M
T-Hex, 3/16	THX-316	T-Hex, 4mm	THX-4M
T-Hex, 7/32	THX-732	T-Hex, 5mm	THX-5M
T-Hex, 1/4	THX-14	T-Hex, 6mm	THX-6M
T-Hex, 5/16	THX-5160	T-Hex, 8mm	THX-8M
T-Hex, 3/8	THX-38	T-Hex, 10mm	THX-10M
T-Hex, 7/16	THX-716		
T-Hex, 1/2	THX-12		



L-HEX, 1/16	LHX-116	L-HEX, 2MM	LHX-2M
L-HEX, 5/64	LHX-564	L-HEX, 3MM	LHX-3M
L-HEX, 3/32	LHX-332	L-HEX, 4MM	LHX-4M
L-HEX, 7/64	LHX-764	L-HEX, 5MM	LHX-5M
L-HEX, 1/8	LHX-18	L-HEX, 6MM	LHX-6M
L-HEX, 9/64	LHX-964	L-HEX, 7MM	LHX-7M
L-HEX, 5/32	LHX-532	L-HEX, 8MM	LHX-8M
L-HEX, 3/16	LHX-316	L-HEX, 9MM	LHX-9M
L-HEX, 7/32	LHX-732	L-HEX, 10MM	LHX-10M
L-HEX, 1/4	LHX-14	L-HEX, 11MM	LHX-11M
L-HEX, 5/16	LHX-516	L-HEX, 12MM	LHX-12M
L-HEX, 3/8	LHX-38	L-HEX, 14MM	LHX-14M
L-HEX, 7/16	LHX-716	L-HEX, 17MM	LHX-17M
L-HEX, 1/2	LHX-12	L-HEX, 19MM	LHX-19M



Open End Wrenches

OE WRENCH, 1/4	OW-14	OE WRENCH, 3/4	OW-34
OE WRENCH, 5/16	OW-516	OE WRENCH, 13/16	OW-1316
OE WRENCH, 3/8	OW-38	OE WRENCH, 7/8	OW-78
OE WRENCH, 7/16	OW-716	OE WRENCH, 15/16	OW-1516
OE WRENCH, 1/2	OW-12	OE WRENCH, 1	OW-1
OE WRENCH, 9/16	OW-916	OE WRENCH, 1-1/16	OW-116
OE WRENCH, 5/8	OW-58	OE WRENCH, 1-1/8	OW-118

Metric sizes available in sizes 7-32mm



Box End Wrenches

BE WRENCH, 1/4	BW-14	BE WRENCH, 3/4	BW-34
BE WRENCH, 5/16	BW-516	BE WRENCH, 13/16	BW-1316
BE WRENCH, 3/8	BW-38	BE WRENCH, 7/8	BW-78
BE WRENCH, 7/16	BW-716	BE WRENCH, 15/16	BW-1516
BE WRENCH, 1/2	BW-12	BE WRENCH, 1	BW-1
BE WRENCH, 9/16	BW-916	BE WRENCH, 1-1/16	BW-116
BE WRENCH, 5/8	BW-58	BE WRENCH, 1-1/8	BW-118
BE WRENCH, 11/16	BW-1116		

Metric sizes available in sizes 7-32mm

Gear Wrenches

GEAR WRENCH, 5/16	RGW-516	GEAR WRENCH, 11/16	RGW-1116
GEAR WRENCH, 3/8	RGW-38	GEAR WRENCH, 3/4	RGW-34
GEAR WRENCH, 7/16	RGW-716	GEAR WRENCH, 13/16	RGW-1316
GEAR WRENCH, 1/2	RGW-12	GEAR WRENCH, 7/8	RGW-78
GEAR WRENCH, 9/16	RGW-916	GEAR WRENCH, 15/16	RGW-1516
GEAR WRENCH, 5/8	RGW-58	GEAR WRENCH, 1	RGW-1

Metric sizes available 8-18mm





Condition of Sale and Return Policy

Flash Protection, Inc.
510 Elm Street
Spring Lake, MI 49456
Fax 616-296-0254

Flash Protection, Inc.. (FPI) passes on the original hand tool manufacturer's life-time warranty/guaranty for the mechanical parts of the tools, provided that they have been used only for their intended purpose.

Voltage gloves are guaranteed to be free from defects in material and workmanship and have been tested with ASTM D-120 specifications for voltage rated gloves. Gloves have been tested & date stamped within 12 months prior to shipping and preserved sealed prior to issue to allow for a 6 month service cycle before re-testing is required.

FR garments & accessory items (hard hats, face shields, safety glasses) have been tested and found in compliance with their respective specifications and to be free from defects in material and workmanship. Products are tested to meet ASTM and when, applicable IEC standards governing their respective categories.

FPI's only obligation will be, at FPI's sole discretion, to repair or replace any part proving defective, or to refund the purchase price.

EXCEPT AS EXPRESSLY SET FORTH HEREIN, FPI MAKES NO REPRESENTATIONS OR WARRANTY WHATSOEVER EXPRESSED OR IMPLIED, INCLUDING, WITHOUT LIMITATION, ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. THE OWNER/USER ASSUMES ALL OTHER RISKS, IF ANY, SUCH AS THE RISK OF ANY DIRECT, INDIRECT, INCIDENTAL, OR CONSEQUENTIAL LOSS OR DAMAGE ARISING OUT OF THE USE OF, OR INABILITY TO USE, THE PRODUCT.

Caution: Electrical Protective Equipment should not be used by workers without complete and detailed instructions and training by the purchaser and/or user specifying the correct and safe use of such equipment.

Returns: Authorization for return of merchandise must be obtained in writing from our office in Michigan. A restocking charge of 25% will apply on all materials returned for credit, provided such goods are in a saleable condition. Returns for stock adjustment may be made without a restocking fee if accompanied by an order of equal or greater value, provided such goods are in a saleable condition. Custom products or specialty items may not be returned for credit. Products may not be returned for credit more than twelve (12) months after the original date of purchase.