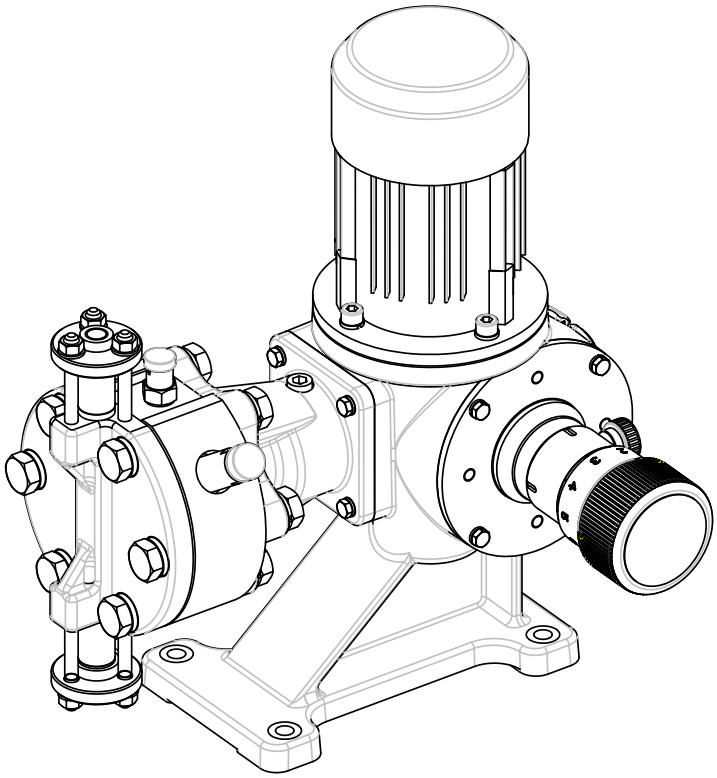


Technical characteristics

- Flow rates: from 3.4 to 97.4 lph @ 50Hz
- Max. Pressure: 12,4 MPa (124 bar) for 316L version
- Ambient temperature: -10 °C + 40 °C
- Max altitude: 1000 m (A.S.L.)
- Fluid operating temperature: -5 °C + 50 °C
- Viscosity up to 1000 mPa•s (1000 cP)
- Stroke adjustment during operation from 0 to 100%
- Accuracy ± 1 % on the turndown ratio 10:1
- Built-in overpressure valve
- Single diaphragm
- Diaphragm duration up to 20.000 hours, depending of the application
- CE marking
- Electric motor protection: IP 55
- Epoxy painting at 125 micron

Nyva series includes hydraulic diaphragm dosing pumps designed according to **API 675 Standards**; the conformity to the API Standards implies a “heavy duty” design, high safety and severe controls during the performance tests. The broad variety of heads execution offers a wide selection of dosing pumps to cover practically any application needs.

Mechanism

The mechanism is mechanical return type, giving the maximum reliability in all working conditions.

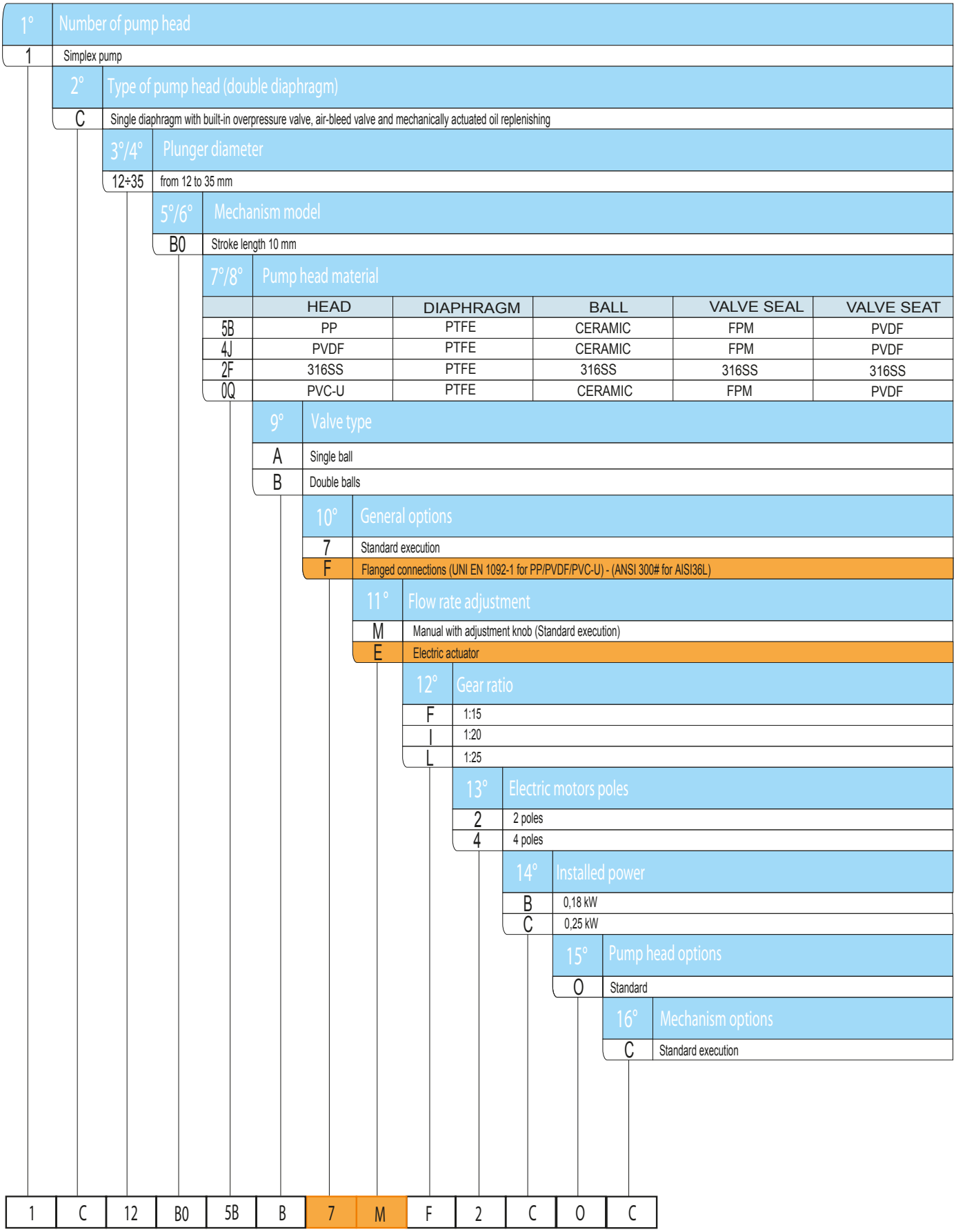
General Specifications:

- Low noise integral gearbox, worm type, oil bath lubricated
- Reduced energy consumption based on low friction rolling bearings design
- Micrometric stroke lenght adjustment both manually or automatically actuated.
- Automatic stroke length variation by electrical servomotor, on request.
- Easy “on field” installation of electrical servomotor on manual stroke adjustment mechanism.

Diaphragm Pumphead

- Easy to change spares parts
- Maximum compatibility PTFE diaphragm

PUMP KEY CODE



HYDRAULIC CHARACTERISTICS

6,2/97,4 l/h 15 bar	Liquid end material PP	Flow rate at max pressure		Max speed	Max pressure		Suc/Dis Connec	Electric motor (kW)	NPSHr (barg)	
Pump Model		lph	gph	Strokes /min	bar	psi	Ø BSPP			
1 C 1 2 B 0 5 B B 7 M L 2 B O C		6,2	1,64	112	15	218	1/2" F	0,18 (B)	-0,3	
1 C 1 2 B 0 5 B B 7 M I 2 B O C		8,0	2,11	140	15	218	1/2" F	0,18 (B)	-0,1	
1 C 1 2 B 0 5 B B 7 M F 2 C O C		10,9	2,88	186	15	218	1/2" F	0,25 (C)	-0,1	
1 C 2 0 B 0 5 B B 7 M I 4 B O C		12,7	3,35	70	15	218	1/2" F	0,18 (B)	-0,4	
1 C 2 0 B 0 5 B B 7 M L 2 B O C		18,6	4,91	112	15	218	1/2" F	0,18 (B)	-0,1	
1 C 2 0 B 0 5 B B 7 M F 2 C O C		29,0	7,66	186	15	218	1/2" F	0,25 (C)	-0,1	
1 C 3 0 B 0 5 B B 7 M F 4 B O C		34,2	9,03	93	15	218	1/2" F	0,18 (B)	-0,3	
1 C 3 0 B 0 5 B B 7 M I 2 B O C		52,9	13,97	140	15	218	1/2" F	0,18 (B)	-0,1	
1 C 3 5 B 0 5 B B 7 M I 2 B O C		76,3	20,16	140	15	218	1/2" F	0,18 (B)	-0,1	
1 C 3 5 B 0 5 B B 7 M F 2 C O C		97,4	25,73	186	15	218	1/2" F	0,25 (C)	-0,1	

6,0/96,3 l/h 20 bar	Liquid end material PVDF	Flow rate at max pressure		Max speed	Max pressure		Suc/Dis Connec	Electric motor (kW)	NPSHr (barg)	
Pump Model		lph	gph	Strokes /min	bar	psi	Ø BSPP			
1 C 1 2 B 0 4 J B 7 M L 2 B O C		6,0	1,59	112	20	290	1/2" F	0,18 (B)	-0,3	
1 C 1 2 B 0 4 J B 7 M I 2 B O C		7,8	2,06	140	20	290	1/2" F	0,18 (B)	-0,1	
1 C 1 2 B 0 4 J B 7 M F 2 C O C		10,7	2,83	186	20	290	1/2" F	0,25 (C)	-0,1	
1 C 2 0 B 0 4 J B 7 M I 4 B O C		12,4	3,28	70	20	290	1/2" F	0,18 (B)	-0,4	
1 C 2 0 B 0 4 J B 7 M L 2 B O C		18,3	4,83	112	20	290	1/2" F	0,18 (B)	-0,1	
1 C 2 0 B 0 4 J B 7 M F 2 C O C		28,7	7,58	186	20	290	1/2" F	0,25 (C)	-0,1	
1 C 3 0 B 0 4 J B 7 M F 4 B O C		33,2	8,77	93	20	290	1/2" F	0,18 (B)	-0,3	
1 C 3 0 B 0 4 J B 7 M I 2 B O C		52,4	13,84	140	20	290	1/2" F	0,18 (B)	-0,1	
1 C 3 5 B 0 4 J B 7 M I 2 B O C		74,9	19,79	140	20	290	1/2" F	0,18 (B)	-0,1	(*)
1 C 3 5 B 0 4 J B 7 M F 2 C O C		96,3	25,44	186	20	290	1/2" F	0,25 (C)	-0,1	

6,2/97,4 l/h 15 bar	Liquid end material PVC	Flow rate at max pressure		Max speed	Max pressure		Suc/Dis Connec	Electric motor (kW)	NPSHr (barg)	
Pump Model		lph	gph	Strokes /min	bar	psi	Ø BSPP			
1 C 1 2 B 0 0 Q B 7 M L 2 B O C		6,2	1,64	112	15	218	1/2" F	0,18 (B)	-0,3	
1 C 1 2 B 0 0 Q B 7 M I 2 B O C		8,0	2,11	140	15	218	1/2" F	0,18 (B)	-0,1	
1 C 1 2 B 0 0 Q B 7 M F 2 C O C		10,9	2,88	186	15	218	1/2" F	0,25 (C)	-0,1	
1 C 2 0 B 0 0 Q B 7 M I 4 B O C		12,7	3,35	70	15	218	1/2" F	0,18 (B)	-0,4	
1 C 2 0 B 0 0 Q B 7 M L 2 B O C		18,6	4,91	112	15	218	1/2" F	0,18 (B)	-0,1	
1 C 2 0 B 0 0 Q B 7 M F 2 C O C		29,0	7,66	186	15	218	1/2" F	0,25 (C)	-0,1	
1 C 3 0 B 0 0 Q B 7 M F 4 B O C		34,2	9,03	93	15	218	1/2" F	0,18 (B)	-0,3	
1 C 3 0 B 0 0 Q B 7 M I 2 B O C		52,9	13,97	140	15	218	1/2" F	0,18 (B)	-0,1	
1 C 3 5 B 0 0 Q B 7 M I 2 B O C		76,3	20,16	140	15	218	1/2" F	0,18 (B)	-0,1	
1 C 3 5 B 0 0 Q B 7 M F 2 C O C		97,4	25,73	186	15	218	1/2" F	0,25 (C)	-0,1	

3,4/86,5 l/h 124 bar	Liquid end material 316L	Flow rate at max pressure		Max speed	Max pressure		Suc/Dis Connec	Electric motor (kW)	NPSHr (barg)	
Pump Model		lph	gph	Strokes /min	bar	psi	Ø BSPP			
1 C 1 2 B 0 2 F B 7 M L 2 B O C		3,4	0,90	112	124	1798	1/4" F	0,18 (B)	-0,3	
1 C 1 2 B 0 2 F B 7 M I 2 B O C		4,6	1,22	140	124	1798	1/4" F	0,18 (B)	-0,1	
1 C 1 2 B 0 2 F B 7 M F 2 C O C		6,5	1,72	186	124	1798	1/4" F	0,25 (C)	-0,1	
1 C 2 0 B 0 2 F A 7 M I 4 B O C		9,7	2,56	70	40	580	1/4" F	0,18 (B)	-0,4	
1 C 2 0 B 0 2 F A 7 M L 2 B O C		15,4	4,07	112	40	580	1/4" F	0,18 (B)	-0,1	
1 C 2 0 B 0 2 F A 7 M F 2 C O C		25,5	6,74	186	40	580	1/4" F	0,25 (C)	-0,1	
1 C 3 0 B 0 2 F A 7 M F 4 B O C		27,0	7,13	93	27	392	1/4" F	0,18 (B)	-0,3	
1 C 3 0 B 0 2 F A 7 M I 2 B O C		46,8	12,36	140	27	392	1/4" F	0,18 (B)	-0,1	(*)
1 C 3 5 B 0 2 F A 7 M I 2 B O C		64,6	17,07	140	20	290	1/4" F	0,18 (B)	-0,1	(*)
1 C 3 5 B 0 2 F A 7 M F 2 C O C		86,5	22,85	186	20	290	1/4" F	0,25 (C)	-0,1	

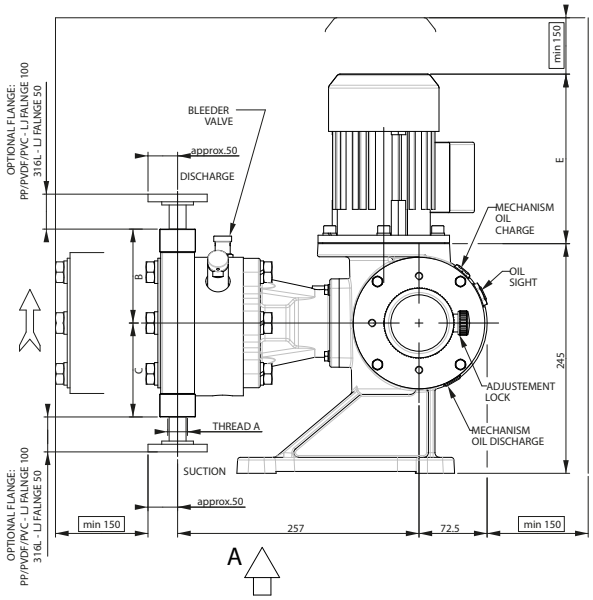
Test with water @ 20°C @ 50 Hz.

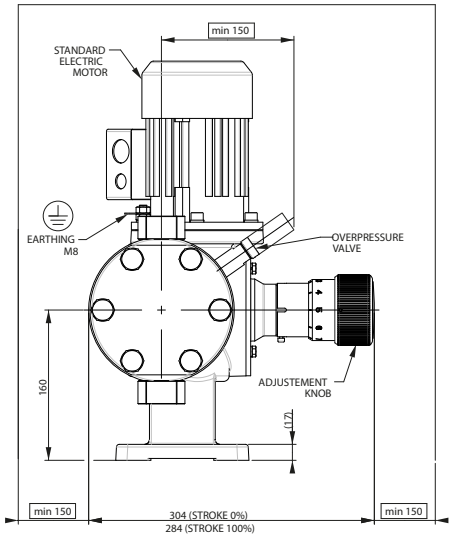
Max Pressure is the Max. setting of the safety valve.

Flow rate values with motor at 50Hz and in relation with the indicated "Strokes/min". Multiply by 1,2 for 60Hz

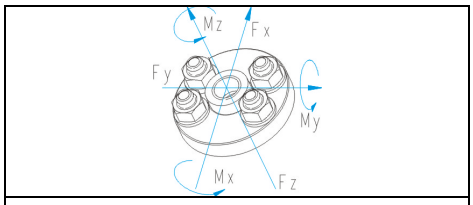
(*) For this size use the 60Hz three-phase motor, the performance of the pumps will suffer the following variation:
Pressure - 20% Flowrate: +20%

Models not suitable for 60Hz

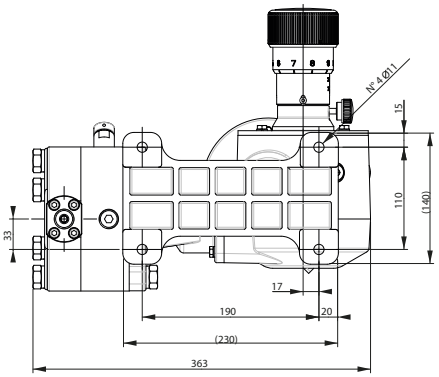




FIXING HOLES – VIEW FROM A



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



	PUMP MODEL	DIMENSIONS [mm] A	B	C	EXTIMATED WEIGHT kg (without motor)	OPTIONAL FLANGE TYPE and SIZE: MAX. TEMP. 38°C MAX. PRESSURE 40 BAR for ANSI 300
PP	1C12B05BB..	BSPP 1/2"F	95	95	28	PN 16 DN15
	1C20B05BB..	BSPP 1/2"F	100	100	28	PN 16 DN15
	1C30B05BB..	BSPP 1/2"F	100	100	28	PN 16 DN15
	1C35B05BB..	BSPP 1/2"F	100	100	28	PN 16 DN15
PVDF	1C12B04JB..	BSPP 1/2"F	95	95	28	PN 16 DN15
	1C20B04JB..	BSPP 1/2"F	100	100	28	PN 16 DN15
	1C30B04JB..	BSPP 1/2"F	100	100	28	PN 16 DN15
	1C35B04JB..	BSPP 1/2"F	100	100	28	PN 16 DN15
PVC	1C12B00QB..	BSPP 1/2"F	95	95	28	PN 16 DN15
	1C20B00QB..	BSPP 1/2"F	100	100	28	PN 16 DN15
	1C30B00QB..	BSPP 1/2"F	100	100	28	PN 16 DN15
	1C35B00QB..	BSPP 1/2"F	100	100	28	PN 16 DN15
316L	1C12B02FB..	BSPP 1/4"F	136	136	30	1/2" ANSI 300
	1C20B02FA..	BSPP 1/4"F	124	124	30	1/2" ANSI 300
	1C30B02FA..	BSPP 1/4"F	124	124	30	1/2" ANSI 300
	1C35B02FA..	BSPP 1/4"F	124	124	30	1/2" ANSI 300

Electric motor size	2 Poles kW	4 Poles kW	TEFC 1xM20x1.5 E	kg
63	0.18 / 0.25	0.18	193	5.5

* Motor power supply: 230 ÷ 400Vac