

THE KUMAR BULLETIN

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LIMELIGHT
Meet Bhavesh N. Patil,
Senior Manager – QA & QC

Kumar's DTDC

Desolventiser. Toaster. Dryer. Cooler.

The core of every solvent extraction plant. Built by Kumar.

See how the SolvEx DTDC fits into the bigger solvent extraction picture, where desolventizing and distillation combine to push oil recovery rates above 95%.

[READ ON OUR BLOG](#)

Find out where the DTDC sits among the main types of oil extraction units, and what to weigh up when choosing the right one for your business.

[READ ON OUR BLOG](#)

Kumar's SolvEx DTDC integrates desolventising, toasting, drying and cooling into a single unit. It strips residual solvent, such as hexane, from extracted meal with minimal loss, toasts the meal to deactivate anti-nutritional factors, then dries and cools it to final storage moisture and a low outlet temperature of around 50°C — ready for safe storage and transport.

How it works

Solvent-laden spent flakes from the extractor enter the top tray. Direct steam, injected through hundreds of small holes in a lower tray, rises through each tray and meal bed via numerous hollow stay bolts, creating a fully counter-current arrangement for highly efficient meal-steam contact. Because the solvent boils below the steam's condensing temperature, it vaporises almost entirely in the top tray; as this happens, the steam condenses into the meal, raising moisture uniformly to the level needed for toasting. Toasting then takes place in the lower zone, destroying undesirable enzyme activity while slightly reducing moisture. The meal then passes through the drying and cooling zones, where it is brought down to final storage moisture and cooled to its ~50°C outlet temperature.



Built and certified as a complete machine to international standards including the Pressure Equipment Directive (PED), ATEX and the Machinery Directive, the SolvEx DTDC ships in sections for on-site assembly and comes with a full Declaration of Conformity and CE marking.

Features

- Less than 300 ppm residual solvent, through vapour-tight operation and uniform steam distribution that supports complete desolventising with low hexane loss.
- Higher meal value, as controlled toasting cuts anti-nutritional factors while protecting protein quality
- Lower steam demand where it counts, since the DTDC drives 70–75% of a plant's total steam consumption, so efficiency gains flow straight to operating cost.
- Cleaner operation, with vapour recycling and a near-zero vent approach that reduces emissions and solvent escape.
- Consistent output and low maintenance, backed by bed-level control, steady residence time and robust internals for reliable long-term performance.



PROJECT UPDATES



An integrated edible oil processing line, from refining to hydrogenation

- 150 TPD Mitigation of Free Chloride, Gums Conditioning, Neutralization and Washing (6 different routes)
- 10 Ton Batch Chemical Inter-Esterification
- 100 TPD Semi-Continuous Hydrogenation (considering batch size of 10 MT)

Project location: INDIA | Status: INSTALLATION STAGE





A complete edible oil complex, built and grown with one customer
100 TPD Refinery
200 TPD Fractionation
200 TPD Solvent Extraction Plant for RBD Palm Oil

Project location: **WEST AFRICA**

What started as a 100 TPD refinery, operational since 2023 and now running at 140 TPD against guaranteed parameters, has grown into a full processing complex. The 200 TPD SEP came online in 2025 and continues to run successfully, and the fractionation unit has now been handed over — completing the full scope Kumar has delivered for this customer over the years.

Status: **FRACTIONATION UNIT HANDED OVER**











COME OVER, SAY HELLO!

INTERNATIONAL SOY CONCLAVE
(SOPA)

- # Booth # 41
- 16 - 17 October
- Indore, India

GULFOOD MANUFACTURING, UAE

- 3 - 5 November
- WTC, Dubai

Watch our corporate video



Preventing problems, not just finding them.

– in conversation with Bhavesh N. Patil, *Senior Manager – QA & QC*

Twelve years of growth

I joined Kumar in March 2014 as a QA/QC Executive, looking for a place to apply my technical knowledge, keep learning and take on more responsibility. Twelve years later I am Senior Manager, QA & QC. That growth came from commitment and hard work on my side, and from management backing me through every challenge and giving me the confidence to take responsibility.

What I enjoy most is that QA/QC is not only about finding defects. It is about preventing problems and building a culture where quality becomes everyone's responsibility. The most satisfying moment is when a difficult technical challenge turns into a product we can confidently deliver.

A typical day

A typical day involves reviewing project requirements, monitoring manufacturing activity, coordinating inspections and discussing quality issues with production and engineering. We also interact regularly with inspection agencies and customers. Our focus is not only inspection at the end of manufacturing. We stay involved throughout, understanding requirements, identifying risks and keeping the documentation in order.

A project worth being proud of

One project I am particularly proud of is the 200 TPD fatty acid distillation plant we manufactured for a customer in Southeast Asia, which included distillation columns, reboilers, heat exchangers and fatty acid condensers. The reboiler was the hardest part, because of the heavy-thickness stainless steel fabrication involved. The project also carried stringent quality requirements and multiple inspection agencies, which meant detailed inspection planning and close coordination with production, engineering, project management and the customer. We later received a repeat order from the same customer, which is the strongest indication I know that they trusted the quality of our work.

We are also proud of completing ASME U and R certification with NB registration, and of maintaining ISO 9001:2015 and ISO 45001:2018.

Preventive quality

QA/QC protects Kumar's reputation for quality, sturdy design and reliability. We make sure customer requirements, applicable standards and specifications are understood and followed through manufacturing, and we keep looking for ways to strengthen controls and

Rather than looking for someone to blame,
we focus on finding the right solution and
preventing the same issue from happening
again.



Bhavesh N. Patil

reduce the possibility of defects.

The shift we have made is towards preventive quality rather than corrective quality. Instead of waiting for an issue to appear at final inspection, we identify risks earlier through stage-wise inspection, timely communication and closer monitoring of critical activities. Individually these look like small changes. Together they have made a significant difference to rework, productivity and customer confidence.

When a critical issue does arise, we bring the concerned departments together, find the root cause and agree on the way forward. QA/QC provides the quality perspective and the other teams contribute their technical and practical experience. Rather than looking for someone to blame, we focus on the right solution and on preventing the issue from recurring.

Working with the team

People perform best when they understand why their work matters. I keep my team focused on the fact that every inspection and every quality decision contributes to Kumar's reputation, and I encourage them to take ownership and raise concerns whenever they see a potential issue. My approach is to work with the team rather than instruct it. When people feel trusted and supported, they become more committed.

Earning customer confidence

The most satisfying part of working with customers is understanding what they actually need, not only what is written in the specification. Every customer has expectations around quality, reliability, delivery and long-term performance. Meeting those builds trust. Customer satisfaction is not about completing an order. It is about creating the confidence that they made the right choice in working with Kumar.

Advice for the next generation

Work hard, keep learning, take ownership and think from the customer's perspective. Technical knowledge matters, and so do communication, teamwork and a willingness to take responsibility. My own journey has taught me that growth does not happen overnight. It comes through consistent effort, learning from setbacks and earning the trust of your team and management. Never compromise on quality and never stop improving.

-- Bhavesh N. Patil

Senior Manager – QA & QC



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