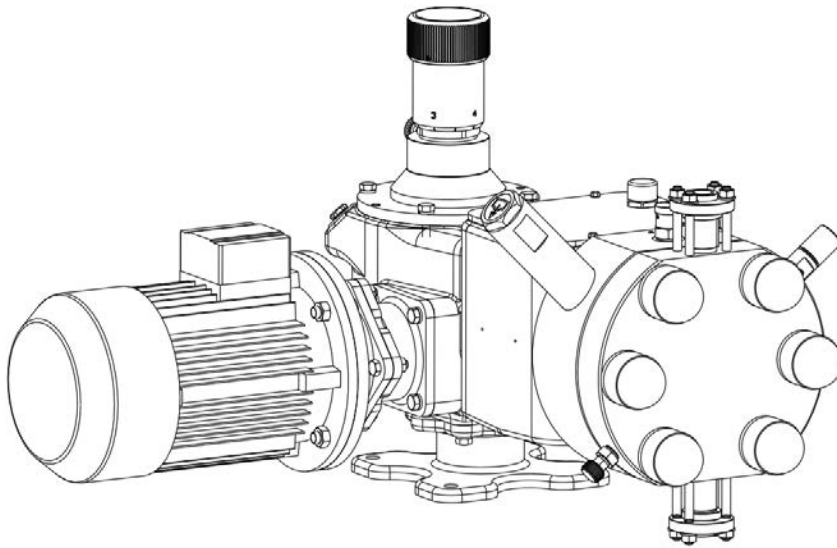



Technical characteristics



- Flow rates: from 26,7 to 1258 lph @ 50Hz
- Max Pressure: 40 bar
- Ambient temperature: -10 °C + 40 °C
- Max altitude: 1000 m (A.S.L.)
- Fluid operating temperature: -10 °C + 70 °C
- Viscosity up to 1000 cP (Higher on request)
- Stroke adjustment during operation from 0 to 100%
- Accuracy $\pm 1\%$ on the turndown ratio 10:1
- Built-in overpressure valve
- Double diaphragm and diagnostic of the rupture
- Diaphragm duration up to 20.000 hours, depending of the application
- Multiheads (up to six) solutions
- API 675 compliance
- CE marking
- ATEX  II 2 G c IIB T4 compliance
- Protection: IP 55
- Epoxy painting at 125 micron

nexa series includes plunger and hydraulic diaphragm dosing pumps designed in compliance with **API 675 Standards**; the conformity to the API Standards implies a “heavy duty” design, high safety and severe controls of the performances during the tests. The broad variety of heads execution offers a wide selection of dosing pumps to cover practically any application needs. In addition the full compliance with the **ATEX** European Directive gives the possibility to install these pumps in classified areas too.

Mechanism

Available in different sizes, they are mechanical return type, giving the maximum reliability in all working conditions.

General Specifications:

- Low noise integral gearbox, worm type, oil bath lubricated
- Reduced energy consumption based on low friction rolling bearings design
- High flexibility multiple mechanism solution to permit different piston speeds (SPM) on the same group
- Micrometric stroke length adjustment both manually and/or automatically actuated.
- Automatic stroke length variation by electrical servomotor, pneumatic actuator or frequency converter
- Linearity and repeatability in compliance with API 675 Standards.
- Easy “on field” installation of electrical servomotor on manual stroke adjustment mechanism.

Diaphragm Pumphead

- High capacity flexibility → On site easy volume changing by changing the piston cartridge
- Easy to change spares parts (all “one cartridge” solution).
- Maximum compatibility PTFE diaphragm
- Visual or remote diaphragm failure detection

PUMP KEY CODE

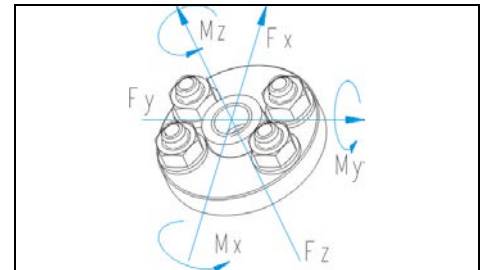
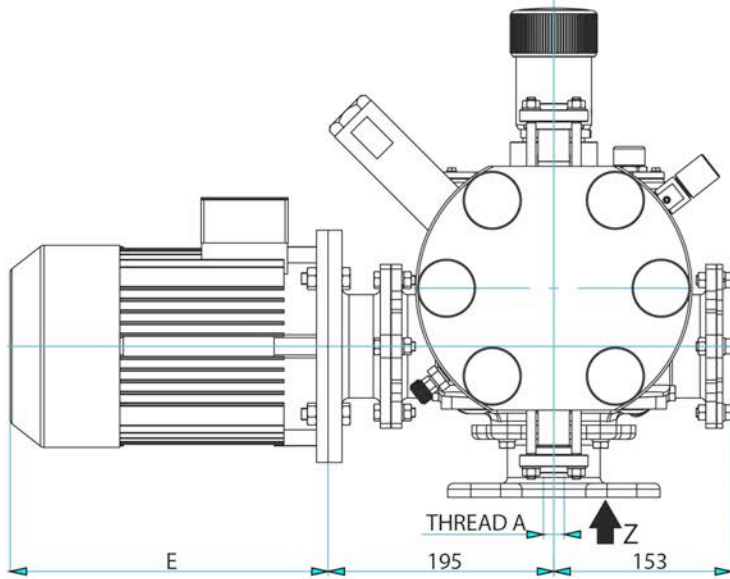
| | | | | | | | | | | | |
|-------|---|-----------|-------|------------|------------|--|--|--|--|--|--|
| 1° | Number of pump head | | | | | | | | | | |
| 1 | Simplex pump | | | | | | | | | | |
| 2° | Type of pump head (double diaphragm or packed-plunger) | | | | | | | | | | |
| Y | Double diaphragm with built-in overpressure valve, air-bleed valve and mechanically actuated oil replenishing | | | | | | | | | | |
| 3°/4° | Plunger diameter | | | | | | | | | | |
| 20-70 | from 20 to 70 mm | | | | | | | | | | |
| 5°/6° | Mechanism model | | | | | | | | | | |
| N1 | Stroke length 25 mm | | | | | | | | | | |
| 7°/8° | Pump head material | | | | | | | | | | |
| | HEAD | DIAPHRAGM | BALL | VALVE SEAL | VALVE SEAT | | | | | | |
| 2F | 316SS | PTFE | 316SS | 316SS | 316SS | | | | | | |
| 9° | Valve type | | | | | | | | | | |
| A | Single ball | | | | | | | | | | |
| B | Double balls | | | | | | | | | | |
| E | Wing | | | | | | | | | | |
| 10° | General options | | | | | | | | | | |
| 7 | Standard execution | | | | | | | | | | |
| F | Flanged connections ANSI B16.5 | | | | | | | | | | |
| 11° | Flow rate adjustment | | | | | | | | | | |
| M | Manual with adjustment knob (Standard execution) | | | | | | | | | | |
| E | Electric actuator | | | | | | | | | | |
| P | Pneumatic actuator | | | | | | | | | | |
| 12° | Gear ratio | | | | | | | | | | |
| D | 1:12 | | | | | | | | | | |
| F | 1:15 | | | | | | | | | | |
| 13° | Electric motors poles | | | | | | | | | | |
| 2 | 2 poles (not available ATEX version) | | | | | | | | | | |
| 4 | 4 poles | | | | | | | | | | |
| 6 | 6 poles | | | | | | | | | | |
| 14° | Installed power | | | | | | | | | | |
| E | 0,55 kW | | | | | | | | | | |
| F | 0,75 kW | | | | | | | | | | |
| G | 1,10 kW | | | | | | | | | | |
| I | 2,20 kW | | | | | | | | | | |
| 15° | Pump head options | | | | | | | | | | |
| V | Visual diaphragm failure detection (Standard execution) | | | | | | | | | | |
| R | Remote diaphragm failure detection | | | | | | | | | | |
| 16° | Mechanism options | | | | | | | | | | |
| 0 | Standard execution | | | | | | | | | | |
| 5 | Compliance with regulation "ATEX" 94/4/CE II 2 G c IIB T4 (for zone 1) | | | | | | | | | | |

| | | | | | | | | | | | | |
|---|---|----|----|----|---|---|---|---|---|---|---|---|
| 1 | Y | 20 | N1 | 2F | B | 7 | M | D | 6 | F | V | 0 |
|---|---|----|----|----|---|---|---|---|---|---|---|---|

HYDRAULIC CHARACTERISTICS

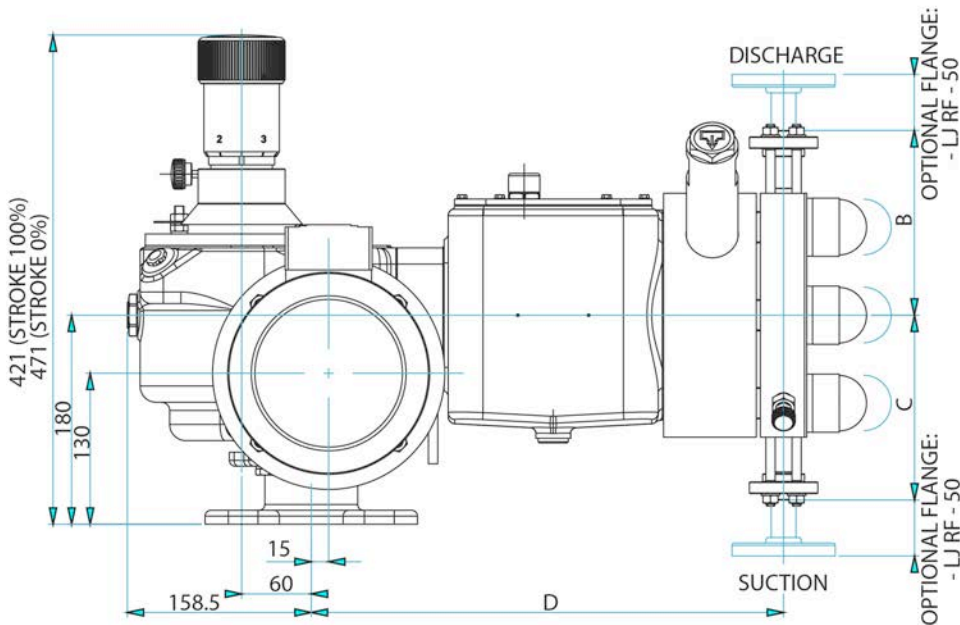
| Performances: | | | | | | | | | | | | | | | 50 Hz | | 60Hz | | | | | | Liquid end material | | 316L | | | | | |
|------------------|------|------|-----|------|------|-----|-----------------|-----|-----|-----|----|-----|--------------|---|------------------------------|---|--------------|---|-------------------------------|-----------------|--------------|-----|---------------------|--------|--------|--|-------------------|--|------|--|
| | | | | | | | | | | | | | | | 26,7/1258 40/12 | | l/h bar | | gph 8,5/399 p.s.i. 580/174 | | | | | | | | | | | |
| | | | | | | | | | | | | | | | Flow rate at max pressure | | Max speed | | Flow rate at max pressure | | Max speed | | Electric motor kW | | | | Suc/Dis Connec | | | |
| | | | | | | | | | | | | | | | | | | | | | | | 0,55 | | 0,75 | | | | 1,10 | |
| | | | | | | | | | | | | | | | | | | | | | | | E | | F | | G | | I | |
| Pump Model | | | | | | | Strokes /min | | | | | | Max pressure | | | | | | Ø BSSP | NPSHr [barg] | | | | | | | | | | |
| | lph | | gph | | | | lph | | gph | | | | bar | | p.s.i. | | bar | | | | p.s.i. | | bar | | p.s.i. | | | | | |
| 1Y20N12FB7M6EVO | 26,7 | 7,1 | 62 | 32,0 | 8,5 | 74 | 40 | 580 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1/4" F | -0,45 | | | | | |
| 1Y20N12FB7MD6EVO | 33,6 | 8,9 | 78 | 40,3 | 10,6 | 94 | 40 | 580 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1/4" F | -0,45 | | | | | |
| 1Y20N12FB7MF4EVO | 40,0 | 10,6 | 93 | 48,0 | 12,7 | 112 | 40 | 580 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1/4" F | -0,45 | | | | | |
| 1Y20N12FB7MD4EVO | 50,4 | 13,3 | 117 | 60,5 | 16,0 | 140 | 40 | 580 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1/4" F | -0,45 | | | | | |
| 1Y30N12FB7M6FVO | 57 | 15 | 62 | 68 | 18 | 74 | - | - | 40 | 580 | - | - | - | - | - | - | - | - | - | - | - | - | - | 1/2" F | -0,60 | | | | | |
| 1Y30N12FB7MD6FVO | 71 | 19 | 78 | 85 | 22 | 94 | - | - | 40 | 580 | - | - | - | - | - | - | - | - | - | - | - | - | - | 1/2" F | -0,60 | | | | | |
| 1Y30N12FB7MF4GVO | 85 | 22 | 93 | 102 | 27 | 112 | - | - | - | - | 40 | 580 | - | - | - | - | - | - | - | - | - | - | - | 1/2" F | -0,60 | | | | | |
| 1Y30N12FB7MD4GVO | 106 | 28 | 117 | 127 | 34 | 140 | - | - | - | - | 40 | 580 | - | - | - | - | - | - | - | - | - | - | - | 1/2" F | -0,60 | | | | | |
| 1Y40N12FA7M6FVO | 105 | 28 | 62 | 126 | 33 | 74 | - | - | 39 | 566 | - | - | - | - | - | - | - | - | - | - | - | - | - | 3/4" F | -0,65 | | | | | |
| 1Y40N12FA7MD6FVO | 131 | 35 | 78 | 157 | 41 | 94 | - | - | 39 | 566 | - | - | - | - | - | - | - | - | - | - | - | - | - | 3/4" F | -0,65 | | | | | |
| 1Y40N12FA7MF4GVO | 156 | 41 | 93 | 187 | 49 | 112 | - | - | - | - | 39 | 566 | - | - | - | - | - | - | - | - | - | - | - | 3/4" F | -0,65 | | | | | |
| 1Y40N12FA7MD4GVO | 195 | 52 | 117 | 234 | 62 | 140 | - | - | - | - | 39 | 566 | - | - | - | - | - | - | - | - | - | - | - | 3/4" F | -0,65 | | | | | |
| 1Y50N12FA7M6FVO | 170 | 45 | 62 | 204 | 54 | 74 | - | - | 24 | 348 | - | - | - | - | - | - | - | - | - | - | - | - | - | 3/4" F | -0,65 | | | | | |
| 1Y50N12FA7MD6FVO | 214 | 57 | 78 | 257 | 68 | 94 | - | - | 24 | 348 | - | - | - | - | - | - | - | - | - | - | - | - | - | 3/4" F | -0,65 | | | | | |
| 1Y50N12FA7MF4GVO | 254 | 67 | 93 | 305 | 81 | 112 | - | - | - | - | 24 | 348 | - | - | - | - | - | - | - | - | - | - | - | 3/4" F | -0,65 | | | | | |
| 1Y50N12FA7MD4GVO | 320 | 85 | 117 | 384 | 101 | 140 | - | - | - | - | 24 | 348 | - | - | - | - | - | - | - | - | - | - | - | 3/4" F | -0,65 | | | | | |
| 1Y70N12FA7M6FVO | 336 | 89 | 62 | 403 | 106 | 74 | - | - | 12 | 174 | - | - | - | - | - | - | - | - | - | - | - | - | - | 1" F | -0,65 | | | | | |
| 1Y70N12FA7MD6FVO | 421 | 111 | 78 | 505 | 133 | 94 | - | - | 12 | 174 | - | - | - | - | - | - | - | - | - | - | - | - | - | 1" F | -0,65 | | | | | |
| 1Y70N12FA7MF4GVO | 501 | 132 | 93 | 601 | 159 | 112 | - | - | - | - | 12 | 174 | - | - | - | - | - | - | - | - | - | - | - | 1" F | -0,65 | | | | | |
| 1Y70N12FA7MD4GVO | 629 | 166 | 117 | 755 | 199 | 140 | - | - | - | - | 12 | 174 | - | - | - | - | - | - | - | - | - | - | - | 1" F | -0,65 | | | | | |
| 1Y70N12FA7MF2IVO | 996 | 263 | 186 | 1195 | 316 | 223 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 12 | 174 | - | 1" F | 0,00 | | | | | |
| 1Y70N12FA7MD2IVO | 1258 | 332 | 235 | 1510 | 399 | 282 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 12 | 174 | - | 1" F | 0,00 | | | | | |

Test with water @ 20°C.

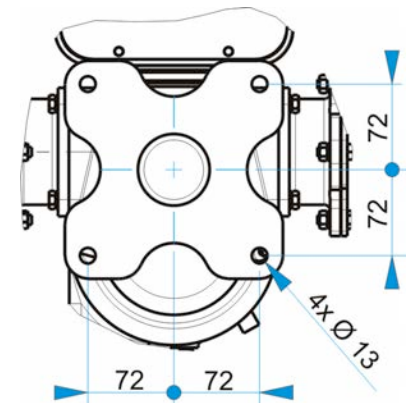


Allowable loads referred to pump nozzles

| | | | |
|----|---------|----|----------|
| Fx | 0.10 KN | Mx | 0.04 KNm |
| Fy | 0.12 KN | My | 0.04 KNm |
| Fz | 0.10 KN | Mz | 0.04 KNm |



FIXING HOLES – VIEW FROM Z



| PUMP MDEL | DIMENSIONS [mm] | | | | EXTIMATED WEIGHT Kg (without motor) | OPTIONAL FLANGE ANSI 300 MAX. TEMP. 38°C MAX. PRESSURE 40BAR SIZE |
|-------------|-----------------|-----|-----|-----|--|--|
| | A (EN10226) | B | C | D | | |
| 1Y20N12FB.. | BSPP 1/4"F | 163 | 163 | 366 | 61 | 1/2" |
| 1Y30N12FB.. | BSPP 1/2"F | 194 | 194 | 407 | 82 | 1/2" |
| 1Y40N12FA.. | BSPP 3/4"F | 187 | 187 | 412 | 88 | 1" |
| 1Y50N12FA.. | BSPP 3/4"F | 187 | 187 | 412 | 87 | 1" |
| 1Y70N12FA.. | BSPP 1"F | 237 | 237 | 430 | 111 | 1" |

| Electric motor size | 4 Poles Kw | 6 Poles Kw | TEFC 1xM20x1.5 | | EExde 1xM25x1.5 | |
|---------------------|------------|------------|-------------------|----|--------------------|----|
| | | | E | Kg | E | Kg |
| 90 | 1.1 | 0.75 | 274 | 12 | 340 | 33 |
| 80 | 0.55 | 0.55 | 255 | 9 | 290 | 26 |