

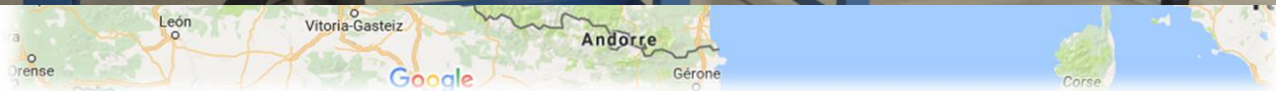


AUTOMAZIONE PER IL LABORATORIO MICROBIOLOGICO

Maggio 2019

— CONNECTED —
MICROBIOLOGY

CHI SIAMO ?



Una gamma di strumenti

CONNECTED
MICROBIOLOGY

AUTOMATED MEDIA PREPARATION

MEDIAWEL.....

DISTRIWEL.....

DOSYWEL.....



FOOD SAMPLE PREPARATION

DILUWEL.....

MIXWEL.....



AIR SAMPLE COLLECTION

AIRWEL.....



.....More to come !

PREPARAZIONE AUTOMATIZZATA DEI TERRENI DI COLTURA



(ISO 11133-2014)

(ISO 7218-2007)



International
Organization for
Standardization

CONNECTED
MICROBIOLOGY

MEDIAWEL30





CULTURE MEDIA PREPARATION

Cosa ci dice la norma (ISO 7218-2007) ?



Microbiology of food and animal feeding stuffs

General requirements and guidance for microbiological examinations

- 5.7.1 Description
 - **A media preparator is principally designed for the sterilization of large volumes of media (>1L).** It consists of a heating vessel, water jacket and continuous stirring device. The equipment shall also be fitted with a temperature gauge, pressure gauge, timer and safety valve.
 - In addition, the unit should have a safety lock to prevent opening until a temperature of 80 °C is reached.
- NOTE: autoclave description (not autopreparator)** → used for the destruction of the microorganisms. Maintain the chamber at +/- 3°C (we don't talk about the temperatura inside the culture media).



AUTOMATED PREPARATION OF CULTURE MEDIA

2) Critical points of the culture media preparation

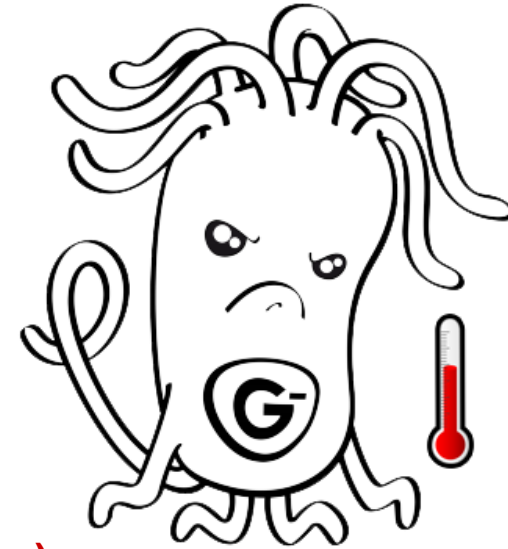
Sterility **Must reach** a high enough temperature to STERILIZE the Culture Media
(Ex.: 121°C-15min, 110°C-20min)

Fertility **MUST NOT** reach a too high temperature in order not to destroy the culture media (destruction of the sugars, peptones...)

**Remember the ISO : Autoclave (+/- 3°C minimum !) + slow to cool (45mins)
vs. MEDIAWEL (+/- 0.5°C) + rapid cooling down (15-20min)**

Homogeneity So that the complete set is at the same temperature (with stability)
→ Media preparator with a temperatura probe inside the culture media + continuous stirring

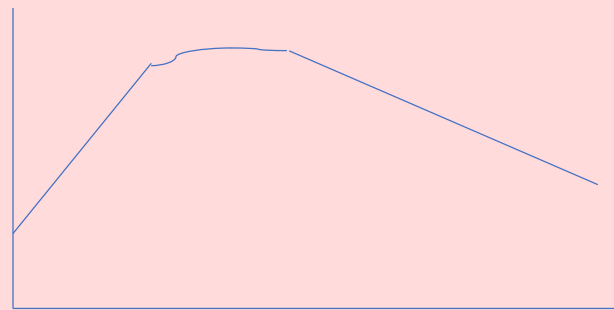
Reproducibility You can reproduce the program with the same parameters to always have the same quality (possibility to create programs)





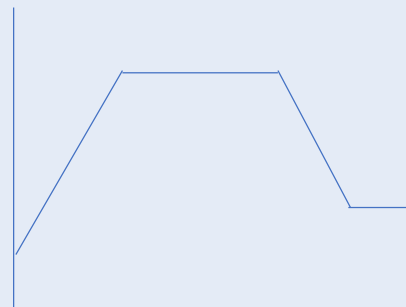
AUTOMATED PREPARATION OF CULTURE MEDIA

- PREPARATION TIME WITH A MANUAL METHOD

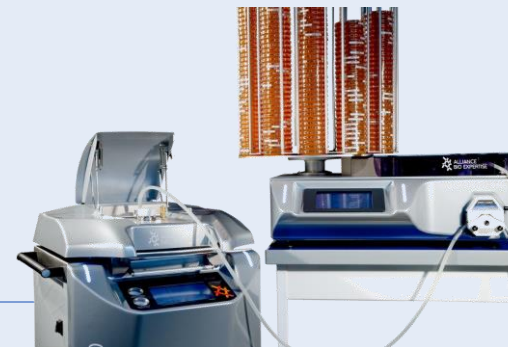


Autoclave approx CYCLE:
105-120 mins

- PREPARATION TIME WITH AUTOMATIZATION



MEDI AWEL cycle
approx: 75-85 mins



TIME SAVED



AUTOMATED PREPARATION OF CULTURE MEDIA

MEDIAWEL30®

*Increase your productivity
quality
traceability*

PERFORMANCES

- 2.5 to 30 Liters
- 25 – 125 °C
+/- 0.5 °C
- 60 – 90 mins

CONNECTED
MICROBIOLOGY

Safety lid
(locked above 80°C)

Uphill & downhill
Filtration
Contamination prevention

Double pressure monitoring

Large stirrer
(wide viscosity range)

Medical wheels

Multicolour visual alarms

7" touch screen LCD
Intuitive display

Anti-shock body
(ABS PC PLASTICS)

Trapdoor
(easy cleaning of the bowl)

ISO 11133

CE

MEDIAWEL 30

Etrace – Traceability



- MEDIAWEL + ETR

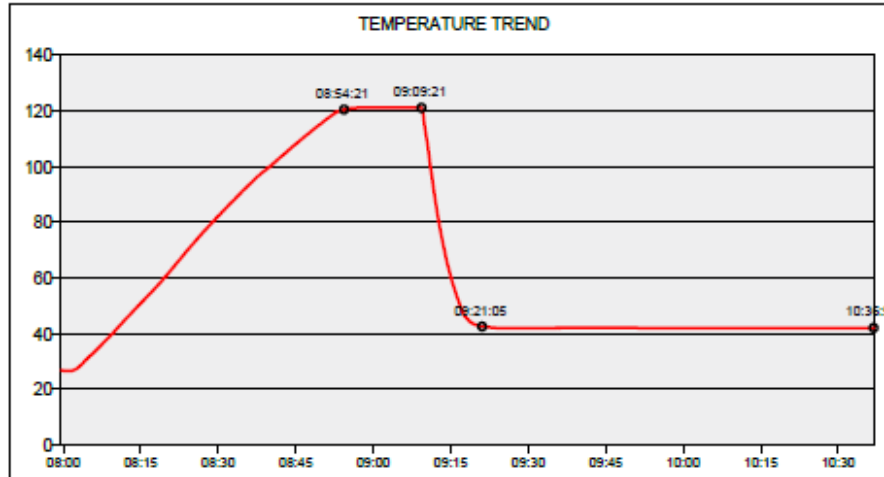
Standard :



MEDIAWEL 30

Ticket number : _191_

GENERAL INFORMATION				
Serial number :		Operator : OPERATOR.BIN		
IHM software version : v0.4.4		Date : 2017-09-20 07:59:32		
Automate software version : 0		Batch number :		
		Result : PARTIAL CYCLE		
PROGRAM DATA				
Program number :		01		
Program name :		GAETAN LE SAUVAGE		
Volume :		12.0		
Number of steps :		2		
STEP DATA				
	STEP 1	STEP 2	STEP 3	STEP 4
Temp (°C)	121.0	42.0		
Time (min)	15	No limit		
Step alarm	No	Yes		
Stirrer speed in transition	7	7		
Stirrer speed step	7	7		



CYCLE TIME (hh:mm:ss) :		02:37:23		
STEP 1	STEP 2	STEP 3	STEP 4	
Temp(°C) min : 120.5°C Temp(°C) max : 121.2°C Transition dur : 00:54:19 Step duration : 00:15:00	Temp(°C) min : 42.0°C Temp(°C) max : 42.5°C Transition dur : 00:11:44 Step duration :			

Name :	Date :
Pass :	Fail :



MEDIAWEL 30

01: TEST1

1 : STERILISATION
121.0°C - 015' - 7 - 7
No alarm

2 : DISTRIBUTION
42.0°C - 000' - 7 - 7
Alarm 'DISTRIBUTION'

24/02/2017
18:19:05





Déconnexion | Aurélien

ACCUEIL

PARAMÈTRES

ALERTES

CONTACTEZ-NOUS


MONITORING


CYCLES PRECEDENTS

DASHBOARD



CYCLE OPERATION

 Date de début  2018-06-14

 Date de fin  2018-06-14

Cycle	Lot	User	Date		
22	12345/12345/AUTO PREP...	DAVID	2018-06-14 11:19:02	PDF	CSV
21	123456/123456/12346	DAVID	2018-06-14 08:45:20	PDF	CSV
20	133458/731T6	DAVID	2018-06-13 15:02:24	PDF	CSV
19	FFDFT/636662	DAVID	2018-06-13 11:19:09	PDF	CSV

1 to 22 of 22

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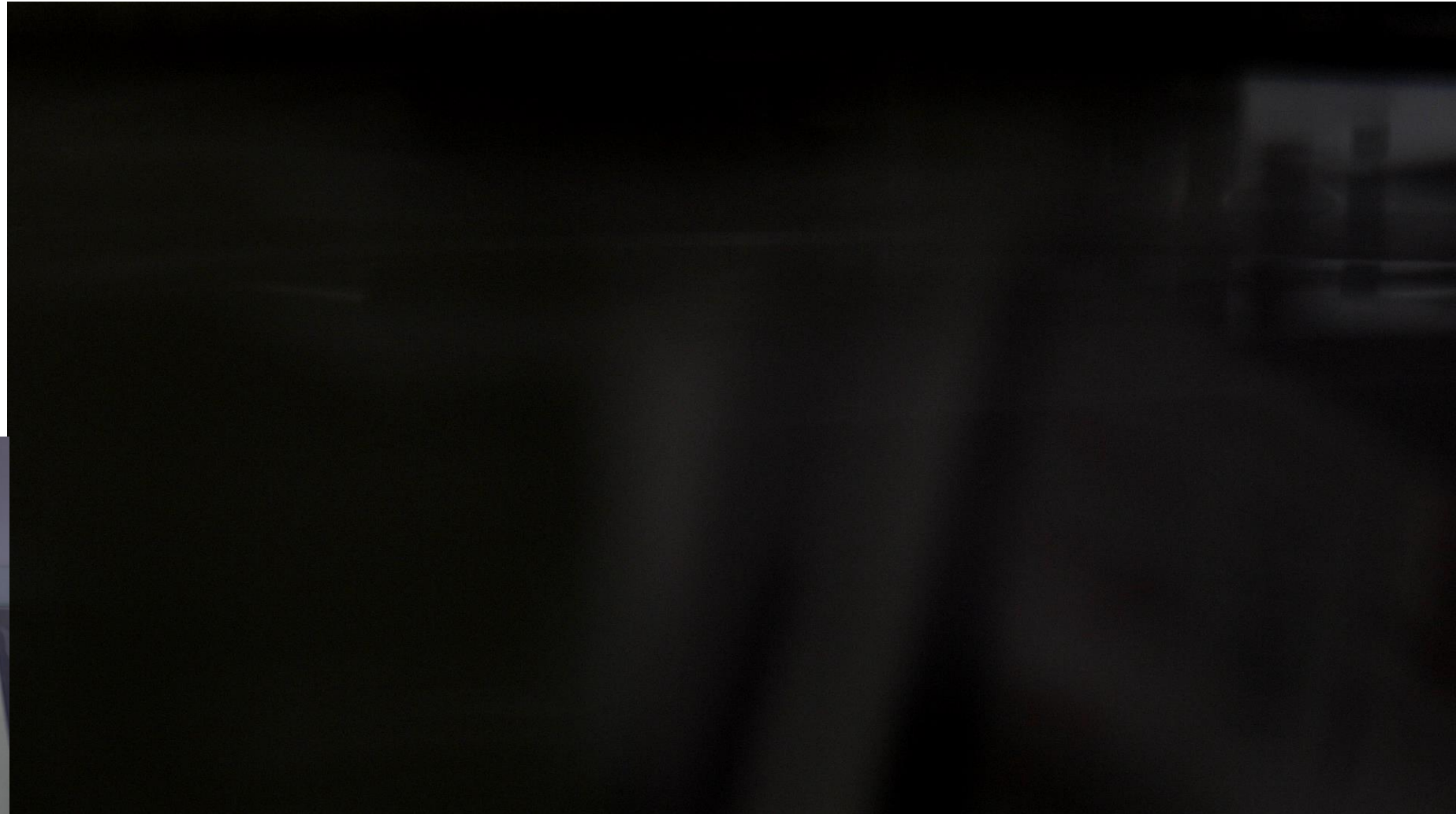
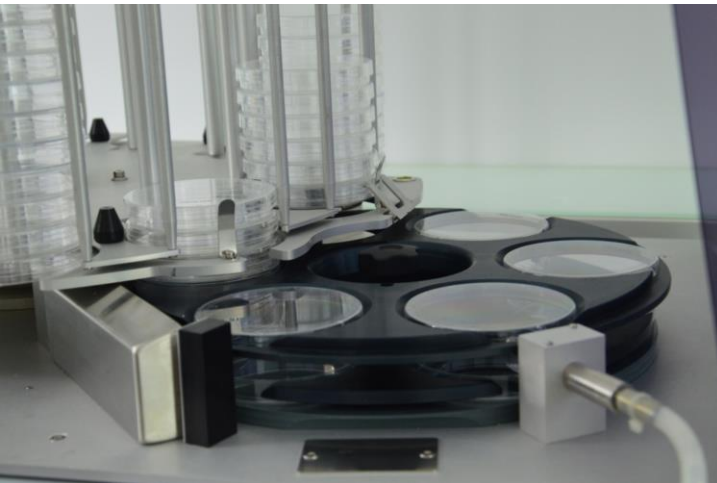

CID







AUTOMATED PREPARATION OF CULTURE MEDIA





AUTOMATED PREPARATION OF CULTURE MEDIA

DISTRIWEL 440[®]

5) Benefits & opportunities

- HIGH PRODUCTIVE**
- REPEATABLE
 - LOW CONTAMINATION

Walkaway device!
Up to 440 dishes
filled in 30 mins



PERFORMANCES



440 plates
poured
in 30 mins

Traceability
Print up to 25 characters
(2 lines) on the Petri dish
(optional laser printer)



The Built-in Peltier cooling
effect reduces condensation
and solidification time

AEROBIOCONTAMINATION PREVENTION

Contamination prevention
(UV lamp) while pouring
+ Plexiglas protection cover

0°
Ensure a flat poured media
(bubble level integrated)

7" touch screen LCD
Intuitive display

In-line blood
addition option

Multicolour
visual alarms

Your culture media is accurately
poured by a Masterflex™
peristaltic pump





AUTOMATED PREPARATION OF CULTURE MEDIA

5) Benefits & opportunities

- OPTIONS w/ DISTRIWEL

- BLOOD ADDITION
 - The blood is added during the dispensing (needs a second pump)
 - **The blood addition can also be done with MEDIAWEL**
- INK JET PRINTING
 - Optional, with the LINX 10 (ref: AWLINX10) and (DISW2004: fitting kit)
 - Up to 18 printable characters / 2 lines
(set number / name of the culture media / expiration date / ...)





DOSYWEL : Pompa peristaltica





DOSYWEL : Pompa peristaltica



Pompa peristaltica completa



Programmazione :

- d'un volumine fisso di terreno da dispensare
- d'un intervallo tra doce (o possibilita' del pedallo di controllo)
- numero di campioni
- calibration reminder

PREPARAZIONE DEI CAMPIONI ALIMENTARI



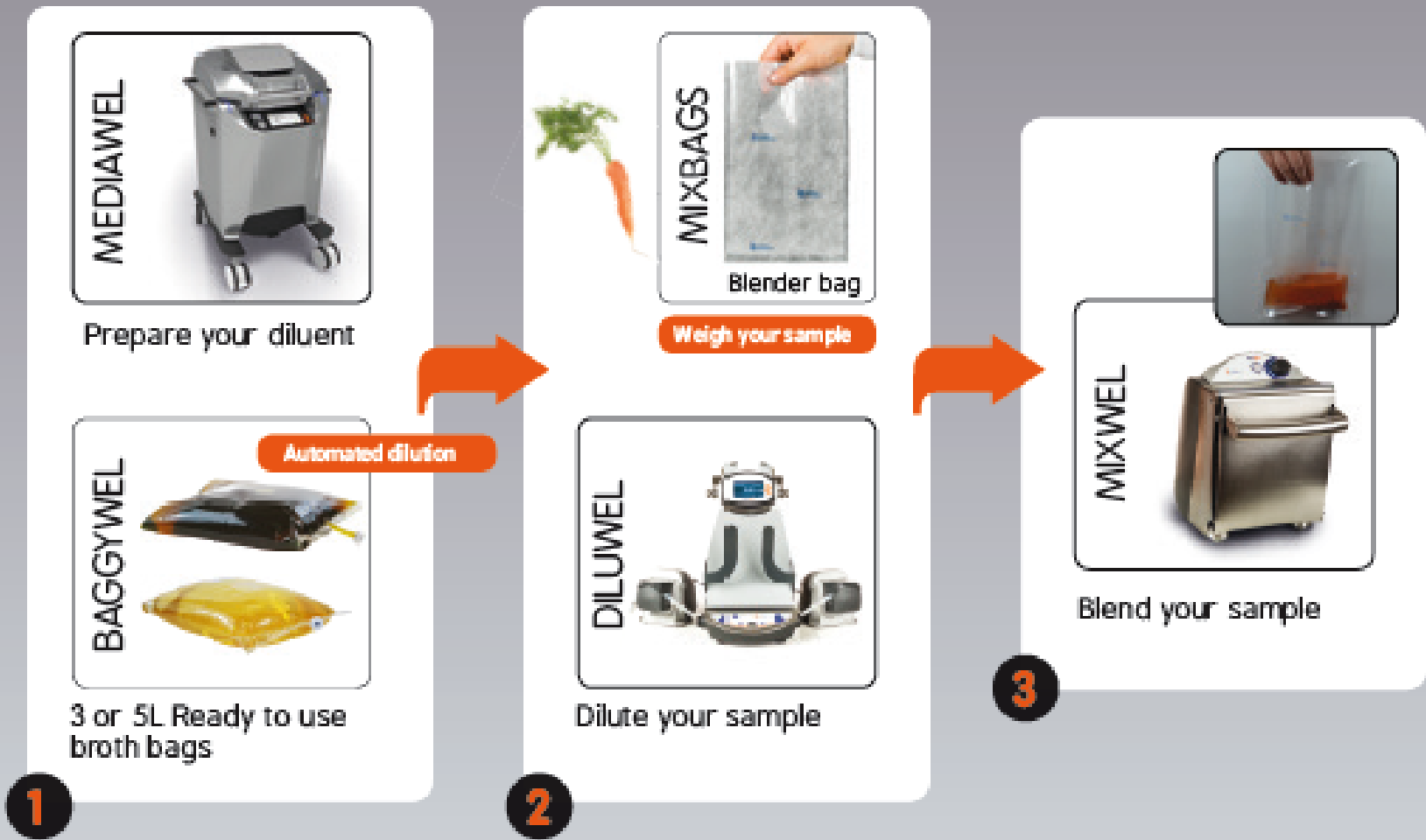
(ISO 6887-1:2017)

(ISO 7218-2007)



International
Organization for
Standardization

PREPARAZIONE CAMPIONI ALIMENTARI



WHY WORK WITH AN AUTOMATED DILUTE R?

- | | | |
|-----------------|---|--|
| All in one | + | Weighing + Dispensing + automated traceability. ALL AT ONCE ! |
| Fast & Accurate | + | 9 (turbo mode) to 12 seconds with >98-99% accuracy ! |
| Repeatability | + | No random results |
| Effortless | + | Fully automated |
| Traceability | + | Full traced data (exportable to PC, EXCEL, LIMS, Printer, USB) |
| Risk reduction | + | Less manipulations |

PREPARAZIONE CAMPIONI ALIMEN

Tells us that you need:
- A device with precision to dilute at 1/10 (weights and dispenses).
Very difficult with a manual method

Cosa ci dice la norma (ISO 6887-1:2017) ?

Microbiology of the food chain

Preparation of test samples, initial suspension and decimal dilutions for microbiological examination

Part 1: General rules for the preparation of the initial suspension and decimal dilutions

- 9.1 : **Test and suspension (initial dilution):** **Weigh** or measure the test take, **with a tolerance of $\pm 5\%$** , in a sterile container or plastic bag (6.13). A mass of M G or a volume of V ml (at least 10 g or 10 ml, unless otherwise indicated) representative of the laboratory sample, must be used (see article 8).
- [...]
- Add a quantity of diluent equal to $9 \times M$ G or $9 \times V$ ml to prepare a decimal initial dilution. This quantity must be measured, preferably in mass, **with a tolerance of $\pm 2\%$** , but the measurement in volume is also admitted under the condition that the tolerance does not exceed $\pm 2\%$. »

...more precisely: ISO 6579-1:2017 for Salmonella y ISO 11290-1 for Listeria

= absence of 25 g (preparation of the sample with enrichment planned (dilution of 1/10 with Peptone water (Salmonella) and with half Fraser (Listeria)



DILUWEL :

Dilutore gravimetrico



DILUWEL :

Dilutore Gravimetrico

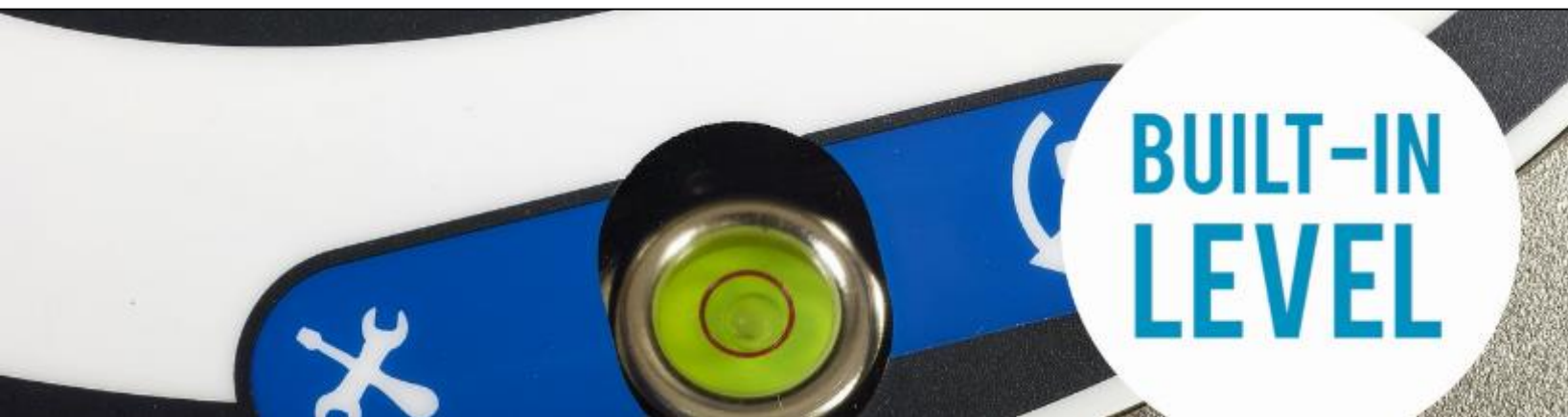




DILUWEL



Un dilutore gravimetrico combina :
- una bilancia
- pompa(e) per dispensare



**Livello a bolla
+ 4 adaptable feet**

« FACCIA LA PROVA ! SOTTOLEVATE SUL LATO E GUARDATE IL PESO MISURATO 😊 »



DILUWEL

**BRACCIA DI DISTRIBUZIONE AUTOMATIZZATO
= EVITA LA CONTAMINAZIONE CRUCIATA**



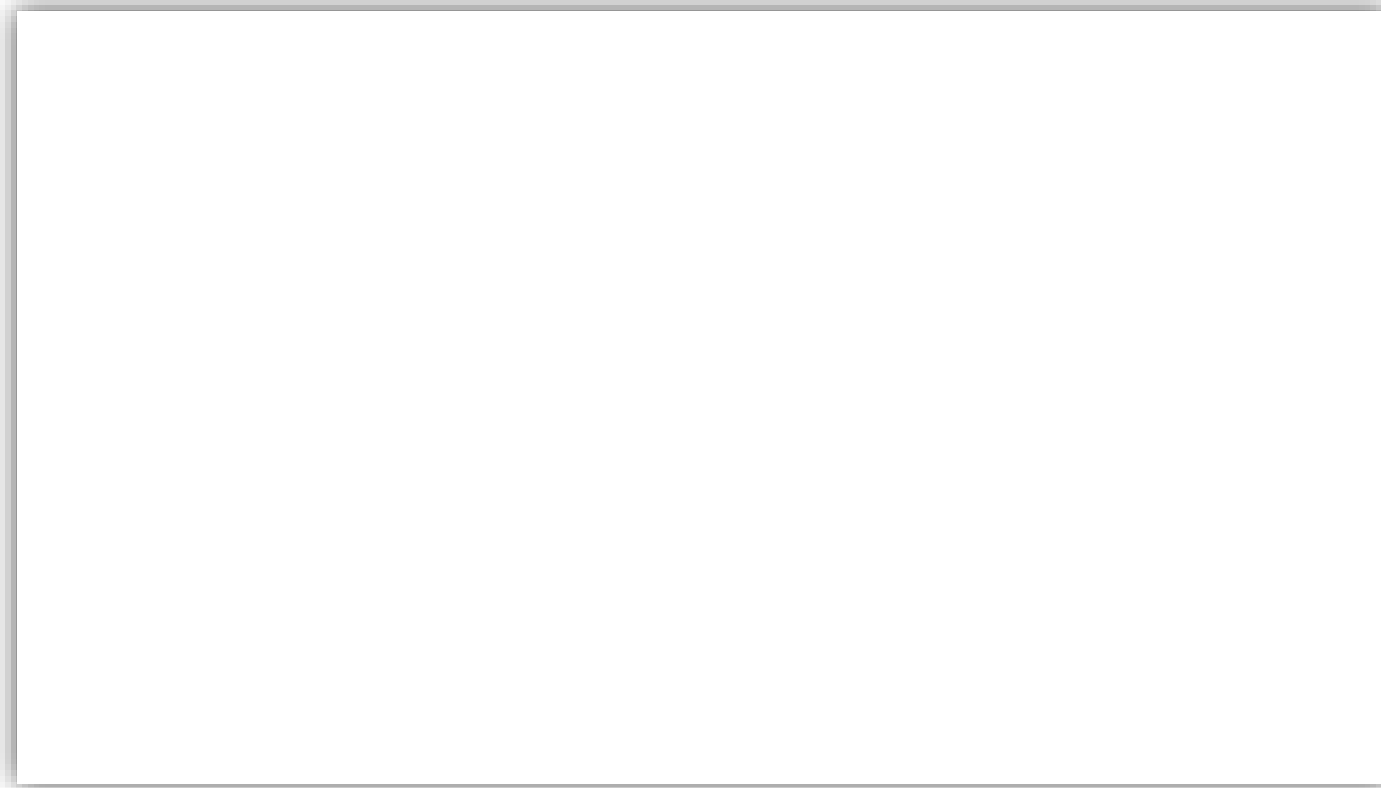


DILUWEL

Rapido **E** Preciso

COME SIAMO ARRIVATI A QUESTO RISULTATO?

- Pompe separate = Meno vibrazioni
- Bilancia verticale (3 punti) = piu' stabilita'
- Software ottimizzato.





DILUWEL

Compatto
&
leggero

8KG



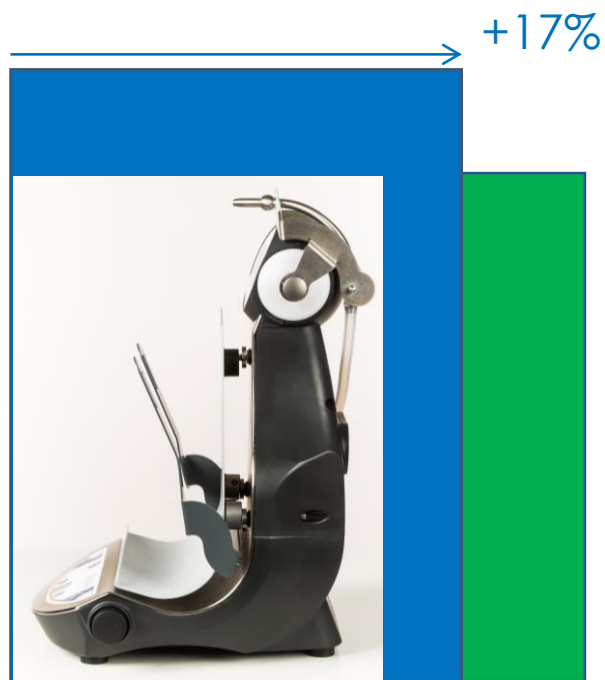
13 kg (concorrenza)





DILUWEL

COMPATTO !!!



- Concorrente A
- Concorrente B

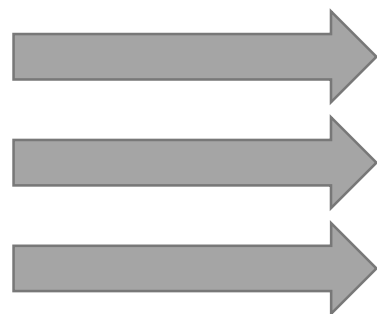
+34%

+34%
+20%

Altezza del supporto della sacca → 30 cm !



DILUWEL



PLUG & PLAY...



... FINO A 4 POMPE

- Connettere le pompe necessarie
- Meno vibrazioni sulla bilancia
- Servizio piu facile(moduli separati)

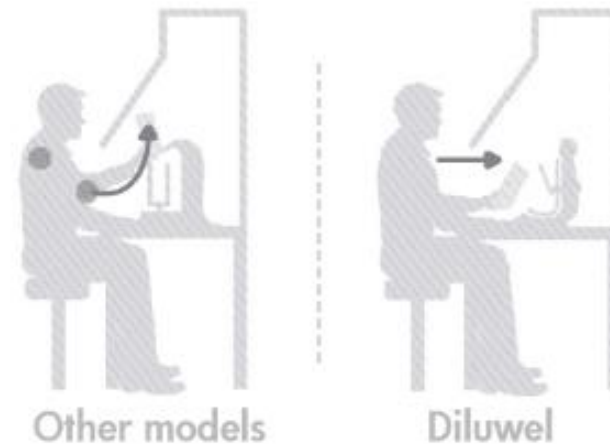


DILUWEL

FACILE DA USARE IN CAPPA FLUSSO LUMINARE



- Compatto = spazio di lavoro risparmiato
- Pompa flessibile = facile da collegare il tubing
- Stabilità = precisione
- Low profile bag holder = no need to raise your arms





Comfort and ergonomics
better control of the process

DILUWEL



Sicurezza :

Codici di colore

Se il suo campione è dentro del rango voluto, lo schermo diventa **verde**
= come una autorizzazione di dispensare / diluire

SICUREZZA =
EVITARE LA CONTAMINAZIONE CRUCIATA



DILUWEL

UNICO !

sterile



**FINGERSTOP
DESIGN**



Facile da pulire

DILUWEL

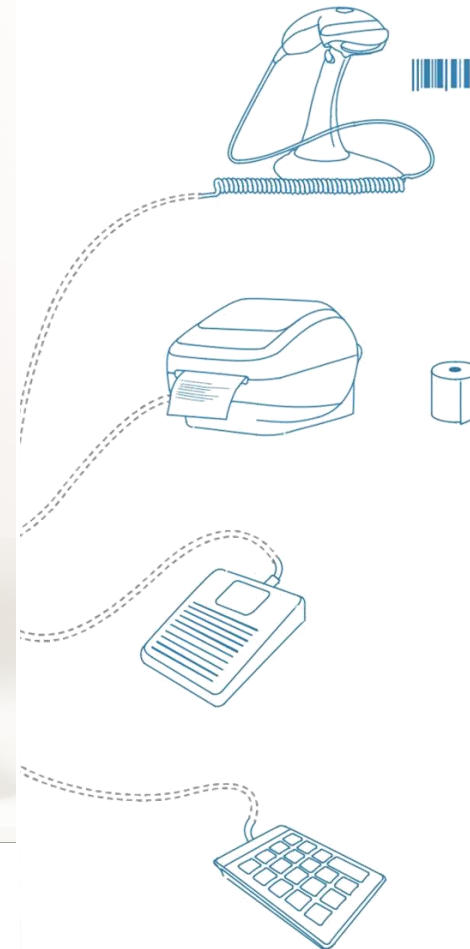


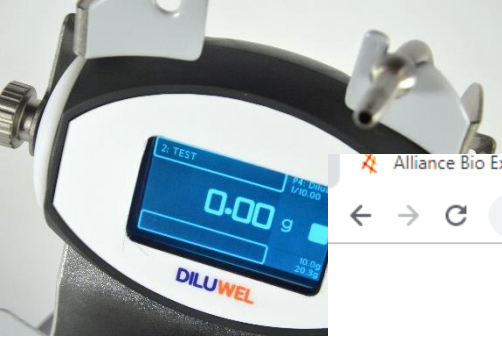
Tracciabilità' → eTRACE® !



DILUWEL

- Lettore barcode
- Stampante Ticket
- Chiave USB (export) → PC





Tracabilité' → O.T.D.A.C.E.®



FR GB S'identifier

ACCUEIL

PARAMÈTRES

ALERTE

CONTACTEZ-NOUS

Tableau de bord

Historique

ANALYSE
259 OK

INVITE
PROG 1 : EPT10G

Masse initiale Min : 9.5 g Max: 10.5 g

10.46g **FRASER**

Masse finale Dilution 1/10 - 2%

106.41g **+/- 1.73%**

Id ↓	Nom d'utilisateur	Date	Programme	Précision
259	INVITE	2019-05-29 09:01:51	EPT10G	1.73 %
258	INVITE	2019-05-29 09:01:28	EPT10G	1.63 %
257	INVITE	2019-05-29 09:00:12	FRA	1.11 %
256	INVITE	2019-05-29 08:59:52	FRA	1.04 %



DILUWI

The LABP

- Real t
 - Store
 - Expor
 - The t
 - Se
- Pump
Date c

Uso Per bottiglie (Cosmetico)



DILUWEL^{EDGE}[®]

*Increase your
productivity
quality
traceability*

PERFORMANCES



Weighing :
0.1g to 3000g



Weighing precision :
0.05g from 1g
<1% from 5g

FOOT SWITCH



Less manipulation, more precision !

CONNECTED
MICROBIOLOGY

DILUWEL^{EDGE}[®]



Accurate >99% accuracy !

Screen color code ensures :

- correct sample weight
- correct dilution precision



PATENTED vertical weighing tray
(3 points for higher stability and
higher weighing accuracy)

Adjustable holder

adapt the dispensing height
according to your containers

Removable pump

Free positioning =
save space



Built-in bubble level
and adjustable legs



Compact and light
8 kg / 50% more compact
than competition models !

Watertight to spills
Perfect cleanability



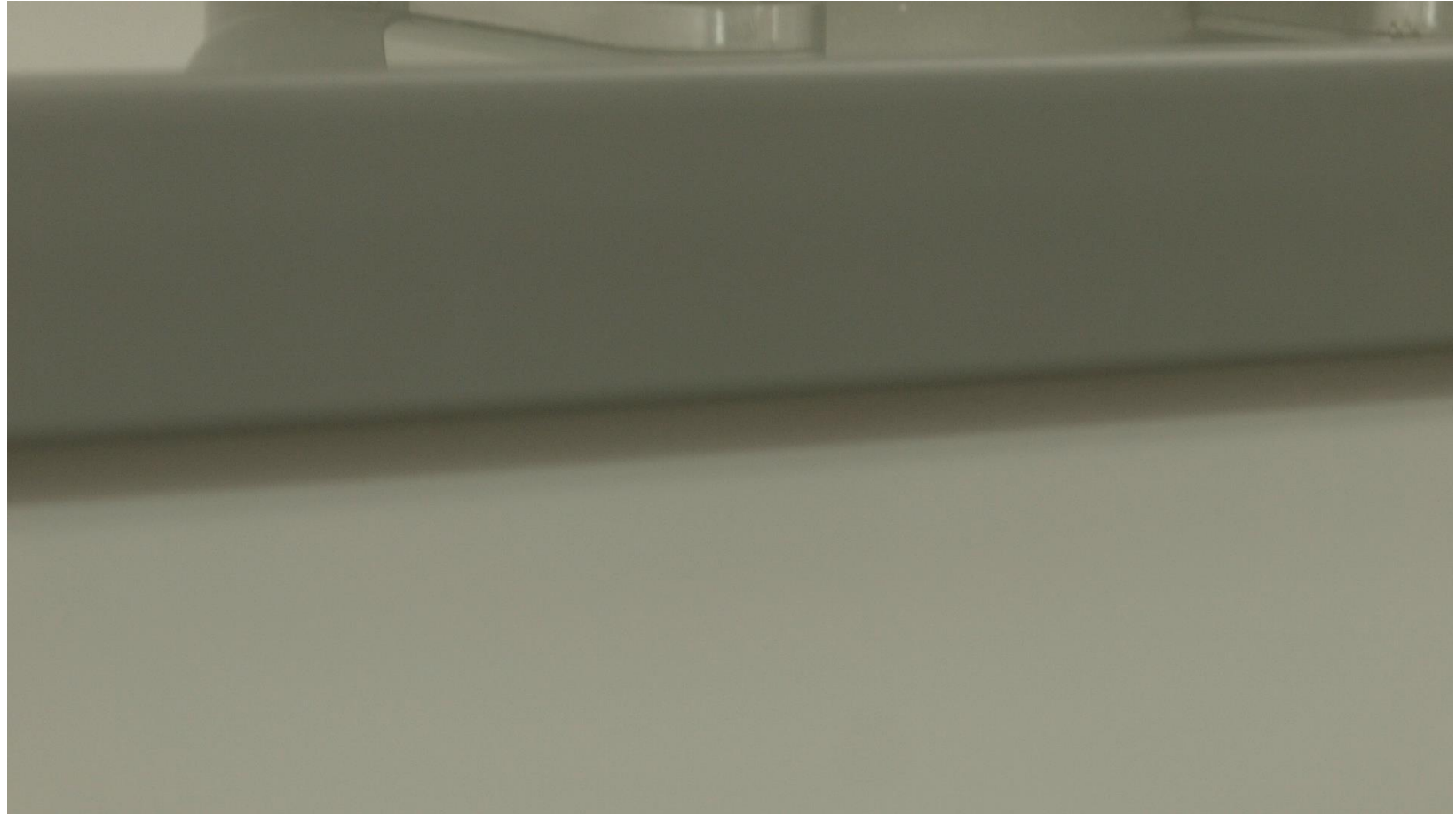


MIXWEL : Laboratory Blender





MIXWEL





MIXWEL



INCREDIBLE POWER AND EFFICIENCY

From 28 kg to 70 kg homogeneisation pressure per paddle

Competition : Biomérieux, Seward, Interscience = 28kg of pressure/paddle !

TESTIMONIALS

THEY HAVE ADOPTED IT

“as the microorganisms’ extraction is much better with the MIXWEL PLUS, we have been able to reduce the blending time” ... “never drilled a bag” ... “a quiet blender, small, with no vibrations”
(Mrs Ali Mandjee, RAEMA/ASA PARIS Region)

“I didn’t know we could blend much harder in a smooth way” ...” We blend young elastic cheese ... and the result is perfect, similar to milk aspect with no solids at all.”
(Lab user, INRA STLO RENNES)



MIXWEL



QUIET & COMPACT

QUIET
(less than 48db)
Few vibrations
14 kg
Very compact !

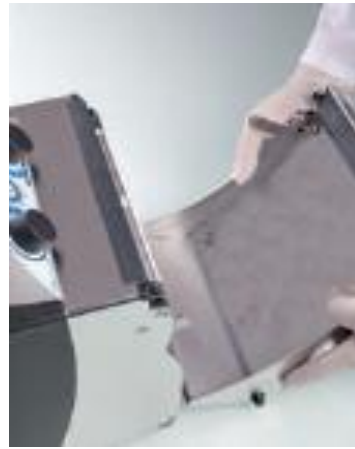


■ A
■ B

Biomérieux : 19,6 kg
Interscience : 26 kg



MIXWEL

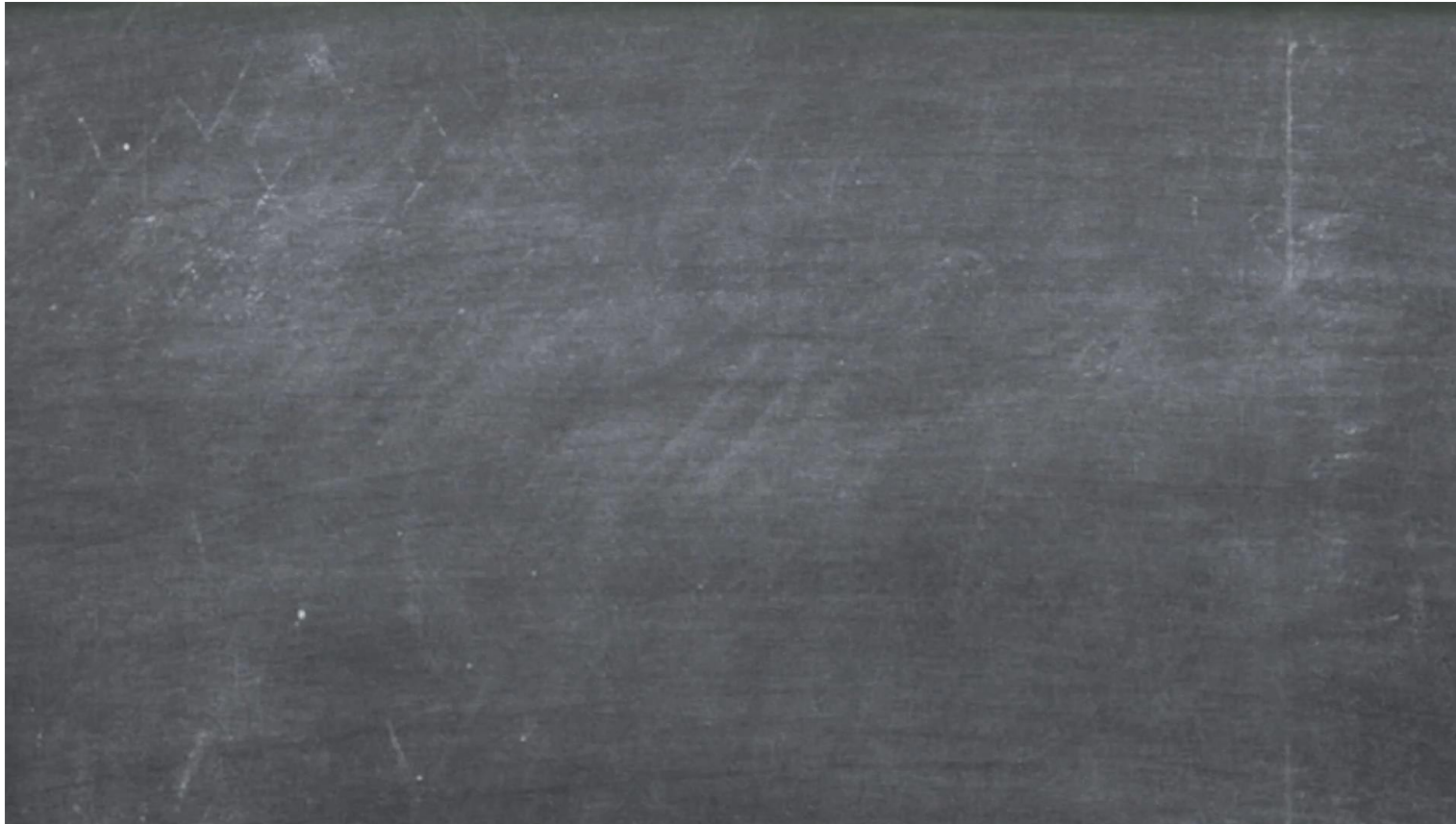


EASY TO CLEAN

REMOVABLE DOOR AND PADDLES

Included waste drawer into the door

100% STAINLESS STEEL!



BAGMIXER (world leader)
-Plastic are cracking !
-Plastic is going out... needs to be replaced.
-Hard to clean and some critical points : gas spring holes / liquid sensors...

ALCUNA DOMANDA?

