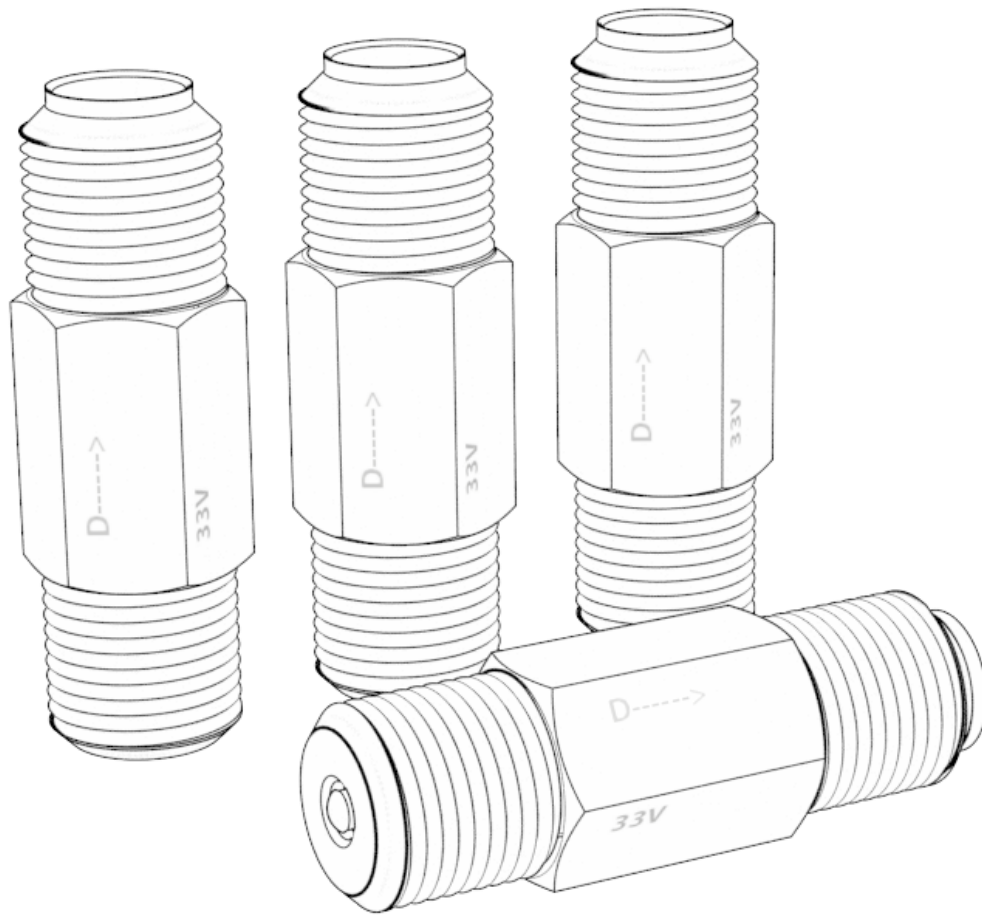


### Operation and maintenance manual

#### Original instructions



Manual drafted in compliance  
with directive 2006/42

C2032IE WK 37/20

[www.dropsa.com](http://www.dropsa.com)

DropsA products can be purchased at DropsA branches and authorised distributors,  
go to [www.dropsa.com/contact](http://www.dropsa.com/contact) or write to [sales@dropsa.com](mailto:sales@dropsa.com)

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**Product Features :**

- Compatible and Interchangeable with Dropsa’s Accumino and Dromatic System
- More compact design. 1/8”-1/8” BSP injector cartridge allows many new configurations.
- High Reliability. The 33V Injector is fully assembled, tested and certified on a robotic system.
- Manifolds for compatibility with other systems.

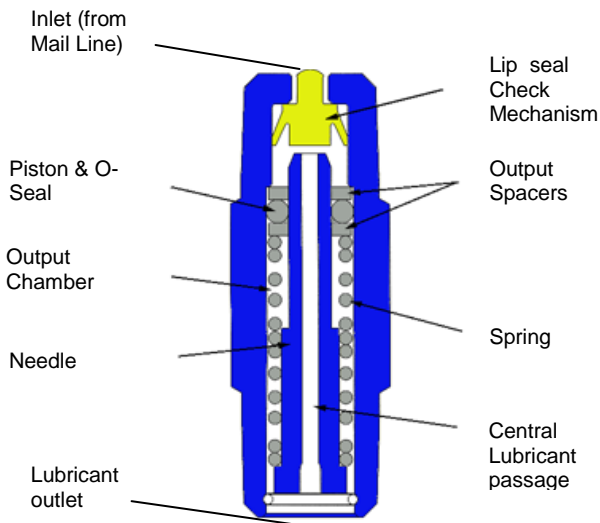
**Operating Characteristics:**

|   |                     | Delivery    |             |             |
|---|---------------------|-------------|-------------|-------------|
|   |                     | 0.03 – 0.16 | 0.20 – 0.50 | 0.75 – 1.00 |
| <b>Minimum pressure bar (psi)</b>               |                     | 12 (175)    | 12 (175)    | 12 (175)    |
| <b>Maximum pressure bar (psi)</b>               |                     | 50 (725)    | 50 (725)    | 50 (725)    |
| <b>Maximum pressure of release bar (psi) **</b> |                     | 4 (58)      | 2.5 (36)    | 2.5 (36)    |
| <b>Lubricant</b>                                | <b>Oil</b>          | 32-2000 cSt | 32-2000 cSt | 32-2000 cSt |
|   | <b>Grease</b>       | NLGI 0      |             |             |
| <b>Minimum time of release (seconds) *</b>      | <b>32-250 cSt</b>   | 10          | 10          | 10          |
|   | <b>260-1000 cSt</b> | 200         | 200         | 200         |
|   | <b>NLGI 0</b>       | 200         |             |             |

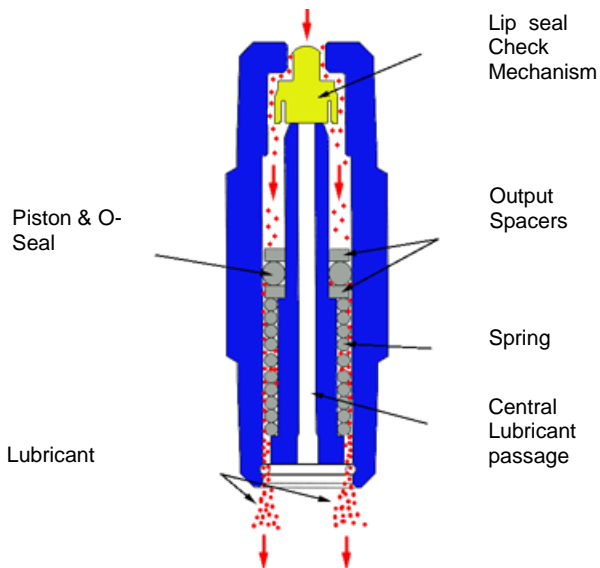
\* Minimum time of release depending on the specifics of the systems where V33 injector are mounted.  
If they need to be assembled on medium or large – sized systems, please contact Dropsa’s technical – commercial department to check their real time of release

\*\* Point delivery

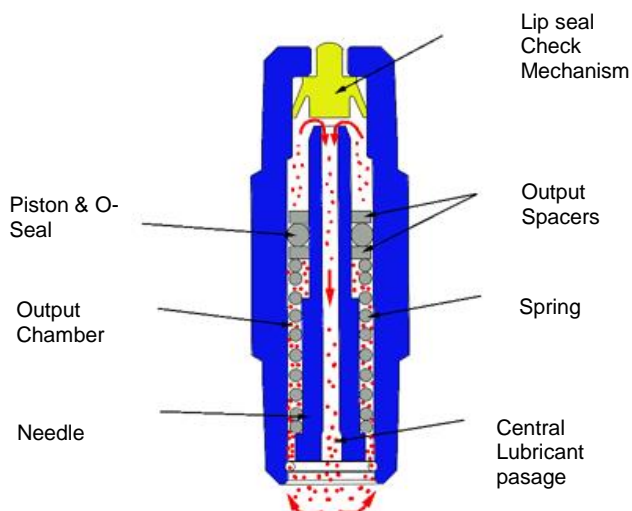
## Introduction – Operating Principle of the V33 Injector Series



The system is pressurized and oil flows into the Inlet side of the injector. The Lip seal check mechanism allows oil to flow past blocking off the Central Lubricant Passage.

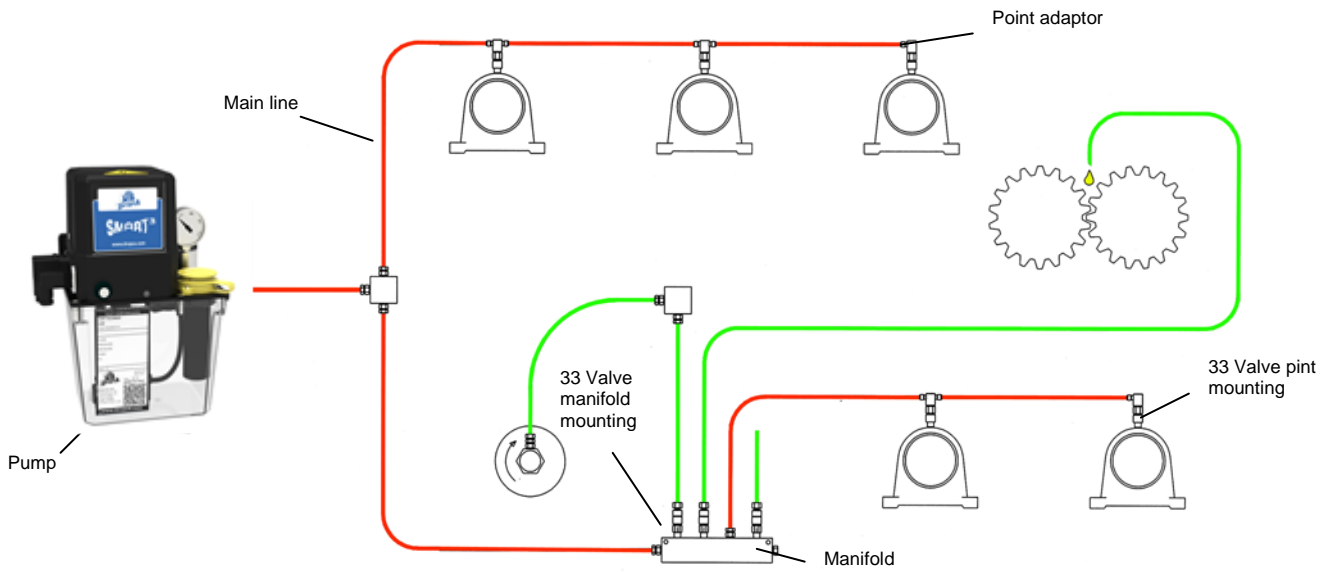


Lubricant enters the upper chamber of the injector which causes the Piston & O-Seal to move downwards, pushing the oil accumulated in the Output chamber (from the previous cycle) towards the lubrication point.

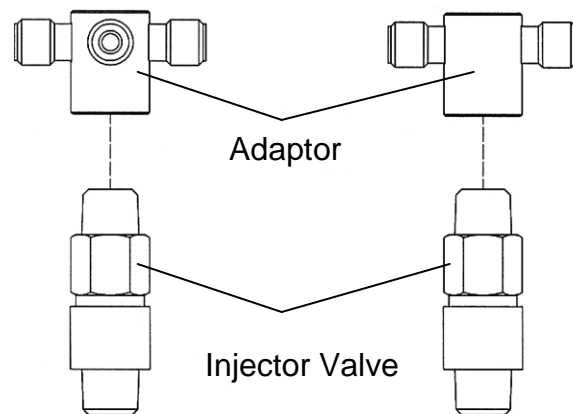


The final stage occurs when Pressure is released from the Inlet resetting the injector. During this phase the Spring pushes the piston & O-Seal back upwards, together with the check mechanism that permits the lubricant to flow across the Central Lubricant Passage and back into the Output Chamber, ready for the next lubrication cycle.

## Example Application Using Smart Pump and 33 Valves.

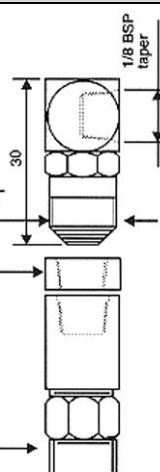
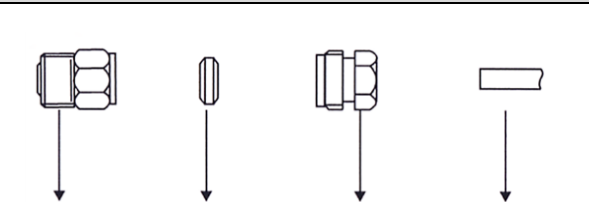
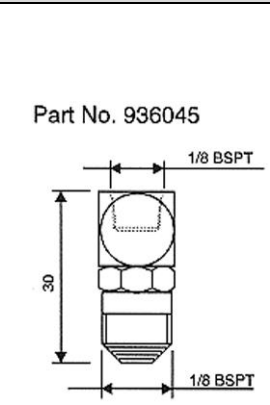


## Point Adaptor Assembly Example.



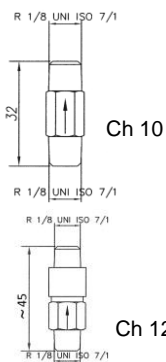
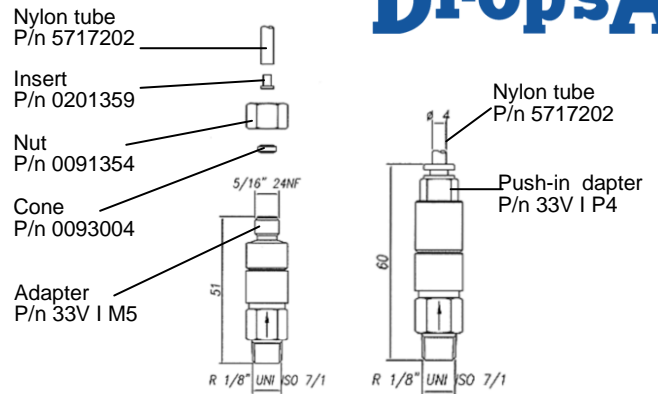
## Rotary Connection Application

No. Revolutions per min. 100 - No. Oscillations per min. 120

| 90° Rotary  |   | Straight Rotary    |          |  |  |           |             |         |          |         |         |         |   |         |         |         |   |  |  |
|---|---|--------------------|----------|--|--|-----------|-------------|---------|----------|---------|---------|---------|---|---------|---------|---------|---|--|--|
|  <p>rotary<br/>Part No.<br/>936035</p> <p>spacer<br/>Part No.<br/>936020</p> <p>metering<br/>valve</p> |  <table border="1"> <thead> <tr> <th colspan="4">Rotary p/n 0936035</th> </tr> <tr> <th>Connector</th> <th>Compr. cone</th> <th>Bushing</th> <th>Pipe o/d</th> </tr> </thead> <tbody> <tr> <td>0910073</td> <td>0093004</td> <td>0092004</td> <td>4</td> </tr> <tr> <td>0910090</td> <td>0093006</td> <td>0092052</td> <td>6</td> </tr> </tbody> </table> | Rotary p/n 0936035 |          |  |  | Connector | Compr. cone | Bushing | Pipe o/d | 0910073 | 0093004 | 0092004 | 4 | 0910090 | 0093006 | 0092052 | 6 |  <p>Part No. 936045</p> |  |
| Rotary p/n 0936035  |   |                    |          |  |  |           |             |         |          |         |         |         |   |         |         |         |   |  |  |
| Connector   | Compr. cone   | Bushing            | Pipe o/d |  |  |           |             |         |          |         |         |         |   |         |         |         |   |  |  |
| 0910073   | 0093004   | 0092004            | 4        |  |  |           |             |         |          |         |         |         |   |         |         |         |   |  |  |
| 0910090   | 0093006   | 0092052            | 6        |  |  |           |             |         |          |         |         |         |   |         |         |         |   |  |  |

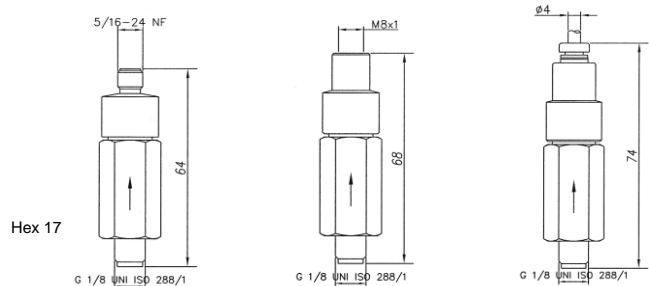
## Injectors for Manifold Mounting

Output: 0.03 to 0.50 cc/cycle.



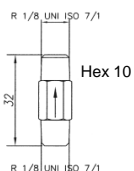
| Output/<br>Cycle | Part Num. | Part Number<br>(Body AISI 316L) | Compatible<br>Manifold Type | With pre-assembled Output Adaptor |                         |  |
|------------------|-----------|---------------------------------|-----------------------------|-----------------------------------|-------------------------|--|
|                  |           |                                 |                             | Male Thread                       | Push-in<br>for 4mm Tube | Push-in for 4mm Tube<br>(Body AISI 316L) |
| 0.03             | 33V 003   | 33V 003X                        | M, P,<br>L, N, W            | 33V I M5 003                      | 33V I P4 003            | 33V I P4 003X                            |
| 0.06             | 33V 006   | 33V 006X                        |                             | 33V I M5 006                      | 33V I P4 006            | 33V I P4 006X                            |
| 0.10             | 33V 010   | 33V 010X                        |                             | 33V I M5 010                      | 33V I P4 010            | 33V I P4 010X                            |
| 0.16             | 33V 016   | 33V 016X                        |                             | 33V I M5 016                      | 33V I P4 016            | 33V I P4 016X                            |
| 0.20             | 33V 020   |                                 | M, P,<br>L, N               | 33V I M5 020                      | 33V I P4 020            |  |
| 0.30             | 33V 030   |                                 |                             | 33V I M5 030                      | 33V I P4 030            |  |
| 0.50             | 33V 050   |                                 |                             | 33V I M5 050                      | 33V I P4 050            |  |

Output: 0,75 to 1.00 cc/cycle



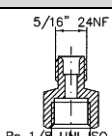
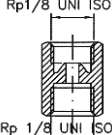
| Output/Cycle | Compatible<br>Manifolds | Output Porting |                       |                      |
|--------------|-------------------------|----------------|-----------------------|----------------------|
|              |                         | Male Thread    | Female M8x1<br>Thread | Push-in for 4mm Tube |
| 0.75         | L, N                    | 33V I M5 075   | 33V I F8 075          | 33V I P4 075         |
| 1.00         |                         | 33V I M5 100   | 33V I F8 100          | 33V I P4 100         |

Injectors with VITON gasket (1/8" – 1/8")

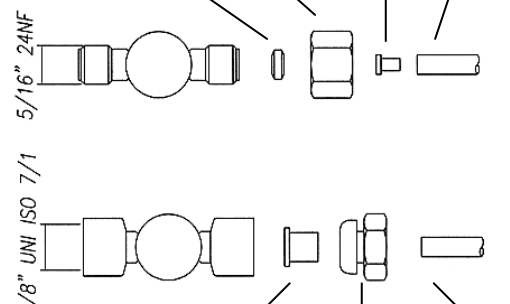


| Output/<br>Cycle | Part Num. | Part Number<br>(Body AISI 316L) | Compatible<br>Manifold Type | With pre-assembled Output Adaptor |                         |  |
|------------------|-----------|---------------------------------|-----------------------------|-----------------------------------|-------------------------|--|
|                  |           |                                 |                             | Male Thread                       | Push-in<br>for 4mm Tube | Push-in for 4mm Tube<br>(Body AISI 316L) |
| 0.03             | 33V 003V  | 33V 003X                        | M, P,<br>L, N, W            | 33V I M5 003                      | 33V I P4 003            | 33V I P4 003X                            |
| 0.06             | 33V 006V  | 33V 006X                        |                             | 33V I M5 006                      | 33V I P4 006            | 33V I P4 006X                            |
| 0.10             | 33V 010V  | 33V 010X                        |                             | 33V I M5 010                      | 33V I P4 010            | 33V I P4 010X                            |
| 0.16             | 33V 016V  | 33V 016X                        |                             | 33V I M5 016                      | 33V I P4 016            | 33V I P4 016X                            |

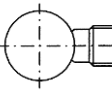
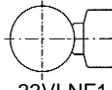
## Injectors for application directly to Lubrication point

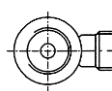
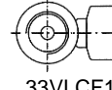
| Straight Adapter  | Pre assembled to use with Injector |               |               |
|---|------------------------------------|---------------|---------------|
|   | Output                             | Male          | Female        |
| <br>5/16" 24NF<br>Rp 1/8" UNI ISO 7/1<br><b>33VIM5</b> | 0.03 cc                            | 33V IS M5 003 | 33V IS F1 003 |
|   | 0.06 cc                            | 33V IS M5 006 | 33V IS F1 006 |
| <br>Rp 1/8" UNI ISO 7/1<br><b>33VIF1</b>               | 0.10 cc                            | 33V IS M5 010 | 33V IS F1 010 |
|   | 0.16 cc                            | 33V IS M5 016 | 33V IS F1 016 |
|   | 0.20 cc                            | 33V IS M5 020 | 33V IS F1 020 |
|   | 0.30 cc                            | 33V IS M5 030 | 33V IS F1 030 |
| Side View   | 0.50 cc                            | 33V IS M5 050 | 33V IS F1 050 |

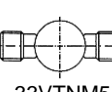
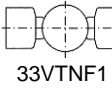
| Part No. |         |                         |          |
|----------|---------|-------------------------|----------|
| Cone     | Nut     | Insert (only for nylon) | Pipe o/d |
| 0093004  | 0091354 | 0201359                 | 4        |

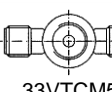
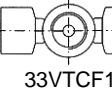
  

  

| Part No.           |                  |          |
|--------------------|------------------|----------|
| Compression sleeve | 1/8" Gas bushing | Pipe o/d |
| 3008174            | 3084018          | 4        |
| 3008175            | 3084019          | 6        |

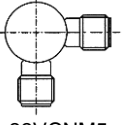
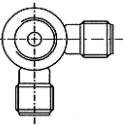
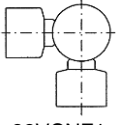
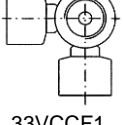
| L Adapter   | Pre assembled to use with Injector |               |               |
|---|------------------------------------|---------------|---------------|
|   | Output                             | Male          | Female        |
| <br><b>33VLNM5</b> | 0.03 cc                            | 33V LN M5 003 | 33V LN F1 003 |
|   | 0.06 cc                            | 33V LN M5 006 | 33V LN F1 006 |
|   | 0.10 cc                            | 33V LN M5 010 | 33V LN F1 010 |
| <br><b>33VLNF1</b> | 0.16 cc                            | 33V LN M5 016 | 33V LN F1 016 |
|   | 0.20 cc                            | 33V LN M5 020 | 33V LN F1 020 |
|   | 0.30 cc                            | 33V LN M5 030 | 33V LN F1 030 |
|   | 0.50 cc                            | 33V LN M5 050 | 33V LN F1 050 |
| Top View  |                                    |               |               |

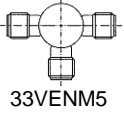
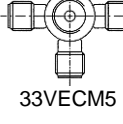
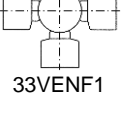
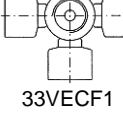
| L Adapter for Rotary connection Port  | Pre assembled to use with Injector |               |               |
|---|------------------------------------|---------------|---------------|
|   | Output                             | Male          | Female        |
| <br><b>33VLCM5</b> | 0.03 cc                            | 33V LC M5 003 | 33V LC F1 003 |
|   | 0.06 cc                            | 33V LC M5 006 | 33V LC F1 006 |
|   | 0.10 cc                            | 33V LC M5 010 | 33V LC F1 010 |
| <br><b>33VLCF1</b> | 0.16 cc                            | 33V LC M5 016 | 33V LC F1 016 |
|   | 0.20 cc                            | 33V LC M5 020 | 33V LC F1 020 |
|   | 0.30 cc                            | 33V LC M5 030 | 33V LC F1 030 |
|   | 0.50 cc                            | 33V LC M5 050 | 33V LC F1 050 |
| Top View  |                                    |               |               |

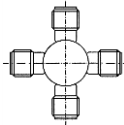
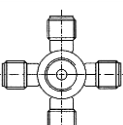
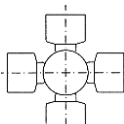
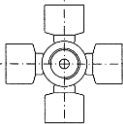
| T Adapter   | Pre assembled to use with Injector |               |               |
|---|------------------------------------|---------------|---------------|
|   | Output                             | Male          | Female        |
| <br><b>33VTNM5</b> | 0.03 cc                            | 33V TN M5 003 | 33V TN F1 003 |
|   | 0.06 cc                            | 33V TN M5 006 | 33V TN F1 006 |
|   | 0.10 cc                            | 33V TN M5 010 | 33V TN F1 010 |
| <br><b>33VTNF1</b> | 0.16 cc                            | 33V TN M5 016 | 33V TN F1 016 |
|   | 0.20 cc                            | 33V TN M5 020 | 33V TN F1 020 |
|   | 0.30 cc                            | 33V TN M5 030 | 33V TN F1 030 |
|   | 0.50 cc                            | 33V TN M5 050 | 33V TN F1 050 |
| Top View  |                                    |               |               |

| T Adapter for Rotary connection Port  | Pre assembled to use with Injector |               |               |
|---|------------------------------------|---------------|---------------|
|   | Output                             | Male          | Female        |
| <br><b>33VTCM5</b> | 0.03 cc                            | 33V TC M5 003 | 33V TC F1 003 |
|   | 0.06 cc                            | 33V TC M5 006 | 33V TC F1 006 |
|   | 0.10 cc                            | 33V TC M5 010 | 33V TC F1 010 |
| <br><b>33VTCF1</b> | 0.16 cc                            | 33V TC M5 016 | 33V TC F1 016 |
|   | 0.20 cc                            | 33V TC M5 020 | 33V TC F1 020 |
|   | 0.30 cc                            | 33V TC M5 030 | 33V TC F1 030 |
|   | 0.50 cc                            | 33V TC M5 050 | 33V TC F1 050 |
| Top View  |                                    |               |               |

## Injectors for application directly to Lubrication point

| C Adapter  |         | Pre assembled to use with Injector |               | C Adapter with Rotary connection Port  |         | Pre assembled to use with Injector |               |
|--|---------|------------------------------------|---------------|--|---------|------------------------------------|---------------|
|  | Output  | Male                               | Female        |  | Output  | Male                               | Female        |
| <br>33VCNM5 | 0.03 cc | 33V CN M5 003                      | 33V CN F1 003 | <br>33VCCM5 | 0.03 cc | 33V CC M5 003                      | 33V CC F1 003 |
|  | 0.06 cc | 33V CN M5 006                      | 33V CN F1 006 |  | 0.06 cc | 33V CC M5 006                      | 33V CC F1 006 |
|  | 0.10 cc | 33V CN M5 010                      | 33V CN F1 010 |  | 0.10 cc | 33V CC M5 010                      | 33V CC F1 010 |
| <br>33VCNF1 | 0.16 cc | 33V CN M5 016                      | 33V CN F1 016 | <br>33VCCF1 | 0.16 cc | 33V CC M5 016                      | 33V CC F1 016 |
|  | 0.20 cc | 33V CN M5 020                      | 33V CN F1 020 |  | 0.20 cc | 33V CC M5 020                      | 33V CC F1 020 |
|  | 0.30 cc | 33V CN M5 030                      | 33V CN F1 030 |  | 0.30 cc | 33V CC M5 030                      | 33V CC F1 030 |
|  | 0.50 cc | 33V CN M5 050                      | 33V CN F1 050 |  | 0.50 cc | 33V CC M5 050                      | 33V CC F1 050 |

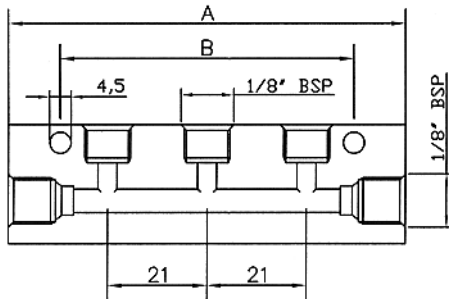
| E Adapter  |         | Pre assembled to use with Injector |               | E Adapter with Rotary connection Port  |         | Pre assembled to use with Injector |               |
|--|---------|------------------------------------|---------------|--|---------|------------------------------------|---------------|
|  | Output  | Male                               | Female        |  | Output  | Male                               | Female        |
| <br>33VENM5 | 0.03 cc | 33V EN M5 003                      | 33V EN F1 003 | <br>33VECM5 | 0.03 cc | 33V EC M5 003                      | 33V EC F1 003 |
|  | 0.06 cc | 33V EN M5 006                      | 33V EN F1 006 |  | 0.06 cc | 33V EC M5 006                      | 33V EC F1 006 |
|  | 0.10 cc | 33V EN M5 010                      | 33V EN F1 010 |  | 0.10 cc | 33V EC M5 010                      | 33V EC F1 010 |
| <br>33VENF1 | 0.16 cc | 33V EN M5 016                      | 33V EN F1 016 | <br>33VECF1 | 0.16 cc | 33V EC M5 016                      | 33V EC F1 016 |
|  | 0.20 cc | 33V EN M5 020                      | 33V EN F1 020 |  | 0.20 cc | 33V EC M5 020                      | 33V EC F1 020 |
|  | 0.30 cc | 33V EN M5 030                      | 33V EN F1 030 |  | 0.30 cc | 33V EC M5 030                      | 33V EC F1 030 |
|  | 0.50 cc | 33V EN M5 050                      | 33V EN F1 050 |  | 0.50 cc | 33V EC M5 050                      | 33V EC F1 050 |

| X Adapter  |         | Pre assembled to use with Injector |               | X Adapter with Rotary connection Port  |         | Pre assembled to use with Injector |               |
|--|---------|------------------------------------|---------------|--|---------|------------------------------------|---------------|
|  | Output  | Male                               | Female        |  | Output  | Male                               | Female        |
| <br>33VXNM5 | 0.03 cc | 33V XN M5 003                      | 33V XN F1 003 | <br>33VXCM5 | 0.03 cc | 33V XC M5 003                      | 33V XC F1 003 |
|  | 0.06 cc | 33V XN M5 006                      | 33V XN F1 006 |  | 0.06 cc | 33V XC M5 006                      | 33V XC F1 006 |
|  | 0.10 cc | 33V XN M5 010                      | 33V XN F1 010 |  | 0.10 cc | 33V XC M5 010                      | 33V XC F1 010 |
| <br>33VXNF1 | 0.16 cc | 33V XN M5 016                      | 33V XN F1 016 | <br>33VXCF1 | 0.16 cc | 33V XC M5 016                      | 33V XC F1 016 |
|  | 0.20 cc | 33V XN M5 020                      | 33V XN F1 020 |  | 0.20 cc | 33V XC M5 020                      | 33V XC F1 020 |
|  | 0.30 cc | 33V XN M5 030                      | 33V XN F1 030 |  | 0.30 cc | 33V XC M5 030                      | 33V XC F1 030 |
|  | 0.50 cc | 33V XN M5 050                      | 33V XN F1 050 |  | 0.50 cc | 33V XC M5 050                      | 33V XC F1 050 |

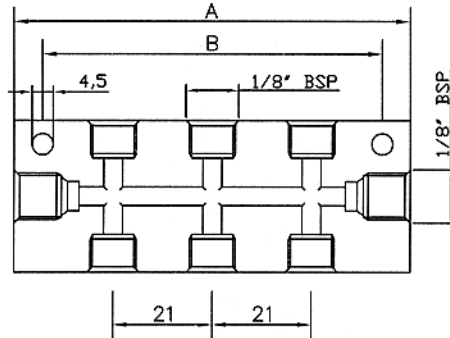


## Manifolds – V33 Fixtures Type M, P, L, N (Aluminium)

### Single Row



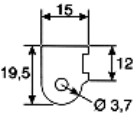
### Double Row

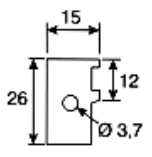


For Injectors 0.03 – 0.50 cc/cycle

MANIFOLD TYPE : M

MANIFOLD TYPE : P

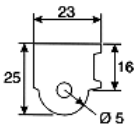
| Outlet Ports | Part Number | Dimensions |     | Weight | Bar Profile   |
|--------------|-------------|------------|-----|--------|---|
|              |             | A          | B   |        |   |
| 1            | 6265        | 40         | 20  | 21     |  |
| 2            | 6266        | 61         | 41  | 33     |   |
| 3            | 6267        | 82         | 62  | 44     |   |
| 4            | 6268        | 103        | 83  | 58     |   |
| 5            | 6269        | 124        | 104 | 68     |   |
| 6            | 6274        | 145        | 125 | 80     |   |
| 7            | 6276        | 166        | 146 | 92     |   |
| 8            | 6239        | 187        | 167 | 104    |   |

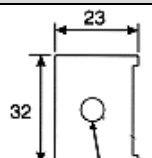
| Outlet Ports | Part Number | Dimensions |     | Weight | Bar Profile  |
|--------------|-------------|------------|-----|--------|--|
|              |             | A          | B   |        |  |
| 2            | 6236        | 40         | 20  | 28     |  |
| 4            | 6237        | 61         | 41  | 41     |  |
| 6            | 6238        | 82         | 62  | 60     |  |
| 8            | 6188        | 103        | 83  | 71     |  |
| 10           | 6189        | 124        | 104 | 90     |  |
| 12           | 6210        | 145        | 125 | 101    |  |

For Injectors 0.03 – 1.00 cc/cycle

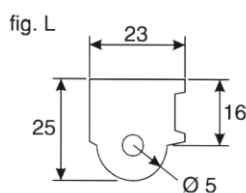
MANIFOLD TYPE : L

MANIFOLD TYPE : N

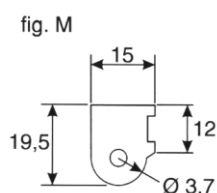
| Outlet Ports | Part Number | Dimensions |     | Weight | Bar Profile   |
|--------------|-------------|------------|-----|--------|---|
|              |             | A          | B   |        |   |
| 1            | 3071311     | 42         | 20  | 30     |  |
| 2            | 3071312     | 63         | 41  | 63     |   |
| 3            | 3071313     | 84         | 62  | 96     |   |
| 4            | 3071314     | 105        | 83  | 120    |   |
| 5            | 3071315     | 126        | 104 | 146    |   |
| 6            | 3071316     | 147        | 125 | 169    |   |

| Outlet Ports | Part Number | Dimensions |    | Weight | Bar Profile   |
|--------------|-------------|------------|----|--------|---|
|              |             | A          | B  |        |   |
| 2            | 3071322     | 42         | 30 | 90     |  |
| 4            | 3071324     | 63         | 51 | 120    |   |
| 6            | 3071326     | 84         | 72 | 140    |   |
| 8            | 3071328     | 105        | 93 | 180    |   |

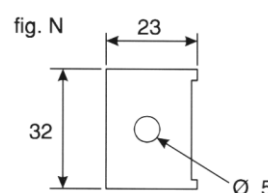
## Extruded Bar Profiles (available also for Custom Manifolds)



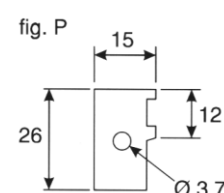
5422810  
kg. 1,225



5422800  
kg. 0,650

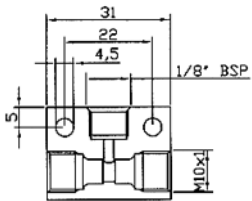


5422811  
kg. 1,900



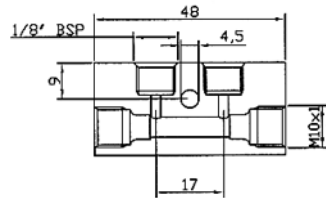
5422801  
kg. 0,930

**Manifolds – Type W: for Backward Compatibility with existing systems.  
For Injectors: 0.03 to 0.16 cc/cycle.**



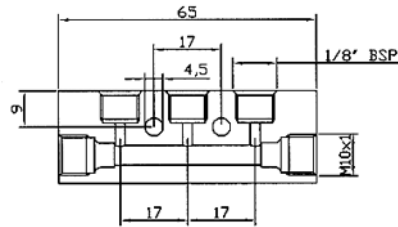
1 Outlet

Part Number: 3071301



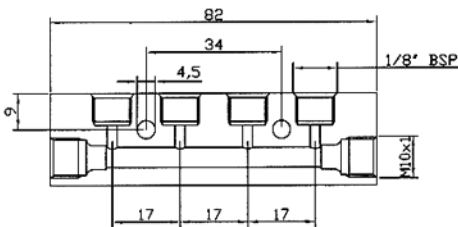
2 Outlets

Part Number: 3071302



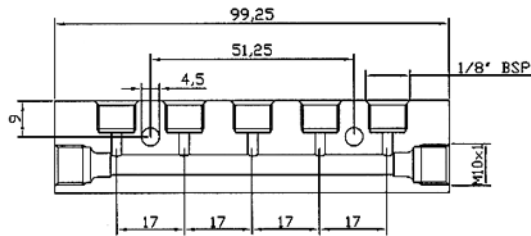
3 Outlets

Part Number: 3071303



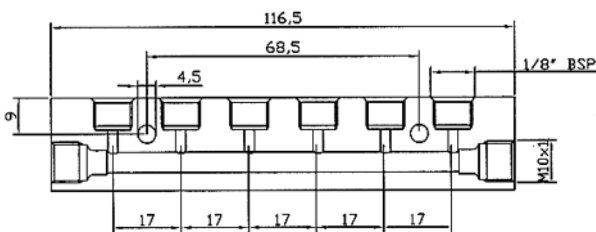
4 Outlets

Part Number: 3071304



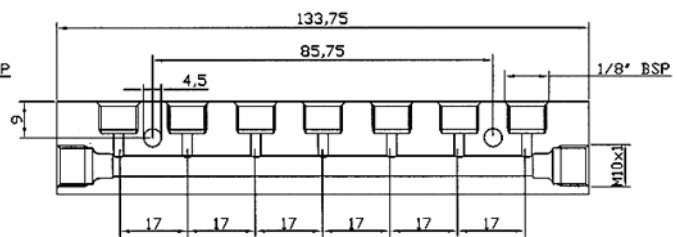
5 Outlets

Part Number: 3071305



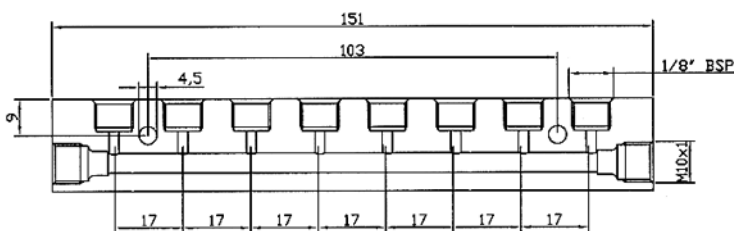
6 Outlets

Part Number: 3071306



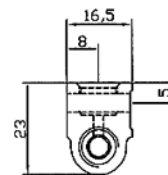
7 Outlets

Part Number: 3071307



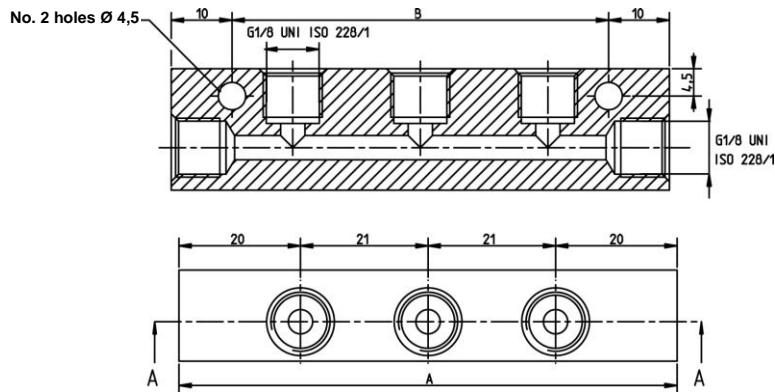
8 Outlets

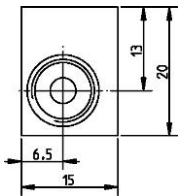
Part Number : 3071308



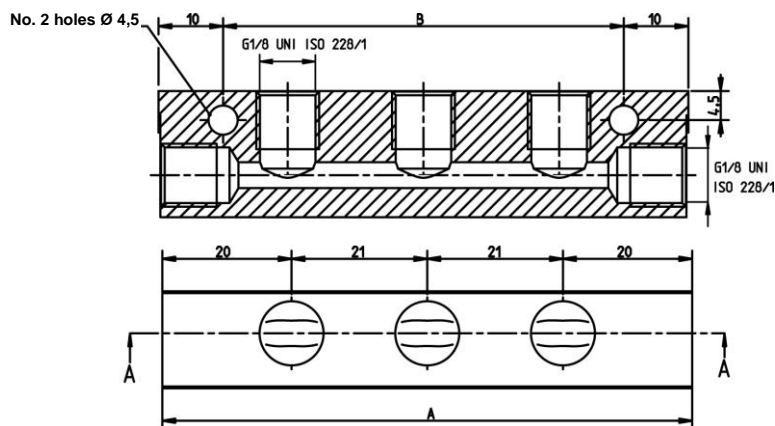
Profile

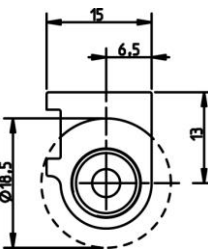
## Manifolds – Single Row stainless steel Aisi 304



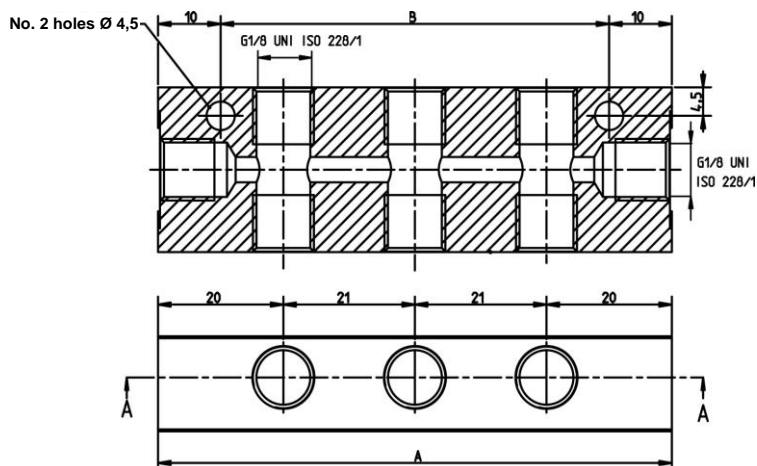
| Outlet Ports | Part Number | Dimensions |     | Bar Profile   |
|--------------|-------------|------------|-----|---|
|              |             | A          | B   |   |
| 1            | 520101      | 40         | 20  |  |
| 2            | 520102      | 61         | 41  |   |
| 3            | 520103      | 82         | 62  |   |
| 4            | 520104      | 103        | 83  |   |
| 5            | 520105      | 124        | 104 |   |
| 6            | 520106      | 145        | 125 |   |
| 7            | 520107      | 166        | 146 |   |
| 8            | 520108      | 187        | 167 |   |

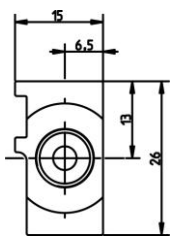
## Manifolds – Single Row for DIN 3852 Fittings (Aluminium)



| Outlet Ports | Part Number | Dimensions |     | Bar Profile   |
|--------------|-------------|------------|-----|---|
|              |             | A          | B   |   |
| 1            | 6901        | 40         | 20  |  |
| 2            | 6902        | 61         | 41  |   |
| 3            | 6903        | 82         | 62  |   |
| 4            | 6904        | 103        | 83  |   |
| 5            | 6905        | 124        | 104 |   |
| 6            | 6906        | 145        | 125 |   |
| 7            | 6907        | 166        | 146 |   |
| 8            | 6908        | 187        | 167 |   |

## Manifold – Double Row for DIN 3852 Fittings (Aluminium)



| Outlet Ports | Part Number | Dimensions |     | Bar Profile   |
|--------------|-------------|------------|-----|---|
|              |             | A          | B   |   |
| 2            | 6911        | 40         | 20  |  |
| 4            | 6912        | 61         | 41  |   |
| 6            | 6913        | 82         | 62  |   |
| 8            | 6914        | 103        | 83  |   |
| 10           | 6915        | 124        | 104 |   |
| 12           | 6916        | 145        | 125 |   |

## Metalling tube

| Material                 | Sizes              | Part Number | Weight Kg/ml | Pressure |      | Bushes for tubes |
|--------------------------|--------------------|-------------|--------------|----------|------|------------------|
|                          |                    |             |              | bar      | Psi  |                  |
| Copper plated steel pipe | Ø 4 x 0.71 in bars | 5118000     | 0.060        | 500      | 7120 | -                |
|                          | Ø 6 x 0.71 in bars | 5118001     | 0.097        | 310      | 4400 | -                |
|                          | Ø 8 x 0.71 in bars | 5118002     | 0.134        | 220      | 3130 | -                |
| Annealed copper tube     | Ø 4 x 0.5 in coils | 5501201     | 0.049        | 133      | 1900 | -                |
|                          | Ø 6 x 1 in coils   | 5501203     | 0.140        | 200      | 2850 | -                |
|                          | Ø 8 x 1 in coils   | 5501204     | 0.196        | 130      | 1850 | -                |

N.B. Drawn steel and annealed copper tubes must be ordered in kg. Copper plated steel pipes in meters.

## Nylon tube

| Material           | Sizes              | Part Number | Weight Kg/m | Pressure bar | Temperature °C | Bushes for tubes |
|--------------------|--------------------|-------------|-------------|--------------|----------------|------------------|
| Nylon tube (L. P.) | Ø 4 x 3 in coils   | 5717300     | 0.006       | 45           | 0 ÷ +100       | 3008117          |
| Nylon tube (L. P.) | Ø 6 x 4,5 in coils | 5717301     | 0.014       | 25           | -40 ÷ +80      | 3008116          |
| Nylon tube (L. P.) | Ø 8 x 6 in coils   | 5717302     | 0.025       | 50           | 0 ÷ +100       | 3008114          |
| Nylon tube (H. P.) | Ø 4 x 2,5 in coils | 5717202     | 0.008       | 80           | 0 ÷ +100       | 0201359          |
| Nylon tube (H. P.) | Ø 6 x 4 in coils   | 5717203     | 0.017       | 66           | 0 ÷ +100       | 0201360          |
| Nylon tube (H. P.) | Ø 8 x 5 in coils   | 5717204     | 0.034       | 80           | 0 ÷ +100       | 0201361          |

## Pipe Clips

### Pipe clips with one fixing hole



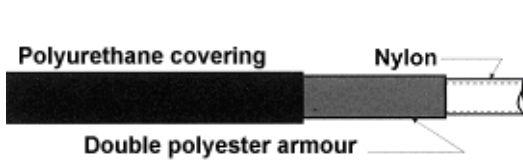
| Part No. | Description               | Self-tapping screw |             | Self-threading rivet |               |
|----------|---------------------------|--------------------|-------------|----------------------|---------------|
|          |                           | Part No.           | Description | Part No.             | Description   |
| 0111151  | Tube Ø 4 - Mount Ø 4.5    | 0014352            | M3, L. 8    | 0018065              | Ø 3.5, L. 8   |
| 0111201  | Tube Ø 6 - Mount Ø 5      | 0014355            | M4, L. 10   | 0018067              | Ø 4.2, L. 9.5 |
| 0111251  | Tube Ø 8 - Mount Ø 5      | 0014355            | M4, L. 10   | 0018067              | Ø 4.2, L. 9.5 |
| 0111152  | 2 Tubes Ø 4 – Mount Ø 4.5 | 0014352            | M3, L. 8    | 0018065              | Ø 3.5, L. 8   |
| 0111153  | 3 Tubes Ø 4 – Mount Ø 4.5 | 0014352            | M3, L. 8    | 0018065              | Ø 3.5, L. 8   |

### Pipe clips with two fixing hole









| Part No. | Description               | Self-tapping screw |             | Self-threading rivet |               |
|----------|---------------------------|--------------------|-------------|----------------------|---------------|
|          |                           | Part No.           | Description | Part No.             | Description   |
| 0111154  | 4 Tubes Ø 4 – Mount Ø 4.5 | 0014352            | M3, L. 8    | 0018065              | Ø 3.5, L. 8   |
| 0111155  | 5 Tubes Ø 4 – Mount Ø 4.5 | 0014352            | M3, L. 8    | 0018065              | Ø 3.5, L. 8   |
| 0111156  | 6 Tubes Ø 4 – Mount Ø 4.5 | 0014352            | M3, L. 8    | 0018065              | Ø 3.5, L. 8   |
| 0111158  | 8 Tubes Ø 4 – Mount Ø 5   | 0014352            | M3, L. 8    | 0018065              | Ø 3.5, L. 8   |
| 0111202  | 2 Tubes Ø 6 – Mount Ø 5   | 0014355            | M4, L. 10   | 0018067              | Ø 4.2, L. 9.5 |
| 0111203  | 3 Tubes Ø 6 – Mount Ø 5   | 0014355            | M4, L. 10   | 0018067              | Ø 4.2, L. 9.5 |
| 0111204  | 4 Tubes Ø 6 – Mount Ø 5   | 0014355            | M4, L. 10   | 0018067              | Ø 4.2, L. 9.5 |
| 0111205  | 5 Tubes Ø 6 – Mount Ø 5   | 0014355            | M4, L. 10   | 0018067              | Ø 4.2, L. 9.5 |
| 0111252  | 2 Tubes Ø 8 – Mount Ø 5   | 0014355            | M4, L. 10   | 0018067              | Ø 4.2, L. 9.5 |
| 0111253  | 3 Tubes Ø 8 – Mount Ø 5   | 0014355            | M4, L. 10   | 0018067              | Ø 4.2, L. 9.5 |
| 0111254  | 4 Tubes Ø 8 – Mount Ø 5   | 0014355            | M4, L. 10   | 0018067              | Ø 4.2, L. 9.5 |
| 0111255  | 5 Tubes Ø 8 – Mount Ø 5   | 0014355            | M4, L. 10   | 0018067              | Ø 4.2, L. 9.5 |

## Nylon hoses with reusable fittings

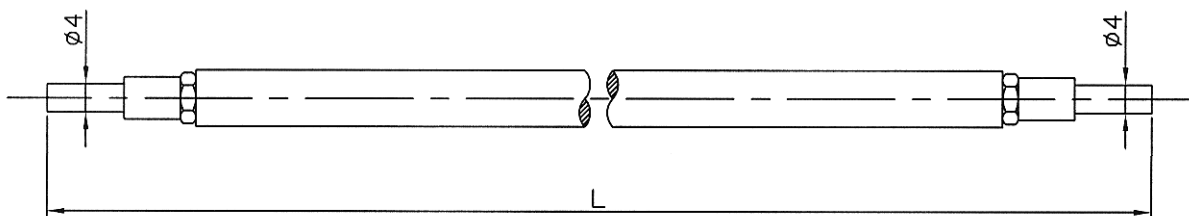


| Tube only Part No. | Ø tube      |             | Minimum bend radius mm | Working pressure |      | Weight Kg |
|--------------------|-------------|-------------|------------------------|------------------|------|-----------|
|                    | External mm | Internal mm |                        | bar              | psi  |           |
| 3362026            | 8           | 4           | 38                     | 200              | 2900 | 0.050     |
| 3362023            | 12,7        | 6,4         | 51                     | 250              | 3625 | 0.107     |

| Fittings   | Part No. | For tube Ø ext. | Thread   | Straight tube Ø | Swivel  | Part No. | For tube Ø ext. | Thread   |
|--|----------|-----------------|----------|-----------------|---|----------|-----------------|----------|
|  Solid male with cylindric thread | 3084393  | 8               | 1/8" Gas | -               |  EYE              | 3084395  | 8               | -        |
|  | 3084421  | 13              | 1/4" Gas | -               |   | 3084409  | 13              | -        |
|  Straight tube                    | 3084424  | 8               | -        | 4               |  Fitting          | 3084408  | 8               | 1/8" Gas |
|  | 3084422  | 8               | -        | 6               |   | 308410   | 13              | 1/4" Gas |
|  | 3084425  | 13              | -        | 6               |   |          |                 |          |
|  | 3084385  | 13              | -        | 8               |   |          |                 |          |
|  90° swivel female                | 3084423  | 8               | 1/8" Gas | -               |  Nipple connector | 0102620  | -               | 1/8" Gas |
|  | 3084386  | 13              | M14x1,5  | -               |   | 0102621  | -               | 1/4" Gas |

## Special hoses

Working pressure: 250 bar (3675 psi)  
 Bursting pressure: 1000 bar (14700 psi)  
 Minimum bend radius: 45 mm (1.77 in.)

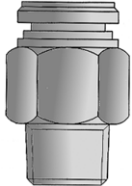


| Part No. | Tube only Part No. | Length (mm) |
|----------|--------------------|-------------|
| 3362058  | 3362026            | 400         |
| 3362052  | 3362026            | 430         |
| 3362059  | 3362026            | 450         |
| 3362060  | 3362026            | 500         |
| 3362053  | 3362026            | 520         |
| 3362055  | 3362026            | 550         |
| 3362054  | 3362026            | 600         |
| 3362057  | 3362026            | 650         |
| 3362062  | 3362026            | 680         |
| 3362056  | 3362026            | 750         |
| 3362063  | 3362026            | 920         |

## High pressure Push-in for oil and grease

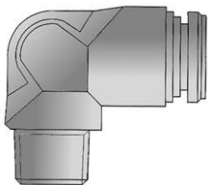
Material: Brass  
 Working pressure: 0 – 65 bar (0 – 942.747 psi)  
 Working temperature: -10°C - +80°C

### Straight terminal



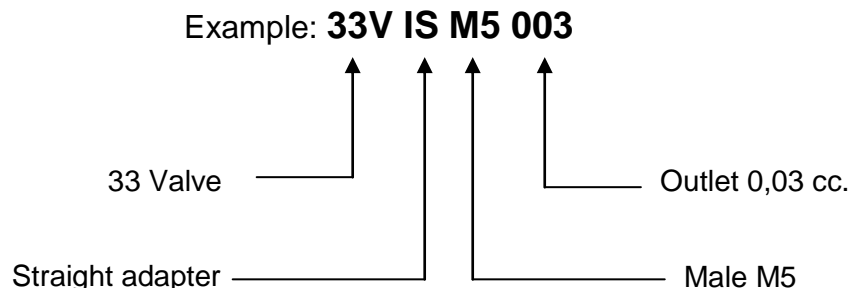
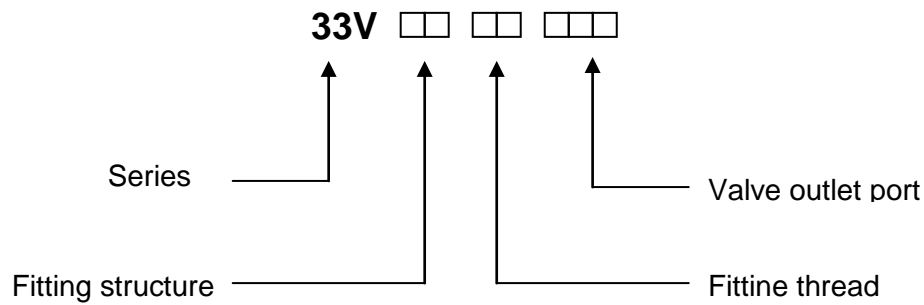
| Part No. | Ø Tube | Thread   | Hex |
|----------|--------|----------|-----|
| 3084577  | 4      | 1/8" Gas | 10  |
| 3084578  | 6      | 1/8" Gas | 13  |
| 3084579  | 4      | M6 x 1   | 10  |
| 3084586  | 4      | 1/8" NPT | 10  |
| 3084587  | 6      | 1/8" NPT | 13  |

### 90° terminal



| Part No. | Ø Tube | Thread   | Hex |
|----------|--------|----------|-----|
| 3084580  | 4      | 1/8" Gas | 9   |
| 3084581  | 6      | 1/8" Gas | 11  |
| 3084588  | 4      | 1/8" NPT | 9   |
| 3084589  | 6      | 1/8" NPT | 11  |

## Scheme of new codification



## Fitting structures abbreviations

| Description                           | Abbreviation |
|---------------------------------------|--------------|
| Straight adapter                      | IS           |
| L Adapter                             | LN           |
| L Adapter with rotary connection port | LC           |
| T Adapter                             | TN           |
| T Adapter with rotary connection port | TC           |
| C Adapter                             | CN           |
| C Adapter with rotary connection port | CC           |
| E Adapter                             | EN           |
| E Adapter with rotary connection port | EC           |
| X Adapter                             | XN           |
| X Adapter with rotary connection port | XC           |

# DropsA

Lubrication Systems Specialists

## **DropsA S.p.A.**

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