# CLEVELAND GAMBETTI

**OPERATORS MANUAL** 

8

**PARTS LIST** 

model

ECO GOLF

ECO300 ECO400 ECO600



Thank you for purchasing your Cleveland Gambetti Sprayer. Here are the do's and don't of operation and how to keep spraying without any hassles.

#### Disclaimer:

Cleveland Alliances Ltd accept no liability for damage caused to the machine or the environment or persons through operation or misuse of the machine. The operator must be competent, trained, and have the appropriate certification.

#### DO NOT USE THIS MACHINE UNLESS YOU HAVE BEEN TRAINED TO DO SO.

Spraying is a delicate operation and involves the risk of contamination of people, animals and the environment. For this reason the functionality of all machine components must be carefully ensured. - The operator is always the most exposed person to the used chemical products and he/she must always adopt all the necessary measures for his/ her personal safety at work. Refer to the danger indications on the labels of the products used. - Always work in the correct weather conditions and follow the weather forecasts for the entire period of application. - Dose the product to be poured into the tank correctly. - Make sure that the chemical substances used are compatible with the construction materials of the machine. - Never leave chemical substances on the tank for more than a few hours. - Carefully follow the regulations concerning the possession and use of plant protection products and make sure that people and animals cannot access them. - After each use carefully wash the containers of the mix and the dosing tools that have been used. - Do not use the machine without hand washing tank or if it is not full. - The machine should be cleaned in the same place where it is filled, i.e. an area where the water can be collected in a disposal manhole. - Do not discharge the mixing residues to the watercourses, sewers and public areas.



#### **Operation:**

Do not just bash on, hoping you're going to get it right!!! You're applying thousands of pounds worth of product... lets do a good job shall we.....

- 1. Connect to the tractor. Make sure the sprayer chassis is sitting level and the nozzles are 50cm from the ground when the machine is at the working position on the tractor lift arms.
- 2. Connect the PTO shaft. THE ENGINE MUST NOT BE RUNNING WHEN CONNECTING THE SHAFT. Connecting a PTO shaft with a running engine is dangerous! Don't become a statistic!!!



- 3. Put water inside the tank. ONLY ADD PRODUCT when there is at least 150lt of water in the tank. The pump MUST BE RUNNING via the PTO shaft when adding CHEMICAL. If you just add chemical without the pump running you risk choking your suction filter which will be a real pain in the backside for you.
- 4. Add the rest of the water to the required level.

#### **Controls:**

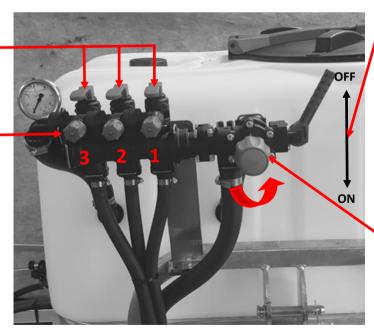
#### **Boom Section Valves**

Lever UP = section ON \_\_\_\_ Lever DOWN = section OFF

#### **Pressure Balancing**

To set the pressure balancing valves, follow this procedure:

- Set the total boom spraying
   3bar pressure
- 2. Turn off section 1, if the pressure increases above 3 bar, turn the balancing valve anti clockwise until the pressure is at 3 bar. If the pressure decreases below 3 bar, turn the balancing valve clockwise until the pressure is at 3 bar. Switch the section back on so the whole boom is spraying. Repeat the procedure for sections 2 & 3



Main On / Off

Pressure adjust

Turn clock wise to increase the pressure. Turn anti clock wise to decrease the pressure

#### **Tank Suction & Tank Drain**

Underneath the main tank, to the left hand side of the pump is a valve which has 3 positions.

#### **CLEAN THE FILTER POSITION** (12 oclock position)

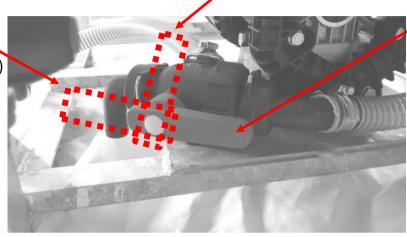
The valve must be pointing vertical when cleaning the filter. This closes the tank and means the filter can be cleaned with a full tank of product.

#### **DRAIN POSITION**

(9 oclock valve position)

Tank Drain

The valve must be pointing left to allow the tank contents to drain out



#### **SPRAYING POSITION**

(3 oclock valve position)

Tank Suction

The valve must be pointing right to allow the tank contents into the system.



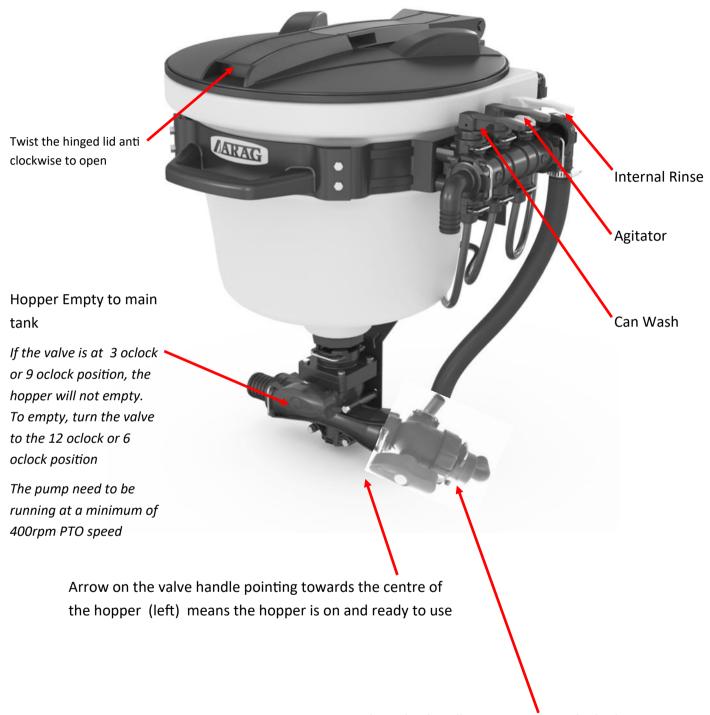
#### **FILTER**

To clean the filter, place the valve shown above in the 12 oclock position, then unscrew the large nut from the filter housing and remove the bowl. Remove the filter element and clean in hot water. Then refit. Do not lose the large 'o'ring which is inside the housing. It will leak if you do lose it and you wont be able to spray.

Filter Nut

#### **Chemical Mixer Hopper (option)**

To use the induction hopper, there must be water in the main tank and the pump needs to be running at a minimum PTO speed of 400rpm.



Arrow on the valve handle pointing towards the boom (right) means the hopper is off and you are ready to spray.

THE MACHINE WILL NOT SPRAY IF THE HOPPER IS ON

#### **Boom Operation**

#### 6m boom

The 6m boom has 4 nozzles per boom section at 50cm spacing. The boom is equipped with spring adjusted break-back devices in case of collision. The tension on the springs can be adjusted by the 30mm nut on top of the boom hinge. Do not make too tight. Doing so can cause too much rigidity and cause the boom to bend in there is collision. Usually 20 to 25mm of thread above the adjustment nut is adequate.

#### To open the boom:

- Pull the right hand boom arm towards you and open it towards the right hand side of the machine.
   Be sure to locate the boom in the fully open position
- Once the right hand boom arm is secured, pull the left hand boom arm towards you and open it towards the left hand side of the machine. Be sure to locate the boom in the fully open position

On a weekly basis, APPLY GREASE to the folding mechanism when the boom arm is half way between being full open and fully closed. WARNING: DO NOT MOVE THE BOOM ARM WHEN YOU ARE GREASING THE BOOM HINGE. YOU MAY TRAP YOUR FINGERS IN THE MECHANISM. TAKE NOTE

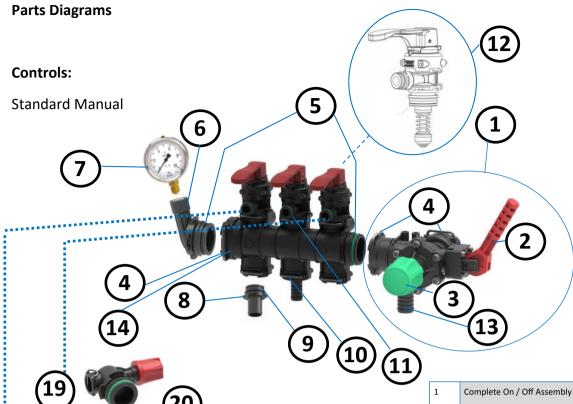


#### **Nozzle Application Chart**

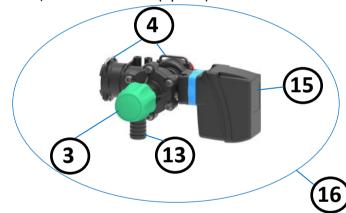
COD. 110° CODE 110°	0	•	- <b>J</b>		I/ha (spazio tra gli ugelli: 50 cm) I/ha (nozzle spacing: 50 cm) I/ha (espacio entre las boquillas: 50 cm)							•	COD. 80° CODE 80°		
CÓD. 110°	bar	drop 110°	l/min	4 km/h	6 km/h	8 km/h	10 km/h	m/h   12 km/h	14 km/h	16 km/h	18 km/h	20 km/h	25 km/h	drop 80°	CÓD. 80°
SF11001	1.5	F	0.28	85	57	42	34	28	24	21	19	17	14	F	SF08001
	3	VF	0.40	120	80	60	48	40	34	30	27	24	19	VF	
	5	VF	0.52	155	103	77	62	52	44	39	34	31	25	VF	SF08001
	7	VF	0.61	183	122	92	73	61	52	46	41	37	29	VF	
	1.5	F	0.42	127	85	64	51	42	36	32	28	25	20	F	SF080015
SF110015	3	VF	0.60	180	120	90	72	60	51	45	40	36	29	VF	
	5	VF	0.77	232	155	116	93	77	66	58	52	46	37	VF	
	7	VF	0.92	275	183	137	110	92	79	69	61	55	44	VF	
	1.5	F	0.57	170	113	85	68	57	48	42	38	34	27	F	SF08002
SF11002	3	F	0.80	240	160	120	96	80	69	60	53	48	38	F	
SF11002	5	VF	1.03	310	207	155	124	103	89	77	69	62	50	VF	
	7	VF	1.22	367	244	183	147	122	105	92	81	73	59	VF	
	1.5	F	0.71	212	141	106	85	71	61	53	47	42	34		NA
SF110025	3	F	1.00	300	200	150	120	100	86	75	67	60	48		
3F110023	5	VF	1.29	387	258	194	155	129	111	97	86	77	62		
	7	VF	1.53	458	306	229	183	153	131	115	102	92	73	-	
SF11003	1.5	M	0.85	255	170	127	102	85	73	64	57	51	41	M	SF08003
	3	F	1.20	360	240	180	144	120	103	90	80	72	58	F	
	5	F	1.55	465	310	232	186	155	133	116	103	93	74	F	
	7	VF	1.83	550	367	275	220	183	157	137	122	110	88	VF	
	1.5	M	1.13	339	226	170	136	113	97	85	75	68	54	M	SF08004
SF11004	3	F	1.60	480	320	240	192	160	137	120	107	96	77	F	
	5	F	2.07	620	413	310	248	207	177	155	138	124	99	F	
	7	F	2.44	733	489	367	293	244	209	183	163	147	117	F	
SF11005	1.5	С	1.41	424	283	212	170	141	121	106	94	85	68	С	SF08005
	3	M	2.00	600	400	300	240	200	171	150	133	120	96	M	
	5	M	2.58	775	516	387	310	258	221	194	172	155	124	M	
	7	M	3.06	917	611	458	367	306	262	229	204	183	147	M	
SF11006	1.5	С	1.70	509	339	255	204	170	145	127	113	102	81	С	SF08006
	3	С	2.40	720	480	360	288	240	206	180	160	144	115	С	
	5	С	3.10	930	620	465	372	310	266	232	207	186	149	С	
	7	С	3.67	1.100	733	550	440	367	314	275	244	220	176	С	
SF11008	1.5	С	2.26	679	453	339	272	226	194	170	151	136	109	С	SF08008
	3	С	3.20	960	640	480	384	320	274	240	213	192	154	С	
	5	С	4.13	1.239	826	620	496	413	354	310	275	248	198	С	
	7	С	4.89	1.466	978	733	587	489	419	367	326	293	235	С	
SF11010	1.5	С	2.83	849	566	424	339	283	242	212	189	170	136	С	SF08010
	3	С	4.00	1.200	800	600	480	400	343	300	267	240	192	C	
	5	С	5.16	1.549	1.033	775	620	516	443	387	344	310	248	С	
	7	С	6.11	1.833	1.222	917	733	611	524	458	407	367	293	С	
	1.5	VC	4.24	1.273	849	636	509	424	364	318	283	255	204		
SF11015	3	VC	6.00	1.800	1.200	900	720	600	514	450	400	360	288		NA
	5	VC	7.75	2.324	1.549	1.162	930	775	664	581	516	465	372		
	7	VC	9.17	2.750	1.833	1.375	1.100	917	786	687	611	550	440		



# **PARTS LIST**



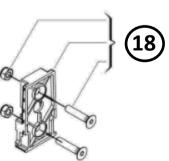
Electric on/off Main Control (option)

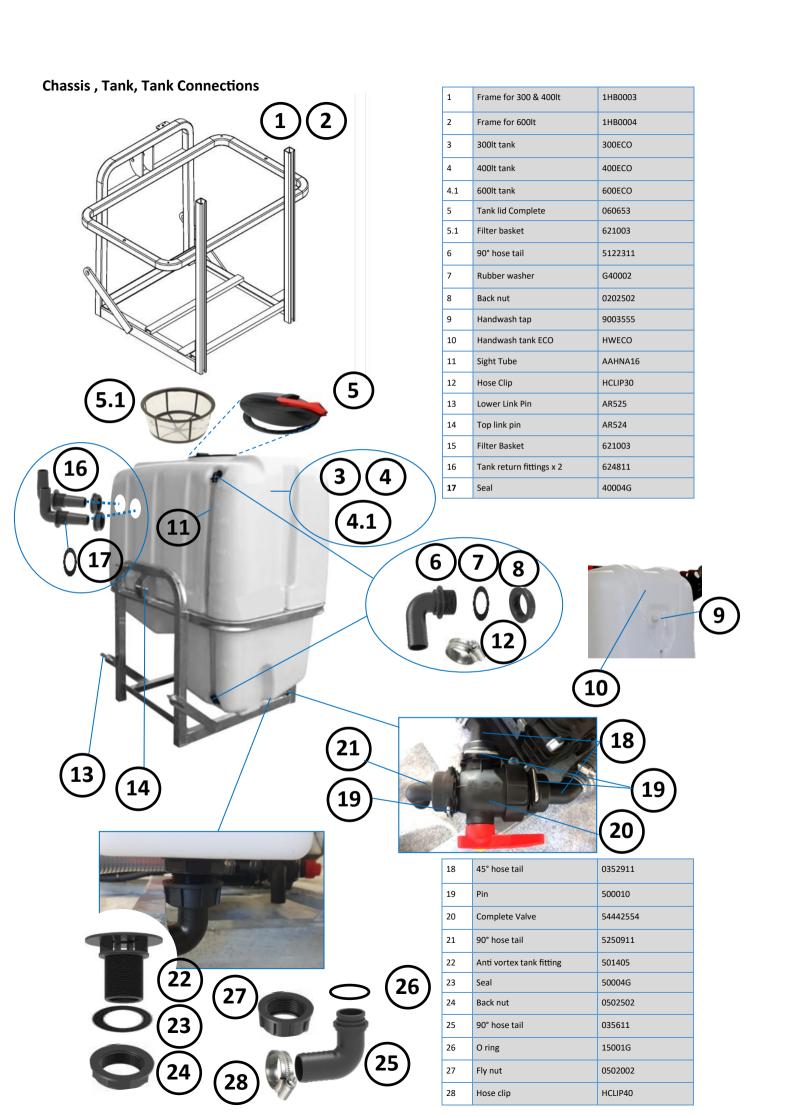


Electric on/off in cab switch box with wiring loom (option)

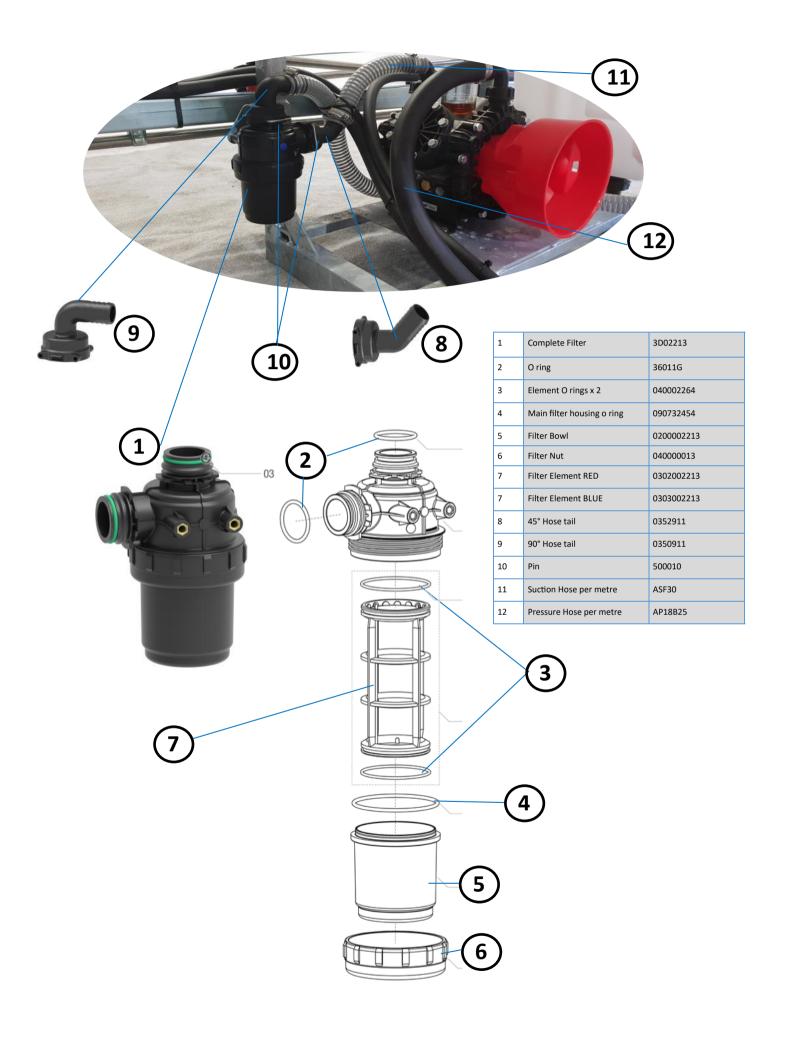




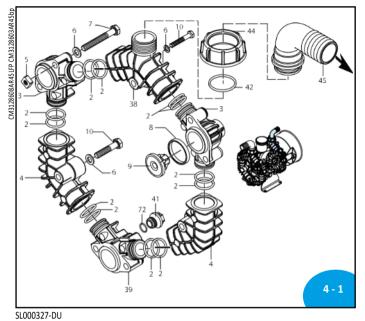


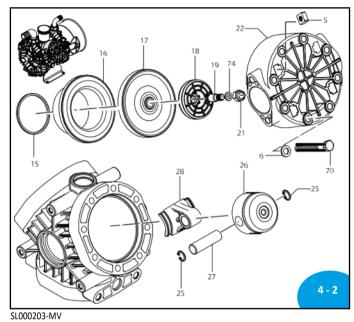


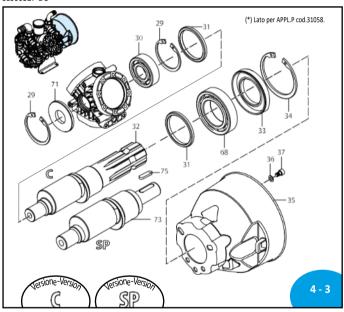
#### **Suction Filter**

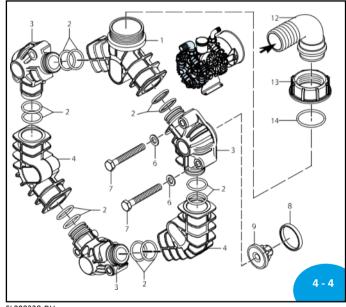


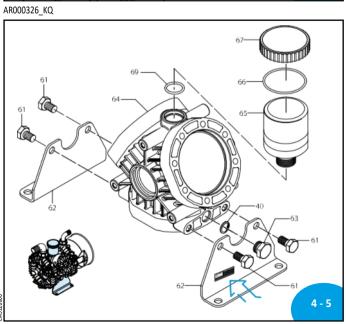
#### Pump















SL000206-AQ

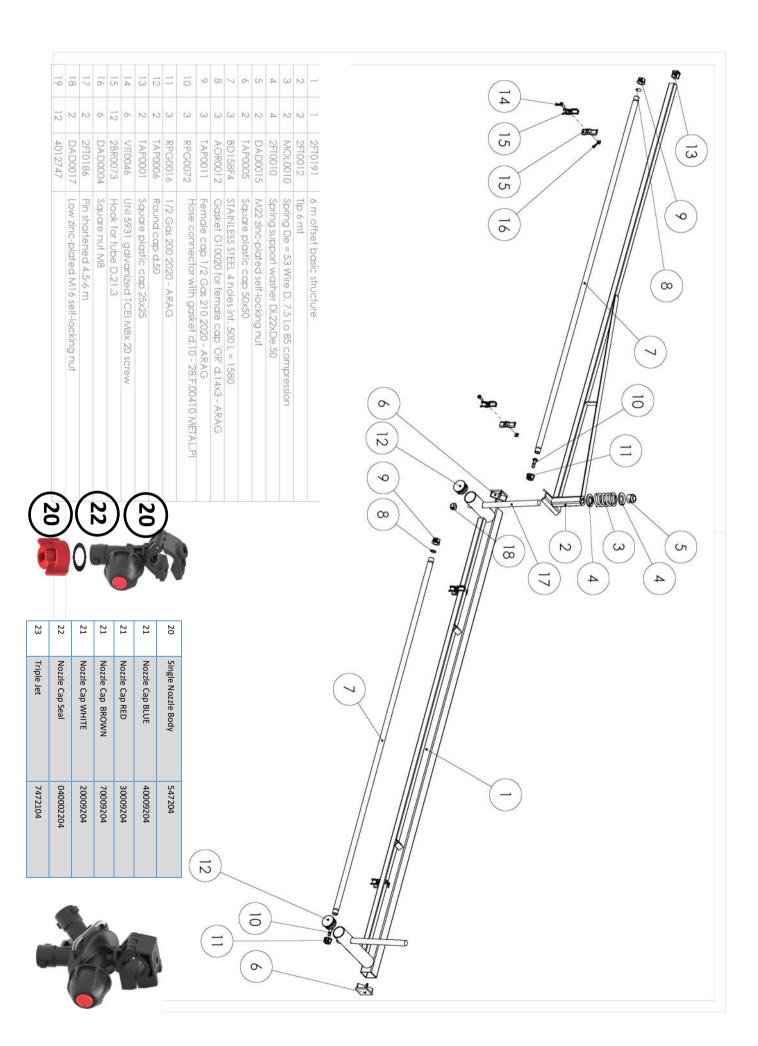
MI 91397

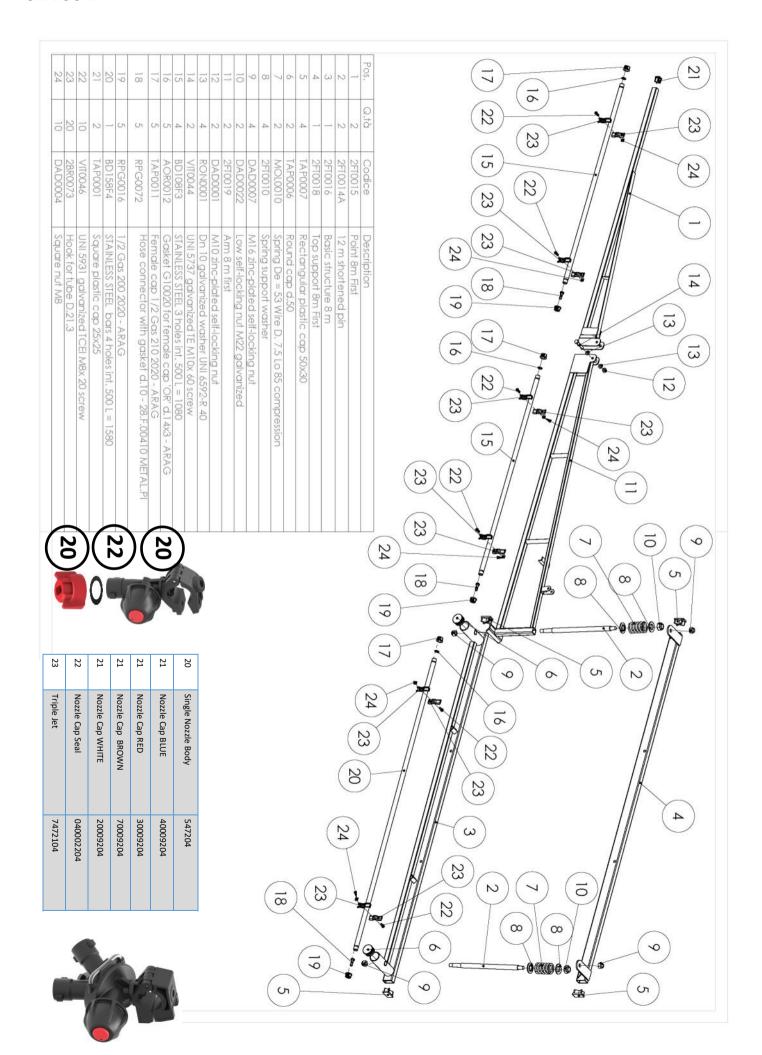
#### COMPLETE PUMP PART NUMBER: A00023R

Pos	Cod.	Descrizione		Description	Q.ty	Note
1	3120410	Condotto	aspirazione	Line	1	
1	720031		Ø 22,22x2,62	O-ring	24	Viton(A)R45LFP
	720030		Ø 22,22x2,62	O-ring	24	AR45bp
3	3120050		mandata	Line	5	
4	3120060	Condotto	asp./mandata	Line	4	
5	3120510	Dado	M8	Nut	12	Inox
	3120760	Rondella	IVIO	Washer	42	Inox AR45LFP
6	3120761	Rondella		Washer	42	Z/B AR45bp
Ť	3120701		TE M8x60	Screw	12	
	3120250	Vite	TE M8x60	Screw	12	C10 AR45bp
'n	3120680		verde	Gasket	6	Viton AR45LFP
8	3120230	Guarnizione	verue	Gasket	6	
						AR45bp
9		Valvola completa		Complete valve	6	AR45LFP
•	3129050		TT	Complete valve	6	AR45bp
10	621782		TE M8x40	Screw	6	Inox C1@AR45LFI
	621780		TE M8x40	Screw	6	C <sub>10</sub> AR45bp
12 13	3040160		Ø 35	Elbow	1	
		Girello	1" 1/2 G	Ring nut	1	
14	1880460		Ø 29x3	O-ring	1	Viton R45LFP
	390290		Ø 29x3	O-ring	1	AR45bp
15		Segmento		Piston ring	3	
	3120090			Sleeve	3	
	3120082			Diaphragm	3	BlueFlex AR45LFF
	3120080			Diaphragm	3	NBR AR45bp
46	3120081	Membrana		Diaphragm	3	Viton
16	3120085	Membrana		Diaphragm	3	Desmopan
13	3120120	Piastra		Plate	3	
	3120101	Perno	AISI 316L	Hub pin	3	C25 (a) AR45LFP
Ŧ₽	3120100	Perno		Hub pin	3	C25 (a) AR45bp
11	3120790	Dado	M8 AISI 316L	Nut	3	C20 AR45LFP
41	3120110	Dado	M8 AISI 304	Nut	3	Inox C20 AR45bp
22	3120020	Testa		Head	3	
25	1880450	Anello	seeger Øi 14	Ring	6	
26	3120070	Pistone	Ø 54	Piston	3	
27	380300	Spina		Pin	3	$\bowtie$
28	3120180	Biella		Connecting-rod	3	
29	1460490	Anello	seeger Øi 47	Ring	2	
30	380230		J F	Bearing	1	<b>‡</b>
31	1300120		biella	Ring	2	
32	3120500		marcato DD	Shaft	1	AR45LFP/bp C
33	3120160	Anello	tenuta	Ring	1	<b>&gt;</b>
34	961790		seeger Øi 68	Ring	1	
35	3240290	Protezionecardano	22000 0100	Cardan protection		
	320622			Washer	4	Inox AR45LFP
36	320620	Rondella		Washer	4	AR45bp
- 1	820672		TCEI M10x16	Screw	4	Inox C <sub>10</sub> AR45LFP
37	820670		TCEI M10x16	Screw	4	C10 AR45bp
		Condotto	mandata	Line	1	C10 WV42nh
38	3120380		manuata	Line	1	
39			d 14v1 70	-		
40	/40290	Guarnizione OR	Ø 14x1,78	O-ring	1	

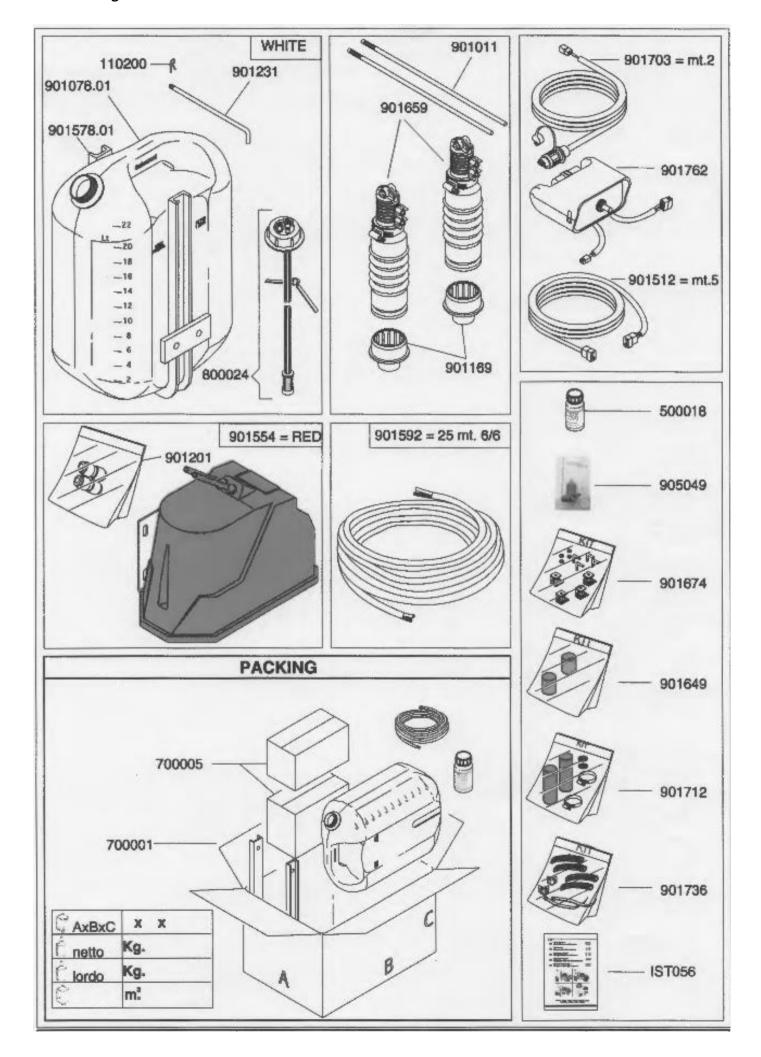
Pos	Cod.	Descri	Description	Q.ty	.ty Note		
41	3120690			Plug	1	C2	
42	1140451	Guarnizione OR	Ø 20,24x2,62	O-ring	1	Viton <b>■</b> AR45LFP	
	1140450	Guarnizione OR	Ø 20,24x2,62	O-ring	1	■ AR45bp	
44		Girello	1" G	Ring nut	1		
45	3120460	Curva	Ø 25	Elbow	1		
61	620342	Vite	TE M10x20	Screw	4	Inox C30 AR45LFP	
	620340	Vite	TE M10x20	Screw	4	C30 <b>A</b> R45bp	
62	3120140	Piede		Foot	2		
63	880530	Тарро	3/8" G	Plug	1	C20	
64	3120010	Corpo pompa		Pump body	1		
65	3120240	Serbatoio	<i></i>	Tank	1	© C20	
66	650920	Guarnizione OR	Ø 53,65x2,62	O-ring	1	×	
67	1040320	Тарро	rosso	Plug	1		
68	961780	Cuscinetto	<i>-</i>	Bearing	1	<b>↓</b>	
69	720030	Guarnizione OR	Ø 22,22x2,62	O-ring	1		
70	3120271	Vite	TE M8x65	Screw	24	Inox C1 AR45LFP	
	3120270	Vite	TE M8x65	Screw	24	C10AR45bp	
71	3120640	Anello	tenuta	Ring	1	<b>&gt;</b>	
72	2840891	Guarnizione OR	Ø 14x2	O-ring	1	Viton AR45LFP	
	2840890	Guarnizione OR	Ø 14x2	O-ring	1	AR45bp	
73	3120170	Albero	marcato DL	Shaft	1	AR45LFP/bp SP	
74	3120760	Rondella		Washer	3	Inox	
75	2280950	Linguetta		Key	1	(d)	
` '	(a) Avvitare con Loxeal 83-21 Frena filetti FORTE (Verde) codulo lato pistone.						
	Screw with Loxeal 83-21 thread lock STRONG.						

<sup>(</sup>d) Fornito nei kit applicazioni.
Supplied in the kit applications.

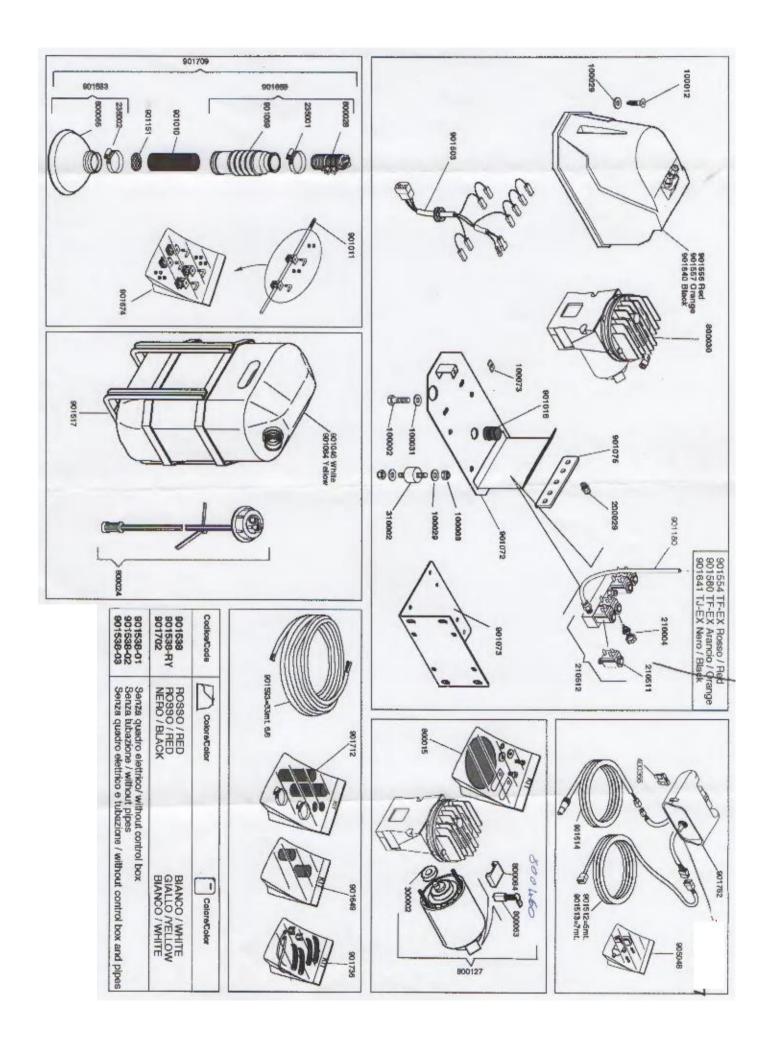


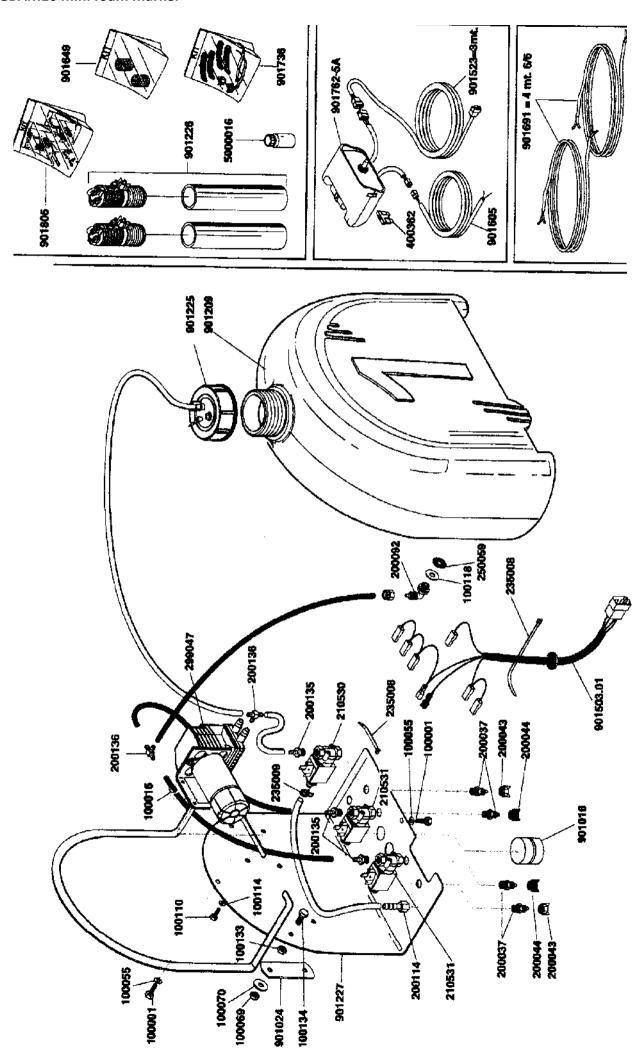


#### **GBAM12** large foam marker

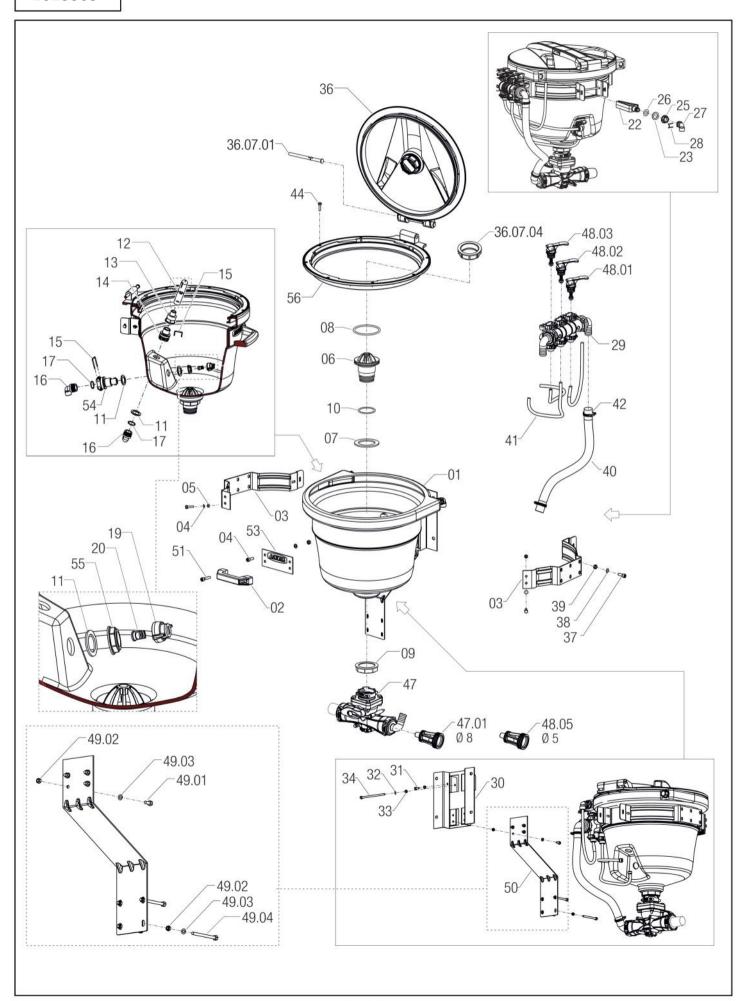


#### GBAM12 large foam marker continued....





1023305



### CODE

## **Chemical Mixer Hopper (option)**

1023305

REFERENCE	CODE	DESCRIPTION
01	0101023305	TANK MIXER NIAGARA 20LT
02	0401023305	HANDLE MIXER NIAGARA 20LT
03	5401023305	STEEL BAND MIXER NIAGARA
04	L52C1V	SCREW TCEI 8X20 INOX UNI 5931
05	15201B	NUT M 8X13X6,5 UNI5588 * INOX
06	0201033305	TANK DISCHARGE FITTING
07	70004G	FLAT GASKET 59X86X4 EPDM
08	V76011G	OR 3,53X82,14 VITON
09	0702502	BACK NUT 2"
10	V32011G	OR 3,53X41,28 VITON
11	51004G	FLAT GASKET 27,5X39,5X2,5 EPDM
13	3202542	REDUCTION F-M 3/4'-1/2"
14	330942	HOSETAIL T3F 3/4 M
15	300010	FORK D.3 DIST.29
16	01C31911	ELBOW T3M AR D.10
17	85011G	ORING 2.62X25.07 EPDM
19	30809204	QUICK FITTING CAP FLOODJET RED
20	01041FED224	DEFLECTOR 140° NOZZLE 10.0 BLACK
22	5301033305	WASHING DEFLECTOR NIAGARA
23	20004G	FLAT GASKET 21X33X2 EPDM
25	0202502	BACK NUT 1/2"
26	65011G	OR 2,62X12,37 EPDM
27	01C10911	ELBOW T1F AR D.10
28	100010	FORK D.2 DIST.16
29	005035MT364	3W.MAN.VALVES UNIT T5 NIAGARA NO H.
30	0501033305	FIX. STRUCT.TANK MIXER NIAGARA
31	F42M1V	SCREW 6X14 INOX
32	3F202B	WASHER 6,2X12X0,8 INOX
33	14221B	SELF-LOCKING NUT M6 INOX UNI7474
34	442M1V	SCREW TE 6X120 INOX
36	009042653	HINGED LID D.355 C/W LABYR, NO RING
36.07.01	040060653	PIN FOR ARM HINGED LID
36.07.04	0702002	FLY-NUT 2"
37	K52M1V	SCREW TE 8X25 INOX
38	0H202B	FLAT WASHER 8,4X15X1,5 INOX
39	15201B	NUT M 8X13X6.5 UNI5588 * INOX
40	0601033305	PVC HOSE D.25X33 L.45CM
41	0701033305	COPEY HOSE 8X10 L.45 CMS.
42	1601033305	INOX HOSE CLAMP FOR HOSE D.20/32
44	F52S7V	SELF-T, SCREW FOR PLAST, 5X16 INOX
47	10M354	NIAGARA MIXING VALVE
47.01	0801033305	NOZZLE D.8 NIAGARA
48.01	005U150T364	BLACK HANDLE KIT MODUL: T5
48.02	005150T364	RED HANDLE KIT MODUL. TS
48.03	105150T364	YELLOW HANDLE KIT MODUL. T5
48.05	3801033305	NOZZLE D.5 NIAGARA GREY
49.01	F42M1V	SCREW 6X14 INOX
49.02	14221B	SELF-LOCKING NUT M6 INOX UNI7474
49.03	3F202B	WASHER 6,2X12X0,8 INOX SCREW 6X80 INOX
49.04	W42M1V	
50	5501023305	FIX. STRUCT.VENTURI MIXER NIAGARA
51	M52C1V	SCREW TCEI 8X35 INOX UNI 5931
52	0H202B	FLAT WASHER 8,4X15X1,5 INOX
53	1401023305	HANDLE SUPPORT NIAGARA 20 LT
54	182004	QUICK COUPL. NOZZLE HOLDER T3F FIT.
55	0302502	BACK NUT 3/4"
56	120240653	ANELLO BAION.RIB.D.355 S/BOR C/GUAR