Feltnova

Fish Processing Application Guide



Feltnova belt selection

Use this guide to prepare a conveyor belt enquiry for fish and seafood processing. It is an application checklist, not a product datasheet or certificate.

Primary processing

From receiving and washing to grading and gutting, the first stages of fish processing combine wet products, frequent rinsing and variable loads. The conveyor layout must suit the species, product size and available space, whether the line is installed ashore or on a vessel. Drainage, product control and access for cleaning are the main priorities. Open belt surfaces can help water pass through, while suitable flights support inclined transfers. Belt strength, hinge design and wear resistance must be matched to the actual load and cleaning routine. Share the fish size, loading rate, incline, conveyor width and cleaning conditions so the belt and drive arrangement can be reviewed together.

Filleting, skinning and trimming

Filleting and trimming lines move delicate products between cutters, workstations and rinse zones. Consistent presentation helps operators and downstream equipment handle each fillet with less unnecessary repositioning. The belt surface should balance grip with gentle release. Transfers need to support thin or uneven fillets, and the underside, edges and return path must remain

accessible for inspection and cleaning. Positioning requirements depend on the cutting equipment and its controls. Confirm minimum pulley size, transfer gaps, belt speed and the contact conditions at each cutting or trimming station.

Inspection

Quality inspection checks fish products before they continue to portioning or packaging. Depending on the process, this may involve visual assessment, optical equipment or X-ray inspection to identify defects and foreign material. A stable product position and repeatable belt movement help the inspection system work consistently. Optical transmission, material composition and belt thickness may also affect performance. The right choice depends on the inspection technology and must be tested with representative products. Validate the complete combination of product, belt, speed and inspection settings. Belt selection alone cannot guarantee detection performance.

Portioning

Portioning turns prepared fillets into pieces matched to the intended pack size. Controlled feeding between weighing, cutting and separating stations helps maintain a steady flow of products with different shapes and weights. The infeed belt must present the product consistently and release it cleanly at the next transfer. Surface friction, belt tracking, splice quality and small-pulley flexibility can all affect handling. Cutting directly onto a belt requires a construction specifically approved for that duty. Provide the smallest portion dimensions, desired spacing, transfer arrangement and whether blades can contact the belt.

Check-weighing

Inline check-weighers monitor individual portions or finished packs and help control weight variation. Stable transfers onto and off the weighing section are essential to obtaining useful, repeatable measurements. Belt thickness, splice consistency, tracking and vibration can influence the weighing process. The belt must also suit the product contact conditions and the cleaning method. A short, lightweight weighing conveyor can have different needs from the surrounding transport line. Check the belt with the installed weighing system at operating speed and across the intended product range. Recalibrate and verify accuracy after belt changes as required by the equipment procedure.

Metal detection

Metal detection is commonly positioned before dispatch or near packaging to help identify metallic contamination. The belt forms part of the inspection environment, so its material and fittings need to be compatible with the detector. Review conductivity, antistatic properties, pigments, joints and any metallic components with the detector manufacturer. Product moisture, salt content, temperature and pack format can also affect detection settings. A belt that works in one installation may not be suitable for another. Validate detection and rejection using the equipment manufacturer’s test procedure. Confirm sensitivity under actual production conditions rather than relying on a generic belt claim.

Deep freezing

Linear and spiral freezers move fish products through controlled cooling zones. Belt choice affects product support, airflow, transfer behaviour and the ability to maintain reliable movement during cold operation and defrost cycles. Assess the full temperature range, including cleaning and defrosting, alongside load and belt tension. Open-area constructions can support airflow, while the

material must retain suitable mechanical properties at the actual operating temperature. Spiral applications require an appropriate side-flexing design. Share minimum operating temperature, defrost conditions, spiral dimensions, dwell time and loading pattern before finalizing the specification.

Packaging

Packaging lines transfer fish portions into trays, bags or cartons before case handling and palletizing. Each section has a different balance of direct food contact, product spacing, grip and load requirements. Small transfers may require flexible belts and controlled release. Inclines may need more grip, while carton handling places different demands on belt strength and wear. Cleaning access is particularly important where unpackaged fish reaches the packaging equipment. Confirm pack dimensions, total load, incline, line speed and cleaning method. Review direct-contact and secondary-packaging sections separately.

Application guidance only. Confirm the selected belt specification and current supporting documents with Feltnova before use. Illustrations are AI-generated application concepts.