



**Vanguard Pipe  
& Fittings Ltd.**



**RADIANT & GEOTHERMAL  
PRODUCT CATALOGUE**

RAD-VAN-1-2010

## RADIANT HEATING

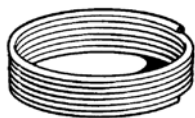
|                                                    |           |
|----------------------------------------------------|-----------|
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| Brass Straight Stops, Valves .....                 | A4        |
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## GEO THERMAL

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Vanguard reserves the right to change pricing without notice, written or verbal.





### CANPEX™ OXY Oxygen Barrier PEX

Coils

100 PSI @ 82.2 °C/180°F

160 PSI @ 23°C/73°F

SDR-9,CTS-OD

ASTM F876/F877/F2023

DIN 4726 STANDARD

CSA B137.5

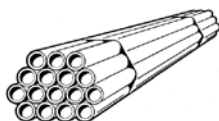
THIRD PARTY CERTIFIED

NSF-pw

CAN/ULC S101/UL 263

CAN/ULC S102.2-3/E84

| Part No.   | Description                       | Coil Size | lbs./Coil   |
|------------|-----------------------------------|-----------|-------------|
| PX0B3C1    | 1/2" CANPEX™ OXY Tubing (5/8" OD) | 100'      | 5.35 lbs.   |
| PX0B3C2.5  |                                   | 250'      | 13.38 lbs.  |
| PX0B3C3    |                                   | 300'      | 16.05 lbs.  |
| PX0B3C5    |                                   | 500'      | 26.75 lbs.  |
| PX0B3C10   |                                   | 1000'     | 53.50 lbs.  |
| PX0B58C2.5 | 5/8 CANPEX™ OXY Tubing (3/4" OD)  | 250'      | 19.75 lbs.  |
| PX0B58C3   |                                   | 300'      | 23.7 lbs.   |
| PX0B58C4   |                                   | 400'      | 31.6 lbs.   |
| PX0B58C5   |                                   | 500'      | 39.5 lbs.   |
| PX0B58C10  |                                   | 1000'     | 79.0 lbs.   |
| PX0B4C1    | 3/4" CANPEX™ OXY Tubing (7/8" OD) | 100'      | 10.23 lbs.  |
| PX0B4C2.5  |                                   | 250'      | 25.58 lbs.  |
| PX0B4C3    |                                   | 300'      | 30.69 lbs.  |
| PX0B4C5    |                                   | 500'      | 51.15 lbs.  |
| PX0B4C10   |                                   | 1000'     | 102.30 lbs. |
| PX0B5C1    | 1" CANPEX™ OXY Tubing (1 1/8" OD) | 100'      | 16.89 lbs.  |
| PX0B5C2.5  |                                   | 250'      | 42.23 lbs.  |
| PX0B5C3    |                                   | 300'      | 50.67 lbs.  |
| PX0B5C5    |                                   | 500'      | 84.45 lbs.  |



### Straight

20' Lengths

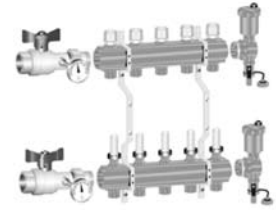
| Part No. | Description                       | Length Size | Bundle Size | lbs Bundle |
|----------|-----------------------------------|-------------|-------------|------------|
| PX0B3L5  | 1/2" CANPEX™ OXY Tubing (5/8" OD) | 20'         | 500'        | 26.75      |
| PX0B4L2  | 3/4" CANPEX™ OXY Tubing (7/8" OD) | 20'         | 200'        | 20.46      |
| PX0B5L1  | 1" CANPEX™ OXY Tubing (1 1/8" OD) | 20'         | 100'        | 16.89      |

| Part No. | Description                                                     |
|----------|-----------------------------------------------------------------|
| VGMC342S | 2 Loop manifold with ball valves, thermometers and flow gauges  |
| VGMC343S | 3 Loop manifold with ball valves, thermometers and flow gauges  |
| VGMC344S | 4 Loop manifold with ball valves, thermometers and flow gauges  |
| VGMC345S | 5 Loop manifold with ball valves, thermometers and flow gauges  |
| VGMC346S | 6 Loop manifold with ball valves, thermometers and flow gauges  |
| VGMC347S | 7 Loop manifold with ball valves, thermometers and flow gauges  |
| VGMC348S | 8 Loop manifold with ball valves, thermometers and flow gauges  |
| VGMC349S | 9 Loop manifold with ball valves, thermometers and flow gauges  |
| VGMC350S | 10 Loop manifold with ball valves, thermometers and flow gauges |

\*Manual air vents available through special orders

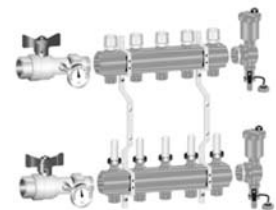
| Part No.    | Description                                                     |
|-------------|-----------------------------------------------------------------|
| VGMC346S.25 | 6 Loop manifold with ball valves, thermometers and flow gauges  |
| VGMC347S.25 | 7 Loop manifold with ball valves, thermometers and flow gauges  |
| VGMC348S.25 | 8 Loop manifold with ball valves, thermometers and flow gauges  |
| VGMC349S.25 | 9 Loop manifold with ball valves, thermometers and flow gauges  |
| VGMC350S.25 | 10 Loop manifold with ball valves, thermometers and flow gauges |

\*Manual air vents available through special orders



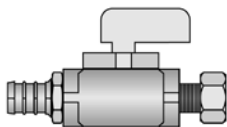
#### Vanguard 1" Pre-Assembled Manifold

With red and blue butterfly handle isolator ball valves, thermometers, automatic airvents, fill port, flow meters and mounting brackets.



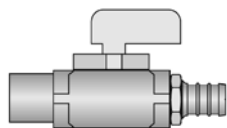
#### Vanguard 1 1/4" Pre-Assembled Manifold

With red and blue butterfly handle isolator ball valves, thermometers, automatic airvents, fill port, flow meters and mounting brackets.



**Straight Valve**  
Insert x Compression

| Part No.   | Description                                        | Bag Wgt. | Bag Qty. |
|------------|----------------------------------------------------|----------|----------|
| 702010074C | 1/2" Insert x 3/8 Comp Straight Stop Chrome Plated | .21      | 1        |
| 701800005  | 1/2" Insert x 5/8 Comp Balancing Valve (Brass)     | .69      | 1        |
| 701810005  | 1/2" Insert x 5/8 Shut Off Valve (Chrome)          | .67      | 1        |



**CF Sweat x Insert**

| Part No.   | Description                               | Bag Wgt. | Bag Qty. |
|------------|-------------------------------------------|----------|----------|
| 701213005C | 1/2" Insert x Copper Female Sweat x Valve | .40      | 1        |
| 701211007C | 3/4" Insert x Copper Female Sweat x Valve | .58      | 1        |

| Part No.  | Description                                          | Box Wgt.  | Box Qty. |
|-----------|------------------------------------------------------|-----------|----------|
| 710075003 | 3/4" Female Copper x 3 Branch (1/2") PEX x CLSD End  | 6.5 lbs.  | 10       |
| 710075004 | 3/4" Female Copper x 4 Branch (1/2") PEX x CLSD End  | 7.5 lbs.  | 10       |
| 710075005 | 3/4" Female Copper x 5 Branch (1/2") PEX x CLSD End  | 9.0 lbs.  | 10       |
| 710075006 | 3/4" Female Copper x 6 Branch (1/2") PEX x CLSD End  | 10.5 lbs. | 10       |
| 710075007 | 3/4" Female Copper x 7 Branch (1/2") PEX x CLSD End  | 12.5 lbs. | 10       |
| 710075008 | 3/4" Female Copper x 8 Branch (1/2") PEX x CLSD End  | 13.5 lbs. | 10       |
| 710075009 | 3/4" Female Copper x 9 Branch (1/2") PEX x CLSD End  | 15.5 lbs. | 10       |
| 710075010 | 3/4" Female Copper x 10 Branch (1/2") PEX x CLSD End | 16.5 lbs. | 10       |
| 710075011 | 3/4" Female Copper x 11 Branch (1/2") PEX x CLSD End | 18.5 lbs. | 10       |
| 710075012 | 3/4" Female Copper x 12 Branch (1/2") PEX x CLSD End | 20.0 lbs. | 10       |
| 710575003 | 3/4" PEX x 3 BR (1/2") PEX, 2" Center x CLSD End     | 8.0 lbs.  | 10       |
| 710575004 | 3/4" PEX x 4 BR (1/2") PEX, 2" Center x CLSD End     | 9.5 lbs.  | 10       |
| 710575006 | 3/4" x PEX x 6 BR (1/2") PEX, 2" Center x CLSD End   | 12.0 lbs. | 10       |
| 710575007 | 3/4" x PEX x 7 BR (1/2") PEX, 2" Center x CLSD End   | 14.0 lbs. | 10       |
| 710575008 | 3/4" x PEX x 8 BR (1/2") PEX, 2" Center x CLSD End   | 15.0 lbs. | 10       |
| 714009072 | 1 X 24 BR (1/2) PEX, 3" Center 72" PEX Header        | 32.0 lbs. | 6        |
| 714009166 | 1 1/4" X 24 BR (1/2) PEX, 3" Center 72" PEX Header   | 27.5 lbs. | 4        |

Copper Tee Drilled,  
Crimp-On Manifold

| Part No.  | Description                                        | Box Wgt.  | Box Qty. |
|-----------|----------------------------------------------------|-----------|----------|
| 713010070 | 1 X 1/2 - 24 BR - 72" Copper Header, 3" Center     | 29.5 lbs. | 5        |
| 713010072 | 1 X 3/4 - 24 BR - 72" Copper Header, 3" Center     | 24.0 lbs. | 4        |
| 713012070 | 1 1/4 X 1/2 - 24 BR - 72" Copper Header, 3" Center | 28.0 lbs. | 4        |
| 713012072 | 1 1/4 X 3/4 - 24 BR - 72" Copper Header, 3" Center | 29.5 lbs. | 4        |
| 713015072 | 1 1/2 X 3/4 - 24 BR - 72" Copper Header, 3" Center | 27.5 lbs. | 3        |
| 713020072 | 2 X 3/4 - 24 BR - 72" Copper Header, 3" Center     | 26.0 lbs. | 2        |

Copper Tee Drilled,  
Sweat-On Manifold

| Part No.   | Description                                      | Box Wgt.  | Box Qty. |
|------------|--------------------------------------------------|-----------|----------|
| 710085002  | 3/4" Female Copper x 2BR (5/8") Comp x CLSD End  | 4.9 lbs.  | 10       |
| 710085003  | 3/4" Female Copper x 3BR (5/8") Comp x CLSD End  | 6.5 lbs.  | 10       |
| 710085004  | 3/4" Female Copper x 4BR (5/8") Comp x CLSD End  | 7.5 lbs.  | 10       |
| 710085005  | 3/4" Female Copper x 5BR (5/8") Comp x CLSD End  | 9.0 lbs.  | 10       |
| 710085006  | 3/4" Female Copper x 6BR (5/8") Comp x CLSD End  | 10.5 lbs. | 10       |
| 710085007  | 3/4" Female Copper x 7BR (5/8") Comp x CLSD End  | 12.5 lbs. | 10       |
| 710085008  | 3/4" Female Copper x 8BR (5/8") Comp x CLSD End  | 13.5 lbs. | 10       |
| 710085009  | 3/4" Female Copper x 9BR (5/8") Comp x CLSD End  | 15.5 lbs. | 10       |
| 7100850010 | 3/4" Female Copper x 10BR (5/8") Comp x CLSD End | 16.5 lbs. | 10       |
| 7100850011 | 3/4" Female Copper x 11BR (5/8") Comp x CLSD End | 18.5 lbs. | 10       |
| 7100850012 | 3/4" Female Copper x 12BR (5/8") Comp x CLSD End | 20.0 lbs. | 10       |

Copper Tee Drilled,  
Compression Manifold



Automatic Air Flow Vent

| Part No. | Description        |
|----------|--------------------|
| 419      | Automatic Air Vent |

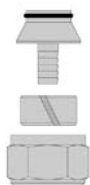
Included in manifold



Manifold Thermometer

| Part No. | Description           |
|----------|-----------------------|
| 448B     | Temperature Indicator |

Included in manifold



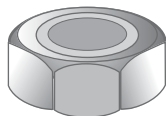
Compression x  
Manifold Fitting

| Part No. | Description           |
|----------|-----------------------|
| R2038CP  | 3/8" Manifold Adapter |
| R2012CP  | 1/2" Manifold Adapter |
| R2058CP  | 5/8" Manifold Adapter |
| R2034CP  | 3/4" Manifold Adapter |



Circuit Actuators

| Part No. | Description                   |
|----------|-------------------------------|
| AM24V    | Manifold Actuator 24V, 2-Wire |
| AM24V4   | Manifold Actuator 24V, 4-Wire |



Circuit Cap

| Part No. | Description               |
|----------|---------------------------|
| 227      | 3/4" Manifold Circuit Cap |



Zone Control

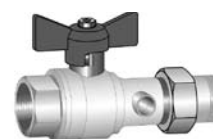
| Part No. | Description          |
|----------|----------------------|
| ZC4      | Zone Control 4 Zones |
| ZC6      | Zone Control 6 Zones |

| Part No. | Description                        |
|----------|------------------------------------|
| 422R     | Manifold Isolater Valve Red Handle |



Manifold Isolater Valve  
Red

| Part No. | Description                         |
|----------|-------------------------------------|
| 422B     | Manifold Isolater Valve Blue Handle |



Manifold Isolater Valve  
Blue

| Part No. | Description          |
|----------|----------------------|
| 418T     | Manual Air Flow Vent |



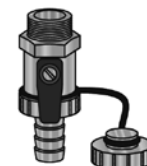
Manual Air Flow Vent

| Part No. | Description       |
|----------|-------------------|
| 229      | Fill Port Adapter |



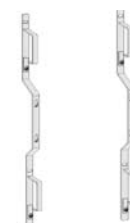
Fill Port Adapter

| Part No. | Description |
|----------|-------------|
| 476A     | Fill Port   |



Fill Port

| Part No. | Description                 |
|----------|-----------------------------|
| 271      | Manifold Bracket (Set of 2) |

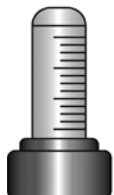


Manifold Brackets



Handle For Flow Meter

| Part No. | Description               |
|----------|---------------------------|
| VOL4     | Red Handle for Flow Meter |



Flow Meter

| Part No. | Description         |
|----------|---------------------|
| GRM6     | Flow Meter, 0-6 GPM |



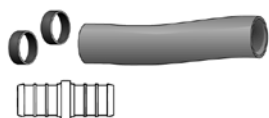
Return Valve Cap

| Part No. | Description      |
|----------|------------------|
| 399      | Return Valve Cap |



Digital Thermostat

| Part No.     | Description                              |
|--------------|------------------------------------------|
| TH115-A-24V  | Programable ambient thermostat           |
| TH115-AF-24T | Programable ambient floor thermostat     |
| TH114-A-24T  | Non programable ambient thermostat       |
| TH114-AF-24T | Non programable ambient floor thermostat |



In-Slab Repair Kit

| Part No.                | Description             | Bag Qty. |
|-------------------------|-------------------------|----------|
| CBXRK33HR/<br>XPXRK33HR | 1/2" In-Slab Repair Kit | 1        |
| CBXRK58HR/<br>XPXRK58HR | 5/8" In-Slab Repair Kit | 1        |
| CBXRK44HR/<br>XPXRK44HR | 3/4" In-Slab Repair Kit | 1        |

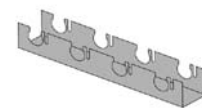
\*Available in both PAL & Brass



Plastic Slip-On Elbow for Slab

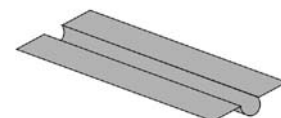
| Part No. | Description                             |
|----------|-----------------------------------------|
| HRSL3    | 1/2" PEX Plastic Slip On Elbow for Slab |
| HRSL4    | 3/4" PEX Plastic Slip On Elbow for Slab |

| Part No. | Description                             |
|----------|-----------------------------------------|
| CLMR3    | 1/2" Plastic Pipe Tracking (13' length) |
| CLMR4    | 3/4" Plastic Pipe Tracking (13' length) |



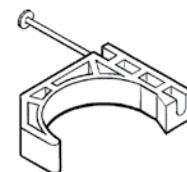
Fixing Rails

| Part No. | Description                                                 |
|----------|-------------------------------------------------------------|
| HTRP3    | 1/2" Heat Transfer Plates                                   |
| TFIN38   | 1/2" x 8' Thermofin C Heat Transfer Plate, Thermofin Screws |
| TFINSCR  | Screw for Transfer Plate (100/Bag)                          |
| TFINRDRV | Driver for Transfer Plate (100/Bag)                         |



Heat Transfer Plates

| Part No. | Description            | Bag Qty. | Box Qty. |
|----------|------------------------|----------|----------|
| CLJ2     | 3/8" J-Clamp with Nail | 100      | 500      |
| CLJ3     | 1/2" J-Clamp with Nail | 100      | 500      |
| CLJ4     | 3/4" J-Clamp with Nail | 100      | 500      |
| CLJ5     | 1" J-Clamp with Nail   | 50       | 250      |



Tube Clamps

| Part No. | Description           | Bag Qty. | Box Qty. |
|----------|-----------------------|----------|----------|
| CLE2     | 3/8" CTS Tubing Clamp | 100      | 1000     |
| CLE3     | 1/2" CTS Tubing Clamp | 100      | 1000     |
| CLE4     | 3/4" CTS Tubing Clamp | 50       | 500      |

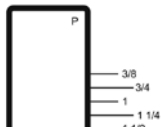


Tube Clips

| Part No. | Description    | Bag Qty. | Box Qty. |
|----------|----------------|----------|----------|
| LCH3     | 1/2" Lock-Clip | 100      | 1200     |
| LCH4     | 3/4" Lock-Clip | 50       | 600      |
| LCH5     | 1" Lock-Clip   | 50       | 400      |

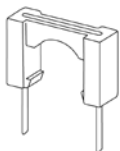


Lock-Clip



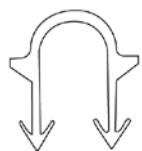
Staple for  
Pneumatic Stapler

| Part No. | Description                  | Box Qty. |
|----------|------------------------------|----------|
| PSPL     | Staple for Pneumatic Stapler | 10,000   |



Rider Staple

| Part No. | Description                                         | Bag Qty. | Box Qty. |
|----------|-----------------------------------------------------|----------|----------|
| RS2.1    | Rider Staple<br>(For 3/8", 1/2" and 5/8" OD Tubing) | 20       | 500      |



Foam Staple

| Part No. | Description                                                  | Bag Qty. | Box Qty. |
|----------|--------------------------------------------------------------|----------|----------|
| FSPL     | Foam Staple (2 3/8" in length)<br>(For 1/2", 5/8" OD Tubing) | 30       | 300      |



Pneumatic Stapler

| Part No. | Description      | Box Qty. |
|----------|------------------|----------|
| PSGN     | Pneumatic Staple | 1        |



Rider Staple Gun

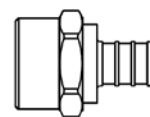
| Part No. | Description      | Box Qty. |
|----------|------------------|----------|
| STAT1    | Rider Staple Gun | 1        |



Foam Staple Gun

| Part No. | Description                          | Box Qty. |
|----------|--------------------------------------|----------|
| FSGP     | Foam Stapler (For 1/2", 5/8" tubing) | 1        |

| Part No. | Description            | Bag Qty. | Box Qty. |
|----------|------------------------|----------|----------|
| CBXFC23  | 3/8" Insert x 1/2" FPT | 25       | 200      |
| CBXFC33  | 1/2" Insert x 1/2" FPT | 25       | 200      |
| CBXFC34  | 1/2" Insert x 3/4" FPT | 25       | 150      |
| CBXFC44  | 3/4" Insert x 3/4" FPT | 25       | 150      |
| CBXFC55  | 1" Insert x 1" FPT     | 25       | 150      |



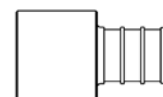
**FPT Adapters**  
Insert x FPT

| Part No. | Description                       | Bag Qty. | Box Qty. |
|----------|-----------------------------------|----------|----------|
| CBXC23M  | 3/8" Insert x 1/2" Sweat (M)      | 50       | 500      |
| CBXC33M  | 1/2" Insert x 1/2" Sweat (M)      | 50       | 500      |
| CBXC58M  | 5/8" Insert x 3/4" Sweat (M)      | 50       | 500      |
| CBXC44M  | 3/4" Insert x 3/4" Sweat (M)      | 25       | 300      |
| CBXC55MC | 1" Insert x 1" Sweat (M) (Copper) | 10       | 100      |



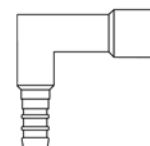
**Male Sweat Adapters**  
Insert x Male Sweat

| Part No. | Description                       | Bag Qty. | Box Qty. |
|----------|-----------------------------------|----------|----------|
| CBXC33F  | 1/2" Insert x 1/2" Sweat (F)      | 50       | 500      |
| CBXC584F | 5/8" Insert x 3/4" Sweat (F)      | 50       | 500      |
| CBXC44F  | 3/4" Insert x 3/4" Sweat (F)      | 25       | 250      |
| CBXC55FC | 1" Insert x 1" Sweat (F) (Copper) | 10       | 50       |



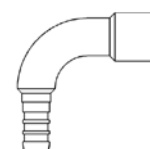
**Female Sweat Adapters**  
Insert x Female Sweat

| Part No. | Description                  | Bag Qty. | Box Qty. |
|----------|------------------------------|----------|----------|
| CBXE23FC | 3/8" Insert x 1/2" Sweat (F) | 25       | 250      |
| CBXE33FC | 1/2" Insert x 1/2" Sweat (F) | 50       | 500      |
| CBXE44FC | 3/4" Insert x 3/4" Sweat (F) | 25       | 250      |



**Sweat Elbows**  
Insert x Female Sweat

| Part No. | Description                  | Bag Qty. | Box Qty. |
|----------|------------------------------|----------|----------|
| CBXE23MC | 3/8" Insert x 1/2" Sweat (M) | 50       | 500      |
| CBXE33MC | 1/2" Insert x 1/2" Sweat (M) | 50       | 500      |
| CBXE44MC | 3/4" Insert x 3/4" Sweat (M) | 25       | 250      |

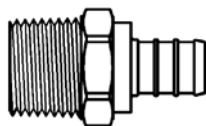


**Sweat Elbows**  
Insert x Male Sweat



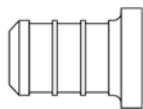
Black Copper Crimp Rings

| Part No. | Description                 | Bag Qty. | Ctn Qty. |
|----------|-----------------------------|----------|----------|
| CBXCR2   | Copper Ring for 3/8" Tubing | 100      | 2000     |
| CBXCR3   | Copper Ring for 1/2" Tubing | 100      | 1000     |
| CBXCR58  | Copper Ring for 5/8" Tubing | 100      | 500      |
| CBXCR4   | Copper Ring for 3/4" Tubing | 100      | 500      |
| CBXCR5   | Copper Ring for 1" Tubing   | 50       | 250      |

MPT Adapters  
Insert x MPT

| Part No.           | Description            | Bag Qty. | Box Qty. |
|--------------------|------------------------|----------|----------|
| CBXMC23/<br>XPMC23 | 3/8" Insert x 1/2" MPT | 50       | 300      |
| CBXMC33/<br>XPMC33 | 1/2" Insert x 1/2" MPT | 50       | 300      |
| CBXMC34/<br>XPMC34 | 1/2" Insert x 3/4" MPT | 25       | 200      |
| CBXMC43/<br>XPMC43 | 3/4" Insert x 1/2" MPT | 25       | 250      |
| CBXMC44/<br>XPMC44 | 3/4" Insert x 3/4" MPT | 25       | 200      |
| CBXMC55/<br>XPMC55 | 1" Insert x 1" MPT     | 10       | 50       |

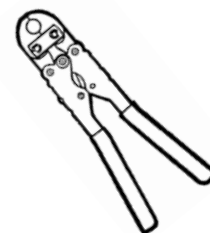
\*Available in both PAL &amp; Brass



Plastic Test Plugs

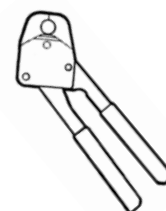
| Part No. | Description                         | Bag Qty. | Box Qty. |
|----------|-------------------------------------|----------|----------|
| CBXP2    | 3/8" PLS (Plastic) Insert Test Plug | 100      | 1000     |
| CBXP3    | 1/2" PLS (Plastic) Insert Test Plug | 100      | 1000     |
| CBXP4    | 3/4" PLS (Plastic) Insert Test Plug | 50       | 1000     |
| CBXP5    | 1" PLS (Plastic) Insert Test Plug   | 25       | 500      |

| Part No. | Description              | Weight    |
|----------|--------------------------|-----------|
| HAD2     | 3/8" Full-Circle Crimper | 4.20 lbs. |
| HAD3     | 1/2" Full-Circle Crimper | 4.30 lbs. |
| HAD4     | 3/4" Full-Circle Crimper | 4.90 lbs. |
| HAD5     | 1" Full-Circle Crimper   | 5.50 lbs. |
| HAD34    | 3/4" and 1/2" Crimper    | 4.90 lbs. |



Crimp Tools

| Part No. | Description                      | Weight   |
|----------|----------------------------------|----------|
| HCM2     | Compact 3/8" Full-Circle Crimper | 2.0 lbs. |
| HCM3     | Compact 1/2" Full-Circle Crimper | 2.1 lbs. |
| HCM4     | Compact 3/4" Full-Circle Crimper | 2.5 lbs. |



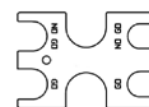
Crimpmaker™

| Part No. | Description             | Weight   |
|----------|-------------------------|----------|
| EZ2      | 1/2" EZ2 Stroke Crimper | 2.1 lbs. |
| EZ2      | 3/4" EZ2 Stroke Crimper | 2.5 lbs. |



EZ2 Crimp Tool

| Part No. | Description                                                | Weight    |
|----------|------------------------------------------------------------|-----------|
| HAC234   | Measures 3/8," 1/2" and 3/4"<br>Finished Crimp by GO/NO-GO | 0.11 lbs. |



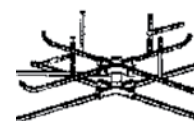
Crimp Caliper

| Part No. | Description                      | Weight    |
|----------|----------------------------------|-----------|
| HAK5M    | Tubing Cutter (up to 1-1/4" CTS) | 0.12 lbs. |
| HAKB5M   | Replacement Blade                | 0.07 lbs. |



Tubing Cutter

| Part No. | Description     | Weight  |
|----------|-----------------|---------|
| TATK200  | Tubing Uncoiler | 30 lbs. |



Tubing Uncoiler

Continuous coils suitable for horizontal or vertical heat exchange loops.  
Coils greater than 200' in length are decrementally marked.

| Part Number | Nominal Size                      | Minimum Wall | Coil Length | Weight Per Coil |
|-------------|-----------------------------------|--------------|-------------|-----------------|
| BLA4C1      | 3/4" Nominal (1.05 OD, 0.85 ID)   | .100         | 100'        | 13.0            |
| BLA4C2      |                                   |              | 200'        | 25.9            |
| BLA4C3      |                                   |              | 300'        | 38.8            |
| BLA4C5      |                                   |              | 500'        | 64.7            |
| BLA4C6      |                                   |              | 600'        | 77.6            |
| BLA5C1      | 1" Nominal (1.32 OD, 1.08 ID)     | .120         | 100'        | 20.3            |
| BLA5C2      |                                   |              | 200'        | 40.6            |
| BLA5C3      |                                   |              | 300'        | 60.9            |
| BLA6C1      | 1 1/4" Nominal (1.66 OD, 1.36 ID) | .150         | 100'        | 32.2            |
| BLA6C2      |                                   |              | 200'        | 63.7            |
| BLA6C5      |                                   |              | 500'        | 161.0           |
| BLA7C1      | 1 1/2" Nominal (1.90 OD, 1.56 ID) | .170         | 100'        | 40.4            |
| BLA7C2      |                                   |              | 200'        | 80.9            |
| BLA8C1      | 2" Nominal (2.38 OD, 1.94 ID)     | .220         | 100'        | 63.9            |
| BLA8C2      |                                   |              | 200'        | 127.8           |
| BLA8C2.5    |                                   |              | 250'        | 159.12          |

Orders for items involving special lengths not held in stock will require no less than 4 weeks lead time.  
Minimum orders may be required. Please inquire before ordering.

Suitable for construction of headers or connecting loops.

| Part Number | Nominal Size                      | Minimum Wall | Bundle Qty.  | Weight Per Bundle |
|-------------|-----------------------------------|--------------|--------------|-------------------|
| BLA4L2      | 3/4" Nominal (1.05 OD, 0.85 ID)   | .100         | 200' (10pcs) | 26.0              |
| BLA5L1      | 1" Nominal (1.32 OD, 1.08 ID)     | .120         | 100' (5pcs)  | 20.5              |
| BLA6L1      | 1 1/4" Nominal (1.66 OD, 1.36 ID) | .150         | 100' (5pcs)  | 32.2              |
| BLA7L1      | 1 1/2" Nominal (1.90 OD, 1.56 ID) | .170         | 100' (5pcs)  | 40.4              |
| BLA8L1      | 2" Nominal (2.38 OD, 1.94 ID)     | .220         | 100' (5pcs)  | 63.2              |



**GEO-Black**  
160 PSI, SDR-11  
IPS-OD  
CSA B137.1  
CSA C448  
PE4710  
ASTM D 3035



**Straight**  
20' Lengths



Items below are not held in stock and will require no less than 4 weeks lead time. Minimum orders may be required. Please inquire before ordering for availability in your region.

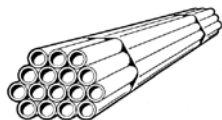


#### GEO-Black

Schedule 40  
IPS-OD  
CSA B137.1  
CSA C448  
PE4710  
ASTM D 2447

Continuous coils generally used for inground heat exchanger loops or for supply/return piping. Coils greater than 200' in length are decremenatly marked.

| Part Number | Nominal Size                      | Minimum Wall | Coil Length | Weight Per Coil |
|-------------|-----------------------------------|--------------|-------------|-----------------|
| BDA6C1      | 1 1/4" Nominal (1.66 OD, 1.38 ID) | .140         | 100'        | 29.4            |
| BDA6C2      |                                   |              | 200'        | 58.6            |
| BDA7C1      | 1 1/2" Nominal (1.90 OD, 1.60 ID) | .150         | 100'        | 35.1            |
| BDA7C2      |                                   |              | 200'        | 70.0            |
| BDA8C1      | 2" Nominal (2.38 OD, 2.08 ID)     | .150         | 100'        | 47.1            |
| BDA8C2      |                                   |              | 200'        | 93.9            |



#### Straight

20' Lengths

Suitable for construction of headers or connecting loops.

| Part Number | Nominal Size                      | Minimum Wall | Bundle Qty.     | Weight Per Bundle |
|-------------|-----------------------------------|--------------|-----------------|-------------------|
| BDA6L1      | 1 1/4" NOMINAL (1.66 OD, 1.38 ID) | .140         | 100'<br>(5 pcs) | 29.4              |
| BDA7L1      | 1 1/2" NOMINAL (1.90 OD, 1.60 ID) | .150         | 100'<br>(5 pcs) | 35.1              |
| BDA8L1      | 2" NOMINAL (2.38 OD, 2.08 ID)     | .150         | 100'<br>(5 pcs) | 47.1              |



Custom length loops include two coils of pipe and U-Bend. Each loop is factory assembled and ready for installation. Have required loop length available when ordering. Item is available pressurized and capped with snifter valve if required.

| Part Number | Size                                        |
|-------------|---------------------------------------------|
| UBA4N       | 3/4" Narrow U-Bend Assembly (2 1/2" Across) |
| UBA5N       | 1" Narrow U-Bend Assembly (3" Across)       |
| UBA6        | 1 1/4" U-Bend Assembly                      |

| Part Number | Description                    | Wt.  | Qty. |
|-------------|--------------------------------|------|------|
| YFK644K02H  | 1 1/4" Inlet X (3) 3/4" Outlet | 0.31 | 1    |
| YFK644K03H  | 1 1/4" Inlet X (4) 3/4" Outlet | 0.39 | 1    |
| YFK644K04H  | 1 1/4" Inlet X (5) 3/4" Outlet | 0.65 | 1    |
| YFK644K05H  | 1 1/4" Inlet X (6) 3/4" Outlet | 0.92 | 1    |
| YFK644K06H  | 1 1/4" Inlet X (7) 3/4" Outlet | 1.19 | 1    |
| YFK844K07H* | 2" Inlet X (8) 3/4" Outlet     | 1.95 | 1    |
| YFK844K08H* | 2" Inlet X (9) 3/4" Outlet     | 2.68 | 1    |
| YFK844K09H* | 2" Inlet X (10) 3/4" Outlet    | 3.99 | 1    |
| YFK655K02H* | 1 1/4" Inlet X (3) 1" Outlet   | 0.54 | 1    |
| YFK655K03H* | 1 1/4" Inlet X (4) 1" Outlet   | 1.02 | 1    |
| YFK655K04H* | 1 1/4" Inlet X (5) 1" Outlet   | 1.61 | 1    |
| YFK655K05H* | 1 1/4" Inlet X (6) 1" Outlet   | 1.76 | 1    |
| YFK655K06H* | 1 1/4" Inlet X (7) 1" Outlet   | 2.58 | 1    |
| YFK855K07H* | 2" Inlet X (8) 1" Outlet       | 3.17 | 1    |
| YFK855K08H* | 2" Inlet X (9) 1" Outlet       | 3.83 | 1    |
| YFK855K09H* | 2" Inlet X (10) 1" Outlet      | 4.65 | 1    |

\*May require additional lead time.



**Geoheader Alternated**  
180° Fusion Header  
Fusion x Fusion x Fusion

| Part Number | Description                    | Wt.  | Qty. |
|-------------|--------------------------------|------|------|
| YFK644K02   | 1 1/4" Inlet X (3) 3/4" Outlet | 0.31 | 1    |
| YFK644K03   | 1 1/4" Inlet X (4) 3/4" Outlet | 0.47 | 1    |
| YFK644K04   | 1 1/4" Inlet X (5) 3/4" Outlet | 0.55 | 1    |
| YFK644K05   | 1 1/4" Inlet X (6) 3/4" Outlet | 0.81 | 1    |
| YFK644K06   | 1 1/4" Inlet X (7) 3/4" Outlet | 1.08 | 1    |
| YFK844K07*  | 2" Inlet X (8) 3/4" Outlet     | 2.25 | 1    |
| YFK844K08*  | 2" Inlet X (9) 3/4" Outlet     | 2.68 | 1    |
| YFK844K09*  | 2" Inlet X (10) 3/4" Outlet    | 4.00 | 1    |
| YFK655K02*  | 1 1/4" Inlet X (3) 1" Outlet   | 0.54 | 1    |
| YFK655K03*  | 1 1/4" Inlet X (4) 1" Outlet   | 1.03 | 1    |
| YFK655K04*  | 1 1/4" Inlet X (5) 1" Outlet   | 1.34 | 1    |
| YFK655K05*  | 1 1/4" Inlet X (6) 1" Outlet   | 2.02 | 1    |
| YFK655K06*  | 1 1/4" Inlet X (7) 1" Outlet   | 2.58 | 1    |
| YFK855K07*  | 2" Inlet X (8) 1" Outlet       | 3.17 | 1    |
| YFK855K08*  | 2" Inlet X (9) 1" Outlet       | 3.83 | 1    |
| YFK855K09*  | 2" Inlet X (10) 1" Outlet      | 4.67 | 1    |

\*May require additional lead time.



**Geoheader Parallel Fusion**  
Header Fusion x Fusion x Fusion



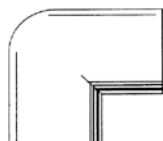
**Fusion Couplings**  
Fusion x Fusion

| Part Number | Description     | Wt.  | Bag Qty. |
|-------------|-----------------|------|----------|
| YFPC44      | 3/4" X 3/4"     | 2.25 | 25       |
| YFPC54      | 1" X 3/4"       | 2.25 | 25       |
| YFPC55      | 1" X 1"         | 2.25 | 25       |
| YFPC64      | 1 1/4" X 3/4"   | 3.37 | 25       |
| YFPC65      | 1 1/4" X 1"     | 3.00 | 25       |
| YFPC66      | 1 1/4" X 1 1/4" | 3.50 | 20       |
| YFPC74      | 1 1/2" X 3/4"   | 1.72 | 15       |
| YFPC75      | 1 1/2" X 1      | 1.80 | 15       |
| YFPC76      | 1 1/2" X 1 1/4" | 2.32 | 15       |
| YFPC77      | 1 1/2" X 1 1/2" | 2.17 | 15       |
| YFPC85      | 2" X 1"         | 1.90 | 10       |
| YFPC86      | 2" X 1 1/4"     | 1.65 | 10       |
| YFPC87      | 2" X 1 1/2"     | 1.45 | 10       |
| YFPC88      | 2" X 2"         | 1.40 | 10       |



**Fusion Tee**  
Fusion x Fusion x Fusion

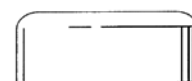
| Part Number | Description              | Wt.  | Bag Qty. |
|-------------|--------------------------|------|----------|
| YFPT444     | 3/4" x 3/4" x 3/4"       | 2.25 | 25       |
| YFPT554     | 1" x 1" x 3/4"           | 3.84 | 25       |
| YFPT555     | 1" x 1" x 1"             | 2.47 | 15       |
| YFPT644     | 1 1/4" x 3/4" x 3/4"     | 2.25 | 10       |
| YFPT664     | 1 1/4" x 1 1/4" x 3/4"   | 2.25 | 10       |
| YFPT655     | 1 1/4" x 1" x 1"         | 2.78 | 10       |
| YFPT665     | 1 1/4" x 1 1/4" x 1"     | 3.05 | 10       |
| YFPT666     | 1 1/4" x 1 1/4" x 1 1/4" | 2.20 | 5        |
| YFPT777     | 1 1/2" x 1 1/2" x 1 1/2" | 1.45 | 5        |
| YFPT884     | 2" x 2" x 3/4"           | 2.45 | 3        |
| YFPT885     | 2" x 2" x 1"             | 1.47 | 3        |
| YFPT888     | 2" x 2" x 2"             | 1.50 | 3        |



**Fusion Elbow 90°**  
Fusion x Fusion

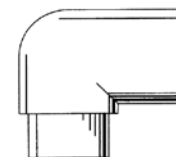
| Part Number | Description     | Wt.  | Bag Qty. |
|-------------|-----------------|------|----------|
| YFPE44      | 3/4" x 3/4"     | 2.00 | 25       |
| YFPE54      | 1" x 3/4"       | 3.00 | 25       |
| YFPE55      | 1" x 1"         | 2.60 | 20       |
| YFPE64      | 1 1/4" x 3/4"   | 3.50 | 20       |
| YFPE65      | 1 1/4" x 1"     | 2.86 | 15       |
| YFPE66      | 1 1/4" x 1 1/4" | 4.05 | 10       |
| YFPE77      | 1 1/2" x 1 1/2" | 2.40 | 10       |
| YFPE88      | 2" x 2"         | 2.10 | 5        |

| Part Number | Description | Wt.  | Bag Qty. |
|-------------|-------------|------|----------|
| YFPCP4      | 3/4"        | 1.25 | 50       |
| YFPCP5      | 1"          | 4.25 | 50       |
| YFPCP6      | 1 1/4"      | 2.50 | 50       |
| YFPCP7      | 1 1/2"      | 4.25 | 25       |
| YFPCP8      | 2"          | 3.15 | 15       |



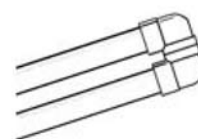
End Cap Fusion

| Part Number | Description                            | Wt.  | Bag Qty. |
|-------------|----------------------------------------|------|----------|
| YFPEU44     | Use with YFPE44 (U-DO 3/4" U-Bend)     | 1.37 | 25       |
| YFPEU55     | Use with YFPE55 (U-DO 1" U-Bend)       | 2.12 | 25       |
| YFPEU66F    | Use with YFPEU66M (U-DO 1 1/4" U-Bend) | 1.85 | 10       |
| YFPEU66M    | Use with YFPEU66F (U-DO 1 1/4" U-Bend) | 1.75 | 10       |



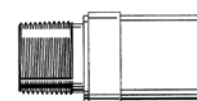
Fusion U-DO Elbow

| Part Number | Description                              | Wt.  | Bag Qty. |
|-------------|------------------------------------------|------|----------|
| YFUB4N      | 3/4" Narrow U-Bend                       | 0.52 | 1        |
| YFUB4NC     | 3/4" Narrow U-Bend with Fusion Couplings | 0.62 | 1        |
| YFUB5N      | 1" Narrow U-Bend                         | 0.80 | 1        |
| YFUB5NC     | 1" Narrow U-Bend with Fusion Couplings   | 0.96 | 1        |
| YFUB6       | 1 1/4" U-Bend                            | 1.35 | 1        |
| YFUB6C      | 1 1/4" U-Bend with Fusion Couplings      | 1.73 | 1        |
| YFUB7       | 1 1/2" U-Bend                            | 1.77 | 1        |
| YFUB7C      | 1 1/2" U-Bend with Fusion Couplings      | 2.06 | 1        |



Fusion U-Bend Assembly

| Part Number | Description         | Wt.   | Bag Qty. |
|-------------|---------------------|-------|----------|
| YFPMA44     | 3/4" x 3/4" MPT     | 2.80  | 10       |
| YFPMA45     | 3/4" x 1" MPT       | 4.62  | 10       |
| YFPMA55     | 1" x 1" MPT         | 5.30  | 10       |
| YFPMA64     | 1 1/4" x 3/4" MPT   | 4.24  | 10       |
| YFPMA65     | 1 1/4" x 1" MPT     | 5.70  | 10       |
| YFPMA66     | 1 1/4" x 1 1/4" MPT | 7.85  | 10       |
| YFPMA67     | 1 1/4" x 1 1/2" MPT | 10.14 | 10       |
| YFPMA77     | 1 1/2" x 1 1/2" MPT | 5.00  | 5        |
| YFPMA88     | 2" x 2" MPT         | 8.02  | 5        |

Male Adapter  
Fusion x Male Adapter



**Male Nominal  
Thread Couplings**  
Fusion x Male Nominal Thread

| Part Number | Description   | Wt.  | Bag Qty. |
|-------------|---------------|------|----------|
| YFPMC45S    | 3/4" X 1" MNT | 6.00 | 25       |
| YFPMC55S    | 1" X 1" MNT   | 5.87 | 25       |



**Fusion Coupling with  
Female Adapter**  
Fusion x FPT

| Part Number | Description     | Wt.  | Bag Qty. |
|-------------|-----------------|------|----------|
| YFPSC43     | 3/4" X 1/2" FPT | 3.87 | 25       |
| YFPSC53     | 1" X 1/2" FPT   | 6.54 | 25       |



**Fusion Male Threaded  
Heat Pump Tee**  
Fusion x Male Nominal  
Thread x FPT

| Part Number | Description              | Wt.  | Bag Qty. |
|-------------|--------------------------|------|----------|
| YFPMT453    | 3/4" x 1" MNT x 1/2" FPT | 7.60 | 20       |
| YFPMT553    | 1" x 1" MNT x 1/2" FPT   | 8.70 | 20       |
| YFPMT555    | 1" x 1" x 1" FPT         | 3.40 | 10       |



**Fusion Tee with  
Female Adapter**  
Fusion x Fusion x FPT

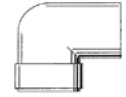
| Part Number | Description            | Wt.  | Bag Qty. |
|-------------|------------------------|------|----------|
| YFPST443    | 3/4" x 3/4" x 1/2" FPT | 4.20 | 20       |
| YFPST553    | 1" x 1" x 1/2" FPT     | 5.30 | 20       |



**Fusion Male Nominal  
Thread Elbow**  
Fusion x Male Nominal Thread

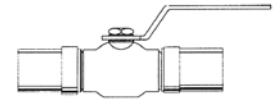
| Part Number | Description   | Wt.  | Bag Qty. |
|-------------|---------------|------|----------|
| YFPME45S    | 3/4" x 1" MNT | 7.37 | 25       |
| YFPME55S    | 1" x 1" MNT   | 6.37 | 25       |

| Part Number | Description     | Wt.  | Bag Qty. |
|-------------|-----------------|------|----------|
| YFPSE43     | 3/4" x 1/2" FPT | 4.80 | 25       |
| YFPSE44     | 3/4" x 3/4" FPT | 7.62 | 25       |



**Fusion Elbow with  
Female Adapter**  
Fusion x FPT

| Part Number | Description | Wt.  | Bag Qty. |
|-------------|-------------|------|----------|
| YPFVA44     | 3/4" x 3/4" | 4.40 | 5        |
| YPFVA55     | 1" x 1"     | 4.26 | 5        |

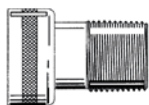


**Fusion Ball Valve**  
Fusion x Fusion

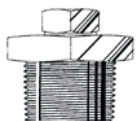


End Cap with Swivel Nut

| Part Number | Description             | Wt.  | Bag Qty. |
|-------------|-------------------------|------|----------|
| ECAP1       | End Cap x 1" Swivel Nut | 0.86 | 10       |

Swivel Nut Adapter  
MPT x Swivel Nut Adapter

| Part Number | Description              | Wt.  | Bag Qty. |
|-------------|--------------------------|------|----------|
| MSA45G      | 3/4" MPT X 1" Swivel Nut | 0.37 | 1        |
| MSA55G      | 1" MPT X 1" Swivel Nut   | 0.45 | 1        |

Pressure/Temperature  
(PT) Plug

| Part Number | Description                | Wt.  | Bag Qty. |
|-------------|----------------------------|------|----------|
| HVPT50BE    | 1/2" MPT (PT) Plug (Brass) | 3.35 | 20       |



PT Plug Probe

| Part Number | Description          | Wt.  | Bag Qty. |
|-------------|----------------------|------|----------|
| HVTPGA1     | Pressure Gauge Probe | .075 | 1        |



Nylon "Slinky" Bundle Ties

| Part Number | Description      | Wt.  | Bag Qty. | Box Qty. |
|-------------|------------------|------|----------|----------|
| HB14120     | Nylon Slinky Tie | 1.34 | 100      | 1000     |

Each kit contains the tools required to fuse the indicated pipe size with proper fittings. All kits are packed in a tool box and contain: Heating Tool, Socket Face Set, Depth Gauge, Cold Ring, Hex Keys, Mounting Brackets, Tubing Cutter, Tempstiks, Timer, Tool Cover Bag, Screwdriver and a Cotton Wipe Rag. Heating equipment is 110 volt.



Complete Fusion Kits

| Part Number | Description                  | Wt.   | Qty. |
|-------------|------------------------------|-------|------|
| FHAK4P      | 3/4" IPS - Single            | 13.61 | 1    |
| FHAK4WDP    | 3/4" IPS - Double            | 13.86 | 1    |
| FHAK5P      | 1" IPS - Single              | 13.82 | 1    |
| FHAK5WDP    | 1" IPS - Double              | 15.96 | 1    |
| FHAK6P      | 1 1/4" IPS - Single          | 15.40 | 1    |
| FHAK6WDP    | 1 1/4" IPS - Double          | 15.65 | 1    |
| FHAK7P      | 1 1/2" IPS - Single          | 15.86 | 1    |
| FHAK7WDP    | 1 1/2" IPS - Double          | 16.11 | 1    |
| FHAK8P      | 2" IPS - Single              | 16.43 | 1    |
| FHAK8WDP    | 2" IPS - Double              | 16.67 | 1    |
| FHAK46P     | 3/4" and 1 1/4" IPS - Single | 17.06 | 1    |
| FHAK46WDP   | 3/4" and 1 1/4" IPS - Double | 15.73 | 1    |
| FHAK48P     | 3/4" thru 2" IPS - Single    | 23.98 | 1    |
| FHAK48WDP   | 3/4" thru 2" IPS - Double    | 23.98 | 1    |

| Part Number | Description | Wt.  | Qty. |
|-------------|-------------|------|------|
| FHDG4P      | 3/4" IPS    | 0.04 | 1    |
| FHDG5P      | 1" IPS      | 0.07 | 1    |
| FHDG6P      | 1 1/4" IPS  | 0.10 | 1    |
| FHDG7P      | 1 1/2" IPS  | 0.14 | 1    |
| FHDG8P      | 2" IPS      | 0.19 | 1    |



Depth Gauge

| Part Number | Description                  | Wt.  | Qty. |
|-------------|------------------------------|------|------|
| FHMB        | Fusion Tool Mounting Bracket | 1.24 | 1    |



Fusion Tool Mounting Bracket



Fusion Timer

| Part Number | Description  | Wt.  | Qty. |
|-------------|--------------|------|------|
| FHFT        | Fusion Timer | 0.28 | 1    |



Fusion Tool Heat Bag

| Part Number | Description          | Wt.  | Qty. |
|-------------|----------------------|------|------|
| FHHB        | Fusion Tool Heat Bag | 0.98 | 1    |



Tempstik Temperature Indicator

| Part Number | Description    | Wt.  | Qty. |
|-------------|----------------|------|------|
| FHS500      | TEMPSTIK 500°F | 0.05 | 1    |
| FHS525      | TEMPSTIK 525°F | 0.07 | 1    |



Heating Tool 110 Volts

| Part Number | Description                         | Wt.  | Qty. |
|-------------|-------------------------------------|------|------|
| FHVT48      | Heat Fusion Tool/Single Socket Face | 2.74 | 1    |
| FHVT48      | Heat Fusion Tool/Double Socket Face | 2.98 | 1    |

All heat fusion tools are thermostatically controlled.

Note: Vanguard offers a tool repair program for crimp tools and fusion tools. Contact Vanguard direct for complete information.



Socket Face

| Part Number | Description | Wt.  | Qty. |
|-------------|-------------|------|------|
| FHSF4P      | 3/4" IPS    | 0.34 | 1    |
| FHSF5P      | 1" IPS      | 0.43 | 1    |
| FHSF6P      | 1 1/4" IPS  | 0.57 | 1    |
| FHSF7P      | 1 1/2" IPS  | 0.90 | 1    |
| FHSF8P      | 2" IPS      | 1.27 | 1    |



Cold Ring

| Part Number | Description | Wt.  | Qty. |
|-------------|-------------|------|------|
| FHCR4P      | 3/4" IPS    | 0.99 | 1    |
| FHCR5P      | 1" IPS      | 1.12 | 1    |
| FHCR6P      | 1 1/4" IPS  | 1.24 | 1    |
| FHCR7P      | 1 1/2" IPS  | 1.31 | 1    |
| FHCR8P      | 2" IPS      | 1.47 | 1    |

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