Round Disposable Paper Dona Manufacturing Guide

A Technical and Business Overview for Eco-Friendly Tableware Production

1. Executive Summary

Disposable paper **Donas** (bowl-shaped small paper plates) are highly popular, eco-friendly food service items widely used across South Asian countries for street foods, festivals, and catering events. This document details the raw materials, machinery, specifications, and commercial attributes required to establish a high-efficiency production process.

2. Raw Material Specifications

The quality and performance of a disposable paper dona rely significantly on its grade and structural characteristics:

- **Paper Grade & Substance:** Typically uses 70 GSM to 250 GSM food-grade virgin paperboard, OCC paper, or Plain Release Paper (Dona/Pattal Grade).
- **Lamination/Coating:** Standard silver laminated sheets or thin Polyethylene (PE)/wax coating inside makes the bowls leak-proof, moisture-resistant, and capable of holding semi-liquid food items like curries and desserts safely.
- **Form Factor:** Available primarily in continuous roll form or pre-cut sheets tailored to match automatic or semi-automatic manufacturing feeds.

3. Standard Die and Output Sizes

The machine utilizes specific stamped molds (dies) to shape the paper through automated heat and pressure compression. Below is the standard industrial sizing and roll utility chart:

Die Size (Input)	Paper Roll Size	Ready Size (Corner-to-Corner)
4.0 Inch	4.0 Inch	3.0 Inch
4.5 Inch	4.5 Inch	3.25 Inch
5.0 Inch	5.0 Inch	3.75 Inch
5.5 Inch	5.5 Inch	4.125 Inch
6.0 Inch	6.0 Inch	4.375 Inch
7.0 Inch	7.0 Inch	5.25 Inch
8.0 Inch	8.0 Inch	6.0 Inch

4. Manufacturing Process & Machinery

Production is executed seamlessly utilizing automatic or semi-automatic Dona making setups via these stages:

1. **Feeding:** Raw material rolls or sheets automatically unfurl into the machine line smoothly.
2. **Molding & Heating:** The paper moves over standard lacquer-coated self-cutting dies where synchronized thermal pressure forms the crisp, concave round bowl shape.
3. **Edging & Trimming:** Outlines are neatly folded, crimped, and separated on precision self-cutting perimeter dies to guarantee uniform structural finishing.
4. **Ejection & Packaging:** Formed Donas are nested together systematically, usually packed in sets of 50 pieces for simple logistical handling.

5. Business & Regulatory Framework

- **HSN Classification: HSN Heading 4823** (covers other paper, paperboard, cut to size or shape, and items of paper pulp).
- **Target Utilities:** Quick-service restaurants, roadside culinary hubs, community feasts, wedding banquets, religious gatherings, and institutional caterers.
- **Value Proposition:** Entirely biodegradable alternative to rigid single-use plastics, requiring minor capital investment to initialize highly lucrative small to mid-scale manufacturing operations.