

CMF#NJ

SPRING RETURN CYLINDERS WITH HOLLOW PISTON

FOR BARRIERS TYPE NEW JERSEY AND GUARD-RAILS

INTRODUCTION AND OPERATIONAL AREAS

When considering new Jersey and guard-rail systems we have two possible solutions: the **CMF22N008** model, used to verify and test them with traction cells, which uses M16/M20/M24 studs or the **CMF20N50** model, used to verify, test and extract them via cylinder, which uses M16/M20/M24/M27/M30 studs.

Both during the installation and the exercise of the studs it's necessary to verify them through traction tests in order to prove their adherence to concrete and the integrity of the material.

To this purpose the Europress system allows to fulfill simple and efficient tensile strength tests.

The system is composed of a traction load cell **CMF22N8G** constituted by a simple effect spring return hollow ram cylinder, with a nominal capacity of a maximum of 212 kN at 700 bars, 8 mm of stroke, firmly connected to a gauge and provided with a quick female coupler combined with a pump which generates hydraulic pressure.

This traction cell constitutes an instrument to measure the force applied on the stud while testing.

If calibrated as a measurement instrument it can be used also to redact calibration certificated tests.

Depending on the different applications required the set can be equipped with ancillaries which are useful to the traction of studs of M16, M20, M24 diameter. Moreover it can be used a longer M20 diameter version for the traction of studs fixed on steel New Jersey barriers.

The cylinder is activated by a **PNP130** (or **PN131**) hand pump and a flexible hose **SN20M** with a male coupler on top.

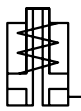
The pump is connected thanks to the male coupler fixed on one side of the hose which is connected to the female coupler fixed on the cylinder.

The hollow ram cylinder, thanks to its through hole, allows the passage of the tie-rod of appropriate dimension in order to screw it on the stud itself.

Extending the piston of the cylinder, a tensile force, proportional to the pressure generated by the pump, is exerted on the stud.

The gauge thus allows to verify the force exerted on the stud.





| | |
|------------------------|-----------|
| ● FORCE | 10 - 20 t |
| ● STROKE | 8 - 50 mm |
| ● MAX WORKING PRESSURE | 700 bar |

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SET CHOICE

The load cell **CMF22N8G** is suitable for all the sets and it's adjustable to certify the extent of the applied force. The set **CMF22N8S1624NJC**, which is available in our stock, includes all the necessary articles to compose the illustrated variants, in particular:

- 1 pcs. Load cell CMF22N8G.
- 1 pcs. Base 320220820.
- 1 pcs. Extended base 320200821 for barriers type New.

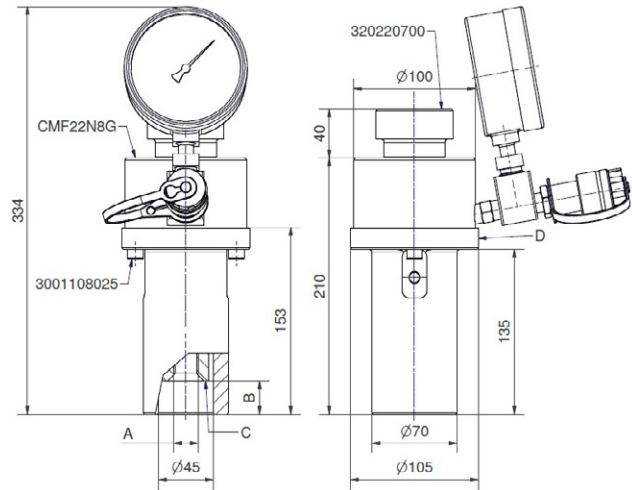
Jersey in steel:

- 3 pcs. Screws 3001108025.
- 1 pcs. Knub 320220700.
- 1 pcs. Puller M16 320220716.
- 1 pcs. Puller M20 320220720.
- 1 pcs. Puller M20 long 320220721 for extended base.
- 1 pcs. Puller M24 320220724.

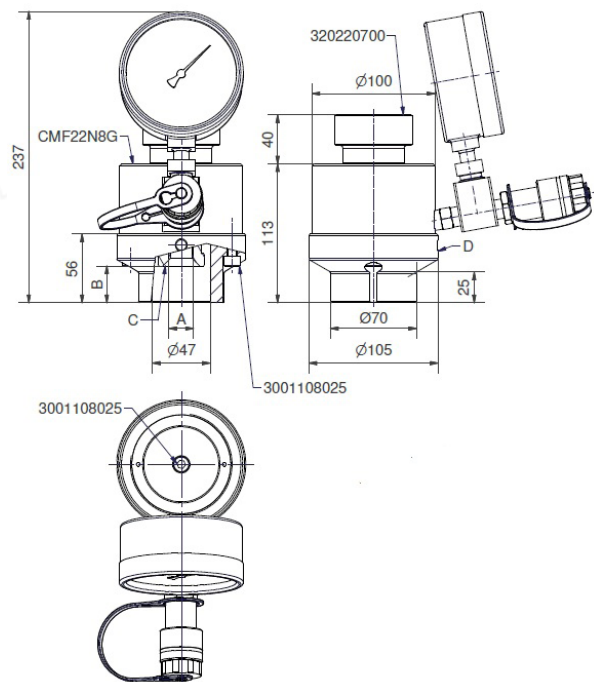
The components of the set are illustrated in the attached drawing.



It's important to drop the pressure inside the cylinder before disconnecting the quick coupler to avoid problems if re-inserting or lowering the load. In case some pressure persists it is possible to use the apposite tool **KST38** in order to lower the pressure in the couplers.



CMF22N8S20NJL



CMF22N8S16NJ / CMF22N8S20NJ / CMF22N8S24NJ

SELECTION CHART

| MODEL | A | B | C (puller code) | D (base code) | kg |
|-----------------|-----------------|---------|-----------------|---------------|-----|
| CMF22N8S16NJ | M16 | 27 | 320220716 | 320220820 | 8.3 |
| CMF22N8S20NJ | M20 | 30 | 320220720 | 320220820 | 8.3 |
| CMF22N8S20NJL | M20 | 27 | 320220721 | 320200821 | 9.6 |
| CMF22N8S24NJ | M24 | 30 | 320220724 | 320220820 | 8.3 |
| CMF22N8S1624NJC | M16 / M20 / M24 | 27 / 30 | - | - | - |

HYDRAULIC CYLINDERS

CMF#NJ

HOLLOW PISTON

FOR NEW JERSEY BARRIERS TYPE AND GUARD-RAILS

HOW TO CHOOSE A SET

The CMF20N50 cylinder is suitable for every set. All the sets can be supplied as single sets or it's also available a set which includes them all, it's the **CMF20N50S1630NJC**, more specifically:

- 1 pcs. Cylinder CMF20N50.
- 1 pcs. 320200820 hollow spacer for open M16 ed M20 New Jersey barriers.*
- 1 pcs. 320200821 extended spacer for enclosed M20 New Jersey barriers.**
- 1 pcs. 320200824 extended spacer for Guard-Rails M20**, M24, M27 ed M30.***
- 2 pcs. Screw 3001108025.
- 1 pcs. Screw 3001108180.
- 1 pcs. Rod M16 320200716.*

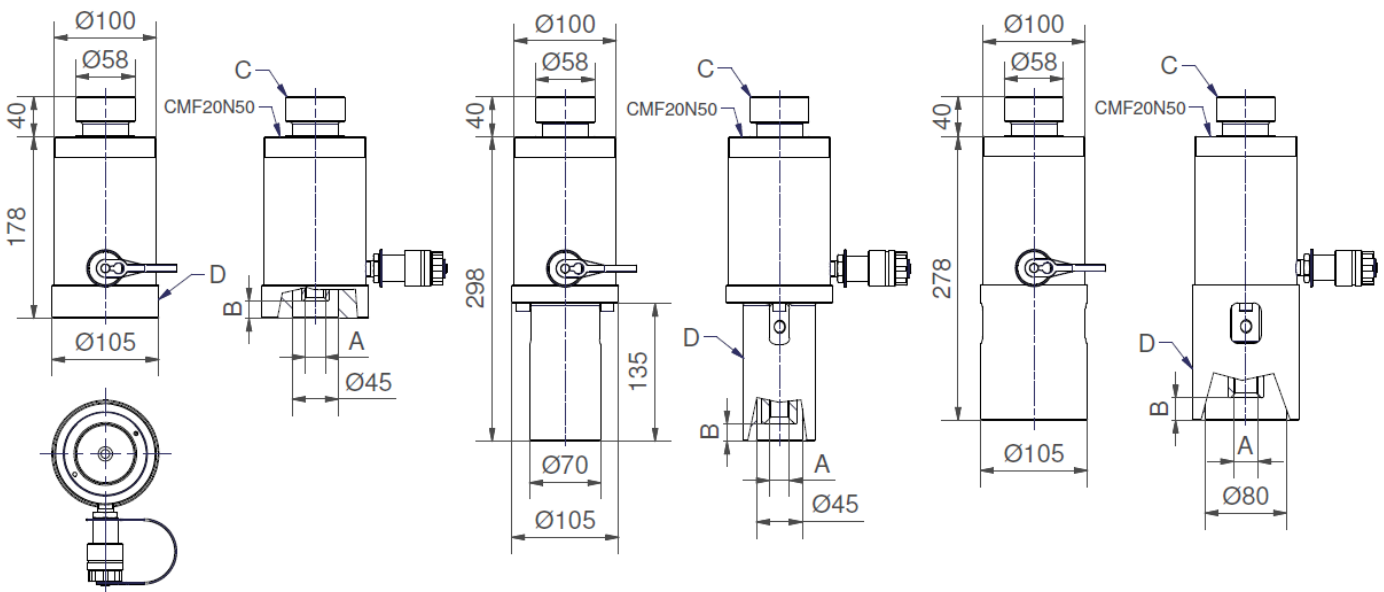
- 1 pcs. Rod M20 320200720.*
- 1 pcs. M20 320200721 extension for estended base.**
- 1 pcs. Adaptor M20 320200720E.**
- 1 pcs. Adaptor M24 320200724.***
- 1 pcs. Adaptor M27 320200727.***
- 1 pcs. Adaptor M30 3202007230.***

The components of the set are illustrated in the drawing underneath.

* Allows the total extraction of the M16 with the nut, tests with M20 on 10 mm with nut or total extraction without the nut. Maximum applicable force 110 kN.

**Maximum applicable force with M20 110kN rod.

*** Maximum applicable force with M24, M27 ed M30 80kN rod.



CMF20N50S16/20NJ

CMF20N50S20NJL

CMF20N50S20/24/27/30NJ

SELECTION CHART

| MODEL | A | B | C (puller code) | D (base code) | kg |
|------------------|-----------------------------|---------|------------------------|---------------|------|
| CMF20N50S16NJ | M16 | 20 | 320200716 | 320200820 | 9.5 |
| CMF20N50S20NJ | M20 | 20 | 320200720 | 320200820 | 9.5 |
| CMF20N50S20NJL | M20 | 20 | 320200720 + 320200721 | 320200821 | 10.8 |
| CMF20N50S20NJ | M20 | 25 | 320200720 + 320200720E | 320200824 | 11 |
| CMF20N50S24NJ | M24 | 25 | 320200720 + 320200724 | 320200824 | 11 |
| CMF20N50S27NJ | M27 | 25 | 320200720 + 320200727 | 320200824 | 11 |
| CMF20N50S30NJ | M30 | 25 | 320200720 + 320200730 | 320200824 | 11 |
| CMF20N50S1630NJC | M16 / M20 / M24 / M27 / M30 | 20 / 25 | - | - | - |