



EQUIPAGGIAMENTI  
TECNICI  
LAVAGGIO

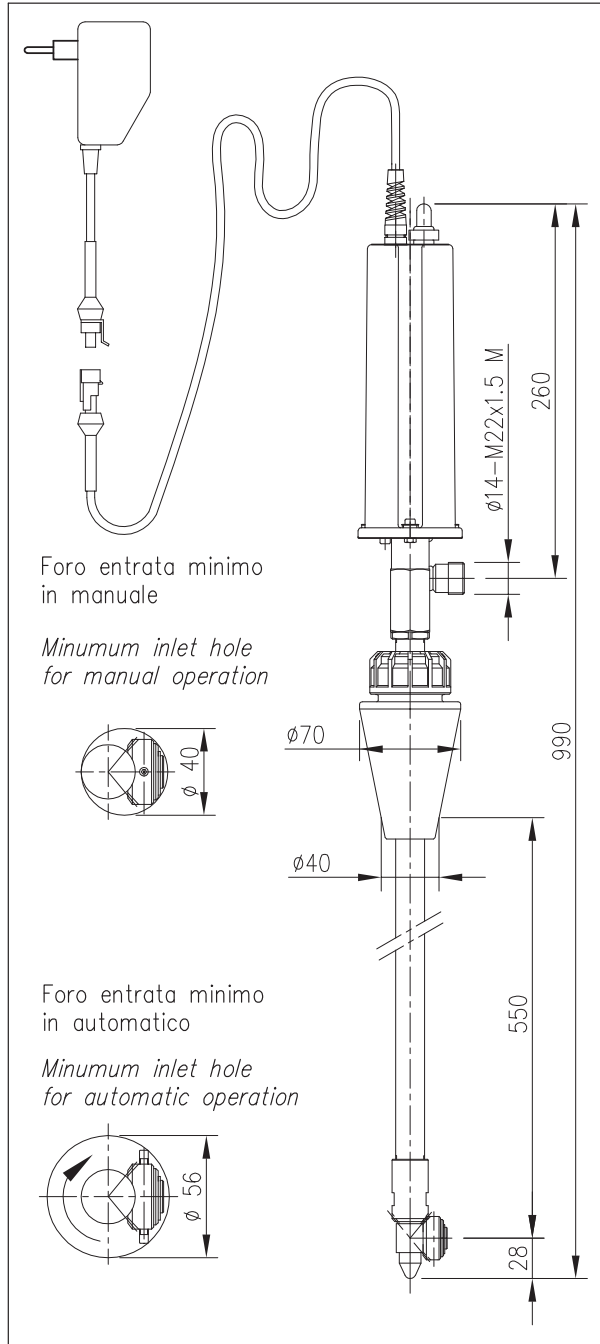
TESTINE ROTANTI  
MOD. M21E

I	4	11
GB		
12.9411.00		20/12/05

M21E

25.4300.00 (I)  
25.4300.24 (AUS)  
25.4300.60 (USA)  
25.4300.62 (J)

MANUALE D'ISTRUZIONE  
GENERAL INTRUCTION BOOK



Foro entrata minimo  
in manuale

Minimum inlet hole  
for manual operation

Foro entrata minimo  
in automatico

Minimum inlet hole  
for automatic operation

## TESTINA ELETTRICA PULIZIA CISTERNE

- Lavaggio superfici interne di contenitori e serbatoi.
- Portata ridotta, alta pressione, elevata forza di impatto.
- Copertura orbitale completa degli interni.
- Minimo ingombro radiale che ne permette l'introduzione attraverso passaggi ridotti.
- Alimentazione elettrica a bassa tensione.
- Costruzione in acciaio inox.
- Idonea per impiego settore alimentare.

### ATTENZIONE !

- La Testina STANDARD è fornita di guarnizioni (DINAMICHE) in PTFE + O-Ring EPDM.
- Lubrificare esclusivamente con GRASSO SILICONICO codice: 14.6552.00
- Per l'utilizzo di liquidi detergenti, additivi chimici ecc. non compatibili con le guarnizioni standard è indispensabile contattare il nostro UFFICIO TECNICO.
- A richiesta le guarnizioni (DINAMICHE) O-RING sono disponibili anche in diverso materiale, NBR-FFKM(kalrez)-FKM(viton).

## ELECTRIC TANK CLEANING HEAD

- Cleaning of interior surfaces of tanks and drums.
- Reduced flow, high pressure, high cleaning impact.
- Complete orbital coverage of all interior surfaces.
- Small spray turret that fits through reduced tank opening.
- Low tension electric power.
- Stainless steel construction.
- Suitable for utilization in food industry.

### ATTENTION !

- The STANDARD Tank cleaning head is supplied with seals (DYNAMIC) in PTFE + O-Ring EPDM.
- Lubricate ONLY with SILICONE GREASE P/N: 14.6552.00
- For use with Detergent liquid, Chemical additives etc that are not compatible with the standard seals, it is essential to contact our TECHNICAL OFFICE for further information.
- On request, the O-RING seals (DYNAMIC) are available in different materials such as NBR-FFKM(kalrez)-FKM(viton).

ATTENZIONE: NON UTILIZZARE  
L'APPARECCHIO PRIMA DI AVER LETTO  
QUESTO MANUALE DI ISTRUZIONE

CAUTION: DO NOT USE THE  
CLEANING HEAD BEFORE HAVING READ  
THE INSTRUCTION BOOK

# CARATTERISTICHE TECNICHE TECHNICAL SPECIFICATIONS

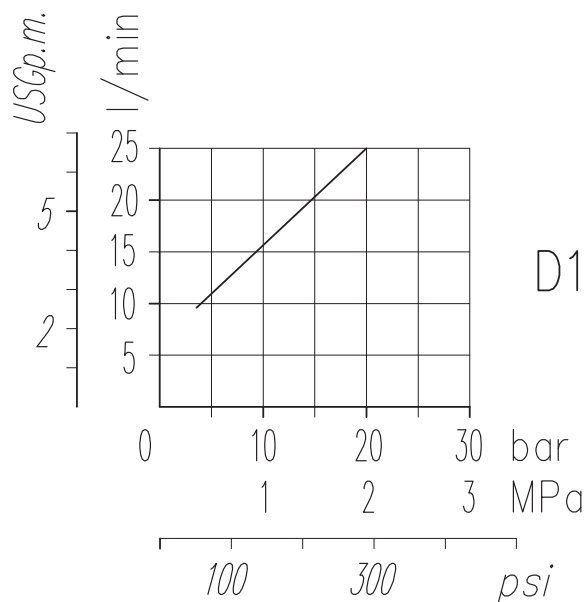
M21E



- PRESSIONE NOMINALE <i>RATED PRESSURE</i>	220 bar – 22 MPa (3200 psi)
- PRESSIONE CONSENTITA <i>PERMISSIBLE PRESSURE</i>	250 bar – 25 MPa (3650 psi)
- PORTATA MASSIMA <i>MAX FLOW RATE</i>	21 l/min (5.5 USGp.m.)
- TEMPERATURA MASSIMA ACQUA <i>MAX WORKING TEMPERATURE</i>	90 °C (195°F)
- PESO <i>WEIGHT</i>	3.2 Kg
- FREQUENZA ROTAZIONE ASSE PRINCIPALE <i>MAIN AXIS ROTATING SPEED</i>	14 RPM
- ATTACCO ALIMENTAZIONE ACQUA <i>INLET CONNECTION SIZE</i>	∅14–M22x1.5 M (A)
- ATTACCO UGELLI N°2 <i>NOZZLES CONNECTION N°2</i>	M4
- TEMPO PER UN CICLO COMPLETO DI LAVAGGIO <i>TIME FOR A COMPLETE CLEANING CYCLE</i>	2 min
- MOTORE ELETTRICO: <i>ELECTRIC MOTOR:</i>	8W – 12V.cc
- ALIMENTATORE: <i>POWER SUPPLY:</i>	25.4300.00 – 230V–50Hz/12V.cc–1A 25.4300.24 – 240V–50Hz/12V.cc–1A 25.4300.60 – 110V–60Hz/12V.cc–0.8A 25.4300.62 – 100V–60Hz/12V.cc–1A
-LUNGHEZZA CAVO ALIMENTAZIONE: <i>POWER CABLE LENGTH</i>	10 m
- TENUTE ( N.B. USARE SOLO GRASSO AL SILICONE codice: 14.6552.00) <i>SEALS ( N.B. USE P/N: 14.6552.00 SILICONE GREASE ONLY )</i>	EPDM+PTFE

CADUTA DI PRESSIONE IN FUNZIONE DELLA PORTATA

LOSS OF PRESSURE IN RELATION TO FLOW



D2

UGELLI – NOZZLES

	codice	D(mm)	l/min(100bar)	F.P.
*	80.0350.51	1.00	4.6	02
	25.1191.51	1.05	5	023
*	80.0351.51	1.10	5.6	025
	25.1192.51	1.15	6.1	027
*	80.0352.51	1.20	6.7	03
	25.1193.51	1.25	7.1	032
*	80.0353.51	1.30	7.8	035
	25.1098.51	1.35	8.4	037
*	80.0354.51	1.40	9.1	04
	25.1194.51	1.45	9.7	043
	25.1095.51	1.50	10.3	045
	25.1195.51	1.55	11.2	05
	25.1196.51	1.60	12	053
	25.1197.51	1.62	12.6	055
	25.1186.51	1.66	13.7	06
	25.1198.51	1.72	14.8	065
	25.1199.51	1.8	16	07
	25.1085.51	2.00	18.2	08

\* Ugelli forniti di serie (tipo corto)

\* Standard nozzles supplied (short type) 11–2



SCELTA INDICATIVA FATTORE DI PORTATA N°2 UGELLI  
 INDICATIVE CHOICE OF FLOW FACTOR N°2 NOZZLES

PRESSIONE bar – MPa – PRESSURE PSI

PORTATA POMPA l/min – PUMP FLOW USGp.m.

21 5,5						215 21.5 3150	180 18 2600	155 15.5 2250	130 13 1900	110 11 1600	100 10 1450	85 8.5 1200
20 5,3						195 19.5 2850	160 16 2300	140 14 2050	120 12 1750	105 10.5 1500	90 9 1300	75 7.5 1100
19 5					200 20 2900	175 17.5 2550	145 14.5 2100	125 12.5 1800	105 10.5 1500	95 9.5 1350	85 8.5 1200	70 7 1000
18 4,8				215 21.5 3150	180 18 2600	160 16 2300	130 13 1900	110 11 1600	95 9.5 1350	85 8.5 1200	75 7.5 1100	60 6 870
17 4,5				190 19 2750	160 16 2300	140 14 2050	115 11.5 1700	100 10 1450	85 8.5 1200	75 7.5 1100	65 6.5 950	55 5.5 800
16 4,2			200 20 2900	170 17 2450	140 14 2050	125 12.5 1800	105 10.5 1500	90 9 1300	75 7.5 1100	65 6.5 950	60 6 870	50 5 725
15 4			175 17.5 2550	150 15 2200	125 12.5 1800	110 11 1600	90 9 1300	75 7.5 1100	65 6.5 950	55 5.5 800	50 5 725	
14 3,7		195 19.5 2850	155 15.5 2250	130 13 1900	105 10.5 1500	95 9.5 1350	80 8 1150	65 6.5 950	55 5.5 800	50 5 725		
13 3,4	195 19.5 2850	165 16.5 2400	130 13 1900	110 11 1600	90 9 1300	80 8 1150	65 6.5 950	55 5.5 800	50 5 725			
12 3,2	170 17 2450	140 14 2050	110 11 1600	95 9.5 1350	80 8 1150	70 7 1000	55 5.5 800	50 5 725				
11 2,9	140 14 2050	120 12 1750	95 9.5 1350	80 8 1150	65 6.5 950	60 6 870						

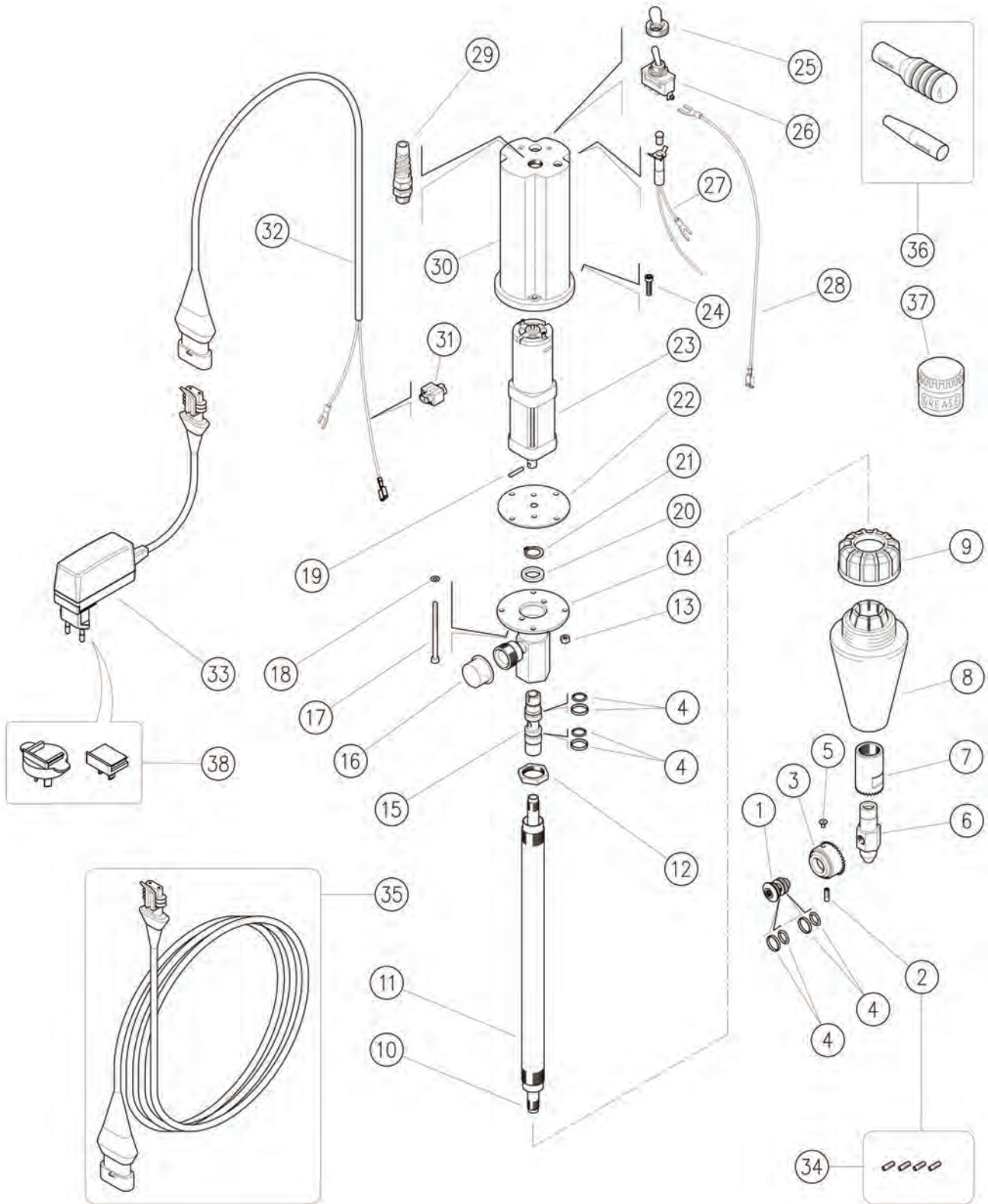
FATTORE PORTATA N°1 UGELLO <i>FLOW FACTOR N°1 NOZZLE</i>	*		*		*		*		*			
	02	023	025	027	03	032	035	037	04	043	045	05
N° UGELLI DA MONTARE <i>N° OF NOZZLES TO BE FITTED</i>	2	2	2	2	2	2	2	2	2	2	2	2

\* UGELLI DISPONIBILI TIPO CORTO  
 \* NOZZLES AVAILABLE SHORT TYPE

N.B. E' OBBLIGATORIO MONTARE N°2 UGELLI AVENTI LO STESSO FATTORE DI PORTATA  
 N.B. IT IS MANDATORY TO FIT 2 NOZZLES HAVING THE SAME FLOW FACTOR

25.4300.00 M21E Tank cl.,el.-driv., 220V AC/50Hz  
25.4300.24 M21E Tank cl.,el.-driv.,240V AC/50Hz AUS

25.4300.60 M21E Tank cl.,el.-driv.,USA+Austral  
25.4300.62 M21E Tank cl.,el.-driv.,100V AC/60Hz JAP



Pos.	P/N	Description	Q.ty	K1	K2	K3	K4	Pos.	P/N	Description	Q.ty	K1	K2	K3	K4
1	80.0313.51R	Pin, M10x1 Sst.	1				1	18	14.3519.00R	Washer, 4x8x0,5 mm brass	2				10
2	15.3704.00R	Plug, M4 plast.	2				4	19	15.1030.00R	Roll pin, 3x16 mm Sst.	1				10
2	80.0350.51R	Nozzle, 02 - 1,0mm - M4 Sst. light green	2	•			10	20	80.0302.31R	Spacer ring, 13x21x3,8mm	1	•			10
2	80.0351.51R	Nozzle, 025 - 1,1mm - M4 Sst. pink	2	•			10	21	10.1000.13R	Snap ring, E 13 Sst.	1	•			10
2	80.0352.51R	Nozzle, 03 - 1,2mm - M4 Sst. white	2	•			10	22	80.0317.88R	Motor seal, NBR	1				10
2	80.0353.51R	Nozzle, 035 - 1,3mm - M4 Sst. brown	2	•			10	23	13.0827.00R	Gearmotor, 12V 10Rpm	1				1
2	80.0354.51R	Nozzle, 04 - 1,4mm - M4 Sst. yellow	2	•			10	24	16.1852.10R	Screw, DIN912 M4x14 mm Sst.	4				10
3	80.0312.51R	Nzl hold. pinion, z.29 M4 FF Sst.	1				1	26	12.5016.20R	On/off unipol. switch+protec.	1				3
4	10.2032.00R	Piston seal, 10x15x2 mm +O-ring	4		•		4	27	12.5019.31R	Pilot lamp	1				5
5	15.3704.00R	Plug, M4 plast.	2				4	28	12.5019.25R	Cable, 1x0,75 L.250 mm	1				5
6	80.0314.51R	Buffer, M10x1 Sst.	1				1	29	13.5997.00R	Cable gland 1/4 +protection	1				5
7	80.0311.51R	Fixed pinion, z.24 Sst.	1				1	30	80.0301.84R	Motor casing, PA black	1				1
8	80.0315.84R	Tapered plug, TPEs black	1				1	31	12.5019.47R	Wire tap-in	1				5
9	80.0316.84R	Ring nut, PP black	1				10	32	12.5019.10R	Cable, 2x1,5 mm 10m+F connection	1				5
10	80.0310.58R	Tube, M10x1 MM 672mm Sst.	1				1	33	12.5071.00R	Transf. 230VAC/12VDC EU (1)	1				1
11	80.0309.58R	Tube, M20x1 MM 655mm Sst.	1				1	33	12.5071.60	Transf. 115VAC-60Hz/12VDC USA+AUS (2)	1				1
12	80.0308.51R	Ring nut, M20x1 Sst.	1				1	33	12.5071.60	Transf. 115VAC-60Hz/12VDC USA+AUS (3)	1				1
13	11.4513.10R	Hex. nut, M4, Sst.	4				10	33	12.5071.62R	Transf. 100VAC-60Hz/12VDC JAP (4)	1				1
14	80.0304.21R	Manifold, Sst.	1				1	34	25.4320.24R	Nozzle kit M4 - M21E 2x5pcs.	1				1
15	80.0303.51R	Propeller shaft, Sst.	1				1	35	25.4353.20R	Exten.-M21E 20m 12V DC MF **	1				1
16	15.3700.00R	Plug, 20,5 mm pvc	1				10	36	25.4321.24	Seal Setup Tool Kit - M21E 2pcs. **	1				1
17	16.1860.00R	Screw, DIN912 M4x60 mm Sst.	2				10	37	14.6552.00R	Teflon silicon grease *30g.>All **	1				2

\*\* On request

Kit	P/N	Description	Q.ty
K1	25.4320.24R	Nozzle kit M4 - M21E 2x5pcs.	1
K2	25.4308.24	Spares kit -M21E 3(6)x1 pcs	1

(1) 25.4300.00 (2) 25.4300.24 (3) 25.4300.60 (4) 25.4300.62