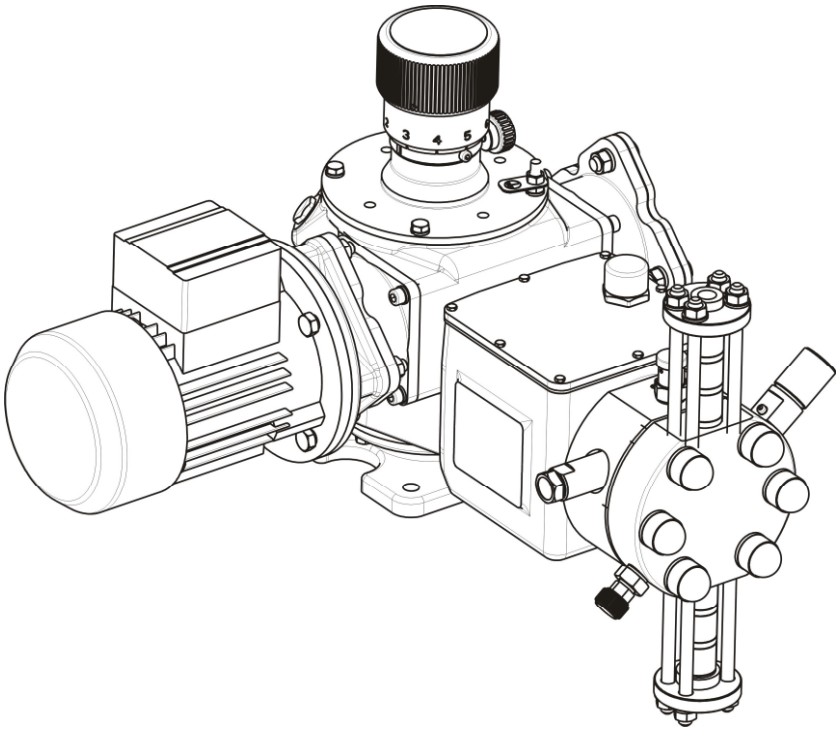


Technical characteristics

- Flow rates: from 0,39 to 57,1 lph @ 50 Hz
- 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 ± 1 % on the turndown ratio 10:1
- Built-in overpressure valve
- Min NPSHr: 3 mwc → High suction capability
- 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 lenght 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

06÷35	from 6 to 35 mm

5°/6° Mechanism model

N0	Stroke length 10 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
C	Triple 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

F	1:15
I	1:20
L	1:25

13° Electric motors poles

2	2 poles
4	4 poles
6	6 poles

14° Installed power

A	0,12 kW
B	0,18 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	06	N0	2F	C	7	M	L	6	A	V	0

HYDRAULIC CHARACTERISTICS

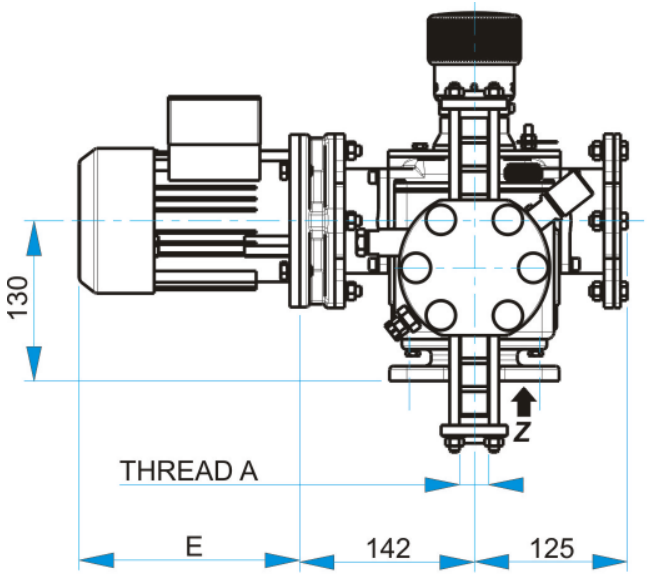
Performances:	50 Hz	60Hz
	0,39/57,1 l/h	gph 0.12/18.13
	40/17 bar	p.s.i. 580/248

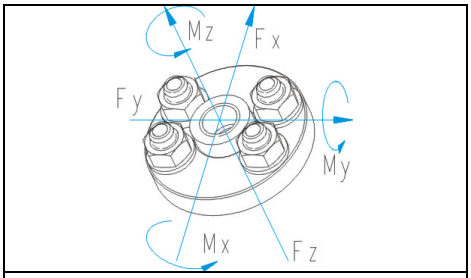
Liquid end material: **316L**

Pump Model	Flow rate at max pressure lph	Flow rate at max pressure gph	Max speed Strokes /min	Flow rate at max pressure lph	Flow rate at max pressure gph	Max speed Strokes /min	Electric motor kW 0,12 A – Max pressure bar	Electric motor kW 0,12 A – Max pressure p.s.i.	Electric motor kW 0,18 B – Max pressure bar	Electric motor kW 0,18 B – Max pressure p.s.i.	Suc/Dis Connec Ø BSPP
1 Y 0 6 N 0 2 F C 7 M L 6 A V 0	0,39	0,10	37	0,47	0,12	45	40	580	-	-	1/4" F
1 Y 0 6 N 0 2 F C 7 M I 6 A V 0	0,52	0,14	47	0,62	0,16	56	40	580	-	-	1/4" F
1 Y 0 6 N 0 2 F C 7 M L 4 A V 0	0,63	0,17	56	0,76	0,20	67	40	580	-	-	1/4" F
1 Y 0 6 N 0 2 F C 7 M I 4 A V 0	0,81	0,21	70	0,97	0,26	84	40	580	-	-	1/4" F
1 Y 0 6 N 0 2 F C 7 M F 4 A V 0	1,10	0,29	93	1,32	0,35	112	40	580	-	-	1/4" F
1 Y 0 6 N 0 2 F C 7 M L 2 B V 0	1,34	0,35	112	1,61	0,43	134	-	-	40	580	1/4" F
1 Y 0 8 N 0 2 F C 7 M I 6 A V 0	0,98	0,26	47	1,17	0,31	56	40	580	-	-	1/4" F
1 Y 0 8 N 0 2 F C 7 M L 4 A V 0	1,19	0,31	56	1,43	0,38	67	40	580	-	-	1/4" F
1 Y 0 8 N 0 2 F C 7 M I 4 A V 0	1,52	0,40	70	1,82	0,48	84	40	580	-	-	1/4" F
1 Y 0 8 N 0 2 F C 7 M F 4 A V 0	2,06	0,55	93	2,47	0,65	112	40	580	-	-	1/4" F
1 Y 0 8 N 0 2 F C 7 M L 2 B V 0	2,51	0,66	112	3,01	0,80	134	-	-	40	580	1/4" F
1 Y 1 0 N 0 2 F C 7 M I 6 A V 0	1,51	0,40	47	1,81	0,48	56	40	580	-	-	1/4" F
1 Y 1 0 N 0 2 F C 7 M L 4 A V 0	1,94	0,51	56	2,33	0,62	67	40	580	-	-	1/4" F
1 Y 1 0 N 0 2 F C 7 M I 4 A V 0	2,62	0,69	70	3,15	0,83	84	40	580	-	-	1/4" F
1 Y 1 0 N 0 2 F C 7 M F 4 A V 0	3,73	0,99	93	4,48	1,19	112	40	580	-	-	1/4" F
1 Y 1 0 N 0 2 F C 7 M L 2 B V 0	4,65	1,23	112	5,58	1,48	134	-	-	40	580	1/4" F
1 Y 1 2 N 0 2 F C 7 M I 6 A V 0	2,73	0,72	47	3,27	0,87	56	40	580	-	-	1/4" F
1 Y 1 2 N 0 2 F C 7 M L 4 A V 0	3,27	0,86	56	3,92	1,04	67	40	580	-	-	1/4" F
1 Y 1 2 N 0 2 F C 7 M I 4 A V 0	4,11	1,09	70	4,93	1,31	84	40	580	-	-	1/4" F
1 Y 1 2 N 0 2 F C 7 M F 4 A V 0	5,49	1,45	93	6,59	1,74	112	40	580	-	-	1/4" F
1 Y 1 2 N 0 2 F C 7 M L 2 B V 0	6,64	1,76	112	7,96	2,11	134	-	-	40	580	1/4" F
1 Y 1 5 N 0 2 F B 7 M I 6 A V 0	4,41	1,17	47	5,29	1,40	56	40	580	-	-	1/4" F
1 Y 1 5 N 0 2 F B 7 M L 4 A V 0	5,21	1,38	56	6,26	1,65	67	40	580	-	-	1/4" F
1 Y 1 5 N 0 2 F B 7 M I 4 A V 0	6,47	1,71	70	7,76	2,05	84	40	580	-	-	1/4" F
1 Y 1 5 N 0 2 F B 7 M F 4 A V 0	8,53	2,26	93	10,23	2,71	112	40	580	-	-	1/4" F
1 Y 1 5 N 0 2 F B 7 M L 2 B V 0	10,23	2,71	112	12,28	3,25	134	-	-	40	580	1/4" F
1 Y 2 0 N 0 2 F B 7 M I 6 A V 0	8,0	2,11	47	9,6	2,53	56	40	580	-	-	1/4" F
1 Y 2 0 N 0 2 F B 7 M L 4 A V 0	9,5	2,53	56	11,5	3,03	67	40	580	-	-	1/4" F
1 Y 2 0 N 0 2 F B 7 M I 4 A V 0	12,0	3,17	70	14,4	3,81	84	40	580	-	-	1/4" F
1 Y 2 0 N 0 2 F B 7 M F 4 A V 0	16,0	4,24	93	19,2	5,08	112	40	580	-	-	1/4" F
1 Y 2 0 N 0 2 F B 7 M L 2 B V 0	19,3	5,11	112	23,2	6,14	134	-	-	40	580	1/4" F
1 Y 2 5 N 0 2 F B 7 M L 6 A V 0	9,4	2,49	37	11,3	2,98	45	39	566	-	-	1/4" F
1 Y 2 5 N 0 2 F B 7 M I 6 A V 0	11,9	3,16	47	14,3	3,79	56	39	566	-	-	1/4" F
1 Y 2 5 N 0 2 F B 7 M L 4 A V 0	14,2	3,77	56	17,1	4,52	67	39	566	-	-	1/4" F
1 Y 2 5 N 0 2 F B 7 M I 4 A V 0	17,8	4,71	70	21,4	5,65	84	39	566	-	-	1/4" F
1 Y 2 5 N 0 2 F B 7 M F 4 A V 0	23,8	6,30	93	28,6	7,56	112	33	479	-	-	1/4" F
1 Y 2 5 N 0 2 F B 7 M L 2 B V 0	28,6	7,57	112	34,3	9,08	134	-	-	35	508	1/4" F
1 Y 3 0 N 0 2 F A 7 M L 6 A V 0	14,7	3,89	37	17,7	4,67	45	27	386	-	-	1/4" F
1 Y 3 0 N 0 2 F A 7 M I 6 A V 0	18,6	4,93	47	22,3	5,91	56	27	386	-	-	1/4" F
1 Y 3 0 N 0 2 F A 7 M L 4 A V 0	22,1	5,85	56	26,6	7,03	67	27	386	-	-	1/4" F
1 Y 3 0 N 0 2 F A 7 M I 4 A V 0	27,6	7,30	70	33,1	8,76	84	27	386	-	-	1/4" F
1 Y 3 0 N 0 2 F A 7 M F 4 A V 0	36,6	9,68	93	43,9	11,62	112	24	344	-	-	1/4" F
1 Y 3 0 N 0 2 F A 7 M L 2 B V 0	44,0	11,64	112	52,8	13,97	134	-	-	27	392	1/4" F
1 Y 3 5 N 0 2 F A 7 M L 6 A V 0	19,4	5,14	37	23,3	6,17	45	19	276	-	-	1/4" F
1 Y 3 5 N 0 2 F A 7 M I 6 A V 0	24,5	6,47	47	29,3	7,76	56	19	276	-	-	1/4" F
1 Y 3 5 N 0 2 F A 7 M L 4 A V 0	29,0	7,67	56	34,8	9,20	67	19	276	-	-	1/4" F
1 Y 3 5 N 0 2 F A 7 M I 4 A V 0	36,0	9,53	70	43,2	11,43	84	19	276	-	-	1/4" F
1 Y 3 5 N 0 2 F A 7 M F 4 A V 0	47,6	12,59	93	57,1	15,10	112	17	248	-	-	1/4" F
1 Y 3 5 N 0 2 F A 7 M L 2 B V 0	57,1	15,11	112	68,5	18,13	134	-	-	17	248	1/4" F

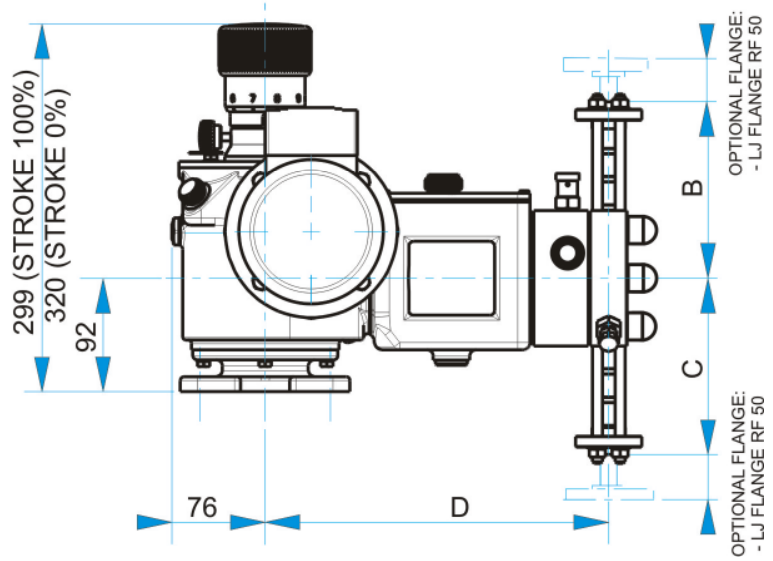
Test with water @ 20°C.

Fast delivery models

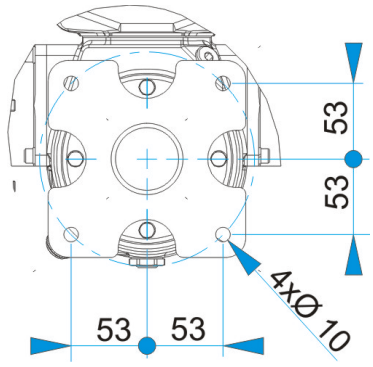




Allowable loads referred to pump nozzles			
Fx	0.10 kN	Mx	0.04 kNm
Fy	0.12 kN	My	0.04 kNm
Fz	0.10 kN	Mz	0.04 kNm



FIXING HOLES – VIEW FROM Z



PUMP MODEL	DIMENSIONS [mm] A	B	C	D	EXTIMATED WEIGHT kg (without motor)	OPTIONAL FLANGE ANSI 300 MAX. TEMP. 38°C MAX. PRESSURE 40BAR SIZE
1Y06N02FC..	BSPP 1/4"F	144	144	282	30	1/2"
1Y08N02FC..	BSPP 1/4"F	144	144	282	30	1/2"
1Y10N02FC..	BSPP 1/4"F	144	144	282	30	1/2"
1Y12N02FC..	BSPP 1/4"F	149	149	279	30,5	1/2"
1Y15N02FB..	BSPP 1/4"F	126	126	279	30,5	1/2"
1Y20N02FB..	BSPP 1/4"F	149	149	279	30,5	1/2"
1Y25N02FB..	BSPP 1/4"F	163	163	279	33,5	1/2"
1Y30N02FA..	BSPP 1/4"F	128	128	279	33,5	1/2"
1Y35N02FA..	BSPP 1/4"F	128	128	279	33,5	1/2"

Electric motor size	2 Poles kw	4 Poles kw	6 Poles kw	TEFC 1xM16x1.5		EExde 1xM25x1.5	
				E	kg	E	kg
63	0.18	0.12	0.12	193	4	224	16