

Technical characteristics

- Flow rates: from 333 to 2499 lph @ 50Hz
- Max Pressure: 4 MPa (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 mPa*s (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 Ex 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

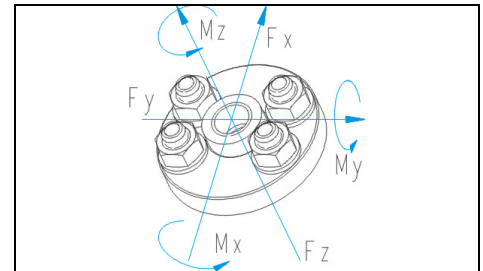
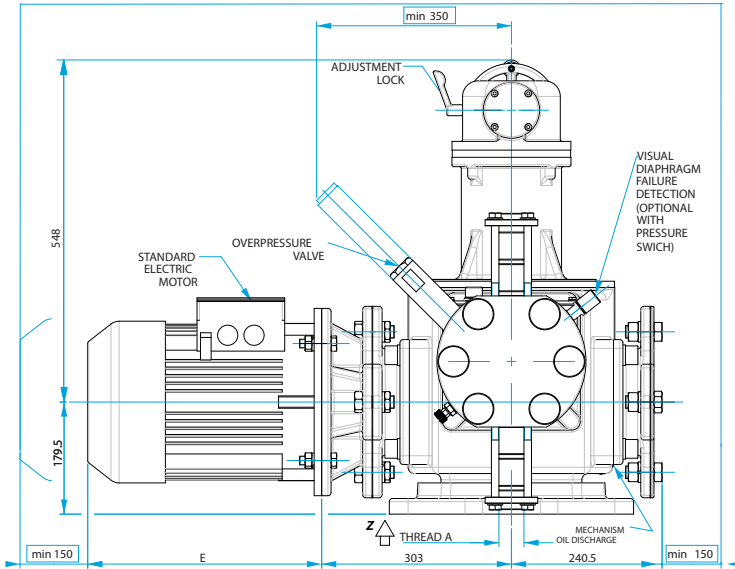
1°	Number of pump head									
1	Simplex pump									
2°	Type of pump head (double diaphragm or packed-plunger)									
Y	Double diaphragm with built-in overpressure valve, air-bleed valve and mechanically actuated oil replenishing									
3°/4°	Plunger diameter									
50-A0	50 - 70 - A0(100) mm									
5°/6°	Mechanism model									
N3	Stroke length 50 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									
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									
4	4 poles									
6	6 poles									
14°	Installed power									
K	4,00 kW (230 = 400Vac)									
L	5,50 kW (400 = 690Vac)									
M	7,50 kW (400 = 690Vac)									
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	50	N3	2F	B	7	M	F	6	K	V	0
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HYDRAULIC CHARACTERISTICS

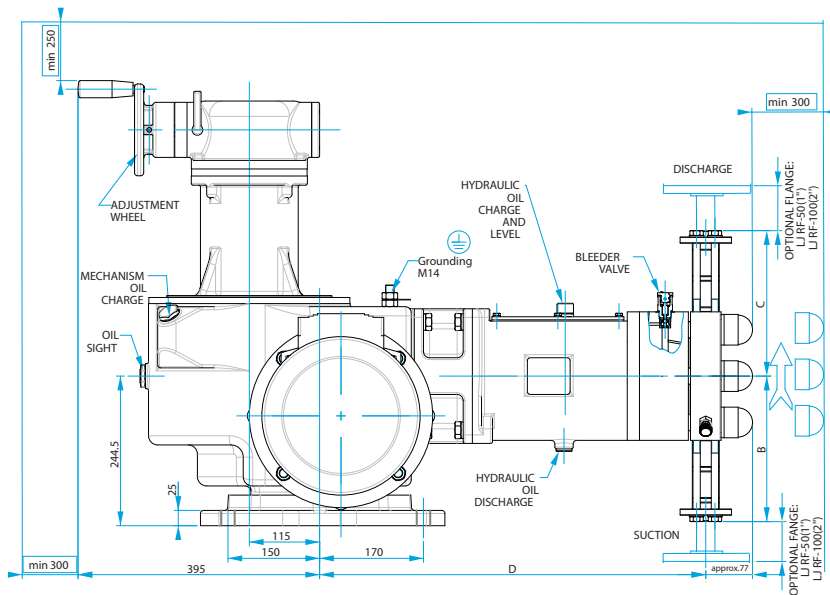
Performances:		50 Hz			60Hz																								
		333/2499 40/18			l/h bar	106/792 580/261			Liquid end material						316L														
		Flow rate at max pressure		Max speed		Flow rate at max pressure		Max speed		Electric motor kW						Suc/Dis Connec													
										4,0 K		5,5 L		7,5 M															
Pump Model								Max pressure						Ø BSSPP	NPSHr [barg]														
		lph	gph	Strokes /min	lph	gph	Strokes /min	bar		p.s.i.		bar				p.s.i.													
1	Y	5	0	N	3	2	F	B	7	M	F	6	K	V	0	333	88	62	400	106	74	40	580	-	-	-	-	1" F	-0,55
1	Y	5	0	N	3	2	F	B	7	M	D	6	L	V	0	412	109	78	494	131	94	-	-	40	580	-	-	1" F	-0,55
1	Y	5	0	N	3	2	F	B	7	M	F	4	M	V	0	487	129	93	584	154	112	-	-	-	-	40	580	1" F	-0,55
1	Y	5	0	N	3	2	F	B	7	M	D	4	M	V	0	605	160	117	726	192	140	-	-	-	-	40	580	1" F	-0,55
1	Y	7	0	N	3	2	F	A	7	M	F	6	K	V	0	660	174	62	792	209	74	38	551	-	-	-	-	1" F	-0,55
1	Y	7	0	N	3	2	F	A	7	M	D	6	L	V	0	823	217	78	988	261	94	-	-	38	551	-	-	1" F	-0,55
1	Y	7	0	N	3	2	F	A	7	M	F	4	M	V	0	976	258	93	1171	309	112	-	-	-	-	38	551	1" F	-0,55
1	Y	7	0	N	3	2	F	A	7	M	D	4	M	V	0	1221	323	117	1465	387	140	-	-	-	-	38	551	1" F	-0,55
1	Y	A	0	N	3	2	F	A	7	M	F	6	K	V	0	1315	347	62	1578	417	74	18	261	-	-	-	-	2" F	-0,50
1	Y	A	0	N	3	2	F	A	7	M	D	6	L	V	0	1660	439	78	1992	526	94	-	-	18	261	-	-	2" F	-0,50
1	Y	A	0	N	3	2	F	A	7	M	F	4	M	V	0	1983	524	93	2380	629	112	-	-	-	-	18	261	2" F	-0,50
1	Y	A	0	N	3	2	F	A	7	M	D	4	M	V	0	2499	660	117	2999	792	140	-	-	-	-	18	261	2" F	-0,50

Test with water @ 20°C.

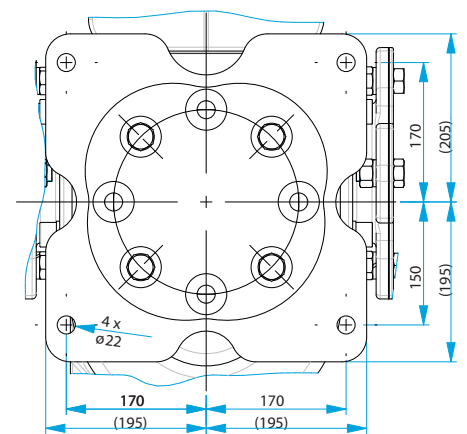


Allowable loads referred to pump nozzles

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		
1Y50N32FB..	BSPP 1"F	310	310	640	372	1"
1Y70N32FA..	BSPP 1"F	242	242	640	368	1"
1YA0N32FA..	BSPP 2"F	295	295	668	412	2"

Electric motor size	4 Poles kw	6 Poles kw	TEFC 1xM20x1.5		EExde 1xM25x1.5	
			E	kg	E	kg
132	5.50*	4.00*	435	78	585	95
132	7.50*	5.50*	435	78	585	95

* for motor voltage detail refer to Pump Key Code