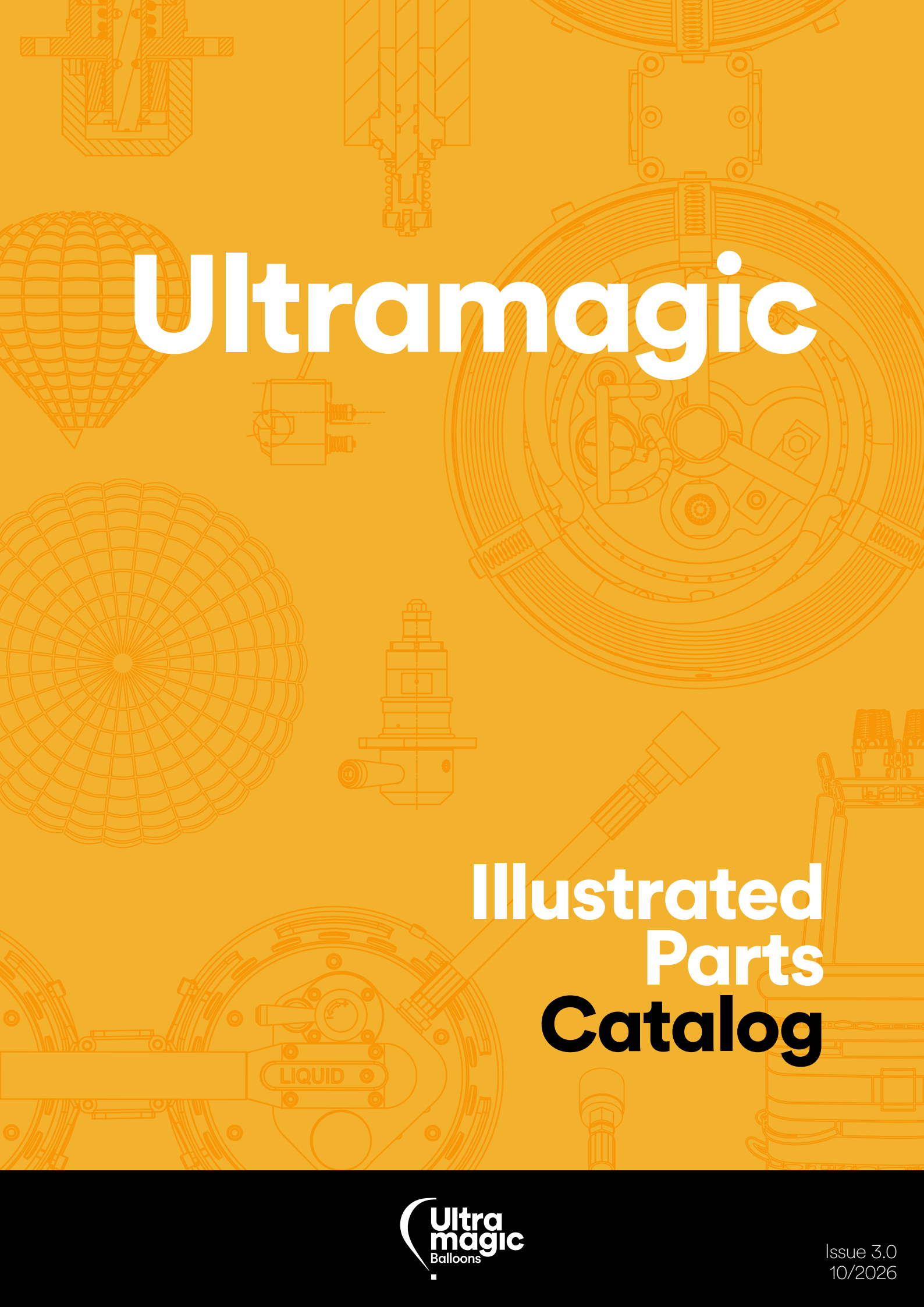




# Ultramagic

## Illustrated Parts Catalog

# Introduction

This Ultramagic Balloons Parts Catalog has been designed to make it easy to identify the spare parts that you may need for your Ultramagic balloon. Parts can also be found in the comprehensive illustrated Ultramagic Parts Platform [shop.ultramagic.com](https://shop.ultramagic.com).

Parts must always be fitted in accordance with the appropriate Maintenance Manual, which can be downloaded from the Ultramagic website ([www.ultramagic.com](https://www.ultramagic.com)). The authorization to carry out work on your balloon is given in any case by the Local Civil Aviation Authority in accordance with the applicable regulations. However, should you have any queries whatsoever then please contact Ultramagic at [spares@ultramagic.com](mailto:spares@ultramagic.com) for further assistance.

Each item in this catalog has a dedicated Part Number (P/N). When ordering, always quote the Part Number, and quote the equipment model/type and serial number. If the required item is not listed, contact Ultramagic.

**Important notice:** This catalog and its illustrations/pictures have been compiled for the sole purpose of assisting with the identification and ordering of spare parts and accessories.

**Figures or pictures are not to scale.** Ultramagic does not accept responsibility for the incorrect identification of parts and reserves the right to change, substitute or delete parts identified in this catalog without prior notice. Certain parts shown may have to be ordered especially and may not be held in stock.

For airborne parts and appliances manufactured by Ultramagic under its Production Approval, these shall be accompanied by an Authorised Release Certificate (EASA Form 1) where applicable, issued in accordance with 21.A.163 and 21.A.165 of Regulation (EU) No 748/2012, Annex I (Part 21), Subpart G. However, raw materials and standard parts are not, solely by virtue of their intended airborne use, subject to an EASA Form 1. Raw materials and standard parts may be supplied without an EASA Form 1 where the conditions of 21.A.307 are met, being then accompanied by a declaration of conformity with the applicable design data.

Stock availability may vary. Parts not held in stock can be supplied to order. Certain items may only be available under special order or to approved repair stations.

Refer to the following information for a complete comprehension of the Illustrated Parts Catalog.

# Symbols and acronyms



## Assembly

\* The symbol above is used for guidance only. Handling and fitting of the parts must always be carried out in accordance with the latest approved Maintenance Manual, which takes precedence over this parts catalog.

|        |                                                                     |
|--------|---------------------------------------------------------------------|
| ADH    | Adhesive                                                            |
| ASSY   | Assembly                                                            |
| BSP    | British Standard Pipe (Parallel, Cylindrical thread)                |
| CSK    | Countersunk                                                         |
| FDS    | Fast Deflate System                                                 |
| HEX    | Hexagonal                                                           |
| LH/RH  | Left-Hand/Right-Hand (from pilot position – reading of instruments) |
| NPT    | National Pipe Taper (Conical thread)                                |
| P/N    | Part Number                                                         |
| PRV    | Pressure Relief Valve                                               |
| QTY    | Quantity                                                            |
| QUAD   | Quadruple (Burner)                                                  |
| ST STL | Stainless Steel                                                     |
| W/O    | Without                                                             |

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# Envelopes

## Hardware & accessories

| KARABINERS                                                                          |            |                         |
|-------------------------------------------------------------------------------------|------------|-------------------------|
|                                                                                     | P/N        | DESCRIPTION             |
|    | EM-01-0136 | TEKNO KARABINER         |
|    | EM-01-0142 | KARABINER STUBAI 3000kg |
|  | EM-01-0147 | KARABINER STUBAI 4000kg |
|  | EM-01-0111 | 4mm QUICK LINK          |
|  | EM-01-0120 | 5mm QUICK LINK          |
|  | EM-01-0123 | 6mm QUICK LINK          |
|  | SL-C-0060  | 7mm QUICK LINK          |
|  | EM-01-0137 | SCOOP KARABINER         |
|  | EM-01-0151 | SPRING HOOK             |

| RINGS                                                                             |            |                                |
|-----------------------------------------------------------------------------------|------------|--------------------------------|
|                                                                                   | P/N        | DESCRIPTION                    |
|  | EM-01-0015 | 4x20mm RING                    |
|  | EM-01-0065 | 3x20mm RING – ROTATION VENTS   |
|  | EM-01-0040 | ULTRAMAGIC KARABINER LINK RING |

| PULLEYS                                                                             |            |                             |
|-------------------------------------------------------------------------------------|------------|-----------------------------|
|                                                                                     | P/N        | DESCRIPTION                 |
|  | EM-01-0196 | PULLEY WITH BOW 30mm        |
|  | EM-01-0208 | PULLEY WITH BOW 43mm        |
|  | EM-01-0197 | PULLEY WITH BOW 50mm        |
|  | EM-01-0209 | PULLEY WITH BOW 63mm        |
|  | EM-01-0198 | FIDDLE PULLEY WITH BOW 50mm |

|                                                                                   |            |                                                  |
|-----------------------------------------------------------------------------------|------------|--------------------------------------------------|
|  | EM-01-0199 | FIDDLE PULLEY WITH BOW 63mm                      |
|  | EM-01-0231 | DUAL PULLEY ASSEMBLY FOR ROTATION VENTS 20/20mm  |
|  | EM-01-0232 | DUAL PULLEY ASSEMBLY FOR ROTATION VENTS 20/30mm  |
|  | EM-01-0233 | PULLEY FOR ROTATION VENTS 30mm                   |
|  | EM-01-0235 | PULLEY FOR ROTATION VENTS & PARACHUTE LINES 20mm |

| TEMPERATURE ITEMS                                                                   |           |                              |
|-------------------------------------------------------------------------------------|-----------|------------------------------|
|                                                                                     | P/N       | DESCRIPTION                  |
|  | EM-C-0070 | TEMPERATURE FLAG LINK        |
|  | EM-C-0146 | TEMPERATURE FLAG (FLAG ONLY) |
|  | EM-C-0143 | TEMPERATURE LINK (NO FLAG)   |
|  | EM-C-0205 | TEMPERATURE LABEL ASSEMBLY   |

## VELCRO FASTENERS

|                                                                                     | P/N        | DESCRIPTION                       |
|-------------------------------------------------------------------------------------|------------|-----------------------------------|
|    | EM-07-0160 | 50mm WHITE VELCRO – LOOP (BANNER) |
|    | EM-07-0180 | 50mm BLACK VELCRO – LOOP          |
|    | EM-07-0356 | 50mm BLACK VELCRO – STRONG LOOP   |
|   | EM-07-0350 | 50mm BLACK VELCRO – HOOK          |
|  | EM-07-0351 | 25mm BLACK VELCRO – HOOK          |

## BALLOON STRAPS

|                                                                                     | P/N       | DESCRIPTION                                |
|-------------------------------------------------------------------------------------|-----------|--------------------------------------------|
|  | EM-C-0276 | BALLOON STRAP WITH VELCRO – GREEN 1.27m    |
|  | EM-C-0278 | BALLOON STRAP WITH VELCRO – RED&GREEN 85cm |
|  | EM-C-0279 | BALLOON STRAP WITH VELCRO – BLACK 65cm     |

## Load tapes, thread & lines

| LOAD TAPES                                                                          |            |                                       |
|-------------------------------------------------------------------------------------|------------|---------------------------------------|
|                                                                                     | P/N        | DESCRIPTION                           |
|    | EM-03-0085 | 26mm WHITE VERTICAL LOAD TAPE         |
|    | EM-03-0095 | 26mm BLACK VERTICAL LOAD TAPE         |
|    | EM-03-9999 | 26mm RED VERTICAL LOAD TAPE           |
|  | EM-03-0112 | 18mm WHITE VERTICAL LOAD TAPE         |
|  | EM-03-0132 | 18mm BLACK VERTICAL LOAD TAPE         |
|  | EM-03-9998 | 18mm RED VERTICAL LOAD TAPE           |
|  | EM-03-0145 | 18mm WHITE SPECIAL VERTICAL LOAD TAPE |
|  | EM-03-0146 | 18mm BLACK SPECIAL VERTICAL LOAD TAPE |
|  | EM-03-0140 | 14mm WHITE ARAMID TAPE                |
|  | EM-03-0144 | 14mm BLACK ARAMID TAPE                |
|  | EM-03-0062 | 18mm WHITE HORIZONTAL LOAD TAPE       |

|                                                                                     |            |                                  |
|-------------------------------------------------------------------------------------|------------|----------------------------------|
|    | EM-03-0072 | 18mm BLACK HORIZONTAL LOAD TAPE  |
|    | EM-03-0073 | 18mm RED HORIZONTAL LOAD TAPE    |
|    | EM-03-0063 | 20mm WHITE LOAD TAPE             |
|    | EM-03-0064 | 20mm BLACK LOAD TAPE             |
|    | EM-03-0051 | 18mm WHITE TAPE – PARACHUTE EDGE |
|    | EM-03-0052 | 18mm BLACK TAPE – PARACHUTE EDGE |
|  | EM-03-0097 | 25mm BEIGE POLYESTER TAPE        |

| THREAD                                                                              |            |                            |
|-------------------------------------------------------------------------------------|------------|----------------------------|
|                                                                                     | P/N        | DESCRIPTION                |
|  | EM-06-0063 | POLYESTER THREAD N°30 GRAY |
|  | EM-06-0064 | POLYESTER THREAD N°30 BLUE |
|  | EM-06-0061 | NOMEX THREAD N°40 WHITE    |
|  | EM-06-0062 | NOMEX THREAD N°40 BLACK    |

| LINES                                                                               |            |                                      |
|-------------------------------------------------------------------------------------|------------|--------------------------------------|
|                                                                                     | P/N        | DESCRIPTION                          |
|    | EM-04-0080 | 2.5mm FDS RIGGING LINE               |
|    | EM-04-0090 | 3mm PARACHUTE RIGGING LINE           |
|    | EM-04-0008 | 4mm GREEN ROTATION VENT CONTROL LINE |
|    | EM-04-0020 | 4mm BLACK ROTATION VENT CONTROL LINE |
|   | EM-04-0009 | 5mm GREEN ROTATION VENT CONTROL LINE |
|  | EM-04-0021 | 5mm BLACK ROTATION VENT CONTROL LINE |
|  | EM-04-0146 | 6mm WHITE/RED PARACHUTE CONTROL LINE |
|  | EM-04-0140 | 8mm WHITE/RED PARACHUTE CONTROL LINE |
|  | EM-04-0150 | 6mm RED FDS CONTROL LINE             |
|  | EM-04-0130 | 8mm RED FDS CONTROL LINE             |
|  | EM-04-0055 | 6mm WHITE/BLUE CROWN LINE            |
|  | EM-04-0040 | 8mm WHITE/BLUE CROWN LINE            |
|  | EM-04-0110 | 8mm BLACK CROWN LINE                 |

## Envelope fabric

| ULTRALAST (UL)                                                                                                              |            |                              |
|-----------------------------------------------------------------------------------------------------------------------------|------------|------------------------------|
|                                                                                                                             | P/N        | DESCRIPTION                  |
| <br>White<br>PANTONE<br>Transwhite         | EM-R5-0495 | NYLON ULTRALAST – WHITE      |
| <br>Black<br>PANTONE<br>Hexachrome Black C | EM-R5-0290 | NYLON ULTRALAST – BLACK      |
| <br>Steel Grey<br>PANTONE<br>4410C        | EM-R5-0470 | NYLON ULTRALAST – STEEL GRAY |
| <br>Dark Grey<br>PANTONE<br>1320C        | EM-R5-0450 | NYLON ULTRALAST – DARK GRAY  |
| <br>Peach<br>PANTONE<br>750C             | EM-R5-0445 | NYLON ULTRALAST – PEACH      |
| <br>Cream<br>PANTONE<br>1210C            | EM-R5-0420 | NYLON ULTRALAST – CREAM      |
| <br>Yellow<br>PANTONE<br>102C            | EM-R5-0280 | NYLON ULTRALAST – YELLOW     |
| <br>Sand<br>PANTONE<br>1235C             | EM-R5-0350 | NYLON ULTRALAST – SAND       |
| <br>Orange<br>PANTONE<br>154C            | EM-R5-0270 | NYLON ULTRALAST – ORANGE     |
| <br>Red<br>PANTONE<br>485C               | EM-R5-0250 | NYLON ULTRALAST – RED        |
| <br>Wine<br>PANTONE<br>201C              | EM-R5-0440 | NYLON ULTRALAST – WINE       |

|                                                                                     |            |                              |
|-------------------------------------------------------------------------------------|------------|------------------------------|
|    | EM-R5-0430 | NYLON ULTRALAST – PINK       |
|    | EM-R5-0340 | NYLON ULTRALAST – MAGENTA    |
|    | EM-R5-0410 | NYLON ULTRALAST – PURPLE     |
|    | EM-R5-0320 | NYLON ULTRALAST – AZURE      |
|    | EM-R5-0400 | NYLON ULTRALAST – MID BLUE   |
|   | EM-R5-0260 | NYLON ULTRALAST – ROYAL BLUE |
|  | EM-R5-0370 | NYLON ULTRALAST – NAVY BLUE  |
|  | EM-R5-0497 | NYLON ULTRALAST – TURQUOISE  |
|  | EM-R5-0300 | NYLON ULTRALAST – LIME       |
|  | EM-R5-0310 | NYLON ULTRALAST – GREEN      |
|  | EM-R5-0360 | NYLON ULTRALAST – HOLLYBUSH  |
|  | EM-R5-0375 | NYLON ULTRALAST – BROWN      |
|  | EM-R5-0015 | NYLON ULTRALAST – GOLD       |
|  | EM-R5-0010 | NYLON ULTRALAST – SILVER     |

| RIPSTOP (RS)                                                                                                                |            |                            |
|-----------------------------------------------------------------------------------------------------------------------------|------------|----------------------------|
|                                                                                                                             | P/N        | DESCRIPTION                |
| <br>White<br>PANTONE<br>Transwhite         | EM-R4-0595 | NYLON RIPSTOP – WHITE      |
| <br>Black<br>PANTONE<br>Hexachrome Black C | EM-R4-0400 | NYLON RIPSTOP – BLACK      |
| <br>Steel Grey<br>PANTONE<br>443C          | EM-R4-0555 | NYLON RIPSTOP – STEEL GRAY |
| <br>Dark Grey<br>PANTONE<br>142C           | EM-R4-0530 | NYLON RIPSTOP – DARK GRAY  |
| <br>Peach<br>PANTONE<br>75C ★             | EM-R4-0465 | NYLON RIPSTOP – PEACH      |
| <br>Cream<br>PANTONE<br>135C             | EM-R4-0380 | NYLON RIPSTOP – CREAM      |
| <br>Yellow<br>PANTONE<br>103C            | EM-R4-0390 | NYLON RIPSTOP – YELLOW     |
| <br>Sand<br>PANTONE<br>1235C             | EM-R4-0510 | NYLON RIPSTOP – SAND       |
| <br>Orange<br>PANTONE<br>155C            | EM-R4-0420 | NYLON RIPSTOP – ORANGE     |
| <br>Red<br>PANTONE<br>485C               | EM-R4-0440 | NYLON RIPSTOP – RED        |
| <br>Wine<br>PANTONE<br>201C              | EM-R4-0560 | NYLON RIPSTOP – WINE       |
| <br>Pink<br>PANTONE<br>210C              | EM-R4-0550 | NYLON RIPSTOP – PINK       |

|                                                                                                                   |            |                            |
|-------------------------------------------------------------------------------------------------------------------|------------|----------------------------|
| <br>Magenta<br>PANTONE 255C      | EM-R4-0480 | NYLON RIPSTOP – MAGENTA    |
| <br>Purple<br>PANTONE 2397C      | EM-R4-0540 | NYLON RIPSTOP – PURPLE     |
| <br>Azure<br>PANTONE 2965C       | EM-R4-0460 | NYLON RIPSTOP – AZURE      |
| <br>Mid Blue<br>PANTONE 307C     | EM-R4-0430 | NYLON RIPSTOP – MID BLUE   |
| <br>Royal Blue<br>PANTONE 293C   | EM-R4-0360 | NYLON RIPSTOP – ROYAL BLUE |
| <br>Navy Blue<br>PANTONE 296C   | EM-R4-0470 | NYLON RIPSTOP – NAVY BLUE  |
| <br>Turquoise<br>PANTONE 7467C | EM-R4-0596 | NYLON RIPSTOP – TURQUOISE  |
| <br>Lime<br>PANTONE 375C       | EM-R4-0490 | NYLON RIPSTOP – LIME       |
| <br>Green<br>PANTONE 355C      | EM-R4-0410 | NYLON RIPSTOP – GREEN      |
| <br>Hollybush<br>PANTONE 349C  | EM-R4-0500 | NYLON RIPSTOP – HOLLYBUSH  |
| <br>Brown<br>PANTONE 476C      | EM-R4-0580 | NYLON RIPSTOP – BROWN      |
| <br>Gold<br>PANTONE 876C       | EM-R4-0570 | NYLON RIPSTOP – GOLD       |
| <br>Silver<br>PANTONE 877C     | EM-R4-0375 | NYLON RIPSTOP – SILVER     |

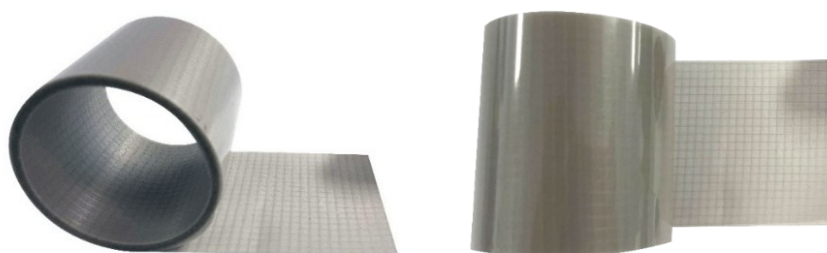
| LIGHTWEIGHT (LW)                                                                    |            |                                |
|-------------------------------------------------------------------------------------|------------|--------------------------------|
|                                                                                     | P/N        | DESCRIPTION                    |
|    | EM-R9-0010 | NYLON LIGHTWEIGHT – WHITE      |
|    | EM-R9-0050 | NYLON LIGHTWEIGHT – BLACK      |
|    | EM-R9-0020 | NYLON LIGHTWEIGHT – YELLOW     |
|    | EM-R9-0060 | NYLON LIGHTWEIGHT – SAND       |
|  | EM-R9-0090 | NYLON LIGHTWEIGHT – ORANGE     |
|  | EM-R9-0040 | NYLON LIGHTWEIGHT – RED        |
|  | EM-R9-0065 | NYLON LIGHTWEIGHT – PINK       |
|  | EM-R9-0080 | NYLON LIGHTWEIGHT – AZURE      |
|  | EM-R9-0095 | NYLON LIGHTWEIGHT – MID BLUE   |
|  | EM-R9-0030 | NYLON LIGHTWEIGHT – ROYAL BLUE |
|  | EM-R9-0070 | NYLON LIGHTWEIGHT – NAVY BLUE  |
|  | EM-R9-0085 | NYLON LIGHTWEIGHT – LIME       |

|                                                                                   |            |                            |
|-----------------------------------------------------------------------------------|------------|----------------------------|
|  | EM-R9-0075 | NYLON LIGHTWEIGHT – GREEN  |
|  | EM-R9-0025 | NYLON LIGHTWEIGHT – BROWN  |
|  | EM-R9-0098 | NYLON LIGHTWEIGHT – SILVER |

| NOMEX (Nx)                                                                          |            |                    |
|-------------------------------------------------------------------------------------|------------|--------------------|
|                                                                                     | P/N        | DESCRIPTION        |
|   | EM-R3-0050 | NOMEX – WHITE      |
|  | EM-R3-0202 | NOMEX – BLACK      |
|  | EM-R3-0210 | NOMEX – GRAY       |
|  | EM-R3-0203 | NOMEX – YELLOW     |
|  | EM-R3-0208 | NOMEX – ORANGE     |
|  | EM-R3-0201 | NOMEX – RED        |
|  | EM-R3-0207 | NOMEX – WINE       |
|  | EM-R3-0200 | NOMEX – MID BLUE   |
|  | EM-R3-0209 | NOMEX – ROYAL BLUE |

|                                                                                   |            |                    |
|-----------------------------------------------------------------------------------|------------|--------------------|
|  | EM-R3-0205 | NOMEX – NAVY BLUE  |
|  | EM-R3-0204 | NOMEX – GREEN      |
|  | EM-R3-0206 | NOMEX – DARK GREEN |

### EM-09-0400 / MAGIC PATCH



| RIPSTOP FABRIC REPAIR ADHESIVE TAPE                                                 |            |                                               |
|-------------------------------------------------------------------------------------|------------|-----------------------------------------------|
|                                                                                     | P/N        | DESCRIPTION                                   |
|    | EM-09-0010 | RIPSTOP REPAIR ADH TAPE 50mmx25m – WHITE      |
|    | EM-09-0030 | RIPSTOP REPAIR ADH TAPE 50mmx25m – BLACK      |
|    | EM-09-0025 | RIPSTOP REPAIR ADH TAPE 50mmx25m – YELLOW     |
|    | EM-09-0015 | RIPSTOP REPAIR ADH TAPE 50mmx25m – ORANGE     |
|  | EM-09-0040 | RIPSTOP REPAIR ADH TAPE 50mmx25m – RED        |
|  | EM-09-0020 | RIPSTOP REPAIR ADH TAPE 50mmx25m – ROYAL BLUE |
|  | EM-09-0035 | RIPSTOP REPAIR ADH TAPE 50mmx25m – MID GREEN  |
|  | EM-09-0050 | RIPSTOP REPAIR ADH TAPE 50mmx4.5m – WHITE     |
|  | EM-09-0100 | RIPSTOP REPAIR ADH TAPE 50mmx4.5m – BLACK     |
|  | EM-09-0075 | RIPSTOP REPAIR ADH TAPE 50mmx4.5m – GRAY      |
|  | EM-09-0080 | RIPSTOP REPAIR ADH TAPE 50mmx4.5m – YELLOW    |

|                                                                                   |            |                                                |
|-----------------------------------------------------------------------------------|------------|------------------------------------------------|
|  | EM-09-0120 | RIPSTOP REPAIR ADH TAPE 50mmx4.5m – ORANGE     |
|  | EM-09-0150 | RIPSTOP REPAIR ADH TAPE 50mmx4.5m – RED        |
|  | EM-09-0060 | RIPSTOP REPAIR ADH TAPE 50mmx4.5m – SKY BLUE   |
|  | EM-09-0070 | RIPSTOP REPAIR ADH TAPE 50mmx4.5m – ROYAL BLUE |
|  | EM-09-0130 | RIPSTOP REPAIR ADH TAPE 50mmx4.5m – MID GREEN  |

| FABRIC REPAIR ADHESIVE TAPE or SHEET                                                |            |                                                |
|-------------------------------------------------------------------------------------|------------|------------------------------------------------|
|                                                                                     | P/N        | DESCRIPTION                                    |
|  | EM-09-0230 | FABRIC REPAIR ADH TAPE 5x135cm – WHITE         |
|                                                                                     | EM-09-0324 | FABRIC REPAIR ADH SHEET 100x135cm – WHITE      |
|  | EM-09-0207 | FABRIC REPAIR ADH TAPE 5x135cm – BLACK         |
|                                                                                     | EM-09-0320 | FABRIC REPAIR ADH SHEET 100x135cm – BLACK      |
|  | EM-09-0228 | FABRIC REPAIR ADH TAPE 5x135cm – STEEL GRAY    |
|                                                                                     | EM-09-0300 | FABRIC REPAIR ADH SHEET 100x135cm – STEEL GRAY |

|                                                                                     |            |                                               |
|-------------------------------------------------------------------------------------|------------|-----------------------------------------------|
|    | EM-09-0226 | FABRIC REPAIR ADH TAPE 5x135cm – DARK GRAY    |
|                                                                                     | EM-09-0301 | FABRIC REPAIR ADH SHEET 100x135cm – DARK GRAY |
|    | EM-09-0224 | FABRIC REPAIR ADH TAPE 5x135cm – PEACH        |
|                                                                                     | EM-09-0302 | FABRIC REPAIR ADH SHEET 100x135cm – PEACH     |
|    | EM-09-0221 | FABRIC REPAIR ADH TAPE 5x135cm – CREAM        |
|                                                                                     | EM-09-0303 | FABRIC REPAIR ADH SHEET 100x135cm – CREAM     |
|   | EM-09-0206 | FABRIC REPAIR ADH TAPE 5x135cm – YELLOW       |
|                                                                                     | EM-09-0304 | FABRIC REPAIR ADH SHEET 100x135cm – YELLOW    |
|  | EM-09-0214 | FABRIC REPAIR ADH TAPE 5x135cm – SAND         |
|                                                                                     | EM-09-0305 | FABRIC REPAIR ADH SHEET 100x135cm – SAND      |
|  | EM-09-0205 | FABRIC REPAIR ADH TAPE 5x135cm – ORANGE       |
|                                                                                     | EM-09-0306 | FABRIC REPAIR ADH SHEET 100x135cm – ORANGE    |
|  | EM-09-0203 | FABRIC REPAIR ADH TAPE 5x135cm – RED          |
|                                                                                     | EM-09-0321 | FABRIC REPAIR ADH SHEET 100x135cm – RED       |
|  | EM-09-0223 | FABRIC REPAIR ADH TAPE 5x135cm – WINE         |
|                                                                                     | EM-09-0307 | FABRIC REPAIR ADH SHEET 100x135cm – WINE      |

|                                                                                     |            |                                                |
|-------------------------------------------------------------------------------------|------------|------------------------------------------------|
|    | EM-09-0222 | FABRIC REPAIR ADH TAPE 5x135cm – PINK          |
|                                                                                     | EM-09-0308 | FABRIC REPAIR ADH SHEET 100x135cm – PINK       |
|    | EM-09-0213 | FABRIC REPAIR ADH TAPE 5x135cm – MAGENTA       |
|                                                                                     | EM-09-0309 | FABRIC REPAIR ADH SHEET 100x135cm – MAGENTA    |
|    | EM-09-0220 | FABRIC REPAIR ADH TAPE 5x135cm – PURPLE        |
|                                                                                     | EM-09-0310 | FABRIC REPAIR ADH SHEET 100x135cm – PURPLE     |
|   | EM-09-0211 | FABRIC REPAIR ADH TAPE 5x135cm – AZURE         |
|                                                                                     | EM-09-0311 | FABRIC REPAIR ADH SHEET 100x135cm – AZURE      |
|  | EM-09-0229 | FABRIC REPAIR ADH TAPE 5x135cm – MID BLUE      |
|                                                                                     | EM-09-0312 | FABRIC REPAIR ADH SHEET 100x135cm – MID BLUE   |
|  | EM-09-0204 | FABRIC REPAIR ADH TAPE 5x135cm – ROYAL BLUE    |
|                                                                                     | EM-09-0325 | FABRIC REPAIR ADH SHEET 100x135cm – ROYAL BLUE |
|  | EM-09-0217 | FABRIC REPAIR ADH TAPE 5x135cm – NAVY BLUE     |
|                                                                                     | EM-09-0313 | FABRIC REPAIR ADH SHEET 100x135cm – NAVY BLUE  |
|  | EM-09-0231 | FABRIC REPAIR ADH TAPE 5x135cm – TURQUOISE     |
|                                                                                     | EM-09-0314 | FABRIC REPAIR ADH SHEET 100x135cm – TURQUOISE  |

|                                                                                     |            |                                               |
|-------------------------------------------------------------------------------------|------------|-----------------------------------------------|
|    | EM-09-0208 | FABRIC REPAIR ADH TAPE 5x135cm – LIME         |
|                                                                                     | EM-09-0315 | FABRIC REPAIR ADH SHEET 100x135cm – LIME      |
|    | EM-09-0209 | FABRIC REPAIR ADH TAPE 5x135cm – GREEN        |
|                                                                                     | EM-09-0323 | FABRIC REPAIR ADH SHEET 100x135cm – GREEN     |
|    | EM-09-0216 | FABRIC REPAIR ADH TAPE 5x135cm - HOLLYBUSH    |
|                                                                                     | EM-09-0316 | FABRIC REPAIR ADH SHEET 100x135cm – HOLLYBUSH |
|   | EM-09-0218 | FABRIC REPAIR ADH TAPE 5x135cm – BROWN        |
|                                                                                     | EM-09-0317 | FABRIC REPAIR ADH SHEET 100x135cm – BROWN     |
|  | EM-09-0225 | FABRIC REPAIR ADH TAPE 5x135cm – GOLD         |
|                                                                                     | EM-09-0318 | FABRIC REPAIR ADH SHEET 100x135cm – GOLD      |
|  | EM-09-0201 | FABRIC REPAIR ADH TAPE 5x135cm – SILVER       |
|                                                                                     | EM-09-0319 | FABRIC REPAIR ADH SHEET 100x135cm – SILVER    |

## Flying wires

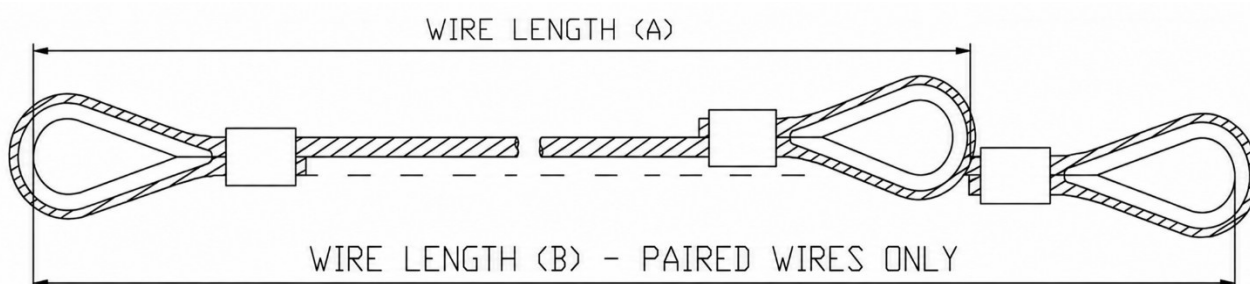
Special care should be taken when ordering envelope flying wires, as lengths often vary depending on the envelope serial number, gore number, and burner frame combined.

However, there are 4 identical sets of wires on each envelope as there is double symmetry. Flying wires can be a single wire or consist of a pair. Where the wire to be replaced is part of a pair then the complete assembly must be replaced.

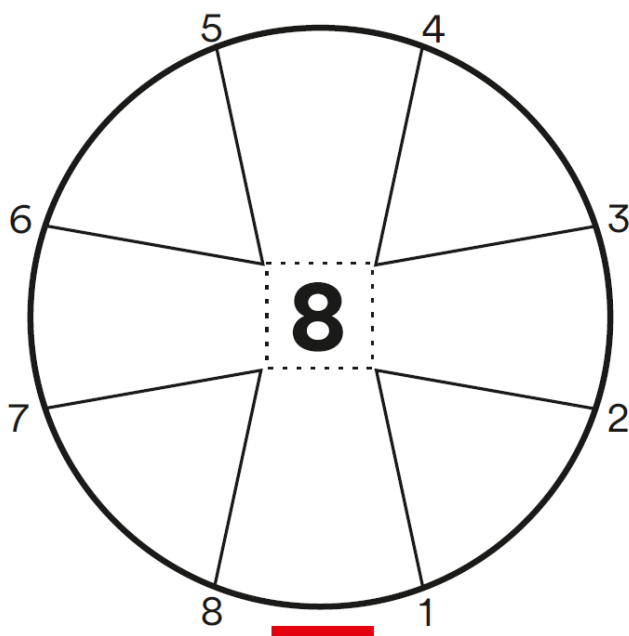
Note that the reference diagrams to number the wires indicate the corresponding load tape numbers.

The following information must be given when ordering wires making use of the following drawings.

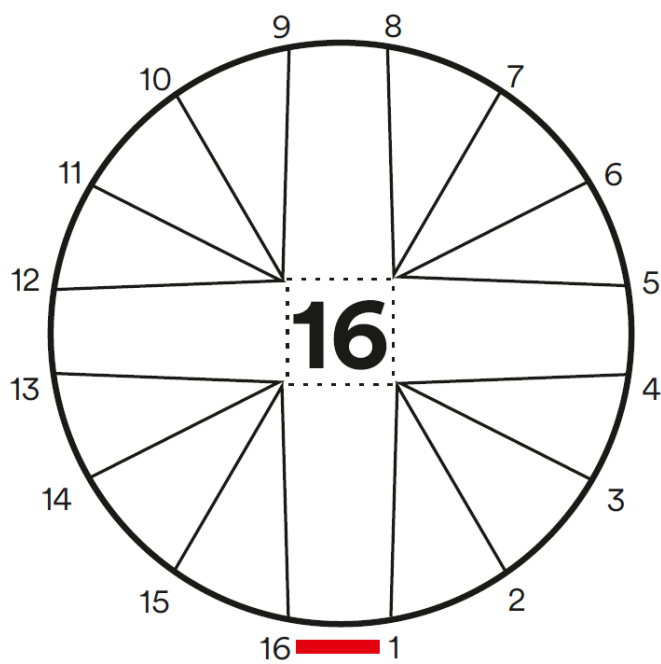
1. Envelope **size**
2. Envelope **type**
3. Envelope **serial number**
4. **Burner frame** type or dimensions
5. **Wire number** or numbers (Using drawings below)
6. State whether the wire is **single** or one **pair**.
7. Special Note: where wires are to be fitted by means of **quick links** (refer to the Maintenance Manual), a special note should be made of this when ordering.
8. **Wire length**, measured between the inner bearing surfaces of the end eyes with the wire fully extended, as shown below. For paired assemblies, provide dimensions A and B.



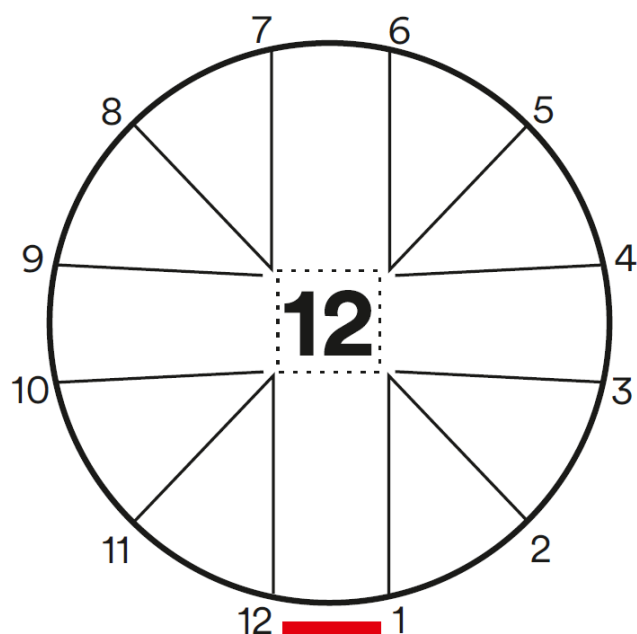
### S, Z SERIES – 8 WIRES



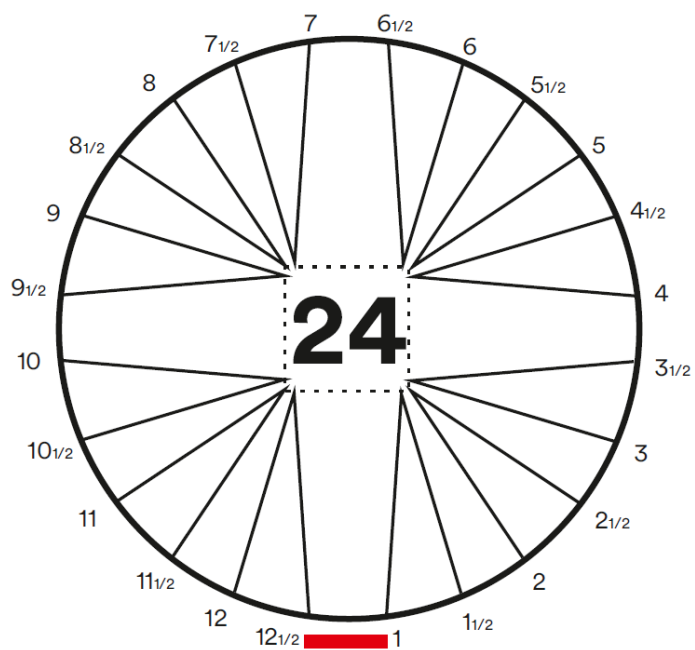
### S, Z SERIES – 16 WIRES



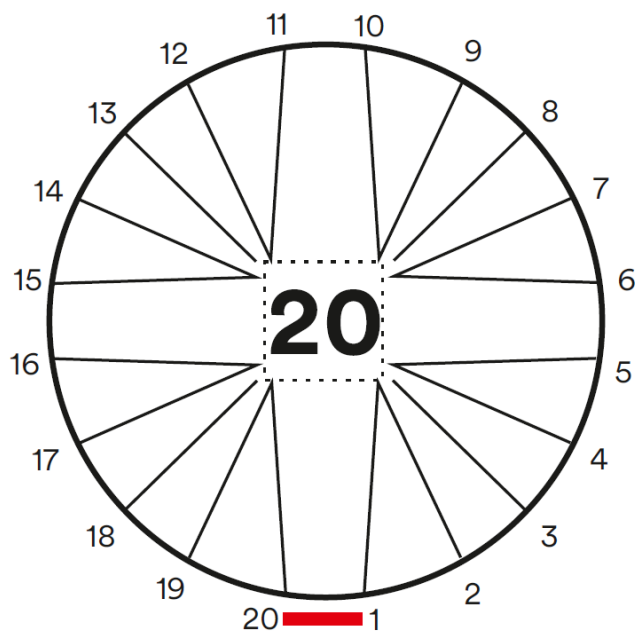
**B, H, M, V SERIES – 12 WIRES**



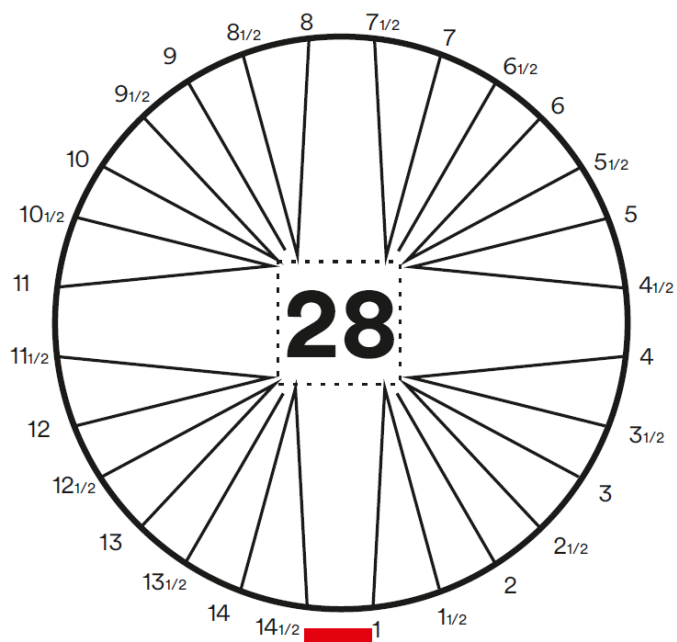
**M, V SERIES – 24 WIRES**



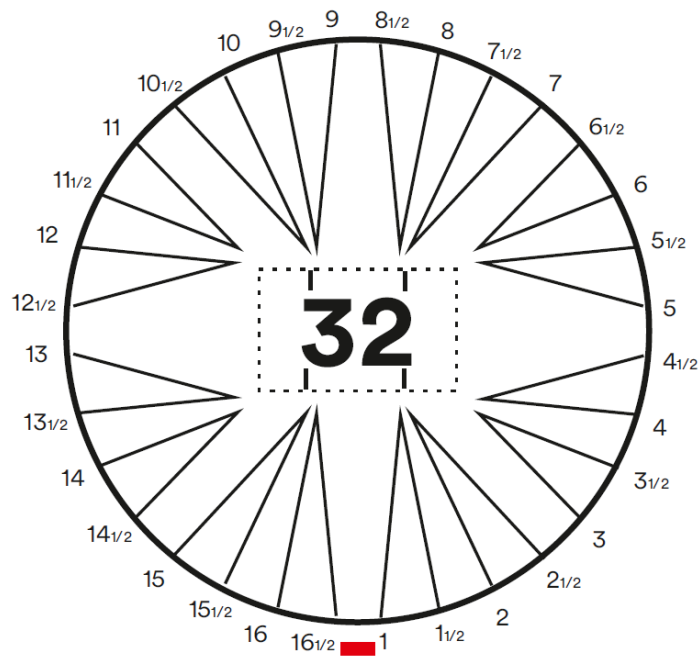
### T SERIES – 20 WIRES



### N SERIES – 28 WIRES



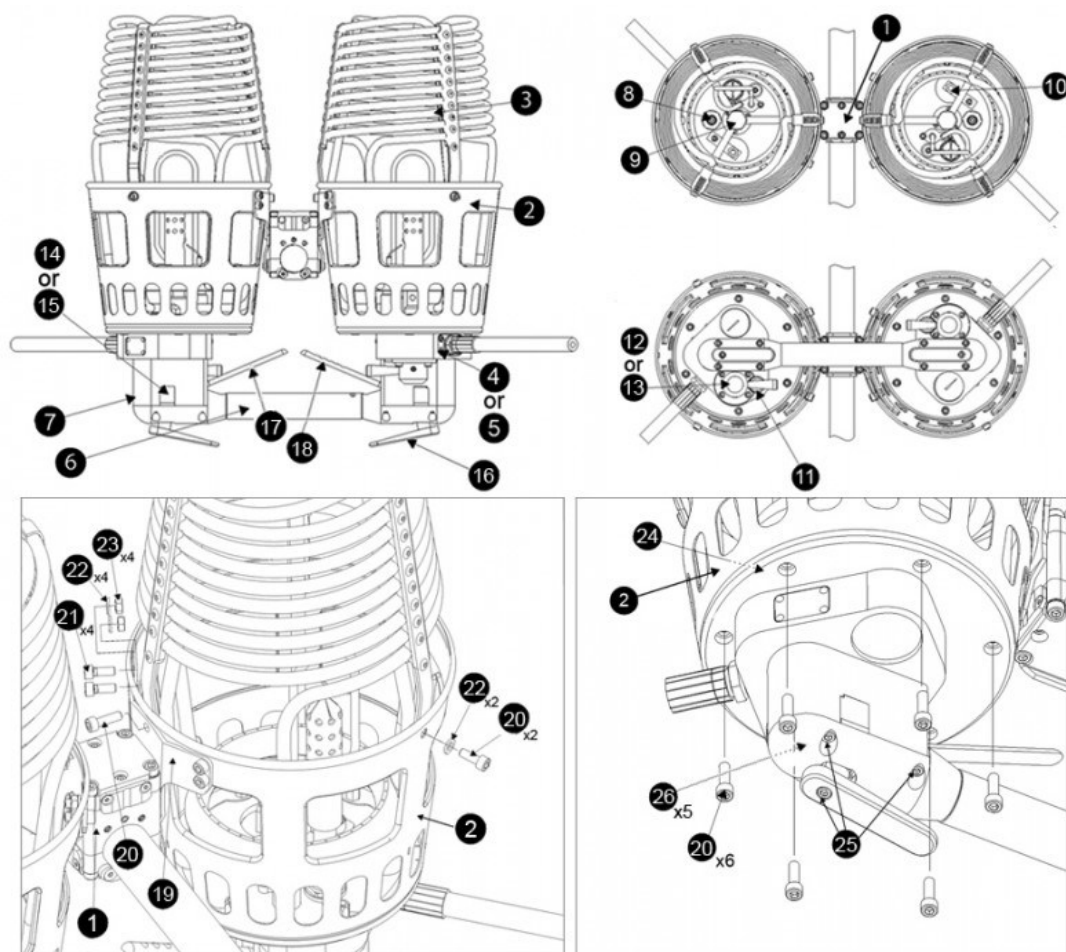
## N SERIES – 32 WIRES



# Burners

## MK-32 Burner

### DOUBLE BURNER ASSEMBLY

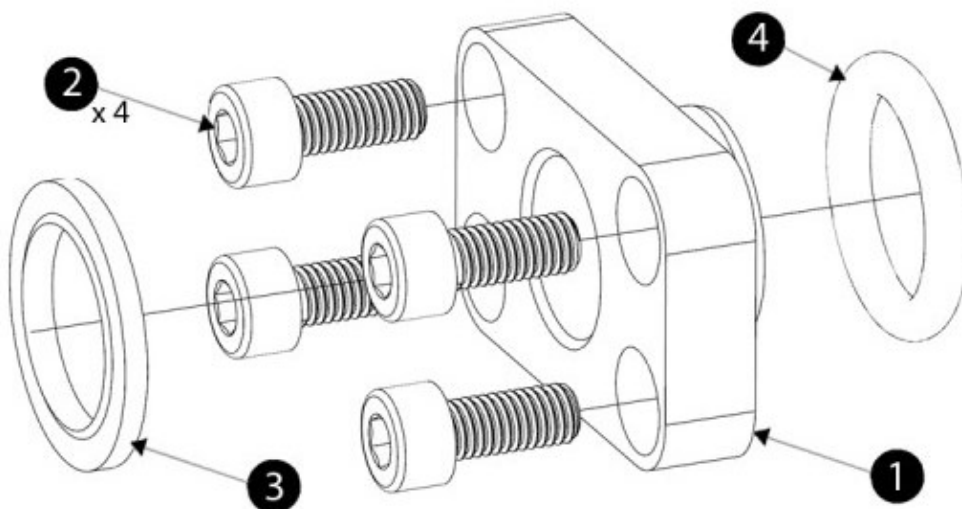


|   |                                                                                     | P/N        | DESCRIPTION           |                                                                                       |
|---|-------------------------------------------------------------------------------------|------------|-----------------------|---------------------------------------------------------------------------------------|
| 1 |  | CR-22-2500 | GIMBAL BLOCK ASSEMBLY |  |
| 2 |  | 3D-06-0000 | CAN ASSEMBLY          |                                                                                       |

|    |                                                                                                        |            |                                           |                                                                                       |
|----|--------------------------------------------------------------------------------------------------------|------------|-------------------------------------------|---------------------------------------------------------------------------------------|
| 3  |                       | 3D-05-0000 | 3-TUBE FIXED JET COIL ASSEMBLY            |                                                                                       |
| 4  |  | 3D-03-0401 | FUEL INTAKE 0° & 3/8" HOSE ASSEMBLY       |    |
| 5  |  | 3D-03-0501 | FUEL INTAKE 90° & 3/8" HOSE ASSEMBLY      |    |
| 6  |                       | 3D-01-0000 | BURNER HANDLE ASSEMBLY                    |    |
| 7  |                       | 3D-03-1104 | VALVE BLOCK COVER                         |                                                                                       |
| 8  |                      | 3D-10-0000 | LIQUID FIRE JET ASSEMBLY INCLUDING O-RING |                                                                                       |
| 9  |                     | 3D-17-0000 | CENTER COLUMN ASSEMBLY                    |  |
| 10 |                     | 3D-13-0000 | PRESSURE GAUGE ASSEMBLY                   |  |
| 11 |                     | 3D-09-0000 | PIEZO IGNITER ASSEMBLY                    |  |
| 12 |                     | 3D-08-0901 | COMPLETE LIQUID PILOT LIGHT ASSEMBLY      |  |
| 13 |                     | 3D-18-0401 | COMPLETE VAPOR PILOT LIGHT ASSEMBLY       |  |
| 14 |                     | 3D-03-0101 | FILLER BLOCK ASSEMBLY                     |                                                                                       |

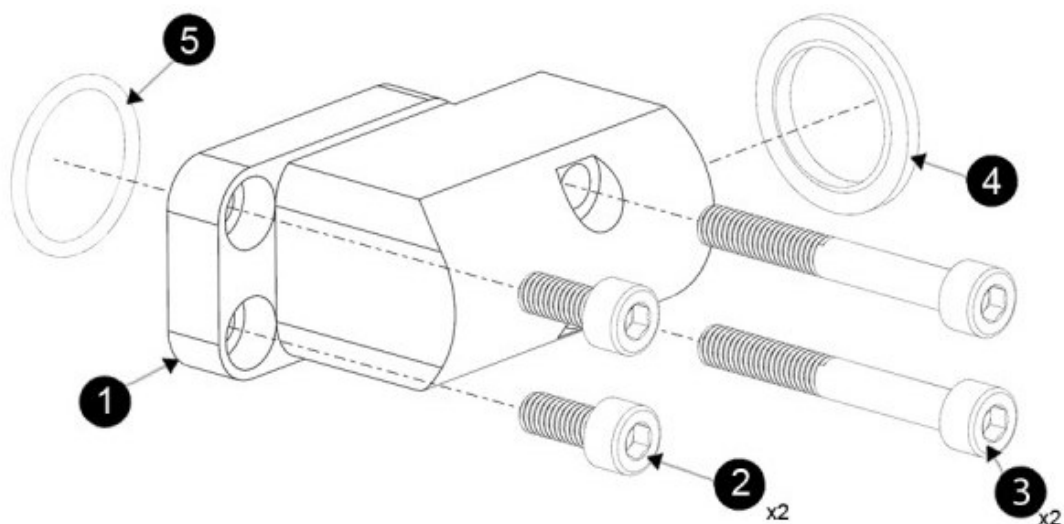
|    |                                                                                     |            |                                        |                                                                                     |
|----|-------------------------------------------------------------------------------------|------------|----------------------------------------|-------------------------------------------------------------------------------------|
| 15 |    | 3D-20-0000 | HYDRAULIC VALVE ASSEMBLY               |                                                                                     |
| 16 |    | 3D-11-0301 | COMPLETE LIQUID VALVE ASSEMBLY         |  |
| 17 |    | 3D-12-0101 | COMPLETE MAIN VALVE ASSEMBLY (SMOOTH)  |  |
| 18 |                                                                                     | 3D-12-0401 | COMPLETE MAIN VALVE ASSEMBLY (SLOTTED) |                                                                                     |
| 19 |    | 3D-15-0000 | DOUBLE BURNER HANGER ASSEMBLY          |                                                                                     |
| 20 |   | CR-C-0250  | SOCKET HEAD CAP SCREW M6x20            |                                                                                     |
| 21 |  | CR-09-0080 | SOCKET HEAD CAP SCREW M6x16            |                                                                                     |
| 22 |  | MA-FE-0090 | PLAIN WASHER M6x12                     |                                                                                     |
| 23 |  | CR-03-0171 | SELF-LOCKING NUT M6                    |                                                                                     |
| 24 |  | 3D-06-1302 | WATER ISOLATION CAN GASKET             |                                                                                     |
| 25 |  | CR-PP-0011 | SOCKET HEAD CAP SCREW M5x12            |                                                                                     |
| 26 |  | MA-FE-0840 | SOCKET HEAD CAP SCREW M5x25            |                                                                                     |

### 3D-03-0401 / FUEL INTAKE 0° & 3/8" HOSE ASSEMBLY



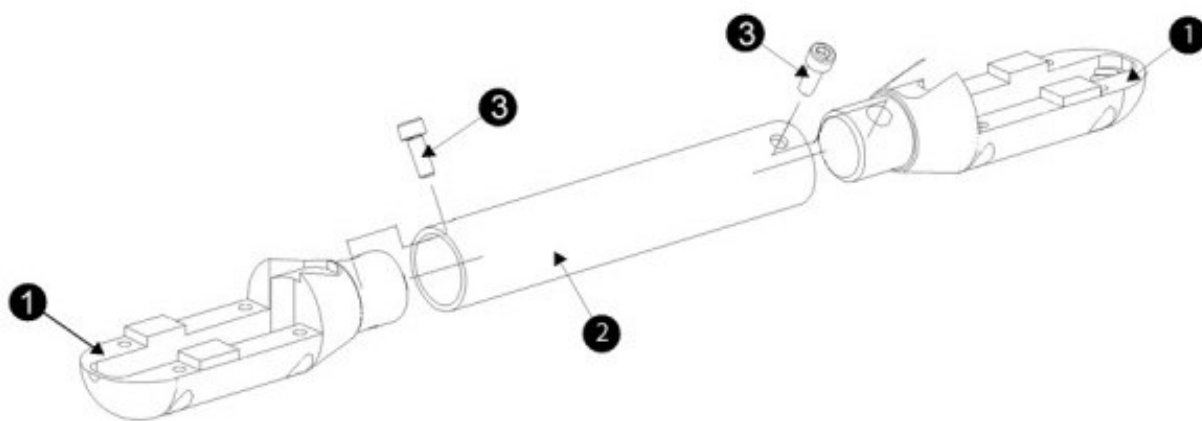
|   |                                                                                     | P/N        | DESCRIPTION                        |
|---|-------------------------------------------------------------------------------------|------------|------------------------------------|
| 1 |  | 3D-03-2002 | FUEL INTAKE 3/8" BSP               |
| 2 |  | CR-PP-0011 | SOCKET HEAD CAP SCREW M5x12        |
| 3 |  | MA-FE-0600 | BONDED WASHER 3/8" BSP             |
| 4 |  | 3D-99-0110 | FUEL INTAKE / CENTER COLUMN O-RING |

### 3D-03-0501 / FUEL INTAKE 90° & 3/8" HOSE ASSEMBLY



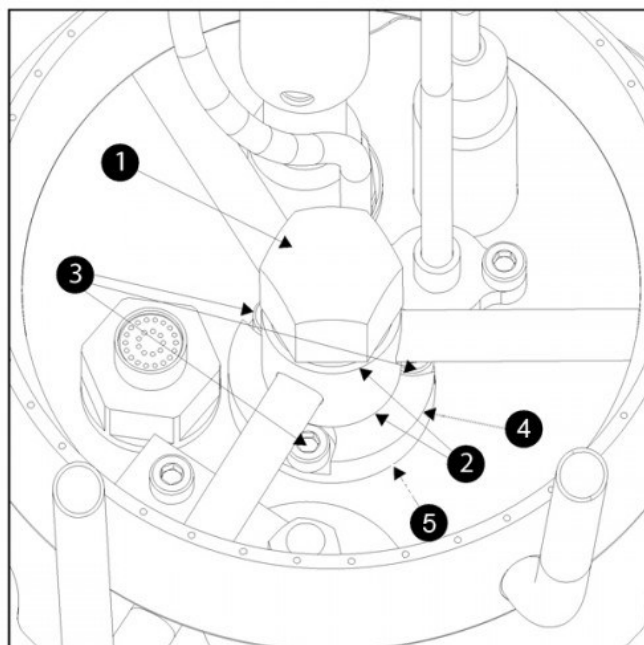
|   |                                                                                             | P/N        | DESCRIPTION                        |
|---|---------------------------------------------------------------------------------------------|------------|------------------------------------|
| 1 |          | 3D-03-2205 | FUEL INTAKE 3/8" BSP               |
| 2 |          | CR-PP-0011 | SOCKET HEAD CAP SCREW M5x12        |
| 3 |          | MA-FE-0180 | SOCKET HEAD CAP SCREW M5x40        |
| 4 |  | MA-FE-0600 | BONDED WASHER 3/8" BSP             |
| 5 |          | 3D-99-0110 | FUEL INTAKE / CENTER COLUMN O-RING |

### 3D-01-0000 / BURNER HANDLE ASSEMBLY



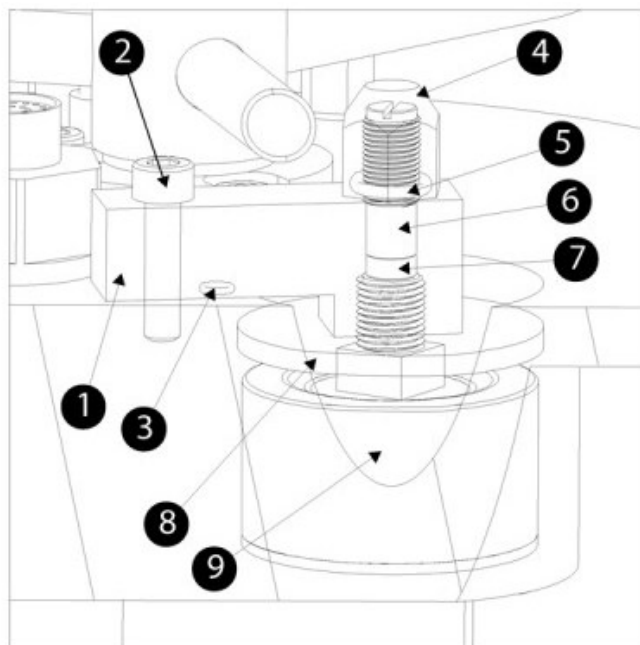
|   |                                                                                     | P/N        | DESCRIPTION                   |
|---|-------------------------------------------------------------------------------------|------------|-------------------------------|
| 1 |  | 3D-03-1203 | VALVE BLOCK HANDLE CONNECTION |
| 2 |  | 3D-01-1001 | DOUBLE BURNER HANDLE TUBE     |
| 3 |  | CR-09-0080 | SOCKET HEAD CAP SCREW M6x16   |

## 3D-17-0000 / CENTER COLUMN ASSEMBLY



|   |                                                                                     | P/N        | DESCRIPTION                         |
|---|-------------------------------------------------------------------------------------|------------|-------------------------------------|
| 1 |  | CR-22-0319 | COIL SUPPORT THREADED PLUG 3/8" BSP |
| 2 |  | MA-FE-0624 | BI-MATERIAL 3/8" BONDED WASHER      |
| 3 |  | CR-PP-0011 | SOCKET HEAD CAP SCREW M5x12         |
| 4 |  | 3D-03-1803 | 3 SPIRAL ORIENTED COIL POST         |
| 5 |  | 3D-99-0110 | FUEL INTAKE / CENTER COLUMN O-RING  |

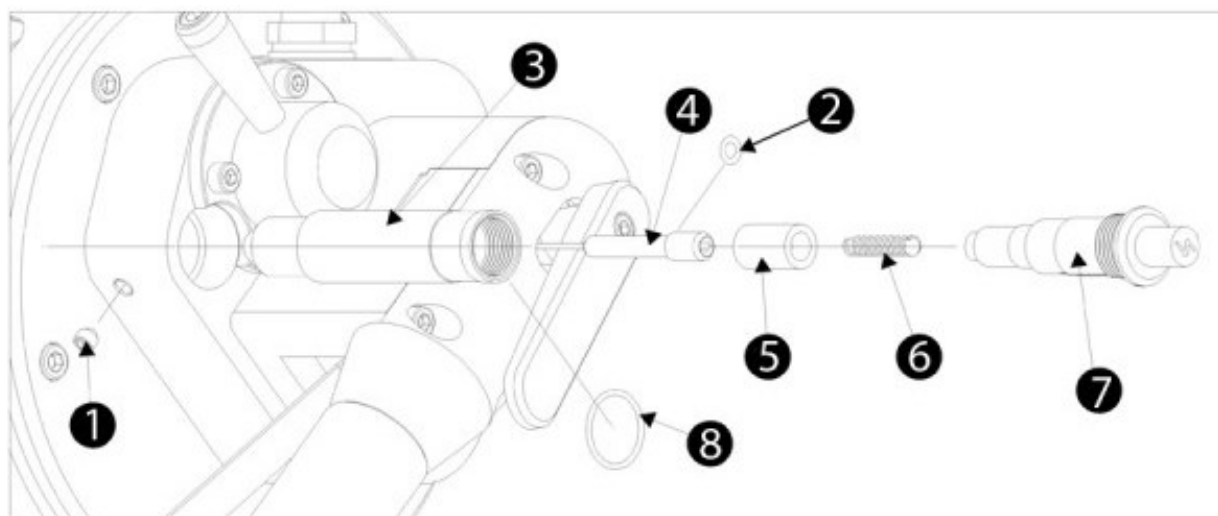
### 3D-13-0000 / PRESSURE GAUGE ASSEMBLY



|   |                                                                                     | P/N        | DESCRIPTION                        |
|---|-------------------------------------------------------------------------------------|------------|------------------------------------|
| 1 |  | 3D-13-0101 | PRESSURE GAUGE CONNECTOR ASSEMBLY  |
| 2 |  | MA-FE-0170 | SOCKET HEAD CAP SCREW M5x20        |
| 3 |  | CR-09-0156 | PRESSURE GAUGE CONNECTOR O-RING    |
| 4 |  | 3D-13-1201 | PRESSURE GAUGE FELT COMPRESSOR CAP |
| 5 |  | 3D-99-0115 | CAP O-RING                         |

|   |                                                                                   |            |                                |
|---|-----------------------------------------------------------------------------------|------------|--------------------------------|
| 6 |  | 3D-13-1104 | PRESSURE GAUGE FELT COMPRESSOR |
| 7 |  | 3D-13-1301 | FELT DAMPER                    |
| 8 |  | 3D-13-2101 | PRESSURE GAUGE FLAT SEAL       |
| 9 |  | 3D-13-2003 | PRESSURE GAUGE                 |

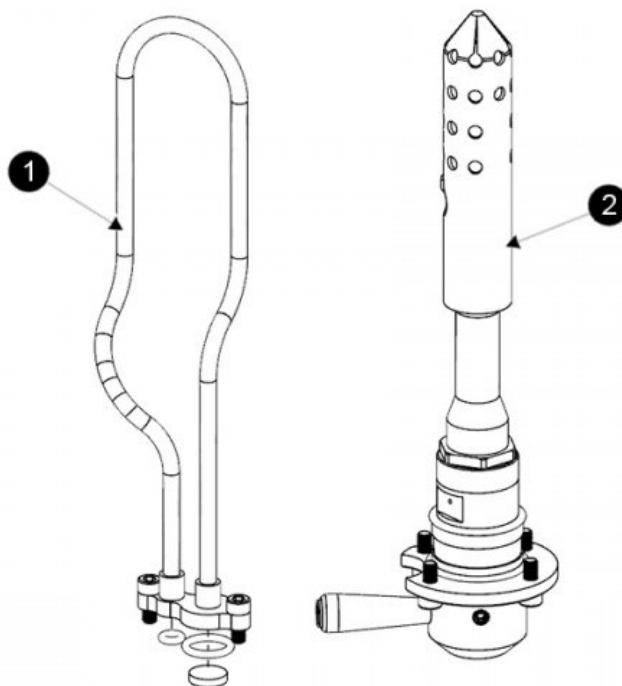
### 3D-09-0000 / PIEZO IGNITER ASSEMBLY



|   |                                                                                     | P/N        | DESCRIPTION                         |
|---|-------------------------------------------------------------------------------------|------------|-------------------------------------|
| 1 |  | CR-N-0040  | GRUB SCREW M6x6                     |
| 2 |  | MA-FE-0606 | PIEZO / MK-21 PRESSURE GAUGE O-RING |

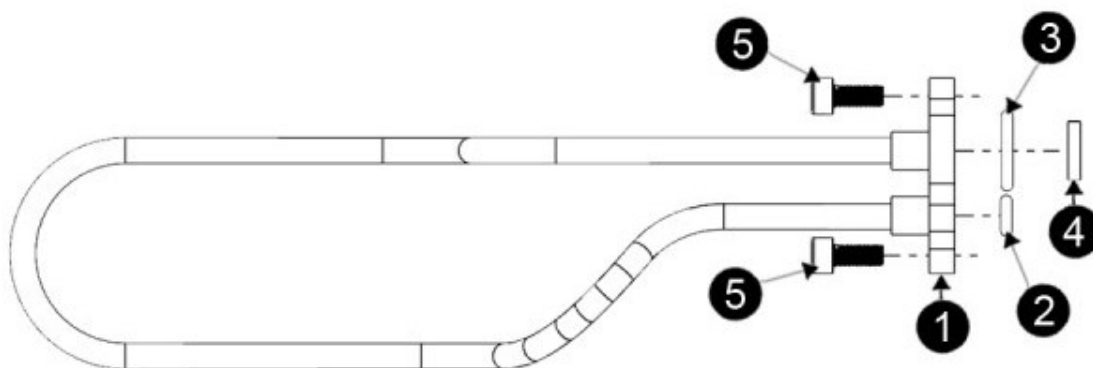
|          |                                                                                     |            |                                                     |
|----------|-------------------------------------------------------------------------------------|------------|-----------------------------------------------------|
| <b>3</b> |    | 3D-09-1002 | PIEZO COVER                                         |
| <b>4</b> |    | 3D-09-1201 | CERAMIC ELECTRODE                                   |
| <b>5</b> |    | 3D-09-1302 | PIEZO SPACER                                        |
| <b>6</b> |    | 3D-09-1401 | DOUBLE ACTION HANDLE PLAY CONTROL /<br>PIEZO SPRING |
| <b>7</b> |    | 3D-09-1101 | PIEZOELECTRIC IGNITER                               |
| <b>8</b> |  | CR-PP-0325 | PIEZO / VALVES O-RING                               |

### 3D-08-0901 / COMPLETE LIQUID PILOT LIGHT ASSEMBLY



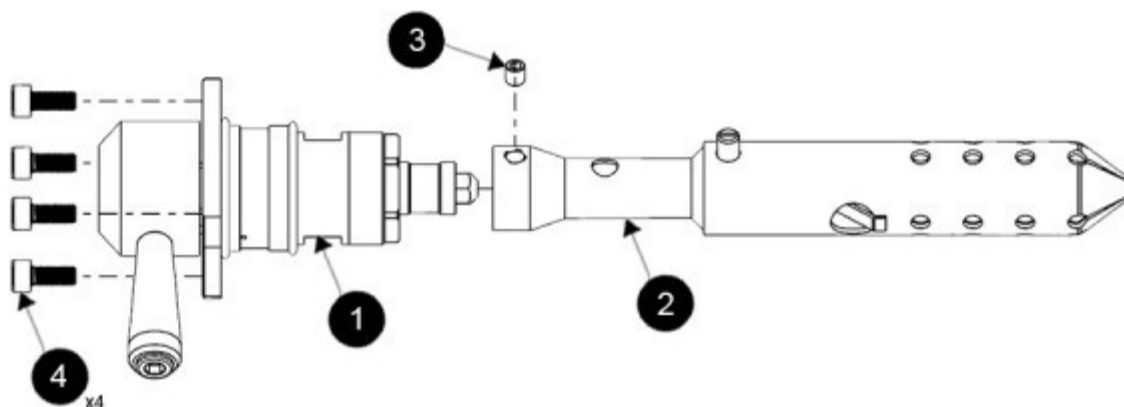
|   |                                                                                     | P/N        | DESCRIPTION                 |                                                                                       |
|---|-------------------------------------------------------------------------------------|------------|-----------------------------|---------------------------------------------------------------------------------------|
| 1 |  | 3D-08-0801 | COMPLETE PREHEATER ASSEMBLY |  |
| 2 |  | 3D-08-0000 | LIQUID PILOT LIGHT ASSEMBLY |  |

### 3D-08-0801 / COMPLETE PREHEATER ASSEMBLY



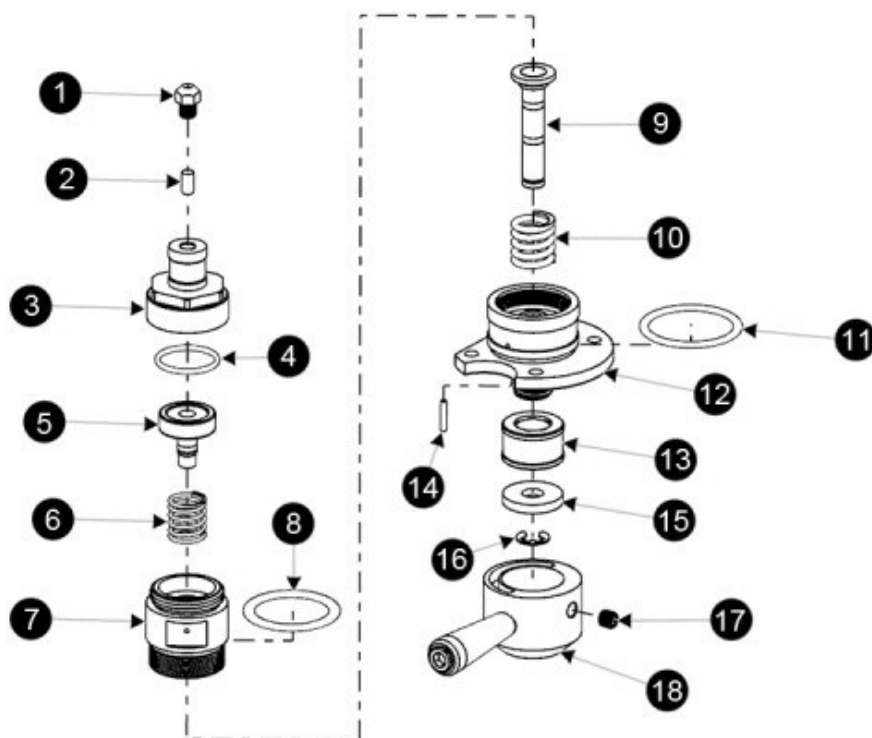
|   |                                                                                     | P/N        | DESCRIPTION                           |
|---|-------------------------------------------------------------------------------------|------------|---------------------------------------|
| 1 |  | 3D-08-0201 | PREHEATER WELDED ASSEMBLY             |
| 2 |  | 3D-99-0100 | PILOT LIGHT PREHEATER INLET O-RING    |
| 3 |  | 3D-99-0105 | PILOT LIGHT PREHEATER FILTER O-RING   |
| 4 |  | 3D-08-3201 | PILOT LIGHT PREHEATER SINTERED FILTER |
| 5 |  | CR-PP-0011 | SOCKET HEAD CAP SCREW M5x12           |

### 3D-08-0000 / LIQUID PILOT LIGHT ASSEMBLY



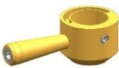
|   |                                                                                     | P/N        | DESCRIPTION                    |                                                                                       |
|---|-------------------------------------------------------------------------------------|------------|--------------------------------|---------------------------------------------------------------------------------------|
| 1 |  | 3D-08-0101 | PILOT LIGHT REGULATOR ASSEMBLY |  |
| 2 |  | 3D-08-0301 | PILOT LIGHT TORCH ASSEMBLY     |  |
| 3 |  | CR-N-0040  | GRUB SCREW M6x6                |                                                                                       |
| 4 |  | CR-PP-0011 | SOCKET HEAD CAP SCREW M5x12    |                                                                                       |

### 3D-08-0101 / PILOT LIGHT REGULATOR ASSEMBLY

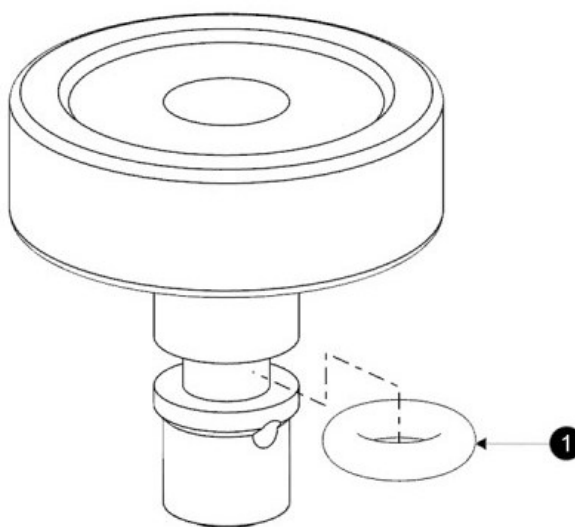


|   |                                                                                     | P/N        | DESCRIPTION                         |  |
|---|-------------------------------------------------------------------------------------|------------|-------------------------------------|--|
| 1 |  | CR-22-0713 | PILOT LIGHT JET                     |  |
| 2 |  | 3D-08-4102 | PILOT LIGHT JET SINTERED FILTER     |  |
| 3 |  | 3D-08-1004 | PILOT LIGHT REGULATOR UPPER BODY    |  |
| 4 |  | 3D-99-0090 | PILOT LIGHT REGULATOR PISTON O-RING |  |

|    |                                                                                     |            |                                        |                                                                                       |
|----|-------------------------------------------------------------------------------------|------------|----------------------------------------|---------------------------------------------------------------------------------------|
| 5  |    | 3D-08-0501 | PILOT LIGHT REGULATOR PISTON ASSEMBLY  |    |
| 6  |    | 3D-08-1401 | PILOT LIGHT REGULATOR SPRING           |                                                                                       |
| 7  |    | 3D-08-1304 | PILOT LIGHT REGULATOR LOWER BODY       |                                                                                       |
| 8  |    | 3D-99-0230 | PILOT LIGHT VALVE BODY TOP O-RING      |                                                                                       |
| 9  |   | 3D-08-0403 | LIQUID PILOT LIGHT VALVE STEM ASSEMBLY |  |
| 10 |  | 3D-08-2801 | VALVE SPRING                           |                                                                                       |
| 11 |  | 3D-99-0125 | PILOT LIGHT VALVE BODY O-RING          |                                                                                       |
| 12 |  | 3D-08-2002 | PILOT LIGHT VALVE BODY                 |                                                                                       |
| 13 |  | 3D-08-2202 | PILOT LIGHT VALVE ROTATION LEVER       |                                                                                       |
| 14 |  | 3D-08-2101 | PILOT LIGHT VALVE PIN STOPPER          |                                                                                       |
| 15 |  | 3D-08-2703 | PILOT LIGHT VALVE ANTI-FRICTION WASHER |                                                                                       |

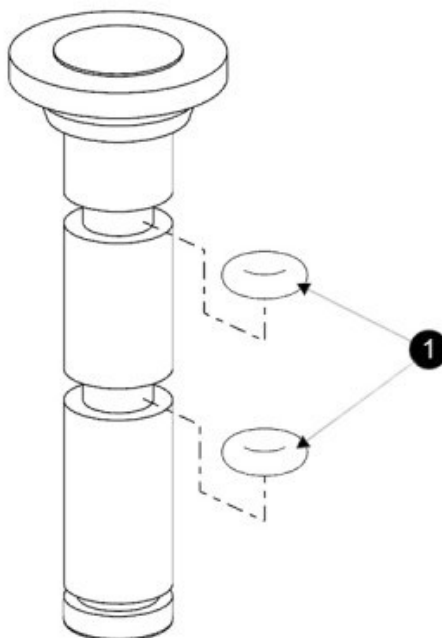
|    |                                                                                   |            |                                  |  |
|----|-----------------------------------------------------------------------------------|------------|----------------------------------|--|
| 16 |  | 3D-99-0060 | PILOT LIGHT VALVE E-TYPE CIRCLIP |  |
| 17 |  | CR-N-0040  | GRUB SCREW M6x6                  |  |
| 18 |  | 3D-08-0601 | PILOT LIGHT VALVE KNOB ASSEMBLY  |  |

### 3D-08-0501 / PILOT LIGHT REGULATOR PISTON ASSEMBLY



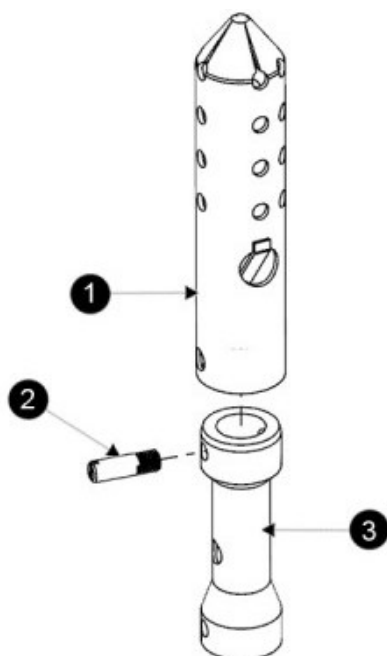
|   |                                                                                     | P/N        | DESCRIPTION                             |
|---|-------------------------------------------------------------------------------------|------------|-----------------------------------------|
| 1 |  | 3D-99-0095 | PILOT LIGHT REGULATOR PISTON ROD O-RING |

### 3D-08-0403 / LIQUID PILOT LIGHT VALVE STEM ASSEMBLY



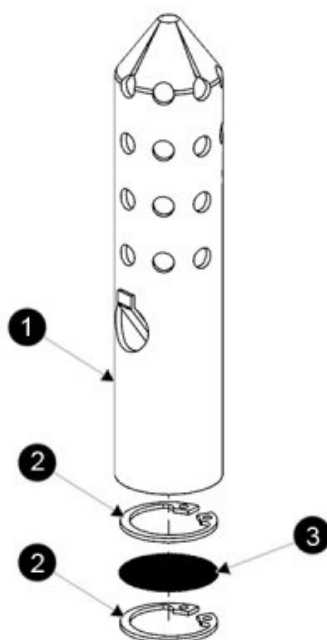
|   |                                                                                     | P/N        | DESCRIPTION       |
|---|-------------------------------------------------------------------------------------|------------|-------------------|
| 1 |  | 3D-99-0085 | VALVE STEM O-RING |

### 3D-08-0301 / PILOT LIGHT TORCH ASSEMBLY



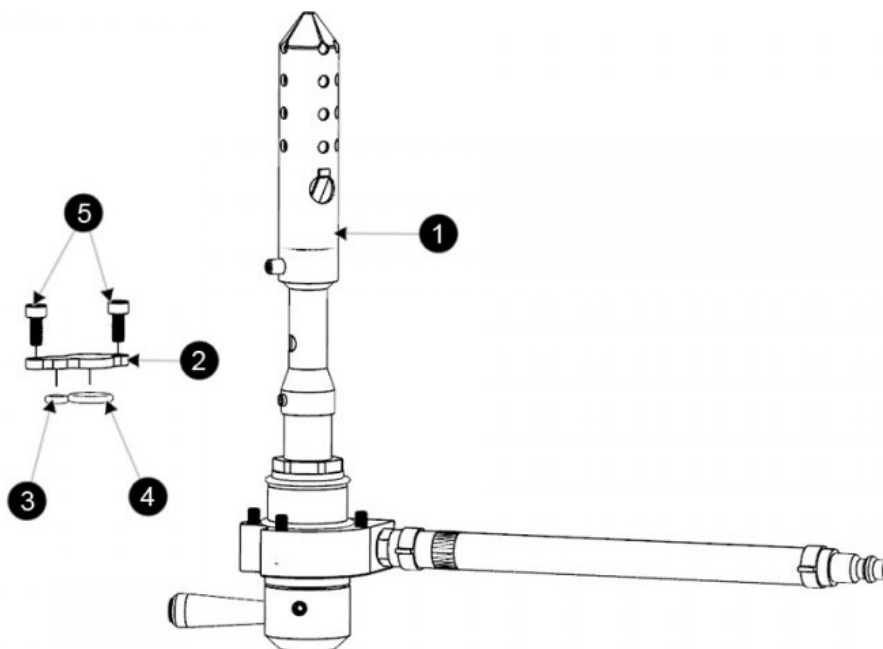
|   |                                                                                     | P/N        | DESCRIPTION                     |                                                                                       |
|---|-------------------------------------------------------------------------------------|------------|---------------------------------|---------------------------------------------------------------------------------------|
| 1 |  | 3D-08-0701 | PILOT LIGHT TORCH TUBE ASSEMBLY |  |
| 2 |  | 3D-08-4204 | PILOT LIGHT TORCH BASE          |                                                                                       |
| 3 |  | CR-N-0040  | GRUB SCREW M6x6                 |                                                                                       |

### 3D-08-0701 / PILOT LIGHT TORCH TUBE ASSEMBLY



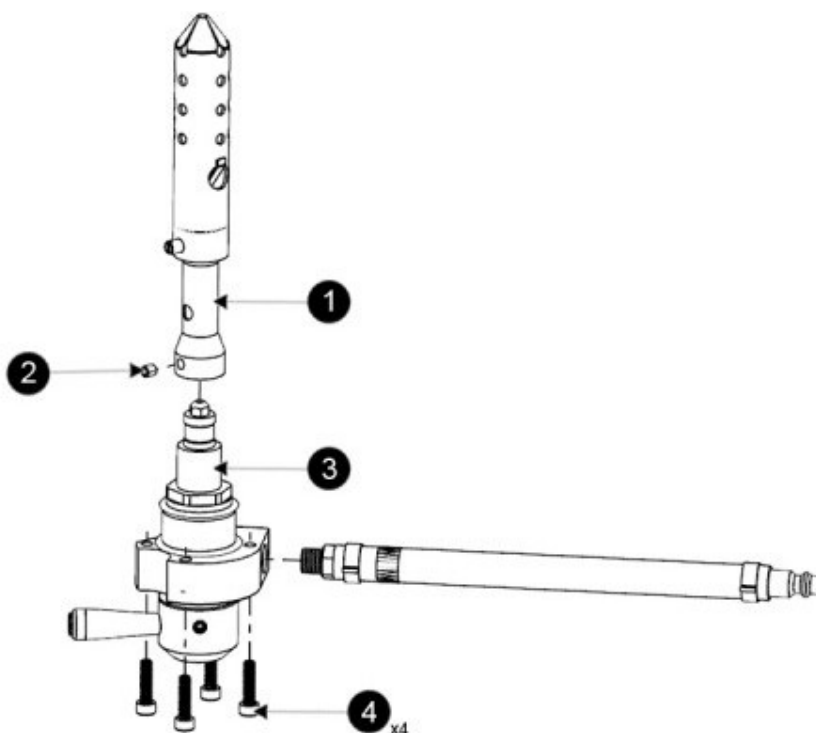
|   |                                                                                     | P/N        | DESCRIPTION              |
|---|-------------------------------------------------------------------------------------|------------|--------------------------|
| 1 |  | 3D-08-4306 | PILOT LIGHT TORCH TUBE   |
| 2 |  | 3D-99-0020 | PILOT LIGHT MESH CIRCLIP |
| 3 |  | 3D-08-4402 | PILOT LIGHT TORCH MESH   |

### 3D-18-0401 / COMPLETE VAPOR PILOT LIGHT ASSEMBLY



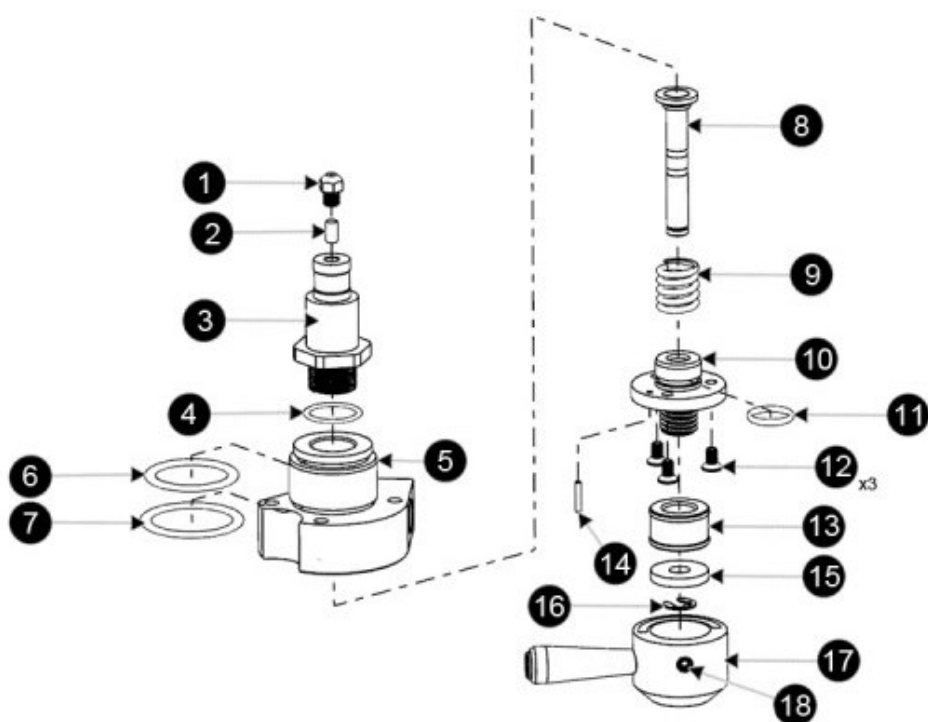
|   |                                                                                     | P/N        | DESCRIPTION                         |                                                                                       |
|---|-------------------------------------------------------------------------------------|------------|-------------------------------------|---------------------------------------------------------------------------------------|
| 1 |  | 3D-18-0000 | VAPOR PILOT LIGHT ASSEMBLY          |  |
| 2 |  | 3D-08-3301 | PILOT LIGHT PREHEATER BLANKING CAP  |                                                                                       |
| 3 |  | 3D-99-0100 | PILOT LIGHT PREHEATER INLET O-RING  |                                                                                       |
| 4 |  | 3D-99-0105 | PILOT LIGHT PREHEATER FILTER O-RING |                                                                                       |
| 5 |  | CR-PP-0011 | SOCKET HEAD CAP SCREW M5x12         |                                                                                       |

### 3D-18-0000 / VAPOR PILOT LIGHT ASSEMBLY



|   |                                                                                     | P/N        | DESCRIPTION                      |                                                                                       |
|---|-------------------------------------------------------------------------------------|------------|----------------------------------|---------------------------------------------------------------------------------------|
| 1 |  | 3D-08-0301 | PILOT LIGHT TORCH ASSEMBLY       |  |
| 2 |  | CR-N-0040  | GRUB SCREW M6x6                  |                                                                                       |
| 3 |  | 3D-18-0201 | VAPOR PILOT LIGHT VALVE ASSEMBLY |  |
| 4 |  | MA-FE-0170 | SOCKET HEAD CAP SCREW M5x20      |                                                                                       |

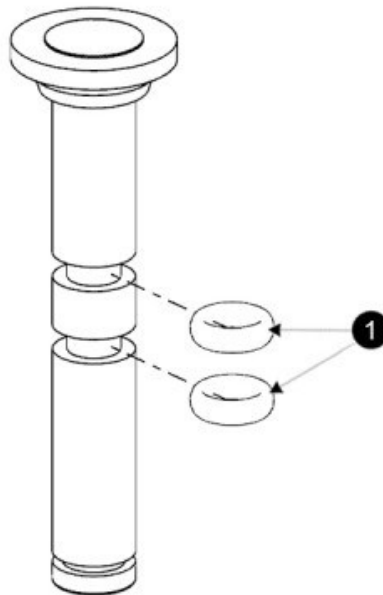
## 3D-18-0201 / VAPOR PILOT LIGHT VALVE ASSEMBLY



|   |                                                                                     | P/N        | DESCRIPTION                        |  |
|---|-------------------------------------------------------------------------------------|------------|------------------------------------|--|
| 1 |  | CR-22-0713 | PILOT LIGHT JET                    |  |
| 2 |  | 3D-08-4102 | PILOT LIGHT JET SINTERED FILTER    |  |
| 3 |  | 3D-18-1002 | VAPOR PILOT LIGHT VALVE UPPER BODY |  |
| 4 |  | CR-PP-0325 | PIEZO / VALVES O-RING              |  |
| 5 |  | 3D-18-1103 | VAPOR PILOT LIGHT VALVE INLET BODY |  |

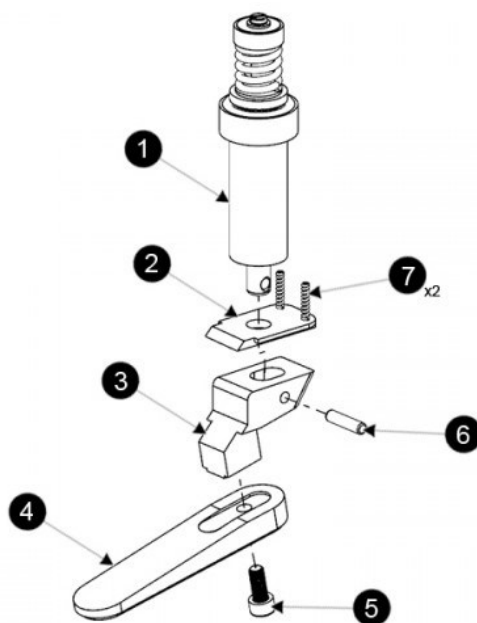
|    |                                                                                     |            |                                            |                                                                                     |
|----|-------------------------------------------------------------------------------------|------------|--------------------------------------------|-------------------------------------------------------------------------------------|
| 6  |    | 3D-99-0140 | VAPOR PILOT LIGHT VALVE BODY TOP O-RING    |                                                                                     |
| 7  |    | 3D-99-0125 | PILOT LIGHT VALVE BODY O-RING              |                                                                                     |
| 8  |    | 3D-18-0301 | VAPOR PILOT LIGHT VALVE STEM ASSEMBLY      |  |
| 9  |    | 3D-08-2801 | VALVE SPRING                               |                                                                                     |
| 10 |    | 3D-18-1202 | VAPOR PILOT LIGHT VALVE LOWER BODY         |                                                                                     |
| 11 |  | CR-22-1120 | VAPOR PILOT LIGHT VALVE BODY BOTTOM O-RING |                                                                                     |
| 12 |  | MA-FE-0012 | CSK SOCKET HEAD SCREW M4x8                 |                                                                                     |
| 13 |  | 3D-08-2202 | PILOT LIGHT VALVE ROTATION LEVER           |                                                                                     |
| 14 |  | 3D-08-2101 | PILOT LIGHT VALVE PIN STOPPER              |                                                                                     |
| 15 |  | 3D-08-2703 | PILOT LIGHT VALVE ANTI-FRICTION WASHER     |                                                                                     |
| 16 |  | 3D-99-0060 | PILOT LIGHT VALVE E-TYPE CIRCLIP           |                                                                                     |
| 17 |  | 3D-08-0601 | PILOT LIGHT VALVE KNOB ASSEMBLY            |                                                                                     |
| 18 |  | CR-N-0040  | GRUB SCREW M6x6                            |                                                                                     |

**3D-18-0301 / VAPOR PILOT LIGHT VALVE STEM ASSEMBLY**



|   |                                                                                     | P/N        | DESCRIPTION       |
|---|-------------------------------------------------------------------------------------|------------|-------------------|
| 1 |  | 3D-99-0085 | VALVE STEM O-RING |

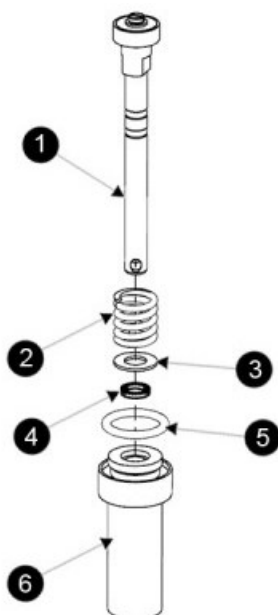
### 3D-11-0301 / COMPLETE LIQUID VALVE ASSEMBLY



|   |                                                                                     | P/N        | DESCRIPTION                       |                                                                                       |
|---|-------------------------------------------------------------------------------------|------------|-----------------------------------|---------------------------------------------------------------------------------------|
| 1 |  | 3D-11-0000 | LIQUID VALVE ASSEMBLY             |  |
| 2 |  | 3D-11-2002 | LIQUID VALVE ANTI-FRICTION SPACER |                                                                                       |
| 3 |  | 3D-11-2105 | LIQUID VALVE LEVER                |                                                                                       |
| 4 |  | 3D-11-2202 | LIQUID VALVE HANDLE               |                                                                                       |
| 5 |  | CR-PP-0011 | SOCKET HEAD CAP SCREW M5x12       |                                                                                       |
| 6 |  | 3D-11-2301 | STEM PIN                          |                                                                                       |

|   |                                                                                   |            |                      |  |
|---|-----------------------------------------------------------------------------------|------------|----------------------|--|
| 7 |  | 3D-11-1401 | HANDLE RETURN SPRING |  |
|---|-----------------------------------------------------------------------------------|------------|----------------------|--|

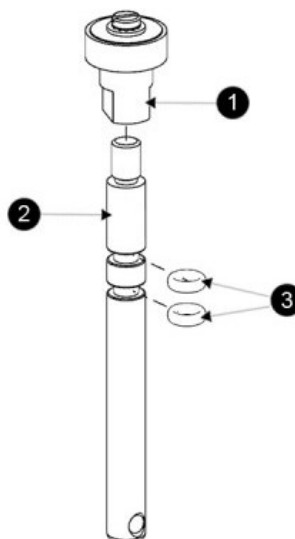
### 3D-11-0000 / LIQUID VALVE ASSEMBLY



|   |                                                                                     | P/N        | DESCRIPTION                 |                                                                                       |
|---|-------------------------------------------------------------------------------------|------------|-----------------------------|---------------------------------------------------------------------------------------|
| 1 |  | 3D-11-0101 | VALVE STEM ASSEMBLY         |  |
| 2 |  | 3D-08-2801 | VALVE SPRING                |                                                                                       |
| 3 |  | 3D-11-1301 | VALVE STEM RETAINING WASHER |                                                                                       |
| 4 |  | CR-PP-0301 | ENERGIZED PTFE WASHER       |                                                                                       |

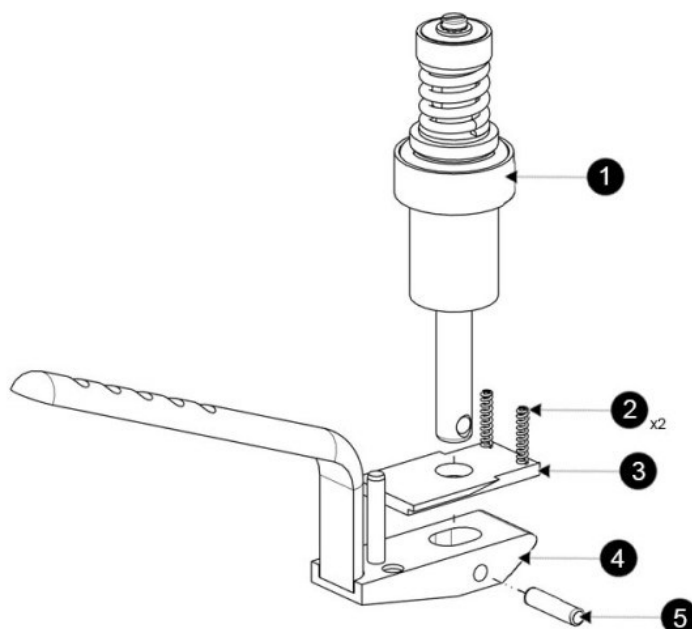
|   |                                                                                   |            |                           |  |
|---|-----------------------------------------------------------------------------------|------------|---------------------------|--|
| 5 |  | 3D-99-0135 | VALVE BODY SEALING O-RING |  |
| 6 |  | 3D-11-3001 | LIQUID VALVE BODY         |  |

### 3D-11-0101 / VALVE STEM ASSEMBLY



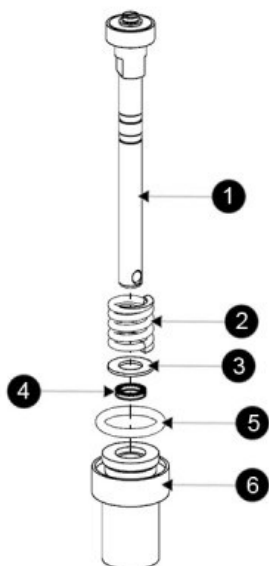
|   |                                                                                     | P/N        | DESCRIPTION                     |
|---|-------------------------------------------------------------------------------------|------------|---------------------------------|
| 1 |  | 3D-11-0201 | MAIN/LIQUID VALVE SEAT ASSEMBLY |
| 2 |  | 3D-11-1005 | VALVE STEM                      |
| 3 |  | 3D-99-0085 | VALVE STEM O-RING               |

**3D-12-0101 / COMPLETE MAIN VALVE ASSEMBLY (SMOOTH)**  
**3D-12-0401 / COMPLETE MAIN VALVE ASSEMBLY (SLOTTED)**



|   |                                                                                     | P/N        | DESCRIPTION                     |                                                                                       |
|---|-------------------------------------------------------------------------------------|------------|---------------------------------|---------------------------------------------------------------------------------------|
| 1 |  | 3D-12-0000 | MAIN VALVE ASSEMBLY             |  |
| 2 |  | 3D-11-1401 | HANDLE RETURN SPRING            |                                                                                       |
| 3 |  | 3D-12-2003 | MAIN VALVE ANTI-FRICTION SPACER |                                                                                       |
| 4 |  | 3D-12-0205 | MAIN HANDLE (SMOOTH)            |                                                                                       |
|   |                                                                                     | 3D-12-0304 | MAIN HANDLE (SLOTTED)           |                                                                                       |
| 5 |  | 3D-11-2301 | STEM PIN                        |                                                                                       |

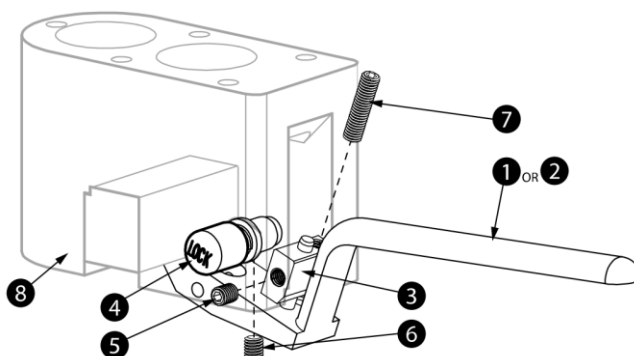
### 3D-12-0000 / MAIN VALVE ASSEMBLY

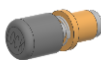


|   |                                                                                     | P/N        | DESCRIPTION                 |                                                                                       |
|---|-------------------------------------------------------------------------------------|------------|-----------------------------|---------------------------------------------------------------------------------------|
| 1 |  | 3D-11-0101 | VALVE STEM ASSEMBLY         |  |
| 2 |  | 3D-08-2801 | VALVE SPRING                |                                                                                       |
| 3 |  | 3D-11-1301 | VALVE STEM RETAINING WASHER |                                                                                       |
| 4 |  | CR-PP-0301 | ENERGIZED PTFE WASHER       |                                                                                       |
| 5 |  | 3D-99-0135 | VALVE BODY SEALING O-RING   |                                                                                       |
| 6 |  | 3D-12-3001 | MAIN VALVE BODY             |                                                                                       |

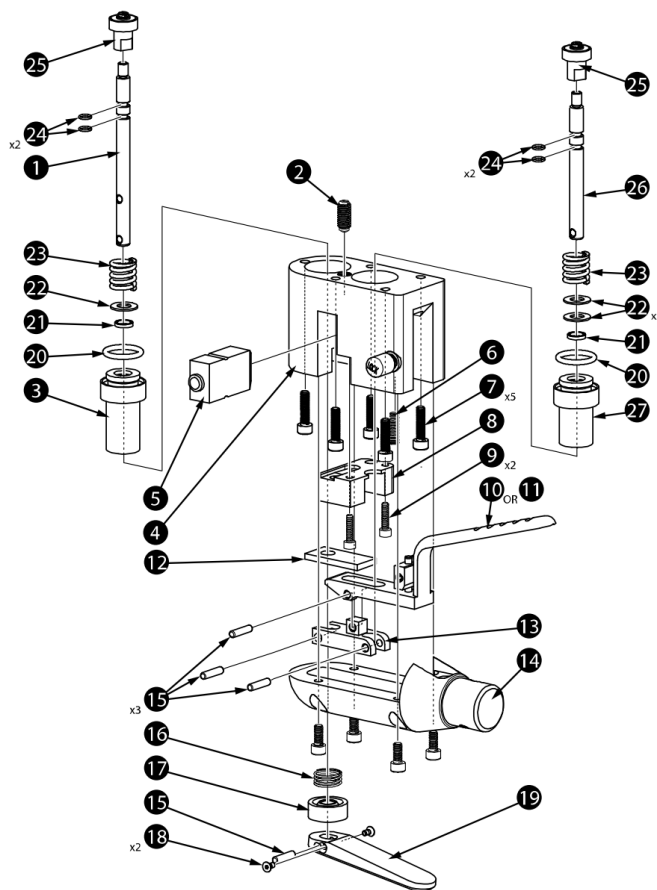
## Double action assemblies

### MAIN VALVE LOCKING ASSEMBLY

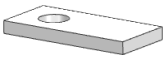
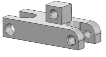


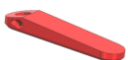
|   |                                                                                     | P/N        | DESCRIPTION                  |
|---|-------------------------------------------------------------------------------------|------------|------------------------------|
| 1 |  | 3D-12-0205 | MAIN HANDLE (SMOOTH)         |
| 2 |                                                                                     | 3D-12-0304 | MAIN HANDLE (SLOTTED)        |
| 3 |  | 3D-12-2802 | MAIN HANDLE LOCKING ADJUSTER |
| 4 |  | 3D-12-0501 | BUTTON ASSEMBLY              |
| 5 |  | CR-02-0090 | SHORT GRUB SCREW             |
| 6 |                                                                                     |            |                              |
| 7 |  | CR-04-0010 | LONG GRUB SCREW              |
| 8 |  | 3D-03-1104 | VALVE BLOCK COVER            |

## DOUBLE ACTION VALVE ASSEMBLY (OPTIONAL)



|   |                                                                                     | P/N        | DESCRIPTION                                               |
|---|-------------------------------------------------------------------------------------|------------|-----------------------------------------------------------|
| 1 |  | 3D-27-1004 | DOUBLE ACTION LIQUID VALVE STEM                           |
| 2 |  | 3D-99-0010 | SET GRUB SCREW                                            |
| 3 |  | 3D-27-1702 | DOUBLE ACTION LIQUID VALVE BODY                           |
| 4 |  | 3D-27-1102 | DOUBLE ACTION VALVE BLOCK COVER (includes Locking Button) |

|    |                                                                                     |            |                                                     |
|----|-------------------------------------------------------------------------------------|------------|-----------------------------------------------------|
| 5  |    | 3D-27-1902 | FILLER BLOCK FOR DOUBLE ACTION                      |
| 6  |    | 3D-09-1401 | DOUBLE ACTION HANDLE PLAY CONTROL /<br>PIEZO SPRING |
| 7  |    | MA-FE-0170 | SOCKET HEAD CAP SCREW M5x20                         |
| 8  |    | 3D-27-1802 | HYDRAULIC ACTUATOR CRADLE (DOUBLE<br>ACTION)        |
| 9  |    | CR-09-0060 | SOCKET HEAD CAP SCREW M4x16                         |
| 10 |  | 3D-27-0202 | DOUBLE ACTION MAIN VALVE HANDLE –<br>SMOOTH         |
| 11 |                                                                                     | 3D-27-0302 | DOUBLE ACTION MAIN VALVE HANDLE –<br>SLOTTED        |
| 12 |  | 3D-27-1402 | DOUBLE ACTION VALVE ANTI-FRICTION SPACER            |
| 13 |  | 3D-27-1305 | DOUBLE ACTION CAM                                   |
| 14 |  | 3D-27-1203 | DOUBLE ACTION VALVE BLOCK HANDLE<br>CONNECTION      |
| 15 |  | 3D-11-2301 | STEM PIN                                            |
| 16 |  | PS-02-1301 | DOUBLE ACTION LIQUID HANDLE SPRING                  |
| 17 |  | PS-02-1203 | LIQUID TRIGGER ANTI-FRICTION WASHER                 |

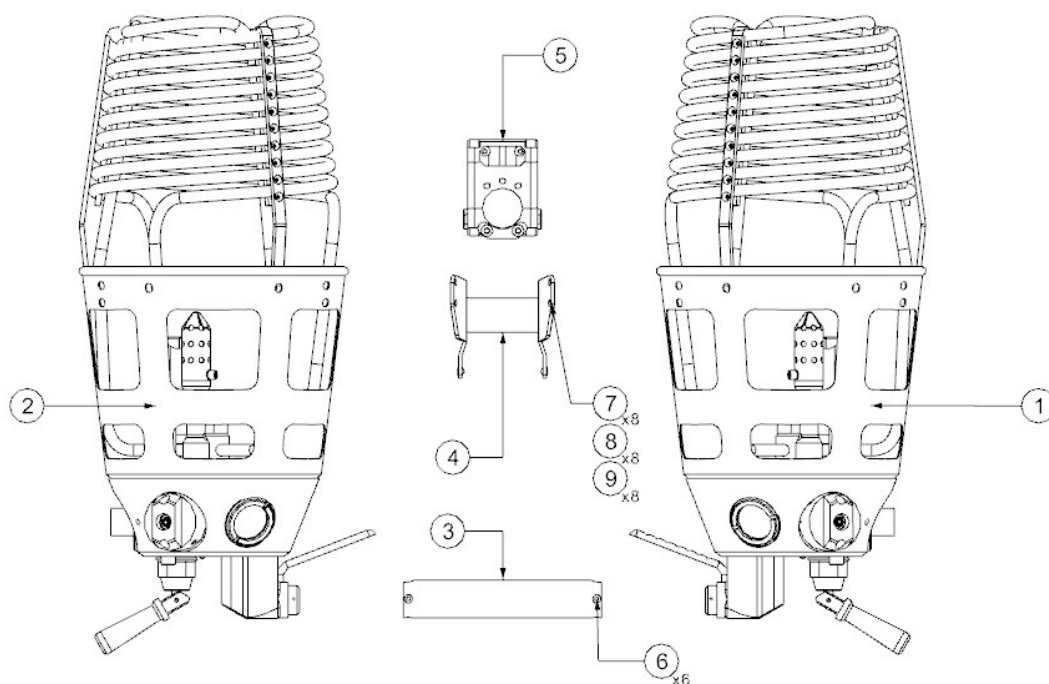
|    |                                                                                     |            |                                   |
|----|-------------------------------------------------------------------------------------|------------|-----------------------------------|
| 18 |    | MA-FE-0514 | CSK SOCKET HEAD SCREW M3x6        |
| 19 |    | 3D-27-1604 | DOUBLE ACTION LIQUID VALVE HANDLE |
| 20 |    | 3D-99-0135 | VALVE BODY SEALING O-RING         |
| 21 |    | CR-PP-0301 | ENERGIZED PTFE WASHER             |
| 22 |    | 3D-11-1301 | VALVE STEM RETAINING WASHER       |
| 23 |   | 3D-08-2801 | VALVE SPRING                      |
| 24 |  | 3D-99-0085 | VALVE STEM O-RING                 |
| 25 |  | 3D-11-0201 | MAIN/LIQUID VALVE SEAT ASSEMBLY   |
| 26 |  | 3D-11-1005 | VALVE STEM                        |
| 27 |  | 3D-27-3001 | MAIN VALVE BODY                   |

## Other MK-32 parts

|                                                                                     | P/N        | DESCRIPTION                               |
|-------------------------------------------------------------------------------------|------------|-------------------------------------------|
|    | 3D-22-1201 | WATER SLURPER TUBE                        |
|    | MA-FE-0175 | SCREW FOR WATER SLURPER TUBE M4x6         |
|    | 3D-08-3501 | PILOT LIGHT PREHEATER BYPASS              |
|    | 3Q-01-1101 | QUAD BURNER HANDLE CENTRAL TUBE           |
|  | 3T-01-1001 | TRIPLE/QUAD BURNER HANDLE SHORT TUBE      |
|  | 3T-01-1101 | TRIPLE BURNER HANDLE LONG TUBE            |
|  | 3Q-15-0000 | QUADRUPLE BURNER HANGER ASSEMBLY          |
|  | 3T-01-1202 | HANDLE TUBE T-FITTING                     |
|  | 3T-01-1302 | INTERNAL HANDLE TUBE SADDLE FOR T-FITTING |
|  | 3T-15-0000 | TRIPLE BURNER HANGER ASSEMBLY             |

## MK-21 Double

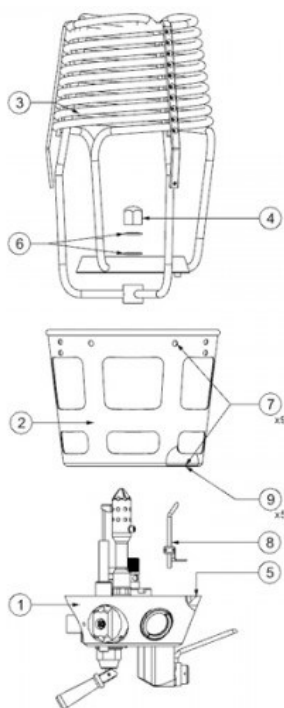
### MK-21 DOUBLE ASSEMBLY

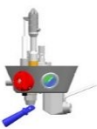


|   |                                                                                     | P/N        | DESCRIPTION                   |                                                                                       |
|---|-------------------------------------------------------------------------------------|------------|-------------------------------|---------------------------------------------------------------------------------------|
| 1 |  | CR-22-0100 | RH BURNER ASSY                |  |
| 2 |  | CR-22-0200 | LH BURNER ASSY                |                                                                                       |
| 3 |  | CR-22-0011 | DOUBLE BURNER HANDLE TUBE     |                                                                                       |
| 4 |  | CR-22-2600 | DOUBLE BURNER HANGER ASSEMBLY |                                                                                       |

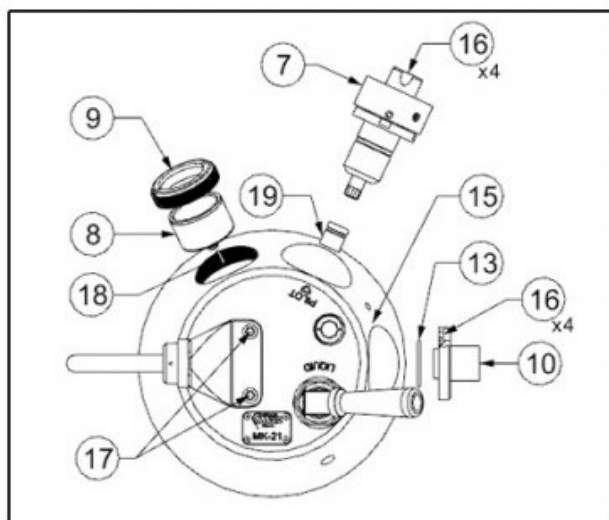
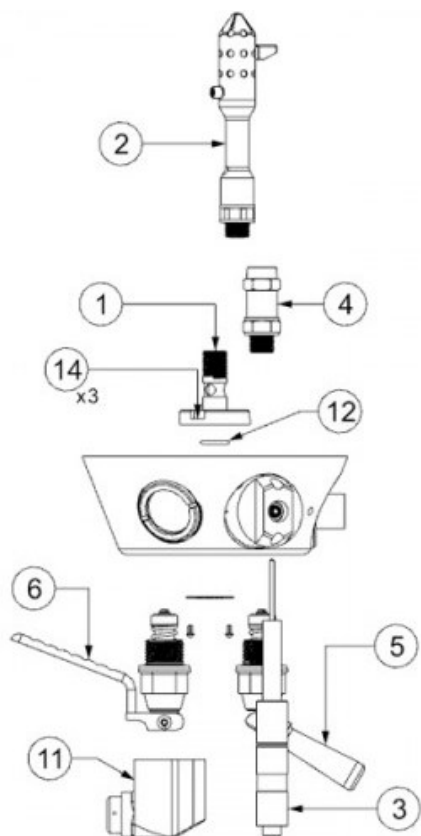
|   |                                                                                   |            |                             |                                                                                     |
|---|-----------------------------------------------------------------------------------|------------|-----------------------------|-------------------------------------------------------------------------------------|
| 5 |  | CR-22-2500 | GIMBAL BLOCK ASSEMBLY       |  |
| 6 |  | MA-FE-0514 | CSK SOCKET HEAD SCREW M3x6  |                                                                                     |
| 7 |  | CR-09-0080 | SOCKET HEAD CAP SCREW M6x16 |                                                                                     |
| 8 |  | MA-FE-0090 | PLAIN WASHER M6x12          |                                                                                     |
| 9 |  | CR-03-0171 | SELF-LOCKING NUT M6         |                                                                                     |

**CR-22-0100 / RH BURNER ASSY  
CR-22-0200 / LH BURNER ASSY**



|   |                                                                                     | P/N        | DESCRIPTION                         |                                                                                       |
|---|-------------------------------------------------------------------------------------|------------|-------------------------------------|---------------------------------------------------------------------------------------|
| 1 |    | CR-22-0400 | LH VALVE BLOCK ASSEMBLY             |    |
|   |                                                                                     | CR-22-0300 | RH VALVE BLOCK ASSY                 |                                                                                       |
| 2 |    | CR-22-0600 | MK-21 BURNER CAN                    |                                                                                       |
| 3 |    | 3D-05-0000 | 3-TUBE FIXED JET COIL ASSEMBLY      |                                                                                       |
| 4 |   | CR-22-0319 | COIL SUPPORT THREADED PLUG 3/8" BSP |                                                                                       |
| 5 |  | MA-FE-0601 | O-RING CORD                         |                                                                                       |
| 6 |  | MA-FE-0600 | BONDED WASHER 3/8" BSP              |                                                                                       |
| 7 |  | MA-FE-0506 | SOCKET HEAD CAP SCREW M6x8          |                                                                                       |
| 8 |  | CR-22-1500 | SLURPER TUBE ASSEMBLY               |  |
| 9 |  | MA-FE-0090 | PLAIN WASHER M6x12                  |                                                                                       |

**CR-22-0300 / RH VALVE BLOCK ASSY**  
**CR-22-0400 / LH VALVE BLOCK ASSY**

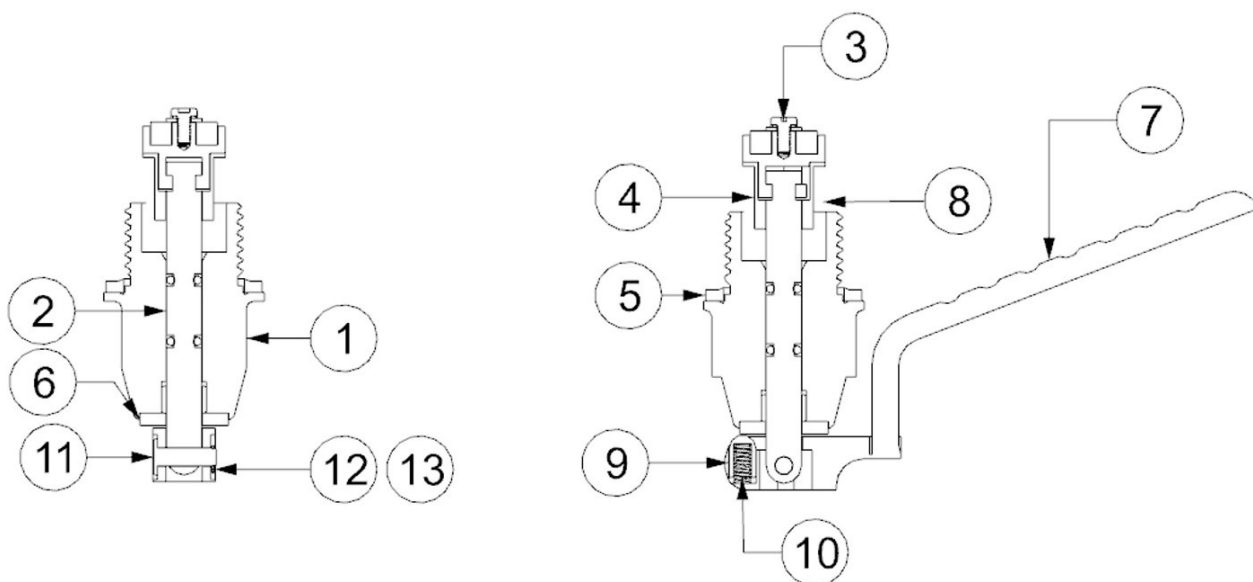


|   |                                                                                     | P/N        | DESCRIPTION                    |                                                                                       |
|---|-------------------------------------------------------------------------------------|------------|--------------------------------|---------------------------------------------------------------------------------------|
| 1 |  | CR-22-0318 | COIL POST                      |                                                                                       |
| 2 |  | CR-22-0700 | MK-21 PILOT LIGHT ASSEMBLY     |  |
| 3 |  | CR-22-0901 | MK-21 IGNITER ASSEMBLY         |  |
| 4 |  | CR-22-1000 | MK-21 LIQUID FIRE JET ASSEMBLY |  |

|    |                                                                                     |            |                                            |                                                                                     |
|----|-------------------------------------------------------------------------------------|------------|--------------------------------------------|-------------------------------------------------------------------------------------|
| 5  |    | CR-22-1100 | MK-21 LIQUID VALVE ASSEMBLY                |  |
| 6  |    | CR-22-1400 | RH MAIN VALVE ASSEMBLY                     |  |
|    |                                                                                     | CR-22-1200 | LH MAIN VALVE ASSEMBLY                     |                                                                                     |
| 7  |    | CR-22-0800 | MK-21 PILOT LIGHT REGULATOR VALVE ASSEMBLY |  |
| 8  |    | CR-22-1300 | MK-21 PRESSURE GAUGE ASSEMBLY              |  |
| 9  |   | CR-22-0317 | PRESSURE GAUGE RETAINING RING              |                                                                                     |
| 10 |  | CR-22-0313 | STRAIGHT FUEL INLET POST                   |                                                                                     |
| 11 |  | CR-22-0312 | ALUMINUM MAIN VALVE POST                   |                                                                                     |
| 12 |  | MA-FE-0615 | COIL POST O-RING                           |                                                                                     |
| 13 |  | MA-FE-0602 | FUEL INLET POST O-RING                     |                                                                                     |
| 14 |  | MA-FE-0509 | SOCKET HEAD CAP SCREW M6x10                |                                                                                     |
| 15 |  | MA-FE-0502 | GRUB SCREW M6x6                            |                                                                                     |

|    |                                                                                   |            |                            |                                                                                     |
|----|-----------------------------------------------------------------------------------|------------|----------------------------|-------------------------------------------------------------------------------------|
| 16 |  | MA-FE-0505 | SOCKET HEAD CAP SCREW M4x8 |                                                                                     |
| 17 |  | MA-FE-0504 | CAP HEAD SCREW M6x50       |                                                                                     |
| 18 |  | MA-FE-0801 | SLOTTED SPRING PIN 2.5x10  |                                                                                     |
| 19 |  | CR-22-0302 | SINTERED FILTER ASSY       |  |

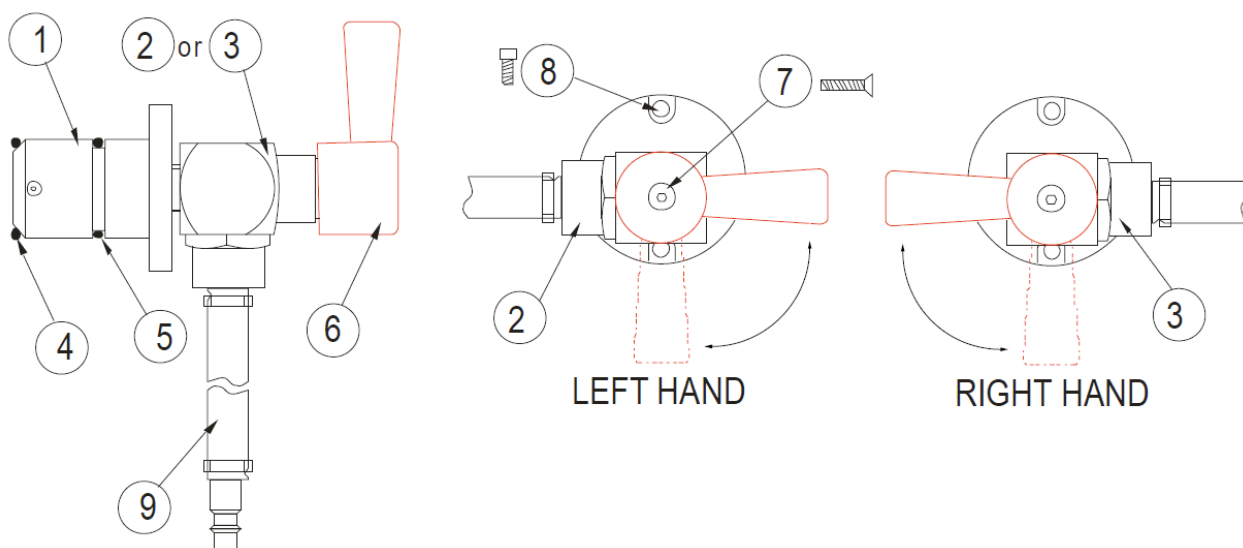
**CR-22-1400 / RH MAIN VALVE ASSEMBLY  
CR-22-1200 / LH MAIN VALVE ASSEMBLY**



|    |                                                                                             | P/N        | DESCRIPTION                       |                                                                                     |
|----|---------------------------------------------------------------------------------------------|------------|-----------------------------------|-------------------------------------------------------------------------------------|
| 1  |            | CR-22-1101 | MAIN/LIQUID VALVE BONNET ASSEMBLY |                                                                                     |
| 2  |            | CR-22-1103 | VALVE STEM ASSEMBLY               |  |
| 3  |            | CR-22-1102 | VALVE SEAT ASSEMBLY               |                                                                                     |
| 4  |            | CR-22-1113 | BRASS VALVE SEAT SLEEVE           |                                                                                     |
| 5  |  | MA-FE-0603 | BONDED WASHER 3/4" BSP            |                                                                                     |
| 6  |          | CR-22-1114 | NYLON THRUST WASHER 2mm           |                                                                                     |
| 7  |          | CR-22-1401 | RH MAIN VALVE HANDLE (SLOTTED)    |                                                                                     |
|    |                                                                                             | CR-22-1201 | LH MAIN VALVE HANDLE (SMOOTH)     |                                                                                     |
| 8  |          | MA-FE-0701 | MK-21 VALVE SPRING                |                                                                                     |
| 9  |          | CR-22-1212 | MAIN VALVE SPRING CAP             |                                                                                     |
| 10 |          | MA-FE-0700 | HANDLE HEAD/PIEZO SMALL SPRING    |                                                                                     |

|    |                                                                                   |            |                                |  |
|----|-----------------------------------------------------------------------------------|------------|--------------------------------|--|
| 11 |  | CR-22-1214 | MAIN VALVE HANDLE THREADED PIN |  |
| 12 |  | CR-22-1121 | PLAIN WASHER M3                |  |
| 13 |  | MA-FE-0034 | SELF-LOCKING NUT M3            |  |

### VAPOR PILOT LIGHT ASSEMBLY

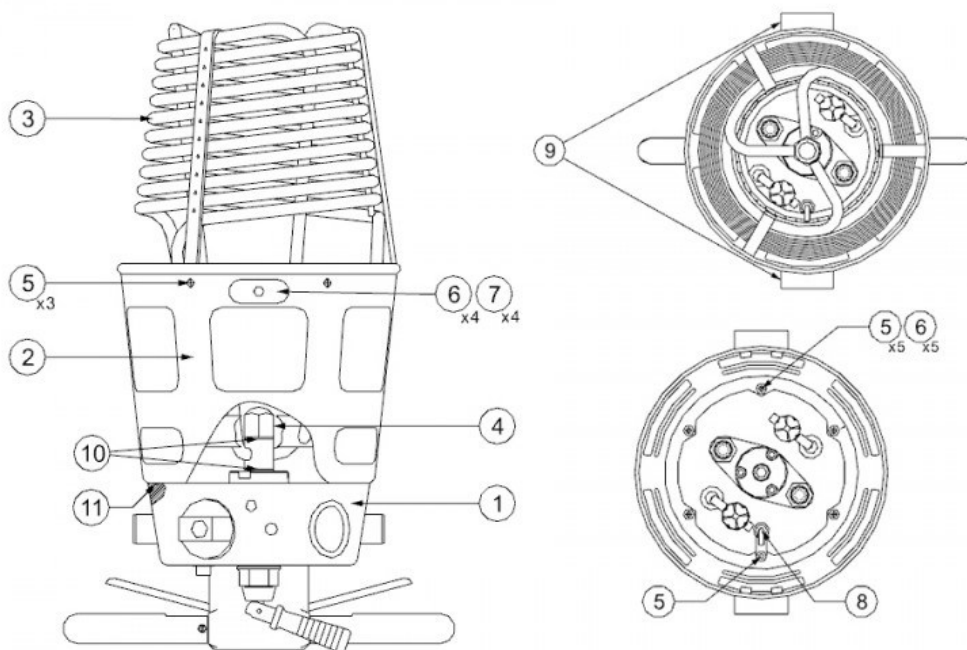


|   |                                                                                     | P/N        | DESCRIPTION         |
|---|-------------------------------------------------------------------------------------|------------|---------------------|
| 1 |  | CR-22-2810 | VAPOR VALVE BODY    |
| 2 |  | CR-22-2805 | RH VAPOR BALL VALVE |

|   |                                                                                     |            |                                    |
|---|-------------------------------------------------------------------------------------|------------|------------------------------------|
| 3 |    | CR-22-2806 | LH VAPOR BALL VALVE                |
| 4 |    | MA-FE-0622 | REGULATOR TOP O-RING               |
| 5 |    | MA-FE-0605 | REGULATOR BODY O-RING              |
| 6 |    | CR-C-0430  | LIQUID TAKE-OFF VALVE HANDLE (RED) |
| 7 |    | CR-03-0030 | CSK HEX SOCKET SCREW M4x20         |
| 8 |  | MA-FE-0505 | SOCKET HEAD CAP SCREW M4x8         |

## MK-21 Single

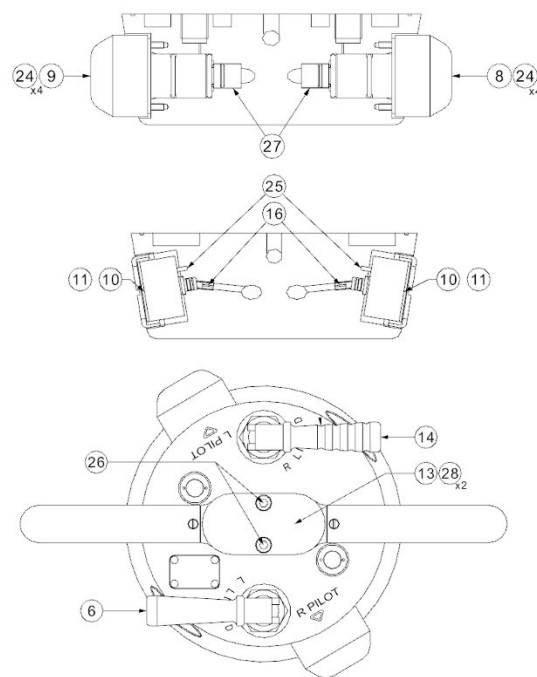
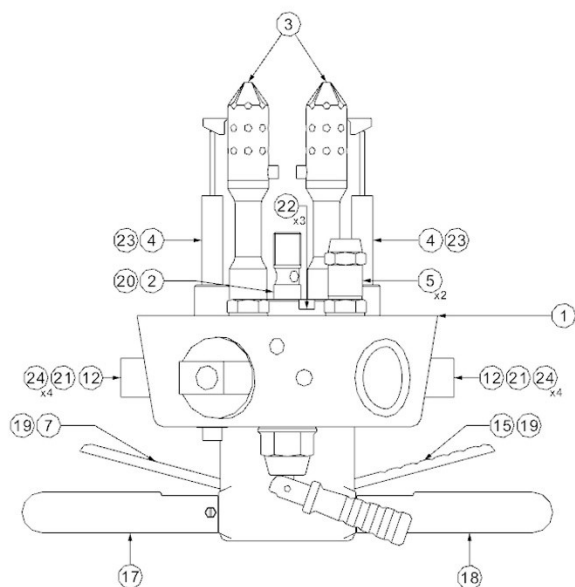
### MK-21 SINGLE BURNER ASSEMBLY



|   |                                                                                     | P/N        | DESCRIPTION                         |                                                                                       |
|---|-------------------------------------------------------------------------------------|------------|-------------------------------------|---------------------------------------------------------------------------------------|
| 1 |  | CR-21-0300 | SINGLE BURNER VALVE BLOCK ASSEMBLY  |  |
| 2 |  | CR-21-0011 | SINGLE BURNER CAN                   |                                                                                       |
| 3 |  | CR-21-0500 | SINGLE BURNER VAPORIZATION COIL     |                                                                                       |
| 4 |  | CR-22-0319 | COIL SUPPORT THREADED PLUG 3/8" BSP |                                                                                       |

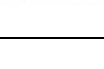
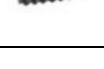
|    |                                                                                             |            |                             |                                                                                     |
|----|---------------------------------------------------------------------------------------------|------------|-----------------------------|-------------------------------------------------------------------------------------|
| 5  |            | MA-FE-0506 | SOCKET HEAD CAP SCREW M6x8  |                                                                                     |
| 6  |            | MA-FE-0090 | PLAIN WASHER M6x12          |                                                                                     |
| 7  |            | MA-FE-0509 | SOCKET HEAD CAP SCREW M6x10 |                                                                                     |
| 8  |            | CR-22-1500 | SLURPER TUBE ASSEMBLY       |  |
| 9  |           | CR-21-0010 | CAN SWIVEL BOSS             |                                                                                     |
| 10 |  | MA-FE-0600 | BONDED WASHER 3/8" BSP      |                                                                                     |
| 11 |          | MA-FE-0601 | O-RING CORD                 |                                                                                     |

## CR-21-0300 / SINGLE BURNER VALVE BLOCK ASSEMBLY

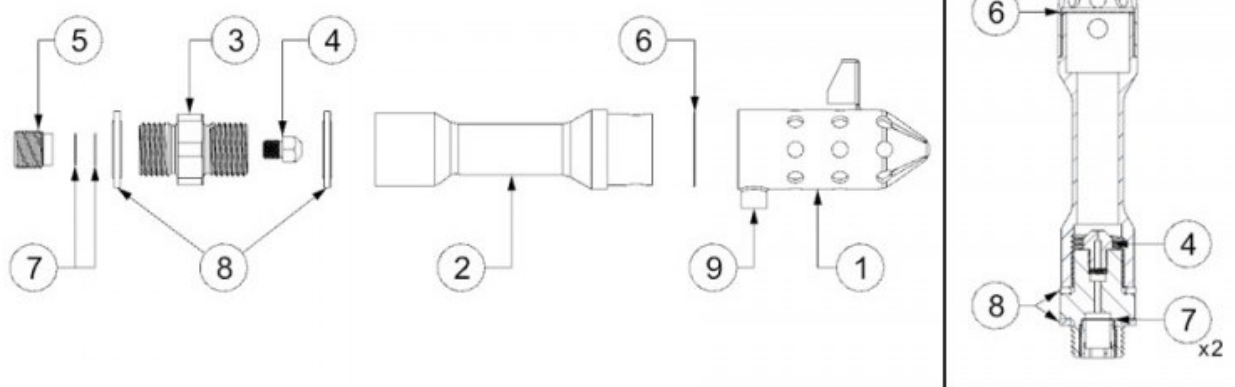


|   |                                                                                     | P/N        | DESCRIPTION                    |                                                                                       |
|---|-------------------------------------------------------------------------------------|------------|--------------------------------|---------------------------------------------------------------------------------------|
| 2 |  | CR-21-0318 | SINGLE BURNER COIL POST        |                                                                                       |
| 3 |  | CR-22-0700 | MK-21 PILOT LIGHT ASSEMBLY     |  |
| 4 |  | CR-22-0901 | IGNITER ASSEMBLY               |  |
| 5 |  | CR-22-1000 | MK-21 LIQUID FIRE JET ASSEMBLY |  |

|    |                                                                                     |            |                                                      |                                                                                       |
|----|-------------------------------------------------------------------------------------|------------|------------------------------------------------------|---------------------------------------------------------------------------------------|
| 6  |    | CR-21-1601 | LH LIQUID VALVE ASSEMBLY – RED                       |    |
| 7  |    | CR-21-1200 | LH MAIN VALVE ASSEMBLY MK-21                         |    |
| 8  |    | CR-22-0800 | MK-21 PILOT LIGHT REGULATOR VALVE ASSEMBLY           |    |
| 9  |    | CR-22-0802 | MK-21 PILOT LIGHT RH REGULATOR VALVE ASSEMBLY – BLUE |                                                                                       |
| 10 |   | CR-22-1300 | MK-21 PRESSURE GAUGE ASSEMBLY                        |   |
| 11 |  | CR-22-0317 | PRESSURE GAUGE RETAINING RING                        |                                                                                       |
| 12 |  | CR-22-0313 | STRAIGHT FUEL INLET POST                             |                                                                                       |
| 13 |  | CR-21-0312 | HANDLE POST                                          |                                                                                       |
| 14 |  | CR-21-1600 | RH LIQUID VALVE ASSEMBLY – BLUE                      |  |
| 15 |  | CR-21-1400 | RH MAIN VALVE ASSEMBLY MK-21                         |  |
| 16 |  | CR-21-0316 | PRESSURE GAUGE FLOW RESTRICTOR                       |                                                                                       |

|    |                                                                                     |            |                                |                                                                                       |
|----|-------------------------------------------------------------------------------------|------------|--------------------------------|---------------------------------------------------------------------------------------|
| 17 |    | CR-21-0314 | LH BURNER HANDLE – RED         |                                                                                       |
| 18 |    | CR-21-0313 | RH BURNER HANDLE – BLUE        |                                                                                       |
| 19 |    | CR-21-0317 | VALVE POST PIVOT PIN M2 ST STL |                                                                                       |
| 20 |    | MA-FE-0615 | COIL POST O-RING               |                                                                                       |
| 21 |    | MA-FE-0602 | FUEL INLET POST O-RING         |                                                                                       |
| 22 |   | MA-FE-0509 | SOCKET HEAD CAP SCREW M6x10    |                                                                                       |
| 23 |  | MA-FE-0502 | GRUB SCREW M6x6                |                                                                                       |
| 24 |  | MA-FE-0505 | SOCKET HEAD CAP SCREW M4x8     |                                                                                       |
| 25 |  | MA-FE-0801 | SLOTTED SPRING PIN 2.5x10      |                                                                                       |
| 26 |  | MA-FE-0500 | SOCKET HEAD CAP SCREW M6x70    |                                                                                       |
| 27 |  | CR-22-0302 | SINTERED FILTER ASSY           |  |
| 28 |  | CR-21-0319 | PIVOT PIN END CAP              |                                                                                       |

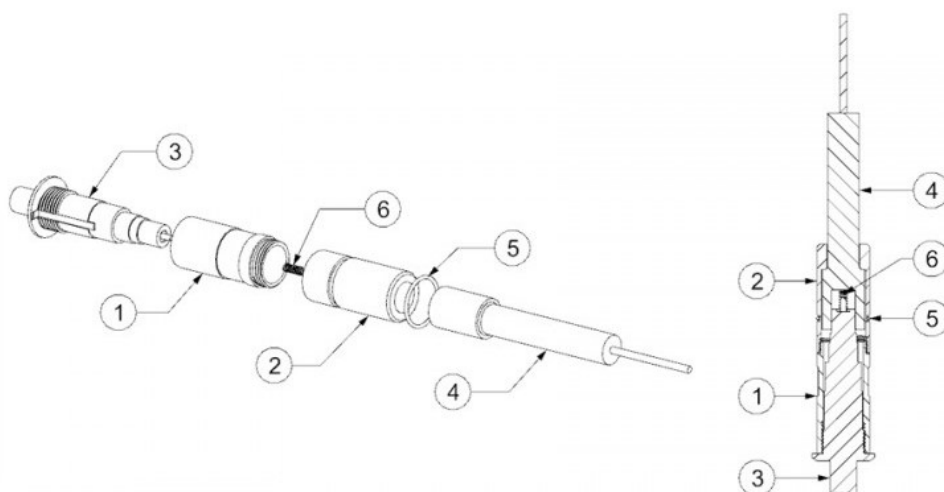
## CR-22-0700 / MK-21 PILOT LIGHT ASSEMBLY



|   |                                                                                     | P/N        | DESCRIPTION                    |
|---|-------------------------------------------------------------------------------------|------------|--------------------------------|
| 1 |  | CR-22-0701 | MK-21 PILOT LIGHT CAP ASSEMBLY |
| 2 |  | CR-22-0712 | PILOT LIGHT STEM               |
| 3 |  | CR-22-0714 | PILOT LIGHT BULKHEAD COUPLING  |
| 4 |  | CR-22-0713 | PILOT LIGHT JET                |
| 5 |  | CR-22-0717 | PILOT LIGHT FITTING            |
| 6 |  | 3D-08-4402 | PILOT LIGHT TORCH MESH         |

|   |                                                                                           |            |                         |
|---|-------------------------------------------------------------------------------------------|------------|-------------------------|
| 7 |          | CR-22-0718 | PILOT LIGHT MESH FILTER |
| 8 |  | MA-FE-0600 | BONDED WASHER 3/8" BSP  |
| 9 |          | MA-FE-0502 | GRUB SCREW M6x6         |

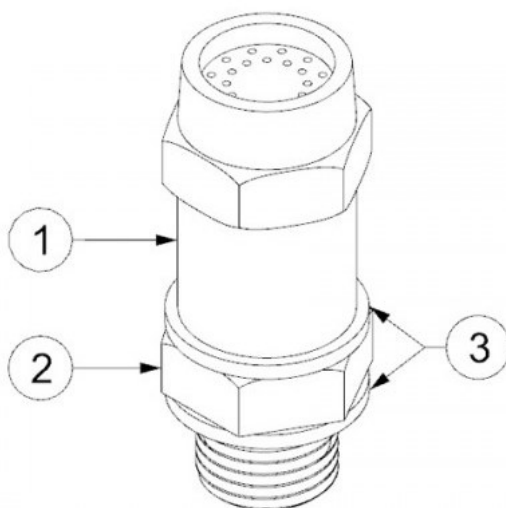
### CR-22-0901 / MK-21 IGNITER ASSEMBLY



|   |                                                                                     | P/N        | DESCRIPTION                 |
|---|-------------------------------------------------------------------------------------|------------|-----------------------------|
| 1 |  | CR-22-0905 | LOWER IGNITER HOUSING MK-21 |
| 2 |  | CR-22-0906 | UPPER IGNITER HOUSING MK-21 |
| 3 |  | CR-22-0907 | IGNITER MK-21               |

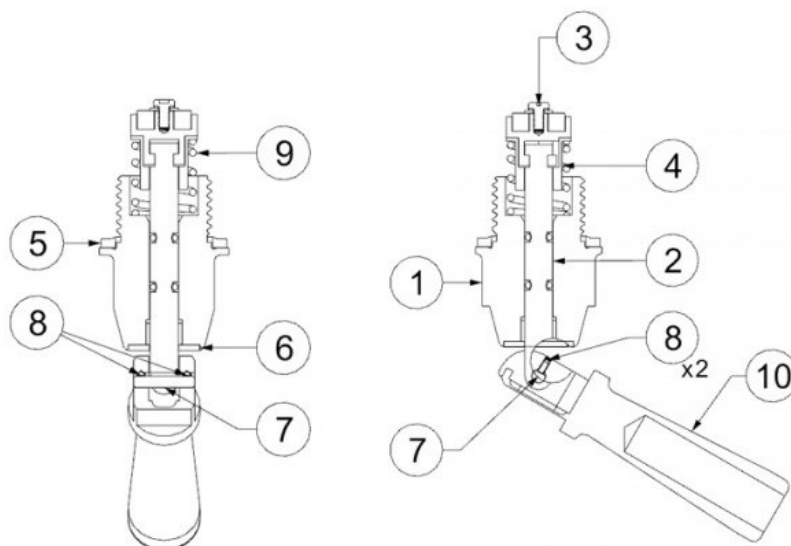
|   |                                                                                   |            |                                |
|---|-----------------------------------------------------------------------------------|------------|--------------------------------|
| 4 |  | CR-22-0913 | IGNITER CERAMIC                |
| 5 |  | MA-FE-0608 | IGNITER O-RING                 |
| 6 |  | MA-FE-0700 | HANDLE HEAD/PIEZO SMALL SPRING |

### CR-22-1000 / MK-21 LIQUID FIRE JET ASSEMBLY



|   |                                                                                     | P/N        | DESCRIPTION             |
|---|-------------------------------------------------------------------------------------|------------|-------------------------|
| 1 |  | CR-22-1011 | LIQUID FIRE JET BODY    |
| 2 |  | CR-22-1010 | LIQUID FIRE JET FITTING |
| 3 |  | MA-FE-0600 | BONDED WASHER 3/8" BSP  |

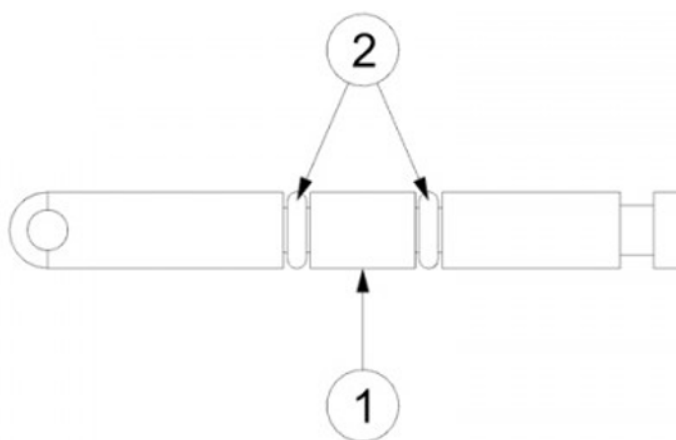
## CR-22-1100 / MK-21 LIQUID VALVE ASSEMBLY



|   |                                                                                     | P/N        | DESCRIPTION                       |                                                                                       |
|---|-------------------------------------------------------------------------------------|------------|-----------------------------------|---------------------------------------------------------------------------------------|
| 1 |  | CR-22-1101 | MAIN/LIQUID VALVE BONNET ASSEMBLY |                                                                                       |
| 2 |  | CR-22-1103 | VALVE STEM ASSEMBLY               |  |
| 3 |  | CR-22-1102 | VALVE SEAT ASSEMBLY               |                                                                                       |
| 4 |  | CR-22-1113 | BRASS VALVE SEAT SLEEVE           |                                                                                       |
| 5 |  | MA-FE-0603 | BONDED WASHER 3/4" BSP            |                                                                                       |
| 6 |  | CR-22-1114 | NYLON THRUST WASHER 2mm           |                                                                                       |

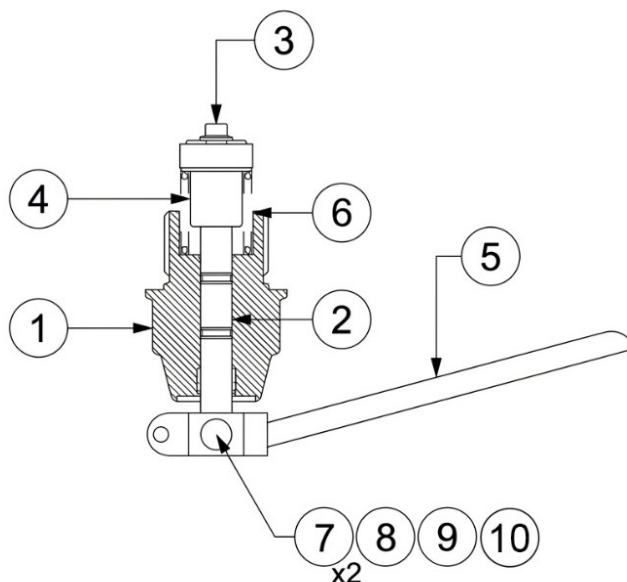
|    |                                                                                   |            |                                  |  |
|----|-----------------------------------------------------------------------------------|------------|----------------------------------|--|
| 7  |  | CR-22-1117 | LIQUID VALVE PIVOT PIN           |  |
| 8  |  | MA-FE-0503 | GRUB SCREW M2.5x4                |  |
| 9  |  | MA-FE-0701 | MK-21 VALVE SPRING               |  |
| 10 |  | CR-22-1119 | LIQUID VALVE HANDLE (DEAD MAN'S) |  |

### CR-22-1103 / VALVE STEM ASSEMBLY



|   |                                                                                     | P/N        | DESCRIPTION            |
|---|-------------------------------------------------------------------------------------|------------|------------------------|
| 1 |  | CR-22-1111 | MAIN/LIQUID VALVE STEM |
| 2 |  | MA-FE-0612 | VALVE STEM O-RING      |

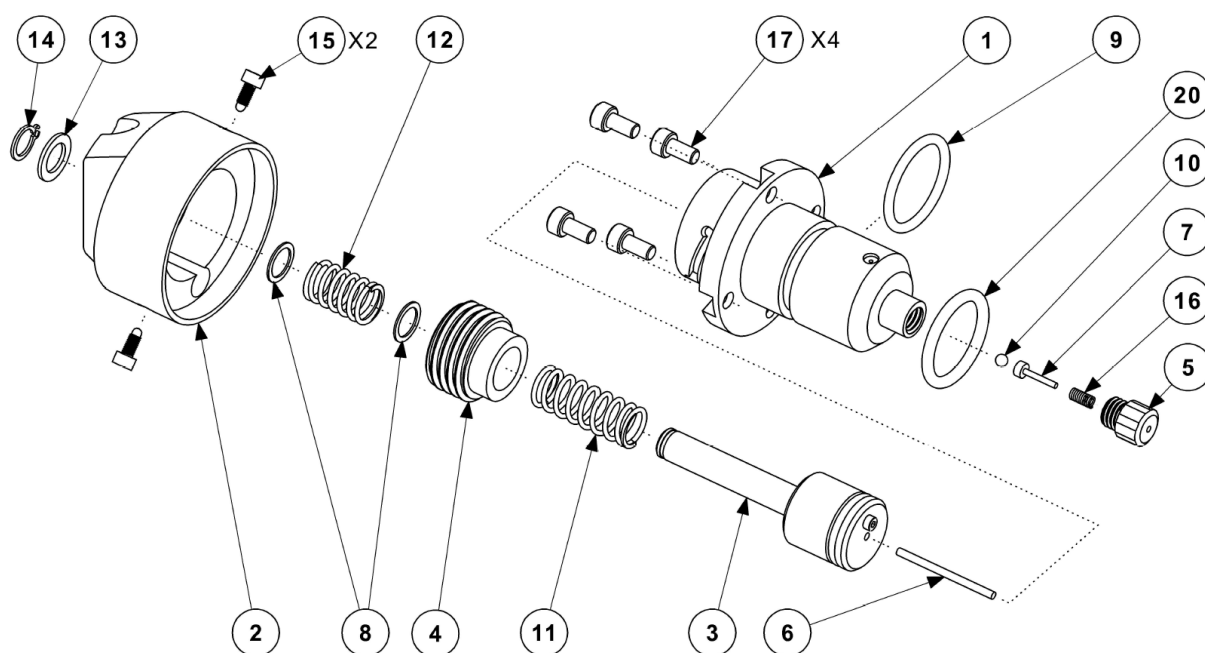
**CR-21-1400 / RH MAIN VALVE ASSEMBLY**  
**CR-21-1200 / LH MAIN VALVE ASSEMBLY**



|   |                                                                                     | P/N        | DESCRIPTION                       |                                                                                       |
|---|-------------------------------------------------------------------------------------|------------|-----------------------------------|---------------------------------------------------------------------------------------|
| 1 |  | CR-22-1101 | MAIN/LIQUID VALVE BONNET ASSEMBLY |                                                                                       |
| 2 |  | CR-22-1103 | VALVE STEM ASSEMBLY               |  |
| 3 |  | CR-22-1102 | VALVE SEAT ASSEMBLY               |                                                                                       |
| 4 |  | CR-22-1113 | BRASS VALVE SEAT SLEEVE           |                                                                                       |
| 5 |  | CR-21-1401 | RH MAIN VALVE HANDLE (SLOTTED)    |                                                                                       |
|   |                                                                                     | CR-21-1201 | LH MAIN VALVE HANDLE (SMOOTH)     |                                                                                       |

|    |                                                                                   |            |                                |  |
|----|-----------------------------------------------------------------------------------|------------|--------------------------------|--|
| 6  |  | MA-FE-0701 | MK-21 VALVE SPRING             |  |
| 7  |  | CR-22-1114 | NYLON THRUST WASHER 2mm        |  |
| 8  |  | CR-22-1214 | MAIN VALVE HANDLE THREADED PIN |  |
| 9  |  | CR-22-1121 | PLAIN WASHER M3                |  |
| 10 |  | MA-FE-0034 | SELF-LOCKING NUT M3            |  |

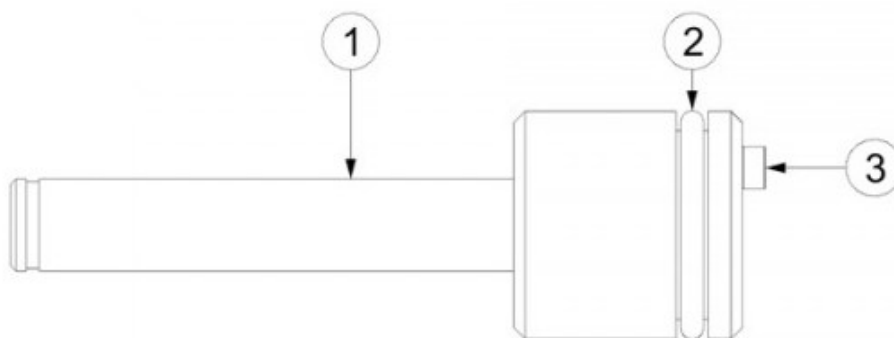
## CR-22-0800 / MK-21 PILOT LIGHT REGULATOR VALVE ASSEMBLY



|    |                                                                                     | P/N        | DESCRIPTION                |                                                                                     |
|----|-------------------------------------------------------------------------------------|------------|----------------------------|-------------------------------------------------------------------------------------|
| 1  |    | CR-22-0811 | REGULATOR BODY             |                                                                                     |
| 2  |    | CR-22-0812 | REGULATOR KNOB             |                                                                                     |
| 3  |    | CR-22-0801 | REGULATOR PISTON ASSEMBLY  |  |
| 4  |    | CR-22-0817 | REGULATOR SPRING RETAINER  |                                                                                     |
| 5  |  | CR-22-0815 | REGULATOR GUIDE HOUSING    |                                                                                     |
| 6  |  | CR-22-0823 | REGULATOR PUSH ROD 2mm     |                                                                                     |
| 7  |  | CR-22-0816 | REGULATOR VITON BALL GUIDE |                                                                                     |
| 8  |  | CR-22-0818 | REGULATOR PISTON WASHER    |                                                                                     |
| 9  |  | MA-FE-0605 | REGULATOR BODY O-RING      |                                                                                     |
| 10 |  | MA-FE-0707 | REGULATOR VITON BALL       |                                                                                     |
| 11 |  | MA-FE-0706 | REGULATOR PISTON SPRING    |                                                                                     |

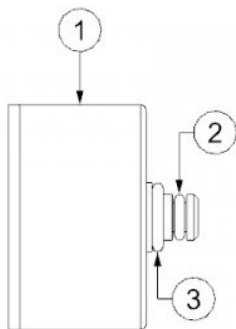
|    |                                                                                     |            |                                   |  |
|----|-------------------------------------------------------------------------------------|------------|-----------------------------------|--|
| 12 |    | MA-FE-0705 | REGULATOR CAP SPRING              |  |
| 13 |    | CR-22-0819 | REGULATOR PISTON SPRING WASHER    |  |
| 14 |    | MA-FE-0529 | EXTERNAL CIRCLIP M8               |  |
| 15 |    | CR-22-0820 | MACHINED SCREW FOR REGULATOR KNOB |  |
| 16 |   | MA-FE-0704 | REGULATOR BALL SPRING             |  |
| 17 |  | MA-FE-0505 | SOCKET HEAD CAP SCREW M4x8        |  |
| 20 |  | MA-FE-0622 | REGULATOR TOP O-RING              |  |

## CR-22-0801 / REGULATOR PISTON ASSEMBLY



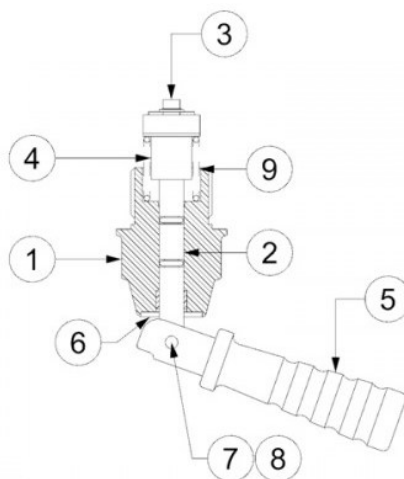
|   |                                                                                     | P/N        | DESCRIPTION                |
|---|-------------------------------------------------------------------------------------|------------|----------------------------|
| 1 |   | CR-22-0813 | ALUMINUM REGULATOR PISTON  |
| 2 |  | MA-FE-0630 | REGULATOR PISTON O-RING    |
| 3 |  | MA-FE-0518 | SOCKET HEAD CAP SCREW M2x5 |

## CR-22-1300 / MK-21 PRESSURE GAUGE ASSEMBLY



|   |                                                                                     | P/N        | DESCRIPTION                         |
|---|-------------------------------------------------------------------------------------|------------|-------------------------------------|
| 1 |   | CR-22-1310 | ULTRAMAGIC PRESSURE GAUGE           |
| 2 |  | MA-FE-0606 | PIEZO / MK-21 PRESSURE GAUGE O-RING |
| 3 |  | MA-FE-0607 | MK-21 PRESSURE GAUGE O-RING         |

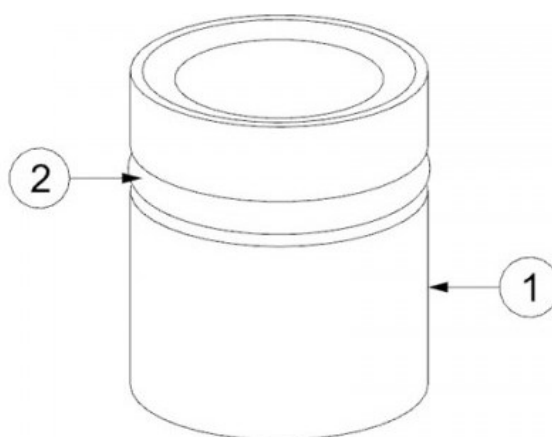
**CR-21-1600 / RH LIQUID VALVE ASSEMBLY**  
**CR-21-1601 / LH LIQUID VALVE ASSEMBLY**



|   |                                                                                     | P/N        | DESCRIPTION                              |                                                                                       |
|---|-------------------------------------------------------------------------------------|------------|------------------------------------------|---------------------------------------------------------------------------------------|
| 1 |  | CR-22-1101 | MAIN/LIQUID VALVE BONNET ASSEMBLY        |                                                                                       |
| 2 |  | CR-22-1103 | VALVE STEM ASSEMBLY                      |  |
| 3 |  | CR-22-1102 | VALVE SEAT ASSEMBLY                      |                                                                                       |
| 4 |  | CR-22-1113 | BRASS VALVE SEAT SLEEVE                  |                                                                                       |
| 5 |  | CR-21-1619 | SLOTTED LIQUID VALVE HANDLE (DEAD MAN'S) |                                                                                       |
|   |  | CR-22-1119 | LIQUID VALVE HANDLE (DEAD MAN'S)         |                                                                                       |

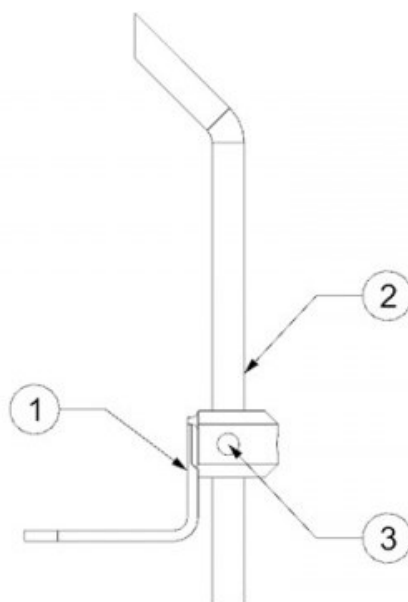
|   |                                                                                   |            |                         |  |
|---|-----------------------------------------------------------------------------------|------------|-------------------------|--|
| 6 |  | CR-22-1114 | NYLON THRUST WASHER 2mm |  |
| 7 |  | CR-22-1117 | LIQUID VALVE PIVOT PIN  |  |
| 8 |  | MA-FE-0503 | GRUB SCREW M2.5x4       |  |
| 9 |  | MA-FE-0701 | MK-21 VALVE SPRING      |  |

### CR-22-0302 / SINTERED FILTER ASSY



|   |                                                                                     | P/N        | DESCRIPTION               |
|---|-------------------------------------------------------------------------------------|------------|---------------------------|
| 1 |  | CR-22-0321 | REGULATOR SINTERED FILTER |
| 2 |  | MA-FE-0625 | SINTERED FILTER O-RING    |

## CR-22-1500 / SLURPER TUBE ASSEMBLY



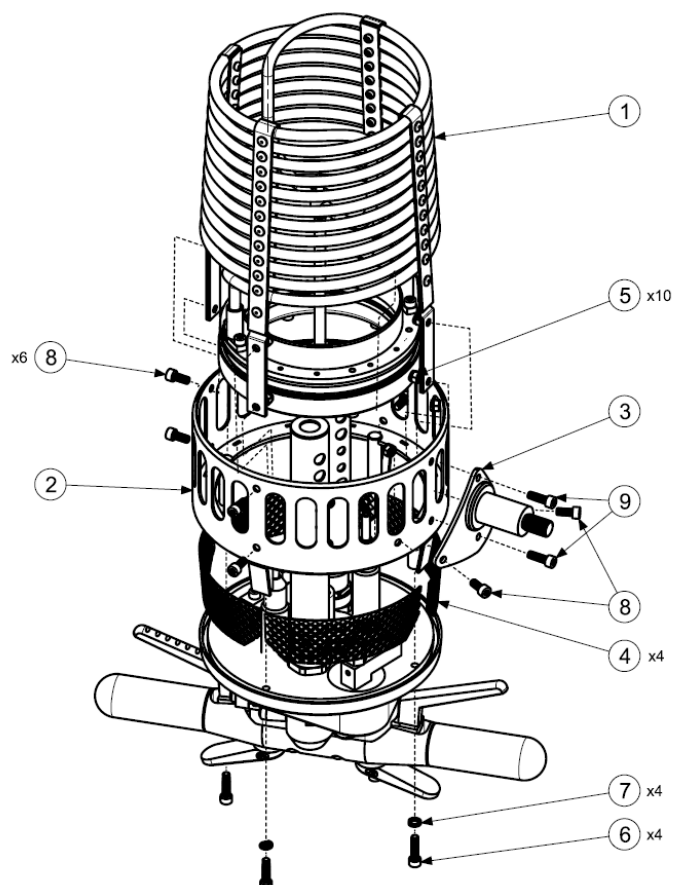
|   |                                                                                     | P/N        | DESCRIPTION                |
|---|-------------------------------------------------------------------------------------|------------|----------------------------|
| 1 |  | CR-22-1501 | SLURPER TUBE BOSS ASSEMBLY |
| 2 |  | CR-22-1510 | SLURPER TUBE               |
| 3 |  | MA-FE-0501 | GRUB SCREW M4x4            |

## Other MK-21 parts

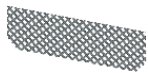
|                                                                                    | P/N        | DESCRIPTION                       |
|------------------------------------------------------------------------------------|------------|-----------------------------------|
|   | CR-23-0100 | TRIPLE HANGER ASSEMBLY            |
|   | CR-23-0200 | TRIPLE HANDLE BAR                 |
|   | CR-24-0100 | QUAD HANGER ASSEMBLY              |
|  | CR-24-0200 | QUAD HANDLE BAR (WELDED ASSEMBLY) |

## BMK-008 Powerplus Sport

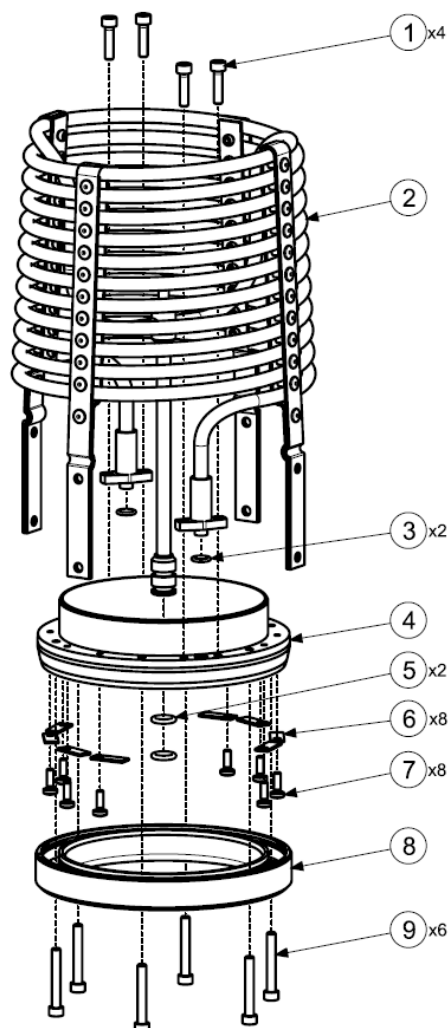
### BMK-008 POWERPLUS GENERAL ASSEMBLY



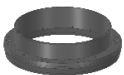
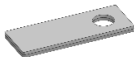
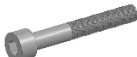
|   |                                                                                     | P/N        | DESCRIPTION   |
|---|-------------------------------------------------------------------------------------|------------|---------------|
| 1 |  | PS-05-0000 | COIL ASSEMBLY |
| 2 |  | PS-06-0000 | CAN ASSEMBLY  |

|   |                                                                                     |            |                             |
|---|-------------------------------------------------------------------------------------|------------|-----------------------------|
| 3 |    | PS-27-0101 | BURNER GIMBAL BRACKET ASSY  |
| 4 |    | PS-26-1002 | BURNER PROTECTION WIRE NET  |
| 5 |    | CR-03-0173 | SELF-LOCKING NUT M5         |
| 6 |    | MA-FE-0170 | SOCKET HEAD CAP SCREW M5x20 |
| 7 |    | MA-FE-0072 | SPRING LOCK WASHER M5       |
| 8 |  | CR-PP-0011 | SOCKET HEAD CAP SCREW M5x12 |
| 9 |  | CR-PP-0013 | SOCKET HEAD CAP SCREW M5x16 |

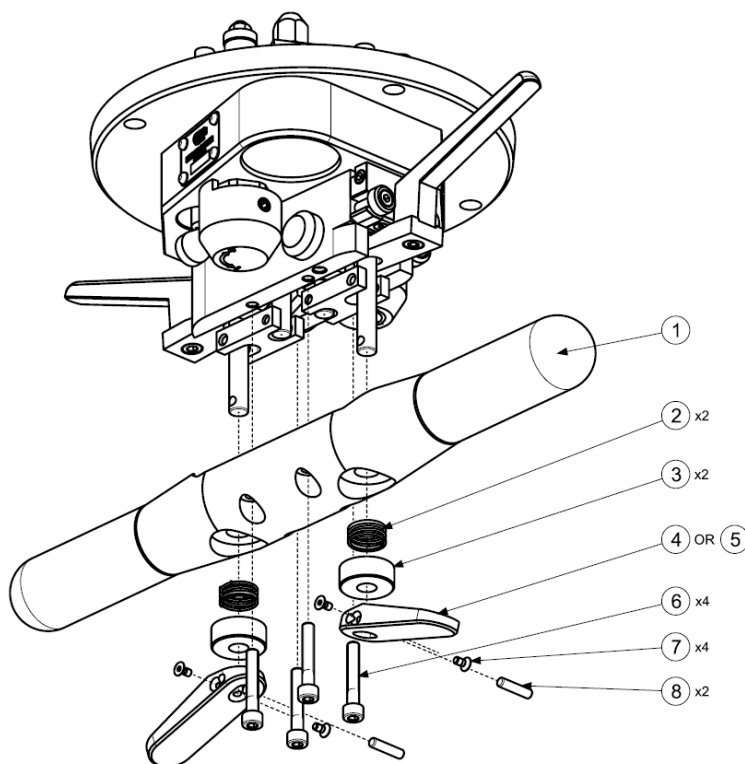
## JET AND COIL ASSEMBLY

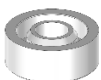
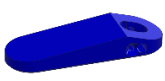


|   |                                                                                     | P/N        | DESCRIPTION                 |
|---|-------------------------------------------------------------------------------------|------------|-----------------------------|
| 1 |  | MA-FE-0170 | SOCKET HEAD CAP SCREW M5x20 |
| 2 |  | PS-05-0101 | COIL AND STRAP ASSEMBLY     |

|          |                                                                                     |            |                                     |
|----------|-------------------------------------------------------------------------------------|------------|-------------------------------------|
| <b>3</b> |    | 3D-99-0115 | CAP O-RING                          |
| <b>4</b> |    | PS-05-1802 | JET RING TOP                        |
| <b>5</b> |    | CR-PP-0327 | COIL O-RING                         |
| <b>6</b> |    | PS-05-2002 | JET RING BIMETALLIC STRIP           |
| <b>7</b> |    | CR-PP-0041 | CROSS-RECESSED PAN HEAD SCREW M4x12 |
| <b>8</b> |  | PS-05-1902 | JET RING BOTTOM                     |
| <b>9</b> |  | CR-PP-0019 | SOCKET HEAD CAP SCREW M5x35         |

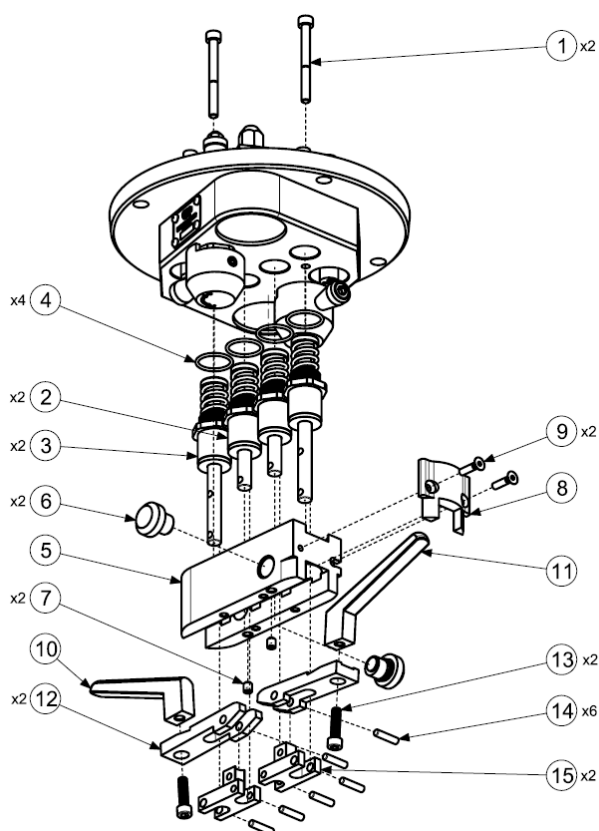
## HANDLE BAR ASSEMBLY



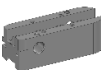
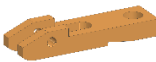
|   |                                                                                     | P/N        | DESCRIPTION                         |
|---|-------------------------------------------------------------------------------------|------------|-------------------------------------|
| 1 |  | PS-02-1603 | HANDLE BAR                          |
| 2 |  | PS-02-1302 | LIQUID TRIGGER SPRING               |
| 3 |  | PS-02-1203 | LIQUID TRIGGER ANTI-FRICTION WASHER |
| 4 |  | PS-02-1403 | RH LIQUID VALVE TRIGGER – BLUE      |
| 5 |  | PS-02-1503 | LH LIQUID VALVE TRIGGER – RED       |

|   |                                                                                   |            |                             |
|---|-----------------------------------------------------------------------------------|------------|-----------------------------|
| 6 |  | CR-PP-0016 | SOCKET HEAD CAP SCREW M5x30 |
| 7 |  | MA-FE-0514 | CSK SOCKET HEAD SCREW M3x6  |
| 8 |  | 3D-11-2301 | STEM PIN                    |

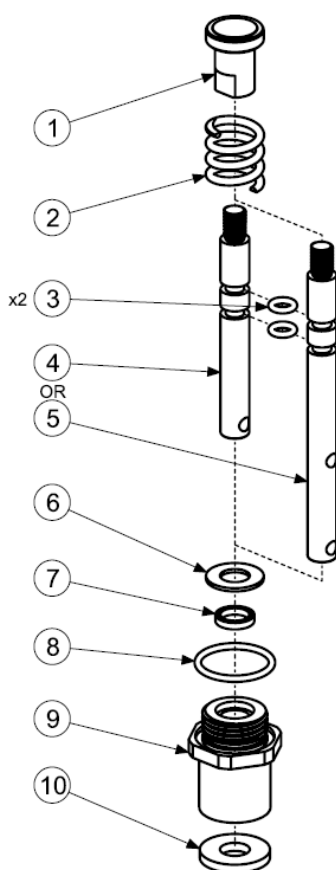
## VALVE BODY



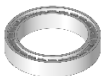
|   |                                                                                     | P/N        | DESCRIPTION                 |
|---|-------------------------------------------------------------------------------------|------------|-----------------------------|
| 1 |  | CR-PP-0017 | SOCKET HEAD CAP SCREW M5x50 |

|    |                                                                                     |            |                                       |
|----|-------------------------------------------------------------------------------------|------------|---------------------------------------|
| 2  |    | PS-12-0000 | MAIN VALVE                            |
| 3  |    | PS-11-0000 | LIQUID VALVE                          |
| 4  |    | CR-PP-0325 | PIEZO / VALVES O-RING                 |
| 5  |    | PS-23-1103 | EXTERNAL VALVE BODY                   |
| 6  |    | PS-23-0101 | SAFETY BUTTON                         |
| 7  |    | CR-N-0040  | GRUB SCREW M6x6                       |
| 8  |  | PS-23-1003 | EXTERNAL VALVE BODY COVER             |
| 9  |  | CR-01-0020 | CSK HEX SOCKET SCREW M4x16            |
| 10 |  | PS-21-1103 | LH BLAST HANDLE – RED                 |
| 11 |  | PS-21-1203 | RH BLAST HANDLE – BLUE                |
| 12 |  | PS-21-1003 | DOUBLE-ACTION BLAST VALVE CAM CONTROL |
| 13 |  | CR-PP-0013 | SOCKET HEAD CAP SCREW M5x16           |
| 14 |  | 3D-11-2301 | STEM PIN                              |
| 15 |  | PS-02-1103 | STEM-TO-CAM UNION                     |

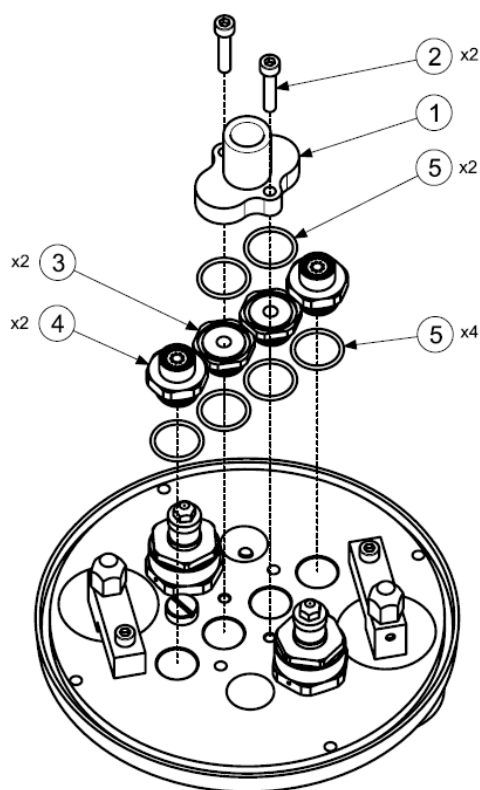
## MAIN AND LIQUID VALVE ASSEMBLY



|   |                                                                                     | P/N        | DESCRIPTION         |
|---|-------------------------------------------------------------------------------------|------------|---------------------|
| 1 |  | PS-11-0201 | VALVE SEAT ASSEMBLY |
| 2 |  | 3D-08-2801 | VALVE SPRING        |
| 3 |  | 3D-99-0085 | VALVE STEM O-RING   |

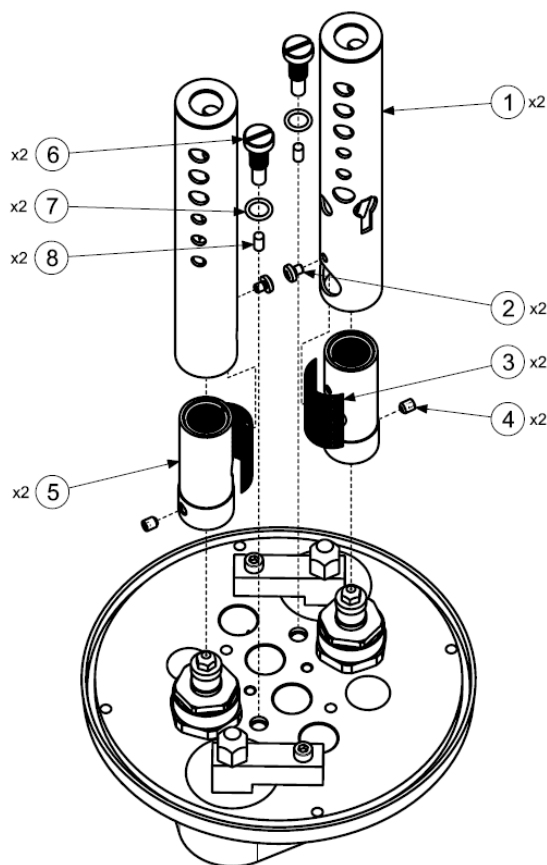
|    |                                                                                     |            |                                        |
|----|-------------------------------------------------------------------------------------|------------|----------------------------------------|
| 4  |    | PS-12-1003 | MAIN VALVE STEM                        |
| 5  |    | PS-11-1403 | LIQUID VALVE STEM                      |
| 6  |    | 3D-11-1301 | VALVE STEM RETAINING WASHER            |
| 7  |    | CR-PP-0301 | ENERGIZED PTFE WASHER                  |
| 8  |    | CR-PP-0325 | PIEZO / VALVES O-RING                  |
| 9  |   | PS-11-1203 | BLAST/LIQUID VALVE – CENTER BODY       |
| 10 |  | PS-11-1302 | MAIN/LIQUID VALVE ANTI-FRICTION WASHER |

## VALVE OUTLETS

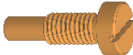


|   |                                                                                     | P/N        | DESCRIPTION                      |
|---|-------------------------------------------------------------------------------------|------------|----------------------------------|
| 1 |  | PS-02-1703 | CENTRAL COLUMN DOUBLE CONNECTION |
| 2 |  | MA-FE-0840 | SOCKET HEAD CAP SCREW M5x25      |
| 3 |  | PS-03-1002 | BLAST VALVE SLEEVE               |
| 4 |  | PS-22-0101 | LIQUID OUTLET                    |
| 5 |  | CR-PP-0325 | PIEZO / VALVES O-RING            |

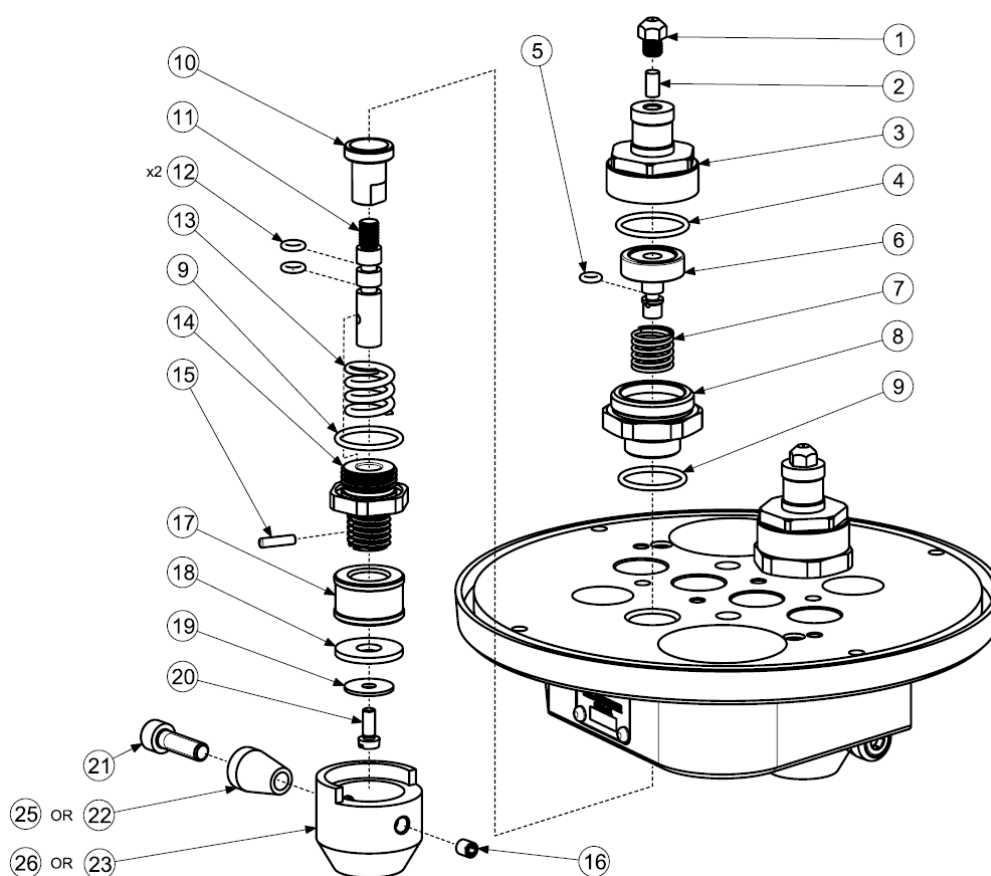
## PILOT TORCH FILTERS

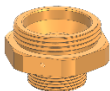


|   |                                                                                     | P/N        | DESCRIPTION                             |
|---|-------------------------------------------------------------------------------------|------------|-----------------------------------------|
| 1 |  | PS-08-0101 | PILOT LIGHT TORCH TUBE – UPPER ASSEMBLY |
| 2 |  | CR-PP-0042 | CROSS-RECESSED PAN HEAD SCREW M4x5      |
| 3 |  | PS-08-1302 | PILOT LIGHT FLAME TUBE – GAUZE          |
| 4 |  | CR-N-0040  | GRUB SCREW M6x6                         |

|   |                                                                                   |            |                                  |
|---|-----------------------------------------------------------------------------------|------------|----------------------------------|
| 5 |  | PS-08-0201 | PILOT LIGHT BOTTOM BODY          |
| 6 |  | PS-03-1302 | PILOT LIGHT INLET FILTER HOUSING |
| 7 |  | CR-PP-0321 | FILTER HOUSING O-RING            |
| 8 |  | 3D-08-4102 | PILOT LIGHT JET SINTERED FILTER  |

## PILOT LIGHT

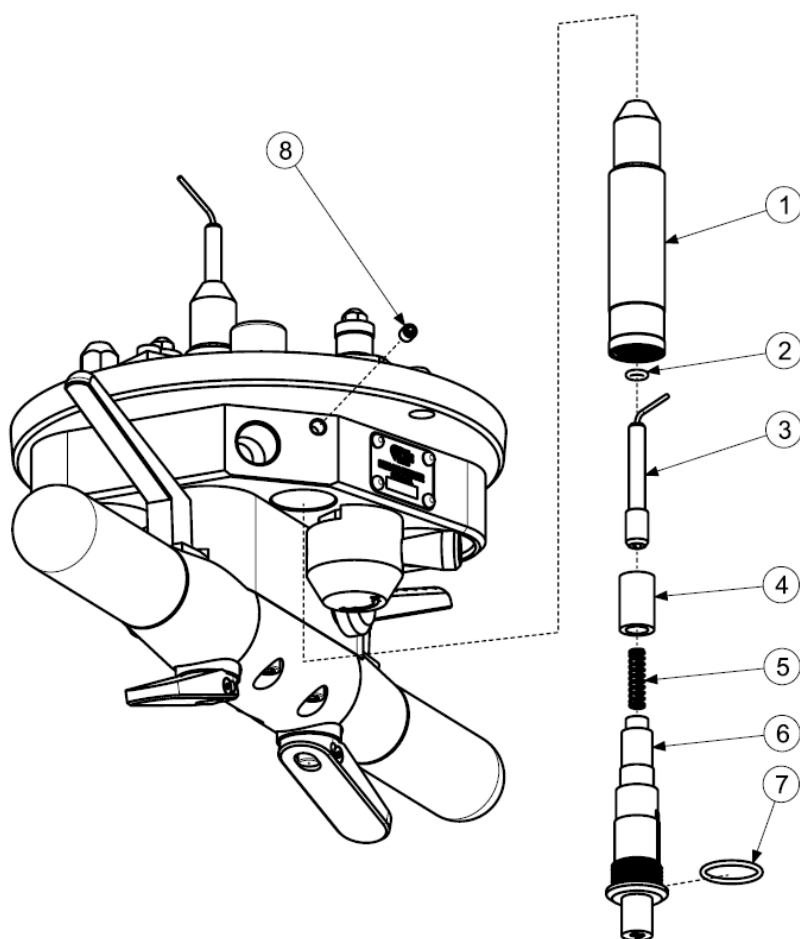


|    |                                                                                     | P/N        | DESCRIPTION                             |
|----|-------------------------------------------------------------------------------------|------------|-----------------------------------------|
| 1  |    | CR-22-0713 | PILOT LIGHT JET                         |
| 2  |    | 3D-08-4102 | PILOT LIGHT JET SINTERED FILTER         |
| 3  |    | 3D-08-1004 | PILOT LIGHT REGULATOR UPPER BODY        |
| 4  |    | 3D-99-0090 | PILOT LIGHT REGULATOR PISTON O-RING     |
| 5  |  | 3D-99-0095 | PILOT LIGHT REGULATOR PISTON ROD O-RING |
| 6  |  | 3D-08-0501 | PILOT LIGHT REGULATOR PISTON ASSEMBLY   |
| 7  |  | 3D-08-1401 | PILOT LIGHT REGULATOR SPRING            |
| 8  |  | PS-24-1502 | PILOT LIGHT REGULATOR – LOWER BODY      |
| 9  |  | CR-PP-0325 | PIEZO / VALVES O-RING                   |
| 10 |  | PS-11-0201 | VALVE SEAT ASSEMBLY                     |

|    |                                                                                     |             |                                  |
|----|-------------------------------------------------------------------------------------|-------------|----------------------------------|
| 11 |    | PS-25-1003  | PILOT VALVE STEM                 |
| 12 |    | 3D-99-0085  | VALVE STEM O-RING                |
| 13 |    | 3D-08-2801  | VALVE SPRING                     |
| 14 |    | PS-25-1102  | PILOT VALVE BONNET               |
| 15 |    | CR-PPD-0082 | ROTATION STOP PIN                |
| 16 |  | CR-N-0040   | GRUB SCREW M6x6                  |
| 17 |  | 3D-08-2202  | PILOT LIGHT VALVE ROTATION LEVER |
| 18 |  | PS-25-1302  | PILOT VALVE ANTI-FRICTION WASHER |
| 19 |  | CR-PPD-0087 | STOP STEM WASHER                 |
| 20 |  | CR-PP-0032  | SLOTTED CHEESE HEAD SCREW M4x8   |
| 21 |  | CR-C-0250   | SOCKET HEAD CAP SCREW M6x20      |
| 22 |  | PS-25-1803  | RH PILOT VALVE HANDLE – BLUE     |

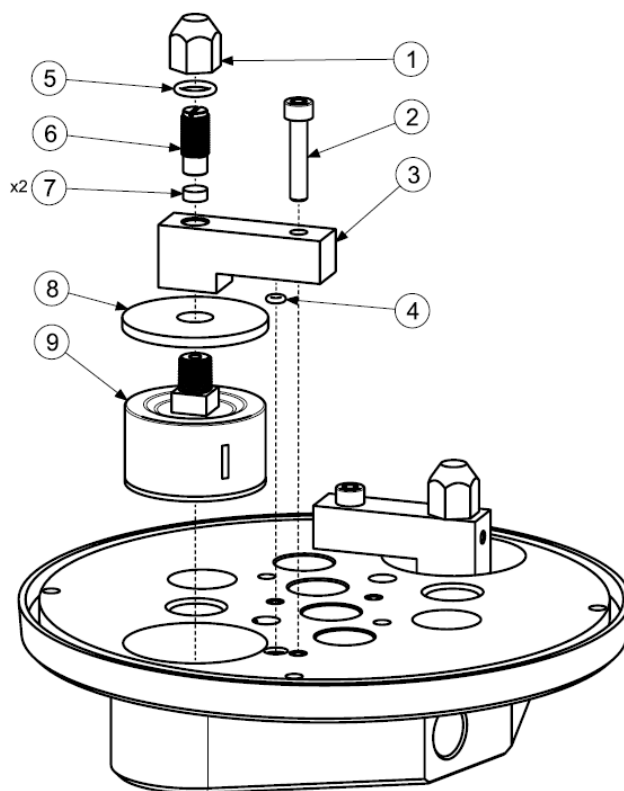
|    |                                                                                   |            |                             |
|----|-----------------------------------------------------------------------------------|------------|-----------------------------|
| 23 |  | PS-25-1603 | RH PILOT VALVE KNOB – BLUE  |
| 25 |  | PS-25-1903 | LH PILOT VALVE HANDLE – RED |
| 26 |  | PS-25-1703 | LH PILOT VALVE KNOB – RED   |

## PIEZO



|   |                                                                                     | P/N        | DESCRIPTION                                         |
|---|-------------------------------------------------------------------------------------|------------|-----------------------------------------------------|
| 1 |    | 3D-09-1002 | PIEZO COVER                                         |
| 2 |    | MA-FE-0606 | PIEZO / MK-21 PRESSURE GAUGE O-RING                 |
| 3 |    | 3D-09-1201 | CERAMIC ELECTRODE                                   |
| 4 |    | 3D-09-1302 | PIEZO SPACER                                        |
| 5 |  | 3D-09-1401 | DOUBLE ACTION HANDLE PLAY CONTROL /<br>PIEZO SPRING |
| 6 |  | 3D-09-1101 | PIEZOELECTRIC IGNITER                               |
| 7 |  | CR-PP-0325 | PIEZO / VALVES O-RING                               |
| 8 |  | CR-N-0040  | GRUB SCREW M6x6                                     |

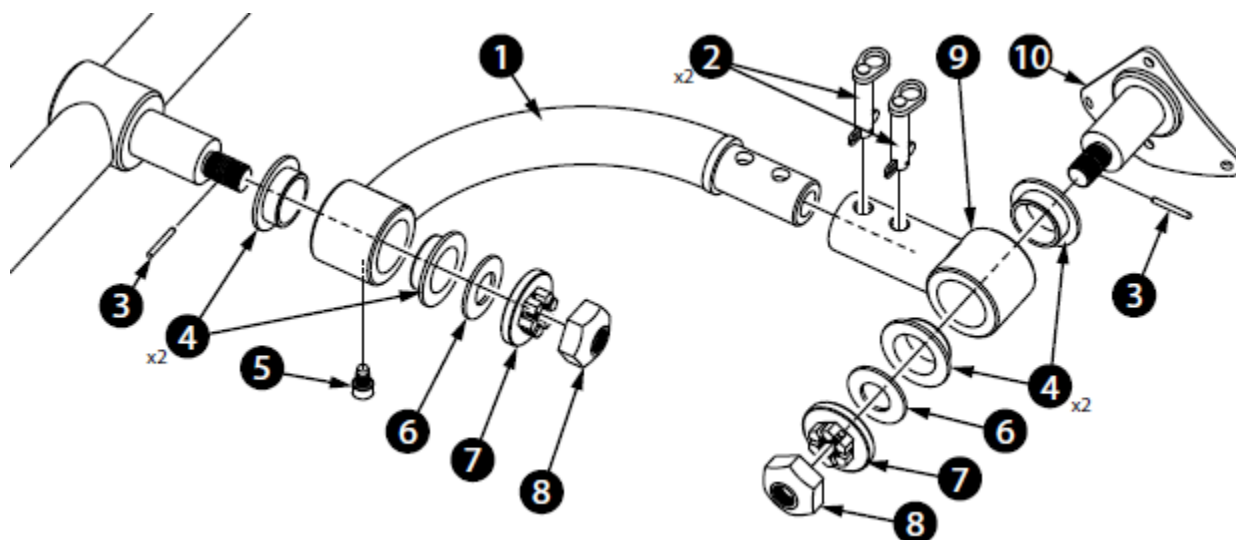
## PRESSURE GAUGE



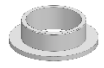
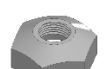
|   |                                                                                     | P/N        | DESCRIPTION                        |
|---|-------------------------------------------------------------------------------------|------------|------------------------------------|
| 1 |  | 3D-13-1201 | PRESSURE GAUGE FELT COMPRESSOR CAP |
| 2 |  | CR-PP-0013 | SOCKET HEAD CAP SCREW M5x16        |
| 3 |  | 3D-13-0101 | PRESSURE GAUGE CONNECTOR ASSEMBLY  |
| 4 |  | CR-09-0156 | PRESSURE GAUGE CONNECTOR O-RING    |
| 5 |  | 3D-99-0115 | CAP O-RING                         |

|   |                                                                                   |            |                                |
|---|-----------------------------------------------------------------------------------|------------|--------------------------------|
| 6 |  | 3D-13-1104 | PRESSURE GAUGE FELT COMPRESSOR |
| 7 |  | 3D-13-1301 | FELT DAMPER                    |
| 8 |  | 3D-13-2101 | PRESSURE GAUGE FLAT SEAL       |
| 9 |  | 3D-13-2004 | PRESSURE GAUGE                 |

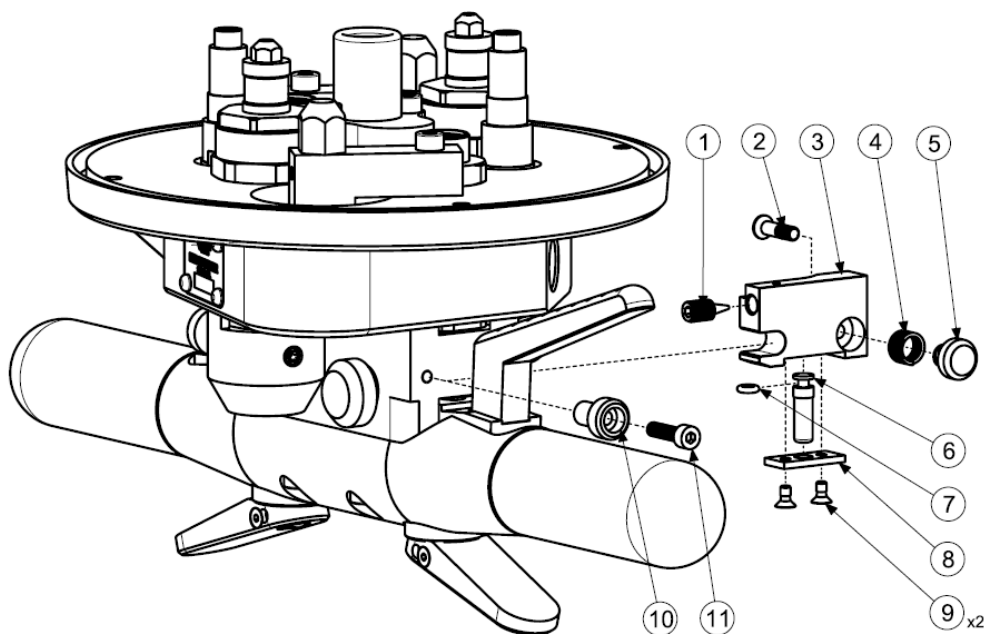
## ARM ASSEMBLY



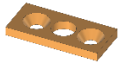
|   |                                                                                     | P/N        | DESCRIPTION           |
|---|-------------------------------------------------------------------------------------|------------|-----------------------|
| 1 |  | PS-15-0101 | ARM ASSEMBLY          |
| 2 |  | DU-C-0040  | DROP-NOSE LOCKING PIN |

|           |                                                                                     |            |                                        |
|-----------|-------------------------------------------------------------------------------------|------------|----------------------------------------|
| <b>3</b>  |    | PS-99-0035 | PIN FOR SLOTTED NUT                    |
| <b>4</b>  |    | PS-15-1102 | SINGLE BURNER ARM ANTI-FRICTION WASHER |
| <b>5</b>  |    | PS-15-1801 | ARM ROTATION STOP SCREW                |
| <b>6</b>  |    | PS-15-1201 | SPRING WASHER FOR ARM ADJUSTMENT       |
| <b>7</b>  |    | PS-15-1403 | SLOTTED NUT                            |
| <b>8</b>  |   | PS-15-1302 | ARM ASSEMBLY NUT                       |
| <b>9</b>  |  | PS-27-0201 | BURNER-TO-ARM SUPPORT ASSY             |
| <b>10</b> |  | PS-27-0101 | BURNER GIMBAL BRACKET ASSY             |

## HYDRAULIC

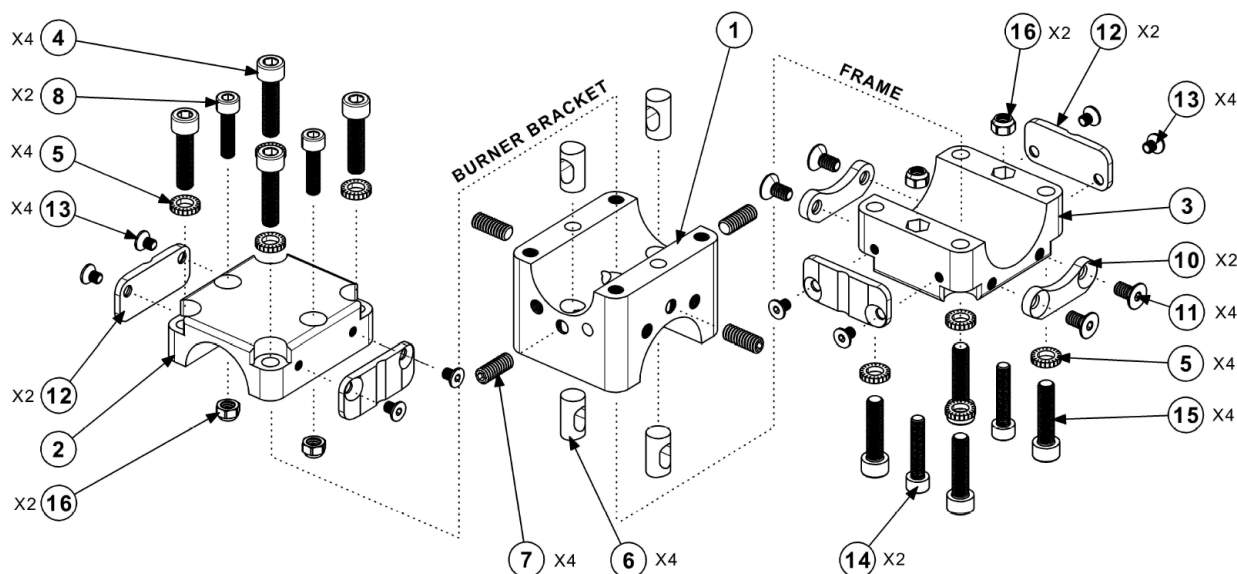


|   |                                                                                     | P/N        | DESCRIPTION                     |
|---|-------------------------------------------------------------------------------------|------------|---------------------------------|
| 1 |  | PS-20-1601 | HYDRAULIC CONTROL LOCKING SCREW |
| 2 |  | PS-20-1401 | HYDRAULIC SERVO – FASTENER      |
| 3 |  | PS-20-1001 | HYDRAULIC SERVO BODY            |
| 4 |  | PS-20-1702 | HYDRAULIC SERVO – SPRING        |
| 5 |  | PS-20-1301 | HYDRAULIC SERVO BUTTON          |
| 6 |  | PS-20-1101 | HYDRAULIC SERVO STEM            |

|    |                                                                                   |            |                             |
|----|-----------------------------------------------------------------------------------|------------|-----------------------------|
| 7  |  | 3D-99-0145 | BMK-008 HYDRAULIC O-RING    |
| 8  |  | PS-20-1201 | HYDRAULIC SERVO – LID       |
| 9  |  | MA-FE-0514 | CSK SOCKET HEAD SCREW M3x6  |
| 10 |  | PS-20-1501 | HYDRAULIC SERVO – GUIDE     |
| 11 |  | CR-09-0060 | SOCKET HEAD CAP SCREW M4x16 |

# Burner frames

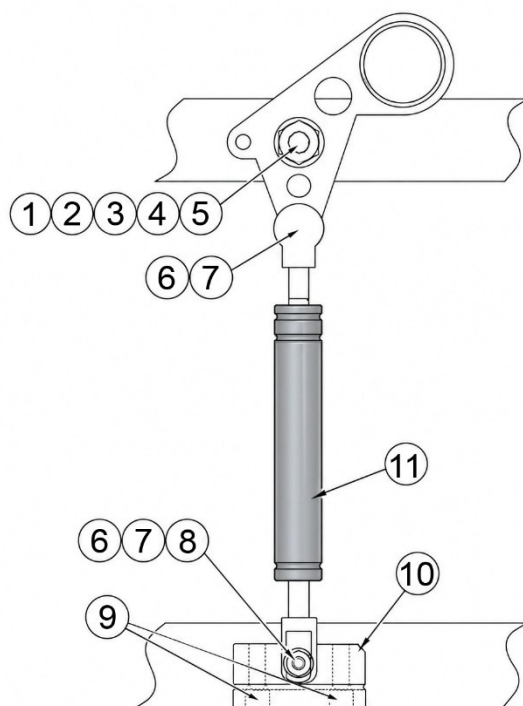
## CR-22-2500 / GIMBAL BLOCK ASSEMBLY



|   |                                                                                     | P/N        | DESCRIPTION                    |
|---|-------------------------------------------------------------------------------------|------------|--------------------------------|
| 1 |  | CR-22-2510 | GIMBAL BLOCK CENTRAL BODY      |
| 2 |  | CR-22-2512 | GIMBAL BLOCK 30mm TUBE END CAP |
| 3 |  | CR-22-2511 | GIMBAL BLOCK 35mm TUBE END CAP |
| 4 |  | CR-C-0260  | SOCKET HEAD CAP SCREW M6x25    |

|    |                                                                                     |            |                               |
|----|-------------------------------------------------------------------------------------|------------|-------------------------------|
| 5  |    | MA-FE-0860 | CRINKLE WASHER M6             |
| 6  |    | CR-22-2515 | GIMBAL BLOCK FRICTION BEARING |
| 7  |    | MA-FE-0900 | SOCKET GRUB SCREW M6x16       |
| 8  |    | MA-FE-0170 | SOCKET HEAD CAP SCREW M5x20   |
| 10 |    | CR-22-2516 | GIMBAL BLOCK ROTATION STOP    |
| 11 |  | MA-FE-0855 | CSK SOCKET HEAD SCREW M5x10   |
| 12 |  | CR-22-2517 | DETENT BLOCK – GIMBAL BLOCK   |
| 13 |  | MA-FE-0865 | CSK SOCKET HEAD SCREW M4x6    |
| 14 |  | MA-FE-0840 | SOCKET HEAD CAP SCREW M5x25   |
| 15 |  | MA-FE-0449 | SOCKET HEAD CAP SCREW M6x30   |
| 16 |  | CR-03-0173 | SELF-LOCKING NUT M5           |

## BURNER FRAME SPRING ASSEMBLY



|   |                                                                                     | P/N        | DESCRIPTION                  |
|---|-------------------------------------------------------------------------------------|------------|------------------------------|
| 1 |  | CR-C-0160  | PLAIN WASHER M10             |
| 2 |  | CR-03-0172 | SELF-LOCKING NUT M10         |
| 3 |  | QU-33-1112 | ANTI-ROTATION SADDLE (OUTER) |
| 4 |  | QU-33-1113 | ANTI-ROTATION SADDLE         |
| 5 |  | MA-FE-0305 | CSK HEX SOCKET SCREW M10x80  |

|    |                                                                                     |            |                             |
|----|-------------------------------------------------------------------------------------|------------|-----------------------------|
| 6  |    | MA-FE-0100 | PLAIN WASHER M8             |
| 7  |    | VE-C-0260  | SELF-LOCKING NUT M8         |
| 8  |    | MA-FE-0240 | SOCKET HEAD CAP SCREW M8x30 |
| 9  |    | BO-C-0080  | SOCKET HEAD CAP SCREW M6x20 |
| 10 |   | QU-33-1117 | GAS SPRING HORSESHOE        |
| 11 |  | MA-FE-0890 | TENSION GAS SPRING          |

# Baskets

## Suede / leather & ropes

| SUEDE / LEATHER                                                                     |            |                           |
|-------------------------------------------------------------------------------------|------------|---------------------------|
|                                                                                     | P/N        | DESCRIPTION               |
|    | CI-01-0010 | SUEDE – NAVY BLUE         |
|    | CI-01-0030 | SUEDE – TOBACCO BROWN     |
|  | CI-01-0040 | SUEDE – DARK BROWN        |
|  | CI-01-0050 | SUEDE – BLACK             |
|  | CI-01-0060 | SUEDE – DARK GREEN        |
|  | CI-01-0080 | SUEDE – RED               |
|  | CI-01-0085 | SUEDE – YELLOW            |
|  | CI-01-0100 | GRAIN LEATHER – BLUE      |
|  | CI-01-0101 | GRAIN LEATHER – NAVY BLUE |

|                                                                                   |            |                            |
|-----------------------------------------------------------------------------------|------------|----------------------------|
|  | CI-01-0105 | GRAIN LEATHER – BROWN      |
|  | CI-01-0110 | GRAIN LEATHER – BLACK      |
|  | CI-01-0115 | GRAIN LEATHER – RED        |
|  | CI-01-0120 | GRAIN LEATHER – DARK GREEN |
|  | CI-01-0125 | GRAIN LEATHER – YELLOW     |

| ROPES                                                                               |            |                  |
|-------------------------------------------------------------------------------------|------------|------------------|
|                                                                                     | P/N        | DESCRIPTION      |
|  | CI-04-0011 | YELLOW ROPE 14mm |
|  | CI-04-0012 | RED ROPE 14mm    |
|  | CI-04-0013 | BLUE ROPE 14mm   |
|  | CI-04-0015 | BLACK ROPE 14mm  |
|  | CI-04-0016 | GREEN ROPE 14mm  |
|  | CI-04-0077 | WHITE ROPE 14mm  |
|  | CI-04-0070 | YELLOW ROPE 20mm |

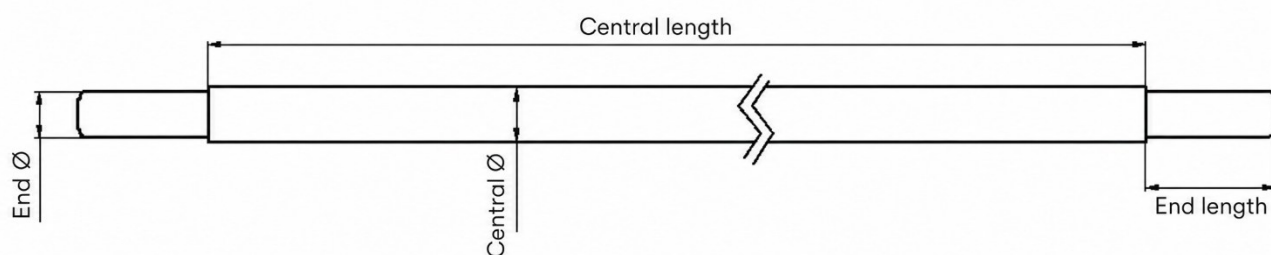
|                                                                                   |            |                 |
|-----------------------------------------------------------------------------------|------------|-----------------|
|  | CI-04-0060 | RED ROPE 20mm   |
|  | CI-04-0030 | BLUE ROPE 20mm  |
|  | CI-04-0040 | BLACK ROPE 20mm |
|  | CI-04-0050 | GREEN ROPE 20mm |
|  | CI-04-0020 | WHITE ROPE 20mm |

## Nylon poles

Nylon pole dimensions may vary depending on the basket model and the pole position.

When ordering, provide the following information, using the drawing below as a reference:

1. Basket model
2. Basket serial number
3. Central length
4. End length
5. End diameter
6. Central diameter



## FDS Rope bags

|                                                                                     | P/N        | DESCRIPTION               |
|-------------------------------------------------------------------------------------|------------|---------------------------|
|    | AR-BO-0900 | FDS ROPE BAG – RED        |
|    | AR-BO-0905 | FDS ROPE BAG – NAVY BLUE  |
|    | AR-BO-0906 | FDS ROPE BAG – ROYAL BLUE |
|   | AR-BO-0910 | FDS ROPE BAG – BLACK      |
|  | AR-BO-0915 | FDS ROPE BAG – GREEN      |

## Basket equipment & hardware

|                                                                                     | P/N        | DESCRIPTION                                     |
|-------------------------------------------------------------------------------------|------------|-------------------------------------------------|
|    | CI-C-1302  | REFURBISHED RESTRAINT HARNESS WITH QUICK BUCKLE |
|    | CI-C-0240  | FOAM BASE FOR BASKETS                           |
|    | CI-C-0395  | PADDED WALL                                     |
|   | CI-F-0170  | ROD COVER 80cm – SUEDE LEATHER                  |
|  | CI-F-0175  | ROD COVER 80cm – GRAIN LEATHER                  |
|  | EM-C-0150  | DROPLINE 25m                                    |
|  | EM-C-0160  | DROPLINE 50m                                    |
|  | EM-F-0100  | BAG FOR 25m DROPLINE                            |
|  | EM--F-0110 | BAG FOR 50m DROPLINE                            |

**AR-BO-0802 / FIRST AID & FIRE EXTINGUISHER PADDED BAG - 44x62cm**



**AR-BO-0821 / FIRST AID & FIRE EXTINGUISHER PADDED BAG - 35x53cm (small)**



| HARDWARE                                                                            |           |                                  |
|-------------------------------------------------------------------------------------|-----------|----------------------------------|
|                                                                                     | P/N       | DESCRIPTION                      |
|    | CI-C-0170 | ROUND U-BOLT                     |
|    | CI-C-0172 | FLAT U-BOLT                      |
|    | CI-C-0221 | SQUARE NECK CARRIAGE BOLT M10x55 |
|   | CI-C-0216 | SQUARE NECK CARRIAGE BOLT M10x60 |
|  | CR-C-0230 | SOCKET HEAD CAP SCREW M6x12      |
|  | CI-C-0595 | TURNBUCKLE ST STL                |
|  | CI-C-1060 | TOWING PLATE                     |
|  | CR-C-0160 | PLAIN WASHER M10                 |
|  | QU-C-0110 | NUT M10                          |

## Quick release systems

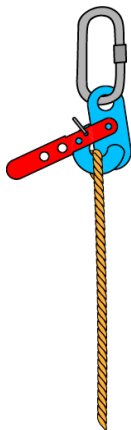
**EM-C-0250 / BONANNO QUICK  
RELEASE**



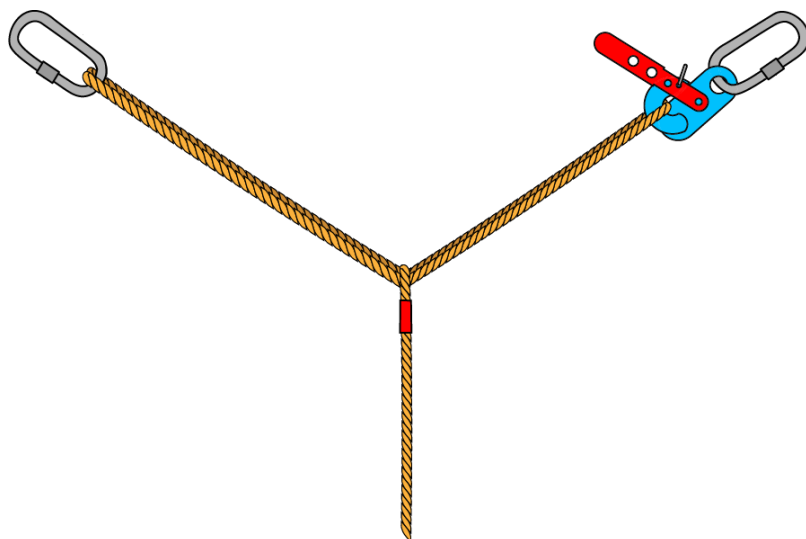
**EM-C-0254 / BONANNO ST STL QUICK  
RELEASE**



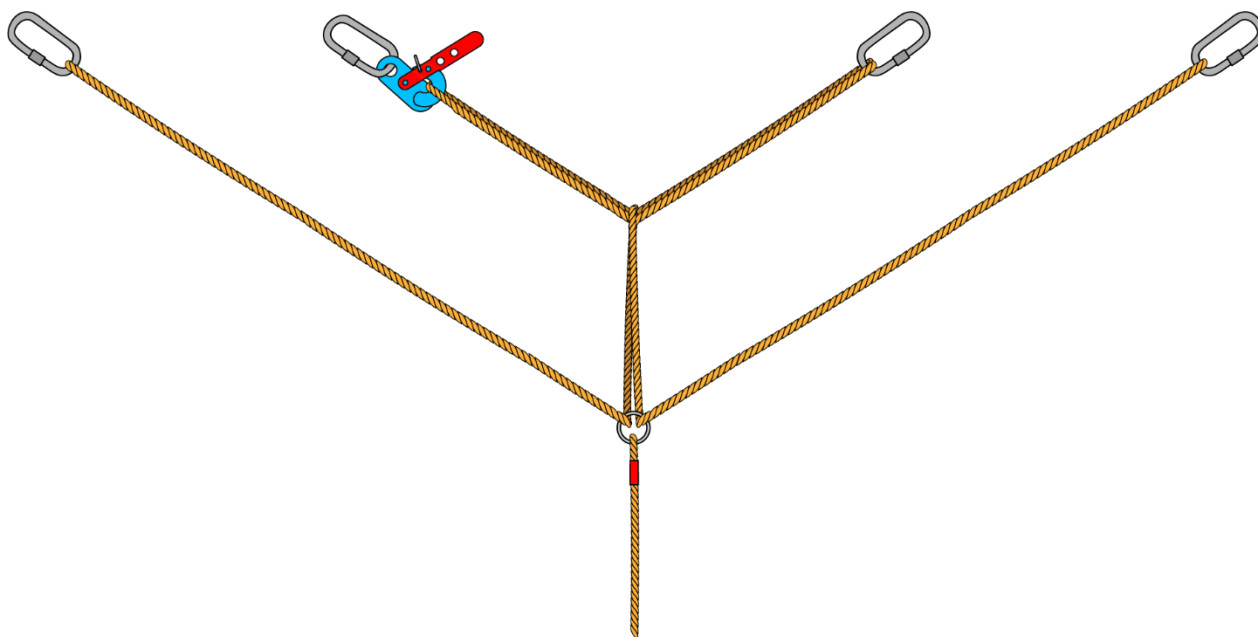
**EM-C-0251 / QUICK RELEASE SYSTEM**



**EM-C-0252 / QUICK RELEASE SYSTEM "Y" TYPE**  
**EM-C-0257 / ST STL QUICK RELEASE SYSTEM "Y" TYPE**

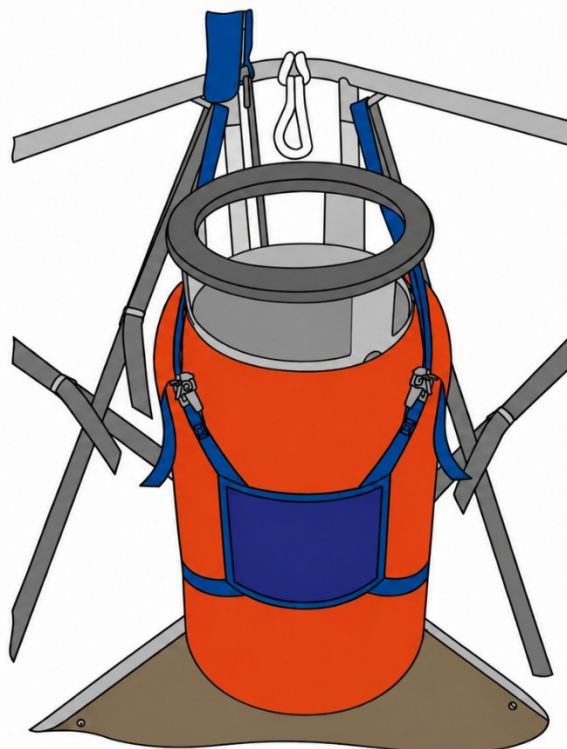
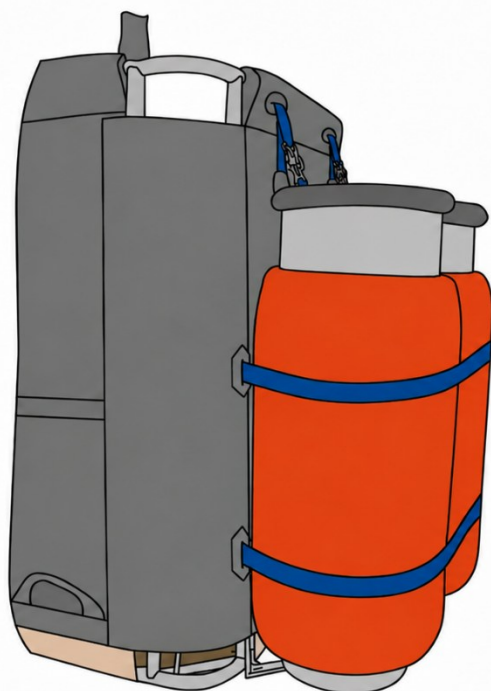


**EM-C-0253 / QUICK RELEASE SYSTEM "W" TYPE**  
**EM-C-0256 / ST STL QUICK RELEASE SYSTEM "W" TYPE**



## Tekno baskets

### TEKNO BASKET ITEMS



|                                                                                     | P/N       | DESCRIPTION                   |
|-------------------------------------------------------------------------------------|-----------|-------------------------------|
|  | CI-C-1730 | NYLON ROD 25mm – CT-01 (98cm) |
|  | CI-C-1731 | NYLON ROD 25mm – CT-02 (98cm) |
|  | CI-C-1732 | NYLON ROD 25mm – CT-03 (98cm) |
|  | CI-F-0194 | ROD COVER TEKNO               |

|                                                                                     |            |                                 |
|-------------------------------------------------------------------------------------|------------|---------------------------------|
|    | EM-01-0151 | SPRING HOOK                     |
|    | CI-TK-0015 | ROPE FOR TEKNO – BLACK          |
|    | CI-TK-0016 | ROPE FOR TEKNO – RED            |
|    | CI-TK-0017 | ROPE FOR TEKNO – BLUE           |
|    | CI-C-0180  | SQUARE NECK CARRIAGE BOLT M5x50 |
|  | CI-C-0998  | SELF-LOCKING NUT M5             |
|  | CI-TK-0090 | BASKET FLOOR NUT Ø15 M6         |
|  | MA-FE-0200 | SOCKET HEAD CAP SCREW M6x40     |
|  | MA-FE-0090 | PLAIN WASHER M6x12              |
|  | VE-C-0250  | SELF-LOCKING NUT M6             |

**AR-BO-0836 / POCKETS & FIRE EXTINGUISHER PADDED BAG – CT-02/03**



**CI-TK-1101 / CT-01/03 EXTERNAL SUPPORT KIT – M-20 CYLINDERS**  
**CI-TK-1103 / CT-01/03 EXTERNAL SUPPORT KIT – M-30 CYLINDERS**

|                                                                                     | QTY. | P/N        | DESCRIPTION                       |
|-------------------------------------------------------------------------------------|------|------------|-----------------------------------|
|  | 1    | CI-TK-1105 | EXTERNAL CYLINDER BRACKET (RIGHT) |
|                                                                                     | 1    | CI-TK-1106 | EXTERNAL CYLINDER BRACKET (LEFT)  |
|  | 2    | CI-TK-0205 | EXTERNAL CYLINDER STRAP 250cm     |
|  | 2    | CI-TK-0207 | CYLINDER SUSPENSION STRAP 57cm    |

**CI-TK-1102 / CT-02 EXTERNAL SUPPORT KIT – M-20 CYLINDERS**  
**CI-TK-1104 / CT-02 EXTERNAL SUPPORT KIT – M-30 CYLINDERS**

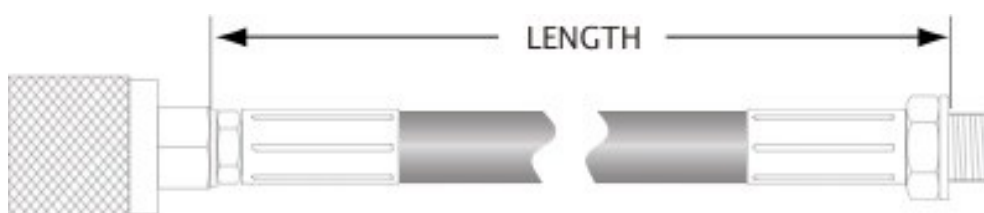
|                                                                                     | QTY. | P/N        | DESCRIPTION                       |
|-------------------------------------------------------------------------------------|------|------------|-----------------------------------|
|    | 1    | CI-TK-1105 | EXTERNAL CYLINDER BRACKET (RIGHT) |
|                                                                                     | 1    | CI-TK-1106 | EXTERNAL CYLINDER BRACKET (LEFT)  |
|    | 2    | CI-TK-0205 | EXTERNAL CYLINDER STRAP 250cm     |
|    | 2    | CI-TK-0206 | EXTERNAL CYLINDER STRAP 290cm     |
|  | 2    | CI-TK-0207 | CYLINDER SUSPENSION STRAP 57cm    |
|  | 1    | CI-TK-0215 | PADDED SPACER – M-20 CYLINDERS    |
|                                                                                     |      | CI-TK-0216 | PADDED SPACER – M-30 CYLINDERS    |

**CI-TK-0202 / INTERNAL CYLINDER CROSSED STRAPS WITH POCKET**



# Hoses and fittings

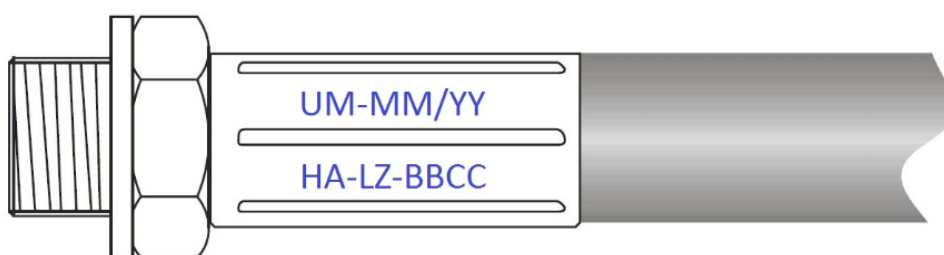
Take particular care when ordering fuel hoses, as hose lengths and connectors vary. The existing hose must be measured as shown below:



Standard liquid hoses are approximately 2.5m long; long liquid hoses are approximately 3.0m. Vapor hoses are approximately 2.2m (standard) or 2.8m (long).

**Note:** most hoses can be ordered without connectors (bare). Where applicable, the required replacement bonded washers are supplied with the hose.

When ordering hoses, quote the hose code engraved on one of the hose fittings, as illustrated below:



If the code is not available, please specify:

1. Burner model
2. Burner serial number
3. Whether the hose is for liquid or vapor
4. Connector type (REGO, TEMA...)
5. Whether connectors are required
6. Length

## AUXILIARY HOSES

| P/N        | DESCRIPTION                                                        |
|------------|--------------------------------------------------------------------|
| H2-90-2111 | LIQUID HOSE MANIFOLD –3/8"–0.3m– w/o REGO F1/4" BSP                |
| H2-90-2121 | LIQUID HOSE INTERCONNECTION – 3/8"– 0.3m – w/o CONNECTOR F3/8" BSP |
| CR-07-0160 | CYLINDER INTERCONNECTION "T" HOSE REGO                             |
| CR-07-0170 | CYLINDER INTERCONNECTION "T" HOSE TEMA                             |
| CR-07-0110 | 2.5m REFUEL HOSE – REGO                                            |
| CR-07-0130 | 2.5m REFUEL HOSE – TEMA                                            |
| CR-07-0120 | 2.5m REFUEL HOSE – REGO WITH FILTER                                |
| CR-07-0140 | 2.5m REFUEL HOSE – TEMA WITH FILTER                                |
| CR-07-0125 | 2.5m REFUEL HOSE – REGO TYPE WITH BONANNO FILTER                   |
| CR-07-0135 | 2.5m REFUEL HOSE – TEMA WITH BONANNO FILTER                        |

## FITTINGS AND ACCESSORIES

|                                                                                     |            |                                            |
|-------------------------------------------------------------------------------------|------------|--------------------------------------------|
|  | CR-07-0145 | BONANNO REFUEL FILTER (HOSES NOT INCLUDED) |
|-------------------------------------------------------------------------------------|------------|--------------------------------------------|

|                                                                                     |            |                                          |
|-------------------------------------------------------------------------------------|------------|------------------------------------------|
|    | CR-06-0020 | BONDED WASHER 1/4" BSP                   |
|    | CR-06-0060 | PRESSURE RING                            |
|    | CR-06-0070 | REGO HOSE CONNECTOR                      |
|    | CR-06-0076 | REGO HOSE DUST CAP                       |
|    | CR-06-0220 | TEMA HOSE DUST CAP                       |
|  | CR-06-0100 | MALE VAPOR CONNECTOR                     |
|  | CR-06-0110 | VAPOR CONNECTOR PIN                      |
|  | CR-06-0120 | MALE PRESSURE FITTING 1/4" BSP           |
|  | CR-06-0080 | TEMA HOSE CONNECTOR                      |
|  | CR-09-0461 | MK-10 BURNER HOSE INLET FITTING 1/4" NPT |
|  | MA-FE-0600 | BONDED WASHER 3/8" BSP                   |
|  | MA-FE-0604 | BONDED WASHER 1/2"                       |
|  | MA-FE-0620 | TEMA OUTER O-RING                        |

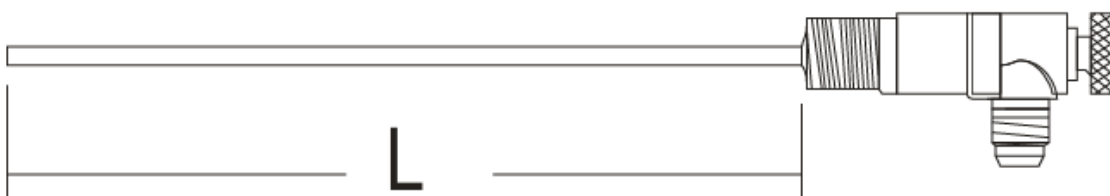
# Fuel cylinders

## Valves & connectors

| LIQUID VALVE                                                                        |            |                                     |
|-------------------------------------------------------------------------------------|------------|-------------------------------------|
|                                                                                     | P/N        | DESCRIPTION                         |
|    | BO-FP-0130 | LIQUID TAKE-OFF VALVE               |
|   | BO-FP-0135 | LIQUID TAKE-OFF VALVE + BLUE HANDLE |
|  | CR-C-0420  | LIQUID TAKE-OFF VALVE HANDLE (BLUE) |
|  | CR-C-0430  | LIQUID TAKE-OFF VALVE HANDLE (RED)  |
|  | CR-07-0030 | REGO CYLINDER CONNECTOR             |
|  | CR-07-0036 | REGO CYLINDER DUST CAP              |
|  | CR-07-0020 | TEMA CYLINDER CONNECTOR             |
|  | BO-FL-0140 | TEMA CYLINDER DUST CAP              |
|  | BO-FL-0040 | REGO MALE OUTER FLAT GASKET         |

|                                                                                   |            |                            |
|-----------------------------------------------------------------------------------|------------|----------------------------|
|  | BO-FL-0045 | REGO MALE INNER O-RING     |
|  | CR-01-0020 | CSK HEX SOCKET SCREW M4x16 |
|  | MA-FE-0600 | BONDED WASHER 3/8" BSP     |

## BLEED VALVE / FIXED LIQUID LEVEL VALVE



|                                                                                     | P/N        | DESCRIPTION                     |
|-------------------------------------------------------------------------------------|------------|---------------------------------|
|  | BO-C-0226  | FIXED LIQUID LEVEL VALVE – M-20 |
|  | BO-C-0227  | FIXED LIQUID LEVEL VALVE – M-30 |
|  | BO-C-0228  | FIXED LIQUID LEVEL VALVE – M-40 |
|  | BO-FP-0121 | VAPOR VALVE WITH PRV – M-20     |
|  | BO-FP-0122 | VAPOR VALVE WITH PRV – M-30     |
|  | BO-FP-0123 | VAPOR VALVE WITH PRV – M-40     |

| VAPOR VALVE                                                                         |            |                                    |
|-------------------------------------------------------------------------------------|------------|------------------------------------|
|                                                                                     | P/N        | DESCRIPTION                        |
|    | BO-FP-0010 | LEGRIS VAPOR QUICK CONNECTOR       |
|    | BO-FP-0020 | TEMA VAPOR QUICK CONNECTOR         |
|    | BO-FP-0085 | VAPOR CONNECTOR ADAPTOR 1/4" BSP   |
|    | BO-FP-0086 | LEFT-HAND THREAD LOCK NUT 3/8" BSP |
|  | BO-FP-0095 | VAPOR REGULATOR                    |

| PRESSURE RELIEF VALVES (PRV)                                                        |           |                                         |
|-------------------------------------------------------------------------------------|-----------|-----------------------------------------|
|                                                                                     | P/N       | DESCRIPTION                             |
|  | BO-C-0288 | PRESSURE RELIEF VALVE (PRV) ASSEMBLY    |
|  | BO-C-0070 | PRESSURE RELIEF VALVE DUST CAP          |
|  | BO-C-0100 | PRESSURE RELIEF VALVE DEFLECTOR FITTING |
|  | BO-C-0285 | PRESSURE RELIEF VALVE                   |

## Contents gauges

|                                                                                     | P/N       | DESCRIPTION                             |
|-------------------------------------------------------------------------------------|-----------|-----------------------------------------|
|    | BO-C-0180 | M-20 COMPLETE LIVELLO CONTENTS GAUGE    |
|    | BO-C-0112 | M-30 COMPLETE ROCHESTER CONTENTS GAUGE  |
|    | BO-C-0162 | M-40 COMPLETE ROCHESTER CONTENTS GAUGE  |
|   | BO-C-0136 | M-20 LIVELLO CONTENTS GAUGE DIAL        |
|  | BO-C-0137 | M-30/40 LIVELLO CONTENTS GAUGE DIAL     |
|  | BO-C-0113 | M-30 ROCHESTER CONTENTS GAUGE DIAL      |
|  | BO-C-0111 | M-40 ROCHESTER CONTENTS GAUGE DIAL      |
|  | BO-C-0130 | ROCHESTER CONTENTS GAUGE GASKET         |
|  | BO-C-0135 | LIVELLO CONTENTS GAUGE GASKET           |
|  | BO-C-0080 | SOCKET HEAD CAP SCREW M6x20 – LIVELLO   |
|  | BO-C-0081 | SOCKET HEAD CAP SCREW M6x22 – ROCHESTER |

## Straps, jackets & padding

|                                                                                     | P/N        | DESCRIPTION                        |
|-------------------------------------------------------------------------------------|------------|------------------------------------|
|    | BO-C-0010  | M-30/40 CYLINDER TOP PADDING RING  |
|    | BO-C-0011  | M-20 CYLINDER TOP PADDING RING     |
|    | BO-10-0010 | CYLINDER STRAP – DARK BLUE – 160cm |
|   | BO-10-0020 | CYLINDER STRAP – DARK BLUE – 180cm |
|  | BO-10-0030 | CYLINDER STRAP – BLACK – 160cm     |
|  | BO-10-0040 | CYLINDER STRAP – BLACK – 180cm     |
|  | BO-10-0050 | CYLINDER STRAP – RED – 160cm       |
|  | BO-10-0060 | CYLINDER STRAP – RED – 180cm       |
|  | BO-10-0070 | CYLINDER STRAP – GREEN – 160cm     |
|  | BO-10-0080 | CYLINDER STRAP – GREEN – 180cm     |
|  | BO-F-0010  | M-20 CYLINDER JACKET – RED         |

|                                                                                     |           |                                          |
|-------------------------------------------------------------------------------------|-----------|------------------------------------------|
|    | BO-F-0011 | M-20 CYLINDER JACKET – BLUE              |
|    | BO-F-0012 | M-20 CYLINDER JACKET – BLACK             |
|    | BO-F-0013 | M-20 CYLINDER JACKET – GREEN             |
|    | BO-F-0015 | M-20 CYLINDER JACKET WITH POCKET – BLUE  |
|    | BO-F-0016 | M-20 CYLINDER JACKET WITH POCKET – RED   |
|  | BO-F-0017 | M-20 CYLINDER JACKET WITH POCKET – BLACK |
|  | BO-F-0018 | M-20 CYLINDER JACKET WITH POCKET – GREEN |
|  | BO-F-0020 | M-30 CYLINDER JACKET – RED               |
|  | BO-F-0021 | M-30 CYLINDER JACKET – BLUE              |
|  | BO-F-0022 | M-30 CYLINDER JACKET – BLACK             |
|  | BO-F-0023 | M-30 CYLINDER JACKET – GREEN             |
|  | BO-F-0025 | M-30 CYLINDER JACKET WITH POCKET – RED   |

|                                                                                     |           |                                          |
|-------------------------------------------------------------------------------------|-----------|------------------------------------------|
|    | BO-F-0026 | M-30 CYLINDER JACKET WITH POCKET – BLUE  |
|    | BO-F-0027 | M-30 CYLINDER JACKET WITH POCKET – BLACK |
|    | BO-F-0028 | M-30 CYLINDER JACKET WITH POCKET – GREEN |
|    | BO-F-0030 | M-40 CYLINDER JACKET – RED               |
|    | BO-F-0031 | M-40 CYLINDER JACKET – BLUE              |
|   | BO-F-0032 | M-40 CYLINDER JACKET – BLACK             |
|  | BO-F-0033 | M-40 CYLINDER JACKET – GREEN             |
|  | BO-F-0035 | M-40 CYLINDER JACKET WITH POCKET – RED   |
|  | BO-F-0036 | M-40 CYLINDER JACKET WITH POCKET – BLUE  |
|  | BO-F-0037 | M-40 CYLINDER JACKET WITH POCKET – BLACK |
|  | BO-F-0038 | M-40 CYLINDER JACKET WITH POCKET – GREEN |

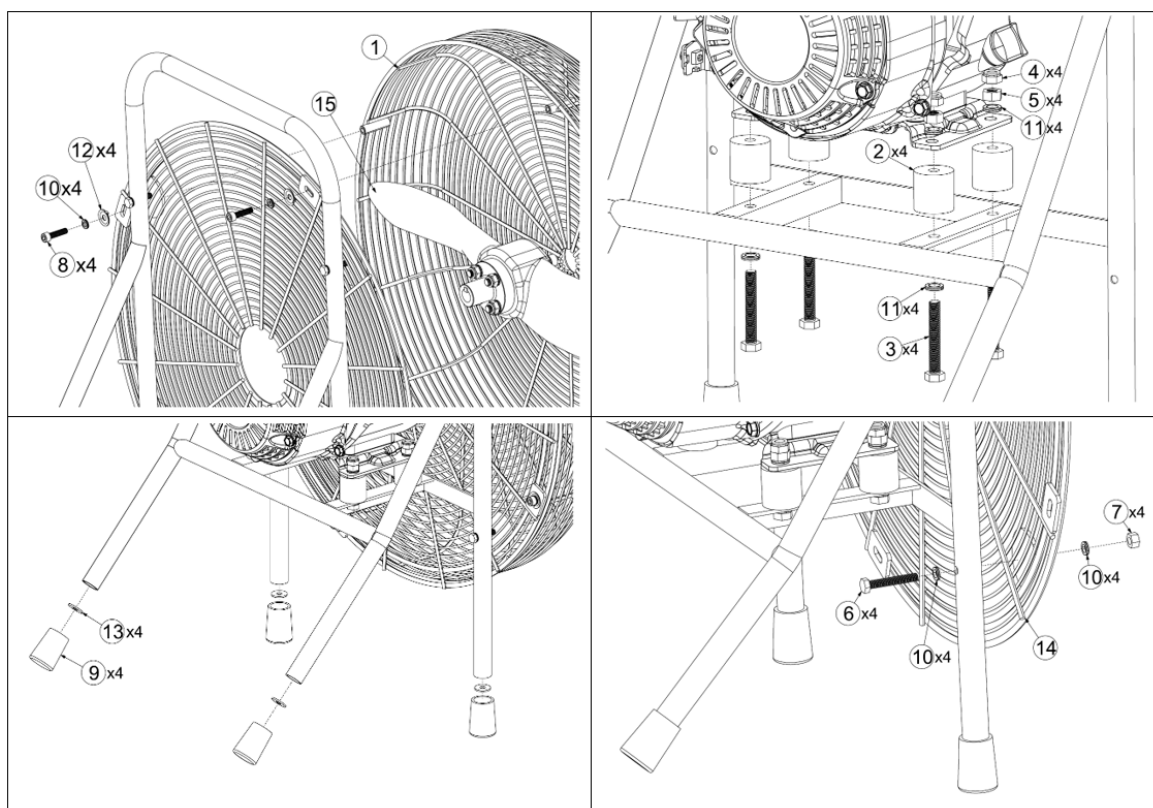
## Other cylinder parts

|                                                                                    | P/N       | DESCRIPTION                                      |
|------------------------------------------------------------------------------------|-----------|--------------------------------------------------|
|   | BO-C-0250 | BLEED PORT BLANKING PLUG 1/4" (MASTER CYLINDERS) |
|   | BO-C-0260 | VAPOR PORT BLANKING PLUG 3/4" (SLAVE CYLINDERS)  |
|   | BO-C-0306 | REMOTE BLEED TUBE                                |
|  | BO-C-0307 | REMOTE BLEED CONNECTOR                           |

# Inflation fans

## 3HP inflation fan

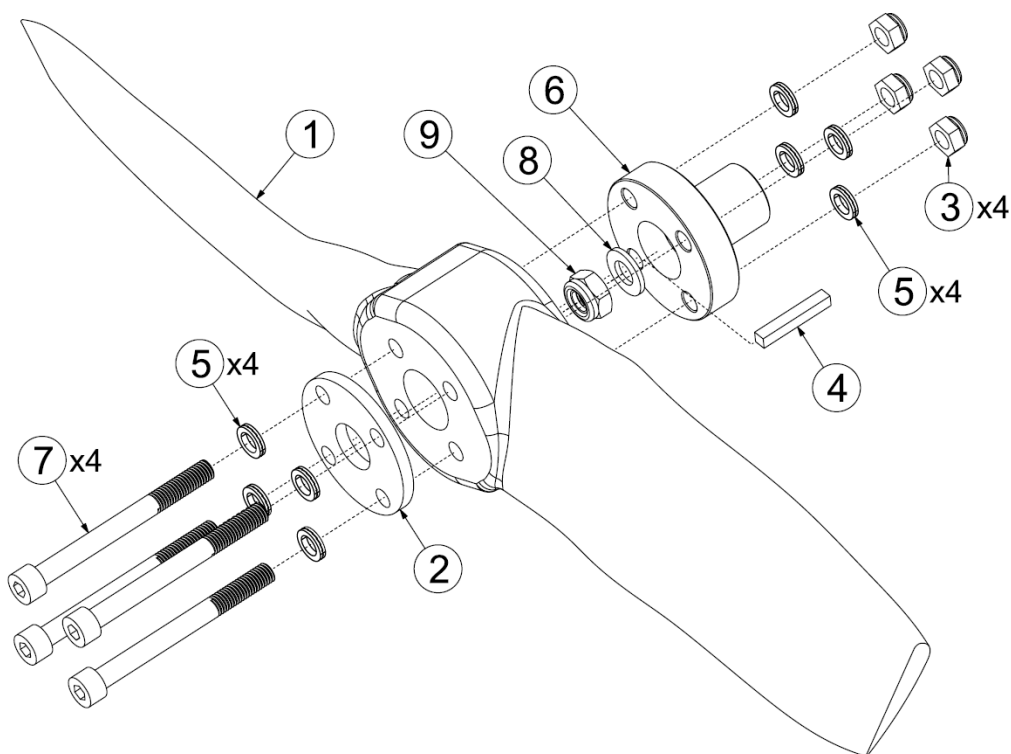
VE-A-0050 / 3HP INFLATION FAN – HONDA  
VE-A-0051 / 3HP INFLATION FAN – SAKAWA



|   |                                                                                     | P/N       | DESCRIPTION           |  |
|---|-------------------------------------------------------------------------------------|-----------|-----------------------|--|
| 1 |  | VE-C-0385 | FRONT GUARD 550mm     |  |
| 2 |  | VE-C-0461 | SILENTBLOCK – 3HP FAN |  |
| 3 |  | VE-C-0220 | HEX HEAD BOLT M8x55   |  |

|    |                                                                                     |            |                                  |                                                                                       |
|----|-------------------------------------------------------------------------------------|------------|----------------------------------|---------------------------------------------------------------------------------------|
| 4  |    | VE-C-0260  | SELF-LOCKING NUT M8              |                                                                                       |
| 5  |    | VE-C-0270  | HEX NUT M8                       |                                                                                       |
| 6  |    | MA-FE-0152 | GUARD HEX HEAD BOLT M6x40        |                                                                                       |
| 7  |    | VE-C-0250  | SELF-LOCKING NUT M6              |                                                                                       |
| 8  |    | CR-C-0260  | SOCKET HEAD CAP SCREW M6x25      |                                                                                       |
| 9  |    | VE-C-0515  | RUBBER FOOT                      |                                                                                       |
| 10 |   | VE-C-0910  | NORD-LOCK WASHER M6              |                                                                                       |
| 11 |  | VE-C-0911  | NORD-LOCK WASHER M8              |                                                                                       |
| 12 |  | VE-C-0530  | GUARD ANTIROTATION WASHER M6     |                                                                                       |
| 13 |  | CR-03-0010 | PLAIN WASHER M6x18               |                                                                                       |
| 14 |  | VE-C-0405  | BACK GUARD 550mm – HONDA ENGINE  |                                                                                       |
|    |                                                                                     | VE-C-0406  | BACK GUARD 550mm – SAKAWA ENGINE |                                                                                       |
| 15 |  | VE-C-0657  | PROPELLER – 3HP HONDA ENGINE     |  |
|    |                                                                                     | VE-C-0664  | PROPELLER – 3HP SAKAWA ENGINE    |                                                                                       |

**VE-C-0657 / PROPELLER – 3HP HONDA ENGINE**  
**VE-C-0664 / PROPELLER – 3HP SAKAWA ENGINE**



|   |                                                                                     | P/N       | DESCRIPTION                          |
|---|-------------------------------------------------------------------------------------|-----------|--------------------------------------|
| 1 |  | VE-C-0656 | WOODEN BLADE – 3HP FAN               |
| 2 |  | VE-C-0132 | HUB RETAINING PLATE – 3 & 5.5HP FANS |
| 3 |  | VE-C-0260 | SELF-LOCKING NUT M8                  |
| 4 |  | VE-C-0542 | HUB KEY – 3 & 5.5HP FANS             |
| 5 |  | VE-C-0911 | NORD-LOCK WASHER M8                  |

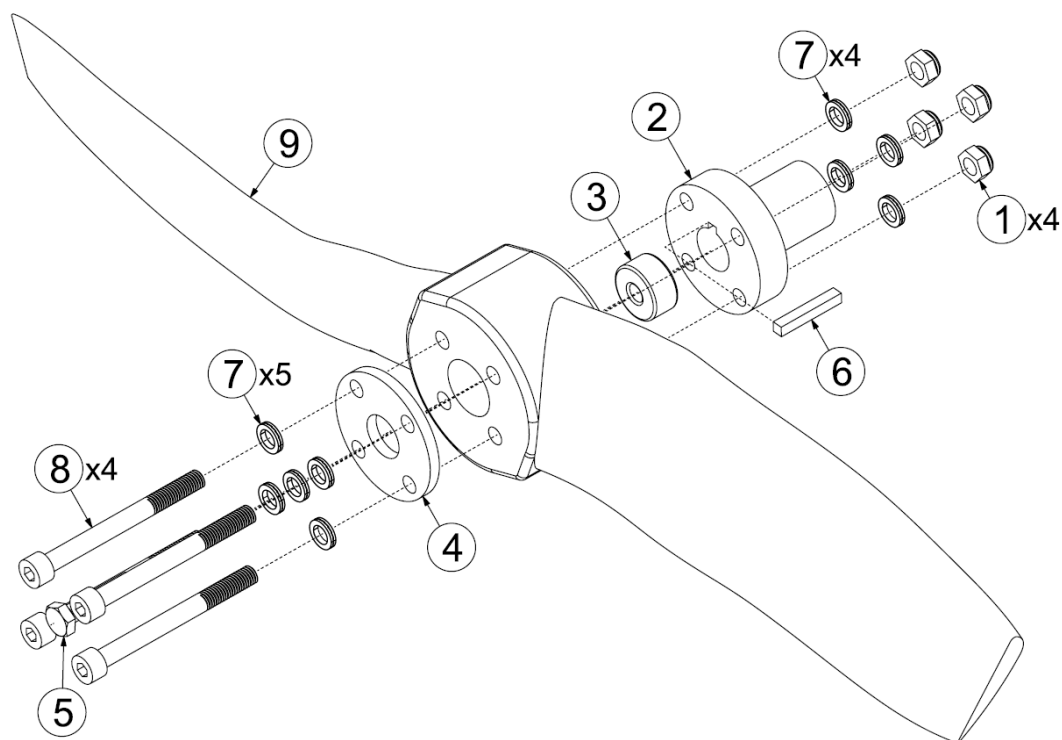
|    |                                                                                     |            |                                      |
|----|-------------------------------------------------------------------------------------|------------|--------------------------------------|
| 6  |    | VE-C-0125  | PROPELLER HUB – 3HP HONDA ENGINE     |
|    |                                                                                     | VE-C-0126  | PROPELLER HUB – 3HP SAKAWA ENGINE    |
| 7  |    | MA-FE-0290 | SOCKET HEAD CAP SCREW M8x80 (HONDA)  |
|    |                                                                                     | MA-FE-0291 | SOCKET HEAD CAP SCREW M8x85 (SAKAWA) |
| 8  |    | VE-C-0136  | PROPELLER SHAFT WASHER (HONDA)       |
|    |                                                                                     | CR-C-0160  | PLAIN WASHER M10 (SAKAWA)            |
| 9  |    | VE-C-0645  | HEX HEAD BOLT M6x30 (HONDA)          |
|    |                                                                                     | QU-C-0105  | SELF-LOCKING NUT M10 (SAKAWA)        |
| 10 |  | VE-C-0910  | NORD-LOCK WASHER M6                  |

**VE-A-0045 / 5.5HP INFLATION FAN**  
**VE-A-0046 / 5.5HP INFLATION FAN – CARBON FIBER BLADE**



|    |                                                                                     |            |                                    |                                                                                       |
|----|-------------------------------------------------------------------------------------|------------|------------------------------------|---------------------------------------------------------------------------------------|
| 4  |    | VE-C-0030  | WHEEL RETAINING RING               |                                                                                       |
| 5  |    | MA-FE-0502 | GRUB SCREW M6x6                    |                                                                                       |
| 6  |    | VE-C-0460  | SILENTBLOCK – 5.5 & 9HP FANS       |                                                                                       |
| 7  |    | VE-C-0220  | HEX HEAD BOLT M8x55                |                                                                                       |
| 8  |    | VE-C-0270  | HEX NUT M8                         |                                                                                       |
| 9  |    | VE-C-0260  | SELF-LOCKING NUT M8                |                                                                                       |
| 10 |  | MA-FE-0152 | GUARD HEX HEAD BOLT M6x40          |                                                                                       |
| 11 |  | VE-C-0250  | SELF-LOCKING NUT M6                |                                                                                       |
| 12 |  | CR-C-0260  | SOCKET HEAD CAP SCREW M6x25        |                                                                                       |
| 13 |  | VE-C-0910  | NORD-LOCK WASHER M6                |                                                                                       |
| 14 |  | VE-C-0911  | NORD-LOCK WASHER M8                |                                                                                       |
| 15 |  | VE-C-0530  | GUARD ANTIROTATION WASHER M6       |                                                                                       |
| 16 |  | VE-C-0480  | WHEEL PLASTIC CAP                  |                                                                                       |
| 17 |  | VE-C-0652  | WOODEN PROPELLER – 5.5HP FAN       |  |
|    |  | VE-C-0663  | CARBON FIBER PROPELLER – 5.5HP FAN |                                                                                       |

**VE-C-0652 / WOODEN PROPELLER – 5.5HP FAN**  
**VE-C-0663 / CARBON FIBER PROPELLER – 5.5HP FAN**

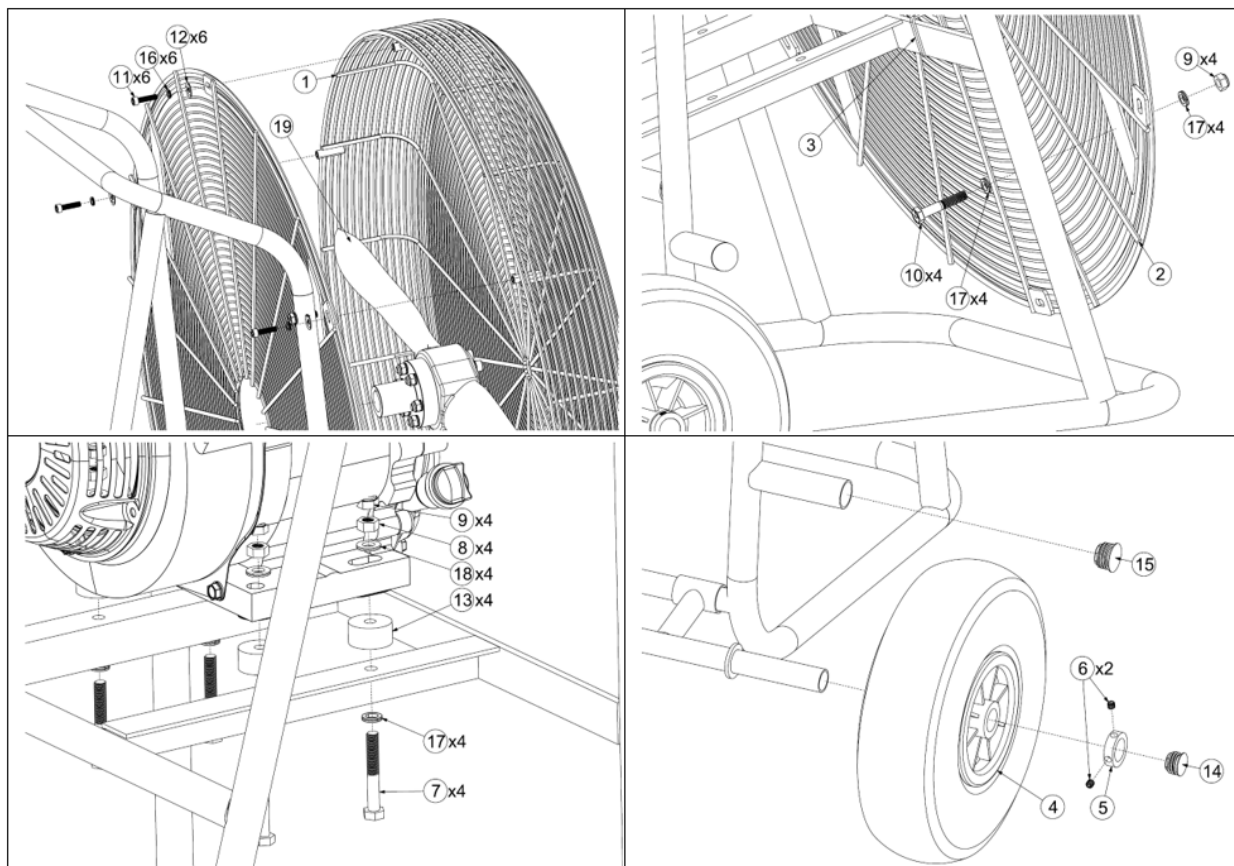


|   |                                                                                     | P/N       | DESCRIPTION                          |
|---|-------------------------------------------------------------------------------------|-----------|--------------------------------------|
| 1 |  | VE-C-0260 | SELF-LOCKING NUT M8                  |
| 2 |  | VE-C-0140 | PROPELLER HUB – 5.5HP FAN            |
| 3 |  | VE-C-0133 | SPACER WASHER                        |
| 4 |  | VE-C-0132 | HUB RETAINING PLATE – 3 & 5.5HP FANS |
| 5 |  | VE-C-0201 | HEX HEAD BOLT M8x35                  |

|   |                                                                                   |            |                                                      |
|---|-----------------------------------------------------------------------------------|------------|------------------------------------------------------|
| 6 |  | VE-C-0542  | HUB KEY – 3 & 5.5HP FANS                             |
| 7 |  | VE-C-0911  | NORD-LOCK WASHER M8                                  |
| 8 |  | MA-FE-0291 | SOCKET HEAD CAP SCREW M8x85 (WOODEN PROPELLER)       |
|   |                                                                                   | MA-FE-0270 | SOCKET HEAD CAP SCREW M8x55 (CARBON FIBER PROPELLER) |
| 9 |  | VE-C-0651  | WOODEN BLADE – 5.5HP FAN                             |
|   |  | VE-C-0685  | CARBON FIBER BLADE – 5.5HP FAN                       |

## 9HP inflation fan

### VE-A-0040 / 9HP INFLATION FAN VE-A-0041 / 9HP INFLATION FAN – CARBON FIBER BLADE

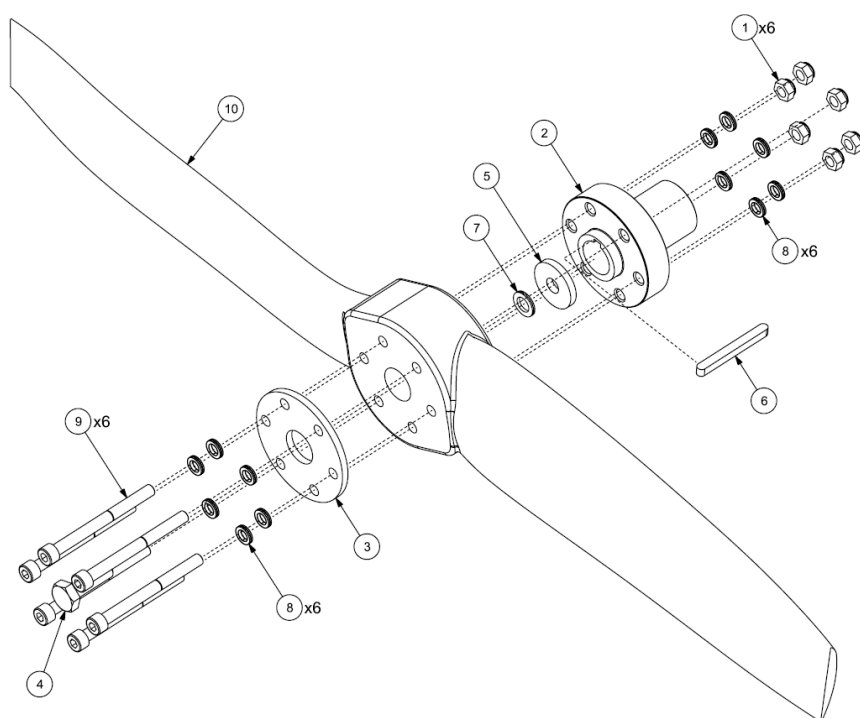


|   |                                                                                     | P/N       | DESCRIPTION       |  |
|---|-------------------------------------------------------------------------------------|-----------|-------------------|--|
| 1 |  | VE-C-0402 | FRONT GUARD 880mm |  |
| 2 |  | VE-C-0413 | BACK GUARD 880mm  |  |
| 3 |  | VE-C-0101 | CABLE TIE         |  |

|    |                                                                                     |            |                                           |  |
|----|-------------------------------------------------------------------------------------|------------|-------------------------------------------|--|
| 4  |    | VE-C-0441  | ANTI-PUNCTURE WHEEL 260mm                 |  |
| 5  |    | VE-C-0030  | WHEEL RETAINING RING                      |  |
| 6  |    | MA-FE-0502 | GRUB SCREW M6x6                           |  |
| 7  |    | VE-C-0221  | HEX HEAD PARTIALLY THREADED BOLT<br>M8x55 |  |
| 8  |    | VE-C-0270  | HEX NUT M8                                |  |
| 9  |    | VE-C-0260  | SELF-LOCKING NUT M8                       |  |
| 10 |  | VE-C-0253  | HEX HEAD PARTIALLY THREADED BOLT<br>M8x45 |  |
| 11 |  | CR-C-0260  | SOCKET HEAD CAP SCREW M6x25               |  |
| 12 |  | VE-C-0530  | GUARD ANTIROTATION WASHER M6              |  |
| 13 |  | VE-C-0460  | SILENTBLOCK – 5.5 & 9HP FANS              |  |
| 14 |  | VE-C-0480  | WHEEL PLASTIC CAP                         |  |
| 15 |  | VE-C-0482  | FAN STRUCTURE PLASTIC CAP 25mm            |  |
| 16 |  | VE-C-0910  | NORD-LOCK WASHER M6                       |  |
| 17 |  | VE-C-0911  | NORD-LOCK WASHER M8                       |  |

|    |                                                                                   |           |                                  |                                                                                     |
|----|-----------------------------------------------------------------------------------|-----------|----------------------------------|-------------------------------------------------------------------------------------|
| 18 |  | VE-C-0914 | NORD-LOCK WIDE WASHER M8         |                                                                                     |
| 19 |  | VE-C-0654 | WOODEN PROPELLER – 9HP FAN       |  |
|    |  | VE-C-0659 | CARBON FIBER PROPELLER – 9HP FAN |  |

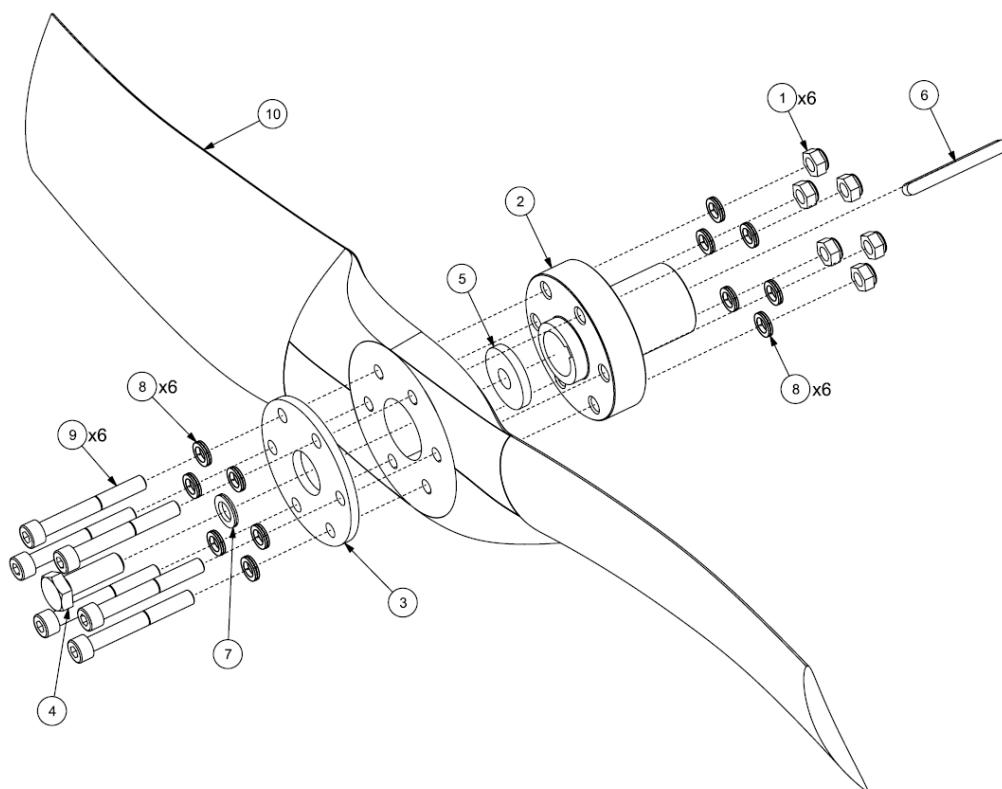
### VE-C-0654 / WOODEN PROPELLER – 9HP FAN



|   |                                                                                     | P/N       | DESCRIPTION                   |
|---|-------------------------------------------------------------------------------------|-----------|-------------------------------|
| 1 |  | VE-C-0260 | SELF-LOCKING NUT M8           |
| 2 |  | VE-C-0130 | PROPELLER HUB – 9 & 13HP FANS |

|           |                                                                                     |            |                                     |
|-----------|-------------------------------------------------------------------------------------|------------|-------------------------------------|
| <b>3</b>  |    | VE-C-0675  | HUB RETAINING PLATE – 9 & 13HP FANS |
| <b>4</b>  |    | VE-C-0190  | HEX HEAD BOLT 7/16"x35              |
| <b>5</b>  |    | VE-C-0134  | RETENTION WASHER – 9 & 13HP FANS    |
| <b>6</b>  |    | VE-C-0545  | HUB KEY – 9 & 13HP FANS             |
| <b>7</b>  |    | VE-C-0913  | NORD-LOCK WASHER M11                |
| <b>8</b>  |   | VE-C-0911  | NORD-LOCK WASHER M8                 |
| <b>9</b>  |  | MA-FE-0300 | SOCKET HEAD CAP SCREW M8x90         |
| <b>10</b> |  | VE-C-0653  | WOODEN BLADE – 9HP FAN              |

## VE-C-0659 / CARBON FIBER PROPELLER – 9HP FAN

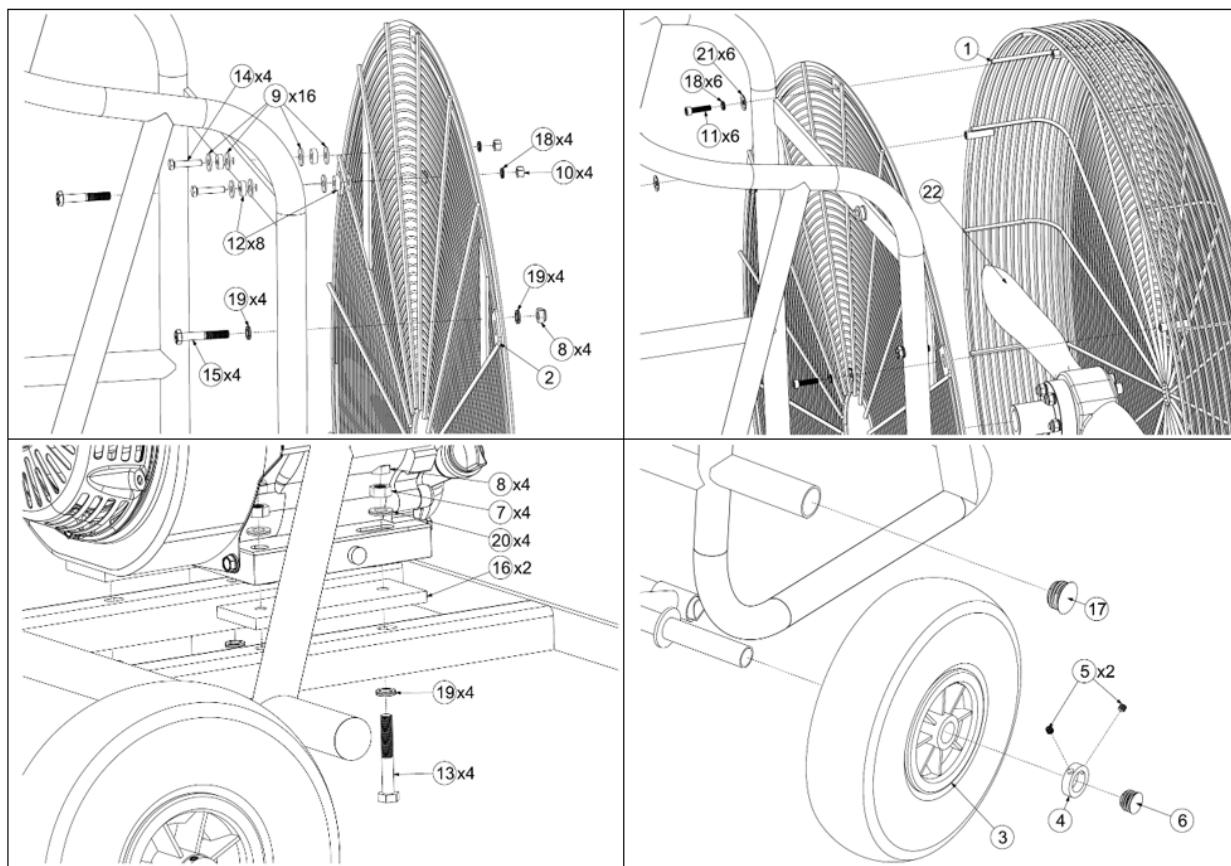


|   |                                                                                     | P/N       | DESCRIPTION                         |
|---|-------------------------------------------------------------------------------------|-----------|-------------------------------------|
| 1 |  | VE-C-0260 | SELF-LOCKING NUT M8                 |
| 2 |  | VE-C-0130 | PROPELLER HUB – 9 & 13HP FANS       |
| 3 |  | VE-C-0675 | HUB RETAINING PLATE – 9 & 13HP FANS |
| 4 |  | VE-C-0190 | HEX HEAD BOLT 7/16"x35              |
| 5 |  | VE-C-0134 | RETENTION WASHER – 9 & 13HP FANS    |

|    |                                                                                   |            |                              |
|----|-----------------------------------------------------------------------------------|------------|------------------------------|
| 6  |  | VE-C-0545  | HUB KEY – 9 & 13HP FANS      |
| 7  |  | VE-C-0913  | NORD-LOCK WASHER M11         |
| 8  |  | VE-C-0911  | NORD-LOCK WASHER M8          |
| 9  |  | MA-FE-0276 | SOCKET HEAD CAP SCREW M8x65  |
| 10 |  | VE-C-0690  | CARBON FIBER BLADE – 9HP FAN |

## 13HP inflation fan

### VE-A-0010 / 13HP INFLATION FAN VE-A-0011 / 13HP INFLATION FAN – CARBON FIBER BLADE

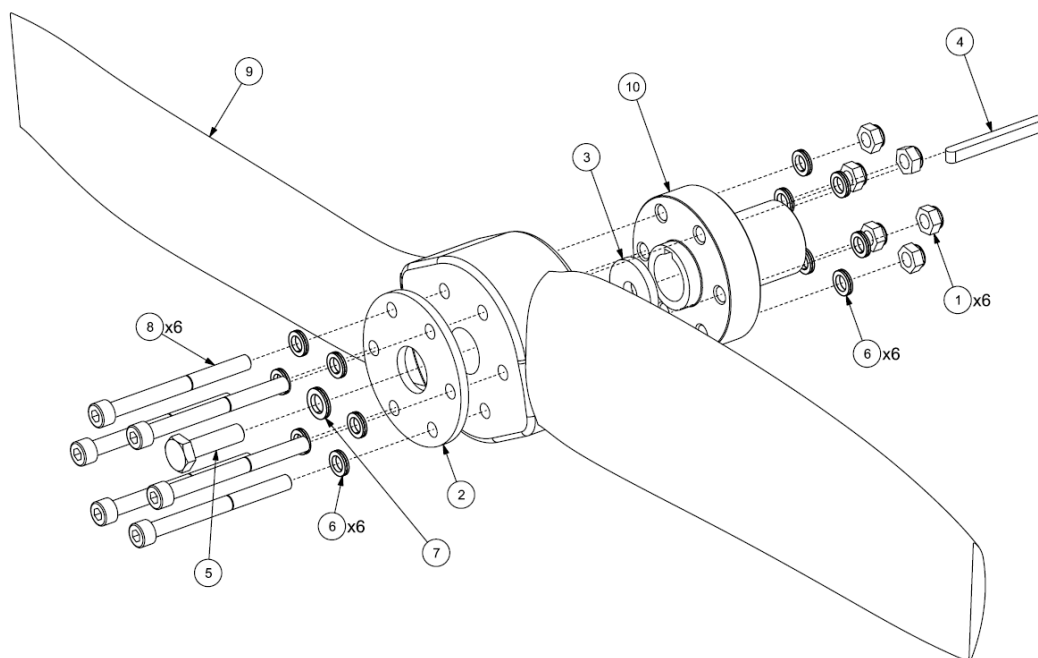


|   |                                                                                     | P/N       | DESCRIPTION               |  |
|---|-------------------------------------------------------------------------------------|-----------|---------------------------|--|
| 1 |  | VE-C-0403 | FRONT GUARD 920mm         |  |
| 2 |  | VE-C-0414 | BACK GUARD 920mm          |  |
| 3 |  | VE-C-0441 | ANTI-PUNCTURE WHEEL 260mm |  |
| 4 |  | VE-C-0030 | WHEEL RETAINING RING      |  |

|    |                                                                                     |            |                                           |  |
|----|-------------------------------------------------------------------------------------|------------|-------------------------------------------|--|
| 5  |    | MA-FE-0502 | GRUB SCREW M6x6                           |  |
| 6  |    | VE-C-0480  | WHEEL PLASTIC CAP                         |  |
| 7  |    | VE-C-0270  | HEX NUT M8                                |  |
| 8  |    | VE-C-0260  | SELF-LOCKING NUT M8                       |  |
| 9  |    | CR-03-0010 | PLAIN WASHER M6x18                        |  |
| 10 |    | VE-C-0250  | SELF-LOCKING NUT M6                       |  |
| 11 |  | CR-C-0260  | SOCKET HEAD CAP SCREW M6x25               |  |
| 12 |  | 3D-11-1202 | FLAT SEAL                                 |  |
| 13 |  | VE-C-0221  | HEX HEAD PARTIALLY THREADED BOLT<br>M8x55 |  |
| 14 |  | VE-C-0645  | HEX HEAD BOLT M6x30                       |  |
| 15 |  | VE-C-0254  | HEX HEAD PARTIALLY THREADED BOLT<br>M8x50 |  |
| 16 |  | CR-C-0415  | RUBBER 8mm                                |  |
| 17 |  | VE-C-0485  | FAN STRUCTURE PLASTIC CAP 30mm            |  |
| 18 |  | VE-C-0910  | NORD-LOCK WASHER M6                       |  |

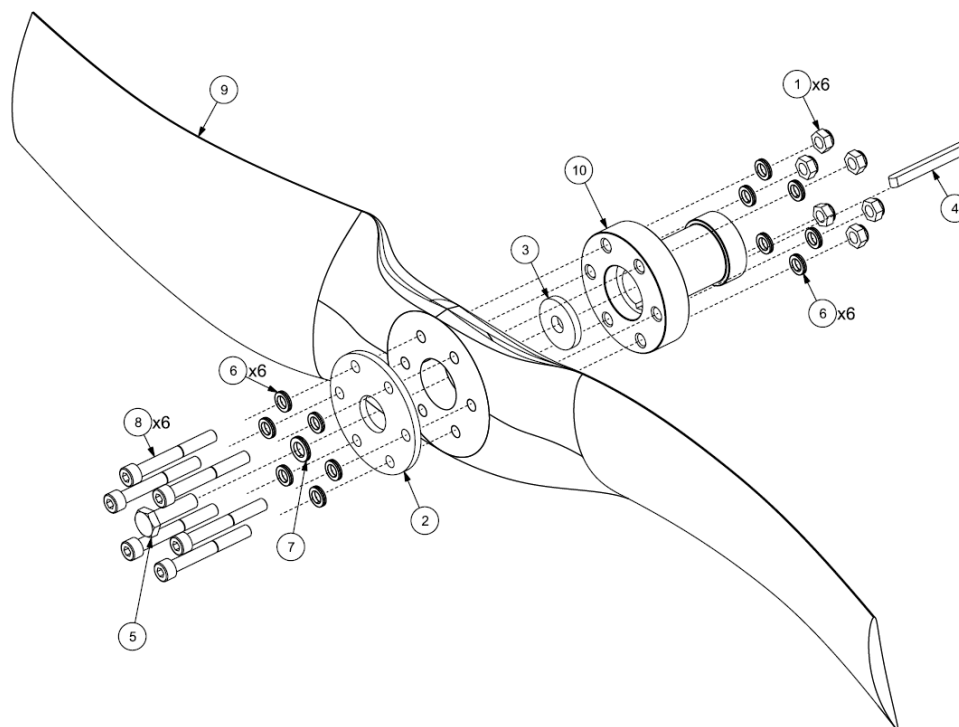
|    |                                                                                   |           |                                   |                                                                                     |
|----|-----------------------------------------------------------------------------------|-----------|-----------------------------------|-------------------------------------------------------------------------------------|
| 19 |  | VE-C-0911 | NORD-LOCK WASHER M8               |                                                                                     |
| 20 |  | VE-C-0914 | NORD-LOCK WIDE WASHER M8          |                                                                                     |
| 21 |  | VE-C-0530 | GUARD ANTIROTATION WASHER M6      |                                                                                     |
| 22 |  | VE-C-0660 | WOODEN PROPELLER – 13HP FAN       |  |
|    |  | VE-C-0662 | CARBON FIBER PROPELLER – 13HP FAN |  |

## VE-C-0660 / WOODEN PROPELLER – 13HP FAN



|    |                                                                                           | P/N        | DESCRIPTION                         |
|----|-------------------------------------------------------------------------------------------|------------|-------------------------------------|
| 1  |          | VE-C-0260  | SELF-LOCKING NUT M8                 |
| 2  |          | VE-C-0675  | HUB RETAINING PLATE – 9 & 13HP FANS |
| 3  |          | VE-C-0134  | RETENTION WASHER – 9 & 13HP FANS    |
| 4  |          | VE-C-0545  | HUB KEY – 9 & 13HP FANS             |
| 5  |  | VE-C-0212  | HEX HEAD BOLT 3/8"x35               |
| 6  |        | VE-C-0911  | NORD-LOCK WASHER M8                 |
| 7  |        | VE-C-0912  | NORD-LOCK WASHER 3/8"               |
| 8  |        | MA-FE-0300 | SOCKET HEAD CAP SCREW M8x90         |
| 9  |        | VE-C-0655  | WOODEN BLADE – 13HP FAN             |
| 10 |        | VE-C-0130  | PROPELLER HUB – 9 & 13HP FANS       |

## VE-C-0662 / CARBON FIBER PROPELLER – 13HP FAN



|   |                                                                                     | P/N       | DESCRIPTION                         |
|---|-------------------------------------------------------------------------------------|-----------|-------------------------------------|
| 1 |  | VE-C-0260 | SELF-LOCKING NUT M8                 |
| 2 |  | VE-C-0675 | HUB RETAINING PLATE – 9 & 13HP FANS |
| 3 |  | VE-C-0134 | RETENTION WASHER – 9 & 13HP FANS    |
| 4 |  | VE-C-0545 | HUB KEY – 9 & 13HP FANS             |
| 5 |  | VE-C-0212 | HEX HEAD BOLT 3/8"x35               |
| 6 |  | VE-C-0911 | NORD-LOCK WASHER M8                 |

|           |                                                                                   |            |                                       |
|-----------|-----------------------------------------------------------------------------------|------------|---------------------------------------|
| <b>7</b>  |  | VE-C-0912  | NORD-LOCK WASHER 3/8"                 |
| <b>8</b>  |  | MA-FE-0276 | SOCKET HEAD CAP SCREW M8x65           |
| <b>9</b>  |  | VE-C-0695  | CARBON FIBER BLADE – 13HP FAN         |
| <b>10</b> |  | VE-C-0137  | CARBON FIBER PROPELLER HUB – 13HP FAN |

# Kits and accessories

## Maintenance & tool kits

| P/N        | DESCRIPTION                     |
|------------|---------------------------------|
| AR-BO-0798 | POWERPLUS BASIC MAINTENANCE KIT |
| AR-BO-0799 | MK-21 BASIC MAINTENANCE KIT     |
| AR-BO-0800 | MK-21 COMPLETE MAINTENANCE KIT  |
| AR-BO-0805 | MK-21 & MK-32 TOOL KIT          |
| AR-BO-0807 | MK-21 COMPLETE SEAL KIT         |
| AR-BO-0810 | MK-32 BASIC MAINTENANCE KIT     |
| AR-BO-0811 | MK-32 TOOL KIT                  |
| AR-BO-0813 | MK-32 BASIC SEAL KIT            |
| AR-BO-0814 | MK-32 COMPLETE MAINTENANCE KIT  |
| AR-BO-0834 | MK-32 VAPOR MAINTENANCE KIT     |

## Lubricants & sealants

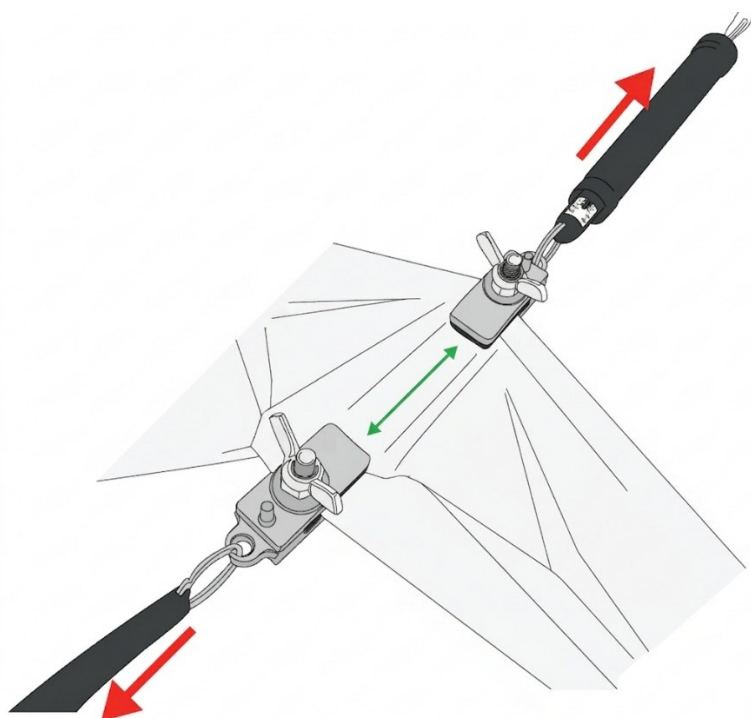
|                                                                                     | P/N       | DESCRIPTION                         |
|-------------------------------------------------------------------------------------|-----------|-------------------------------------|
|    | CR-C-2009 | MOLYKOTE COMPOUND GREASE            |
|    | CR-C-2015 | KRYTOX GREASE 15mL                  |
|    | CR-C-2002 | LOCTITE 222 SCREWLOCK               |
|   | CR-C-2005 | LOCTITE 542 THREAD SEALER           |
|  | CR-C-2010 | LOCTITE 638 SEMIPERMANENT SCREWLOCK |
|  | CR-C-2012 | LOCTITE 565 SEALANT WITH PTFE 50mL  |

## Test equipment

### BO-NE-0517 / CYLINDER PROOF PRESSURE TEST HEAD



### EM-PT-0015 / 1-INCH FABRIC GRAB TEST MACHINE





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