

Vibratory Tumbler



Machine Purpose: Debur, Finish, polish, clean and remove minor tooling marks from production parts

Safety: **Must wear safety glasses while operating machine. Keep.** Beware of objects that dangle and could get caught in cutting tool. Beware of flying metal chips **This machine has no built-in safety system.**

Materials: Metals, Plastics, Synthetics

Machine Specs: Can be used with liquid prevent oxidation and dust

Limitations: 18lbs capacity max (parts and media), 10" long part max, recommended parts under 5"

Instruction Required: No, but check with shop staff if unsure of proper usage

Consumables: Bring own media as required by project



MHUB

Media Specs

Medias: Choose a size and shape to fit your parts, media should not get stuck in holes or crevices

Type | Ratio (volume) | Wet/Dry | Finish | Stage | Materials

Corn Cob | 4:1 ratio | Dry | Polish | Final | Any/Soft Metals

Walnut | 4:1 ratio | Dry | Polish | Final or Semi Final | Any/Soft Metals

Plastic Pyramids | 3:1 | Wet or Dry | Medium/Rough | Any/Soft Metals

Ceramic | 3:1 | Wet | Depends on grit purchased (rough/heavy – fine/shiny | Hard Metals

Porcelain Balls | 3:1 | Wet | Mirror Finish | Final | Hard Metals

Weights

Common Weights with full bowls (even with interior hold down bolt)

Corn Cobs – 12.35lbs – Allowable amount of parts 5.65lbs (maxed out due to weight limit)

Plastic Pyramids (dry)- 17lbs – Allowable amount of parts 1lbs

1 pint of water = 1.25lbs

Volumes

Volume media with full bowl – 2.5 gallons/570 cubic inches/2550cc

Part allowable volume = Media volume/material ratio

Remember to keep total weight under 18 lbs

Running Wet

Liquids: Choose liquid based on part material type and desired results

Cleaners- Prevents dust from media degradation from sticking to parts.

Cleaner/Degreasers- Used with parts that have been machined to remove coolants, oils and other liquid contaminants

Rust prevention- Best used with materials with high iron content to prevent flash rusting

Liquid volume should only be enough to wet material.



MHUB

Swapping Media:

1. Remove center handle bolt to remove lid, remove 2nd center bolt to loosen bowl.
2. Pour media into corresponding pail
3. Secure bowl with center rubber washer, metal washer, lock washer and handle bolt. Tighten snugly.
4. Add media

Adding media: Do not exceed 18 total pounds in vibratory unit

1. Choose appropriate media for job/parts
2. Pour into basin necessary amount (for best results parts should be able to submerge beneath the top level.

Using liquids:

Not using Liquids make sure the hose clip is pinched to prevent media and dust from spilling during operation

If using liquid : place a container large enough to catch dripping from tube under spigot, make sure pinch clip is released

Use only enough liquid to wet media, there should be no standing liquid

Always dry media before returning media to container after swapping

Loading Parts: With proper parts to media ratio place parts evenly spaced throughout media. Make sure to keep a count of how many parts you placed in the machine.

Running: Make sure unit is fully supported on a table, flip switch on.

Removing Parts: Turn off machine. Gently sweep hand through media until you find all the parts you placed in the tumbler.

Duration: Minimum time for results is typically 6hrs, but you can leave material in tumbler for as long as desired.

