



# Heavy duty machines

# Catalogue

Update 02/2022

FIRAD S.p.A. <sup>®</sup> - Via Barge 93, 12031 Bagnolo Piemonte (CN) - ITALY

[www.firad.com](http://www.firad.com) – [www.firad.it](http://www.firad.it) - contact: [info@firad.it](mailto:info@firad.it) Phone (+39) 0175.392251 - Fax (+39) 0175.392540



# CONTENTS

|   |                                                |    |
|---|------------------------------------------------|----|
| 1 | Caterpillar Nozzles, Kits and Spare parts..... | 4  |
| 2 | Navistar Nozzles and Kits .....                | 30 |
| 3 | Cummins Nozzles .....                          | 39 |
| 4 | Detroit diesel Nozzles.....                    | 48 |
| 5 | Perkins Nozzles.....                           | 51 |
| 6 | Siemens Nozzle .....                           | 54 |

**OEM CODES AND PARTS NUMBERS ARE  
GIVEN FOR REFERENCE PURPOSE ONLY**

[2]



## ABBREVIATIONS

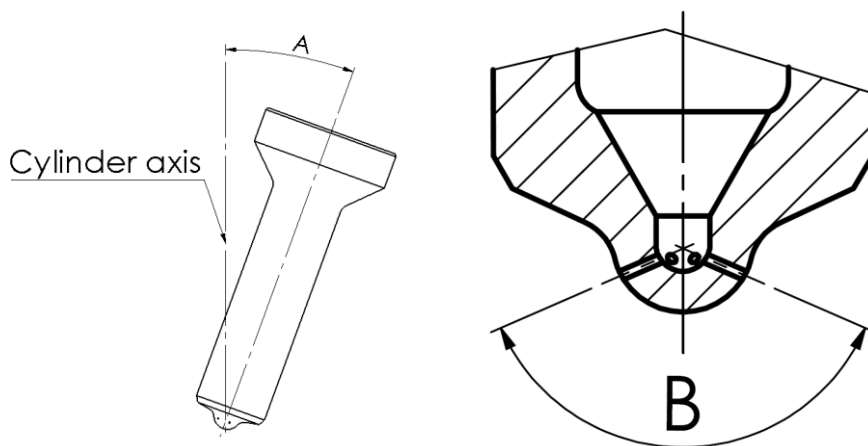
### - Holes

In this section are reported the information about how many micro holes there are and their diameter, in this following way: <N.microholes> x <Diameter microholes>

### - Angles

In this section are reported the information related to nozzle and micro holes angular position

| Engine Angles | Spray Angle |
|---------------|-------------|
| A             | B           |





# 1 Caterpillar Nozzles, Kits and Spare parts

Suitable for

CAT<sup>®</sup> C7 - C9 - C10 - C13 - C15 - 3406E – 3516E

Perkins<sup>®</sup> 3176C

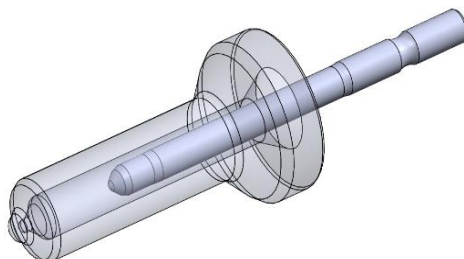
[4]

FIRAD S.p.A. <sup>®</sup> - Via Barge 93, 12031 Bagnolo Piemonte (CN) - ITALY

[www.firad.com](http://www.firad.com) – [www.firad.it](http://www.firad.it) - contact: [info@firad.it](mailto:info@firad.it) Phone (+39) 0175.392251 - Fax (+39) 0175.392540



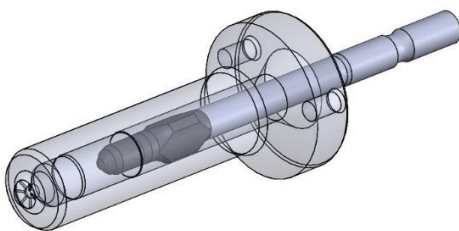
## Caterpillar Nozzles



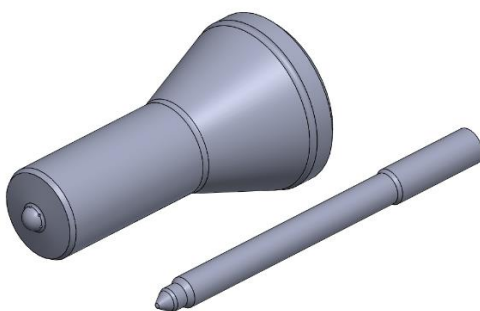
| FIRAD code   | Engine Angle | Spray Angle | CAT® Injector Part Number                                                                 | Stamping                 | Engines   | Holes     |
|--------------|--------------|-------------|-------------------------------------------------------------------------------------------|--------------------------|-----------|-----------|
| <b>C800T</b> | 15°          | 132°        | 10R-4763=387-9428<br>10R-7225=387-9427<br>263-8218<br><b>20R-8066</b>                     | 015T396554<br>221F426554 | C7        | 6 x 0,160 |
| <b>C800U</b> | 15°          | 132°        | 10R-4761=387-9430                                                                         | 315T426203               | C7        | 6 x 0,140 |
| <b>C800V</b> | 0°           | 127°        |                                                                                           | 099S423176               |           | 5 x 0,215 |
| <b>C800W</b> | 0°           | 127°        | 10R-7222=387-9433<br>10R-4764=387-9438<br>254-4339<br>20R-8064                            | 330T418062               | C7        | 5 x 0,210 |
|              |              |             | <b>10R-7223=293-4073=387-9432</b><br><b>10R-7222=387-9433</b><br><b>10R-4764=387-9438</b> | <b>329T413176</b>        | <b>C9</b> |           |
| <b>C800X</b> | 0°           | 127°        |                                                                                           | 264F413249               |           | 5 x 0,185 |
| <b>C800Z</b> | 0°           | 127°40'     |                                                                                           | 123408062                |           | 5 x 0,225 |
| <b>C801G</b> | 15°          | 132°        | 10R-4762=387-9429                                                                         | 266F425162               | C7        | 6 x 0,150 |

[5]



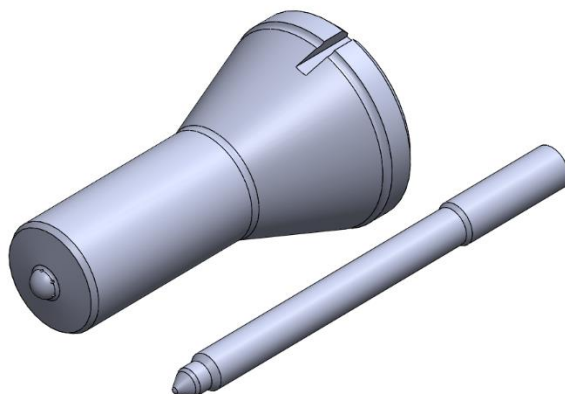


| FIRAD code | Engine Angle | Spray Angle | CAT® Injector Part Number     | Stamping   | Engines | Holes     |
|------------|--------------|-------------|-------------------------------|------------|---------|-----------|
| C800E      | 0°           | 129°        | 10R-7224=236-0962<br>235-2888 | 055T420553 | C9      | 6 x 0,165 |



| FIRAD code | Engine Angle | Spray Angle | CAT® Injector Part Number | Stamping | Engines      | Holes     |
|------------|--------------|-------------|---------------------------|----------|--------------|-----------|
| C800A      | 0°           | 130°        |                           |          | 3406E        | 6 x 0,220 |
| C800F      | 0°           | 130°        |                           |          | 3516E        | 6 x 0,295 |
| C801B      | 0°           | 148°        | 10R-0725=212-3464         |          | C10<br>3176C | 8 x 0,200 |





| FIRAD code    | Engine Angle | Spray Angle | CAT® Injector Part Number                         | Stamping   | Engines                  | Holes     |
|---------------|--------------|-------------|---------------------------------------------------|------------|--------------------------|-----------|
| <b>C800G</b>  | 0°           | 130°        | 10R-2772=253-0618<br>CH10948(Perkins)             |            | 3406E<br>2806            | 6 x 0,275 |
| <b>C800GA</b> | 0°           | 130°        | 10R-2772=253-0618<br>CH10948(Perkins)             |            | 3406E<br>2806            | 6 x 0,260 |
| <b>C800P</b>  | 0°           | 130°        |                                                   |            | 18L                      | 6 x 0,290 |
| <b>C800Y</b>  | 0°           | 130°        | 10R-8501=211-3023<br><b>10R-2781=118-9030</b>     |            | C15, C13<br>3406E<br>C16 | 6 x 0,215 |
| <b>C800J</b>  | 0°           | 130°        | 10R-3264=253-0615                                 |            | 3406E                    | 6 x 0,225 |
| <b>C800N</b>  | 0°           | 132°        |                                                   | 145T909108 |                          | 6 x 0,160 |
| <b>C801E</b>  | 0°           | 130°        | CH12082(Perkins)                                  |            | C15<br>3176C<br>C10      | 6 x 0,240 |
| <b>C801F</b>  | 0°           | 132°        | 200-1117<br>CH12071(Perkins)<br>10R-8988=295-9085 | 257F709083 | 3406E                    | 6 x 0,320 |

[7]

FIRAD S.p.A. ® - Via Barge 93, 12031 Bagnolo Piemonte (CN) - ITALY

[www.firad.com](http://www.firad.com) – [www.firad.it](http://www.firad.it) - contact: info@firad.it Phone (+39) 0175.392251 - Fax (+39) 0175.392540

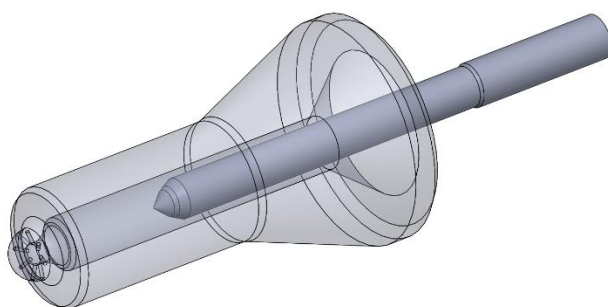


| FIRAD code   | Engine Angle | Spray Angle | CAT® Injector Part Number | Stamping              | Engines          | Holes     |
|--------------|--------------|-------------|---------------------------|-----------------------|------------------|-----------|
| <b>C801J</b> | 0°           | 140°        | 10R-0725=212-3464         |                       | C10<br>3176C     | 8 x 0,195 |
| <b>C801N</b> | 0°           | 127°        |                           | 009T703484            |                  | 6 x 0,220 |
| <b>C801R</b> | 0°           | 126°        | 20R-2284=374-0750         | 152S703437<br>3437-N2 | 365C             | 6 x 0,225 |
| <b>C801P</b> | 0°           | 130°        | 20R-2285=374-0751         | 191T710635            |                  | 6 x 0,195 |
| <b>C801V</b> | 0°           | 131°        | 20R-0055=317-5278         | 323T709108            |                  | 6 x 0,165 |
| <b>C801T</b> | 0°           | 130°30'     |                           |                       |                  | 6 x 0,300 |
| <b>C802G</b> | 0°           | 131°        | 10R-0955=211-3025         | 234T733665            | C15              | 6 x 0,250 |
| <b>C802N</b> | 0°           | 130°        | 10R-0956=211-3022         |                       | 3406E            | 6 x 0,200 |
| <b>C802P</b> | 0°           | 130°        | 10R-0957=211-3023         |                       | 3406E<br>C15-C16 | 6 x 0,215 |
| <b>C802R</b> | 0°           | 131°        | 10R-0958=211-3024         |                       | 3406E            | 6 x 0,230 |
| <b>C802M</b> | 0°           | 130°        | 10R-0963=212-3463         | 053F803444            | C10              | 6 x 0,180 |
| <b>C802S</b> | 0°           | 130°        | 10R-3262=249-0713         |                       | C13<br>C11       | 6 x 0,310 |

[8]

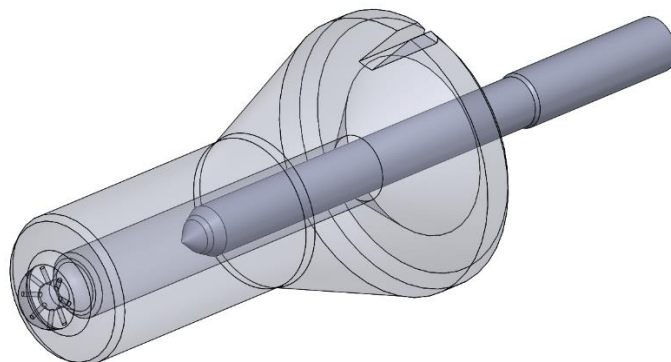


| FIRAD code   | Engine Angle | Spray Angle | CAT® Injector Part Number                 | Stamping   | Engines    | Holes     |
|--------------|--------------|-------------|-------------------------------------------|------------|------------|-----------|
| <b>C802F</b> | 0°           | 147°        | 10R0967                                   | 119F723412 |            | 6 x 0,165 |
| <b>C802T</b> | 0°           | 125°        |                                           | 291F705909 |            | 6 x 0,270 |
| <b>C802V</b> | 0°           | 130°        | 211-3022<br>249-0713 10R-2782<br>10R-3262 |            | C13<br>C11 | 6 x 0,225 |
| <b>C802W</b> | 0°           | 129°        | 350-7555=20R-0056                         | 105T901245 | C12        | 6 x 0,180 |



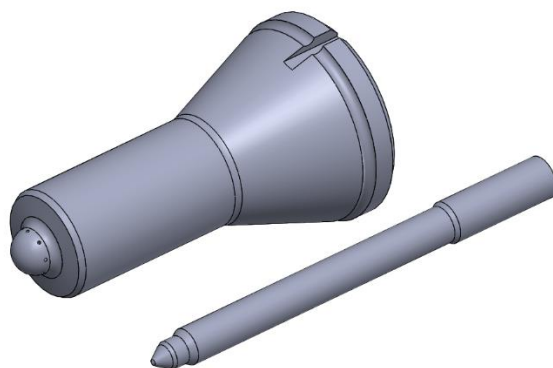
| FIRAD code   | Engine Angle | Spray Angle | CAT® Injector Part Number | Stamping   | Engines                            | Holes      |
|--------------|--------------|-------------|---------------------------|------------|------------------------------------|------------|
| <b>C800H</b> | 0°           | 160°        |                           |            | 3516B/E<br>3500B<br>3508B<br>3512B | 8 x 0,290  |
| <b>C800R</b> | 0°           | 150°        |                           | 265F503538 |                                    | 10 x 0,255 |
| <b>C800S</b> | 0°           | 150°        | 250-1300<br>229-0169      |            | 3500                               | 10 x 0,310 |





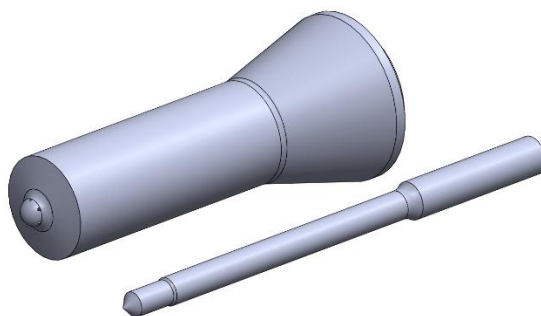
| FIRAD code    | Engine Angle | Spray Angle | CAT® Injector Part Number                                                                                    | Stamping                 | Engines                            | Holes     |
|---------------|--------------|-------------|--------------------------------------------------------------------------------------------------------------|--------------------------|------------------------------------|-----------|
| <b>C800C</b>  | 0°           | 160°        | 10R-1290=250-1311<br>20R-0849=392-0211<br><b>20R-1275=386-1766</b><br><b>392-0214</b>                        | 136F009455<br>229F400162 | 3516E                              | 8 x 0,295 |
| <b>C800D</b>  | 0°           | 160°        | 20R-0849=166-6006<br>20R-1270=148-5759                                                                       |                          | 3516E                              | 8 x 0,300 |
| <b>C800DA</b> | 0°           | 160°        |                                                                                                              |                          |                                    |           |
| <b>C800DB</b> | 0°           | 160°        |                                                                                                              |                          |                                    |           |
| <b>C800L</b>  | 0°           | 156°        |                                                                                                              | 007T509455<br>006S509455 | 3516E                              | 8 x 0,310 |
| <b>C801S</b>  | 0°           | 140°        | <b>20R-1266=386-1754</b><br><b>20R-1266=392-0202</b><br><b>20R-1279=392-0218</b><br><b>20R-1279=386-1770</b> |                          | 3500B<br>3508B<br>3521B<br>3516B/E | 7 x 0,305 |
| <b>C801U</b>  | 0°           | 135°        |                                                                                                              | 194F007746               |                                    | 7 x 0,295 |
| <b>C802X</b>  | 0°           | 145°        | 20R-2285=374-0751                                                                                            | 215T377545               |                                    | 8 x 0,300 |





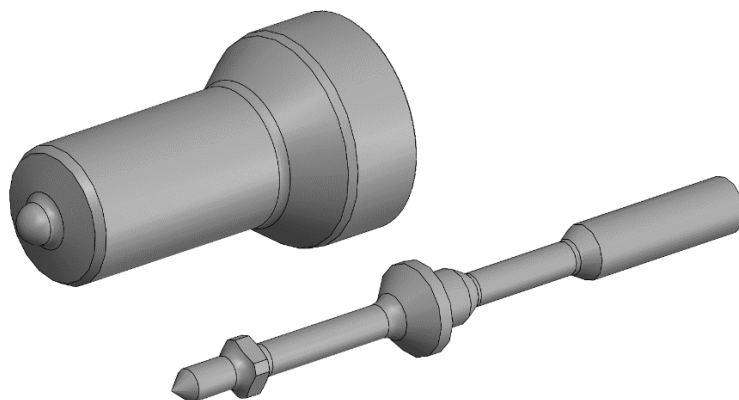
| FIRAD code   | Engine Angle | Spray Angle | CAT <sup>®</sup> Injector Part Number | Stamping | Engines | Holes     |
|--------------|--------------|-------------|---------------------------------------|----------|---------|-----------|
| <b>C802H</b> | 0°           | 124°        | 10R-1273=249-0709                     |          | C15     | 6 x 0,205 |
| <b>C802J</b> | 0°           | 125°        | 10R-1000=229-5919                     |          | C15     | 6 x 0,215 |
| <b>C802L</b> | 0°           | 130°        | 10R-2977=249-0708                     |          | C13     | 6 x 0,195 |



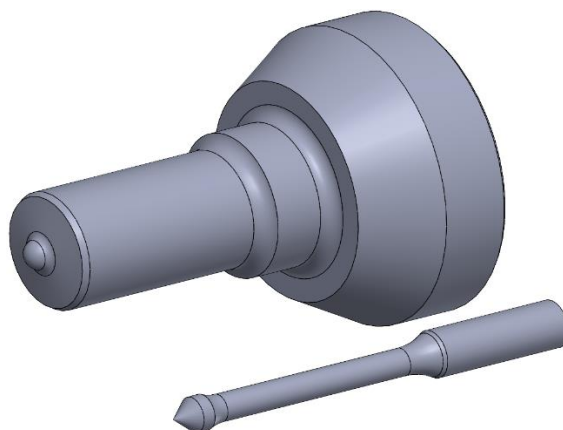


| FIRAD code   | Engine Angle | Spray Angle | CAT <sup>®</sup> Injector Part Number | Stamping | Engines | Holes     |
|--------------|--------------|-------------|---------------------------------------|----------|---------|-----------|
| <b>C800B</b> | 0°           | 137°        |                                       |          | 3116    | 6 x 0,225 |
| <b>C801A</b> | 0°           | 155°20'     | 0R-8475=127-8207                      | 7E-0506  | C15     | 6 x 0,220 |
| <b>C802U</b> | 0°           | 136°        |                                       |          |         | 6 x 0,155 |
| <b>C802Z</b> | 0°           | 135°        | 0R-8461=127-8222                      | 4P-1733  |         | 6 x 0,190 |





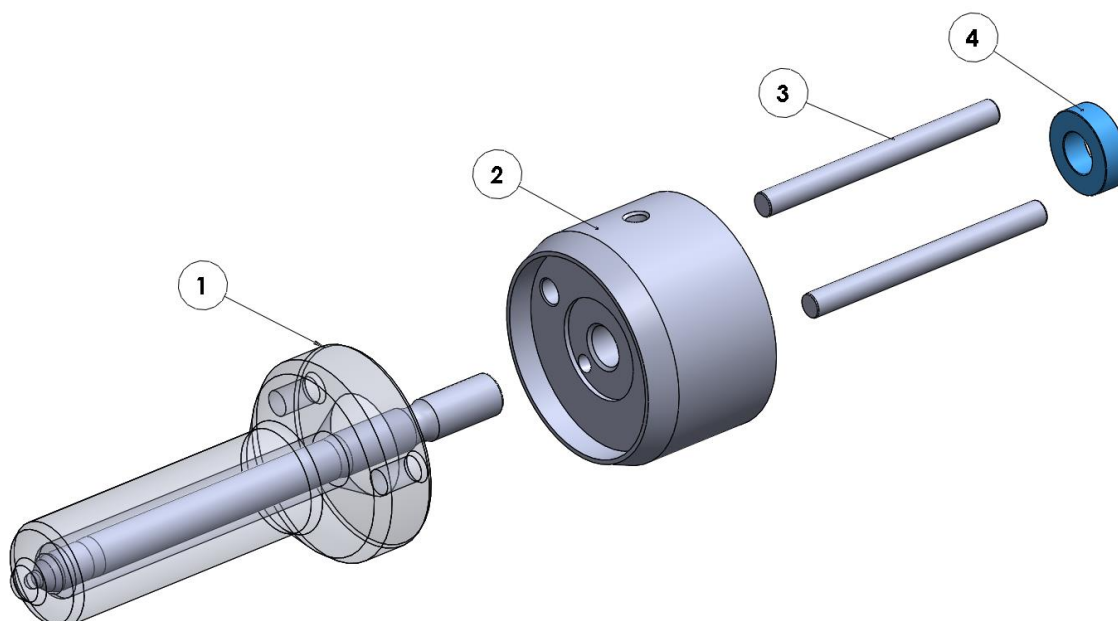
| FIRAD code   | Engine Angle | Spray Angle | CAT <sup>®</sup> Injector Part Number | Stamping | Engines              | Holes     |
|--------------|--------------|-------------|---------------------------------------|----------|----------------------|-----------|
| <b>C700A</b> | 0°           | 129°30'     | 331-5895 =10R-8998                    |          | C175-16<br>793F 797F | 5 x 0,375 |



| FIRAD code   | Engine Angle | Spray Angle | CAT <sup>®</sup> Injector Part Number | Stamping | Engines | Holes     |
|--------------|--------------|-------------|---------------------------------------|----------|---------|-----------|
| <b>C710A</b> | 0°           | 131°        |                                       | 13817241 |         | 6 x 0,200 |



## Caterpillar Nozzle kits

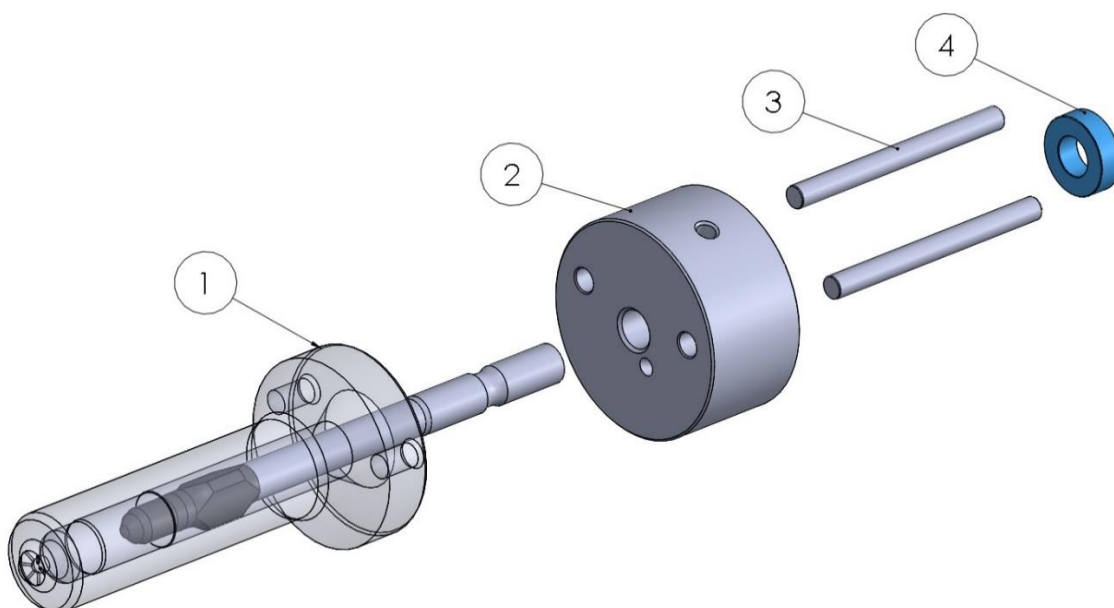


| N. Part | Description   | FIRAD code   |
|---------|---------------|--------------|
| 1       |               | FIRAD Nozzle |
| 2       | Bush          | MCBU002      |
| 3       | Reference Pin | MCCPN001     |
| 4       | Gasket        | MCGA001      |

| FIRAD code kit | Firad Nozzle | CAT® Injector Part Number                          | Engine |
|----------------|--------------|----------------------------------------------------|--------|
| FD00800T       | C800T        | 10R-4763=387-9428<br>10R-7225=387-9427<br>263-8218 | C7     |
| FD00800U       | C800U        | 10R-4761=387-9430                                  | C7     |
| FD00800W       | C800W        | 10R-7222=387-9433<br>10R-4764=387-9438<br>254-4339 | C7/C9  |
| FD00801G       | C801G        | 10R-4762=387-9429                                  | C7     |

[14]

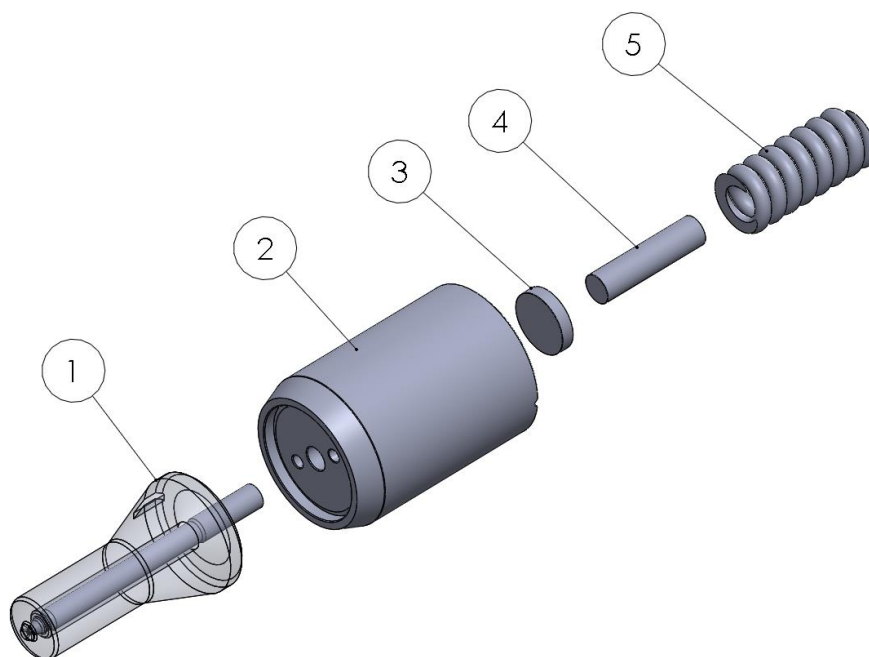




| N. Part | Description   | FIRAD code   |
|---------|---------------|--------------|
| 1       |               | FIRAD Nozzle |
| 2       | Bush          | MCBU003      |
| 3       | Reference Pin | MCCPN001     |
| 4       | Gasket        | MCGA001      |

| FIRAD code kit | Firad Nozzle | CAT <sup>®</sup> Injector Part Number | Engine |
|----------------|--------------|---------------------------------------|--------|
| FD00800E       | C800E        | 10R-7224=236-0962<br>235-2888         | C9     |





| N. Part | Description   | FIRAD code           |
|---------|---------------|----------------------|
| 1       |               | <b>FIRAD Nozzle</b>  |
| 2       | <b>Bush</b>   | <b>MCBU001</b>       |
| 3       | <b>Shim</b>   | <b>MCSH001-220</b>   |
| 4       | <b>Pin</b>    | <b>MCPN001-19210</b> |
| 5       | <b>Spring</b> | <b>MCSP001</b>       |

| FIRAD code kit  | Firad Bush | Firad Nozzle | CAT® Injector Part Number | Engine |
|-----------------|------------|--------------|---------------------------|--------|
| <b>FD150955</b> | MCBU001-E  | C802G        | 10R-0955=211-3025         | C15    |
| <b>FD151273</b> | MCBU001-D  | C802H        | 10R-1273=249-0709         | C15    |
| <b>FD155919</b> | MCBU001-D  | C802J        | 10R-1000=229-5919         | C15    |
| <b>FD132977</b> | MCBU001-C  | C802L        | 10R-2977=249-0708         | C13    |

[16]

FIRAD S.p.A. ® - Via Barge 93, 12031 Bagnolo Piemonte (CN) - ITALY

[www.firad.com](http://www.firad.com) – [www.firad.it](http://www.firad.it) - contact: info@firad.it Phone (+39) 0175.392251 - Fax (+39) 0175.392540



| FIRAD code kit  | Firad Bush | Firad Nozzle | CAT® Injector Part Number              | Engine                   |
|-----------------|------------|--------------|----------------------------------------|--------------------------|
| <b>FD00800G</b> | MCBU001-E  | C800G        | 10R-2772=253-0618<br>CH10948(Perkins)  | 3406E<br>2806            |
| <b>FD00800C</b> | MCBU001-F  | C800C        | 10R-1290=250-1311<br>20R-0849=392-0211 | 3516E                    |
| <b>FD00800J</b> | MCBU001-D  | C800J        | 10R-3264=253-0615                      | 3406E                    |
| <b>FD00802S</b> | MCBU001-C  | C802S        | 10R-3262=249-0713                      | C13<br>C11               |
| <b>FD00801P</b> | MCBU001-D  | C801P        | 20R-2285=374-0751                      | 6015B                    |
| <b>FD102772</b> | MCBU001-D  | C800G        | 10R-2772=253-0618                      | C15<br>C18               |
| <b>FD00800D</b> | MCBU001-F  | C800D        | 20R-0849=166-6006                      | 5230B<br>5130B           |
| <b>FD00801F</b> | MCBU001-E  | C801F        | 10R-8988=295-9085                      | C18<br>C32               |
| <b>FD00801R</b> | MCBU001-D  | C801R        | 20R-2284                               | 3406E<br>C15<br>C16      |
| <b>FD00801P</b> | MCBU001-D  | C801P        | 20R-2285=374-0751                      |                          |
| <b>FD00800Y</b> | MCBU001-E  | C800Y        | 10R-8501=211-3023                      | C15, C13<br>3406E<br>C16 |
| <b>FD00800A</b> | MCBU001-E  | C800A        |                                        |                          |

[17]

FIRAD S.p.A. ® - Via Barge 93, 12031 Bagnolo Piemonte (CN) - ITALY

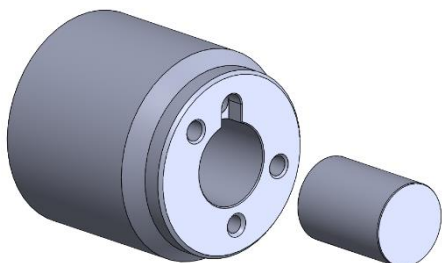
[www.firad.com](http://www.firad.com) – [www.firad.it](http://www.firad.it) - contact: info@firad.it Phone (+39) 0175.392251 - Fax (+39) 0175.392540



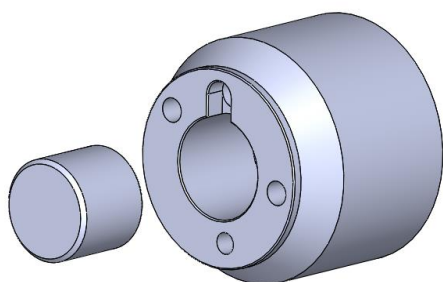
| FIRAD code kit  | Firad Bush | Firad Nozzle | CAT® Injector Part Number | Engine              |
|-----------------|------------|--------------|---------------------------|---------------------|
| <b>FD0CJ800</b> | MCBU001-C  | C800J        | 10R-3264=253-0615         | 3406E               |
| <b>FD00801E</b> | MCBU001-D  | C801E        | CH12082(Perkins)          | C15<br>3176C<br>C10 |
| <b>FD0CA800</b> | MCBU001-C  | C800A        |                           |                     |
| <b>FD00802W</b> | MCBU001-D  | C802W        | 350-7555=20R-0056         | C12                 |



## Caterpillar plunger valve kits



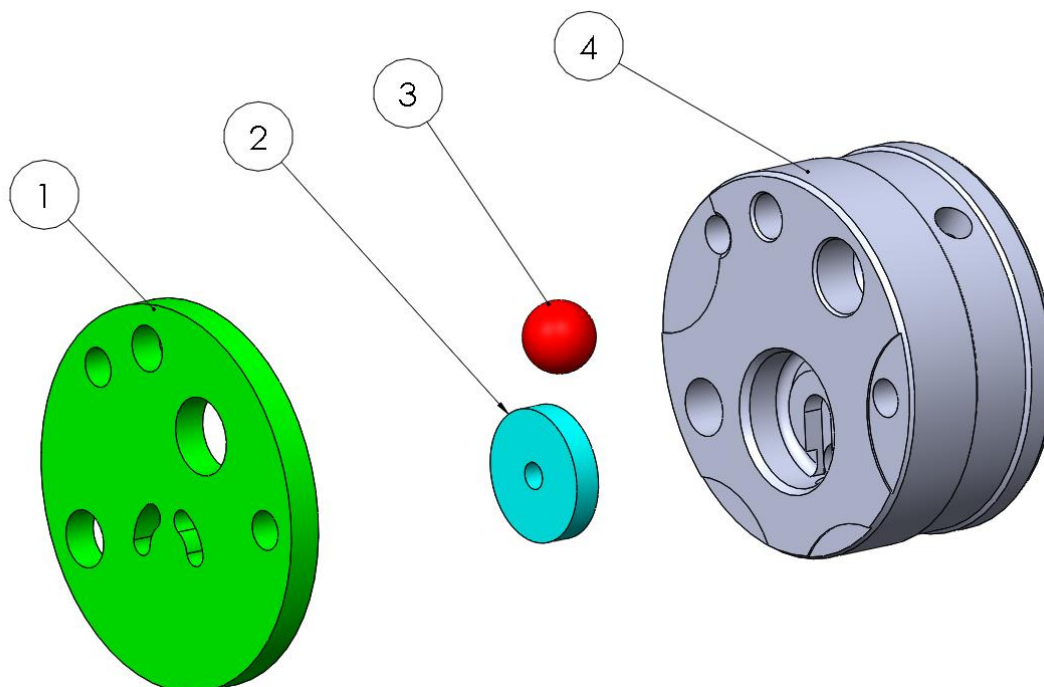
| FIRAD code | Engine |
|------------|--------|
| FDK00003   | C7     |



| FIRAD code | Engine |
|------------|--------|
| FDK00002   | C9     |



## Caterpillar one way valve kits

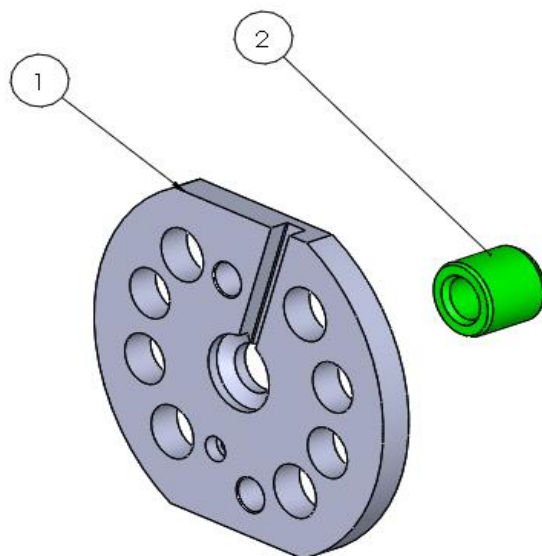


| FIRAD Code | N. Part | FIRAD code | Engine |
|------------|---------|------------|--------|
| FDK00001   | 1       | MCSA002    | C9     |
|            | 2       | MCSA004    |        |
|            | 3       | MCBA001    |        |
|            | 4       | MCSA001    |        |
| FDK00005   | 1       | MCSA005    | C7     |
|            | 2       | MCSA004    |        |
|            | 3       | MCBA001    |        |
|            | 4       | MCSA006    |        |

[20]



## Caterpillar exhaust valve kit

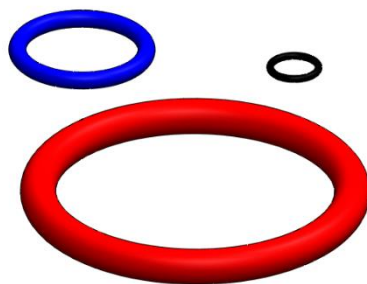


| N. Part | FIRAD code |
|---------|------------|
| 1       | MCPL001    |
| 2       | MCSS001    |

| FIRAD code | Engine |
|------------|--------|
| FDK00004   | C9     |



## External Seal Kit



| FIRAD code      | CAT <sup>®</sup> Injector Part Number                                                                           | Engines |
|-----------------|-----------------------------------------------------------------------------------------------------------------|---------|
| <b>MCESK001</b> | 249-0713=10R-3262<br>253-0618=10R-2772<br>374-0751=20R-2285<br>20R-2284<br>276-8307=10R7231<br>295-9085=10R8988 | 3116    |
| <b>MCESK002</b> | 166-6006=20R-0849<br>148-5759=20R-1270                                                                          | C15     |





| FIRAD code | Engines |
|------------|---------|
| MCESK003   | C9      |



| FIRAD code | Engines |
|------------|---------|
| MCESK004   | C9      |

[23]





| FIRAD code | Engines |
|------------|---------|
| MCESK005   | C9      |



| FIRAD code | Engines |
|------------|---------|
| MCESK006   | C9      |



## PARTS SET CAT3500-EUI



| FIRAD code | Engines |
|------------|---------|
| MCESK007   | 3500    |

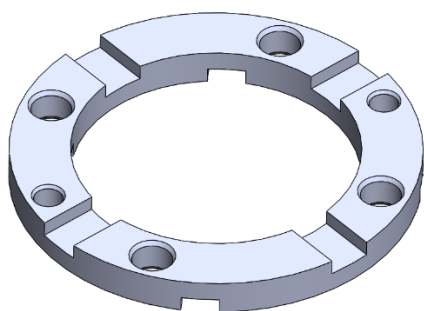
## PARTS SET CAT3516E-EUI-INT



| FIRAD code | Engines |
|------------|---------|
| MCESK008   | 3516    |

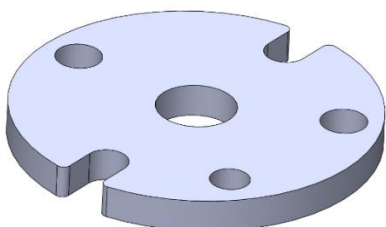


## Caterpillar spare parts



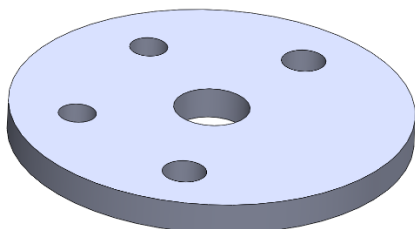
Solenoid spacer

| FIRAD code         | Thickness | Engine  |
|--------------------|-----------|---------|
| <b>MCSL001-288</b> | 2,88 mm   | C9 – C7 |
| <b>MCSL001-290</b> | 2,90 mm   | C9 – C7 |
| <b>MCSL001-292</b> | 2,92 mm   | C9 – C7 |
| <b>MCSL001-294</b> | 2,94 mm   | C9 – C7 |
| <b>MCSL001-296</b> | 2,96 mm   | C9 – C7 |



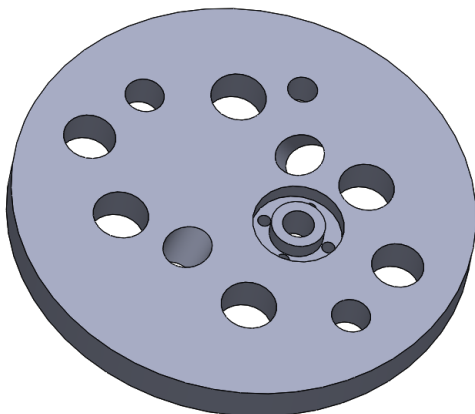
Plate

| FIRAD code     | Engine |
|----------------|--------|
| <b>MCSA003</b> | C9     |



| FIRAD code     | Engine |
|----------------|--------|
| <b>MCSA007</b> | C7     |

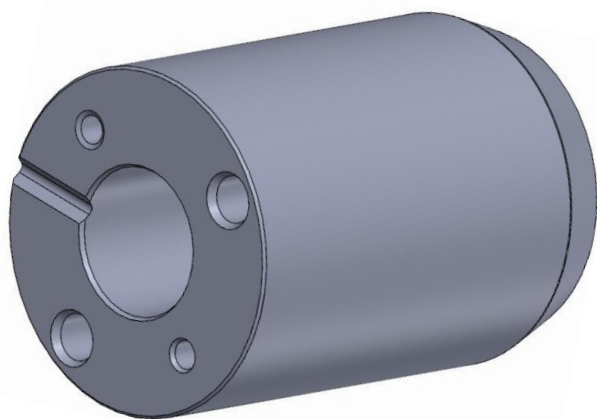




**Hydraulic flow control plate**

| FIRAD code | Engine |
|------------|--------|
| MCPL002    | C7     |

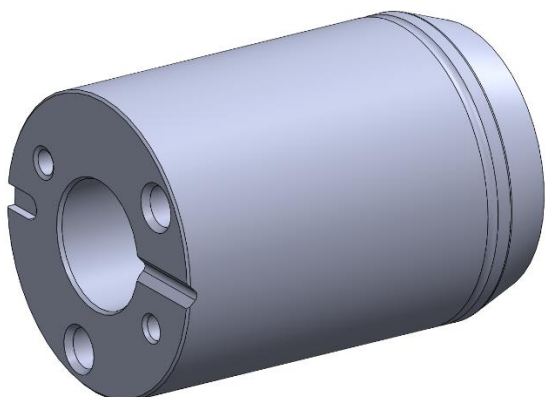
**Caterpillar Bush**



| FIRAD code | Engine    |
|------------|-----------|
| MCBU001-C  | 3406E     |
|            | 2806      |
|            | 3516E     |
|            | C13 – C15 |

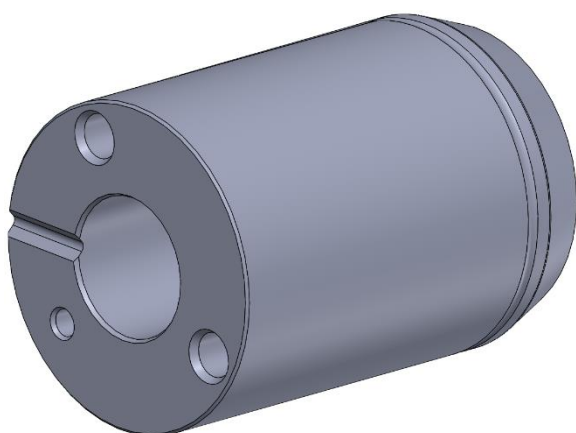
**Description: 2 drain, 4 holes, without ring**





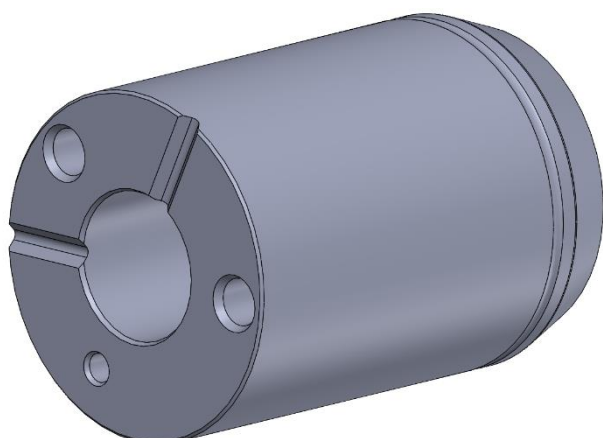
| FIRAD code | Engine    |
|------------|-----------|
| MCBU001-D  | 3406E     |
|            | 2806      |
|            | 3516E     |
|            | C13 – C15 |

**Description:** 2 drains, 4 holes, out ring



| FIRAD code | Engine    |
|------------|-----------|
| MCBU001-E  | 3406E     |
|            | 2806      |
|            | 3516E     |
|            | C13 – C15 |

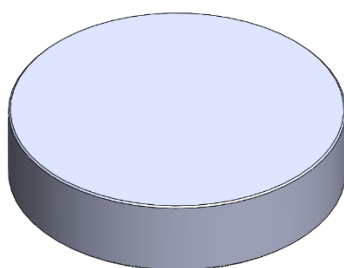
**Description:** 1 drain, 3 holes, out ring



| FIRAD code | Engine    |
|------------|-----------|
| MCBU001-F  | 3406E     |
|            | 2806      |
|            | 3516E     |
|            | C13 – C15 |

**Description:** 1 drain, 3 holes, out ring





Shim

**Outer diameter: 10 mm**

| FIRAD code  | Thickness | Engine            |
|-------------|-----------|-------------------|
| MCSH001-210 | 2,10 mm   | C13 - C15 - 3406E |
| MCSH001-215 | 2,15 mm   | C13 - C15 - 3406E |
| MCSH001-220 | 2,20 mm   | C13 - C15 - 3406E |
| MCSH001-225 | 2,25 mm   | C13 - C15 - 3406E |
| MCSH001-230 | 2,30 mm   | C13 - C15 - 3406E |
| MCSH001-235 | 2,35 mm   | C13 - C15 - 3406E |
| MCSH001-240 | 2,40 mm   | C13 - C15 - 3406E |
| MCSH001-245 | 2,45 mm   | C13 - C15 - 3406E |
| MCSH001-250 | 2,50 mm   | C13 - C15 - 3406E |
| MCSH001-255 | 2,55 mm   | C13 - C15 - 3406E |
| MCSH001-260 | 2,60 mm   | C13 - C15 - 3406E |





## 2 Navistar Nozzles and Kits

Suitable for

Navistar<sup>®</sup> HEUI engines

Ford<sup>®</sup> Powerstroke 7.3

Caterpillar<sup>®</sup> 3126 HEUI – 3408 - 3412

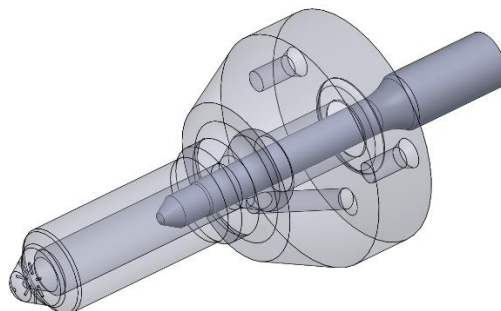
[30]

FIRAD S.p.A. <sup>®</sup> - Via Barge 93, 12031 Bagnolo Piemonte (CN) - ITALY

[www.firad.com](http://www.firad.com) – [www.firad.it](http://www.firad.it) - contact: [info@firad.it](mailto:info@firad.it) Phone (+39) 0175.392251 - Fax (+39) 0175.392540



## Navistar Nozzles



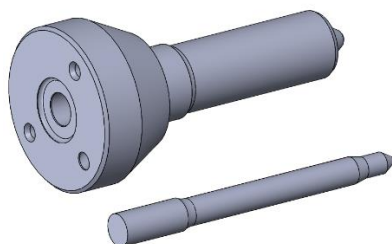
| FIRAD code | Engine Angle | Spray Angle | OEM Part Number | Ford Injector                                      | Navistar Injector                                                              | Holes     |
|------------|--------------|-------------|-----------------|----------------------------------------------------|--------------------------------------------------------------------------------|-----------|
| NS0AA F    | 7°30'        | 152°        | AP63800AA       | F81Z9E527DRM<br>F4TZ9VE527AA<br>RM<br>F7TZ9E527ARM | 1822800C95<br>1816187C3<br>1822801C98<br>1822801C99<br>1821836C3               | 7 x 0,165 |
| NS9BE F    | 10°          | 142°        | AP63809BE       |                                                    | 1829838C94<br>1829926C2<br>1829839C93<br>1829839C94<br>1829837C2               | 5 x 0,220 |
| NS1BI F    | 10°30'       | 145°        | AP63811BI       |                                                    | 1830740C92<br>1830560C2<br>1830561C92<br>1830562C2<br>1830741C92<br>1830741C93 | 6 x 0,170 |
| NS2BJ F    | 10°30'       | 145°        | AP63812BJ       |                                                    | 1830570C92<br>1830571C2<br>1830572C92 & 93<br>1830573C2                        | 6 x 0,190 |
| NS5BK F    | 6°           | 146°        | DPE41026/31     |                                                    |                                                                                | 6 x 0,225 |
| NS6BN F    | 9°           | 148°        | 8991056         |                                                    | 1830691C1<br>1830692C91<br>1830693C1<br>1830694C91                             | 6 x 0,205 |

[31]



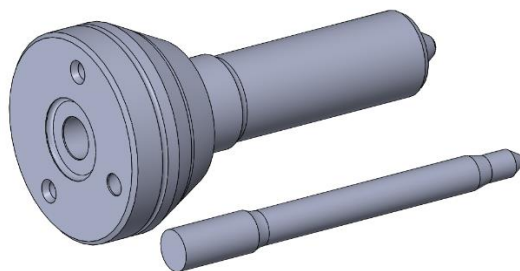
| FIRAD code     | Engine Angle | Spray Angle | OEM Part Number | Ford Injector | Navistar Injector | Holes     |
|----------------|--------------|-------------|-----------------|---------------|-------------------|-----------|
|                |              |             |                 |               | 2593597C91        |           |
| <b>NS7BD F</b> | 11°          | 146°        | 8991055         |               |                   | 5 x 0,235 |
| <b>NS3BC F</b> | 10°          | 142°        | 8991035         |               |                   | 5 x 0,220 |



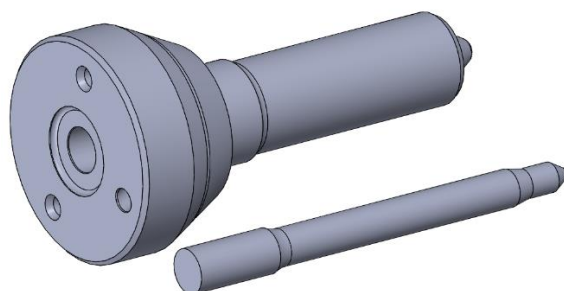


| FIRAD code    | Engine Angle | Spray Angle | OEM Part Number       | CAT® Injector Part Number                                                                                                                           | CAT® Reman Injector Part Number                    | Engine                 | Holes     |
|---------------|--------------|-------------|-----------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------|------------------------|-----------|
| <b>CN900B</b> | 16°30'       | 140°        | DPE41026/32<br>(6-16) | 141-7837<br>155-1819<br>169-7408<br>171-9704<br>171-9710<br>173-9272<br>173-9379<br>173-9380<br>188-1320<br>196-4229<br>222-5972<br><b>178-6342</b> | 0R-9350<br>0R-9348<br><b>10R-1257</b>              | 3126E<br>3126B<br>3126 | 6 x 0,165 |
| <b>CN900C</b> | 16°30'       | 140°        | DPE41026/32<br>(6-17) | 173-4059<br>173-4061<br>173-9267<br>173-9268<br>196-1401<br>222-5963<br>222-5967<br><b>177-4754</b><br><b>177-4752</b>                              | 0R-9349<br>10R-1262<br>10R-0782<br><b>10R-9237</b> | 3126<br>3126E<br>3126B | 6 x 0,175 |
| <b>CN900E</b> | 16°30'       | 140°        | (6-175)               | 222-5966                                                                                                                                            | 10R-0781                                           | 3126E<br>3126B         | 6 x 0,175 |





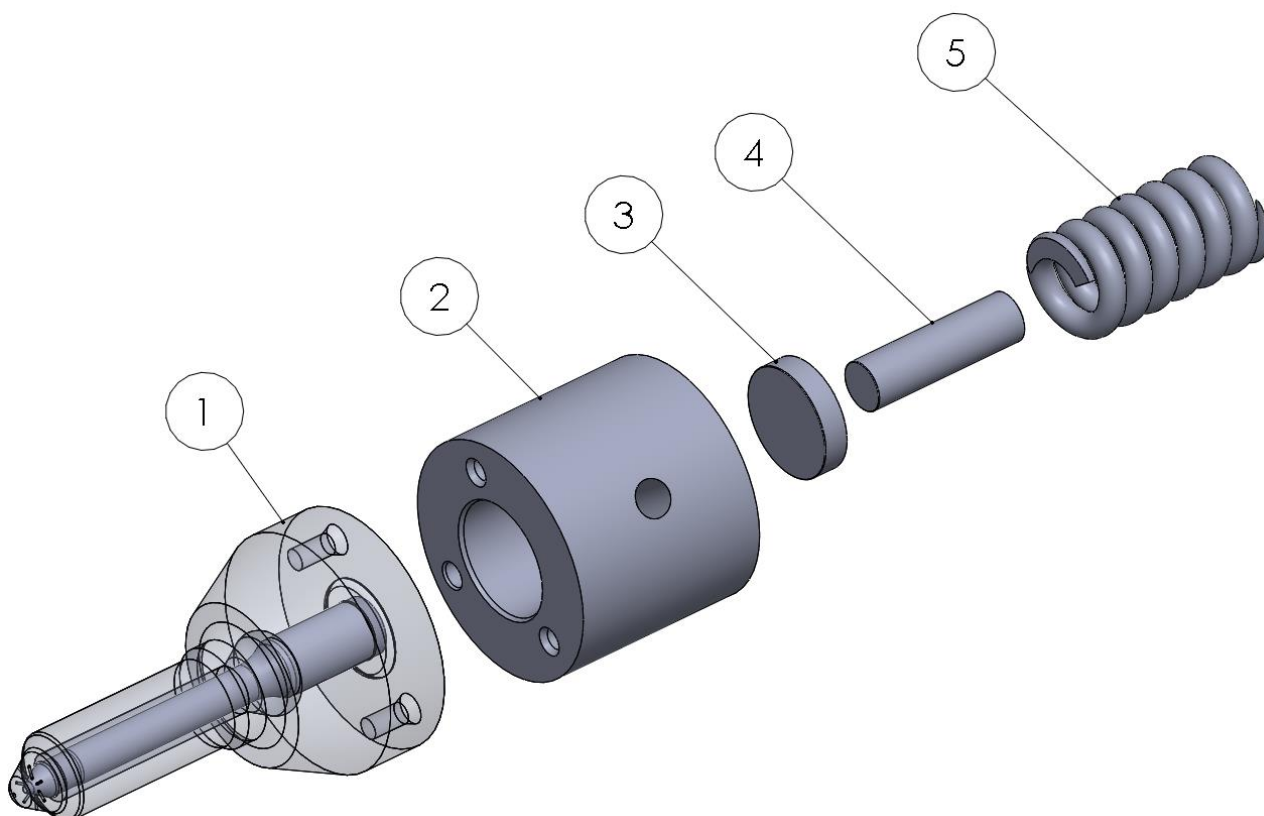
| FIRAD code | Engine Angle | Spray Angle | OEM Part Number | CAT® Injector Part Number        | CAT® Reman Injector Part Number | Engine       | Holes     |
|------------|--------------|-------------|-----------------|----------------------------------|---------------------------------|--------------|-----------|
| CN900A     | 0°           | 140°        |                 | 174-7526<br>174-7527<br>232-1175 | 20R-0758                        | 651E<br>657E | 6 x 0,255 |
| CN900H     | 0°           | 132°        |                 | 232-1170                         |                                 |              | 6 x 0,260 |



| FIRAD code | Engine Angle | Spray Angle | OEM Part Number | CAT® Injector Part Number | CAT® Reman Injector Part Number | Engine       | Holes     |
|------------|--------------|-------------|-----------------|---------------------------|---------------------------------|--------------|-----------|
| CN900D     | 0°           | 130°        |                 | 198-6877<br>204-2467      | 20R-4147                        | 3412E        | 6 x 0,260 |
| CN900G     | 0°           | 140°        |                 | 174-7526<br>174-7527      | 20R-0758                        | 651E<br>657E | 6 x 0,250 |



## Navistar Nozzle kits



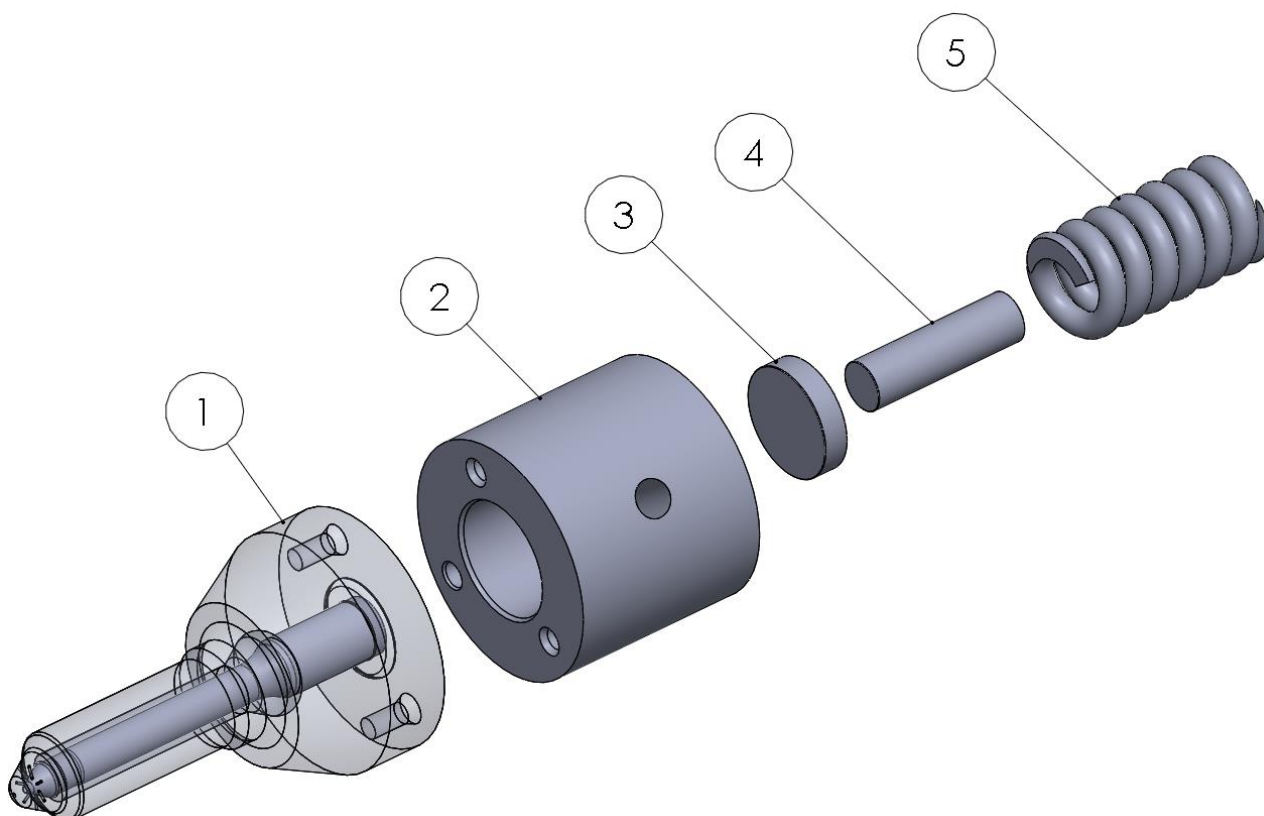
| N. Part | Decription    | FIRAD Code          |
|---------|---------------|---------------------|
| 1       |               | <b>FIRAD Nozzle</b> |
| 2       | <b>Bush</b>   | <b>MCBU004</b>      |
| 3       | <b>Shim</b>   | <b>MCSH002-207</b>  |
| 4       | <b>Pin</b>    | <b>MCPN002-1385</b> |
| 5       | <b>Spring</b> | <b>MCSP002</b>      |



| FIRAD code      | Firad Nozzle | OEM Part Number | Ford Injector                                  | Navistar Injector                                                              |
|-----------------|--------------|-----------------|------------------------------------------------|--------------------------------------------------------------------------------|
| <b>FD0000AA</b> | NS0AA F      | AP63800AA       | F81Z9E527DRM<br>F4TZ9VE527AARM<br>F7TZ9E527ARM | 1822800C95<br>1816187C3<br>1822801C98<br>1822801C99<br>1821836C3               |
| <b>FD0000BE</b> | NS9BE F      | AP63809BE       |                                                | 1829838C94<br>1829926C2<br>1829839C93<br>1829839C94<br>1829837C2               |
| <b>FD0000BI</b> | NS1BI F      | AP63811BI       |                                                | 1830740C92<br>1830560C2<br>1830561C92<br>1830562C2<br>1830741C92<br>1830741C93 |
| <b>FD0000BJ</b> | NS2BJ F      | AP63812BJ       |                                                | 1830570C92<br>1830571C2<br>1830572C92 & 93<br>1830573C2                        |
| <b>FD000BK</b>  | NS5BK F      | DPE41026/31     |                                                |                                                                                |
| <b>FD0000BN</b> | NS6BN F      | 8991056         |                                                | 1830691C1<br>1830692C91<br>1830693C1<br>1830694C91<br>2593597C91               |
| <b>FD0000BD</b> | NS7BD F      | 8991055         |                                                |                                                                                |
| <b>FD0000BC</b> | NS3BC F      | 8991035         |                                                |                                                                                |



## Cat Navistar Nozzle kits



| N. Part | Decription    | FIRAD Code          |
|---------|---------------|---------------------|
| 1       |               | <b>FIRAD Nozzle</b> |
| 2       | <b>Bush</b>   | <b>MCBU004</b>      |
| 3       | <b>Shim</b>   | <b>MCSH002-207</b>  |
| 4       | <b>Pin</b>    | <b>MCPN002-1385</b> |
| 5       | <b>Spring</b> | <b>MCSP002</b>      |

[37]

FIRAD S.p.A. ® - Via Barge 93, 12031 Bagnolo Piemonte (CN) - ITALY

[www.firad.com](http://www.firad.com) – [www.firad.it](http://www.firad.it) - contact: info@firad.it Phone (+39) 0175.392251 - Fax (+39) 0175.392540



| FIRAD code      | Firad Nozzle | OEM Part Number       | CAT® Injector Part Number                                                                                                                           | CAT® Reman Injector Part Number                    | Engine                 |
|-----------------|--------------|-----------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------|------------------------|
| <b>FD00900B</b> | CN900B       | DPE41026/32<br>(6-16) | 141-7837<br>155-1819<br>169-7408<br>171-9704<br>171-9710<br>173-9272<br>173-9379<br>173-9380<br>188-1320<br>196-4229<br>222-5972<br><b>178-6342</b> | OR-9350<br>OR-9348<br><b>10R-1257</b>              | 3126E<br>3126B<br>3126 |
| <b>FD00900C</b> | CN900C       | DPE41026/32<br>(6-17) | 173-4059<br>173-4061<br>173-9267<br>173-9268<br>196-1401<br>222-5963<br>222-5967<br><b>177-4754</b><br><b>177-4752</b>                              | OR-9349<br>10R-1262<br>10R-0782<br><b>10R-9237</b> | 3126<br>3126E<br>3126B |
| <b>FD00900E</b> | CN900E       | (6-175)               | 222-5966                                                                                                                                            | 10R-0781                                           | 3126E<br>3126B         |
| <b>FD00900A</b> | CN900A       |                       | 174-7526<br>174-7527<br>232-1175                                                                                                                    | 20R-0758                                           | 651E<br>657E           |
| <b>FD00900H</b> | CN900H       |                       | 232-1170                                                                                                                                            |                                                    |                        |
| <b>FD00900D</b> | CN900D       |                       | 198-6877<br>204-2467                                                                                                                                | 20R-4147                                           | 3412E                  |
| <b>FD00900G</b> | CN900G       |                       | 174-7526<br>174-7527                                                                                                                                | 20R-0758                                           | 651E<br>657E           |





## 3 Cummins Nozzles

Suitable for

Cummins<sup>®</sup> M11, N14, L10, QSK, ISC, ISL, QSL, QSC engines

Scania XPI engine

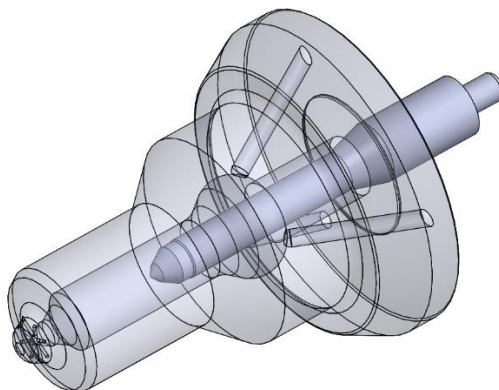
[39]

FIRAD S.p.A. <sup>®</sup> - Via Barge 93, 12031 Bagnolo Piemonte (CN) - ITALY

[www.firad.com](http://www.firad.com) – [www.firad.it](http://www.firad.it) - contact: [info@firad.it](mailto:info@firad.it) Phone (+39) 0175.392251 - Fax (+39) 0175.392540



## Cummins Nozzles



| FIRAD code     | Engine Angle | Spray Angle | Stamping | Injector Part Number                                                                                       | Engine     | Holes     |
|----------------|--------------|-------------|----------|------------------------------------------------------------------------------------------------------------|------------|-----------|
| <b>108/CFD</b> | 0°           | 150°        | 26107    | 3070629<br>3070739<br>3071534<br>3073995<br>3081314<br>3081315<br>3081317<br>3652516<br>3652541<br>3652542 | N14<br>L10 | 8 x 0,215 |
| <b>109/CFD</b> | 0°           | 148°        | 26108    | 3084589<br>3087557<br>3411752                                                                              | M11        | 8 x 0,170 |
| <b>110/CFD</b> | 0°           | 153°        | 26109    | 3083846<br>3087733<br>3087560<br>3411759                                                                   | N14        | 8 x 0,200 |
| <b>111/CFD</b> | 0°           | 153°        | 26113    | 3411755                                                                                                    | M11        | 8 x 0,160 |
| <b>112/CFD</b> | 0°           | 153°        | 26114    | 3411758                                                                                                    | M11        | 8 x 0,215 |

[40]



| FIRAD code     | Engine Angle | Spray Angle | Stamping       | Injector Part Number          | Engine | Holes     |
|----------------|--------------|-------------|----------------|-------------------------------|--------|-----------|
| <b>113/CFD</b> | 0°           | 149°        | 26115          | 3095086<br>3609796<br>3087788 | N14    | 8 x 0,235 |
| <b>114/CFD</b> | 0°           | 146°        | 26116          | 3088178                       | N14    | 8 x 0,230 |
| <b>115/CFD</b> | 0°           | 150°        | 26117          | 3073996<br>3081318<br>3652540 | L10    | 8 x 0,180 |
| <b>116/CFD</b> | 0°           | 159°        | 26122          | 3411753<br>3095040            | M11    | 8 x 0,190 |
| <b>117/CFD</b> | 0°           | 153°        | 26126          | 3411385<br>3411767            | N14    | 8 x 0,230 |
| <b>128/CFD</b> | 0°           | 152°        | 26127          | 3411381<br>3411691<br>3411765 | N14    | 8 x 0,195 |
| <b>129/CFD</b> | 0°           | 154°        | 26135          | 3411761                       | N14    | 8 x 0,210 |
| <b>130/CFD</b> | 0°           | 142°        | 26137          | 3411766                       | N14    | 8 x 0,210 |
| <b>131/CFD</b> | 0°           | 140°        | 4061854<br>FSP | 4061851                       | M11    | 8 x 0,205 |
| <b>132/CFD</b> | 0°           | 140°        | 4026225<br>FSP | 4026222                       | M11    | 8 x 0,220 |
| <b>133/CFD</b> | 0°           | 130°        | 4903475        | 4903472                       | M11    | 6 x 0,215 |
| <b>134/CFD</b> | 0°           | 154°        | 3609855<br>FSP | 3411760                       | N14    | 8 x 0,230 |
| <b>135/CFD</b> | 0°           | 131°        | 4903322<br>FSP | 4903319                       | M11    | 6 x 0,220 |

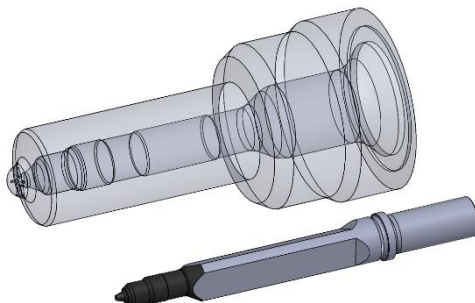
[41]



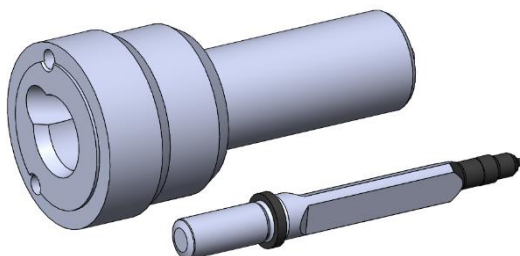
| FIRAD code | Engine Angle | Spray Angle | Stamping       | Injector Part Number | Engine | Holes     |
|------------|--------------|-------------|----------------|----------------------|--------|-----------|
| 150/CFD    | 0°           | 154°        | M-3095729      |                      |        | 8 x 0,215 |
| 151/CFD    | 0°           | 131°        |                |                      | N14    | 6 x 0,180 |
| 152/CFD    | 0°           | 152°        | FSP<br>4307798 |                      |        | 6 x 0,255 |



## Cummins QSK Nozzles



| FIRAD code  | Engine Angle | Spray Angle | Cummins® Part Number | Bosch® OEM Part Number                                         | Stamping   | Engines | Holes     |
|-------------|--------------|-------------|----------------------|----------------------------------------------------------------|------------|---------|-----------|
| QKFDA 00BD  | 0°           | 148°        | 2867147              | F00B J00 000<br>F00B J00 001<br>Y 431 K05 392                  | F00BD00000 | QSK     | 6 x 0,265 |
| QKFDA 00BD3 | 0°           | 139°        | 4964170              | F00B L0J 019<br>F00B L0J 020<br>0 986 435 612<br>Y 431 K05 420 | F00BD00003 | QSK 19  | 6 x 0,270 |



| FIRAD code     | Engine Angle | Spray Angle | L'Orange® Part Number        | Bosch® OEM Part Number                                       | Stamping    | Engines | Holes     |
|----------------|--------------|-------------|------------------------------|--------------------------------------------------------------|-------------|---------|-----------|
| QKFDA 00265671 | 0°           | 149°        |                              |                                                              | B 433265671 | QSK     | 6 x 0,260 |
| QKFDA 00BD4    | 0°           | 131°        | X51107500005<br>X51107500011 | F00B L0J 004<br>F00B L0J 005<br>F00B L0J 011<br>F00B L0J 012 | F00BD00004  | MTU     | 8 x 0,270 |

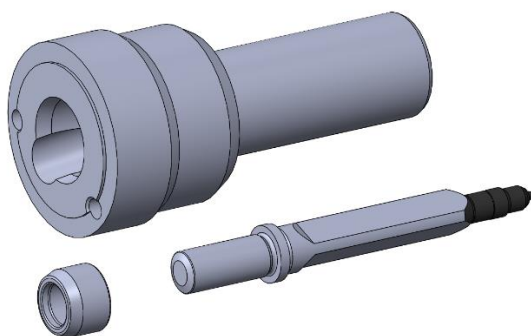
[43]

FIRAD S.p.A. ® - Via Barge 93, 12031 Bagnolo Piemonte (CN) - ITALY

[www.firad.com](http://www.firad.com) – [www.firad.it](http://www.firad.it) - contact: info@firad.it Phone (+39) 0175.392251 - Fax (+39) 0175.392540



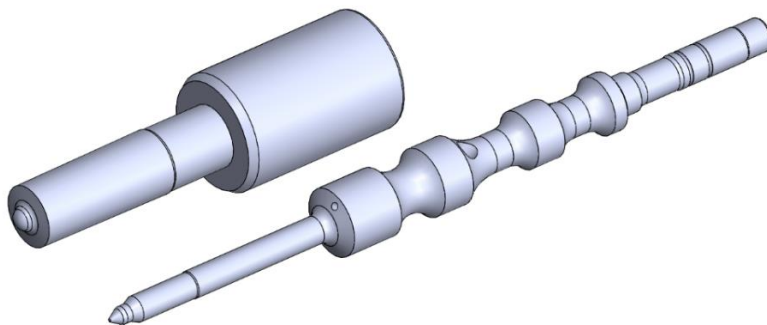
|  |  |  |  |                                                 |  |  |  |
|--|--|--|--|-------------------------------------------------|--|--|--|
|  |  |  |  | Y 431 K05 350<br>Y 431 K05 351<br>Y 431 K05 210 |  |  |  |
|--|--|--|--|-------------------------------------------------|--|--|--|



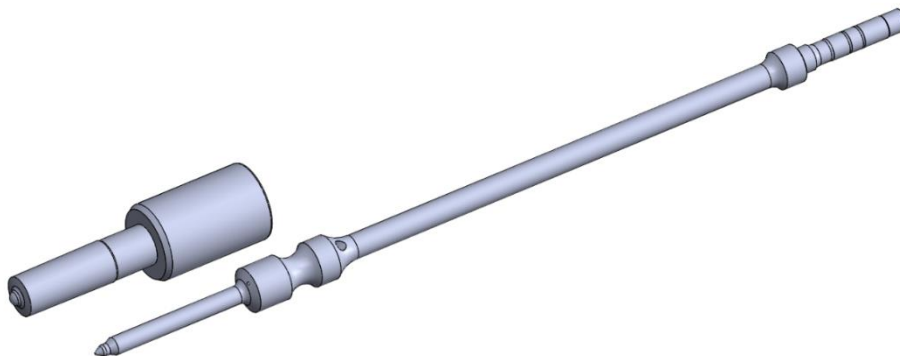
| FIRAD code        | Engine Angle | Spray Angle | Cummins® Part Number | Bosch® OEM Part Number         | Stamping    | Engines         | Holes     |
|-------------------|--------------|-------------|----------------------|--------------------------------|-------------|-----------------|-----------|
| QKFDA<br>00265191 | 0°           | 145°        |                      | Y 431 K05 194<br>Y 431 K05 298 | B 433265191 | Iveco<br>Vector | 8 x 0,245 |



## Cummins ISC, ISL, QSL, QSC, ISX, Scania XPI Nozzles



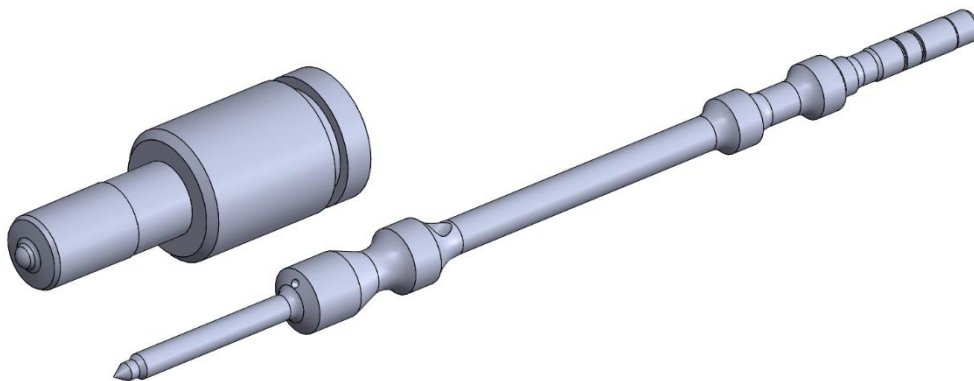
| FIRAD code  | Engine Angle | Spray Angle | OE Injector Part Number | Stamping | Engines               | Holes     |
|-------------|--------------|-------------|-------------------------|----------|-----------------------|-----------|
| 145P4928562 | 0°           | 145°        | 2872127<br>4954927      | P4928562 | ISC, ISL,<br>QSL, QSC | 7 x 0,180 |



| FIRAD code  | Engine Angle | Spray Angle | OE Injector Part Number | Stamping    | Engines | Holes     |
|-------------|--------------|-------------|-------------------------|-------------|---------|-----------|
| 146P4307083 | 0°           | 146°        |                         | P4307083FSW | ISX     | 8 x 0,190 |
| 145P5461846 | 0°           | 145°        |                         | P5461846FSW | ISX     | 8 x 0,175 |

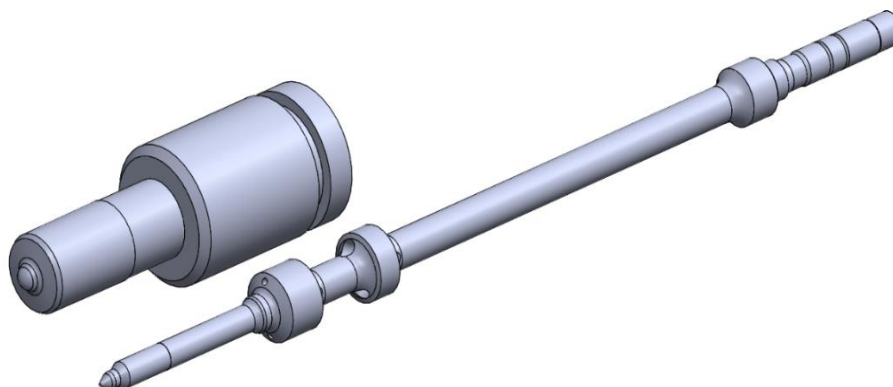
[45]





| FIRAD code         | Engine Angle | Spray Angle | OE Injector Part Number | Reman Injector Part Number | Stamping | Engines             | Holes     |
|--------------------|--------------|-------------|-------------------------|----------------------------|----------|---------------------|-----------|
| <b>148P2872320</b> | 0°           | 148°        | 2031835                 | 575176                     | P2872320 | DC9<br>DC13<br>DC16 | 8 x 0,160 |
| <b>148P2872321</b> | 0°           | 148°        | 2086663                 | 575177                     | P2872321 | DC9<br>DC13<br>DC16 | 8 x 0,175 |
| <b>148P4954707</b> | 0°           | 148°        | 1881564                 |                            | P4954707 | DC9<br>DC13<br>DC16 | 8 x 0,160 |
| <b>145P4984850</b> | 0°           | 145°        | 2872405                 | 5579417                    | P4984850 | ISX 15              | 8 x 0,185 |





| FIRAD code  | Engine Angle | Spray Angle | OE Injector Part Number | Reman Injector Part Number | Stamping | Engines             | Holes     |
|-------------|--------------|-------------|-------------------------|----------------------------|----------|---------------------|-----------|
| 146P2897551 | 0°           | 146°        | 2057401                 | 574423                     | P2897551 | DC9<br>DC13<br>DC16 | 9 x 0,185 |





## 4 Detroit diesel Nozzles

Suitable for

Detroit<sup>®</sup> Diesel 50/60 series

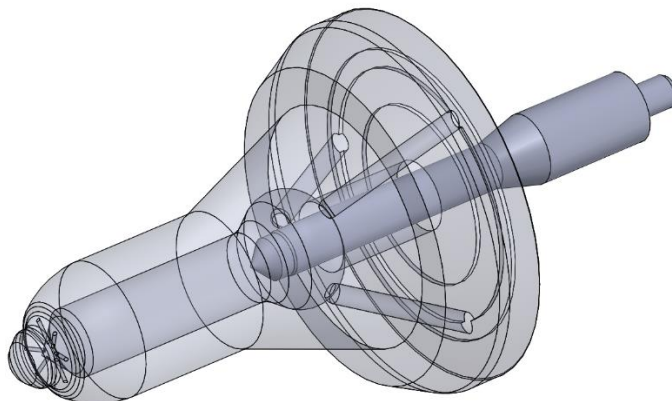
[48]

FIRAD S.p.A. <sup>®</sup> - Via Barge 93, 12031 Bagnolo Piemonte (CN) - ITALY

[www.firad.com](http://www.firad.com) – [www.firad.it](http://www.firad.it) - contact: [info@firad.it](mailto:info@firad.it) Phone (+39) 0175.392251 - Fax (+39) 0175.392540



## Detroit Nozzles



| FIRAD code    | Engine Angle | Spray Angle | Stamping | Injector Part Number                     | Engine         | Holes     |
|---------------|--------------|-------------|----------|------------------------------------------|----------------|-----------|
| <b>018DFD</b> | 0°           | 154°        | 26211    | 5235915<br>5237466                       | 1,27L          | 8 x 0,200 |
| <b>019DFD</b> | 0°           | 156°        | 26212    | 5235580<br>5236978                       | 11,1L          | 8 x 0,170 |
| <b>020DFD</b> | 0°           | 157°        | 26213    | 5235600<br>5237320<br>5237650            | 11,1L<br>8,50L | 9 x 0,200 |
| <b>021DFD</b> | 0°           | 159°        | 26214    | 5235935<br>5235605                       | 11,1L<br>12,7L | 9 x 0,165 |
| <b>022DFD</b> | 0°           | 161°        | 26215    | 5234870<br>5234940                       | 11,1L<br>12,7L | 9 x 0,200 |
| <b>023DFD</b> | 0°           | 159°        | 26216    | 5234795<br>5234945<br>5234970<br>5235695 | 12,7L<br>11,1L | 9 x 0,210 |
| <b>024DFD</b> | 0°           | 159°        | 26217    | 5234785                                  | 12,7L          | 9 x 0,200 |
| <b>025DFD</b> | 0°           | 158°        | 26218    | 5234865                                  | 11,1L          | 9 x 0,200 |

[49]



| FIRAD code    | Engine Angle | Spray Angle | Stamping  | Injector Part Number          | Engine         | Holes     |
|---------------|--------------|-------------|-----------|-------------------------------|----------------|-----------|
| <b>026DFD</b> | 0°           | 153°        | 26219     |                               |                | 9 x 0,215 |
| <b>027DFD</b> | 0°           | 154°        | 4991525   | 5235550<br>5236977<br>5235575 | 8,50L<br>11,1L | 8 x 0,190 |
| <b>028DFD</b> | 0°           | 154°        | 752-B4-54 | 5236347<br>5236980<br>5237045 |                | 8 x 0,215 |





## 5 Perkins Nozzles

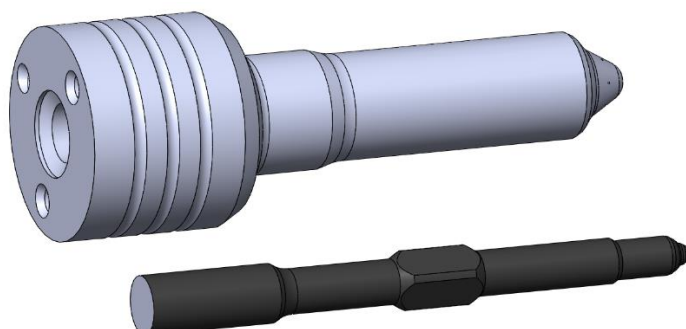
Suitable for  
Caterpillar<sup>®</sup> C6.6

[51]

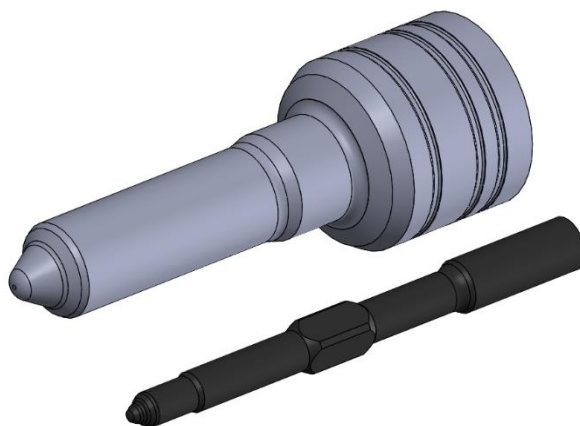
FIRAD S.p.A. <sup>®</sup> - Via Barge 93, 12031 Bagnolo Piemonte (CN) - ITALY  
[www.firad.com](http://www.firad.com) – [www.firad.it](http://www.firad.it) - contact: [info@firad.it](mailto:info@firad.it) Phone (+39) 0175.392251 - Fax (+39) 0175.392540



## Perkins Nozzles



| FIRAD code   | Engine Angle | Spray Angle | CAT® Injector Part Number                                                        | Perkins® Injector Part Number    | Stamping                 | Engine                                     | Holes     |
|--------------|--------------|-------------|----------------------------------------------------------------------------------|----------------------------------|--------------------------|--------------------------------------------|-----------|
| <b>C500F</b> | 0°           | 126°        |                                                                                  | 2645A745                         | 050F379458               | C6.6                                       | 6 x 0,135 |
| <b>C500E</b> | 0°           | 130°        | 10R-7671<br>320-0677<br>10R-7938<br>321-3600<br>10R-7672<br>320-0680<br>306-9380 | 2645A746<br>2645A747<br>2645A753 | 248T359461               | C6.6<br>C4.4<br>1104D-E44TA<br>1106D-E66TA | 6 x 0,160 |
| <b>C500H</b> | 0°           | 130°        |                                                                                  | 2645A751                         | 270T799467<br>102F679467 | C6.6                                       | 6 x 0,205 |
| <b>C500L</b> | 0°           | 130°        | 320-0690<br>10R-7673                                                             | 2645A749                         | 182E359464<br>294F389464 | C6.6                                       | 6 x 0,185 |



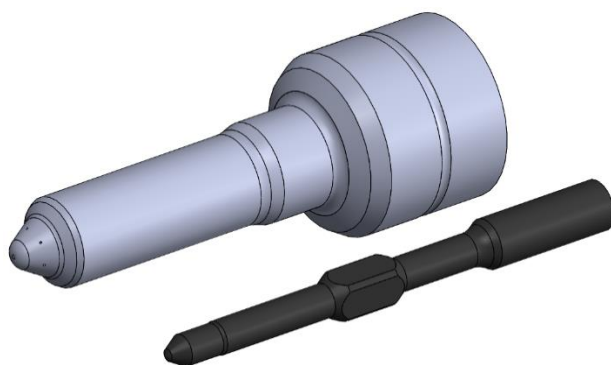
[52]

FIRAD S.p.A. ® - Via Barge 93, 12031 Bagnolo Piemonte (CN) - ITALY

[www.firad.com](http://www.firad.com) – [www.firad.it](http://www.firad.it) - contact: info@firad.it Phone (+39) 0175.392251 - Fax (+39) 0175.392540



| FIRAD code   | Engine Angle | Spray Angle | CAT® Injector Part Number           | Perkins® Injector Part Number | Stamping   | Engine | Holes     |
|--------------|--------------|-------------|-------------------------------------|-------------------------------|------------|--------|-----------|
| <b>C500B</b> | 0°           | 135°        | 10R-7675<br>326-4700<br>095000-3200 |                               | 239S379092 | C6.6   | 6 x 0,155 |
| <b>C500C</b> | 0°           | 135°        |                                     |                               |            | C6.6   | 6 x 0,150 |
| <b>C500M</b> | 0°           |             |                                     |                               | 211T359095 | C6.6   | 6 x 0,165 |



| FIRAD code   | Engine Angle | Spray Angle | CAT® Injector Part Number | Perkins® Injector Part Number | Stamping   | Engine | Holes     |
|--------------|--------------|-------------|---------------------------|-------------------------------|------------|--------|-----------|
| <b>C500A</b> | 0°           | 130°        |                           |                               | 206T380694 |        | 6 x 0,165 |
| <b>C500D</b> | 0°           | 130°30'     |                           |                               |            |        | 6 x 0,185 |
| <b>C500N</b> | 0°           | 130°        |                           | 2645A742                      | 157F670259 | C6.6   | 6 x 0,160 |





## 6 Siemens Nozzle

Suitable for

Ford<sup>®</sup> Powerstroke 6.0

[54]

FIRAD S.p.A. <sup>®</sup> - Via Barge 93, 12031 Bagnolo Piemonte (CN) - ITALY

[www.firad.com](http://www.firad.com) – [www.firad.it](http://www.firad.it) - contact: [info@firad.it](mailto:info@firad.it) Phone (+39) 0175.392251 - Fax (+39) 0175.392540

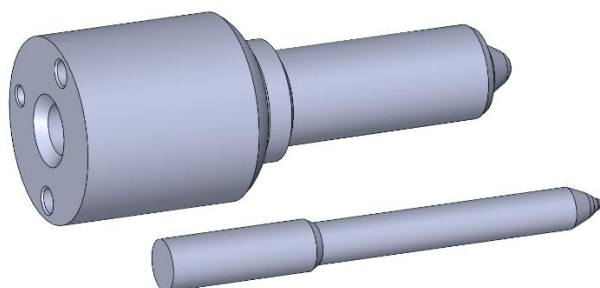




Deutz® G2.9



## Siemens Nozzles



| FIRAD code    | Engine Angle | Spray Angle | Stamping     | Ford Injector                    | Navistar Injector                                    | Holes     |
|---------------|--------------|-------------|--------------|----------------------------------|------------------------------------------------------|-----------|
| <b>FD2000</b> | 0°           | 150°        | V 0802 P 150 | 3C3Z-9E527-AE<br>3C3Z-9E527-ABRM | 1843089C91<br>1845879C91<br>1843481C94<br>1843481C95 | 6 x 0,190 |
| <b>FD3000</b> | 0°           | 144°        | V 0803 P 144 |                                  |                                                      | 7 x 0,195 |
| <b>FD3001</b> | 0°           | 150°        | V 0803 P 150 |                                  | AP66977<br>1848718C92                                | 7 x 0,170 |
| <b>FD3002</b> | 0°           | 153°        | V 805 P 153  |                                  | AP66918<br>1848718C92                                | 8 x 0,160 |

