



# MAKE 6 HASH AT SCALE!



## Solventless Hash

Most methods of extractions require the use of solvents. The process works well, but there are a few problems with it; A contaminated product will result if the manufacturer fails to outgas all hydrocarbons from the solvent in the final stage of manufacturing.

No solvents are needed for hash - all you need is the ice-cold temperature water to extract it.

## What would you use Hash for?

You can make different types of products:



Your imagination is the limit.

## What is the economic case for this manufacturing method?



You don't use chemicals



Solventless products are sold at better prices



You invest less in equipment



Less paperwork with licenses and permits



You can make almost any product

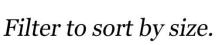
## How is Hash made?

Starting material can be flower, trim, dry or Fresh Frozen.





Place flower and cold water in the bin and wash in Mesclatore.







Freeze dry.

That's it! You've made your own bubble hash. Congratulations!



### Solventless Mesclatore

Sambo Creeck's Solventless Mescolatore is the most recent advancement in solventless processing technology, allowing hash producers to significantly increase the efficiency and performance of their hash washing process.

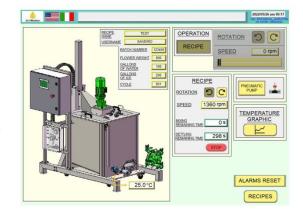
#### Wash faster, wash more

The Mescolatore is a turnkey industrial solventless solution, with swappable trolleys. It is ideal for agitation of biomass for production of solventless ice water extracts. Our Solventless solution will automate and expand your lab's production. This modular system lets you swap trolleys to quickly process serious volumes.



#### Adjustable to your needs

The PLC-controlled system lets you create programs tailored to your needs to produce the quality you desire. You can agitate as gentle or as aggressive as you require, and adjust to any batch size



#### Easy to use

To operate, place flower and cold water in the bin, and start your program. After completion, you can gravity drain or use the included pump to transfer to filtration and sieving.



#### **FDA Compliant**

Our Mescolatore meets FDA standards and is made of food grade polypropylene.



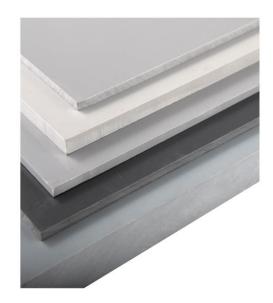
#### Removable False Bottom

During the washing process, a removable stainless steel false bottom protects your trichomes while keeping your flower and work bags above your hash. The sloped bottom design prevents trichomes from further agitation and promotes their accumulation on a central channel for easy cleanup.



#### No Insulated Sleeve Required

The Solventless Mesclatore is thermally insulated, reducing ice usage by up to 85% without the need for an external chiller. It keeps a temperature of 32 degrees Fahrenheit for a longer period. This machine is tough, durable, and reliable. PP is impervious to most acids and solvents, allowing you to aggressively sanitize.



#### Save time and Money

Return on equipment investement within 1 day at 3% yield using 4 trolleys.

Fresh Frozen per day 528lbs/240kg

Volume per wash 20kg *Yield range per day* 7,200g – 14,400g

Price per Gram \$30.00

**Revenue per day** \$216,000 - \$432,000

## **Optimum Setup Analysis**

Using 1 mixer and 4 trolleys

Time	Minutes	Soak	Agitate	Settle	Filter	Clean	_		
	15	T1					<u>•</u>		
	30	T1,T2							
	45	T2,T3	T1						
9:00 AM	60	Т3	T2	T1			<b>∏</b> ∥ T1 ∥		
	15		Т3	T2	T1				
	30		T1	Т3	T2				
	45	T4	T2	T1	T3				
10:00 AM	60	T4	Т3	T2	T1		Ň	Ť	
	15		T4	Т3	T2	T1		n	
	30	T1		T4	T3	T2	T1   T2	H.	
	45	T1	Sec.		T4	T3			
11:00 AM	60	T2	T1						
	15	T2	T4	T1					
	30	T3	T2 T1	T4 T2	T1 T4		<u> </u>		
12:00 AM	45 60	T3	T3	T1	T2	<b>T</b> 4			
	15	T4	T2	T3	T1	14			
	30	T4		T2	Т3	T1	T1   T2	T3	
	45	T1	T4		T2				
13:00 PM	60	T1	Т3	<b>T</b> 4		T <sub>2</sub>		_	
	15	T2	T1	Т3	T4		• •		Ì
	30	T2	T4	T1	T3				ĺ
	45	_	T2	T4	T1	T3			
14:00 PM	60	Т3	T1	T2	T4	_	T1   T2   T3	3 <b>1</b> T4	ı
	15	T3	T2	T1	T2 T1	T4			
	30 45	T4 T4	T3	T2	11	T1			•
15:00 PM	60		T4	T3	T2				
13:00 PIVI	15		15.00	T4	Т3	T2	Cleanouts:	12	
	30		Т3	·	T4		Kg per shift:		
	45		T4	Т3			10 10 10 10 10 10 10 10 10 10 10 10 10 1	240	
16:00 PM	60			T4	T3		Agitations per batch:	2	
	15				T4	T3	Impeller usage:	75%	
	30					T4	Total grams of Hash	13.50	
	45						produced at 3% yield	7,200	
17:00 PM	60								

<sup>\*</sup> Configuration of the Mesclatore using 4 trolleys, 1 mixer during an 8hrs. Shift.

## **Optimum Setup Analysis**

Using 1 mixer, 2 trolleys and a sieve

Time	Minutes	Soak	Agitate	Settle	Filter	Clean		
	15 30	T1	T1		T1			
9:00 AM	45 60							
	15 30	T2						
10:00 AM	45 60		T2		T2	T1		
	15 30 45	T1						
11:00 AM	60 15		T1		T1	T2		_
12:00 AM	30 45 60	T2						
	15 30 45		T2		T2	T1	T1 T2	Sieve
13:00 PM	60	T1						Sieve
14:00 PM	15 30 45 60	11	Tı		T1	T2		
	15 30 45 60	T2	T2		T2	Т1		
15:00 PM	15						Cleanouts:	7
	30 45	T1					Kg per shift:	140
16:00 PM	60		T1		T1	T2	Agitations per batch:	1
17:00 PM	15 30 45 60						Impeller usage: Total grams of Hash produced at 3% yield	4,200

<sup>\*</sup> Configuration of the Mesclatore using 2 trolleys, 1 mixer and 1 sieve.

during an 8hrs. shift.

## **Work Bags**

Increase the efficiency and wash volume of your Solventless Mesclatore System!

#### FDA Compliant

For maximum durability, they are made of superior food grade nylon mesh and canvas.

#### **Zipper Bottom**

Our bags have a zipper at the bottom. This allows for fest emptying of the bag when hoisted

#### Lift Straps

Each work bag also comes with lift straps rated up to a 200lb. max load capacity.

#### Size

The work bags are rod-reinforced, custom-made to accommodate the tank size, optimizing capacity.



## **Pumps**

We partnered with two of the top pump manufacturers in Italy and through extensive R&D developed a unique pump engineered to pump trichomes. Our pump is the perfect solution, eliminating the need to gravity drain tanks.

#### **Features**

» Reduces shear, and cavitation

» Handles large volumes of hash water without damaging the pump

» Tolerences, material selection, balls, gaskets and geometry were all designed to delicately handle trichomes.

» FDA Food Grade

» Self-priming AODD pumps that are easy to operate and control flow

» Can be fully sumberged in water without the risk of pump damage.

## Solventless KPIs

#### **Hand Wash**

BIOM	ACC	OLIA	LITV
DIVIVI	ASS	QUA	LIII

Runs in 2 Shifts
Input Grams per Run
Average Yield (%)
Average Yield (g)
Appx Value/g (\$)
Appx Value/run (\$)
Staffing/Run

Total Yield per Day in Grams Total Value per Day

#### STAFFING KPI

Lead Technician Total Labor/Run (\$) Total Labor per Day (\$) Labor per Gram

LIVE (Fresh Frozen)	CURED (Dry)
3	2
25,000	12,000
3.5%	8%
875	960
\$ 20	\$ 8
\$ 17,500	\$ 7,680
3	3
2,625	1,920
\$ 52,500	\$ 15,360

	RATE (\$)	# O	F STAFF
ı	\$ 22		1
ı	\$ 18.50		2
ı	\$ 272	\$	408
ı	\$ 816	\$	816
	\$ 0.311	\$	0.425

#### Mesclatore with 1 Trolley

BIOMASS QUALITY	LIVE (Fresh Frozen)	CURED (Dry)
Runs in 2 Shifts	3	2
Input Grams per Run	20,000	10,000
Average Yield (%)	5%	10%
Average Yield (g)	1,000	1,000
Appx Value/g (\$)	\$ 20	\$ 8
Appx Value/run (\$)	\$ 20,000	\$ 8,000
Staffing/Run	2	2
Total Yield per Day in Grams	3,000	2,000
Total Value per Day	\$ 60,000	\$ 16,000

STAFFING KPI
Lead
Technician
Total Labor/Run (\$)
Total Labor per Day (\$)
Labor per Gram
Savings Per day over Hand Washing
*Days for savings to pay for equipment.
*Calculated by difference in cost per gram produc

<sup>\*</sup>Calculated by difference in cost per gram produced.

RATE (\$)	# OF STAFF
\$ 22	1
\$ 18.50	1
\$ 184	\$ 276
\$ 552	\$ 552
\$ 0.184	\$ 0.276
\$ 380.57	\$ 298
112	143

#### Mesclatore with 4 Trolleys

BIOMASS QUALITY
Runs in 2 Shifts
Input Grams per Run
Average Yield (%)
Average Yield (g)
Appx Value/g (\$)
Appx Value/run (\$)
Staffing/Run
Total Yield per Day in Grams
Total Value per Day

STAFFING KPI	
Lead	
Technician	
Total Labor/Run (\$)	
Total Labor per Day (\$)	
Labor per Gram	
Savings Per day over Hand Washing	
*Days for savings to pay for equipment.	

<sup>\*</sup>Calculated by difference in cost per gram produced.

LIVE (Fresh Frozen)	CURED (Dry)
20	16
20,000	10,000
5%	10%
1,000	1,000
\$ 20	\$ 8
\$ 20,000	\$ 8,000
4	4
20,000	16,000
\$ 400,000	\$ 128,000

RATE (\$)	# OF STAFF	
\$ 18	1	
\$ 16.50	3	
\$ 54	\$ 67.50	
\$ 1,080	\$ 1,080	
\$ 0.054	\$ 0.068	
\$ 5,137.14	\$ 5,720	
13	12	

#### Mesclatore with 2 Trolleys and a Sieve

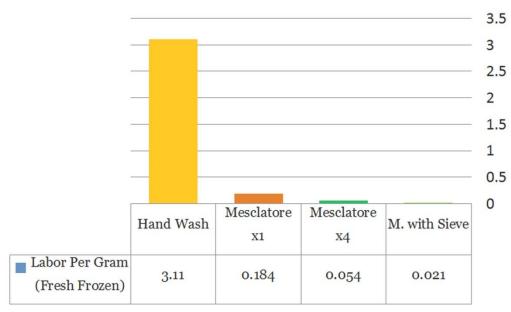
BIOMASS QUALITY
Runs in 2 Shifts
Input Grams per Run
Average Yield (%)
Average Yield (g)
Appx Value/g (\$)
Appx Value/run (\$)
Staffing/Run
Total Yield per Day in Grams
Total Value per Day

STAFFING KPI			
Lead			
Technician			
Total Labor/Run (\$)			
Total Labor per Day (\$)			
Labor per Gram			
Savings Per day over Hand Washing			
*Days for savings to pay for equipment.			
*Calculated by difference in cost per gram produced.			

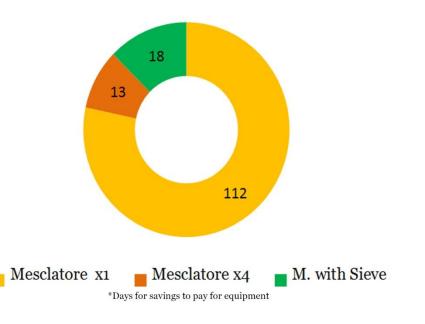
LIVE (Fresh Frozen)	CURED (Dry)	
20	16	
20,000	10,000	
5%	10%	
1,000	1,000	
\$ 20	\$ 8	
\$ 20,000	\$ 8,000	
4	4	
20,000	16	
\$ 400,000	\$ 128,000	

RATE (\$)	# C	F STAFF
\$ 22		1
\$ 16.50		
\$ 18	\$	3 18
\$ 288	\$	288
\$ 0.021	\$	0.022
\$ 4,064	\$	5,237
17		

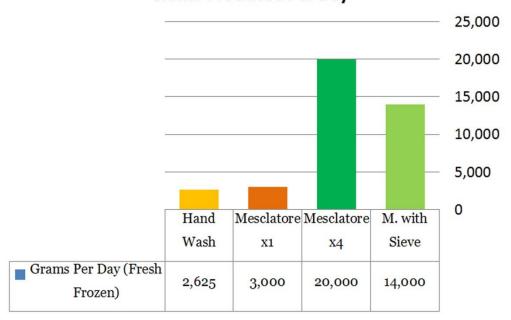
#### **Labor Per Gram**



#### **Payback Days**



#### **Grams Produced Per Day**



#### **Labor Cost Per Kg Processed**



## **Drawings**

