

#### The

# **AXIS**Trichome Separator

PurePressure's Axis trichome separator offers unparalleled control, machine utilization, and scalability for solventless processors. Its unique design separates the washing vessel from the source of agitation, which enables extractors to wash in one vessel while the next one is being filled, pre-soaked, or filtered. This creates massive efficiencies both in terms of batch processing throughput and labor cost savings. Built in the USA, the Axis' stainless steel housing and washdown rated electronics allows for easy cleaning and sanitation. It also features a joystick that's coupled with a touch screen control panel to mimic hand-paddle agitation.



#### 1 Axis = 2x competitor machines

The modular, multi-vessel nature of the Axis agitation process allows nearly 2x the throughput compared to other single-vessel agitation machines.

#### ROI achievable in under 1 week

The massive efficiency gains in hash production will allow you to see a return on your investment in under 1 week.

#### **Double your throughput**

Wash twice as much hash with the same labor force compared to hand paddling.

#### **Limitless control**

Custom hash washing recipes can be created in multiple ways, which are then endlessly repeatable, to ensure unparalleled washing consistency between batches. The Axis is capable of running custom created recipes that can be made by stringing together your custom recorded patterns, during live production runs, or from tables. It also comes with pre-set recipes loaded into the control panel for exceptional agitation control.

Patterns: recorded short, discrete movements that are intended to be looped.

**Recipes:** one or more looping patterns, which can be created with the joystick directly or with a table on the touchscreen interface.

## **Technical specifications**

#### **Product certification statement**

PurePressure has contracted a Third-Party Product Safety Test House to evaluate this product for electrical compliance to UL 763 for Motor-Operated Commercial Food Preparing Machines.

#### Product scope & intended use

The Axis trichome separator works exclusively with PurePressure Bruteless vessels (30, 44 & 65 gallon sizes). The unit operates by agitating a slurry with a mixer head and is intended for use with ice water hash extraction methods.

#### Maintenance schedule

Daily: Clean, wipe down, visual inspection.

**Weekly:** Inspect hinges & hinge hardware for loose or backed out bolts.

120 hours: Check belt tension.

See belt tensioning instructions for additional detail.

#### Monthly:

Inspect the interior of the control stand electrical enclosure for moisture.

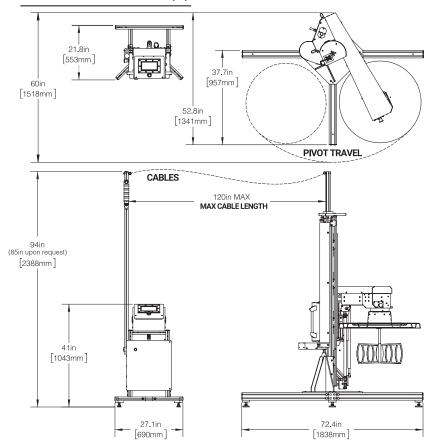
Check vertical movement and pivoting for smooth operation. Check filter regulator for condensation.

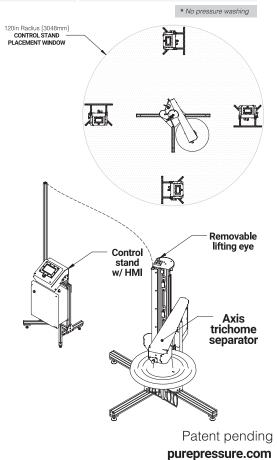
6 Months: Grease hinges.

**20,000 hours (L10 predicted life):** Replace bearings, drive belt, motor & gearbox.

| Specification                                    |   |  |  |  |  |  |
|--|---|--|--|--|--|--|
| Weight   | Axis: 260 lb, control stand: 90 lb, total weight: 350 lb                          |  |  |  |  |  |
| Input voltage & amp draw                         | 120V Peak: 7A Continuous: 3A;<br>240V Peak: 4A Continuous: 2A                     |  |  |  |  |  |
| Fuses (2x)                                       | <b>Type:</b> Fast acting 250 V <b>Current:</b> 10A <b>Dimensions:</b> 5mm x 20mmv |  |  |  |  |  |
| Compressed air requirements                      | 120 psi, < 1 CFM  |  |  |  |  |  |
| Paddle motor speed                               | 2 - 70 RPM  |  |  |  |  |  |
| Paddle construction                              | 304 stainless steel with quick disconnect & dishwasher safe for cleaning          |  |  |  |  |  |
| Enclosure construction                           | 304 stainless steel   |  |  |  |  |  |
| Frame construction                               | 6061 aluminum & stainless steel hardware  |  |  |  |  |  |
| Vessel wash guard construction                   | Removable PETG with 304 stainless steel attachment ring                           |  |  |  |  |  |
| Axis trichome separatorwith UL508A control panel | IP65 washdown rated*  |  |  |  |  |  |
| Ceiling height                                   | 94" standard, 85" upon request  |  |  |  |  |  |

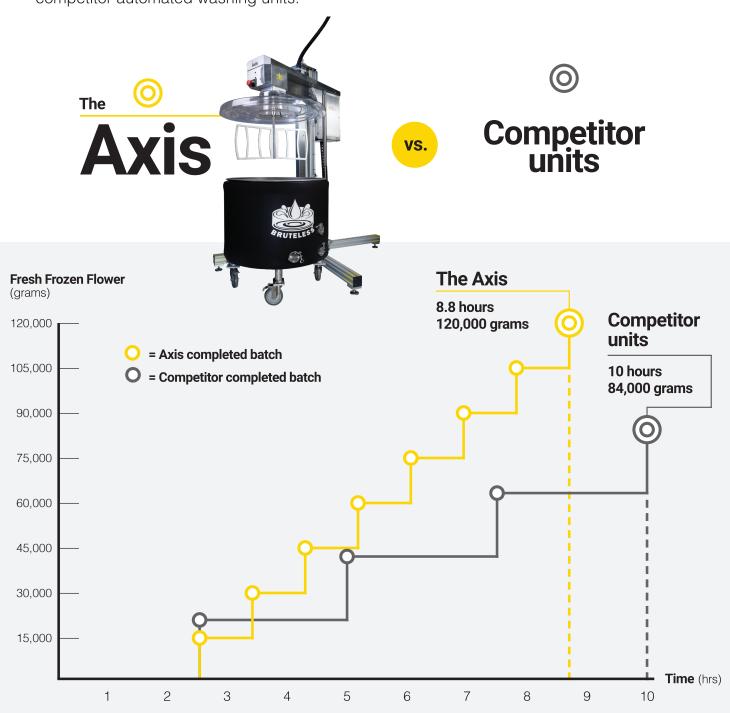
#### **Product dimensions (in)**





# **Efficiency comparison**

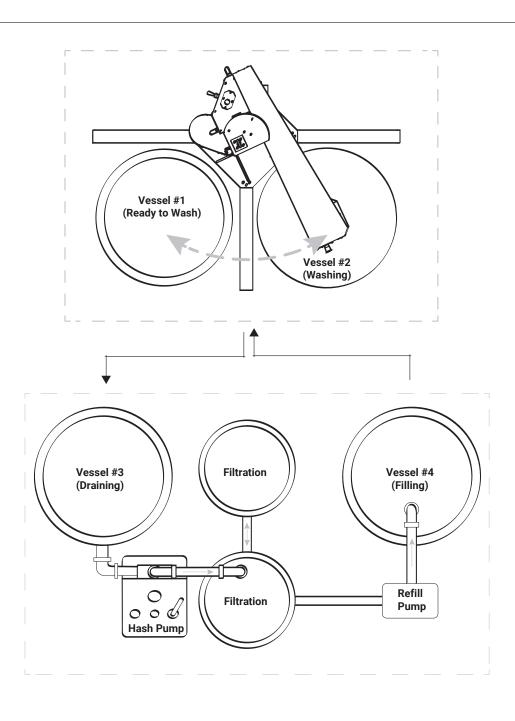
This graph depicts the comparison in volume of fresh frozen flower washed in a work day (8-10 hours) between the Axis trichome separator using 4x 65 gallon Bruteless vessels versus competitor automated washing units.



# Axis 4 vessel system workflow

This diagram depicts equipment utilization and is not intended for space planning configurations. For more information on facility designs, floor planning, and training, contact PureCannalabs.





# Expand your operation with Bruteless hash washing vessels

PurePressure's Bruteless vessels set the standard for making ice water hash. Our passivated 304 stainless steel, food contact safe Bruteless sanitary welded construction helps you make better hash and manage fluid transfer with ease.



65 Gallon Bruteless

Per batch capacity:

15,000 grams Fresh frozen flower



**Per batch** capacity: 10,000 grams



Shop Bruteless now at purepressure.com

# Axis trichome separator throughput tables

#### Study explanation

To create the tables below we performed a time study of a 9 hour work day with 2 extraction professionals using the Axis trichome separator. The work day included preparation, hash washing, hash collection, and cleanup. To maximize machine utilization of the Axis, the preparation and hash collection processes were executed simultaneously and separate from the Axis agitation process (hash washing). Most facilities can achieve optimal throughput using 4 vessels. If your filtration time exceeds your hash washing time, the required number of vessels increases.

#### Study assumptions

Continuous operation of the Axis with an average time between batches being 2 minutes to change positions.

#### **Terminology**

Wash: the process of removing trichome heads from the flower through agitation with the Axis trichome separator.

**Batch:** a series of one or more washes, performed to ensure as many of the trichome heads have been detached from the flower as possible.

Work day: 8 hours of hash washing and 1 hour of clean up.

Continue to tables

### A work day with 65 gallon Bruteless vessels

#### Number of completed batches per 8 hour shift

= Common zones of operation

| Wash Time | Washes per batch |    |    |    |    |    |  |
|-----------|------------------|----|----|----|----|----|--|
| (min)     | 1                | 2  | 3  | 4  | 5  | 6  |  |
| 5         | 68               | 34 | 22 | 17 | 13 | 11 |  |
| 10        | 40               | 20 | 13 | 10 | 8  | 6  |  |
| 15        | 28               | 14 | 9  | 7  | 5  | 4  |  |
| 20        | 21               | 10 | 7  | 5  | 4  | 3  |  |
| 25        | 17               | 8  | 5  | 4  | 3  | 2  |  |
| 30        | 15               | 7  | 5  | 3  | 3  | 2  |  |
| 35        | 12               | 6  | 4  | 3  | 2  | 2  |  |

#### Fresh frozen flower material input (wet grams)

Based on 15,000 grams per 65 gallon vessel

| Wash Time | Washes per batch |         |         |         |         |         |  |
|-----------|------------------|---------|---------|---------|---------|---------|--|
| (min)     | 1                | 2       | 3       | 4       | 5       | 6       |  |
| 5         | 1,020,000        | 510,000 | 330,000 | 255,000 | 195,000 | 165,000 |  |
| 10        | 600,000          | 300,000 | 195,000 | 150,000 | 120,000 | 90,000  |  |
| 15        | 420,000          | 210,000 | 135,000 | 105,000 | 75,000  | 60,000  |  |
| 20        | 315,000          | 150,000 | 105,000 | 75,000  | 60,000  | 45,000  |  |
| 25        | 255,000          | 120,000 | 75,000  | 60,000  | 45,000  | 30,000  |  |
| 30        | 225,000          | 105,000 | 75,000  | 45,000  | 45,000  | 30,000  |  |
| 35        | 180,000          | 90,000  | 60,000  | 45,000  | 30,000  | 30,000  |  |

#### Dry hash output at a 4% / 6% yield (dry grams)

| Wash Time | Washes per batch |                 |                 |                 |                |               |  |  |
|-----------|------------------|-----------------|-----------------|-----------------|----------------|---------------|--|--|
| (min)     | 1                | 2               | 3               | 4               | 5              | 6             |  |  |
| 5         | 40,800 / 61,200  | 20,400 / 30,600 | 13,200 / 19,800 | 10,200 / 15,300 | 7,800 / 11,700 | 6,600 / 9,900 |  |  |
| 10        | 24,000 / 36,000  | 12,000 / 18,000 | 7,800 / 11,700  | 6,000 / 9,000   | 4,800 / 7,200  | 3,600 / 5,400 |  |  |
| 15        | 16,800 / 25,200  | 8,400 / 12,600  | 5,400 / 8,100   | 4,200 / 6,300   | 3,000 / 4,500  | 2,400 / 3600  |  |  |
| 20        | 12,600 / 18,900  | 6,000 / 9,000   | 4,200 / 6,300   | 3,000 / 4,500   | 2,400 / 3,600  | 1,800 / 2,700 |  |  |
| 25        | 10,200 / 15,300  | 4,800 / 7,200   | 3,000 / 4,500   | 2,400 / 3,600   | 1,800 / 2,700  | 1,200 / 1,800 |  |  |
| 30        | 9,000 / 13,500   | 4,200 / 6,300   | 3,000 / 4,500   | 1,800 / 2,700   | 1,800 / 2,700  | 1,200 / 1,800 |  |  |
| 35        | 7,200 / 10,800   | 3,600 / 5,400   | 2,400 / 3,600   | 1,800 / 2,700   | 1,200 / 1800   | 1,200 / 1800  |  |  |

### A work day with 44 gallon Bruteless vessels

#### Number of completed batches per 8 hour shift

= Common zones of operation

| Wash Time | Washes per batch |    |    |    |    |    |  |
|-----------|------------------|----|----|----|----|----|--|
| (min)     | 1                | 2  | 3  | 4  | 5  | 6  |  |
| 5         | 68               | 34 | 22 | 17 | 13 | 11 |  |
| 10        | 40               | 20 | 13 | 10 | 8  | 6  |  |
| 15        | 28               | 14 | 9  | 7  | 5  | 4  |  |
| 20        | 21               | 10 | 7  | 5  | 4  | 3  |  |
| 25        | 17               | 8  | 5  | 4  | 3  | 2  |  |
| 30        | 15               | 7  | 5  | 3  | 3  | 2  |  |
| 35        | 12               | 6  | 4  | 3  | 2  | 2  |  |

#### Fresh frozen flower material input (wet grams)

Based on 10,000 grams per 44 gallon vessel

| Wash Time | Washes per batch |         |         |         |         |         |  |
|-----------|------------------|---------|---------|---------|---------|---------|--|
| (min)     | 1                | 2       | 3       | 4       | 5       | 6       |  |
| 5         | 680,000          | 340,000 | 220,000 | 170,000 | 130,000 | 110,000 |  |
| 10        | 400,000          | 200,000 | 130,000 | 100,000 | 80,000  | 60,000  |  |
| 15        | 280,000          | 140,000 | 90,000  | 70,000  | 50,000  | 40,000  |  |
| 20        | 210,000          | 100,000 | 70,000  | 50,000  | 40,000  | 30,000  |  |
| 25        | 170,000          | 80,000  | 50,000  | 40,000  | 30,000  | 20,000  |  |
| 30        | 150,000          | 70,000  | 50,000  | 30,000  | 30,000  | 20,000  |  |
| 35        | 120,000          | 60,000  | 40,000  | 30,000  | 20,000  | 20,000  |  |

#### Dry hash output at a 4% / 6% yield (dry grams)

| Wash Time | Washes per batch |                 |                |                |               |               |  |  |
|-----------|------------------|-----------------|----------------|----------------|---------------|---------------|--|--|
| (min)     | 1                | 2               | 3              | 4              | 5             | 6             |  |  |
| 5         | 27,200 / 40,800  | 13,600 / 20,400 | 8,800 / 13,200 | 6,800 / 10,200 | 5,200 / 7,800 | 4,400 / 6,600 |  |  |
| 10        | 16,000 / 24,000  | 8,000 / 12,000  | 5,200 / 7,800  | 4,000 / 6,000  | 3,200 / 4,800 | 2,400 / 3,600 |  |  |
| 15        | 11,200 / 16,800  | 5,600 / 8,400   | 3,600 / 5,400  | 2,800 / 4,200  | 2,000 / 3,000 | 1,600 / 2,400 |  |  |
| 20        | 8,400 / 12,600   | 4,000 / 6,000   | 2,800 / 4,200  | 2,000 / 3,000  | 1,600 / 2,400 | 1,200 / 1,800 |  |  |
| 25        | 6,800 / 10,200   | 3,200 / 4,800   | 2,000 / 3,000  | 1,600 / 2,400  | 1,200 / 1,800 | 800 / 1,200   |  |  |
| 30        | 6,000 / 9,000    | 2,800 / 4,200   | 2,000 / 3,000  | 1,200 / 1,800  | 1,200 / 1,800 | 800 / 1,200   |  |  |
| 35        | 4,800 / 7,200    | 2,400 / 3,600   | 1,600 / 2,400  | 1,200 / 1,800  | 800 / 1,200   | 800 / 1,200   |  |  |

### A work day with 30 gallon Bruteless vessels

#### Number of completed batches per 8 hour shift

= Common zones of operation

| Wash Time | Washes per batch |    |    |    |    |    |  |
|-----------|------------------|----|----|----|----|----|--|
| (min)     | 1                | 2  | 3  | 4  | 5  | 6  |  |
| 5         | 68               | 34 | 22 | 17 | 13 | 11 |  |
| 10        | 40               | 20 | 13 | 10 | 8  | 6  |  |
| 15        | 28               | 14 | 9  | 7  | 5  | 4  |  |
| 20        | 21               | 10 | 7  | 5  | 4  | 3  |  |
| 25        | 17               | 8  | 5  | 4  | 3  | 2  |  |
| 30        | 15               | 7  | 5  | 3  | 3  | 2  |  |
| 35        | 12               | 6  | 4  | 3  | 2  | 2  |  |

#### Fresh frozen flower material input (wet grams)

Based on 5,000 grams per 30 gallon vessel

| Wash Time | Washes per batch |         |         |        |        |        |  |  |
|-----------|------------------|---------|---------|--------|--------|--------|--|--|
| (min)     | 1                | 2       | 3       | 4      | 5      | 6      |  |  |
| 5         | 340,000          | 170,000 | 110,000 | 85,000 | 65,000 | 55,000 |  |  |
| 10        | 200,000          | 100,000 | 65,000  | 50,000 | 40,000 | 30,000 |  |  |
| 15        | 140,000          | 70,000  | 45,000  | 35,000 | 25,000 | 20,000 |  |  |
| 20        | 105,000          | 50,000  | 35,000  | 25,000 | 20,000 | 15,000 |  |  |
| 25        | 85,000           | 40,000  | 25,000  | 20,000 | 15,000 | 10,000 |  |  |
| 30        | 75,000           | 35,000  | 25,000  | 15,000 | 15,000 | 10,000 |  |  |
| 35        | 60,000           | 30,000  | 20,000  | 15,000 | 10,000 | 10,000 |  |  |

#### Dry hash output at a 4% / 6% yield (dry grams)

| Wash Time | Washes per batch |                |               |               |               |               |  |  |
|-----------|------------------|----------------|---------------|---------------|---------------|---------------|--|--|
| (min)     | 1                | 2              | 3             | 4             | 5             | 6             |  |  |
| 5         | 13,600 / 20,400  | 6,800 / 10,200 | 4,400 / 6,600 | 3,400 / 5,100 | 2,600 / 3,900 | 2,200 / 3,300 |  |  |
| 10        | 8,000 / 12,000   | 4,000 / 6,000  | 2,600 / 3,900 | 2,000 / 3,000 | 1,600 / 2,400 | 1,200 / 1,800 |  |  |
| 15        | 5,600 / 8,400    | 2,800 / 4,200  | 1,800 / 2,700 | 1,400 / 2,100 | 1,000 / 1,500 | 800 / 1,200   |  |  |
| 20        | 4,200 / 6,300    | 2,000 / 3,000  | 1,400 / 2,100 | 1,000 / 1,500 | 800 / 1,200   | 600 / 1,200   |  |  |
| 25        | 3,400 / 5,100    | 1,600 / 2,400  | 1,000 / 1,500 | 800 / 1,200   | 600 / 900     | 400 / 600     |  |  |
| 30        | 3,000 / 4,500    | 1,400 / 2,100  | 1,000 / 1,500 | 600 / 900     | 600 / 900     | 400 / 600     |  |  |
| 35        | 2,400 / 3,600    | 1,200 / 1,800  | 800 / 1,200   | 600 / 900     | 400 / 600     | 400 / 600     |  |  |