

CHAPTER 1: GENERAL INFORMATION

1.1 Scope of the Manual

This guide illustrates main features of STARCAP and provides all necessary information for a proper and safe usage. In particular:

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- The *present chapter* explains the **RESIDUAL RISKS** related to STARCAP usage and provides general data;
- *Chapter 2* gives necessary information for the Machine correct usage;
- *Chapter 3* explains how to properly perform ordinary maintenance and cleaning.

The User should refer to the Machine Builder:

TENCO S.n.c Via Arbora, 1 I-16030 Avegno (GE) Italy;

Tel +39 0185 79556 / Fax +39 0185 79412

E-mail: info@tenco.it for communications or request related to the useage of STARCAP and to get spare parts.

GENERAL SAFETY INFORMATION - I

STARCAP description:

- Completely pneumatic corking Machine designed to apply ordinary corks, both agglomerate and synthetic, crown corks and plastic corks.

Operator Number

- Only one OPERATOR (the User) may operate on the Machine.

Proper use of the STARCAP

- **Ordinary corks** ØMAX 25, H MAX 45
Bottle High 200 ÷ 370
- **Plastic corks** ØHEAD MAX 37
Bottle High 130 ÷ 465
- **Crown corks** Ø 26,5 - 29 - 30,5 (OPTIONAL)
Bottle High 130 ÷ 465

Operating without respecting the above limitations is strictly unauthorised and will exclude the Builder from any responsibility for possible damages to the Machine, things and persons.

1.2 Residual Risks Information

The Machine presents RESIDUAL RISKS OF MECHANICAL NATURE related to the following operations:

A. MACHINE TRANSPORT / MOVEMENT/ POSITIONING. The Machine approximately has a mass of and it has been designed to be **manually** moved holding it by the frame (see Fig.1.1A): **The User should pay attention in moving the Machine and should place it, during both storage or usage, on a stable plane able to sustain its weight.**



GENERAL SAFETY INFORMATION - II

Illumination provided by the User

- The environment where the Machine operates must not have zones of shade nor dazzling annoying effects.



Environmental conditions

❄ OPERATIONAL:

- TEMPERATURE +0°C/+40°C
- HUMIDITY 30% / 85%

❄ STORAGE:

- TEMPERATURE +10°C/+50°C
- HUMIDITY 30% / 85%

FIG. 1.1. FRAME HOLDING POINTS FOR MANUAL MOVING

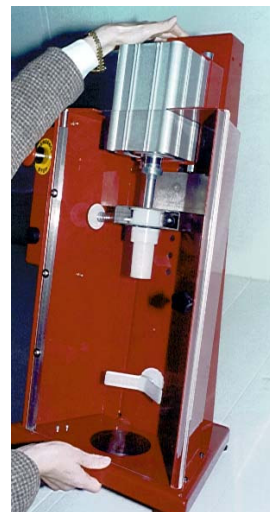
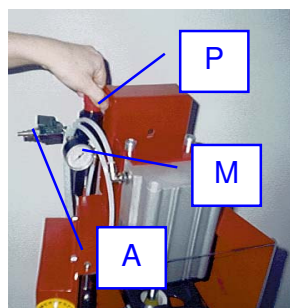


FIG. 1.2A. AIR INLET AND PRESSURE ADAPTER GROUP



1.3 Machine technical data

DIMENSIONS

✓ LENGTH	355 MM
✓ WIDTH	330 MM
✓ HEIGHT	745 MM

MACHINE WEIGHT

25 KG

COMPRESSED AIR

✓ MAXIMUM PRESSURE (MAX CONSUMPTION)	6 BAR (0 NL/H)
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PRODUCTIVITY

✓ CORKED BOTTLES/HOUR	80 ÷ 150
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1.4 Compressed air supply

COMPRESSED AIR INLET

(see Fig.1.2A)

- Attach the external air circuit to the universal connector [A].
- Depending from cork type (see next Chapter), tune the pressure with the knob [P], reading pressure value from the manometer [M].

1.5 Protections on the Machine

The Machine is provided completed by the following safety devices (Fig.1.2B) :

1. N°1 button for emergency stop [E] placed on the left side.
2. Protection door [S] with pneumatic guard stopping the Machine when opened.

SAFETY DEVICES CHECKS

1A- Make sure that all Machine movements are stopped when the emergency command is pressed [E] (Fig.1.3A).

1B- Depending from the installed device, reset the Machine by rotating clockwise the emergency command (Fig.1.3B) or pulling the emergency stop button.

2- Make sure that door opening [S] forbids Machine start or causes its immediate stop.

FIG. 1.2B. MACHINE VIEW

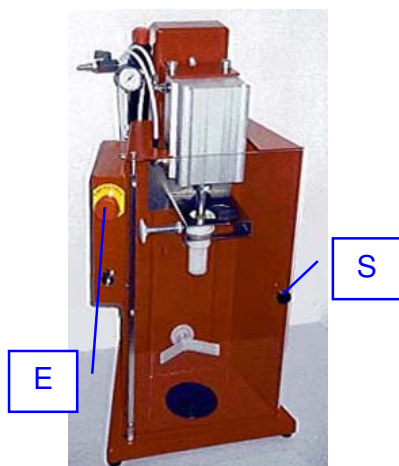


FIG. 1.3A. EMERGENCY COMMAND INTERVENTION

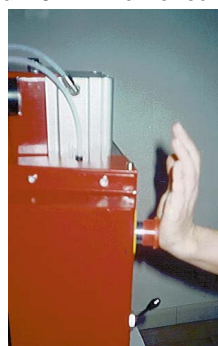
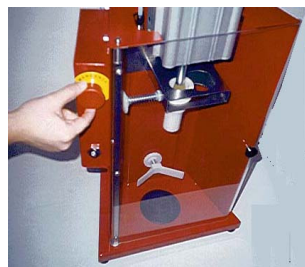


FIG. 1.3B. EMERGENCY COMMAND RESET



SPECIFIC SAFETY INFORMATION

! DANGERS

✋ IS FORBIDDEN THE USAGE OF THE MACHINE WHEN THE DOOR [S] IS OPEN.
✋ IS FORBIDDEN ANY ALTERATION OR VARIATION OF MACHINE PARTS AND FUNCTIONING.

✋ COMPANY . IS NOT RESPONSIBLE FOR DAMAGE OR INJURY DUE TO ALTERATION OR VARIATION OF MACHINE PARTS, MISSING OR ERRONEOUS MAINTENANCE, MISSING RESPECT OF LOCAL NORMS AND LAWS REGARDING SAFETY, ENVIRONMENTAL PROTECTION, ETC..

SPECIFIC SAFETY INFORMATION

! OBLIGATIONS

✋ USER SHOULD KEEP PERFECTLY EFFICIENT ALL MACHINE COMPONENTS, IN PARTICULAR SAFETY COMPONENTS.

✋ USER SHOULD REGULARLY CLEAN THE MACHINE AND PERFORM THOSE PERIODIC MAINTENANCE OPERATIONS INDICATED BY THE BUILDER IN CHAPTER 3.

CHAPTER 2: USE OF THE MACHINE

2.1 Use of ORDINARY CORKS

WARNING : USER SHOULD NOT ALTERATE PROTECTION DEVICES (PAR.1.5).

FIG. 2.1. ORDINARY CORK SETTING

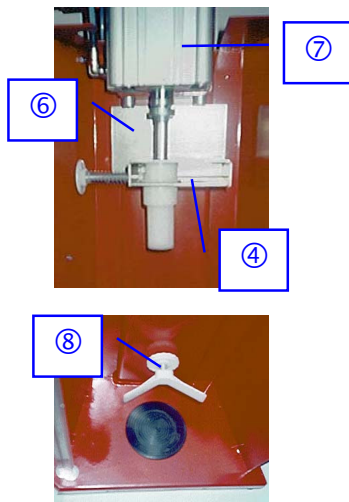
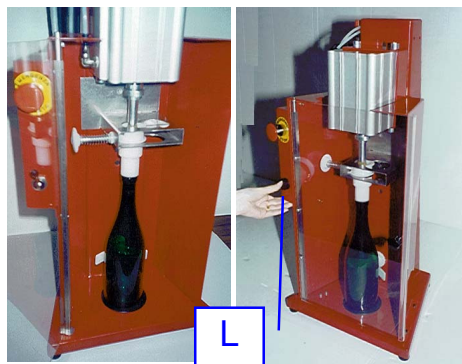
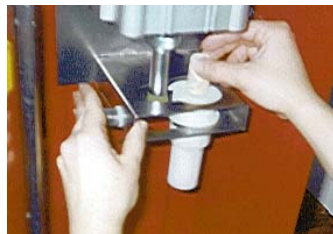


FIG. 2.2. ORDINARY CORKS LOADING AND CORKING SEQUENCE



SETTING FOR ORDINARY CORKS

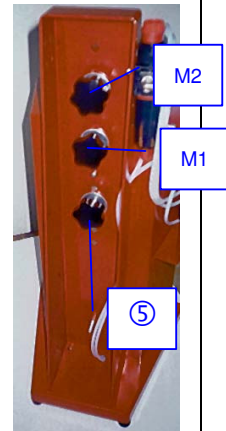
(see Fig.2.1)

Check:

- Consumption status of the CORKING HEAD [1] and replace if necessary;

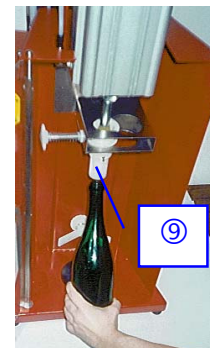
Specific tools mounting (door S is open):

1. Apply the PIVOT [2] specific for ordinary corks.
2. Apply the LOADER [4] for ordinary corks fastening it with the KNOB [5] placed on Machine rear (see side illustration);
3. The loader should be mounted in such a way that its BACK-PLATE [6] almost touches from the PNEUMATIC CYLINDER [7];
4. Center the bottle on the bottom plastic plate by tuning with the CROWN [8] the position of the V-element.



Format adjustments:

- BOTTLE HIGH SHOULD STAY IN THE RANGE 200÷370 MM.
- CORKS MAXIMUM DIAMETER Ø 25 MM.
- CORKS MAXIMUM HIGH 45 MM.
- Remember that the Machine comes ready for corking bottles with high in the range 290÷320 MM; for different high bottles, adjust the positions of both LOADER [4] and CYLINDER [7] with the KNOBS [M1-M2] and [5].
- Bottle insertion should raise the CONE [9] of about 5÷30 MM.



WARNING: THE CONE SHOULD LEAN AGAINST THE BOTTLE TOP.

USAGE WITH ORDINARY CORKS

(see Fig.2.2)

Adjust:

- Corking pressure to 6 BAR with the knob on the pressure adapter (Fig.1.2)



WARNING : THE APPLICATION OF A DIFFERENT PRESSURE MAY GENERATE ACCIDENTS AND CAUSE CORKING ANOMALIES.

Corking sequence:

1. Open the door [S];
2. Push right the LOADING KNOB and place the cork; release the KNOB and place the bottle (Fig.2.2);
3. Close the door [S], start corking movement with the LEVER or the maintained-action BUTTON [L] (Fig.2.2);
4. Remove the bottle, check the quality of the corking, fix possible anomalies, tune with the CROWN [3] (Fig.2.1) cork depth in the bottle neck;
5. Repeat the Sequence.

TENCO s.n.c. is not responsible for damages cause by defective corking. Cork lubrication with oenology oil is recommended.

⚠ **WARNING : USER SHOULD NOT ALTERATE PROTECTION DEVICES (PAR.1.5).**

2.2 Use of PLASTIC CORKS

FIG. 2.3. PLASTIC CORKS SETTING

SETTING FOR PLASTIC CORKS

(see Fig.2.3)

Specific tools mounting (door S is open):

1. Apply **PRESSER [1]** specific for plastic corks (see the **PRESSER** on the side).
2. Center the bottle on the bottom plastic plate by tuning with the **CROWN [8]** the position of the V-element (see illustration below)..



Limitation on the format:

- BOTTLE HIGH SHOULD STAY IN THE RANGE 130 ÷ 465 MM.
- PLASTIC CORKS HEAD MAXIMUM DIAMETER Ø 37 MM.
- Adjust the **PNEUMATIC CYLINDER** position with the **KNOBS [M1-M2]** (see side illustration) in such a way that the presser [1] and bottle top are separated by 60 ÷ 80 MM.

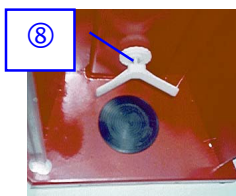
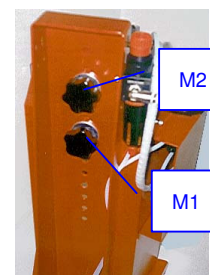
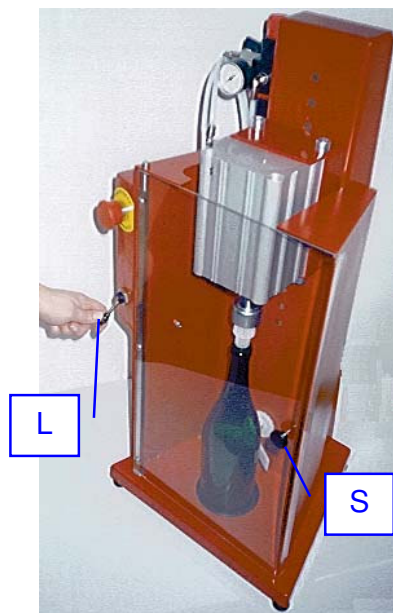


FIG. 2.4. PLASTIC CORKS LOADING AND CORKING SEQUENCE



USAGE WITH PLASTIC CORKS

(see Fig.2.4)

Adjust:

- Corking pressure to 2 BAR with the knob on the pressure adapter (Fig.1.2)



WARNING : THE APPLICATION OF A DIFFERENT PRESSURE MAY GENERATE ACCIDENTS AND CAUSE CORKING ANOMALIES.

Corking sequence:

1. Open the door [S];
2. Place the bottle and manually insert the cork [2] in the bottle neck (Fig.2.3);
3. Close the door [S], start corking movement with the **LEVER** or the maintained-action **BUTTON [L]** (Fig.2.4);
4. Remove the bottle, check the quality of the corking, fix possible anomalies;
5. Repeat the Sequence.

TENCO s.n.c. is not responsible for damages cause by defective corking.



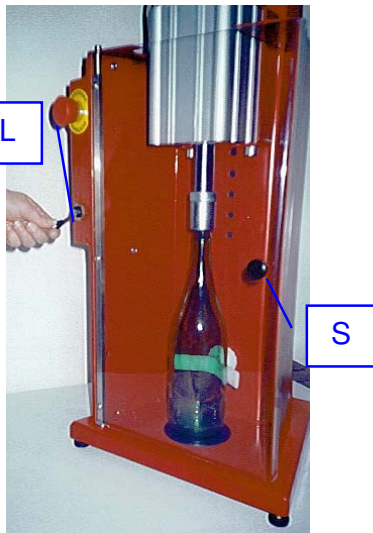
WARNING : USER SHOULD NOT ALTERATE PROTECTION DEVICES (PAR.1.5).

2.3 Use of CROWN CORKS

FIG. 2.5. CROWN CORKS SETTING



FIG. 2.6. CROWN CORKS LOADING AND CORKING SEQUENCE

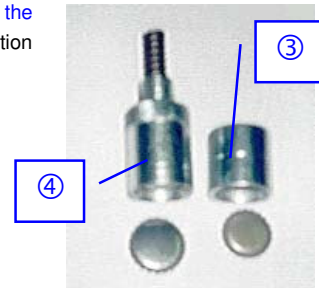
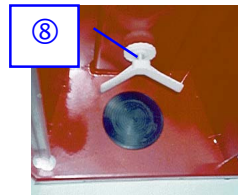


SETTING FOR CROWN CORKS

(see Fig.2.5)

Specific tools mounting (door S is open):

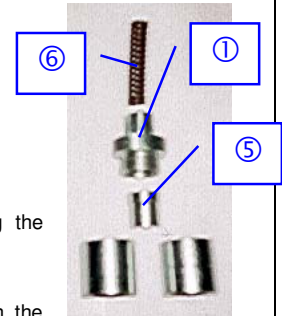
1. Apply, with the proper tool, the PIVOT [1] with spring specific for crown corks, mounting the PRESSER [3 O 4] suitable for the cork diameter.
2. Center the bottle on the bottom plastic plate by tuning with the CROWN [8] the position of the V-element (see illustration below).



Limitation on the format:

- BOTTLE HIGH SHOULD STAY IN THE RANGE 130 ÷ 465 MM.
- ARE USABLE 3 CROWN CORK DIAMETERS:
 - Ø 26,5 MM 1 LINE PRESSER [3]
 - Ø 29 MM 2 LINES PRESSER [4]
 - Ø 30,5 MM 2 LINES PRESSER (OPTIONAL)

Screw the pressers to their PIVOT [1] inserting the MAGNET [5] and the SPRING [6].



Adjust the PNEUMATIC CYLINDER position with the KNOBS [M1-M2] (see side illustration) in such a way that the presser 1] and bottle top are separated by 60 ÷ 80 MM .

USAGE WITH CROWN CORKS

(see Fig.2.6)

Adjust:

- Corking pressure to 4 BAR with the knob on the pressure adapter (Fig.1.2)



WARNING : THE APPLICATION OF A DIFFERENT PRESSURE MAY GENERATE ACCIDENTS AND CAUSE CORKING ANOMALIES.

Corking sequence:

1. Open the door [S];
2. Place the bottle and manually insert [2] in the presser with magnet (Fig.2.6);
3. Close the door [S], start corking movement with the LEVER or the maintained-action BUTTON [L] (Fig.2.6);
4. Remove the bottle, check the quality of the corking, fix possible anomalies;
5. Repeat the Sequence.

TENCO s.n.c. is not responsible for damages cause by defective corking.

CHAPTER 3: MAINTENANCE AND CLEANING

SPECIFIC SAFETY INFORMATION

**! USER OBLIGATIONS
RELATED TO ALL CLEANING AND
MAINTENANCE OPERATIONS**

⚠ WARNING: Before proceeding to cleaning or maintenance operations first exclude air supply.

⚠ WARNING: Machine should be protected by low temperature and direct / indirect water jets.

⚠ WARNING: Residual fluids should be disposed according to local laws.

⚠ WARNING: Do not clean the Machine with acid or corrosive chemicals.

3.1 Check Operations



⚠ WARNING : USER SHOULD NOT ALTERATE PROTECTION DEVICES (PAR.1.5).

3.1.1 Daily Checks

- ✓ Verify correct functioning of Machine protection devices as listed in par. 1.5.
- ✓ Discharge the liquid in the compressed air filter by opening the bottom-knob as in the following illustration:



3.1.2 Weekly Checks

- ✓ Verify consumption status of corking head (Fig.2.1) and pressers (Fig.2.3-2.5)
- ✓ Check for air losses by element of the pneumatic circuits.

3.2 Cleaning

- ✓ **WEEKLY :** Perform an accurate cleaning of FRAME and Machine DEVICES/COMMAND. **For washing, use only water and neutral detergents.**

REGISTER OF CLEANING AND MAINTENANCE ACTIVITIES

USER:

ACTIVITY	DATE	OPERATOR	NEXT ACTIVITY	NOTES

APPENDIX A: ATTACHED DOCUMENTS LIST

<input checked="" type="checkbox"/>	Scheme of the Pneumatic Circuit
<input checked="" type="checkbox"/>	Machine draw
<input checked="" type="checkbox"/>	Declaration of Conformity (see below)

DECLARATION OF CONFORMITY CE



Avegno, «data_consegna»

The herewith undersigned Legal Representative of the Company TENCO s.n.c.
Giuseppe Tenco

DECLARES THAT

Machine
STARCAP

Serial number
«matricola»

Building Year
«anno_costr»

Builder
TENCO S.N.C.
VIA ARBORA 1 - 16030 AVEGNO (GE) ITALY
TEL. ++39-185-79.556
FAX ++39-185-79.412
e-mail: info@tenco.it

is **CONFORM** to the requirements of the
Machine directive (89/392/CEE) and related amendments (Italian DPR 459 - 24/07/96).

Giuseppe Tenco
Legal Representative

TENCO s.n.c.

APPENDIX B: SPARE PARTS LIST

✉ HOW TO ORDER SPARE PARTS

LISTED SPARE PARTS REFER TO NORMALLY
SUBSTITUTED COMPONENTS; ORDERS SHOULD BE
ADDRESSED TO THE BUILDER:

TENCO S.N.C.

VIA ARBORA 1 - 16030 AVEGNO (GE) ITALY

TEL. ++39-185-79.556

FAX ++39-185-79.412

E-MAIL: info@tenco.it

COMPLETED BY FOLLOWING DATA:

- MACHINE STARCAP
- SERIAL NUMBER :«MATRICOLA»
- BUILDING YEAR «ANNO_COSTR»
- SPARE PART NAME
- SPARE PART QUANTITY

#	SPARE PART NAME
	
RSR01	CROWN CAP SPRING
RSR02	PLASTIC CAP BUSHING-HOLDER
RSR03	CROWN CAP MAGNET
RSR04	CROWN CAP BUSHING MM 26,5
RSR05	CORK BUSHING MM 29
RSR06	CORK RING-NUT
RSR07	CORK CAPPING HEAD
RSR08	FULLY EQUIPPED CORK LOADING BOX
RSR09	CORK PUNCH
RSA03	CAPPING KIT FOR PLASTIC CAPS
	
RSR10	PUSHING DEVICE-KNOB
RSR11	PUSHING DEVICE STAINLESS STEEL SPRING
RSR12	PUSHING DEVICE PIN
RSR13	PUSHING DEVICE GUIDE BUSHING
RSR14	SEEGER
RSR15	CONE HOLDER
RSR16	CORK FEEDING CONE
RSR17	LOADING BOX BODY
RSR18	WASHER
RSR19	BOX LOCKING HANDLE
RSR20	BOTTLE POSITIONING BRACKET
RSR22	CONE HOLDER O-RING (NOT SHOWED IN THE PICTURE)

