

Pugmills

VENCO - STANDARD PUGMILL (NON DE-AIR)



AVAILABLE SIZES:

- 75mm (3") nozzle
136m (5.3") barrel
- 180kg/hr (400lb/hr) production
- Hopper opening 115x100mm
[4½x4"]

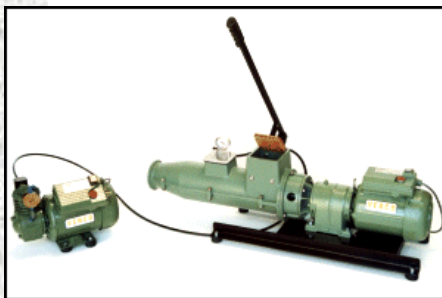
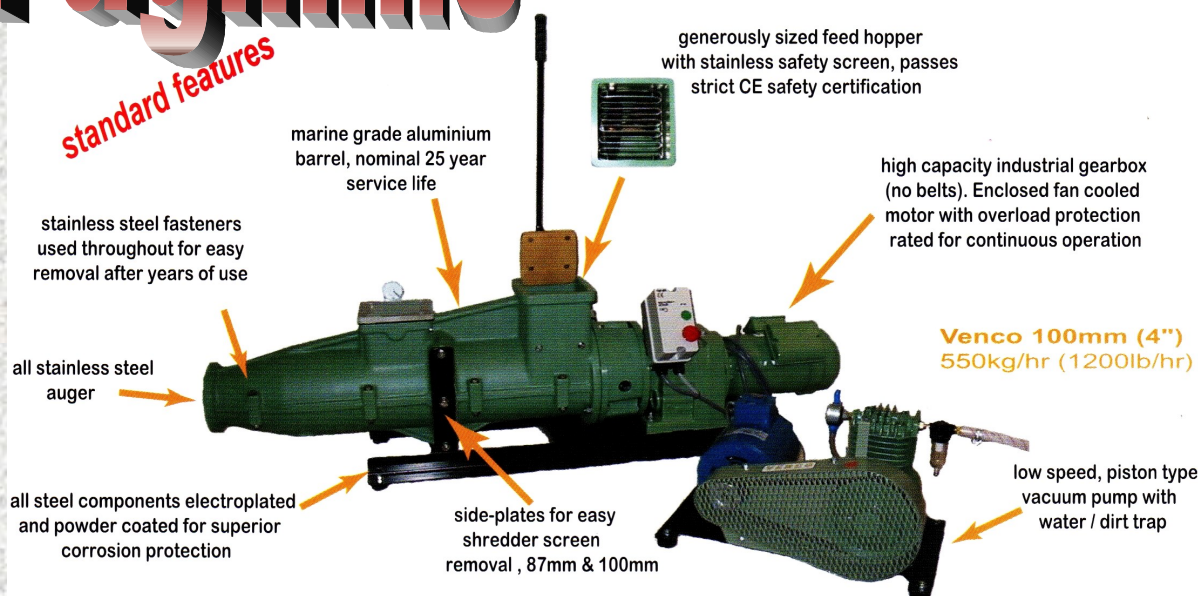
L x W x H [crated]
1.08 x 0.34 x 0.37 m [43" x 13" x 15"]
54 kg

FEATURES:

- **Robust construction**, suitable for blending, mixing and reworking clay.
- **Stainless auger shaft and blades.**
- **Stainless steel MESH shredder screen.** [NOT cheap perforated plates.] This allows Venco pugmills to use lower capacity motors saving you operating expenses.
- Base protected against corrosion with zinc plating and durable black powder coating.
- Main mixer shaft bearings - sealed ball races, lubricated for life, protected by "O" ring seals.
- **Cast marine grade aluminium barrel** - Split longitudinally for easy cleaning. Stainless steel barrel bolts for easy removal.
- Gear motor main drive with totally enclosed, fan cooled motor, single phase 0.37kW [370W] with integral thermal overload protection.
- High capacity industrial gearbox, for quiet operation.
- This Venco pugmill can be upgraded to a de-airing version using the de-air upgrade kit.

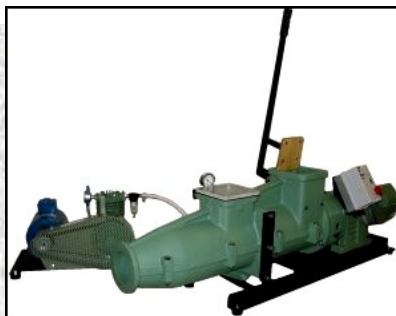
Pugmills

VENCO - DE-AIRING PUGMILLS



Venco 75mm (3") de-airing

75mm (3 inch) NOZZLE 136mm Barrel - 0.37kW (1/2 HP) Single Phase with 0.18kW (1/4 HP) vacuum pump. **180kg/hr** (400lb/hr) production



Venco 87mm (3.5") de-airing

87mm (3.5 inch) NOZZLE 150mm Barrel - 0.75kW (1 HP) Single Phase with 0.56kW (3/4 HP) vacuum pump. **360kg/hr** (800lb/hr) production.



Venco 100mm (4") de-airing

100mm (4 inch) NOZZLE 200mm Barrel - 1.5kW (2 HP) Single Phase with 0.56kW (3/4 HP) vacuum pump. **550kg/hr** (1200lb/hr) production.

FEATURES:

- High capacity piston vacuum pumps with single phase motors - with incorporated air / water filter. (0.18kW vacuum pump for 75mm model, 0.56kW vacuum pump for 87mm and 100mm)
- Robust construction, suitable for blending, mixing and re-working clay.
- Stainless Steel auger shaft and blades.
- Stainless steel MESH style shredding screens, [NOT cheap perforated plates]. This allows Venco pugmills to use lower capacity motors saving you operating expenses.
- 87mm (3.5") and **100mm** (4") have access slots on the sides of the barrel for removing the shredding screens without the need to open the barrel.
- Base protected against corrosion with zinc plating and durable black powder coating.
- Main mixer shaft bearings - sealed ball races, lubricated for life, protected by "O" ring seals
- Cast marine grade Aluminium barrel - split longitudinally for easy cleaning. Stainless barrel bolts for easy removal.
- Gear motor main drive with totally enclosed fan cooled motor, single phase, with integral thermal overload protection. (1.5kW - 100mm model, 0.75kW - 87mm model, 0.37kW - 75mm model).
- High capacity industrial gearbox.
- Vacuum gauge fitted as standard.

Pugmills

**VENCO - INDUSTRIAL SERIES -all
stainless de-airing pugmills**

INDUSTRIAL series



'Industrial Series pugmill
200mm (8") barrel

The Venco, Industrial series pugmills are the workhorse of our range. The heavy duty design and all stainless steel construction makes these units ideal for large-scale clay production / processing of up to **5500kg/hr (12,100lb/hr)**.

The Industrial series are manufactured on a semi-custom basis. Various options include different motor capacities, mechanical variable speed drive, barrel diameters and nozzle orifice dimensions (expansion chambers).

The Venco Industrial Series is available with an optional ***mechanical variable speed drive***. Simply turning the hand-wheel adjacent to the motor varies the auger speed hence the production capacity. The auger speed is infinitely variable between 7- 28RPM.

The Venco system actually creates a torque boost that is inversely proportional to the auger speed chosen. i.e. if the auger speed is halved the auger torque is doubled. The other major advantage of this system is that the motor always turns at a constant speed, for which it was designed, hence operating more efficiently and with stable cooling from the motor driven cooling fan.

The large volume, twin auger mixing chamber efficiently blends the 'raw' ingredients, and permits effortless feeding. The twin augers, directly beneath the feed hopper, ensure the clay is swiftly drawn away and effectively mixed. This unique design, completely shields the user from the rotating blades without the need for a restrictive safety grille, which is commonly used in traditional lever/pressing systems.

FEATURES

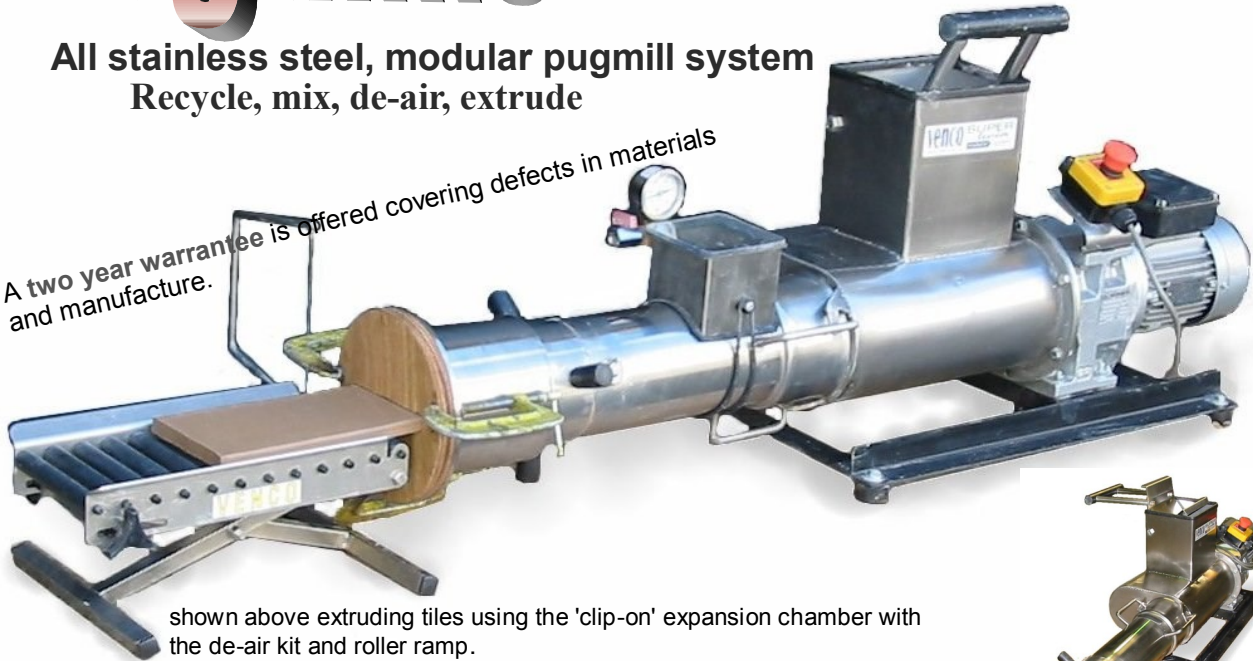
- All Stainless steel augers with stainless steel barrel mixing chamber, and fittings.
- Large volume, twin auger mixing chamber provides effortless, self-feeding.
- Twin, meshing, augers ensure efficient blending. Single heavy duty extruding auger provides exceptional thrust.
- Totally safe manual feed system – Venco rotating bucket concept, requires no restrictive safety screens
- Optional long chute 'drop' feeder for increased feeding rate and ability to feed large blocks.
- Heavy duty, anti-rotation wear ribs within barrel.

Pugmills Venco-

SUPER
twin
modular system

All stainless steel, modular pugmill system
Recycle, mix, de-air, extrude

A two year warranty is offered covering defects in materials and manufacture.



shown above extruding tiles using the 'clip-on' expansion chamber with the de-air kit and roller ramp.



The '**modular system**' allows you to **save money** by purchasing only what you need now and easily upgrade later as your requirements develop.

The **SUPER twin** pugmill was designed using a 'clean sheet of paper' approach incorporating totally new and innovative concepts. We have listened to what you have suggested resulting in a pugmill that is high quality, adaptable (one unit for mixing, re-cycling, de-airing, extruding) and incredibly easy to use yet at an affordable price.

Innovative feed system. Clay is fed to the pugmill via a unique 'bucket feeder', eliminating the effort needed to pull a lever as with conventional pugmills. A novel twin auger mixing chamber, containing two counter rotating augers, quickly draws the clay away from the feed area and thoroughly blends it within the large volume, stainless steel, mixing chamber. The feeder completely removes the risk of injury caused by loading clay into the hopper, making the **SUPERtwin** ideal for classroom as well as professional operation. This system allows the pugmill to be left operating while the next piece of clay is being loaded. This removes the need for safety switches and other methods used by competing systems which cut power to the motor when the pugmill is being loaded –this crude approach creates unnecessary wear and strain on the drive train resulting in a reduced service life of the motor and gearbox.

This safe, easy loading feature is unique to the **SUPERtwin** and creates a definite advantage over other pugmills.

All stainless steel. All components, which come into contact with clay, are either stainless steel or plastic therefore eliminating any chances of clay contamination and staining even when using porcelains.

Tool-less barrel removal. Opening the barrel to clean a pugmill is a chore that no-one enjoys. Firstly finding the correct tools and then wrestling with frozen bolts, then finally applying gaskets to ensure a good vacuum is achievable. The designers of the **SUPERtwin** have got around this by creating an innovative bayonet (twist-lock) locking system. This allows both the barrel and nozzle (or expansion chamber/ extrusion die holder) to be removed quickly and simply without the need for any tools - not one! Similarly, even the shredder screen may be removed for cleaning in less than one minute - less time than it takes to even find the correct spanners.

close-up of the bucket feeder loading a piece of clay - just tip the handle

The **SUPERtwin** has been designed as a modular system, so the user need only purchase what he or she needs for the process required. At any stage the **SUPER twin** may be upgraded (or down-graded) easily and quickly in a modular clip-on approach. The options may be purchased at the same time as the base unit or at a later stage as required. Since the **SUPER twin** has been designed as a modular system up grading is a very simple and quick task, requiring no tools or mechanical expertise.



Pugmills Venco-SUPER twin modular system

The same unit can be used for mixing/blending, recycling dry scrap, de-airing and extruding. Simply choose the module for the job and clip it on.

MODULAR DE-AIR UPGRADE KIT.

As the **SUPERtwin** is sold as a non de-airing unit, many users will opt for the de-air upgrade kit at the time of purchase. Attaching the vacuum system is very straight forward and should take little more than a few minutes. The vacuum chamber is designed to clip onto the barrel allowing easy removal for cleaning. A mesh type shredder screen, also stainless steel, is included with the de-air upgrade kit. All Venco pugmills use mesh type shredder screens over cheaper perforated plate screens which are used by many competing units. A mesh screen offers greatly lower resistance to clay flow with the added advantage of more clay exposure for better de-airing.

The vacuum pump is a low RPM (quiet) piston style pump and comes with a water/dirt trap and all other components including gauge, dump tap and 2 metres (6'5") vacuum hose.

MODULAR EXTRUSION KIT.

An optional, all stainless steel, extruding kit is available that clips onto the end of the barrel replacing the standard nozzle. A set of 4 dies come with the extrusion kit allowing extrusion of a variety of shapes from tiles 80mmx12mm (3"x1/2"), reduced diameter 50mm (2") round etc. Home made wooden or plexi-glass dies may also be made which simply fit into the die holder.



The 5 piece Modular extrusion kit

Please note: A pugmill should not be used for extruding small cross-section shapes as it can unduly overload the motor and gearbox. Only dies with relatively large cross sections should be used while small section extrusions should be made with a hand extruder.

EXPANSION CHAMBER KIT

The extrusion capacity of the pugmill may be increased by the use of the clip-on expansion chamber. The stainless steel expansion chamber is 150mm (6") diameter allowing the extrusion of wider cross sections than the above extrusion kit. The expansion chamber is not supplied with dies, but these may be home-made simply using plexi-glass or plywood. The dies may be bolted or clamped onto the expansion chamber. See the image of the Super-twin on the top of the page, showing the expansion chamber being used to make 125mm (5") wide tiles.



vacuum chamber fitted to the barrel



components of the de-air upgrade kit

CLAY RAMP

A roller bed is available to support the extruded body as it leaves the pugmill. The plastic rollers allow silky smooth transport for the clay, without damaging the extrusion. A cut-off bow is integrated into the ramp. The roller height is easily adjusted to accommodate the variable distance between the pugmill table and the base of different extrusion sections.

This quality, all stainless/plastic, unit is also suitable for use with most pugmills due to the adjustability.

Roller 'bed' dimensions 140mm x 350mm (5" x 13") Height



vacuum chamber fitted to the barrel



expansion chamber



70mm – 240mm (2.75" - 9.5")

Specifications (base unit);

- 80mm (3.1" nozzle) diameter
- non de-air 500kg/hr (1100lb/hr)
- blend dry scrap with multiple passes, just cut and pug into 100mm (4") logs and re-feed. Blend/recycle approx 120kg/hr (250lb/hr)
- barrel diameter 125mm (5")
- Motor 370W (1/2hp) 220/240V 50/60hz single phase
- LxWxH (crated with nozzle removed) 1.18 x 0.45 x 0.65m (47" x 18" x 25") 95kg

with de-air module

- de-air 400kg/hr (880lb/hr)
- upgrade from standard (non de-air) to full de-air pugmill in only minutes

Pug Mill—	75mm (3") STANDARD	75mm (3") DE AIR	87 mm (3.5") DE AIR	100mm (4") DE AIR	SUPER TWIN
Mini Pug Mill	63 mm Stainless Steel Nozzle		\$1,956.35		
Standard Non De-Air	\$2,924.35				
De Air Kit for above	\$1,543.30				
De Airing Pug Mills		\$4,171.75	\$5,359.75	\$12,509.75	
Stainless Steel		\$5,359.75			
Supper Twin Pug Mill					\$6,200.70
Extension Kit					\$379.50
Expansions Kit					\$542.85
Roller Ramp & Bow Cutting					\$602.25
SPARES for PUG MILLS					
Vacuum Chamber Gasket		\$18.70	\$22.00	\$25.30	
Barrel Gasket (centre Line)		\$18.70	\$22.00	\$41.80	
Shredding Screen—Standard		\$220.00	\$434.00 Set 2	\$434.00 .50 set of 2	
Shredding Screen—Coarse		\$236.50	\$500.50 Set of 2	\$500.50 Set of 2	\$286
Vacuum Gasket					\$41.80