Spring Return Plunger Dosing Pumps

Type A and AP-A

The gearbox is a standard wormwheel reduction system with all bearings supported within a fully lubricated gearbox.
The mechanism for variation of the stroke length a positive stroke spring return that is operated by an eccentric.

PUMPING HEADS

Pumping heads are made in standard executions: S.S. 316 or PVC
A wide range of other materials like HASTELLOY, ALLOY, PTFE, PVDF, PP are according to the liquid to be dosed.
Piston gaskets are of the lip type design and are available in a wide range of materials (FPM, EPDM, SILICONE, ADIPRENE) and also in PTFE packing.
Standard liquid handled maximum temperature

- 90° C with S.S. 316 pump head
- 40° C with PVC pump head

Jacketed pump head for either cooling or heating are available to suit requirements.
Piston glandling arrangements can be supplied with water washed seals to continuously flush the piston.

PLUNGERS

There are made in S.S. 316 or Ceramics

SUCTION AND DISCHARGE CONNECTIONS

Normally are threaded, but they can be supplied also flanged.

All the pumps have a ball valve standard: single and double balls by the function of the piston diameter or the material execution.

STROKE ADJUSTMENT

Flow rate adjustment is possible while running or at standstill. The movement of the piston is based on a precise reciprocating gearbox, which provides an exact volumetric displacement.
Stroke adjustment can be carried out:

- Manual: by a linear micrometer screw
- Electrical: via servo motor with 4-20 mA signal upon request interface PROFIBUS or other BUS
- Pneumatic: by a pneumatic servo control with signal from 3 to 15 PSI

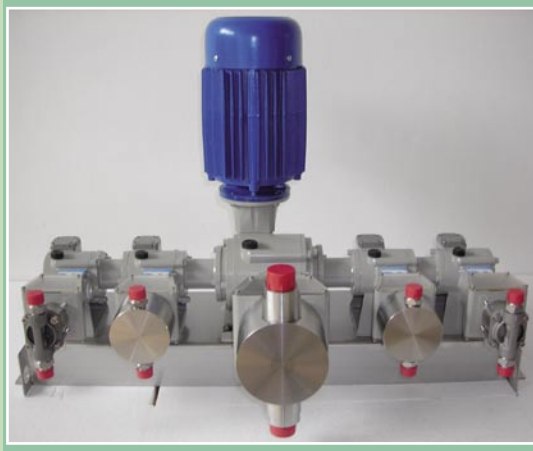
MULTIPLE HEADED PUMPS

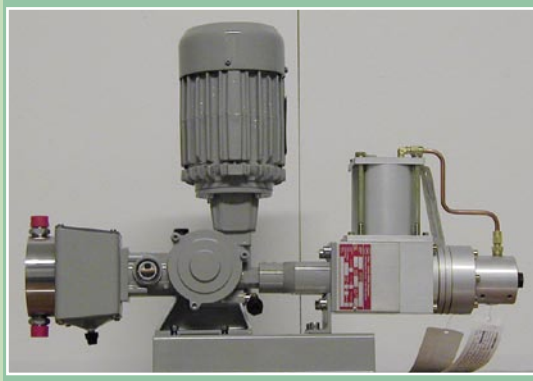
Different multiple heads units are available on request.
Each pumping element has independent adjustment while running or at standstill.

HIGH PRESSURE EXECUTION

These pumps use the same crank mechanism of the pumps "A" type, but the difference is on the hydraulic part that must be suitable to satisty very hard requirements.

"A" series piston pumps are available in different sizes:
- A 125 N
Piston stroke 12.5 mm
- A 175 N
Piston stroke 17.5 mm
- A 250 N
Piston stroke 25 mm
- A 350N
Piston stroke 35 mm
For these types, 11 different piston sizes are available to suit different applications for capacity and pressure.





DOSEURO

SR Series

SOME STANDARDS EXECUTIONS FOR PISTON PUMPS

EXECUT.	PUMPHEAD	PISTON	VALVE (ball)	VALVE SEATS	PISTON GASKETS
11	S.S. 316	S.S. 316	S.S. 316	S.S. 316	NBR
13	PVC	CERAMIC	PYREX	PVC	FPM
17	S.S. 316	CERAMIC	S.S. 316	S.S. 316	FPM
19	S.S. 316	S.S. 316	S.S. 316	S.S. 316	FPM
20	PVC	S.S. 316	PYREX	PVC	NBR
21	S.S. 316	S.S. 316	S.S. 316	S.S. 316	PTFE
32	S.S 316	S.S 420	S.S 316	S.S. 316	AU
41	S.S 316	CERAMIC	S.S. 316	S.S. 316	AU

FPM = fluoroelastomer S.S 316 = stainless steel 316 C.O. = Chromium Oxide PP/FRV = polypropylene + glass fibber
Difference executions on request

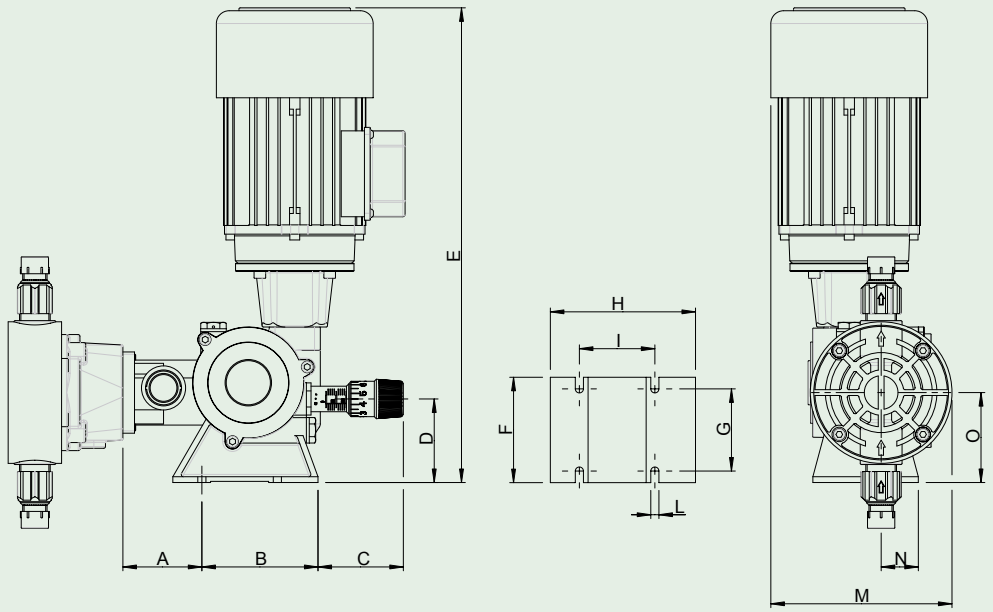
Glossary and numbering system to identify pumps type

A	125N	38/	F	11	DV
1st group	2nd group	3rd group	4th group	5th group	6th group
"A" type piston dosing pump	Stroke length	Piston diameter in mm	Reduction ratio group (N° of piston strokes/min) F(1/24) - B (1/12)	Materials in touch with the fluid	Not standard-special code

In case of pumps supplied without motor add: W/M

GENERAL OVERALL DIMENSIONS

	125	175	250	350
A	57	68	75	75
B	90	100	127	127
C	70	75	120	120
D	75	72	70	70
E	378	410	450	455
F	90	90	154	154
G	70	70	130	130
H	115	125	157	157
I	65	65	102	102
L	7	7	9	9
M	140	160	194	200
N	32	32	60	60
O	80	78	78	78



General dimensional quote are indicative and adverted to the maximum acceptable pump dimension

DOSEURO

Spring Return Plunger Dosing Pumps

Type A 125N

TECHNICAL CHARACTERISTICS

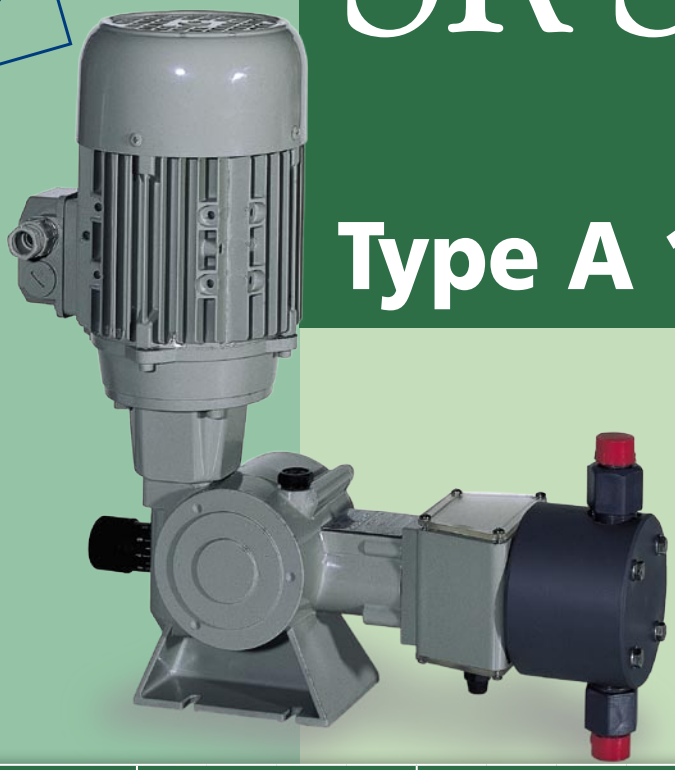
Pump type	Reducer ratio			Capacity (*2)				Max Press. (*3)		Connections (*4)		Motor Features	ø mm	Stroke Length	Net Weights Kg (*5)	
	(*1)	SPM (*1)		L/1'		L/h		Kg/cm2					Real piston			
		50 Hz	60 Hz	50 Hz	60 Hz	50 Hz	60 Hz	SS 316	PVC	SS 316	PVC				SS 316	PVC
A-125N-6	F	58	70	0,013	0,017	0,8	1,0									
	C	96	116	0,022	0,027	1,3	1,6						6		8,5	7,5
	B	116		0,027		1,6										
A-125N-11	I	35	42	0,04	0,048	2,4	2,8									
	F	58	70	0,066	0,080	4	4,8									
	C	96	116	0,110	0,133	6	8	20					11.11		8,5	7,5
	B	116		0,133		8										
A-125N-18	I	35	42	0,1	0,120	6	7,2									
	F	58	70	0,166	0,200	10	12									
	C	96	116	0,273	0,330	16	20		10				17.46		8,5	7,5
	B	116		0,330		20										
A-125N-25	I	35	42	0,221	0,264	13,2	15,8									
	F	58	70	0,366	0,440	22	26,4					Kw 0.18				
	C	96	116	0,604	0,733	36	44	20				3 Ph	25.4		8,5	7,5
	B	116		0,733		44						~1400 rpm				
A-125N-30	I	35	42	0,311	0,374	18,7	22,4			1/2" G.m.		or		12.5 mm		
	F	58	70	0,516	0,620	31	37,2					Kw 0.18				
	C	96	116	0,854	1,033	51	62	14				1 ph	30.16		8,5	7,5
	B	116		1,033		62						~1400 rpm				
A-125N-38	I	35	42	0,502	0,600	30	36									
	F	58	70	0,833	1,000	50	60									
	C	96	116	1,373	1,660	82	100	9					38.1		10	8,2
	B	116		1,660		100										
A-125N-47	I	35	42	0,784	0,940	47	56									
	F	58	70	1,300	1,560	78	93,6									
	C	96	116	2,150	2,600	129	156	5.5					47.63		10	8,4
	B	116		2,600		156										

(*1) Piston strokes number during 1 minute with 4 poles installed motor (1400 rpm)
I = Reducer ratio 1 : 40 = 35 strokes at 50 Hz / 42 strokes at 60 Hz
F = Reducer ratio 1 : 24 = 58 strokes at 50 Hz / 70 strokes at 60 Hz
C = Reducer ratio 1 : 14,5 = 96 strokes at 50 Hz / 116 strokes at 60 Hz
B = Reducer ratio 1 : 12 = 116 strokes at 50 Hz / not suitable
(*2) The indicated capacity value is subject to change due to the working pressure, dosed liquid, viscosity and installation asset.
(*3) High pressures are available
(*4) Different ranges of connections are available on request
(*5) The weight is approximate and it is the value of the pump fitted with a totally enclosed fan- cooled outdoor motor.
(6) The pumps can be supplied with accessories if requested
(7) The pumps are epoxy coated RAL 7030

DOSEURO®

SR Series

Type A 175N



TECHNICAL CHARACTERISTICS

Pump type	Reducer ratio (*1)			Capacity (*2)				Max Press. (*3) Kg/cm2				Connections (*4)		Motor Features	ø mm	Stroke Lenght	Net Weights Kg (*5)	
	(*1)	SPM		L/1'		L/h		SS 316 0,25 KW	SS 316 0,37 KW	PVC 0,25 KW	PVC 0,37 KW	SS 316	PVC		Real piston		SS 316	PVC
		50 Hz	60 Hz	50 Hz	60 Hz	50 Hz	60 Hz											
A-175N -6	F	70	84	0,021	0,026	1,3	1,56			//	//				6		11	10
	C	96	116	0,029	0,035	1,7	2,11											
	B	120		0,036		2,2												
A-175N -11	F	70	84	0,100	0,120	6	7,2								11.11		11	10
	C	96	116	0,133	0,160	8	9,6											
	B	120		0,166		10												
A-175N -18	F	70	84	0,283	0,340	17	20,4	20							17.46		11	10
	C	96	116	0,400	0,480	24	28											
	B	120		0,500		30												
A-175N -25	F	70	84	0,616	0,740	37	44,4			10		1/2 " G.m.		Kw 0.25 or Kw 0.37 3 Ph ~1400 rpm or Kw 0.25 or Kw 0.37 1 Ph ~1400 rpm	25.4		11	10
	C	96	116	0,853	1,024	51	61,4											
	B	120		1,066		64												
A-175N -30	F	70	84	0,866	1,400	52	62,4	20	20						30.16	17.5	11	10
	C	96	116	1,200	1,440	72	86											
	B	120		1,500		90												
A-175N -38	F	70	84	1,383	1,660	83	99,6	13	20						38.1		12	10,5
	C	96	116	1,920	2,304	115	138											
	B	120		2,400		144												
A-175N -47	F	70	84	2,166	2,600	130	156	8.5	13	8.5	10				47.63		12	10,5
	C	96	116	3,013	3,615	180	216											
	B	120		3,766		226												
A-175N -54	F	70	84	2,800	3,360	168	201,6	6.5	10	6.5	10	3/4" G.m.			53,98		15,8	12,4
	C	96	116	3,866	4,640	232	278											
	B	120		4,830		290												
A-175N -64	F	70	84	3,933	4,720	236	283,2	4.5	7	4.5	7				63.5		16,4	12,5
	C	96	116	5,440	6,528	326	391											
	B	120		6,800		408												

(*1) Piston strokes number during 1 minute with 4 poles installed motor (1400 rpm)
F = Reducer ratio 1 : 20 = 70 strokes at 50 Hz / 84 strokes at 60 Hz
C = Reducer ratio 1 : 14,5 = 96 strokes at 50 Hz / 116 strokes at 60 Hz
B = Reducer ratio 1 : 11,5 = 120 strokes at 50 Hz / not suitable
(*2) The indicated capacity value is subject to change due to the working pressure, dosed liquid, viscosity and installation asset.
(*3) High pressures are available
(*4) Different ranges of connections are available on request
(*5) The weight is approximate and it is the value of the pump fitted with a totally enclosed fan- cooled outdoor motor.
(6) The pumps can be supplied with accessories if requested
(7) The pumps are epoxy coated RAL 7030

DOSEURO®

Spring Return Plunger Dosing Pumps

Type A 250N and A 350N

TECHNICAL CHARACTERISTICS

Pump type	Reducer ratio (*1)			Capacity (*2)				Max Press. (*3) Kg/cm2				Connections (*4)		Motor	ø mm	Stroke Lenght	Net Weights Kg (*5)	
	(*1)	Strokes number /1'		L/1'		L/h		SS 316 KW 0,55	SS 316 KW 0,75	PVC KW 0,55	PVC KW 0,75	SS 316	PVC		Real piston		SS 316	PVC
		50 Hz	60 Hz	50 Hz	60 Hz	50 Hz	60 Hz											
A-250N-25	F	56	67	0,716	0,860	43	51,6	20	//	//	//	1/2 " G.m.		Kw 0.55 or Kw 0.75 3 Ph ~1400 rpm or Kw 0.55 or Kw 0.75 1 ph ~1400 rpm	25,4	25	21	//
	C	96	116	1,228	1,474	73	88											
	B	112		1,433		86												
A-250N-38	F	56	67	1,600	1,920	96	115,2	20	20	//	//				38,1		23	17
	C	96	116	2,743	3,290	164	197,5											
	B	112		3,200		192												
A-250N-47	F	56	67	2,500	3,000	150	180	17	20	10	10	3/4" G.m.			47,63		23	17
	C	96	116	4,285	5,142	257	308											
	B	112		5,000		300												
A-250N-54	F	56	67	3,200	3,840	192	230,4	13	17	10	10				53,98		23.5	17.5
	C	96	116	5,485	6,582	329	395											
	B	112		6,400		384												
A-250N-64	F	56	67	4,433	5,320	266	319,2	9,5	12	9.5	10				63,5		25.5	20
	C	96	116	7,600	9,120	456	547,2											
	B	112		8,860		532												
A-250N-76	F	56	67	6,383	7,660	383	459,6	6,5	8,6	6.5	8,6	1" G.m.			76,2		26	20
	C	96	116	10,943	13,131	656	787,8											
	B	112		12,760		766												
A-250N-89	F	56	67	8,683	10,420	521	625,2	4,8	6,3	4.8	6,3				88,9		29	20
	C	96	116	14,885	17,862	893	1071,7											
	B	112		17,360		1042												
A-350N-89	F	56	67	12,150	14,566	729	874	//	4	//	4	1 1/2" G.m.		Kw 0.75	88,9	35	35	24
	C	96	116	20,816	24,966	1249	1498											
	B	112		24,300		1458												

(*1) Piston strokes number during 1 minute with 4 poles installed motor (1400 rpm)
F = Reducer ratio 1 : 25 = 56 strokes at 50 Hz / 67 strokes at 60 Hz
C = Reducer ratio 1 : 14,5 = 96 strokes at 50 Hz / 116 strokes at 60 Hz
B = Reducer ratio 1 : 12,5 = 112 strokes at 50 Hz / not suitable
(*2) The indicated capacity value is subject to change due to the working pressure, dosed liquid, viscosity and installation asset.
(*3) High pressures are available
(*4) Different ranges of connections are available on request
(*5) The weight is approximate and it is the value of the pump fitted with a totally enclosed fan- cooled outdoor motor.
(6) The pumps can be supplied with accessories if requested
(7) The pumps are epoxy coated RAL 7030

DOSEURO®

SR Series

Type AP-A 125N

Pump type	Reducer ratio (*1)			Capacity (*2)				Max Press. (*3) Kg/cm2		Connections (*4)	Motor features	Real piston Ø mm	Stroke length mm	Net weights Kg (*5)
	(1*)	SPM		L/1'		L/h		SS 316						
		50 Hz	60 Hz	50 Hz	60 Hz	50 Hz	60 Hz	Kw 018	Kw 025	SS 316				SS 316
AP A-125N - 8	I	35	42	0,019	0,022	1,1	1,3	95	250	1/2 " G.m.	Kw 0,18 3 ph ~ 1400 rpm or kw 0,18 ~ 1400 rpm 1 ph	8	12,5	9
	F	58	70	0,031	0,036	1,9	2,2							
	C	96	116	0,051	0,061	3,1	3,7							
	B	116		0,061		3,7								
AP A-125N - 12	I	35	42	0,044	0,052	2,6	3,1	88	170			12		9
	F	58	70	0,073	0,086	4,4	5,2							
	C	96	116	0,120	0,143	7,2	8,6							
	B	116		0,143		8,6								
AP A-125N - 14	I	35	42	0,060	0,070	3,6	4,2	65	125			14		9
	F	58	70	0,100	0,116	6	7							
	C	96	116	0,165	0,196	9,9	11,8							
	B	116		0,196		11,8								
AP A-125N - 16	I	35	42	0,078	0,094	4,7	5,6	50	96			16		9
	F	58	70	0,130	0,155	7,8	9,4							
	C	96	116	0,215	0,256	13	15,6							
	B	116		0,256		15,6								

(*1) Piston strokes number during 1 minute with 4 poles installed motor (1400 rpm)
I = Reducer ratio 1 : 40 = 35 strokes at 50 Hz / 42 strokes at 60 Hz
F = Reducer ratio 1 : 24 = 58 strokes at 50 Hz / 70 strokes at 60 Hz
C = Reducer ratio 1 : 14,5 = 96 strokes at 50 Hz / 116 strokes at 60 Hz
B = Reducer ratio 1 : 12 = 116 strokes at 50 Hz / not suitable at 60 Hz

Type AP-A 175N

Pump type	Reducer ratio (*1)			Capacity (*2)				Max Press. (*3) Kg/cm2		Connections (*4)	Motor features	Real piston Ø mm	Stroke length mm	Net weights Kg (*5)
	(1*)	SPM		L/1'		L/h		SS 316						
		50 Hz	60 Hz	50 Hz	50 Hz	50 Hz	60 Hz	Kw 025	Kw 037	SS 316				SS 316
AP A - 175N -8	F	70	84	0,055	0,066	3,3	3,9	95	250	1/2" G.m.	Kw 0,25 3 ph ~ 1400 rpm or kw 0,25 ~ 1400 rpm 1 ph	8	17,5	11
	C	96	116	0,075	0,090	4,5	5,4							
	B	120		0,093		5,6								
AP A - 175N -12	F	70	84	0,123	0,147	7,4	8,8	95	233			12		11
	C	96	116	0,168	0,201	10,1	12,1							
	B	120		0,210		12,6								
AP A - 175N -14	F	70	84	0,188	0,225	11,3	13,5	95	171			14		11
	C	96	116	0,256	0,307	15,4	18,4							
	B	120		0,321		19,3								
AP A - 175N -16	F	70	84	0,245	0,294	14,7	17,6	75	131			16		11
	C	96	116	0,335	0,402	20,1	24,1							
	B	120		0,420		25,2								
AP A - 175N -18	F	70	84	0,280	0,336	16,8	20,1	59	102			18		11
	C	96	116	0,383	0,459	23	27,6							
	B	120		0,476		28,6								

(*1) Piston strokes number during 1 minute with 4 poles installed motor (1400 rpm)
F = Reducer ratio 1 : 20 = 70 strokes at 50 Hz / 84 strokes at 60 Hz
C = Reducer ratio 1 : 14,5 = 96 strokes at 50 Hz / 116 strokes at 60 Hz
B = Reducer ratio 1 : 11,5 = 120 strokes at 50 Hz / not suitable at 60 Hz

DOSEURO

High pressure Spring Return Plunger Dosing Pumps

Type AP-A 250N

Pump type	Reducer ratio (*1)			Capacity (*2)				Max Press. (*3) Kg/cm2		Connections (*4)	Motor features	Real piston Ø mm	Stroke length mm	Net weights Kg (*5)
	(1*)	SPM		L/1'		L/h		SS 316		SS 316				SS 316
		50 Hz	60 Hz	50 Hz	60 Hz	50 Hz	60 Hz	Kw 0,55	Kw 0,75					
AP A 250N -12	F	56	67	0,141	0,169	8,5	10,2							
	C	96	116	0,241	0,289	14,5	17,4		250			12		20
	B	112		0,281		16,9								
AP A 250N - 14	F	56	67	0,193	0,231	11,6	13,9							
	C	96	116	0,330	0,396	19,8	23,8		250			14		20
	B	112		0,385		23,1								
AP A 250N - 16	F	56	67	0,251	0,301	15,1	18,2							
	C	96	116	0,430	0,516	25,8	31	95	196			16		22
	B	112		0,500		30								
AP A 250N - 18	F	56	67	0,320	0,384	19,2	23							
	C	96	116	0,548	0,657	32,9	39,4		155			18		22
	B	112		0,638		38,3								
AP A 250N - 20	F	56	67	0,395	0,474	23,7	28,4							
	C	96	116	0,676	0,811	40,6	48,7		126			20		22
	B	112		0,788		47,3								
AP A 250N - 22	F	56	67	0,478	0,573	28,7	34,4							
	C	96	116	0,820	0,984	49,2	59	79	104			22		22
	B	112		0,956		57,4								
AP A 250N - 25	F	56	67	0,616	0,740	37	44,4							
	C	96	116	1,058	1,270	63,5	76,2	61	80			25		22
	B	112		1,235		74,1								

										1/2" G.m.	Kw 0,55 or Kw 0,75 3 ph ~ 1400 rpm or kw 0,55 or Kw 0,75 ~ 1400 rpm 1 ph		25	

(*1) Piston strokes number during 1 minute with 4 poles installed motor (1400 rpm)
F = Reducer ratio 1 : 25 = 56 strokes at 50 Hz / 67 strokes at 60 Hz
C = Reducer ratio 1 : 14,5 = 96 strokes at 50 Hz / 116 strokes at 60 Hz
B = Reducer ratio 1 : 12,5 = 112 strokes at 50 Hz / not suitable at 60 Hz

(*2) The indicated capacity value is subject to change due to the working pressure, dosed liquid, viscosity and installation asset.
(*3) High pressures are available
(*4) Different ranges of connections are available on request
(*5) The weight is approximate and it is the value of the pump fitted with a totally enclosed fan- cooled outdoor motor.
(6) The pumps can be supplied with accessories if requested
(7) The pumps are epoxy coated RAL 7030

DOSEURO®