## **INTEGRA**



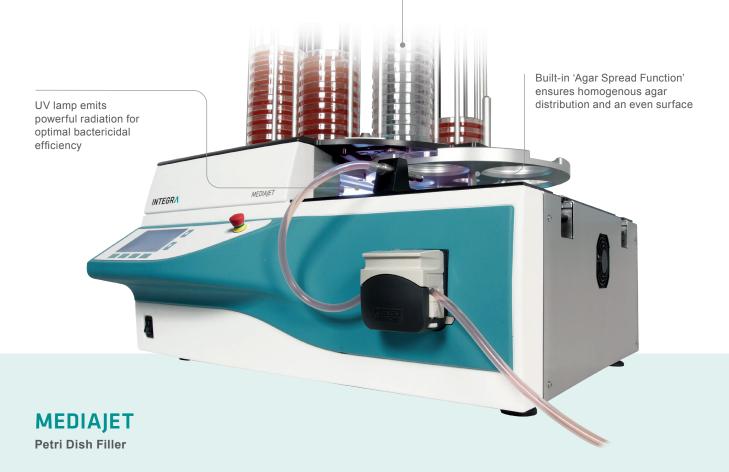
## **MEDIAJET**

Petri Dish Filler Reliable and Versatile



## **RELIABLE AND VERSATILE**

'Feed-In / Stack-Out' technology, coupled with optical dish sensors, enables reliable walk-away operation



Sterile media dispensing is essential for the success of downstream applications, and the risk of contamination during manual plate filling should not be underestimated. Additionally, filling a large number of Petri dishes manually is a painstaking process, creating a need for a more cost efficient, reliable workflow.

**MEDIAJET** is an automated medium dispensing system that allows reliable walk-away operation and ensures consistent agar plate quality. The filling chamber is equipped with a UV lamp helping to avoid medium contamination, while the system offers the unique flexibility to fill Petri dishes and tubes of various sizes, processing up to 1100 dishes in a single hour!

## Did you know?

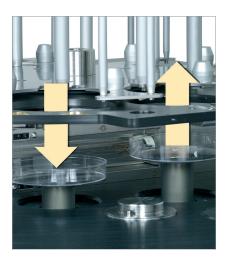
MEDIAJET is the perfect partner to the INTEGRA MEDIACLAVE media sterilizer range, enabling the continuous filling of up to 30 liters of media into Petri dishes.





### **Easy handling**

The operation of the **MEDIAJET** system is entirely self-explanatory, and is combined with an intuitive user interface that makes it easy to control all **MEDIAJET** functions.



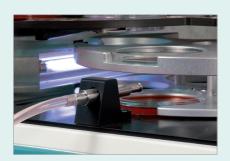
## Reliable walk-away

The system's 'Feed-In / Stack-Out' technology and optical dish sensors ensure that it can easily be adjusted to virtually any brand of Petri dish (see operating instructions for full specifications).



#### Media cost reduction

A built-in 'Agar Spread Function' ensures homogenous distribution of agar to create an even surface, optimizing the agar consumption to significantly reduce media costs.



## Eliminating sources of contamination

The surface of the filling chamber is manufactured from a single piece of resistant PE to offer convenient and efficient cleaning, helping to ensure consistent agar plate quality. Additionally, a powerful UV lamp extends over the full length of the rotor for optimal bactericidal efficiency in this contamination-vulnerable area.



## Process documentation and validation

All process relevant information can be printed directly from **MEDIAJET** using a standard external printer or connected to a **MEDIACLAVE** system to allow export to a PC, supporting individual quality control needs.



## Petri dish imprinting

An optional inkjet printer connection kit allows **MEDIAJET** to apply a wide variety of information – including alphanumeric text, expiry/production date or barcodes – to be applied onto the Petri dishes during production.

All supported printers – including MARKEM-IMAJE, LINX and Domino models – allow side wall printing, while LINX printers also allow bottom printing.

## Operation

**MEDIAJET** is easy to set up and quickly ready for use. Simply load up to 540 Petri dishes, connect the **MEDIAJET** to a sterilized culture medium source, and start dispensing at the touch of a button. The system can store up to 19 individual user-defined Petri dish filling programs, and offers a number of operating modes to match workflow needs:

#### **STANDARD** mode

Standard filling of Ø 35, 60 and 90 mm Petri dishes

#### **TURBO** mode

Accelerated filling of up to 1,100 Petri dishes per hour

#### **POUR PLATE mode**

Ideal for colony forming unit (CFU) determination, with built-in shaking to ensure samples are evenly distributed in the Petri dish

#### **BATCH** mode

Used for applications where it is important to have a very flat and level agar surface, such as automatic colony counting



## **Special applications**



### **Blood agar preparation**

**MEDIAJET** can be combined with the **DOSE IT** peristaltic pump to continuously mix 3-10 % additives into the medium. For instance, blood can be added into the agar immediately before pouring plates for the classification of hemolytically active pathogens, minimizing the risk of thermal denaturation.



### Independent pump functions

The **MEDIAJET** pump can be used independently to provide easy dispensing for other applications – such as the manual filling of tubes or bottles – with the optional foot switch. This feature is especially useful when filling unusually shaped or sized Petri dishes or tubes.

## **Versatile applications**



## Processing various Petri dish sizes

**MEDIAJET** vario allows the automated filling of Ø 35, 60 and 90 mm dishes using the corresponding adapter sets. The system can be converted between dish sizes in just a few minutes, providing extra flexibility for media preparation.



### Test tube filling

The TUBEFILLER option provides an extension to the functionality of MEDIAJET, enabling the system to be converted into a test tube filler in less than a minute. Suitable for applications such as agar slants, broth cultures or NaCl dilutions, this option allows the continuous processing of test tubes of various diameters and lengths.



## Filling of biplates

The biplate option for the **MEDIAJET** vario is an efficient and reliable solution for filling two-compartment Petri dishes, helping to reduce the amount of agar required.

# Instrument selection and available options

	MEDIAJET	MEDIAJET vario	MEDIAJET vario with biplate option
Filling of Ø 90 mm Petri dishes	•	•	•
Filling of Ø 60 mm Petri dishes		•	•
Filling of Ø 35 mm Petri dishes		•	•
Filling of Ø 90 mm biplate Petri dishes			•
Filling of test tubes (with TUBEFILLER option installed)	•	•	•
Shaker function for pour plate applications	•*	•*	•*
Turbo mode (with optional kit)	•	•	•
Imprinting 90, 60 and 35 mm Petri dishes on the side wall (connection kit for MARKEM-IMAJE, LINX and Domino)	•	•	•
Imprinting 90, 60 (and 35 mm) Petri dishes on the bottom (connection kit for LINX inkjet printer), ex factory option	•	•	•
Blood agar preparation with external pump DOSE IT	•	•	•
Cooling option, ex factory	•	•	•*

## Technical data

MEDIAJET		
Dosing range per dish	1 – 99.9 ml	
Dosing reproducibility	circa 1% (at 15 ml)	
Maximal dosing rate	500 ml/min	
Filling delay	0 - 9.9 sec	
Capacity / Carousel	540 (90 mm Petri dish)	
	360 (90, 60, 35 mm Petri dish)	
Filling rates		
Standard filling rate (up to 15 ml)	circa 900 dishes/hour	
Turbo filling rate	circa 1'100 dishes/hour (up to 24 ml)	
Petri dish		
Dish diameter	90 mm	
	90, 60, 35 mm (vario)	
Dish height	12 – 25 mm	
Power supply		
Consumption	200 W	
Input voltage	100 – 240 V, 50/60 Hz	
Fuses	T 2A (2x)	

Dimensions	
Basic unit (H x W x D)	330 x 655 x 634 mm
Height with 360 Carousel	1070 mm
Height with 540 Carousel	1405 mm
UV-Lamp	11.5 W (2.6 W UV-C, 253.7 nm)
Interface	2 x RS232, Alarm, Inkjet, Foot switch
TUBEFILLER	
Test tube diameters	13, 16, 18, 20, 25 or 30 mm
Dosing range	0.5 – 999 ml
Flow rate	up to 260 ml/min
Test tube length	up to 25 cm
Dosing reproducibility	< 1 % (at 1 – 99 ml)
Filling rate	1000 tubes/hour (at 10 ml, 4 mm ID tubing)

## **Ordering information**

Instrument		Part no	
MEDIAJET base unit	for Ø 90 mm Petri dishes. Requires rotor and carousel.	103 005	
	Includes tubing set 103 030 with cool	ing 103 006	
MEDIAJET vario base unit	for Ø 35, 60 or 90 mm Petri dishes.	113 000	
	Requires rotor, carousel and conversion set with cool	ing 113 001	
MEDIAJET vario base unit with biplate option	for Ø 35, 60 or 90 mm or two-compartment Petri dishes.  Requires rotor, carousel and conversion set with cool	ing 113 002	
Rotor	for Ø 90 mm Petri dishes		
	for Ø 90 mm biplate Petri dishes (for MEDIAJET vario with biplate option only). Can also be used for standard Ø 90 mm Petri dishes		
	Rotor for small Ø 90 mm (Ø 90S) standard or biplate Petri dishes		
	for large Ø 90 mm (Ø 90L) Petri dishes (for MEDIAJET vario only)		
	for Ø 60 mm Petri dishes (for MEDIAJET vario only)		
	for Ø 35 mm Petri dishes (for MEDIAJET vario only)		
Carousel	for Ø 90 mm Petri dishes, capacity of 360		
	for Ø 90 mm Petri dishes, capacity of 540		
	for small Ø 90 mm (Ø 90S) Petri dishes, capacity of 360		
	for small Ø 90 mm (Ø 90S) Petri dishes, capacity of 540		
	for large Ø 90 mm (Ø 90L) Petri dishes, capacity of 360 (for MEDIAJET vario only)		
	for large Ø 90 mm (Ø 90L) Petri dishes, capacity of 540 (for MEDIAJET vario only)		
	for Ø 60 mm Petri dishes, capacity of 360 (for MEDIAJET vario only)		
	for Ø 35 mm Petri dishes, capacity of 360 (for MEDIAJET vario only)		
Conversion set (required for MEDIAJET vario only)	for Ø 90 mm Petri dishes, comprises the adaptation insert, head plates for feeder and stacker piston and 1 tubing set		
	for large Ø 90 mm (Ø 90L) Petri dishes, comprises the adaptation insert, head plates for feeder and stacker piston and 1 tubing set		
	for Ø 60 mm Petri dishes, comprising the adaptation insert, head plates for feeder and stacker piston, gripper left, gripper right and 1 tubing set		
	for Ø 35 mm Petri dishes, comprising the adaptation insert, head plates for feeder and stacker piston, gripper left, gripper right and 1 tubing set		

Accessories				Part no.
Filling nozzle	for Ø 90 mm Petri dishes			103 032
	for Ø 60 and 35 mm Petri dishes			113 032
Гubing set	for Ø 90 mm Petri dishes, comprising 1.5 m silicone tubing	g (6 mm inner diamete	er) and filling nozzle	103 030
	for $\varnothing$ 35 and 60 mm Petri dishes, comprising 1.5 m silico filling nozzle	ne tubing (6 mm inne	er diameter) and	113 030
Communication interface cable MEDIAJET to MEDIACLAVE	for process documentation on MEDIACLAVE printer			103 046
Centering unit	supports planar stacking of all Ø 90 mm Petri dishes (Ø 9	90, Ø 90S, Ø 90L)		103 048
Turbo mode option				Part no.
Turbo mode kit	for accelerating the filling rate of Ø 90 mm Petri dishes, comprising extension pump head and tubing set for Turbo mode (Part No. 103 035)		103 036	
Tubing set for Turbo mode	including filling nozzle for $\varnothing$ 90 mm Petri dishes and tubing for double pump head configuration (6 mm inner diameter), length 2.0 m, 2 glass Y-pieces			103 035
Petri dish imprinting – Please visi	it our website for Petri dish imprinting options and printer cor	nnection kits.		
Independent pump function				Part no.
Footswitch	for independently using the MEDIAJET pump			143 200
Aspiration/dispensing tube	for 6 mm inner diameter silicone tubing as suction or end cm length, stainless steel, one end dented		inner diameter, 10	171 056
Aspiration tube	6 mm inner diameter, 35 cm length, stainless steel, one e	end dented		171 066
Fube collar as weight for as piration tubes	for aspiration tubes with 4-6 mm inner diameter			171 074
Blood agar preparation				Part no.
Fubing set for blood agar	suitable for adding 3 to 10% blood in connection with the Includes filling nozzle for Ø 90 mm Petri dishes, tubing for additive (2 mm inner diameter), glass T-piece, suction ne	or media (6 mm inner		103 040
DOSE IT P910	peristaltic pump for preparation of blood agar			171 000
nterface cable	for connection of MEDIAJET to DOSE IT			103 047
Tubefiller option				Part no.
TUBEFILLER option for MEDIAJET	including filling arm, support plate and a 2.5 m (3 mm inner diameter) silicone tubing set with 2 aspiration/dispensing tubes and tube collar			103 010
		Height 60 mm Part no.	Height 90 mm Part no.	Height 120 mn Part no.
Test tube racks stainless	for Ø 13 mm tubes, 6 x 15 capacity	103 058	103 059	
teel, autoclavable	for Ø 16 mm tubes, 5 x 12 capacity	103 063	103 061	103 062
				100 002
	for Ø 18 mm tubes, 4 x 10 capacity		103 064	103 068
	for Ø 18 mm tubes, 4 x 10 capacity for Ø 20 mm tubes, 4 x 10 capacity		103 064 103 069	
				103 068
	for Ø 20 mm tubes, 4 x 10 capacity		103 069	103 068 103 077
	for Ø 20 mm tubes, 4 x 10 capacity for Ø 25 mm tubes, 3 x 8 capacity		103 069 103 078	103 068 103 077 103 079
	for Ø 20 mm tubes, 4 x 10 capacity for Ø 25 mm tubes, 3 x 8 capacity		103 069 103 078	103 068 103 077 103 079 103 084
Aspiration/dispensing tube	for Ø 20 mm tubes, 4 x 10 capacity for Ø 25 mm tubes, 3 x 8 capacity for Ø 30 mm tubes, 3 x 7 capacity	e end dented	103 069 103 078	103 068 103 077 103 079 103 084 Part no.
Aspiration/dispensing tube	for Ø 20 mm tubes, 4 x 10 capacity  for Ø 25 mm tubes, 3 x 8 capacity  for Ø 30 mm tubes, 3 x 7 capacity  Lid for rack with tubes, max. height above rack 40 mm		103 069 103 078	103 068 103 077 103 079 103 084 Part no. 103 096
Aspiration/dispensing tube	for Ø 20 mm tubes, 4 x 10 capacity for Ø 25 mm tubes, 3 x 8 capacity for Ø 30 mm tubes, 3 x 7 capacity  Lid for rack with tubes, max. height above rack 40 mm  10 cm length, 2.0 mm inner diameter, stainless steel, one	e end dented	103 069 103 078	103 068 103 077 103 079 103 084 Part no. 103 096 171 052
	for Ø 20 mm tubes, 4 x 10 capacity for Ø 25 mm tubes, 3 x 8 capacity for Ø 30 mm tubes, 3 x 7 capacity  Lid for rack with tubes, max. height above rack 40 mm 10 cm length, 2.0 mm inner diameter, stainless steel, one	e end dented	103 069 103 078	103 068 103 077 103 079 103 084 Part no. 103 096 171 052 171 053
	for Ø 20 mm tubes, 4 x 10 capacity for Ø 25 mm tubes, 3 x 8 capacity for Ø 30 mm tubes, 3 x 7 capacity  Lid for rack with tubes, max. height above rack 40 mm  10 cm length, 2.0 mm inner diameter, stainless steel, one 10 cm length, 4.0 mm inner diameter, stainless steel, one	e end dented	103 069 103 078	103 068 103 077 103 079 103 084 Part no. 103 096 171 052 171 053 171 054
ube collar as weight	for Ø 20 mm tubes, 4 x 10 capacity  for Ø 25 mm tubes, 3 x 8 capacity  for Ø 30 mm tubes, 3 x 7 capacity  Lid for rack with tubes, max. height above rack 40 mm  10 cm length, 2.0 mm inner diameter, stainless steel, one 10 cm length, 4.0 mm inner diameter, stainless steel, one for aspiration tubes with 1-3 mm inner diameter	e end dented	103 069 103 078	103 068 103 077 103 079 103 084 Part no. 103 096 171 052 171 053 171 054 171 071
Tube collar as weight  Consumables	for Ø 20 mm tubes, 4 x 10 capacity  for Ø 25 mm tubes, 3 x 8 capacity  for Ø 30 mm tubes, 3 x 7 capacity  Lid for rack with tubes, max. height above rack 40 mm  10 cm length, 2.0 mm inner diameter, stainless steel, one 10 cm length, 4.0 mm inner diameter, stainless steel, one for aspiration tubes with 1-3 mm inner diameter	e end dented e end dented	103 069 103 078	103 068 103 077 103 079 103 084 Part no. 103 096 171 052 171 053 171 054 171 071 171 074
Consumables  JV lamp TUV11W	for Ø 20 mm tubes, 4 x 10 capacity for Ø 25 mm tubes, 3 x 8 capacity for Ø 30 mm tubes, 3 x 7 capacity  Lid for rack with tubes, max. height above rack 40 mm  10 cm length, 2.0 mm inner diameter, stainless steel, one 10 cm length, 3.0 mm inner diameter, stainless steel, one for aspiration tubes with 1-3 mm inner diameter for aspiration tubes with 4-6 mm inner diameter	e end dented e end dented	103 069 103 078 103 083	103 068 103 077 103 079 103 084 Part no. 103 096 171 052 171 053 171 054 171 071 171 074  Part no.
Tube collar as weight  Consumables  JV lamp TUV11W	for Ø 20 mm tubes, 4 x 10 capacity  for Ø 25 mm tubes, 3 x 8 capacity  for Ø 30 mm tubes, 3 x 7 capacity  Lid for rack with tubes, max. height above rack 40 mm  10 cm length, 2.0 mm inner diameter, stainless steel, one 10 cm length, 4.0 mm inner diameter, stainless steel, one for aspiration tubes with 1-3 mm inner diameter  for aspiration tubes with 4-6 mm inner diameter	e end dented e end dented eess 1.5 mm wall thicknes	103 069 103 078 103 083	103 068 103 077 103 079 103 084 Part no. 103 096 171 052 171 053 171 054 171 071 171 074  Part no. 103 705
Aspiration/dispensing tube  Tube collar as weight  Consumables  UV lamp TUV11W  Silicone tubing	for Ø 20 mm tubes, 4 x 10 capacity for Ø 25 mm tubes, 3 x 8 capacity for Ø 30 mm tubes, 3 x 7 capacity  Lid for rack with tubes, max. height above rack 40 mm  10 cm length, 2.0 mm inner diameter, stainless steel, one 10 cm length, 3.0 mm inner diameter, stainless steel, one 10 cm length, 4.0 mm inner diameter, stainless steel, one for aspiration tubes with 1-3 mm inner diameter for aspiration tubes with 4-6 mm inner diameter  to reduce the risk of contamination during the filling proc for Petri dish filling, 25 m bulk roll (6 mm inner diameter,	e end dented e end dented eess 1.5 mm wall thicknes eeter, 1.5 mm wall thic	103 069 103 078 103 083	103 068 103 077 103 079 103 084  Part no. 103 096 171 052 171 053 171 074 171 074  Part no. 103 705 171 036

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