



# WW186



## TECHNICAL INFORMATION

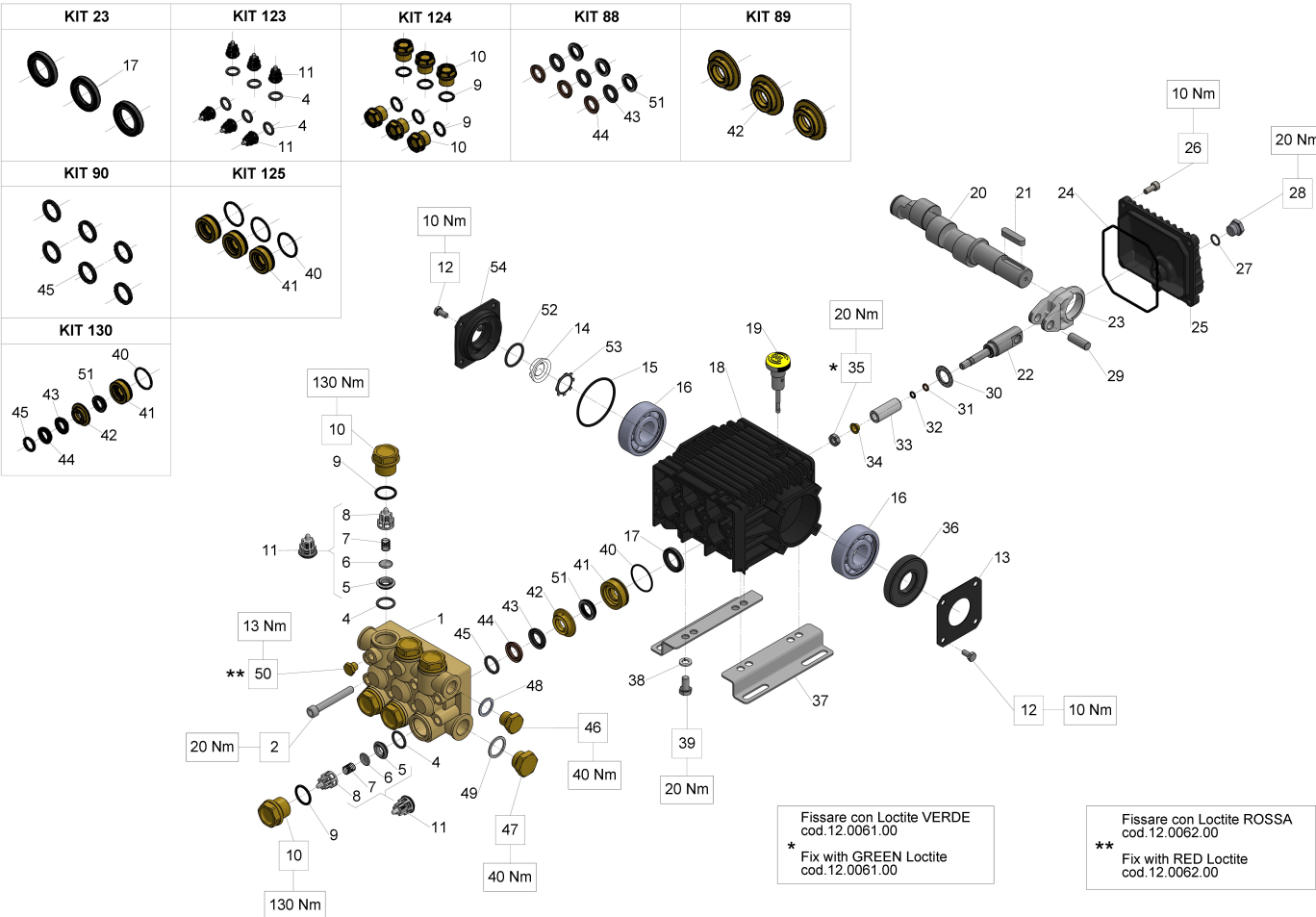
|                                   |               |
|-----------------------------------|---------------|
| Flow (L/min)                      | 13            |
| Flow (US Gpm)                     | 3,43          |
| Rotation regime (rpm)             | 2800          |
| Pressure (MPa)                    | 18            |
| Pressure (bar)                    | 180           |
| Pressure (psi)                    | 2610          |
| Power (hp)                        | 5,5           |
| Power (kW)                        | 4,04          |
| Overall dimensions L x l x h (mm) | 225x223x142,5 |
| Weight (kg)                       | 7,9           |



Documents

|                                    |
|------------------------------------|
| Male shaft (key)                   |
| Hollow shaft (key) Ø28 - vers. B   |
| Pump head with VH integrated valve |
| Pump head with VK integrated valve |

Illustration Male shaft (key)

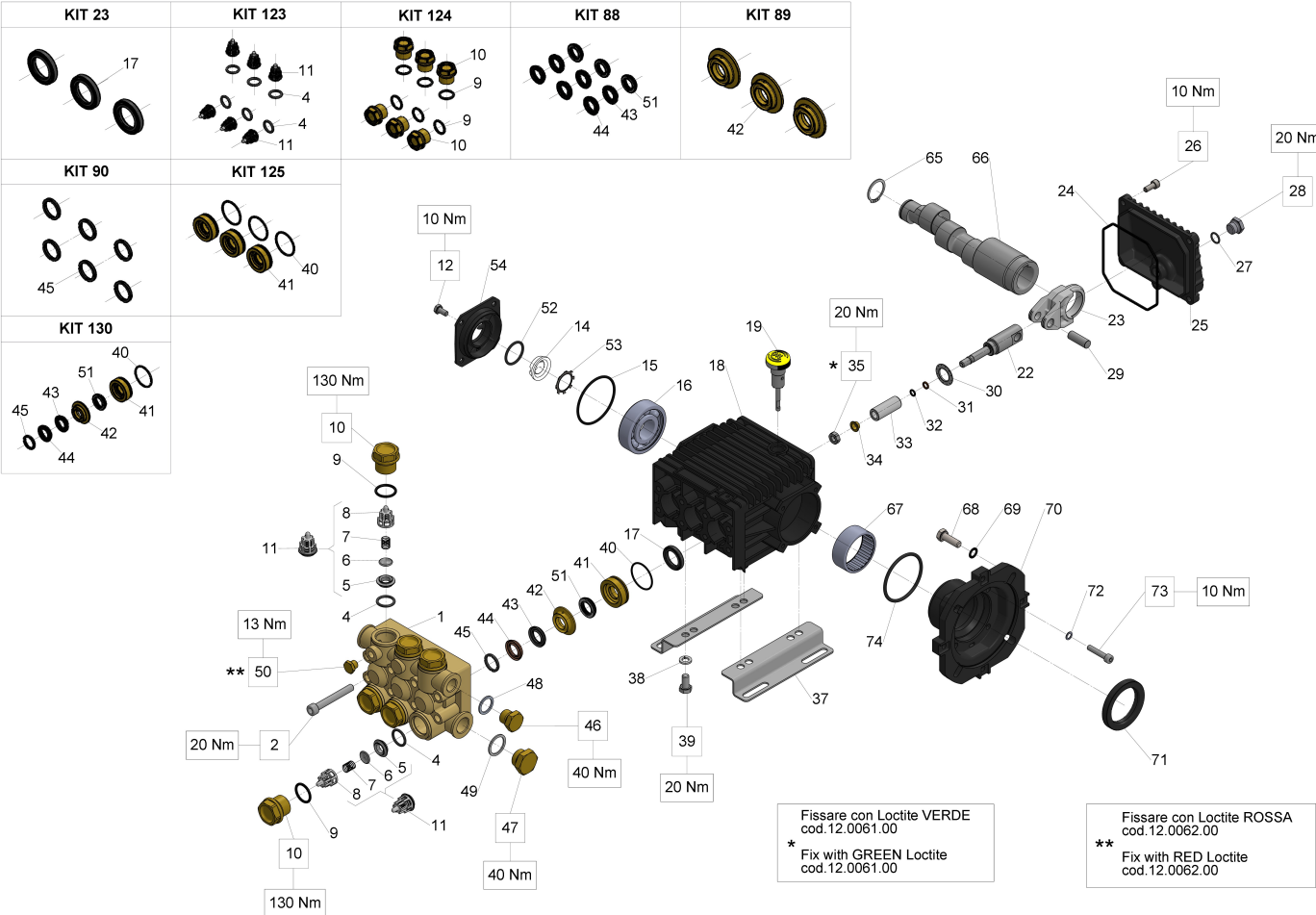


## Illustration Male shaft (key)

| Pos.   | Code     | Description                    | Qty | Notes |
|--------|----------|--------------------------------|-----|-------|
| KIT130 | 34013001 | KIT 130 CPL.SEAL PIST. D.15    | 1   |       |
| KIT125 | 34012501 | KIT 125 PACKING RETAINER D.15  | 1   |       |
| KIT124 | 34012401 | KIT 124 VALVE CAPS             | 1   |       |
| KIT123 | 34012301 | KIT 123 INTAKE/DELIVERY VALVE  | 1   |       |
| KIT90  | 34009001 | KIT 90 HEAD RING D. 15         | 1   |       |
| KIT89  | 34008901 | KIT 89 INTERMEDIATE RING D. 15 | 1   |       |
| KIT88  | 34008801 | KIT 88 PACKING D. 15           | 1   |       |
| KIT23  | 34002301 | KIT 23 OIL SEAL D.20X30X5      | 1   |       |
| 54     | 53150022 | SIDE CRANKCASE COVER           | 1   |       |
| 53     | 90067100 | CIRCLIP ZJ30                   | 1   |       |
| 52     | 90385900 | O-RING 25,07X2,62 (3100)       | 1   |       |
| 51     | 90261700 | LOW PRESS. PACKING 15X25X6     | 3   |       |
| 50     | 98196600 | PLUG G1/8X8                    | 1   |       |
| 49     | 96751400 | WASHER 21,5X27X1,5             | 1   |       |
| 48     | 96738000 | WASHER 17,5X23X1,5             | 1   |       |
| 47     | 98217600 | PLUG G1/2X10                   | 1   |       |
| 46     | 98210000 | PLUG G3/8X13                   | 1   |       |
| 45     | 51100051 | HEAD RING D. 15                | 3   |       |
| 44     | 90262000 | PACKING D. 15X25X5/3,1         | 3   |       |
| 43     | 90262200 | RESTOP RING 15X25X5X3,1        | 3   |       |
| 42     | 52216670 | INTERMEDIATE RING D. 15        | 3   |       |
| 41     | 44080070 | PACKING RETAINER D. 15         | 3   |       |
| 40     | 90361200 | O-RING 31,47X1,78 (2125)       | 3   |       |
| 39     | 99303700 | SCREW M 8x16-5739              | 4   |       |
| 38     | 96701600 | WASHER 8,4                     | 4   |       |
| 37     | 50200074 | PUMP FOOT                      | 2   |       |
| 36     | 90164100 | OIL SEAL D.25X62X10            | 1   |       |
| 35     | 92221600 | NUT M8X13X5                    | 3   |       |
| 34     | 44211570 | WASHER D. 8                    | 3   |       |
| 33     | 52040009 | PISTON D. 15X37.5              | 3   |       |
| 32     | 90357200 | O-RING 5,28X1,78 SPEC. (2021)  | 3   |       |
| 31     | 90502200 | ANTI-EXTRUSION RING            | 3   |       |
| 30     | 96735000 | WASHER D.16X28X1               | 3   |       |
| 29     | 97734000 | CONNECTING-ROD PIN D.10X29,5   | 3   |       |
| 28     | 98204250 | PLUG G1/4"x12                  | 1   |       |
| 27     | 90358500 | O-RING 10,82X1,78 (2043)       | 1   |       |

## Illustration Male shaft (key)

| Pos. | Code     | Description               | Qty | Notes |
|------|----------|---------------------------|-----|-------|
| 26   | 99183700 | SCREW M 6x14 UNI 5931     | 5   |       |
| 25   | 44160022 | REAR CRANKCASE COVER      | 1   |       |
| 24   | 90392000 | O-RING 101,27X2,62 (3400) | 1   |       |
| 23   | 44030022 | CONNECTING ROD            | 3   |       |
| 22   | 44050066 | PISTON GUIDE              | 3   |       |
| 21   | 91489200 | KEY 8(h9)X7X35 UNI 6604/A | 1   |       |
| 20   | 44020035 | CRANKSHAFT C.9.5 (D.24)   | 1   |       |
| 19   | 98210300 | OIL DIP-STICK G3/8X51     | 1   |       |
| 18   | 44010022 | CRANKCASE                 | 1   |       |
| 17   | 90161400 | OIL SEAL 20x30x5          | 3   |       |
| 16   | 91833100 | BALL BEARING 6305 SKF     | 2   |       |
| 15   | 90389800 | O-RING 56,82X2,62 (3225)  | 1   |       |
| 14   | 53210851 | OIL LEVEL GAUGE           | 1   |       |
| 13   | 50150074 | CRANKCASE COVER           | 1   |       |
| 12   | 99180700 | SCREW M 6x12 UNI 5739     | 8   |       |
| 11   | 36711501 | INTAKE/DELIVERY VALVE     | 6   |       |
| 10   | 98222600 | VALVE CAP M24X1,5X17      | 6   |       |
| 9    | 90384700 | O-RING 20,29X2,62(3081)   | 6   |       |
| 8    | 36202551 | VALVE CAGE                | 6   |       |
| 7    | 94737600 | SPRING D. 9,4X14,8        | 6   |       |
| 6    | 36200176 | VALVE PLATE               | 6   |       |
| 5    | 36200366 | VALVE SEAT                | 6   |       |
| 4    | 90384100 | O-RING 17,12X2,62 (3068)  | 6   |       |
| 2    | 99317500 | SCREW M 8x60 UNI 5931     | 8   |       |
| 1    | 44120041 | MANIFOLD D. 15            | 1   |       |

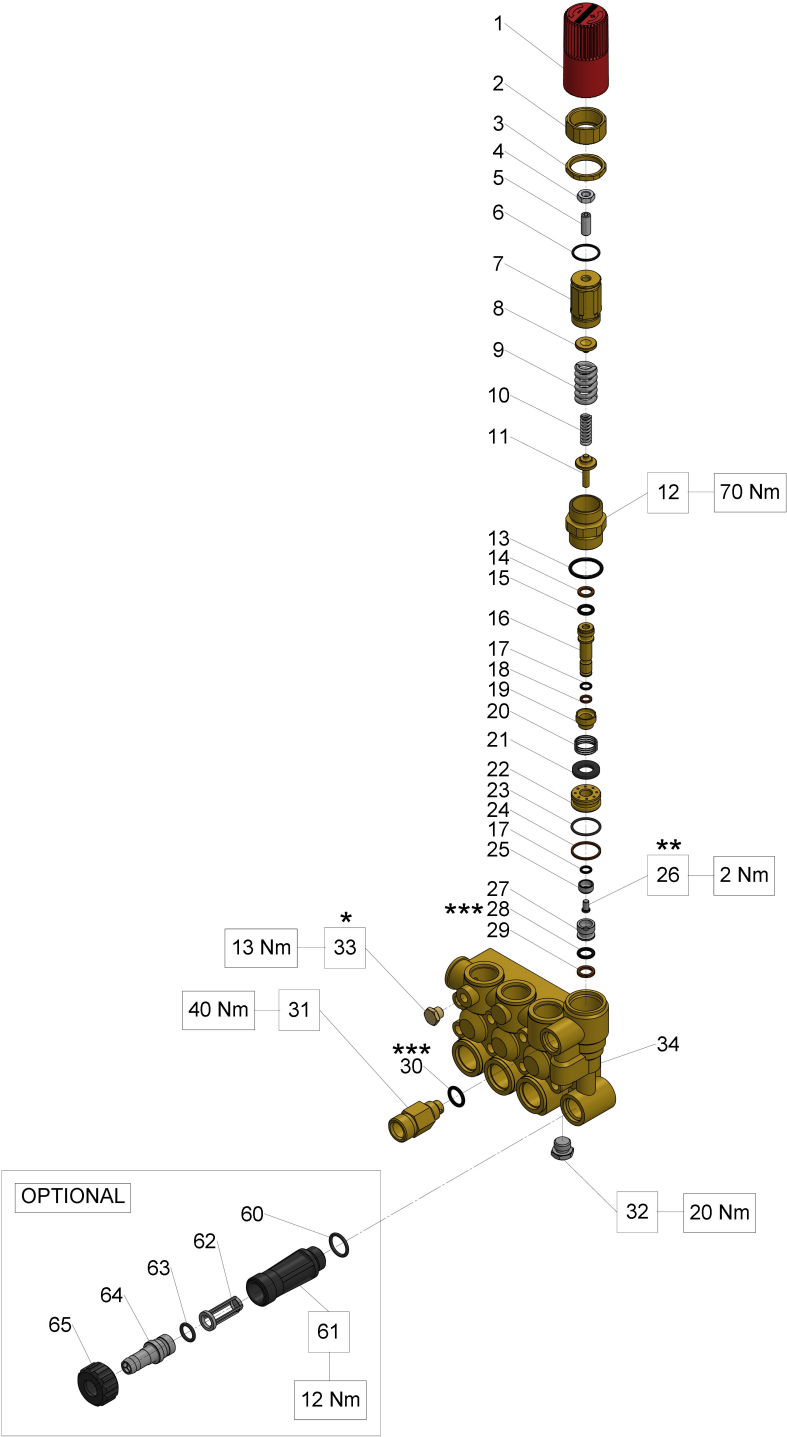


## Illustration Hollow shaft (key) Ø28 - vers. B

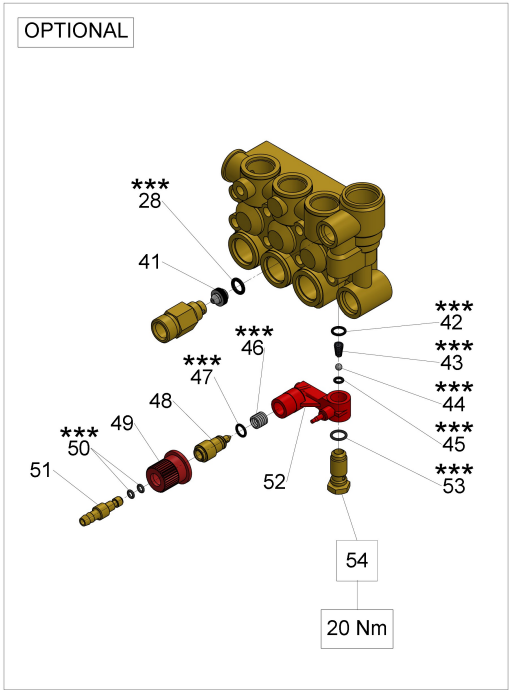
| Pos.   | Code     | Description                    | Qty | Notes |
|--------|----------|--------------------------------|-----|-------|
| KIT90  | 34009001 | KIT 90 HEAD RING D. 15         | 1   |       |
| KIT89  | 34008901 | KIT 89 INTERMEDIATE RING D. 15 | 1   |       |
| KIT88  | 34008801 | KIT 88 PACKING D. 15           | 1   |       |
| KIT23  | 34002301 | KIT 23 OIL SEAL D.20X30X5      | 1   |       |
| KIT130 | 34013001 | KIT 130 CPL.SEAL PIST. D.15    | 1   |       |
| KIT125 | 34012501 | KIT 125 PACKING RETAINER D.15  | 1   |       |
| KIT124 | 34012401 | KIT 124 VALVE CAPS             | 1   |       |
| KIT123 | 34012301 | KIT 123 INTAKE/DELIVERY VALVE  | 1   |       |
| 74     | 90409700 | O-RING 55,56X3,53 (159)        | 1   |       |
| 73     | 99191200 | SCREW M 6x30 UNI 5931          | 4   |       |
| 72     | 96693800 | WASHER 6,4X10X0,7              | 4   |       |
| 71     | 90169000 | OIL SEAL D. 45X62X8            | 1   |       |
| 70     | 10049422 | FLANGE FOR EL.MOT.B3B14 (EUR)  | 1   |       |
| 69     | 96701400 | WASHER 8,4X13X0,8              | 4   |       |
| 68     | 99306700 | SCREW M 8x25 UNI 5739          | 4   |       |
| 67     | 91856800 | NEEDLE BEARING DHK 4520        | 1   |       |
| 66     | 44021065 | CRANKSHAFT C.9.5(D.28 MM.HOLL) | 1   |       |
| 65     | 90063500 | CIRCLIP D. 25 UNI 7435         | 1   |       |
| 54     | 53150022 | SIDE CRANKCASE COVER           | 1   |       |
| 53     | 90067100 | CIRCLIP ZJ30                   | 1   |       |
| 52     | 90385900 | O-RING 25,07X2,62 (3100)       | 1   |       |
| 51     | 90261700 | LOW PRESS. PACKING 15X25X6     | 3   |       |
| 50     | 98196600 | PLUG G1/8X8                    | 1   |       |
| 49     | 96751400 | WASHER 21,5X27X1,5             | 1   |       |
| 48     | 96738000 | WASHER 17,5X23X1,5             | 1   |       |
| 47     | 98217600 | PLUG G1/2X10                   | 1   |       |
| 46     | 98210000 | PLUG G3/8X13                   | 1   |       |
| 45     | 51100051 | HEAD RING D. 15                | 3   |       |
| 44     | 90262000 | PACKING D. 15X25X5/3,1         | 3   |       |
| 43     | 90262200 | RESTOP RING 15X25X5X3,1        | 3   |       |
| 42     | 52216670 | INTERMEDIATE RING D. 15        | 3   |       |
| 41     | 44080070 | PACKING RETAINER D. 15         | 3   |       |
| 40     | 90361200 | O-RING 31,47X1,78 (2125)       | 3   |       |
| 39     | 99303700 | SCREW M 8x16-5739              | 4   |       |
| 38     | 96701600 | WASHER 8,4                     | 4   |       |
| 37     | 50200074 | PUMP FOOT                      | 2   |       |

## Illustration Hollow shaft (key) Ø28 - vers. B

| Pos. | Code     | Description                     | Qty | Notes |
|------|----------|---------------------------------|-----|-------|
| 35   | 92221600 | NUT M8X13X5                     | 3   |       |
| 34   | 44211570 | WASHER D. 8                     | 3   |       |
| 33   | 52040009 | PISTON D. 15X37.5               | 3   |       |
| 32   | 90357200 | O-RING 5,28X1,78 SPEC. (2021)   | 3   |       |
| 31   | 90502200 | ANTI-EXTRUSION RING             | 3   |       |
| 30   | 96735000 | WASHER D.16X28X1                | 3   |       |
| 29   | 97734000 | CONNECTING-ROD PIN<br>D.10X29,5 | 3   |       |
| 28   | 98204250 | PLUG G1/4"x12                   | 1   |       |
| 27   | 90358500 | O-RING 10,82X1,78 (2043)        | 1   |       |
| 26   | 99183700 | SCREW M 6x14 UNI 5931           | 5   |       |
| 25   | 44160022 | REAR CRANKCASE COVER            | 1   |       |
| 24   | 90392000 | O-RING 101,27X2,62 (3400)       | 1   |       |
| 23   | 44030022 | CONNECTING ROD                  | 3   |       |
| 22   | 44050066 | PISTON GUIDE                    | 3   |       |
| 19   | 98210300 | OIL DIP-STICK G3/8X51           | 1   |       |
| 18   | 44010022 | CRANKCASE                       | 1   |       |
| 17   | 90161400 | OIL SEAL 20x30x5                | 3   |       |
| 16   | 91833100 | BALL BEARING 6305 SKF           | 1   |       |
| 15   | 90389800 | O-RING 56,82X2,62 (3225)        | 1   |       |
| 14   | 53210851 | OIL LEVEL GAUGE                 | 1   |       |
| 12   | 99180700 | SCREW M 6x12 UNI 5739           | 4   |       |
| 11   | 36711501 | INTAKE/DELIVERY VALVE           | 6   |       |
| 10   | 98222600 | VALVE CAP M24X1,5X17            | 6   |       |
| 9    | 90384700 | O-RING 20,29X2,62(3081)         | 6   |       |
| 8    | 36202551 | VALVE CAGE                      | 6   |       |
| 7    | 94737600 | SPRING D. 9,4X14,8              | 6   |       |
| 6    | 36200176 | VALVE PLATE                     | 6   |       |
| 5    | 36200366 | VALVE SEAT                      | 6   |       |
| 4    | 90384100 | O-RING 17,12X2,62 (3068)        | 6   |       |
| 2    | 99317500 | SCREW M 8x60 UNI 5931           | 8   |       |
| 1    | 44120041 | MANIFOLD D. 15                  | 1   |       |



| KIT 94 *** |    |    |    |    | KIT 137 |    |    |    |        |
|------------|----|----|----|----|---------|----|----|----|--------|
| 28         | 30 | 42 | 43 | 44 | 14      | 15 | 16 | 17 | 18     |
| 45         | 46 | 47 | 50 | 53 | 19      | 20 | 21 | 22 | 23     |
|            |    |    |    |    | 24      | 25 | 26 | 27 | *** 28 |
|            |    |    |    |    | 29      |    |    |    |        |



Fissare con Loctite 542 col.ROSSO  
\* Fix with Loctite 542 col.RED

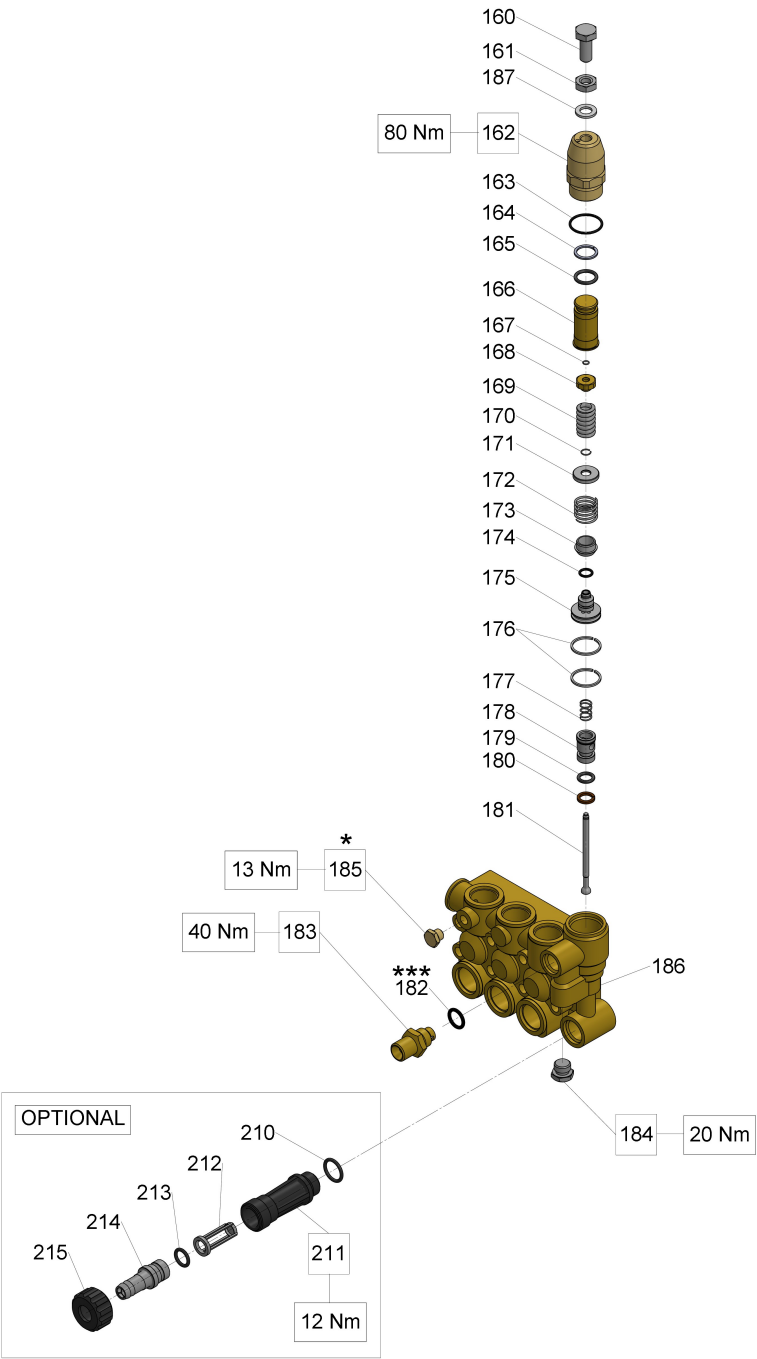
Fissare con Loctite 270 col.VERDE  
\*\* Fix with Loctite 270 col.GREEN

## Illustration Pump head with VH integrated valve

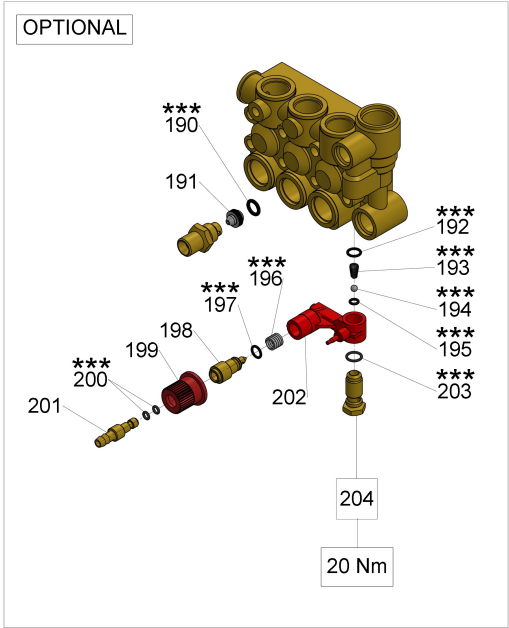
| Pos.   | Code     | Description                       | Qty | Notes |
|--------|----------|-----------------------------------|-----|-------|
| KIT94  | 34009401 | KIT 94 CHIMJET<br>KR/CONTROLSET   | 1   |       |
| KIT137 | 34013701 | KIT 137 PRESSURE REG. VALVE       | 1   |       |
| 65     | 92982800 | WING NUT G3/4                     | 1   |       |
| 64     | 36256951 | INLET HOSE BARB FITTING (PL.)     | 1   |       |
| 63     | 90382800 | O-RING 12,37X2,62 (3050)          | 1   |       |
| 62     | 92892500 | FILTER D. 12X35                   | 1   |       |
| 61     | 36318251 | INLET NIPPLE G 3/4                | 1   |       |
| 60     | 90384100 | O-RING 17,12X2,62 (3068)          | 1   |       |
| 54     | 36256370 | CHEM. INJECTOR VALVE SEAT         | 1   |       |
| 53     | 90358500 | O-RING 10,82X1,78 (2043)          | 1   |       |
| 52     | 36318151 | INJECTOR BODY                     | 1   |       |
| 51     | 36256670 | CHEM. HOSE BARB FITTING           | 1   |       |
| 50     | 90357000 | O-RING 4,48X1,78 (2018)           | 2   |       |
| 49     | 36256551 | CHEM. REGULATION KNOB             | 1   |       |
| 48     | 36256470 | INJECTOR SHUTTER                  | 1   |       |
| 47     | 90358000 | O-RING 8,73X1,78 SPEC. (108)      | 1   |       |
| 46     | 94738300 | SPRING D.9,75X10                  | 1   |       |
| 45     | 90357200 | O-RING 5,28X1,78 SPEC. (2021)     | 1   |       |
| 44     | 97478200 | BALL 7/32(5,556) STAINLESS        | 1   |       |
| 43     | 94821700 | TAPER SPRING D.4,3X7,3X11         | 1   |       |
| 42     | 90358200 | O-RING 9,25X1,78 (2037)           | 1   |       |
| 41     | 10015166 | NOZZLE D. 2.0                     | 1   |       |
| 41     | 10007666 | NOZZLE DIAM. 2,2                  | 1   |       |
| 34     | 44120141 | MANIFOLD W/VALVE (PIST.D.15)      | 1   |       |
| 33     | 98196600 | PLUG G1/8X8                       | 1   |       |
| 32     | 98205700 | PLUG M14X1,5X9                    | 1   |       |
| 31     | 10007870 | NIPPLE D. 3 G3/8                  | 1   |       |
| 31     | 10014770 | NIPPLE G3/8 / M22X1,5 BORE<br>D.3 | 1   |       |
| 30     | 90383200 | O-RING 13,95X2,62 SPEC. (3056)    | 1   |       |
| 29     | 90506500 | ANTI-EXTRUSION RING (OR 112)      | 1   |       |
| 28     | 90382200 | O-RING 9,92X2,62 SPEC. (112)      | 2   |       |
| 27     | 36316466 | CONTROLSET W1 VALVE SEAT          | 1   |       |
| 26     | 99150900 | SCREW M5X7.5 STAINLESS            | 1   |       |

## Illustration Pump head with VH integrated valve

| Pos. | Code     | Description                   | Qty | Notes |
|------|----------|-------------------------------|-----|-------|
| 25   | 36319066 | SPHERICAL VALVE               | 1   |       |
| 24   | 90514400 | ANTI-EXTRUSION RING           | 1   |       |
| 23   | 90360000 | O-RING 21,95X1,78 (2087)      | 1   |       |
| 22   | 36322970 | VALVE GUIDE                   | 1   |       |
| 21   | 36323151 | FLAT VALVE (PLAST)            | 1   |       |
| 20   | 94748500 | SPRING D. 18,5X11             | 1   |       |
| 19   | 36323070 | SPACER                        | 1   |       |
| 18   | 90502500 | ANTI-EXTRUSION RING (OR 106)  | 1   |       |
| 17   | 90357500 | O-RING 6,75X1,78 SPEC. (2106) | 2   |       |
| 16   | 36323470 | CONTROL PISTON                | 1   |       |
| 15   | 90382000 | O-RING 9,13X2,62 SPEC. (109)  | 1   |       |
| 14   | 90505200 | ANTI-EXTRUSION RING (OR 109)  | 1   |       |
| 13   | 90385700 | O-RING 23,81X2,62 (132)       | 1   |       |
| 12   | 36322870 | GUIDE BUSH                    | 1   |       |
| 11   | 36323370 | LOWER SPRING PLATE            | 1   |       |
| 10   | 94734500 | SPRING D. 7,6X29              | 1   |       |
| 9    | 94743600 | SPRING Dm 15X35               | 1   |       |
| 8    | 36316970 | SPRING PLATE                  | 1   |       |
| 7    | 36318570 | PRESSURE REG.SCREW            | 1   |       |
| 6    | 90359800 | O-RING 20,35X1,78 (2081)      | 1   |       |
| 5    | 99305400 | SCREW M8X20 UNI 5923 12.9     | 1   |       |
| 4    | 92221800 | NUT M8X1,25X5X13 UNI 5589     | 1   |       |
| 3    | 92293500 | NUT M 28X1,5                  | 1   |       |
| 2    | 36318670 | LOCKING NUT                   | 1   |       |
| 1    | 36318751 | PRESSURE REGULATION KNOB      | 1   |       |



| KIT 94 *** |     |     |     |     | KIT177 |  |
|------------|-----|-----|-----|-----|--------|--|
| 182        | 190 | 192 | 193 | 194 | 167    |  |
| 195        | 196 | 197 | 200 | 203 | 168    |  |
|            |     |     |     |     | 169    |  |
|            |     |     |     |     | 170    |  |
|            |     |     |     |     | 171    |  |
|            |     |     |     |     | 172    |  |
|            |     |     |     |     | 173    |  |
|            |     |     |     |     | 174    |  |
|            |     |     |     |     | 175    |  |
|            |     |     |     |     | 176    |  |
|            |     |     |     |     | 177    |  |
|            |     |     |     |     | 178    |  |
|            |     |     |     |     | 179    |  |
|            |     |     |     |     | 180    |  |
|            |     |     |     |     | 181    |  |



Fissare con Loctite 542 col.ROSSO  
\* Fix with Loctite 542 col.RED

## Illustration Pump head with VK integrated valve

| Pos.   | Code     | Description                       | Qty | Notes |
|--------|----------|-----------------------------------|-----|-------|
| KIT177 | 34017701 | KIT 177 "K"UNL.VALVE INTERIOR1    |     |       |
| KIT94  | 34009401 | KIT 94 CHIMJET<br>KR/CONTROLSET   | 1   |       |
| 215    | 92982800 | WING NUT G3/4                     | 1   |       |
| 214    | 36256951 | INLET HOSE BARB FITTING (PL.)     | 1   |       |
| 213    | 90382800 | O-RING 12,37X2,62 (3050)          | 1   |       |
| 212    | 92892500 | FILTER D. 12X35                   | 1   |       |
| 211    | 36318251 | INLET NIPPLE G 3/4                | 1   |       |
| 210    | 90384100 | O-RING 17,12X2,62 (3068)          | 1   |       |
| 204    | 36256370 | CHEM. INJECTOR VALVE SEAT         | 1   |       |
| 203    | 90358500 | O-RING 10,82X1,78 (2043)          | 1   |       |
| 202    | 36318151 | INJECTOR BODY                     | 1   |       |
| 201    | 36256670 | CHEM. HOSE BARB FITTING           | 1   |       |
| 200    | 90357000 | O-RING 4,48X1,78 (2018)           | 2   |       |
| 199    | 36256551 | CHEM. REGULATION KNOB             | 1   |       |
| 198    | 36256470 | INJECTOR SHUTTER                  | 1   |       |
| 197    | 90358000 | O-RING 8,73X1,78 SPEC. (108)      | 1   |       |
| 196    | 94738300 | SPRING D.9,75X10                  | 1   |       |
| 195    | 90357200 | O-RING 5,28X1,78 SPEC. (2021)     | 1   |       |
| 194    | 97478200 | BALL 7/32(5,556) STAINLESS        | 1   |       |
| 193    | 94821700 | TAPER SPRING D.4,3X7,3X11         | 1   |       |
| 192    | 90358200 | O-RING 9,25X1,78 (2037)           | 1   |       |
| 191    | 10007666 | NOZZLE DIAM. 2,2                  | 1   |       |
| 191    | 10015166 | NOZZLE D. 2.0                     | 1   |       |
| 190    | 90382200 | O-RING 9,92X2,62 SPEC. (112)      | 1   |       |
| 187    | 96710300 | WASHER D. 10,2X16X1.5             | 1   |       |
| 186    | 44120141 | MANIFOLD W/VALVE (PIST.D.15)      | 1   |       |
| 185    | 98196600 | PLUG G1/8X8                       | 1   |       |
| 184    | 98205700 | PLUG M14X1,5X9                    | 1   |       |
| 183    | 10014770 | NIPPLE G3/8 / M22X1,5 BORE<br>D.3 | 1   |       |
| 183    | 10007870 | NIPPLE D. 3 G3/8                  | 1   |       |
| 182    | 90383200 | O-RING 13,95X2,62 SPEC. (3056)    | 1   |       |
| 181    | 36327566 | VALVE ROD                         | 1   |       |
| 180    | 90506500 | ANTI-EXTRUSION RING (OR 112)      | 1   |       |

## Illustration Pump head with VK integrated valve

| Pos. | Code     | Description                | Qty | Notes |
|------|----------|----------------------------|-----|-------|
| 179  | 90382300 | O-RING 9,92X2,62 (112)     | 1   |       |
| 178  | 36327666 | VALVE SEAT                 | 1   |       |
| 177  | 94737200 | SPRING D. 9,3X15           | 1   |       |
| 176  | 92771000 | COMPRESSION RING D.25      | 2   |       |
| 175  | 36327270 | CONTROL PISTON             | 1   |       |
| 174  | 90358100 | O-RING 8,73X1,78 - (108)   | 1   |       |
| 173  | 36327756 | SHUTTER                    | 1   |       |
| 172  | 94748000 | SPRING D. 18.2X16.5        | 1   |       |
| 171  | 36327370 | SPRING PLATE               | 1   |       |
| 170  | 90006200 | CIRCLIP D. 8 UNI 7433      | 1   |       |
| 169  | 94740800 | SPRING D. 12,5X26          | 1   |       |
| 168  | 36327470 | SPRING PLATE               | 1   |       |
| 167  | 90005900 | CIRCLIP D. 5 UNI 7433      | 1   |       |
| 166  | 36327170 | STROKE STOPPER             | 1   |       |
| 165  | 90383500 | O-RING 15,08X2,62 (119)    | 1   |       |
| 164  | 90509000 | ANTI-EXTRUSION RING        | 1   |       |
| 163  | 90360400 | O-RING 25,12X1,78 (2100)   | 1   |       |
| 162  | 36327070 | UPPER VALVE BODY           | 1   |       |
| 161  | 92236800 | NUT M10x1,25x17x8 UNI 5588 | 1   |       |
| 160  | 99366300 | SCREW M 10x25 UNI 5740     | 1   |       |