



Tti Testing Laboratories

OVER 30 YEARS OF EXCELLENCE IN QUALITY ASSURANCE



INSPECTION DIVISION • Tti INSPECTIONS PVT LTD

Inspections & audits

Factory inspections and audits, from first sample to sealed container.

Independent, third-party inspection for quality control, risk reduction and confident supply chain decisions, from raw material evaluation to shipment readiness. Tti Labs' inspection company, Tti Inspections Pvt Ltd, is ISO/IEC 17020 accredited (PNAC IB-006).



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- 09 Food & agriculture
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www.ttilabs.net



FIRST IN PAKISTAN

ISO/IEC 17020: first in Pakistan for textiles, food and cosmeceuticals.

PNAC accreditation IB-006, first granted on 13 September 2012.

Tti LABS • IN SERVICE SINCE 1995

Independent, third-party inspection across Pakistan.

A test tells you what a product is made of. An inspection tells you whether the factory made it correctly. Together they give a buyer complete confidence in what they receive.

Tti Inspections Pvt Ltd is a separate, ISO/IEC 17020 accredited company within the Tti Labs group. Its full-time inspectors work across Pakistan. 1,500+ global brands trust Tti Labs.

- ✓ ISO/IEC 17020 accredited inspection body, PNAC IB-006 (Type A)
- ✓ ISO/IEC 17025 accredited testing laboratory, PNAC LAB 022
- ✓ PSQCA approved inspection agency
- ✓ Accredited by PNAC, a signatory to the Global ACI MRA (formerly ILAC MRA)
- ✓ Booking within 24 hours; report in the next 24 hours after inspection
- ✓ Head office in Lahore; offices in Karachi, Faisalabad and Sialkot; liaison points in Multan and Kasur



Inspection



Audits



Testing

Reports in
24 h

PNAC IB-006 · ISO/IEC 17020 · TYPE A

ISO/IEC 17020 Type A, on the PNAC register.

- ✓ Accreditation No. IB-006, Type A
- ✓ ISO/IEC 17020:2012
- ✓ First granted by PNAC on 13 September 2012
- ✓ Valid until 12 September 2027, with regular surveillance

PNAC accredits Tti Inspections Pvt Ltd to ISO/IEC 17020:2012 as a Type A inspection body. The accreditation appears on the PNAC active register.

- ✓ PNAC is a signatory to the Global ACI MRA (formerly ILAC MRA)
- ✓ 347-S Quaid-e-Azam Industrial Estate, Kot Lakhpat, Lahore

Three standards, three documents

Holding both accreditations in one group lets a question raised during an inspection travel into a test report without changing supplier.

ISO/IEC **17020**

Inspection bodies

Inspection and verification reports on goods, processes or sites

Tti Inspections Pvt Ltd ·
PNAC IB-006

ISO/IEC **17025**

Testing and calibration laboratories

Test reports for specific methods and parameters

Tti Testing Laboratories ·
PNAC LAB 022

ISO/IEC **17065**

Certification bodies

Certificates of conformity for products, processes or services

A separate appointment · not
an inspection or test report

PNAC IB-006 • ACCREDITED SCOPE

What IB-006 covers.

A PNAC scope names the work a body is accredited to do. IB-006 covers textiles and textile products, and food and cosmeceutical products. Tti Labs inspectors also cover a wider range of products.

ITEMS INSPECTED	TYPE AND RANGE OF INSPECTION	METHODS AND PROCEDURES
Textiles and textile products	Pre/post shipment inspection • FRI • DPI • FI • loading supervisions	ASTM D5430 (fabrics) • ISO 2859-5 (garments) • ANSI Z1.4-2008
Food and cosmeceutical products	Pre/post shipment inspection: visual inspection, weight, quality, quantity, marking, packing and loading	GAFTA 124 • Tti/QMS/SOP-24

Source: PNAC accreditation document IB-006, Tti Inspections (Pvt.) Ltd, Lahore, dated 13-12-2024.

☒ SOFTLINES 09 GROUPS

☒ FOOD & AGRICULTURE 08

☒ HARDLINES 04


SOFTLINES

Textiles & raw materials

Cotton bales, yarn, fabric and denim



SOFTLINES

Apparel & home textiles

Uniforms, workwear, sportswear, caps, socks; beddings, towels, bathrobes, sleeping bags



SOFTLINES

Footwear, leather & PPE

Footwear and leather products; PPE garments, face masks and gloves



SOFTLINES

Sports, consumer goods & tissue paper

Balls, boxing gloves and other sports and recreation goods



FOOD & AGRICULTURE

Food & agriculture

Fresh produce, processing and packing facilities, grains and bulk, cold chain, meat and poultry, dairy, edible oil, export consignments



HARDLINES

Hardlines

Ceramics, furniture, tent and accessories

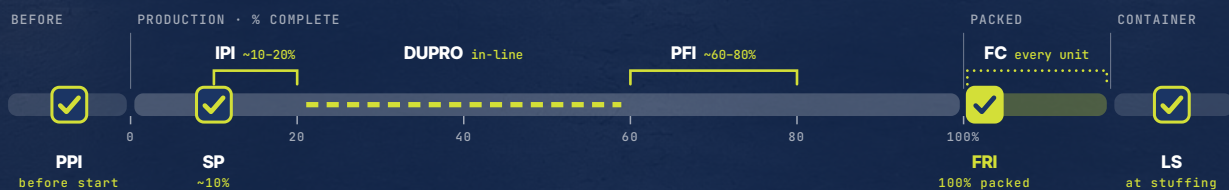


The product range also covers pharmaceuticals, nutraceuticals and cosmeceuticals. Factory and laboratory audits are on page 11.

PRODUCTION & QUALITY INSPECTIONS

Eight stages, one production run.

Structured, customised quality control for consistency, compliance and traceability. Each stage answers a question the others cannot. Build your programme around production moments, not one final gate.



Production moments: Tti Labs FOOD and TEX profiles 2026; PPI, FRI and LS placement from ttilabs.net.

01

SP

Sample picking
At ~10% production

02

PPI

Pre-production inspection
Raw material and production readiness

03

IPI

Initial production inspection
At ~10-20% production

04

DUPRO

During production inspection
In-line, during manufacturing

05

PFI

Pre-final inspection
At ~60-80% production

06

FRI ✓

Final random inspection
Pre-shipment, AQL standards

07

FC

Full check inspection
100% product inspection

08

LS

Loading supervision
Correct loading and handling



WHAT EACH INSPECTION CHECKS

From the first sample to the sealed container.

Each stage has its own question. Book the stages your order needs; no single check answers them all.

NO.	STAGE	WHEN	THE QUESTION IT ANSWERS	WHAT THE INSPECTOR CHECKS
01	SP Sample picking	~10% production	Do the samples represent the bulk?	Random selection to remove bias; samples sealed and identified for lab submission
02	PPI Pre-production inspection	Before manufacturing begins	Is the order ready to start, and is the specification understood?	Pre-production sample approval; production line and QC readiness; specification alignment
03	IPI Initial production inspection	~10-20% production	Is the process producing to specification?	Early defect detection; workmanship and construction review; process consistency check
04	DUPRO During production inspection	In-line, during manufacturing	Is the running lot drifting, and can it still be corrected?	Workmanship consistency; measurement and specification checks; inline QC validation
05	PFI Pre-final inspection	~60-80% production	Is this lot heading for a pass or a fail?	Measurement and fitting checks; packaging and labelling review; performance verification
06	FRI Final random inspection	100% packed, before shipment	Does this lot meet the order under AQL sampling?	AQL sampling to ANSI/ASQ Z1.4-2008; defect classification; PASS / FAIL / HOLD decision
07	FC Full check inspection	Every unit	Does every single piece meet the requirement?	High-risk or sensitive orders; zero-defect requirement support; detailed defect classification
08	LS Loading supervision	At stuffing	What was loaded, and in what condition?	Container condition; quantity and assortment; safe stacking and handling; seal integrity



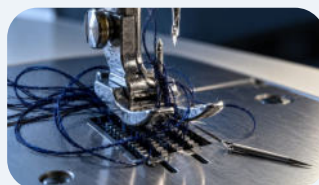
Also offered: fabric inspection (FI) before cutting, to ASTM D5430-13 4-point grading · production monitoring (PM), with daily reports on quality issues, bottlenecks and progress · customisable inspection checklists.

SPECIALISED INSPECTION SERVICES



Sample evaluation & product review

Pre-production samples and prototypes, before bulk



Defect analysis & root cause

Traced to process, material or workmanship



Post-delivery inspection support

Independent evaluation in disputes or complaints



Product labelling compliance

Labelling, marking and packaging details

ANSI/ASQ Z1.4-2008 • GENERAL INSPECTION LEVEL II

AQL sampling decides pass, fail or hold.

AQL, the Acceptable Quality Limit, is the global standard for random sampling of packed shipments. The AQL number sets the maximum acceptable defect rate. If the randomly pulled sample exceeds that rate, the lot fails. Tti Labs works at AQL 2.5 for major defects, with zero tolerance for critical ones.



AQL by defect class

DEFECT CLASS	AQL	RULE
Critical	0	Zero tolerance: any critical defect fails the lot
Major	2.5	Accept up to Ac; reject at Re or more. The level most international buyers require
Minor	4.0	Accept up to Ac; reject at Re or more
Inspection level	II	General inspection level
Standard	ANSI/ASQ Z1.4-2008	Sampling by attributes

Five inputs decide the result

INPUT	WHERE IT COMES FROM	WHAT IT CHANGES
Lot size	Packed cartons or pieces presented	Sets the sample size
AQL level	Agreed at order stage, per defect class	Sets accept and reject limits
Defect class	Critical, major, minor definitions	Decides the column definitions
Inspection level	General level, typically II	Adjusts sample size for the same lot
Switching rules	Prior results on the same supplier	Moves normal, tightened, reduced

SWITCHING RULES • DECISION



Ac (accept number) and Re (reject number) come from the standard's tables for the lot size, the inspection level and the AQL. A lot fails when the defects found in a class exceed that class's accept limit.

✓ A lot does not fail because an inspector disliked the finish.

FINAL RANDOM INSPECTION • PARAMETERS

Seven checks on every packed lot.

At final random inspection the inspector checks seven parameters. Quantity follows the packing list, conformity the approved reference sample, and measurements the client's tolerance.



Quantity

100% carton-packed per packing list; random carton selection per AQL level



Product conformity

Shade (limit 4 and above), material and style against the approved reference sample



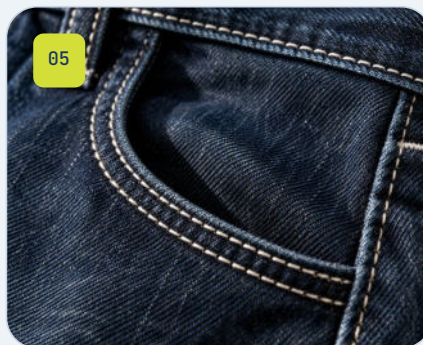
Marking

Labels, shipping marks and barcodes, all verified



Measurements

3 pieces per size, all colours; tolerance per client requirements



Workmanship

Stitching, appearance, presentation and a functional check



Packing

Assortment, placement, dimensions and carton integrity

07

Closing meeting. Corrective action plan requested; inspector signature obtained from the factory.



Fabric inspection · ASTM D5430-13. 4-point grading gives fabric a numerical grade from a visual inspection. The method has three point-assignment options; in a dispute, both sides should use the same one.



LS • CONTAINER LOADING SUPERVISION

Loading supervision: the last check before the seal.

LS verifies that goods are loaded correctly, safely and to shipment requirements. It establishes what physically entered the container, a fact no earlier inspection can establish.

01

Container condition

Checked before stuffing starts

02

Quantity & assortment

Counted against the packing list

03

Load witness

The loading process, observed

04

Safe stacking & handling

To prevent damage in transit

05

Marking & labelling

Checked on cartons as they are stowed

06

Seal at completion

Seal integrity confirmed

What the inspection report carries BUILT TO HOLD UP IN A CLAIM

☒ Lot identification

☒ Sample size and AQL basis

☒ Classified defect log

☒ Timestamped photographs

☒ Measurements against specification

☒ Packing and carton condition

☒ Quantity and assortment count

☒ Pass or fail, with the arithmetic

FOOD & AGRICULTURE INSPECTION SERVICES · ISO/IEC 17020

Food: from the production floor to the consignment.

For food manufacturers, suppliers and exporters, operational integrity is the first line of defence against market rejection. On-site due diligence finds systemic weak points on the production floor. It checks that hygiene practices meet global food safety mandates.

Fresh produce

Processing & packing facilities

Grains & bulk commodities

Cold chain & storage

Meat & poultry handling

Dairy processing

Edible oil production

Export consignments

Food inspection types

CODE	INSPECTION
FRI	Final random inspection (pre-shipment)
SP	Sample picking
VI	Visual inspection
GQA	Grain quality
LS	Loading supervision, packing included
-	Cold chain & storage
-	Food hygiene
Export	PPI · DUPRO · FRI · LS, verifying container hygiene and cold-chain integrity

The full eight-stage cycle on page 5 also runs on food and agri orders.

GAFTA 124 · goods in bags

BAGS IN THE LOT	BAGS SAMPLED AT RANDOM
Under 100	At least 20
100 to 10,000	At least 50
Over 10,000	0.5%, one in 200
Each bag	Speared three times: top, middle and bottom

On our accredited scope (IB-006): food and cosmeceutical products; pre/post shipment inspection: visual inspection, weight, quality, quantity, marking, packing and loading · GAFTA 124 · Ti/QMS/SOP-24.

GAFTA 124: FROM INCREMENT TO SEALED SAMPLE



81 Increment

One manual draw, up to 1 kg



82 Lot sample

Increments of a lot, combined and homogenised



83 Bulk aggregate

All increments, combined and homogenised



84 Contractual sample

Divided and sealed, 3 kg or more each



TECHNICAL AUDITS • SUPPLIER COMPLIANCE

Independent audits of systems and **processes**.

An audit looks at how a supplier runs a unit, not at what came off the line this month. Our specialists analyse results, find underlying causes and give detailed recommendations.

✓ Factory quality assessment

A manufacturer's ability to meet specifications, quality and delivery before order placement: capacity, machinery, workforce competency, QC systems, documentation.

[Buyer protocols](#) • [ISO 9001 principles](#)

✓ Traceability audit

Product and material traceability from raw material to finished goods: documentation, batch identification, labelling, records.

[ISO 22005](#) • [GFSI frameworks](#)

✓ Lab technical audit

A testing laboratory's technical capability: equipment calibration, method validation, personnel competency, QC procedures, data integrity.

[Benchmarked against ISO/IEC 17025](#)

✓ Mystery shopping audit

An unbiased assessment of customer experience, store operations and brand compliance at retail points.

[Brand guidelines](#) • [retail SOPs](#)

COMPLIANCE & SUSTAINABILITY AUDITS • 8-POINT PORTFOLIO

[Environmental](#) [ISO 14001](#)[Social](#) [SA8000](#)[Organic](#) [GOTS & OEKO-TEX](#)[GHG inventory](#) [ISO 14064](#)[Higg FEM verification](#)[Carbon footprint](#) [Scope 1/2/3](#)[Chemical management](#) [ZDHC / MRSL](#)[Circular economy](#) [RCS / GRS](#)

WORK WITH US

01

Quotations.

Quotations for inspections and audits, by email.

quotations@ttilabs.net

02

Book the inspection.

Booking within 24 hours. Centralised coordination answers queries swiftly.

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03

On-site inspection.

Full-time inspectors carry out the inspection on site, across Pakistan.

[AQL](#) • [ANSI/ASQ Z1.4-2008](#)

04

Report.

In the next 24 hours after the inspection is complete.

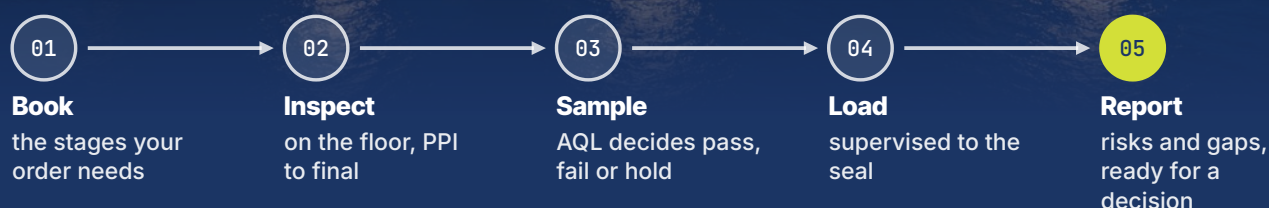
[ISO/IEC 17020](#) • [PNAC IB-006](#)

Tti Labs reports what it finds on the goods presented. It does not certify a supplier's management system.



Tti Testing Laboratories

From the first sample to the **seal**.



ISO/IEC 17020 · PNAC IB-006

PSQCA approved inspection agency

ISO/IEC 17025 · PNAC LAB 022

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Liaison points in Multan and Kasur. Images are illustrative and AI-generated; they do not show Tti Labs premises, clients or goods. Sources: PNAC IB-006 (13-12-2024); GAFTA Sampling Rules No. 124 (2025); ASTM D5430-13.

