



# **AUTOMATIC PASTA & NOODLES MAKING PROCESS LINE**

Your Trusted Partner for Consultancy and Turnkey Project Execution



## COMPANY OVERVIEW

Salvin Industries is a leading engineering, technology and consulting conglomerate, working closely with diversified industries spanning across food processing, agriculture, plastics, chemicals, metals healthcare, packaging, Dealer, distributor, super stocks, marketing plan, product analysis and other industries and business sectors offering complete turn-key solutions including advanced engineering, Industry 4.0 solutions, digital transformation and expert technical and management consultancy. With 10+ years of experience and global presence in 8+ countries, Salvin Industries is serving from the most demanding to the most distant customers across the globe. We empower them for rewriting their future with our depths of knowledge, unique ideas, technical expertise, creative solutions and enduring results, all at the most optimal costs, right at their doorsteps.

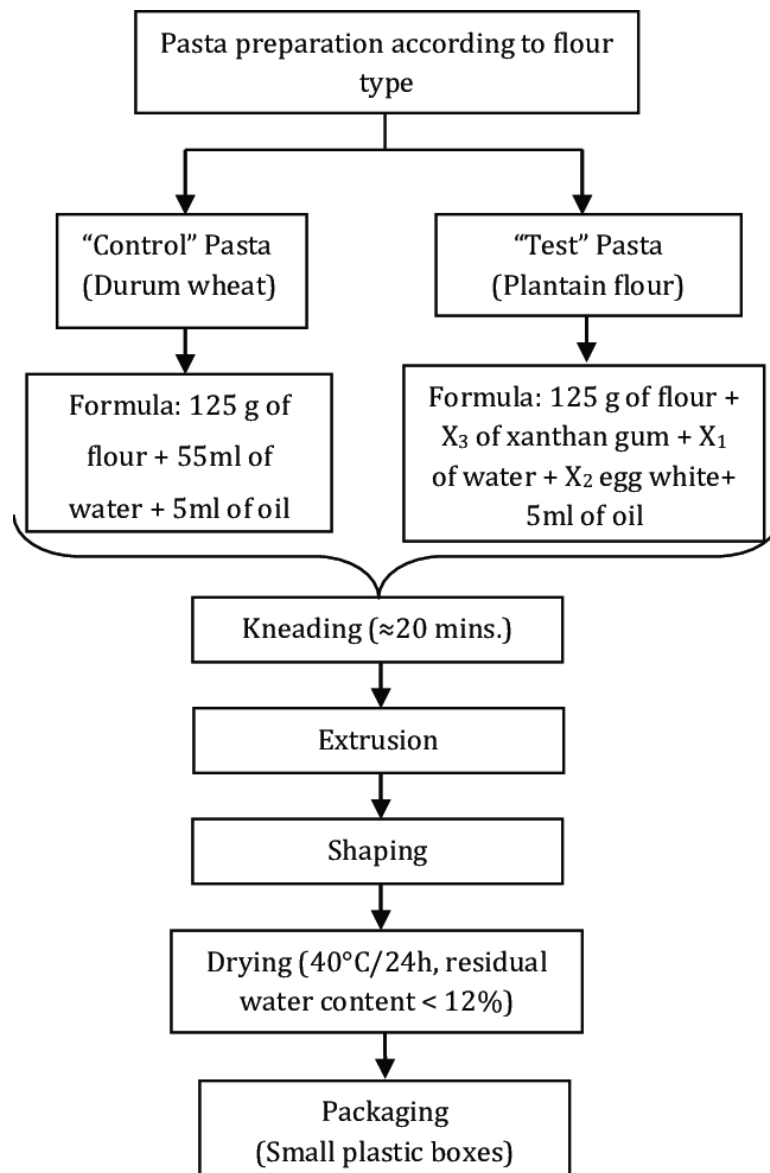
Armed with the eminence in technological expertise, global capabilities and a process driven approach, we have the ability to take on any challenging project. Crossing the geographical borders & cultures and living up to our core values Excellence, Respect, Care & Joy, we propel innovation to engineer solutions that build & foster equality. Working together as one team with all our business partners & associates, we are transforming industries, fueling economies, developing sustainable solutions and thereby elevating societies, globally. We realize the need to respond to the dynamism & speed with which the world is changing all around us and understand the need to anticipate

# PASTA & NOODLES

## MAKING PROCESS LINE

An automatic pasta making line is a complete, industrial-scale system that automates the entire process from mixing raw ingredients (semolina, water) to extruding, shaping, cutting, and sometimes pre-drying, offering capacities ranging from 50 kg/hr to over 1000 kg/hr. These stainless steel systems (often SS 304) include mixers, extruders with various dies, cutting units, and cooling conveyor systems to ensure consistent, high-quality production.

### P&L DIAGRAM PASTA NOODLES MAKING PROCESS





# PASTA & NOODLES

## MAKING PROCESS LINE

### THE PROCESS

#### Raw Material Receiving, Storage & Preparation

Durum wheat semolina (pasta) or soft wheat flour (noodles) is pneumatically conveyed from bulk tankers or big bags into storage silos. Flour is sieved and filtered to remove foreign matter and aerated to optimal density. Water is purified, temperature-controlled (35–45°C). Liquid eggs, spinach powder, or other enrichment ingredients are prepared in dosing tanks.



#### Dosing, Mixing & Kneading

Semolina/flour and water (plus eggs or additives) are precisely metered by gravimetric or volumetric dosers into pre-mixers. The crumbly dough then enters a final mixing chamber under vacuum (0.1–0.5 bar) to eliminate air bubbles, preventing oxidation and white chalky appearance. Low-speed mixing (70 rpm, 40–45°C) develops gluten network without overheating.

#### Shaping / Forming

A) Extruded Pasta: Dough is forced through a grooved extrusion cylinder by a Teflon-coated auger worm under 80–110 bar pressure. Dies (bronze/Teflon) shape long goods (spaghetti, fettuccine) with rotary blades for short cuts (penne, macaroni). Water jackets maintain 40–45°C.



B) Sheet-cut Noodles: Dough passes through progressive sheeting rollers with gap calibration, then slitters cut into variable-width strands.

# PASTA & NOODLES

## MAKING PROCESS LINE

### THE PROCESS

#### Primary Thermal Treatment

A) Pasta Pre-drying: Immediately after extrusion, pasta enters pre-dryer to reduce moisture rapidly from ~31% to 18–20%. This hardens the outer surface, prevents sticking, and prepares for final drying.



B) Noodle Steaming: Sheet-cut noodles pass through a multi-tier steamer where saturated steam gelatinizes starch, sets structure, and develops chewy texture.

#### Secondary Thermal Treatment

A) Pasta Final Drying: Critical multi-stage process in high-temperature dryers (up to 115°C) with controlled humidity cycles. Moisture is gradually reduced to 12–12.5% over 120–300 minutes. Stabilization zones allow moisture equilibration from core to surface, preventing cracking.



B) Noodle Frying (Instant): Noodles are portioned into molds, immersed in hot oil (140–160°C). Rapid dehydration creates porous structure for quick rehydration. Continuous oil circulation, filtration, and de-oiling remove excess fat.

# PASTA & NOODLES

## MAKING PROCESS LINE

### THE PROCESS

#### Cooling

#### Cooling & Stabilization

Heated product must be uniformly cooled before packaging to prevent condensation, mold growth, and texture degradation. Ambient or forced air reduces pasta temperature to 20–25°C. For fried noodles, air cooling solidifies oil and stabilizes crispness. Vibratory or belt conveyors spread product evenly.

Equipment:

Cooling belt, fluidized bed cooler, air blast cooler, vibrating spreader, conditioning tower



#### Intermediate Storage &

#### Intermediate Storage & Product Handling



Dried/cooled pasta is temporarily held in surge bins or silos. Long pasta is transferred from drying sticks to horizontal conveyors; short pasta is gravity-fed. Noodle blocks are aligned and counted. This buffer stage ensures continuous flow to packaging despite line speed variations.

Equipment: Stick conveyor, product accumulator, buffer silo, aligning conveyor, metal detector

#### Weighing, Filling

#### Weighing, Filling & Packaging

Automatic scales weigh precise portions (gravimetric or volumetric). Long pasta is horizontally cartoned with mechanical pushers; short pasta is vertically dropped into bags or cartons. Flexible pouches use form-fill-seal systems. Cartons are sealed, check-weighed, inkjet coded, and case-packed. Nitrogen flushing optional for extended shelf life.

Equipment: Multi-head weigher, vertical/horizontal cartoner, form-fill-seal machine, checkweigher, metal detector, case packer, palletizer .







# LET'S WORK TOGETHER



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