



PP & ABS Manufacturing in Afghanistan — Professional Business Proposal

Purpose: Launch a compact, scalable plastics program using **two injection machines** and **two materials (PP & ABS)** to supply high-demand domestic products: foodware, paint buckets, storage & home items (incl. fruit baskets), and luggage shells.

1) Executive Summary

- **Fast start, low risk.** Proven SKUs; phased rollout with quick-revenue items first.
 - **Two presses only.** 220–260T (foodware/packaging) and 450–500T (luggage/large boxes).
 - **Brand-ready decoration.** In-Mold Labeling (IML), Heat-Transfer Labeling (HTL), screen & pad printing.
 - **Afghanistan-first supply chain.** Local manufacturing, import substitution, service & spares via Sanaatchi.
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2) Company Introduction — About Sanaatchi Industrial Vision

Sanaatchi Industrial Vision is a turnkey manufacturing partner for Afghanistan. We design, supply, install, and ramp industrial production lines with single-partner accountability. Our scope includes:

- **End-to-end delivery:** machines, molds, utilities, auxiliaries, QC toolkits.
 - **Sourcing & logistics:** consolidated procurement of equipment, raw materials, and parts; multimodal cargo from China and the region to Afghanistan.
 - **Compliance & documentation:** COA/SDS, food-contact certifications, factory acceptance, and start-up reports.
 - **Training & ramp-up:** process windows, SOPs, maintenance plans, and local after-sales support.
 - **Spare parts & continuity:** rolling supply of consumables, inks/films, and critical spares.
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3) Market Opportunity (Afghanistan)

- Heavy reliance on imports for everyday plastics (foodware, buckets, storage, luggage).
 - Stable institutional demand (canteens, NGOs, public procurement) and growing retail channels.
 - Compact tooling and dual-use machines enable rapid payback and flexible product mix.
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4) Product Portfolio (Phase-1)

A. Foodware (PP)

- Kids **plates / bowls / cups** (microwave-/dishwasher-ready PP)
- **Canteen & street-restaurant plates** (heavy-duty PP)
- **Food containers + lids** (takeaway/meal-prep)
Decoration: IML (full color), or pad/screen print for logos/markings.

B. Packaging (PP)

- **Paint buckets 4 kg & 10 kg + common lid**
Decor options: HTL for full-color wraps; **screen** for 1–2 color large logos; **pad** for lids/date codes; **IML** for highest durability at volume.

C. Storage & Home (PP)

- **50–60 L storage box + lid** (stackable ribs, hand grips)
- **Fruit & vegetable baskets** (market and household use)

D. Luggage (PP & ABS)

- **Suitcase shells** (sizes 20" / 24" / 28"):
 - **PP line:** tough, flexible, value segment
 - **ABS line:** stiffer, glossy, premium segment
 - **Accessories sourced:** spinner wheels, telescopic handles, locks, frames/zip
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5) Equipment Plan (2 Injection Machines)

Machine A — Packaging & Foodware Line

- 220–260 tons, shot 0.8–1.0 kg (PP)

- **Runs:** plates/bowls/cups, canteen plates, food containers/lids, bucket lids
- **Decoration cell:** IML robot + magazines (for plates/containers)
- **Printing cell:** 2-color pad printer + flame/corona pre-treat

Machine B — Suitcase & Big Box Line

- **450–500 tons**, shot **2.0–2.5 kg** (PP/ABS)
- **Runs:** suitcase shells (PP & ABS), 10 kg bucket body, large storage-box body
- **Auxiliaries:** ABS hopper dryer (80–85 °C), mold-temp control (50–70 °C)

Shared Auxiliaries

Chiller, air compressor, grinders (separate loops for food vs. industrial), QC bench (dyne pens, cross-hatch cutter, rub-test), small curing oven, conveyors, packing tables.

6) Tooling Scope (initial set)

- **Kids plate Ø18–20 cm** — 2-cavity, IML-ready, ~60–80 g/pc
- **Kids bowl 350–450 ml** — 2-cavity, IML-ready, ~70–90 g/pc
- **Kids cup 200–250 ml** — 4-cavity, ~30–40 g/pc
- **Canteen compartment plate** — 1–2 cavity, ~120–150 g/pc
- **Food container base** — 4-cavity; **lid** — 4–6 cavity (IML on selected SKUs)
- **Bucket bodies 4 kg & 10 kg** — 1-cavity each; **common lid** — 2-cavity
- **Storage box body 50–60 L** — 1-cavity; **lid** — 2-cavity
- **Suitcase shells (per half) 24"** — 1-cavity (PP) + 1-cavity (ABS)

7) Raw Materials & Consumables (PP, ABS & Decoration)

Polypropylene (PP)

- **Grades:** HPP for lids/flatware; **ICP** for buckets, storage boxes, PP suitcases; **RCP** for clearer foodware.
- **Typical MFI (230 °C/2.16 kg): 3–12 g/10 min** (lower MFI → stronger parts; higher → thin-wall flow).
- **Options:** **Food-contact** grades (FDA/LFGB), **UV-stabilized** (suitcases/outdoor), **talc-filled 10–20%** if extra stiffness required.

ABS

- **Grades:** GP-ABS (high-gloss shells), **impact/heat-resistant** grades for tougher or hotter service.
- **Drying:** 80–85 °C for 2–4 h before molding.

Masterbatches & Additives (PP-carrier unless noted)

- **White** (TiO₂ 50–70%), **Black**, custom **Color MB** (Pantone/RAL).
- **UV stabilizer** 1–2%, **antioxidant**, **slip/antiblock**, **clarifier** (RCP), **antistatic** (bins).
- **Cost-reduction (non-food):** CaCO₃ **MB 10–20%** for buckets/lids where allowed.

Decoration Supplies

- **IML labels** (PP film 50–80 µm), corona-treated, **reverse-printed** with food-grade inks, die-cut; target surface energy ≥**38 dynes/cm**.
- **Heat-transfer films (HTL)** — PP-compatible adhesive; full-color rolls with registration marks.
- **Screen & Pad inks** — **2-component** polyolefin systems (ink + hardener); thinners/retarders.
- **Pad printing** — clichés (photopolymer/thin-steel), silicone pads **30–50 ShA**; cleaning solvents.
- **Screen printing** — meshes **120–140T**, squeegees, emulsions.

Compliance & QA

- **Foodware:** FDA/LFGB/EC 10/2011 migration certificates for PP, IML films & inks.
- **General:** RoHS/REACH; batch COA; dyne pens (38/40/42), cross-hatch & rub-test kits.

Starter Order (first 1–2 months; adjust to forecasts)

- **PP (foodware & containers):** 8–12 t
 - **PP-Impact (buckets/boxes/PP shells):** 10–15 t
 - **ABS (ABS shells):** 6–10 t
 - **Color/white/black MB:** 3–5% of planned resin usage
 - **IML labels:** 20k–50k sets (sizes per mold)
 - **HTL film:** 5–10 rolls/SKU (by print height & repeat)
 - **Inks:** pad 2–4 kg + hardener; screen 5–10 kg; solvents & cleaners
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8) Branding & Decoration Menu (when to use what)

- **IML:** premium look, dishwasher-durable; best for kids plates & branded food containers.
 - **HTL:** flexible, full-color without new molds; excellent for buckets and curved parts.
 - **Screen:** lowest per-piece cost for big 1–2 color logos on flat/round surfaces.
 - **Pad:** small precise marks (lids, rims, date/batch coding).
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9) Capacity Guide (indicative per 8-hour shift)

- **IML kids plate (2-cavity):** ~360–480 pcs
 - **Food container base (4-cavity):** ~2,000–3,000 pcs
 - **Paint bucket body (10 kg):** ~300–450 pcs
 - **Storage box body (50–60 L):** ~480–640 pcs
 - **Suitcase shells (per half):** ~320–480 pcs
Actual output depends on mold design, cycle time, resin, and staffing.
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10) Quality & Compliance

- **Foodware:** food-approved PP, certified IML films/inks; non-contact logos for pad/screen prints.
 - **Testing:** dyne $\geq 38\text{--}42$ dynes/cm (pre-treat), cross-hatch adhesion, dishwasher cycles, drop/stack tests, suitcase roll/handle-pull.
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11) Implementation Plan (example)

1. **Month 0–1** — SKUs + artwork finalized; machine & mold POs; labels/inks booked.
 2. **Month 2–3** — Install **Machine A**; start foodware + buckets (screen/pad/HTL).
 3. **Month 3–4** — Install **Machine B**; ramp PP suitcases & storage boxes.
 4. **Month 5+** — Add IML on hero SKUs; launch **ABS suitcase line**.
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12) Investment Snapshot (planning ranges)

- **Injection Machines:** 220–260T \$30k–35k; 450–500T \$45k–60k.
- **IML cell (robot + magazines + vacuum/static):** \$6k–10k.

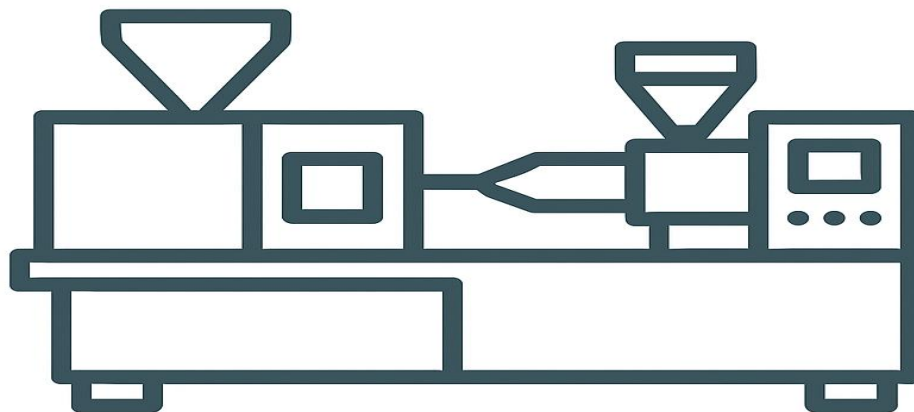
- **Pad printer + pre-treat + small oven: \$1.5k–4k.**
 - **HTL round machine (buckets): \$1.5k–6k; screen printer: \$0.5k–3k.**
 - **ABS dryer: \$2k–4k.**
 - **Indicative mold ranges:** plates/bowls/cups **\$6k–10k**; containers/lids **\$8k–12k**; bucket body **\$10k–12k**, lid **\$6k–8k**; storage box body **\$10k–15k**, lid **\$8k–10k**; suitcase shell (per half) **\$15k–20k**.
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13) Risk & Mitigation

- **Food vs industrial crossover** → segregated material streams, separate regrind loops, SOPs.
 - **Label/ink adhesion** → mandatory pre-treat & QA tests; vetted suppliers.
 - **Power/logistics variability** → UPS/voltage stabilizers; Sanaatchi-managed supply & spares.
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14) Illustration of Equipment and Output Products

- **Injection machine illustration**



- **Printing equipment example**



- **Storage & Home example**



- **Industrial paint buckets**



- **Luggage (PP & ABS)**

- *Blue ABS luggage set example of ABS luggage set (rigid and premium)*
- *Pink polypropylene luggage set example of PP luggage set (lightweight and flexible)*



15) Contacts

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Prepared by Sanaatchi Industrial Vision — Turnkey industrial solutions for Afghanistan.