

Drink tender coconut water easily

Sona John*

The tender coconut water, the wholesome natural beverage is mostly sold on the road sides and there is no means to sell the same inside the offices and buildings as the process of cutting the tender coconut is a tedious, hazardous and risky job and it needs special skill. Tender Coconut water is an unadulterated, natural, medicinal, drink for all peoples.

Shri. Subramani Pandiaraj, a mechanical engineer and an M Tech holder in design was once admitted in a nature cure home where he was given tender coconut water as a basic drink. The idea of designing an easy means for punching and splitting tender coconut was in his mind since then. He was having to his credit more than 20 years of experience in product design. He thought it was worthwhile to do some innovative products which will be useful to the society.

It was at this juncture that he was also asked by Shri. Prabhakar of BG Farms, Anamalai, Pollachi to redesign the technology he was already having to pierce tender coconut.



Operating the punch cum splitter

Based on their inputs he designed the Punch Cum Splitter and the same was launched in Agri Intex 2010 in CODISIA, Coimbatore.

Since its introduction, Shri. Pandiaraj has made many alterations in the product based on its field input and failures. Once the product was accepted, requests came for a low cost product, which triggered the development of Handy Punch Cum Splitter. The Economy Punch Cum Splitter is the economy version of Punch Cum Splitter and the Table Top Punch Cum Splitter is the economy version of Handy Punch Cum Splitter. Based on the market inputs, he is in the process of developing machines for dry coconut

splitting, coconut splitting and dehusking. Even when we know that tender coconut has all the natural health benefits, we go in for soft drinks to quench our thirst as tender coconuts are not easily available. For 100 soft drink outlets there are only 3 to 4 tender coconut outlets. Shri. Pandiaraj feels that this is because of the non availability of experienced persons to cut open the tender coconut.

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The punch cum splitter developed by Shri. Pandiaraj is a simple device that is easy to operate and do not require any special skills.

He is hopeful that with this device, it is definitely possible to increase the retailing outlets, thereby increasing the availability of tender coconuts and increasing the consumption and the market of tender coconut. This device can be easily used at shops, canteen, theatres, colleges, industries, bus stands, hospitals, railway stations, airport, park, exhibitions, marriage functions, etc.

Shri. Pandiaraj has also designed a tender coconut opener which can easily make a hole on tender coconut, to consume its water. This is a very simple and handy device that we can use even at home.

The punch cum splitter has a container at the base which has two compartments, one to store tender coconuts and the other with bag holding hooks for storing consumed tender coconuts. On the top of the container the punching and splitting mechanism is placed. The piercing tube is moved up and down using a manually operated lever. The punching mechanism has a locking device to hold the tender coconut when pulling the piercing tube from the tender



1. Punch cum splitter, 2. Economy punch cum splitter, 3. Handy punch cum splitter, 4. Table top punch cum splitter

coconut. The locking device has one fixed base and two sliding parts. After piercing the tender coconut, till the inner slider touches the top of the outer slider, the outer slider will lock the tender coconut and after that it will be lifted along with the inner slider. Depending upon the size of the tender coconut, the outer slider will be locked to the near by square teeth in the fixed base. A ring is provided at the base to the center of the punching pipe. Tubular adjuster is provided inside the ring to accommodate the various sizes of tender coconut.

The splitting is done using a stainless steel blade fitted with extended lever. The base of the splitting blade is placed at certain angle to transfer the cutting load to the center of the frame. A stopper is provided perpendicular to the base frame to place the tender coconut in a balanced position. One tray is provided at bottom of the top unit to collect the water spilling out of the tender coconut.

The tender coconut opener is another tool designed to make a hole on top of the tender coconuts to drink the water. It is made from a 19mm OD 0.6 mm stainless steel tube which was moulded with an ergonomically designed plastic handle.

The end of the stainless steel is having a cutting profile like a reversed saw tooth with sharp cutting edge along the periphery. In clockwise rotation, it will have smooth

cutting edge which will cut the soft tender coconut fibers and not pull the fibers. In anticlockwise rotation, it will cut the hard shell like a sharp saw tooth.

The tender coconut opener is having a plastic moulded stem in the middle of the tube for pushing out the material inside the tube, after opening the tender coconut.

In the top end of the stem it has snap fit such that it will lock to safeguard the sharp cutting edge during accidental falling and avoid contact to the fingers when not in use.

Shri. Pandiaraj has designed and developed full cycle projects in Sweeper, Scrubber Drier, Vacuum Cleaner, High Pressure Jet Cleaner, Vegetable Cutting equipment and Tender Coconut machines. He also has at his credit one US Patent in Vacuum Cleaner design (D528, 256). He has applied for two Indian patents for Tender Coconut machines. He has also designed and developed various re-engineering and reverse Engineering products

For more details contact: Subramani Pandiaraj, 6/4, Abirami Nagar, Bharathiyar Road, Ganapathy, Coimbatore -641006, Phone: +91 422 2531054, +91 9894949506, E-mail: apexdesigncenter@gmail.com. Distributor Kerala: V.P. David, Phone: 9946748333.



Shri. Pandiaraj (right) with the punch cum splitter, Shri. D.P. Prabhakar of DG Farm is also seen